

CS 77-FP EI 30 EI 60

Cat. nr. **13S**
Art. nr. **PP_AD.089.S13B.00 (v01)**
Edition **10/2021**



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AUSSPARUNG SCHWELLENDEN DICHUNG - DEKOMPRES	13S.F.069
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BRANDSCHUTZSTUETZKLOTZ	13S.G.019
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PZ-ROZETTE
TUERBAENDER LOIRA+
DIVERSE
SPRITZE ZWEIKOMPONENTENKLEBER
BOHRLEHRE SCHARNIER

13S.G.024
13S.G.025
13S.G.026-028
13S.G.029
13S.G.030

					
13S.A.001	08/2019	D0071480	13S.E.004	19/11/2019	D0100481
13S.A.002	08/2019	D0071481	13S.E.006	18/11/2019	D0100482
13S.A.003	08/2019	D0071482	13S.E.008	08/2019	D0100362
13S.A.004	08/2019	D0071483	13S.E.010	18/12/2019	D0100366
13S.A.005	08/2019	D0071484	13S.E.012	08/2019	D0100365
13S.A.006	08/2019	D0071485	13S.E.014	08/2019	D0100363
13S.A.007	08/2019	D0071486	13S.E.016	08/2019	D0100364
13S.A.008	08/2019		13S.E.018	08/2019	
13S.B.001	08/2019	TI.089.R13B.00-DU	13S.F.001	08/2019	
13S.B.003	08/2019	TI.089.R13B.00-FR	13S.F.002	04/08/2020	D0100360
13S.B.005	08/2019	TI.089.R13B.00-EN	13S.F.004	16/03/2020	D0092918
13S.B.007	08/2019	TI.089.R13B.00-GE	13S.F.006	08/2019	D3004334
13S.B.009	08/2019	D0095876	13S.F.008	08/2019	D0093042
13S.B.010	08/2019	D3003034	13S.F.010	08/2019	D0092991
13S.B.011	19/11/2019	D3003035	13S.F.012	20/12/2019	D0100369
13S.B.012	08/2019	D0098453	13S.F.014	05/07/2021	D0100370
13S.B.013	08/2019	D0098457	13S.F.016	08/2019	D0100371
13S.B.013_01.001	06/10/2021	D3005126	13S.F.046	08/2019	D0100361
13S.B.014	24/09/2019	D3003069	13S.F.048	08/2019	D0100372
13S.B.014_01.001	06/10/2021	D3005122	13S.F.050	08/2019	D0093399
13S.B.015	24/09/2019	D3003068	13S.F.052	08/2019	D0100381
13S.B.015_01.001	06/10/2021	D3005124	13S.F.054	08/2019	D0100382
13S.B.016	24/09/2019	D3003074	13S.F.056	08/2019	D0100383
13S.B.016_01.001	06/10/2021	D3005121	13S.F.058	08/2019	D0098463
13S.B.017	24/09/2019	D3003072	13S.F.060	18/11/2019	D0100384
13S.B.018	27/01/2021	D0100584	13S.F.062	08/2019	D0100385
13S.B.019	27/01/2021	D0100585	13S.F.064	08/2019	D0098478
13S.B.020	27/01/2021	D0100586	13S.F.066	08/2019	D0100386
13S.B.020_01.001	06/10/2021	D0100587	13S.F.068	08/2019	D0100390
13S.B.020_01.002	06/10/2021	D0100588	13S.F.070	08/2019	D0100397
13S.B.020_01.003	06/10/2021	D0100598	13S.F.072	08/2019	D0097254
13S.B.020_01.004	06/10/2021	D0100589	13S.F.074	08/2019	D0100468
13S.B.020_01.005	06/10/2021	D0100590	13S.F.076	08/2019	D2001594
13S.B.020_01.006	06/10/2021	D0100591	13S.F.078	08/2019	D0100469
13S.B.020_01.007	06/10/2021	D0100592	13S.F.080	08/2019	D0100470
13S.B.020_01.008	06/10/2021	D0100593	13S.F.082	08/2019	D0100471
13S.B.020_01.009	06/10/2021	D0100594	13S.F.084	08/2019	D0100472
13S.B.020_01.010	06/10/2021	D0093066	13S.F.086	08/2019	D0100473
13S.B.021	08/2019	D3003062	13S.F.088	08/2019	D0100474
13S.B.022	08/2019	D3003888	13S.F.090	08/2019	D0100476
13S.B.023	08/2019	D3003889	13S.F.092	08/2019	D0097660
13S.B.024	08/2019	D3003037	13S.F.094	08/2019	D0093060
13S.B.025	27/01/2021	D3003039	13S.F.096	19/11/2019	D0100578
13S.B.026	27/01/2021	D3003040	13S.F.098	08/2019	D0093097
13S.B.027	08/2019	D3003041	13S.F.100	18/11/2019	D0097661
13S.B.028	08/2019	D3003042	13S.F.102	19/11/2019	D0100579
13S.B.029	08/2019		13S.F.104	24/09/2019	D0093061
13S.B.030	08/2019	D3003044	13S.F.105_01.001	06/10/2021	D3007890
13S.B.031	27/01/2021	D3003045	13S.F.105_01.003		
13S.B.032	27/01/2021	D3003096	13S.G.001	08/2019	D0100497
13S.B.033	08/2019	D3003100	13S.G.002	20/12/2019	D0100498
13S.B.034	08/2019		13S.G.003	08/2019	D0100499
13S.B.035	08/2019	PD.089.R13B.00-DU	13S.G.004	08/2019	D0100484
13S.B.043	08/2019	PD.089.R13B.00-FR	13S.G.005	08/2019	D0100490
13S.B.051	08/2019	PD.089.R13B.00-EN	13S.G.006	08/2019	D0100491
13S.B.059	08/2019	PD.089.R13B.00-GE	13S.G.007	08/2019	D0100492
13S.C.001	08/2019	D0093306	13S.G.008	08/2019	D0100493
13S.C.002	08/2019	D0092891	13S.G.009	08/2019	D0100494
13S.C.003	08/2019	D0092880	13S.G.010	08/2019	D0100495
13S.C.004	08/2019	D0092893	13S.G.011	08/2019	
13S.C.005	08/2019	D3003415	13S.G.012	08/2019	D2001622
13S.C.006	08/2019	D0092892	13S.G.013	08/2019	D0093437
13S.C.007	08/2019	D0090994	13S.G.014	08/2019	D0093438
13S.C.008	08/2019	D3000995	13S.G.015	08/2019	D0097705
13S.C.009	08/2019	D0100355	13S.G.016	08/2019	D0097703
13S.C.010	08/2019	D0100356	13S.G.017	08/2019	D0092963
13S.C.011	08/2019	D0100357	13S.G.018	08/2019	D0092908
13S.C.012	08/2019		13S.G.019	08/2019	D0098485
13S.E.001	08/2019		13S.G.020	08/2019	D0092968
13S.E.002	08/2019	D0100368	13S.G.021	08/2019	D0098486

					
13S.G.022	08/2019	D0093029			
13S.G.023	08/2019	D0093030			
13S.G.024	08/2019	D0092965			
13S.G.025	08/2019	D0093445			
13S.G.026	08/2019	D0093446			
13S.G.027	08/2019	D0092970			
13S.G.028	20/12/2019	D0092982			
13S.G.029	08/2019	D0093085			
13S.G.030	08/2019	D0093447			
13S.001	08/2019				
13S.003	08/2019				
13S.005	08/2019				
13S.007	08/2019				

A



Reynaers
Aluminium

Algemene informatie

Généralités

General Information

Allgemeine Information

	Profiel Profilé Profile Profil	Perfil Profil Profil Profil		Verstek Onglet Mitre Gehrung	Inglete Połączenie katowe Taglio
	Anodisatie- of lakoppervlakte Surface anodisée ou laquée Anodizing or coating surface Eloxierte oder lackierte Oberfläche	Superficie anodizada o lacada Powierzchnia anodowana lub malowana Superficie anodizzata o verniciata		Aantal Nombre Number Anzahl	Número Ilosc Numero
	Polijsoppervlakte Surface à polir Polishing surface Polieroberfläche	Superficie pulida Powierzchnia polerowana Superficie lucidata		Zie pagina Voir page See page Siehe Seite	Ver página Patrz strona Vedi pagina
	Lengte Longueur Length Länge	Longitud Długość Lunghezza		Type toebehoren Type accessoires Type accessories Typ Zubehör	Tipos de accesorios Rodzaj okuc Tipo di accessorio
	Afmetingen Dimensions Dimensions Abmessungen	Dimensiones Wymiary Dimensioni		Glasmaten Dimensions vitres Glass sizes Glasmasse	Dimensiones de los vidrios Wymiary szyby Dimensioni del vetro
	Toepassing Application Application Anwendung	Applicación Zastosowanie Utilizzo		Toepassing Application Utilization Anwendung	Applicación Zastosowanie Riferimenti
	Bevestigingsmiddelen Moyens de fixation Fixations Befestigungsmittel	Fijación Mocowanie Fissaggio		Asymmetrisch profiel Profilé asymétrique Asymmetrical profile Asymmetrisches Profil	Perfil asimétrico Profil niesymetryczny Profilo asimmetrico
	Schroeven niet meegeleverd Fourniture sans vis Delivered without screws Lieferung ohne Schrauben	Entregado sin tornillos Dostarczane bez wkrętów Consegnato senza viti		Pagina Page Page Seite	Página Strona Pagina
	Montagevolgorde Ordre de montage The order of assembly Montagerihenfolge	Orden de montaje Kolejność montażu Ordine di montaggio		Laatste editie Dernière édition Last edition Letzte Edition	Edición Poprzednie wydanie Ultima edizione
	Dichtingsmiddel Matière d'étanchéité Sealing agent Abdichtungsmittel	Agente sellante Masa uszczelniająca Siliconatura		Vorige blz Page précédente Previous page Vorige Seite	Página siguiente Poprzednia strona Pagina precedente
	Verlijmen Coller Glue Verkleben	Collado Klej Colla		Verstevigingsprofiel Profil de renforcement Reinforcement profile Verstärkungsprofil	Perfil refuerzo Profil wzmacniający Profilo di rinforzo
	Vulcaniseerlijm Colle vulcanisante Vulcanizing glue Vulkanisierkleber	Vulcanizante Klej wulkanizacyjny Colla vulcanizzante		Links van buiten gezien Gauche vue extérieur Left seen from outside Links Aussenansicht	Vista izquierda desde el exterior Na lewo widok od zewnątrz Sinistro visto da fuori
	Referentiemaat Dimension de référence Reference dimension Referenzmass	Dimension de referencia Punkt odniesienia wymiarowania Dimensioni di riferimento		Rechts van buiten gezien Droite vue extérieur Right seen from outside Rechts Aussenansicht	Vista derecha desde el exterior Na prawa widok od zewnątrz Destro visto da fuori
	Merkteken Marquage Mark Merkzeichen	Indicación Znak Contrassegno		Reynaprotector Reynaprotector Reynaprotector Reynaprotector	Reynaprotector Reynaprotector Reynaprotector Reynaprotector
	Struktureel gelijmd glaswerk Vitrage extérieur collé Structural sealing glazing UV-beständiger Scheibenrandverbund	Sellado acristalado estructural Szyba klejona spoiwem konstrukcyjnym Siliconatura vetro strutturale		Primaire zichtzijde van een profiel Côté visible primaire d'un profilé Primary visible side of a profile Primäre sichtbare Seite eines Profils	Cara vista principal del perfil Główna widoczna powierzchnia profilu Primo lato visibile di un profilo
	Secundaire zichtzijde van een profiel Côté visible secondaire d'un profilé Secondary visible side of a profile Sekund. sichtbare Seite eines Profils	Cara vista secundaria del perfil Drugorzędna widoczna powierzchnia profilu Secondo lato visibile di un profilo			



Kleur buitenschaal (e) eerst aangeven in geval van bicolor (.69)
En cas de bicolore (.69) il faut indiquer d'abord la couleur du profilé extérieur (e)
For bicolor profiles (.69) first of all one should indicate the colour of the outer profile (e)
Falls zweifarbig (.69) soll man erst die Farbe des Aussenprofils (e) angeben

Para perfil en bicolor (.69) debe indicarse primero el color del perfil externo (e)
Dla profili dwukolorowych (.69) w pierwszej kolejności powinny być wskazany kolor zewnętrznej strony profilu (e)
Nei profili bicolore (.69) prima di tutto indicare il colore del profilo esterno (e)



Inbraakwerend
Anti-vol
Burglar proof
Einbruchhemmend

Protección anti-robo
Antywłamaniowe
Antiscasso



Alleen voor CS 68
Seulement pour CS 68
Only for CS 68
Nur für CS 68

Solo para CS 68
Tylko do CS 68
Solo per CS 8



Basisveiligheid
Sécurité de base
Basic safety
Basissicherheit

Seguridad básica
Antywłamaniowosc podstawowa
Antiscasso base



Alleen voor CS 77
Seulement pour CS 77
Only for CS 77
Nur für CS 77

Solo para CS 77
Tylko do CS 77
Solo per CS 77



Testen uitgevoerd volgens
norm EN 1627-1630
Essais effectués par conformément
la norme EN 1627-1630
Tests carried out according to
standard EN 1627-1630
Einbruchhemmende Prüfungen
gemäß Norm EN 1627-1630

Ensayos realizados según
norma EN 1627-1630
Badania wykonane według
normy EN 1627-1630
Antiscasso secondo
EN 1627-1630



Pershoekverbinding
Equerre à sertir
Crimp corner cleat
Presseckverbinder

Escuadra de ensamblar
Naroznik zaciskany
Squadrette a cianfrinare



Testen uitgevoerd volgens
norm DIN V ENV 1627
Essais effectués par conformément
la norme DIN V ENV 1627
Tests carried out according to
standard DIN V ENV 1627
Einbruchhemmende Prüfungen
gemäß Norm DIN V ENV 1627

Ensayos realizados según
norma DIN V ENV 1627
Badania wykonane według
normy DIN V ENV 1627
Antiscasso secondo
DIN V ENV 1627



Hoekverbinding met schroefhoek
(*) enkel voor klembaar beslag
Equerre à blocage (*) seulement
pour accessoires encastrables
Corner cleat with screw
(*) only for clamping accessories
Eckverbinder mit Spannschraube
(*) nur für klemmbaren Beschlag

Escuadra de atornillar
(*) solo para accesorios apretables
Naroznik skrecany
(*) tylko dla akcesoriow
zatraskiwanych
Squadrette ad avvitare
(*) solo per accessori a scatto



Testen uitgevoerd volgens
norm NEN 5096 + ENV 1627
Essais effectués par conformément
la norme NEN 5096 + ENV 1627
Tests carried out according to
standard NEN 5096 + ENV 1627
Einbruchhemmende Prüfungen
gemäß Norm NEN 5096 + ENV 1627

Ensayos realizados según
norma NEN 5096 + ENV 1627
Badania wykonane norm
NEN 5096 + ENV 1627
Antiscasso secondo
NEN 5096 + ENV 1627



T-verbinding met schroef
Jonction-T avec vis
T-bracket with screw
T-Verbinder mit Schraube

Tope de union con tornillo
Lacznik teowy skrecany
Giunti con viti



Testen uitgevoerd door
instituut IBS (Austria)
volgens norm Ö B 3800/3850
Essais effectués par
IBS(Autriche) conformément
la norme Ö B 3800/3850
Tests carried out by IBS
(Austria) according to
standard Ö B 3800/3850
Brandschutzprüfungen durch-
geführt beim IBS (Österreich)
gemäß Norm Ö B 3800/3850

Ensayos hechos por IBS
(Austria) según la estandard
Ö B 3800/3850
Badania wykonane przez IBS
(Austria) według norm
Ö B 3800/3850
Testato presso IBS (Austria)
IBS secondo Ö B 3800/3850



T-verbinding met schroef voor
buitendraaiend raam
Jonction-T avec vis pour
fenêtre ouvrant vers l'ext.
T-bracket with screw
outside opening window
T-Verbinder mit Schraube
ausssen öffnendes Fenster

Tope Unión con tornillo apertura exterior



Testen uitgevoerd door
instituut TNO (Nederland) volgens
norm NEN 6069:1997
Essais effectués par TNO
(Hollande) conformément
la norme NEN 6069:1997
Tests carried out by TNO
(The Netherlands) according to
standard NEN 6069:1997
Brandschutzprüfungen durch-
geführt beim IBS (Österreich)
gemäß Norm Ö B 3800/3850

Ensayos realizados fuera por
TNO(Holanda) según norma
NEN 6069:1997
Badania wykonane przez TNO
(Holandia) według norm
NEN 6069:1997
Testato presso TNO
(Paesi Bassi) secondo
NEN 6069:1997



Vulhoek
Equerre de remplissage
Corner support
Fülleckwinkel

Escuadra de relleno
Wspornik narozny
Squadretta di riempimento



Brandwerend
Anti-feu
Fire-proof
Feuerhemmend

Resistente al fuego
Ogniodoporne
Anti fuoco



Steunhoek
Cale de feuillure
Rebate support
Glasanschlagwinkel

Escuadra de alineamiento
Katowy naroznik
Squadrette di allineamento



Testen uitgevoerd volgens norm
EN 1634-1 (deuren) en EN 1364-1
(beglaasde wanden)
Essais effectués par conformément
la norme EN 1634-1(portes) et
EN 1364-1(parois vitrés)
Tests carried out according to
standard EN 1634-1(doors)
EN 1364-1(glazed partitioning)
Prüfungen gemäß
Norm EN 1634-1(Türen) und
EN 1364-1(verglaste Wände)

Ensayos realizados según
norma 1634-1/ EN 1364-1
-

Badania wykonane według
normy 1634-1 / EN 1364-1
-

Antifuoco secondo
EN 1634-1 / EN 1364-1
-



T-verbinding met nagel
Jonction-T avec cheville
T-bracket with drive pin
T-Verbinder mit Stift

Tope de union con clavia
Lacznik teowy sworzniowy
Cavallotto a spinare



Toebereiden brandwerend
Accessoires anti-feu
Fire-proof accessories
Feuerhemmender Zubehör

Accessorios resistente al fuego
Akcesoria ogniodoporne
Accessori Anti fuoco



Verstelbare T-verbinding
Jonction-T réglable
Adjustable T-bracket
Verstellbarer T-Verbinder

Tope unión con clavia apertura exterior

Lacznik teowy sworzniowy do okien
otwieranych na zewnatrz
Cavallotto a spinare ap. est.



Gelaagd glas
Verre feuilleté
Laminated glass
Verbundglas

Vidrio Laminado
Szyba laminowana
Vetro laminato



Glas
Verre
Glass
Glas

Vidrio
Szyba
Vetro



Kruisverbindingen
Jonctions transversales
Cross connections
Kreuzverbindungen

Uniones transversales
Polaczenie krzyzowe
Collegamento a croce



Handleiding
Manuel
Manual
Gebrauchsanweisung

Manual
Instrukcja
Manuale



Bevestiging drager
Fixation chevon
Mocowanie krokwi
Fissaggio montante

Union transversal con tornillo
Polaczenie krzyzowe skrecane
Collegamento a croce con viti



Alleen voor CS 59
Seulement pour CS 59
Only for CS 59
Nur für CS 59

Solo para CS 59
Tylko do CS 59
Solo per CS 59



	Eénpuntsluiting Fermeture à 1 point 1-Point lock Einfachverriegelung	Cerradura de 1 punto Zamek 1-punktowy Serratura a 1 punto di chiusura		Elektrische deur opener Gâche pour serrure électrique Electric door opener Elektrischer Türöffner	Portero automatico Elektrorygiel Apertura porta elettrica
	Eénpuntsluiting met dagschieter Fermeture à 1 point à pêne 1-Point lock with latch Einfachverriegelung mit Falle	Cerradura 1 punto golpe Zamek 1-punktowy Serratura a 1 punto di chiusura con scrocco		Deurgrendels en kantschuiven Verrous de condamnation portes Flush and door bolts Kantriegel und Türriegel	Pasadores puerta Rygle biernych skrzydeł drzwiowych Catenacciolo chiusura centrale
	Eénpuntsluiting met rol Fermeture à 1 point à rouleau 1-Point lock with roller Einfachverriegelung mit Rolle	Cerradura de 1 punto con rodillo Zamek 1-punktowy z baryłka Serratura a 1 punto di chiusura con rullino		Geen elektrische spanning bij gesloten deur En cas de porte fermé pas des tension électrique No electric tension in case of closed door	Sin tensión eléctrica en caso de que la puerta esté cerrada Brak elektrycznego napiecia w przypadku zamkniętych drzwi Stacco tensione a porta chiusa
	Haakslot Serrure à crochet Hook lock Hakenschluss	Cerradura gancho Zamek hakowy Serratura a gancio		Keine elektrische Spannung bei geschlossen Tür	
	Tweepuntsluiting Fermeture à 2 points 2-Point lock Zweifachverriegelung	Cerradura de 2 puntos Zamek 2-punktowy Serratura a 2 punti di chiusura		Raampompen Crémones Window handles Handhebel	Cremona Klamka okienna Cremonese
	Driepuntsluiting Fermeture à 3 points 3-Point lock Dreifachverriegelung	Cerradura de 3 puntos Zamek 3-punktowy Serratura a 3 punti di chiusura		Deurkrukken Béquilles Door handles Türdrücker	Manubrios Klamka drzwiowa Maniglie
	Driepuntsluiting met rol Fermeture à 3 points à rouleau 3-Point lock with roller Dreifachverriegelung mit Rolle	Cerradura de 3 puntos con rodillo Zamek 3-punktowy z baryłka Serratura a 3 punti di chiusura con rullino		Sluitingen dubbele deur Serrures pour porte double Locks for double door Türtreibriegel	Cerradura puerta doble Blokada drzwi dwuskrzydłowych Serratura porta a 2 ante
	Vierpuntsluiting Fermeture à 4 points 4-Point lock Vierfachverriegelung	Cerradura de 4 puntos Zamek 4-punktowy Serratura a 4 punti di chiusura		Raampomp naar buiten draaiend raam Crémone fenêtre ouvrant vers l'extérieur Handle outward opening window Handhebel nach aussen öffnendes Fenster	Cremona ventana apertura exterior Klamka okna otwieranego na zewnątrz Cremonese apertura est.
	Vijfpuntsluiting Fermeture à 5 points 5-Point lock Fünffachverriegelung	Cerradura de 5 puntos Zamek 5-punktowy Serratura a 5 punti di chiusura			
	Vijfpuntsluiting met rol Fermeture à 5 points à rouleau 5-Point lock with roller Fünffachverriegelung mit Rolle	Cerradura de 5 puntos con rodillo Zamek 5-punktowy z baryłka Serratura a 5 punti di chiusura con rullino		Raamscharnieren Paumelles pour fenêtres Window hinges Fensterbänder	Bisagras ventana Zawias okienne Cerniere
	Zespuntsluiting Fermeture à 6 points 6-Point lock Sechsfachverriegelung	Cerradura de 6 puntos Zamek 6-punktowy Serratura a 6 punti di chiusura		Deurscharnieren 2-delig Paumelles porte 2-partite Door hinges 2-part Türbänder 2-teilig	Pernio puerta 2 palas Zawias drzwiowy 2-czesciowy Cerniera 2 ali
	Zevenpuntsluiting Fermeture à 7 points 7-Point lock Siebenfachverriegelung	Cerradura de 7 puntos Zamek 7-punktowy Serratura a 7 punti di chiusura		Deurscharnieren 3-delig Paumelles porte 3-partite Door hinges 3-part Türbänder 3-teilig	Pernio puerta 3 palas Zawias drzwiowy 3-czesciowy Cerniera 3 ali
	Espagnoletslot Fermeture espagnolette Espagnolette Lock Treibriegelverschluss	Cierre ventana Zamek drzwiowy do blokad pionowej Serratura a spagnoletta		Afstandsbussen Pièces de distance Set of distance bushes Distanzbuchsen	Piezas distanciadoras Tuleje dystansowe Set distanziali
	Cilinders Cylindres Cylinders Zylinder	Bombines Cylindry Cilindri		Geen afstandsbussen nodig Pas de pièces de distance No distance bushes needed Keine Distanzbuchse	No necesario piezas distanciadoras Brak konieczności stosowania tuleji dystansowych Senza distanziali
	Cilinderplaten Ecussons Cylinder covers PZ-Rosette	Escudos bombin Osłona wkładki bebenkowej Copertura cilindri		Inbraakwerende kogel Bille anti-vol Anti-burglar ball Einbruchhemmende Kugel	Bola proteccion antirobbo Kulka antywłamaniowa Antiscasso
	Slotpaden Gâches Receivers Schliessbleche	Gancho Gniazdo rygla zamka Riscontri		Dieveklauw Pene anti-degondage Anti-lift pin Sicherheitsbolzen	Perno antielevador Bolec antywłamaniowy Antisollevamento
	Deursluiters Ferme-porte Door closer Türschliesser	Cierrapuertas Samozamykacz drzwiowy Chijdiporta		Kozijndorpelveer Pivot de frein arien Overhead closer Obentürschliesser	Muelle aereo Samozamykacz gorny Chiudi porta sup.
	Deursluiters + rem Ferme-porte + frein Door closer + brake Türschliesser + Bremse	Cierrapuertas + freno Samozamykacz drzwiowy + hamulec Chijdiporta + freno		Vloerveer Pivot de frein au sol Floor closer Bodentürschliesser	Muelle pavimento puerta Samozamykacz podłogowy Chiudi porta inf.



Eindstuk deurleugel
Pièce finale ouvr. porte
End piece door vent
Endkappe Türflügel

Tapeta hoja puerta
Koncówka do skrzydła
drzwiowego
Terminale anta



Binnenbeglazingsdichtung
Joint à bourrer
Inner glazing gasket
Innenverglasungsdichtung

Junta de acristalado interior
Uszczelka przyszybowa wewnętrzna
Guarnizione del vetro interna



Eindstukken bodemprofiel
Pièces finales profilé de seuil
End pieces floor profile
Endkappe Schwelle

Piezas terminales perfil suelo
Koncówki profilu
podłogowego
Terminale soglia



Buitenbeglazingsdichtung
Joint de vitrage extérieur
Outer glazing gasket
Aussenverglasungsdichtung

Junta de acristalado exterior
Uszczelka przyszybowa zewnętrzna
Guarnizione del vetro esterna



Eindstukken Z-T deur
Bouchon profilé porte Z-T
End pieces Z-T door
Endkappe Z-T Tür

Tapetas puerta Z-T
Element końcowy Z-T drzwi
Terminale profili porte Z e T



Buitenbeglazingsdichtung
Joint de vitrage extérieur
Outer glazing gasket
Aussenverglasungsdichtung

Junta de acristalado exterior
Uszczelka przyszybowa zewnętrzna
Guarnizione del vetro esterna



Afdichtingen dorpels
Profils latéral pour bavettes
Sill end pieces
Endstück für Wetterschenkel

Tapetas condensacion
Koncówki do profili podokiennych
Tappi soglia



Akoestische dichting
Joint acoustique
Acoustical seal gasket
Flügelaußschlagdichtung

Junta acustica
Uszczelka akustyczna
Guarnizione di isolamento acustico



Glassteunen
Supports cale de vitrage
Glazing supports
Klotzbrücken

Soportes vidrio
Podporka pod przeszklenie
Supporti per vetro



Middendichtingen
Joints centraux
Central gaskets
Mitteldichtungen

Junta central
Uszczelka centralna
Guarnizione centrale



Afdekkap voor waterafvoersleuven
Capuchon écoulement d'eau
Weep hole cover
Abdeckkappe Entwässerung

Deflector aire
Maskownica otworu
drenazowego
Paratempesta



Aanslagdichtung
Joint de butée
Butt strip
Anschlagdichtung

Junta tope
Uszczelka
Guarnizione di battuta



Eindstukken stolpprofielen
Bouchons double ouvrant
End parts double casement profile
Endkappe Stulpprofil

Tapetas perfil doble hoja
Koncówka profilu
ruchomego słupka
Tappo inversione



Dilatatedichtingen
Joints de dilatation
Expansion gaskets
Dehnungsdichtungen

Junta de dilatacion
Uszczelka dylatacyjna
Guarnizione di espansione



Koppelstuk
Pecce de raccordement
Connection piece
Kopplungsstueck

Pieza de union
Element łączący
Accessori collegamento



Dichting
Joint
Gasket
Dichtung

Junta
Uszczelka
Guarnizione



Eindstukken voor
stolpprofielen
Bouchons pièce finale
pour profilé double ouvrant
End parts for double
casement profiles
Endkappen für Stulpprofile

Tapeta perfil doble hoja
Koncówka profilu
ruchomego słupka
Tappi 2 ante



Dichting
Joint
Gasket
Dichtung

Junta
Uszczelka
Guarnizione



Afdichtingsstuk
Pièce d'étanchéité
Sealing piece
Dichtstück

Pieza de sellado
Element uszczelniający
Accessorio per sigillatura



Afdichting goot
Fermeture gouttière
End piece gutter
Endkappe Rinne

Tapetas canal
Koncówka rynny
Terminale gronda



Opzwelende Dichting
Joint Gonflant
Swelling Gasket
Schwellende Dichtung

Junta veranda
Uszczelka do werandy
Guarnizione espansione



Eindstuk
Pecce finale
End piece
Endkappe

Terminal
Koncówka
Terminale



Dichting veranda
Joint veranda
Gasket veranda
Dichtung Wintergarten

Junta veranda
Uszczelka do werandy
Guarnizione veranda



Stootplaat
Arrêt vitrage toiture
Glass panel stop
Endstück Verglasung

Tope del panel de vidrio
Ogranicznik wypełnienia
Ferro x vetro



Borsteldichtingen
Joints brosse
Brushes
Bürstendichtungen

Cepillos
Szczotki
Spazzole



Veranda type 1
Veranda type 1
Veranda type 1
Veranda Typ 1

Veranda tipo 1
Weranda typu 1
Veranda tipo 1



Isolerend vulstuk
Pièce de remplissage isolante
Insulating filling piece
Isolierendes Füllstück

Pieza de relleno aislante
Wkładka izolacyjna
Riempimento isolanta



Paniekdeur
Porte de panique
Panic door
Paniktür

Puerta antipánico
Drzwi antypaniczne
Porta antipanico



Einddichting
Joint d'assemblage
End gasket
Enddichtung

Junta
Uszczelka końcowa
Angolo prestampato



Diversen
Divers
Miscellaneous
Diverse

Diversos
Elementy uzupełniające
Varie



Isolatie
Isolant
Insulation
Isolation

Aislamiento
Izolacja
Isolante



Klemstuk
Clip
Clip
Federklemme

Clip
Uchwyt
Clip



Brievkleppen
Entrées de courrier
Letter boxes
Briefeinwurf

Buzones
Skrzynka na listy
Cassetta posta



Nokbevestiging
Fixation de la faîtière
Fixation of the ridge
Firstanschluss

Fijacion del resalte
Element mocujący kalenicowy
Fissaggio colmo



Automatische deurdichtingen
Fermetures automatiques
Automatic door latches
Automatische Türdichtungen

Cierrapueras automaticos
Drzwiowa automat. opadająca listwa
Dispositivo di chiusura soglia



Variant
Variante
Variant
Variante

Variante
Variant
Variante



Stolp-kipraam
Fenêtre double ouvr.-batt.
Double casem.-tilt window
Stulpfenster D/DK

Ventana abatible doble hoja
Okno rozwierano-uchylne
dwuskrzydłowe
Finestra a 2 ante ribalta



DRAAISCHUIFRAAM
OUVRANT PROJETANT
SIDE-HUNG SLIDING WINDOW
DREHSCHIEBEFENSTER



Draaikip
Oscillo-battant
Turn and tilt
Drehkipp

Oscilobatiente
Okno rozwierno-uchylne
Anta ribalta



Kipdraai
Battantes-ouvrantes
Tilt and turn
Kippdreh

Batiente oscilante
Okno uchylno-rozwierane
Anta ribalta inversa



Draairaam
Fenêtre ouvrante
Side-hung window
Drehfenster

Ventana practicable
Okno rozwierane
Battente



Stolpraam
Fenêtre double ouvrant
Double casement window
Stulp-Flügel Fenster

Ventana doble hoja
Okno rozwierane wuskrzydłowe
Finestra a 2 ante



Valraam
Fenêtre à soufflet
Bottom hung window
Kipp-Fenster

Ventana abatible
Okno uchylne
Wasistas



Afstandbedieningen
valraam
Commandes à distance
pour fenêtre à soufflet
Remote control for
fanlight window
Oberlichtbeschlag
für Kipp-Flügel

Funcionamiento a distancia
para ventana de techo
Mechanizm do dystansowego
uchylania okien
Vasistas con telemando



Buitendraaiend raam
Fenêtre ouvrant vers l'extérieur
Outside opening window
Nach aussen öffnendes Fenster

Ventana apertura exterior
Okno otwierane na zewnątrz
Finestra ad apertura esterna



Verankeringen
Ancrages
Fixing lugs
Verankerungen

Anclajes
Kotwy
Ancoraggio



Uitzetzakraam
Châssis à l'italienne
Top-hung window
Senk-Klappfenster

Ventana proyectante con compas
Okno wychylne na zewnątrz
Sporgere con frizioni



Sluitpennen en sluitstukken
Rouleaux et gâches
Lock pins and lock plates
Schliessrollen und Schliessstücke

Bulones y cerraderos
Płytki i kolek ryglujacy



Tuimel- en taatsraam
Châssis pivotant
Pivot window
Schwingflügel

Ventana pivotante
Okno obrotowe
Bilico



Goot
Gouttière
Gutter
Rinne

Canal
Rynna
Gronda



Vouwdeur
Porte pliante
Folding door
Falttür

Puerta plegable
Drzwi harmonijkowe
Veranda libro



Dakvenster
Tabatière
Attic window
Dachfenster

Ventana de techo
Okno dachowe
Lucernario



Schuifkip (TF)
Coulissant-tombant (TF)
Slide and tilt (TF)
Schiebekipptür (TF)

Paralela
Uchylno-przesuwny
Scorrevole parallelo



Kunststof dakbedekking
Toiture synthétique
Synthetic roofing
Kunststoff Dachdeckung

Cubierta en material sintético
Wypełnienie poliweglanem na dachy
Pannello



Schuifraam
Fenêtre coulissante
Sliding window
Schiebefenster

Ventana corredera
Okno przesuwne
Scorrevole



Zelfklevende dubbelzijdige tape
Bande autocollante 2 faces
Self-adhesive double sided tape
Selbstklebendes beidseitiges Band

Cinta autoadhesiva de dos caras
Biadesivo



Parallel opengaand raam
Fenêtre ouvrant parallele
Parallel opening window
Parallelausstellfenster

Ventana proyectante paralela
Okno równoległe wysuwane na zewnątrz
Sporgere parallelo



Domotica
Domotique
Domotics
Domotik

Domótica
Domotica
-



Kipraam
Fenêtre battante
Tilt window
Kippfenster

Oscilo
Okno uchylne
Vasisdas



Profielen met hoge isolatiewaarde
Profils avec valeur d'isolation élevée
Profiles with high insulation value
Profile mit hohen Isolationswert

Perfiles alto aislamiento térmico
Profilo o wysokiej izolacyjności
termicznej
Alto isolarento



Dubbele deur buitendraaiend
Porte double ouvrant vers l'ext.
Double door outward opening
Zweiflügelige Tür aussen öffnend

Puerta doble apertura exterior
Drzwi otw. do zewnątrz
Porta due ante apertura esterna



Wielen
Galets
Rollers
Laufwagen

Ruletas
Wozki
Carrelli



Deur binnendraaiend
Porte ouvrant vers l'int.
Door inward opening
Tür nach innen öffnend

Puerta apertura interior
Drzwi otw. do wewnątrz
Porta apertura interna



Regeltringels
Tringles de réglage
Adjustment rods
Regulierstange

Varilla de ajuste
Listwy regulacyjne
Astina



Deur buitendraaiend
Porte ouvrant vers l'ext.
Door outward opening
Tür aussen öffnend

Puerta apertura exterior
Drzwi otw. na zewnątrz
Porta apertura esterna



Geleidingsplaat
Guide
Guide plate
Führung

Placa guia
Element naprowadzający
Guida



Gereedschap
Outillage
Tool
Werkzeug

Util
Narzędzie
Utensile



Hydropneumatische pers
Presse hydropneumatique
Hydropneumatic press
Hydropneumatische Presse

Prensa neumática
Prasa hydropneumatyczna
Pressa idropneumatica



Gereedschappen en machines voor
ontwatering van kader
Outillage et machinerie pour
drainage dormant
Tools and machinery for draining
outer frame
Werkzeuge und Maschinen für
Entwässerung Blendrahmen

Utiles y maquinaria para el
drenaje del marco
Narzędzia i maszyny do
drenazy ościeżnic
Utensili e macchinari per il
drenaggio del telaio



Zaagmachine
Tronçonneuse
Sawing machine
Kreissäge

Maquina de corte
Pila do ciec przestrzennych
Macchina per taglio



Hoekenpers
Sertisseuse
Crimper
Eckverbindungsmaschine

Ensambladora
Zaciskarka narozy
Cianfrinatrice



Gereedschappen en machines voor
ontwatering van vleugel
Outillage et machinerie pour
drainage ouvrant
Tools and machinery for
draining vent
Werkzeuge und Maschinen für
Entwässerung Flügel

Utiles y maquinaria para el
drenaje de la hoja
Narzędzia i maszyny do
drenazy skrzydeł
Utensili e macchinari per il
drenaggio dell'anta



Handmatrijs
Matrice manuelle
Manual punch tool
Handstanzwerkzeug

Prensa manual
Wykrojnik ręczny
Punzonatrice manuale



Gereedschap voor lijminjectie
Outillage pour encollage
Tool for injection
Werkzeug fuer Klebeinjektion

Util para inyeccion
Narzędzie do wtrysku kleju
Utensile colla



Decompresie
Decompression
Decompression
Decompressione

Descompresion
Dekompresja
Decompressione



Gereedschap voor krukken
Outillage pour cremones
Tool for handles
Werkzeug fuer Handhebel

Util para manetas
Narzędzie do klamek
Utensile per maniglie



Gereedschappen en machines
voor T-verbinding
Outillage et machinerie
pour jonction-T
Tools and machinery
for T-brackets
Werkzeuge und Maschinen
für T-Verbinder

Utiles y maquinaria para
topes de unión
Narzędzia i maszyny do
polaczen teowych
Utensili e macchinari
per i giunti



Gereedschap voor sluitlatten
Outillage pour tringles
Tool for linkbars
Werkzeug fuer Schubstange

Util para barras union
Narzędzie do listew sterujących okuciami
Utensile per barre di collegamento



Gereedschap voor T-verbindingen
Outillage pour connections-T
Tool for T-connections
Werkzeug fuer T-Verbindungen

Util para topes de union
Narzędzie do polaczen Teowych
Utensile per travesi



Gereedschappen en machines
voor krukkitsparing
Outillage et machinerie
pour fermeture
Tools and machinery
for closure
Werkzeuge und Maschinen
für Beschläge

Utiles y maquinaria para
el cierre
Narzędzia i maszyny do
zamknięcia
Utensili e macchinari per
le chiusure



Klemblokken
Blocs de serrage
Clamping blocks
Spannbacken

Bloques de presión
Blokki zaciskowe
Blocchetti di supporto



Gereedschap voor ontwatering buitenkaders
Outillage pour drainage dormants
Tool for drainage outer frames
Werkzeug fuer Entwässerung Blendrahmen

Util drenaje marco
Narzędzie do drenazy
ościeżnic
Utensile per drenaggio telaio



Multifunctionele matrijs
Matrice multifonctionnelle
Multifunctional punch tool
Mehrzweckstanzwerkzeug

Matriz multifuncional
Wykrojnik wielofunkcyjny
Punzonatrice multifunzionale



Gereedschap voor hoekverbinding
Outillage pour connection d'equerre
Tool for corner connection
Werkzeug fuer Eckverbindung

Util union esquina
Narzędzie do polaczen
narożnych
Utensile per connessioni
d'angolo



Geleide matrijs
Matrice guidée
Punch tool
Stanzwerkzeug

Matriz
Wykrojnik
Punzonatrice



Gereedschap voor montage
Outillage pour montage
Tool for assembly
Werkzeug für Montage

Util para colocacion
Narzędzie do montazu
Utensile assemblaggio



Handmatig gereedschap
Outillage manuel
Manual tools
Handwerkzeuge

Util manual
Narzędzie ręczne
Dime



Gereedschap voor deursluiser
Outillage pour fermeture porte
Tool for door closer
Werkzeug für Türschliesser

Util para cierrapuertas
Narzędzie do samozamykacza drzwiowego
Utensile chiu di porta



Freessjabloon
Calibre de fraisage
Stencil plate for milling head
Fräseschablone

Plantilla para copiadora
Szablon do frezarki
Maschera per pantografo



Gereedschap voor scharnieren
Outillage pour charnières
Tool for hinges
Werkzeug für Bänder

Util para bisagras
Narzędzie do zawiasy
Utensile cerniere



Enkelkopse freesmachine
Frais. à copier à une broche
Copy router 1 spindle
Einspindel-Kopierfräse

Copiadora de un cabezal
Frezarka z jedną głowicą
Pantografo di copia a 1 mandrino
1 mandrino



Gereedschap voor sloten
Outillage pour fermetures
Tool for locks
Werkzeug für Schlösser

Util para cerraduras
Narzędzie do zamka
Utensile serrature



Frees- en boormachine
Fraiseuse et foreuse
Router and drilling machine
Fräse- und Bohrgerät

Copiadora taladradora
Frezarka z wiertarką
Centro dilavoro



Gereedschap voor wisselprofielen
Outillage pour chicanes
Tool for sections
Werkzeug für Wechselprofile

Util para encuentros centrales
Narzędzie do przekrojów
Utensile chicanes



Bewerkingscentrum
Centre d'usinage
Machining center
Bearbeitungszentrum

Centre de mecanizado
Centrum obródcze
Centro di lavoro



Gereedschap voor beglazing
Outillage pour vitrage
Tool for glazing
Werkzeug für Verglasung

Util para acristalamiento
Narzędzie do przeszkleń
Utensile vetro



Gereedschap voor diverse
toepassingen
Outillage pour applications divers
Tool for miscellaneous applications
Werkzeug für diverse Anwendungen

Utiles para varias aplicaciones
Narzędzie do montazu elementów
uzupełniających
Utensile vari

	Gereedschap voor dichtingen Outillage pour joints Tool for gaskets Werkzeug für Dichtungen	Util para juntas Narzędzie do uszczelki Utensile guarnizioni		Pneumatische aandrijving Propulsion pneumatic Pneumatic drive Pneumatische Antrieb	Destornillador neumatico Pneumatyczny napęd Cilindro pneumatica
	Gereedschap voor bevestiging wielen Outillage pour fixation des roulettes Tool for fixation rollers Werkzeug für Befestigung Laufräder	Util para fijación de ruletas Narzędzie do montażu wózków Utensile carrelli		Ponsunit Unité d'étamper Punch unit Stanzeinheit	Punzon Wykrojnik Unità punzonatrice
	Gereedschap voor ontwatering vleugels Outillage pour drainage ouvrants Tool for drainage vents Werkzeug für Entwässerung Flügel	Util para drenaje hoja Narzędzie do drenażu skrzydła Utensile drenaggio anta		Min. profiellengte Longueur min. de profilé Min. length of profile Min. Profillänge	Longitud mínima del perfil Minimalna długość profilu Lunghezza minima profilo
	Uitfrezing voor inbouw bovenspeun in kozijn Fraisage pour encastrement gond supérieur dans la fenêtre Milling for building in upper pivot in window Ausfräsung für Einbau eines oberen Lagers im Rahmen	Fresado para pivotante en marco superior Frez do montażu górnego sworznia w oknie Lavorazioni super. finestra pivotante		Max. profiellengte Longueur max. de profilé Max. length of profile Max. Profillänge	Longitud máxima del perfil Maksymalna długość profilu Lunghezza max profilo
	Uitfrezing voor inbouw vloerspeun in vleugel Fraisage pour encastrement gond inférieur dans l'ouvrant Milling for building in floor pivot in vent Ausfräsung für Einbau eines Bodenlagers im Flügel	Fresado para pivotante en hoja inferior Frez do montażu dolnego sworznia w skrzydle Lavorazioni infer. finestra pivotante		Max. profielhoogte Hauteur max. de profilé Max. height of profiles Max. Profilhöhe	Altura máxima del perfil Maksymalna wysokość profilu Max altezza
	Uitfrezing voor inbouw vloerspeun in vleugel Fraisage pour encastrement gond inférieur dans l'ouvrant Milling for building in floor pivot in vent Ausfräsung für Einbau eines Bodenlagers im Flügel	Fresado para pivotante en hoja inferior Frez do montażu dolnego sworznia w skrzydle Lavorazioni infer. finestra pivotante		Max. horizontale beweging Movement max. horizontale Max. horizontal movement Max. horizontale Versetzung	Movimiento horizontal máximo Maksymalny ruch poziomy Spostamento orizz. max
	Uitfrezing voor inbouw bovenspeun in vleugel Fraisage pour encastrement gond supérieur dans l'ouvrant Milling for building in upper pivot in vent Ausfräsung für Einbau eines oberen Lagers im Flügel	Fresado para pivotante en hoja superior Frez do montażu górnego sworznia w skrzydle Lavorazioni super. finestra pivotante		Horizontaal hoekbereik Intervalle d'équerre horizontale Horizontal corner range Eckbereich Horizontal	Rango de corte a inglete horizontal Zakres katów poziomych Dimensione taglio orizz.
	Uitfrezing voor inbouw bovenspeun in vleugel Fraisage pour encastrement gond supérieur dans l'ouvrant Milling for building in upper pivot in vent Ausfräsung für Einbau eines oberen Lagers im Flügel	Fresado para pivotante en hoja superior Frez do montażu górnego sworznia w skrzydle Lavorazioni super. finestra pivotante		Verticaal hoekbereik Intervalle d'équerre verticale Vertical corner range Eckbereich Vertikal	Rango de corte a inglete vertical Zakres katów pionowych Dimensione taglio vert.
	Monteertafel Table de montage Assembly bench Montagetisch	Banco de montaje Stół montażowy Banco montaggio		Motor Moteur Motor Antrieb	Motor Silownik napędowy Motore
	Elektrische aansluiting Fixation électrique Electric connection Elektrisches Anschluss	Conexión eléctrica Polaczenie elektryczne Connessione elettrica		Gewicht Poids Weight Gewicht	Pesos Ciężar Peso
	Compressor Compresseur Compressor Kompressor	Compresor Kompresor Compressore		Max. toerental Vitesse d'axe max. Max. spindle speed Max. Drehzahl	Velocidad de sierra Maksymalna prędkość obrotowa Velocità max lama
	Kogel Dr. Hahn Bille Dr. Hahn Ball Dr. Hahn Kugel Dr. Hahn	Bola Dr. Hahn Kulka Dr. Hahn -			
	Mechanische aansluiting Fixation mécanique Mechanical connection Mechanischer Anschluss	Conexión mecánica Polaczenie mechaniczne Fissaggio meccanico			

B



Reynaers
Aluminium

Algemene informatie systemen

Généralités séries

General Information System

Allgemeine Information System

ALGEMENE TOELICHTING

I. INTERPRETATIE VAN DE KATALOOG

Binnen hoofdstuk B kan het overzicht van de geteste en goedgekeurde brandwerende elementen binnen het systeem CS 77-FP geraadpleegd worden.

De testelementen staan gerangschikt per testnorm: EN 1363-1, EN 1364-1 en EN 1634-1.

Elk getest element wordt weergegeven tesamen met de geteste afmetingen, technische specificaties en het behaalde resultaat. Deze testelementen zijn officieel goedgekeurde elementen volgens de aangeduide normering. De testrapportnummers en desgevallend classificatierapportnummers staan eveneens vermeld.

II RANGSCHIKKING PER TESTNORM

De aangegeven testnorm "EN" hanteert de verschillende criteria om brandwerendheid te toetsen. Hieronder wordt een overzicht gegeven van deze criteria.

	EN
Integrity	Cotton pad gap gauge Flaming > 10s
Insulation	$t < 140^{\circ}\text{C}$ $T < 180^{\circ}\text{C}$
Radiation	$< 15 \text{ kW/m}^2$

Het resultaat van bovenvermelde criteria wordt vermeld in het testrapport.

III CLASSIFICATIE VOLGENS DE EUROPESE NORM

De classificatie volgens de Europese norm vraagt enige uitleg. Hoewel de Europese testmethode beschreven wordt in norm EN 1363-1 (en bijkomende specifieke testnormen) wordt de classificatie in een aparte norm voorgeschreven: EN 13501-2.

De weerstand tegen brand van dragende – vert: loadbearing elements - en niet dragende elementen – vert: non-loadbearing elements – wordt volgens de Europeses classificatienorm aangeduid met behulp van 3 basiscriteria:

E	"Integrity":	vlamdichtheid
I	"Insulation":	thermische isolatie

Bijkomende criteria zijn bijvoorbeeld:

I ₁ , I ₂	thermische isolatie van deuren, Afhankelijk van de plaats van meting is de temperatuurstijging overal maximaal 180°C (I ₁) of op de deurvleugel maximaal 180°C en op de omlijsting 360°C (I ₂)
W	"Radiation"
S ₂₀₀ / S _a	straling
C	rookdichtheid bij respectievelijk 200°C / 20°C
S	zelfsluitend
	200.000 cycli zelfsluitend

Als vlamdichtheid E faalt, faalt automatisch de thermische isolatie I.

Bijkomend wordt de tijd aangeduid gedurende dewelke aan de aangeduide criteria voldaan werd. Mogelijke classificatieperiodes zijn: 10, 15, 20, 30, 45, 60, 120, ...

Aan brandwerend niet-dragend element kan als volgt geclassificeerd worden:

EI tt
E tt

met tt als tijdsaanduiding.

Deze classificatie kan aangevuld of aangepast worden naargelang de bijkomende karakteristieken geldig zijn.

Bijvoorbeeld: EI₂ tt - S₂₀₀

Niet elke tijdsperiode geldt voor elk criterium. De classificatie geeft weer wat van toepassing is:

Bijvoorbeeld: E = 80 minuten
I = 42 minuten

Classificatie => E 60 / EI 30

IV GELDIGHEID VAN DE RESULTATEN

Ten gevolge van landafhankelijke normering en regelgeving dient men elke opdracht af te stemmen in overleg met de plaatselijke bevoegde instanties.

In principe zijn de testresultaten volgens de Europese normen geldig in elke EU-lidstaat.

De testresultaten volgens resp. de Oostenrijkse, Belgische en Nederlandse normen zijn geldig in de betreffende landen, maar kunnen ook aanvaard worden buiten deze landen indien de plaatselijke bevoegde instanties hiertoe hun akkoord verlenen.

V UITBREIDINGEN OP DE TESTELEMENTEN

Voor uitbreidingen op de testelementen dient enerzijds de betreffende normering geraadpleegd te worden, anderzijds de plaatselijke instanties die bevoegd zijn tot het verlenen van goedkeuringen op basis van bestaande testrapporten.

Binnen de Europese normering worden de uitbreidingen op de testelementen beschreven onder "Field of direct application" en "Field of extended application". Een algemene omschrijving van deze begrippen kan teruggevonden worden in Annex A van EN 1363-1.

VI PLAATSEN EN VAARDIGHEDEN

In het deel Montagetekeningen staat weergegeven welke bouwaansluitingen getest werden.

Voor uitbreidingen op bouwaansluitingen dienen dezelfde richtlijnen gevolgd te worden als voor uitbreidingen op testelementen.

Voor wat betreft vervaardiging, plaatsing en eventueel markeren van brandwerende bouwelementen als geheel, dient met de nationale autoriteiten gecontroleerd te worden, of men bepaalde regelgeving hieromtrent moet naleven.

EXPLICATION GENERALE

I. INTERPRETATION DU CATALOGUE

Dans chapitre B, il est possible de consulter l'aperçu des éléments ignifuges testés et approuvés dans le cadre du système CS 77-FP.

Les éléments d'essai sont classés par norme d'essai : EN 1363-1, EN 1364-1 et EN 1634-1.

Chaque élément d'essai s'accompagne des mesures testées, des spécifications techniques et du résultat obtenu. Ces éléments d'essai sont des éléments approuvés officiellement suivant la norme indiquée.

Les numéros de rapport d'essai et le cas échéant les numéros de rapport de classification sont également mentionnés.

II CLASSEMENT PAR NORME D'ESSAI

La norme de test déclarée "EN" manie les critères différents pour vérifier la résistance au feu. Vous trouverez ci-dessous un aperçu de ces critères.

	EN
Integrity	Cotton pad gap gauge Flaming > 10s
Insulation	t < 140° C T < 180° C
Radiation	< 15 kW/m ²

Le résultat des critères susmentionnés est mentionné dans le rapport d'essai.

III CLASSEMENT SUIVANT LA NORME EUROPEENNE

Le classement suivant la norme européenne exige quelques explications. Bien que la méthodologie européenne des essais soit décrite dans la norme EN 1363-1 (et d'autres normes d'essais spécifiques), le classement est prescrit dans une norme distincte : EN 13501-2.

La résistance au feu des éléments porteurs (loadbearing elements) et des éléments non porteurs (non-loadbearing elements) est indiquée, suivant la norme européenne de classement, à l'aide de 3 critères de base :

E	"Integrity":	étanchéité
I	"Insulation":	isolation thermique

Des critères complémentaires sont, par exemple:

I1,I2	isolation thermique de portes, Suivant l'endroit de mesure, la hausse de la température est partout de 180°C (I1) maximum ou est de 180°C maximum sur le vantail et de 360°C (I2) maximum sur l'encadrement
W	"Radiation"
S ₂₀₀ / S _a	rayonnement
C	imperméable à la fumée à respectivement 200°C / 20°C
S	fermeture automatique
	200.000 cycles à fermeture automatique

Si l'étanchéité E échoue, l'isolation thermique I échoue automatiquement.

Par ailleurs, le temps pendant lequel les critères mentionnés ont été satisfaits est indiqué. Les périodes de classement possibles sont : 10, 15, 20, 30, 45, 60, 120...

Un élément non porteur ignifuge peut être classé comme suit:

EI tt
E tt

où tt indique la période de classement.

Ce classement peut être complété ou adapté dans la mesure où des caractéristiques complémentaires sont valables.

Exemple: EI₂ tt - S₂₀₀

Toutes les périodes ne sont pas valables pour tous les critères. Le classement indique ce qui est d'application:

Exemple: E = 80 minutes
I = 42 minutes

Classement => E 60 / EI 30

IV VALIDITE DES RESULTATS DES ESSAIS

Suite à la norme et à la réglementation nationales, il convient d'adapter chaque commande en concertation avec les instances locales compétentes.

En principe, les résultats des essais suivant les normes européennes sont valables dans tous les États membres de l'UE.

Les résultats des essais suivant les normes autrichiennes, belges et néerlandaises sont valables dans les pays correspondants, mais peuvent aussi être acceptés en dehors de ces pays, si les instances locales compétentes en donnent l'autorisation.

V EXTENSIONS DES ELEMENTS D'ESSAIS

D'une part la standardisation concernée, d'autre parts les instances locales qui sont compétents jusqu'à l'attribution des approbations sur base des rapports d'essai existants doivent être consultées aux élargissements sur les éléments de test.

Dans la norme européenne, les extensions des éléments d'essai sont décrites sous « Champ d'application directe » (field of direct application) et « Champ d'application étendue » (field of extended application). Une description générale de ces concepts se retrouve dans l'annexe A de EN 1363-1.

VI PLACEMENT ET FABRICATION

La partie « Dessins des sections » indique les raccords de construction qui ont fait l'objet d'essais. Pour les extensions des raccords de construction, il convient de suivre les mêmes directives que pour l'extension des éléments d'essai.

En ce qui concerne la fabrication, le placement et, éventuellement, le marquage d'éléments de construction ignifuges dans leur ensemble, il convient de vérifier auprès des autorités nationales s'il faut respecter une réglementation particulière à cet égard.

GENERAL EXPLANATION

I. INTERPRETATION OF THE CATALOGUE

In chapter B, the summary of the tested and approved fire-resistant elements in the CS 77-FP system can be consulted.

The test elements are classified per test standard: EN 1363-1, EN 1364-1 and EN 1634-1. Each tested element is shown together with the tested dimensions, technical specifications and the result achieved. These test elements are officially approved elements according to the standards indicated. The test report numbers and if necessary classification-reportnumbers are also mentioned.

II CLASSIFICATION PER TESTSTANDARD

The declared test standard "EN" uses the different criteria to review the fire resistance. A summary of these criteria is provided below.

	EN
Integrity	Cotton pad gap gauge Flaming > 10s
Insulation	t < 140° C T < 180° C
Radiation	< 15 kW/m ²

The result of above-mentioned criteria is mentioned in the test report.

III CLASSIFICATION ACCORDING TO THE EUROPEAN STANDARD

Classification according to the European standard requires some explanation. Although the European test method is described in standard EN 1363-1 (and additional specific test standards), classification is described in a separate standard: EN 13501-2.

The resistance to fire of loadbearing elements and non-loadbearing elements is indicated according to the European classification standard by means of three basic criteria:

E "Integrity": sealing
I "Insulation": thermal heat insulation

Additional criteria are for example:

I₁, I₂ thermal insulation of doors,
depending on the place of measurement the rise in temperature
everywhere is a maximum of 180°C (I₁)
or on the door leaf a maximum of 180°C and on the frame 360°C
(I₂)

W "Radiation" radiation
S₂₀₀ / S_a smoke proof at respectively 200°C / 20°C
C self-closing
S 200.000 cycles self closing

If integrity E fails, insulation I automatically fails.

The period during which the specific criteria must be satisfied is also specified. Possible classification periods are: 10, 15, 20, 30, 45, 60, 120, etc.

A fire resistant non-loadbearing element can be classified as follows:

EI tt
E tt

with tt as the classification period.

This classification can be supplemented or adapted depending on the validity of the additional characteristics.

For example: EI₂ tt - S₂₀₀

Not every period applies for every criterion. The classification represents what is applicable:

For example: E = 80 minutes
I = 42 minutes

Classification => E 60 / EI 30

IV VALIDITY OF THE RESULTS

ALLGEMEINE BEMERKUNGEN

I. ERLÄUTERUNG DES KATALOGS

In Kapitel B findet sich eine Liste der geprüften und zugelassenen feuerbeständigen Konstruktionselemente des Systems CS 77-FP.

Die geprüften Konstruktionselemente sind in der Reihenfolge der Norm aufgeführt, nach der sie geprüft wurden: EN 1363-1, EN 1364-1 en EN 1634-1

Jedes geprüfte Konstruktionselement wird zusammen mit den Prüfabmessungen, technische Spezifikationen und dem erzielten Ergebnis aufgeführt. Die geprüften Konstruktionselemente sind offiziell nach der angegebenen Norm zugelassen. Auch die Nummern der Prüfberichte und wenn notwendig Klassifikations-Berichnummern werden angegeben.

II AUFLISTUNG NACH PRÜFNORM

Der erklärte Teststandard verwendet die verschiedenen Kriterien, um Feuerfestigkeit zu wiederholen. Nachfolgend eine Übersicht über die Kriterien.

	EN
Integrity	Cotton pad gap gauge Flaming > 10s
Insulation	t < 140° C T < 180° C
Radiation	< 15 kW/m ²

Das Resultat der oben erwähnten Kriterien wird im Prüfbericht erwähnt.

III KLASSIFIZIERUNG NACH DE EUROPÄISCHEN NORM

Die Klassifizierung nach der europäischen Norm bedarf einer Erläuterung. Zwar wird die Prüfmethode in der Norm EN 1363-1 (und ergänzenden speziellen Prüfnormen) beschrieben, doch die Klassifizierung wird in einer eigenen Norm vorgeschrieben, nämlich in EN 13501-2.

Der Feuerwiderstand tragender Konstruktionselemente (loadbearing elements) und nicht tragender Konstruktionselemente (non-loadbearing elements) wird nach der EN-Norm mithilfe dreier grundlegender Kriterien angegeben:

E "Integrity": Raumabschluss
I "Insulation": Wärmedämmung

Weitere Kriterien sind beispielsweise:

I ₁ , I ₂	Wärmedämmung von Türen, Je nach Messpunkt beträgt der Temperaturanstieg überall maximal 180 °C (I1) oder am Türblatt maximal 180 °C und am Rahmen 360 °C (I2)
W "Radiation"	Strahlungsdurchtritt
S ₂₀₀ / S _a	Rauchsicher an jeweils 200°C / 20°C
C	Automatisch schließend
S	200.000 Zyklen Automatisch schließend

Wärmedämmung I ungenügend.

Wenn der Raumabschluss E ungenügend ist, ist automatisch auch die Wärmedämmung I ungenügend.

Zusätzlich wird die Dauer angegeben, in der die angegebenen Kriterien erfüllt werden. Mögliche Klassifizierungsabstufungen sind: 10, 15, 20, 30, 45, 60, 120, ...

Ein feuerbeständiges nicht tragendes Konstruktionselement kann wie folgt klassifiziert werden:

EI tt
E tt

„tt“ ist dabei die Klassifizierungsabstufung.

Diese Klassifizierung kann ergänzt oder angepasst werden, je nachdem, ob weitere Merkmale

hinzukommen.

Beispiel: El₂ tt - S₂₀₀

Nicht jede Zeitangabe gilt für jedes Kriterium. Die Klassifizierung gibt Aufschluss darüber, was gilt:

Beispiel: E = 80 Minuten

I = 42 Minuten

Klassifizierung => E 60 / EI 30

IV GÜLTIGKEIT DER PRÜFERGEBNISSE

Aufgrund der landesspezifischen Normen und Vorschriften ist jeder Auftrag mit den zuständigen Stellen vor Ort abzustimmen.

Im Prinzip gelten die Prüfergebnisse von EN-Normen in jedem Mitgliedstaat der EU.

Prüfungen nach den österreichischen, belgischen und niederländischen Normen gelten in den betreffenden Ländern, können jedoch auch außerhalb dieser Länder akzeptiert werden, wenn die vor Ort zuständigen Stellen dem zustimmen.

V ERWEITERTE ANWENDUNGSBEREICHE DER GEPRÜFTEN KONSTRUKTIONSELEMENTE

Zur Erweiterung des Anwendungsbereichs der geprüften Konstruktionselemente sind zum einen die betreffenden Normen zu beachten und zum anderen die vor Ort für die Erteilung von Zustimmungen auf der Grundlage vorhandener Prüfberichte zuständigen Stellen zu befragen.

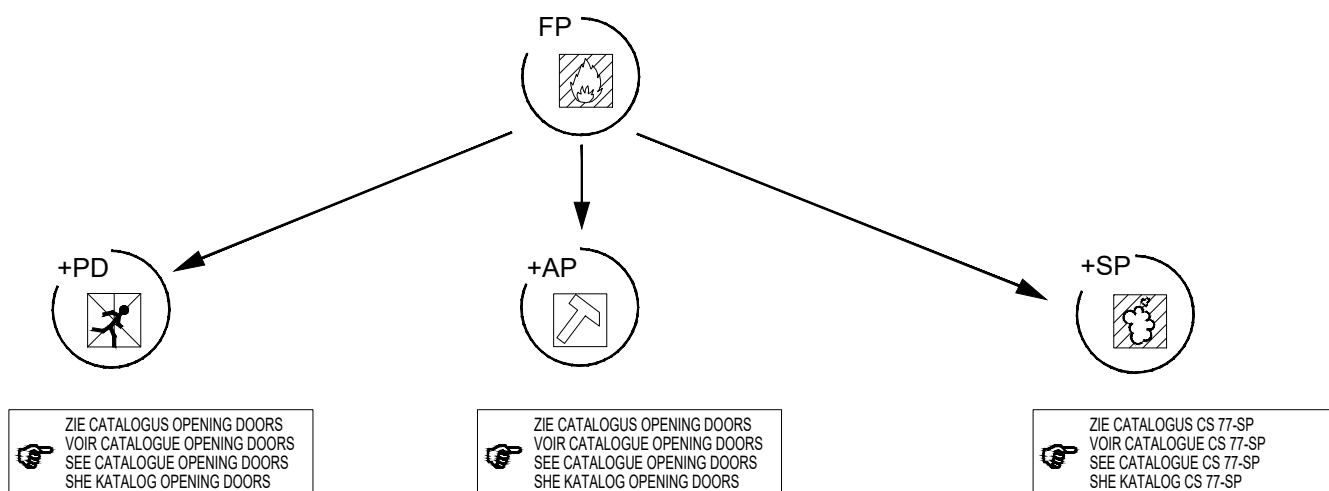
Bei europäischen Normen werden Erweiterungen des Anwendungsbereichs geprüfter Konstruktionselemente unter der Rubrik „Field of direct application“ und „Field of extended application“ besprochen. Eine allgemeine Erläuterung dieser Begriffe findet sich in Anhang A der Norm EN 1363-1.

VI MONTAGE UND HERSTELLUNG

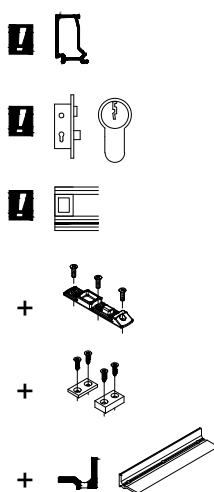
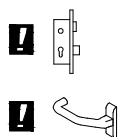
Im Abschnitt Montagezeichnungen ist angegeben, welche Bauanschlüsse geprüft sind. Erweiterungen der Bauanschlüsse unterliegen denselben Richtlinien wie die Erweiterung des Anwendungsbereichs geprüfter Konstruktionselemente.

Bezüglich der Herstellung, Montage und gegebenenfalls der Kennzeichnung feuerbeständiger Konstruktionselemente ist zusammen mit den nationalen Behörden zu prüfen, ob dazu spezielle Vorschriften einzuhalten sind.

MULTI-PURPOSE SYSTEM

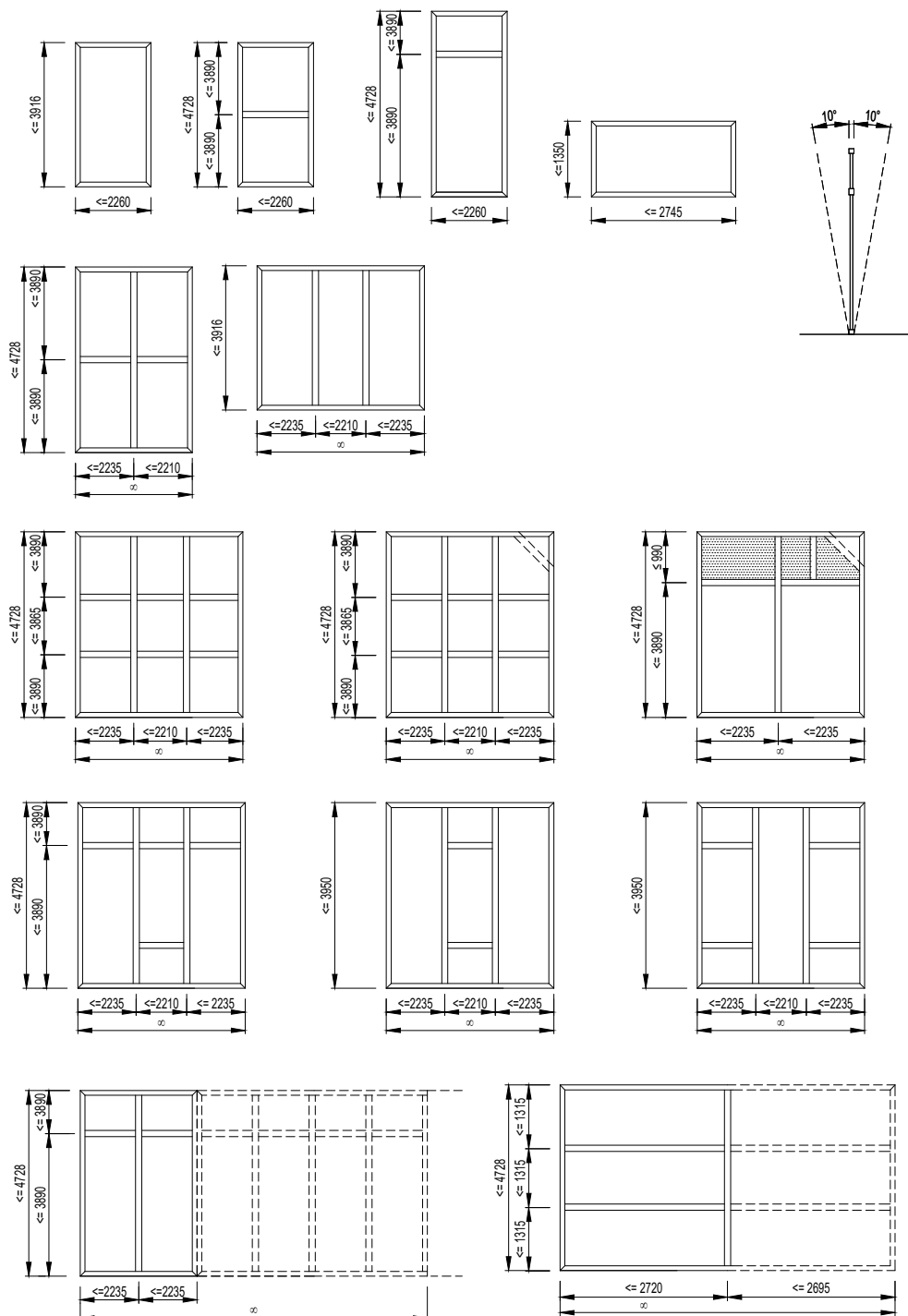


! IN GEVAL VAN BIJKOMENDE FUNCTIONALITEIT (PD/AP/SP) REKENING HOUDEN MET VOLGENDE ITEMS:
EN CAS DE FONCTIONNALITES SUPPLEMENTAIRES (PD/AP/SP) VEUILLEZ TENIR COMPTE DE ELEMENTS SUIVANTS:
IN CASE OF ADDITIONAL FUNCTIONALITIES (PD/AP/SP) PLEASE TAKE INTO ACCOUNT THE FOLLOWING ITEMS:
IM FALLE VON ZUSATZLICHEN FUNKTIONEN (PD/AP/SP) BITTE BERUICKSICHTIGEN SIE DIE FOLGENDEN PUNKTE:

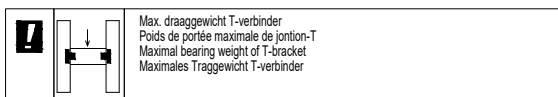


BUITEN- EN BINNENOPLOSSING
 SOLUTION POUR EXTERIEUR ET INTERIEUR
 USE OUTSIDE AND INSIDE
 AUSSENLÖSUNG UND INNENLÖSUNG

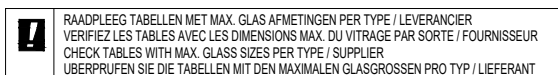
Fire classification following EN 13501-2
 glazed partitions : 2008- Efectis- R0935 [Rev.2]



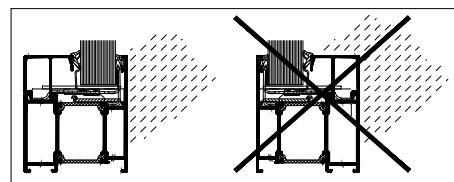
TOEGESTANE INSTALLATIEHOEK
 ANGLE D'INSTALLATION AUTORISE
 ALLOWED INSTALLATION ANGLE
 ZUGELASSEN INSTALLATIONSWINKEL



Max. draaggewicht T-verbinder
 Poids de portée maximale de jonction-T
 Maximal bearing weight of T-connector
 Maximales Traggewicht T-verbinder

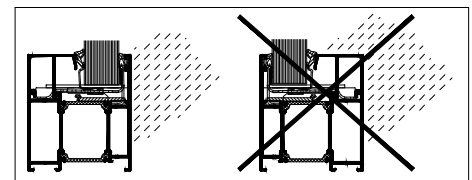
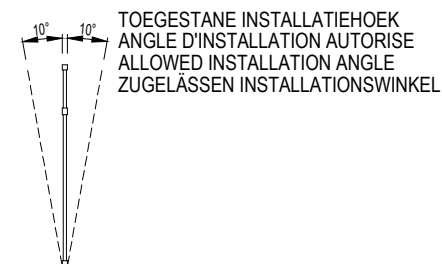
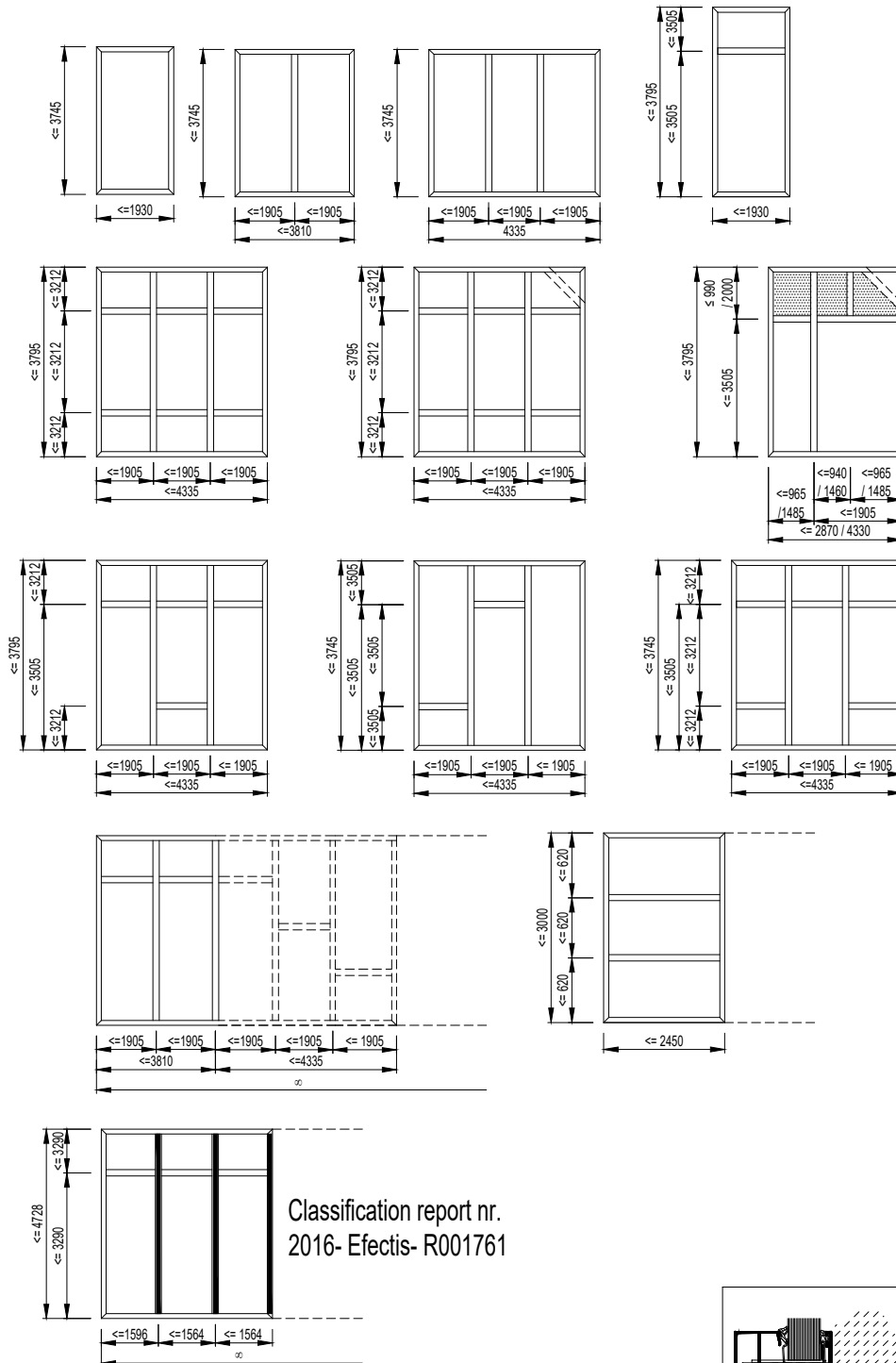


RAADPLEEG TABELLEN MET MAX. GLAS AFMETINGEN PER TYPE / LEVERANCIER
 VERIFIEZ LES TABLES AVEC LES DIMENSIONS MAX. DU VITRAGE PAR SORTE / FOURNISSEUR
 CHECK TABLES WITH MAX. GLASS SIZES PER TYPE / SUPPLIER
 ÜBERPRÜFEN SIE DIE TABELLEN MIT DEN MAXIMALEN GLASGRÖSSEN PRO TYP / LIEFERANT



BUITEN- EN BINNENOPLOSSING
 SOLUTION POUR EXTERIEUR ET INTERIEUR
 USE OUTSIDE AND INSIDE
 AUSSENLÖSUNG UND INNENLÖSUNG

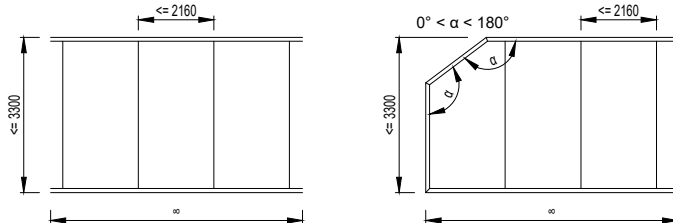
Fire classification following EN 13501-2
 glazed partitions : 2008- Efectis- R0933 [rev.2]



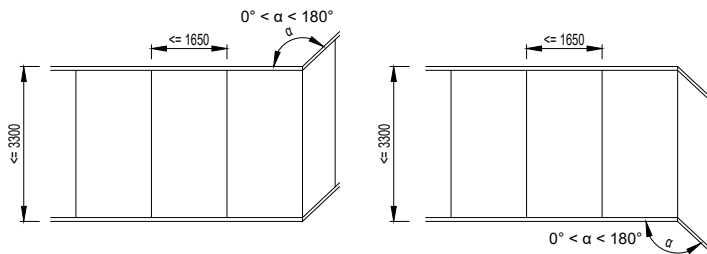
	Max. draaggewicht T-verbinder Poids de portée maximale de jonction-T Maximal bearing weight of T-bracket Maximales Traggewicht T-verbinder
	RAADPLEEG TABELLEN MET MAX. GLAS AFMETINGEN PER TYPE / LEVERANCIER VERIFIEZ LES TABLES AVEC LES DIMENSIONS MAX. DU VITRAGE PAR SORTE / FOURNISSEUR CHECK TABLES WITH MAX. GLASS SIZES PER TYPE / SUPPLIER ÜBERPRÜFEN SIE DIE TABELLEN MIT DEN MAXIMALEN GLASGRÖßEN PRO TYP / LIEFERANT

Fire classification following EN 13501-2
 glazed partitions : 2014- Efectis- R000770
 + 2015 - Efectis - R000038
 + 2012 - Efectis - R9244a

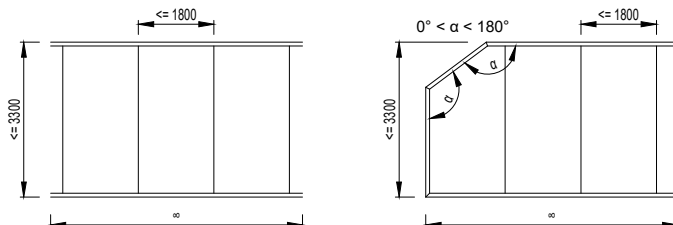
A. MONOLITHIC GLASS (inside application only)



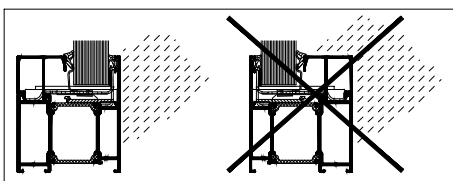
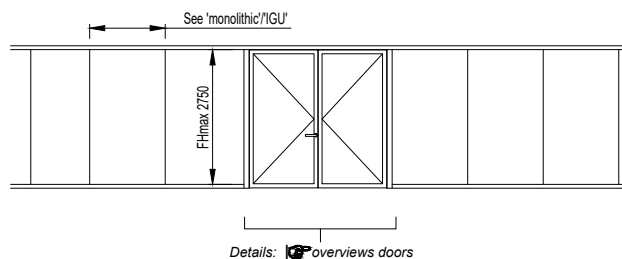
CORNER CONFIGURATIONS (monolithic glass only)



B. INSULATED GLASS

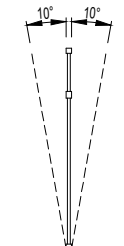
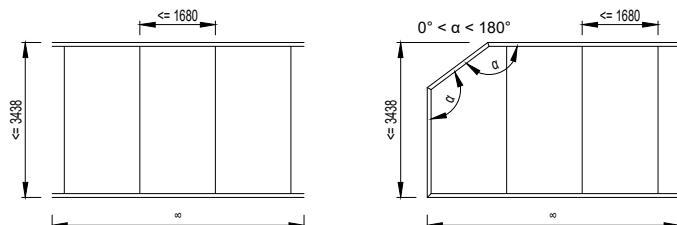


C. CONFIGURATIONS WITH DOORS



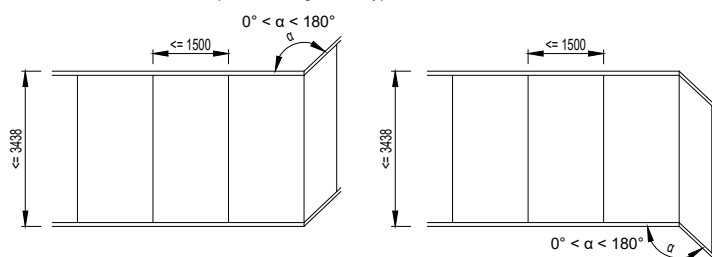
Fire classification following EN 13501-2
 glazed partitions : 2014- Efectis- R000773
 + 2015 - Efectis - R000038

A. MONOLITHIC GLASS (inside application only)

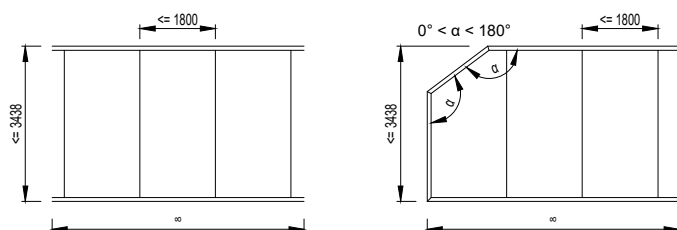


TOEGESTANE INSTALLATIEHOEK
 ANGLE D'INSTALLATION AUTORISE
 ALLOWED INSTALLATION ANGLE
 ZUGELASSEN INSTALLATIONSWINKEL

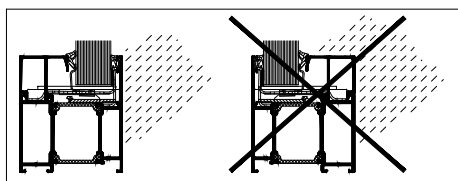
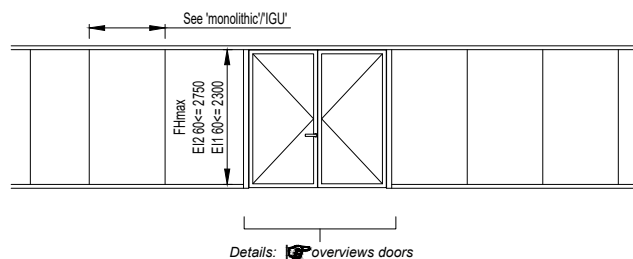
CORNER CONFIGURATIONS (monolithic glass only)

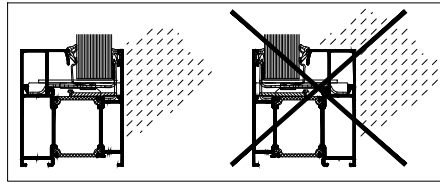


B. INSULATED GLASS



C. CONFIGURATIONS WITH DOORS

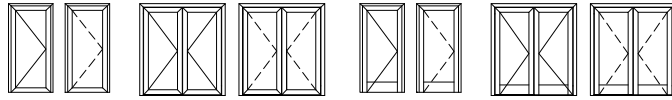




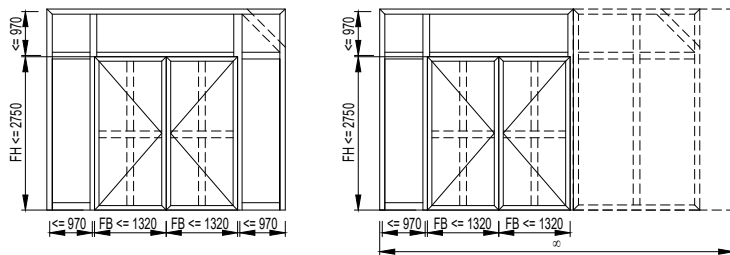
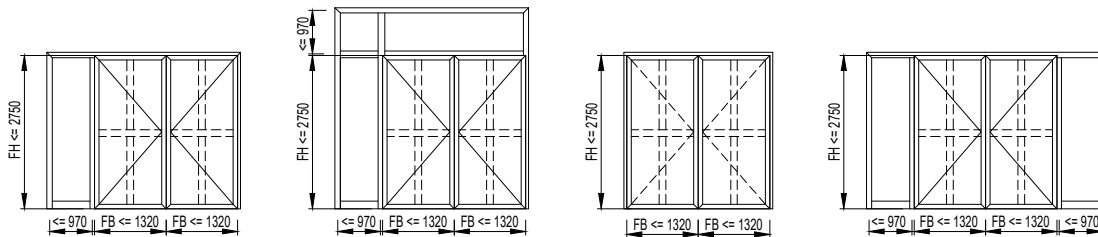
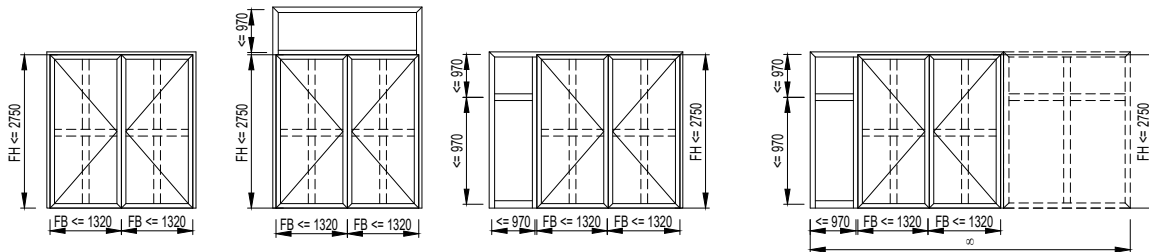
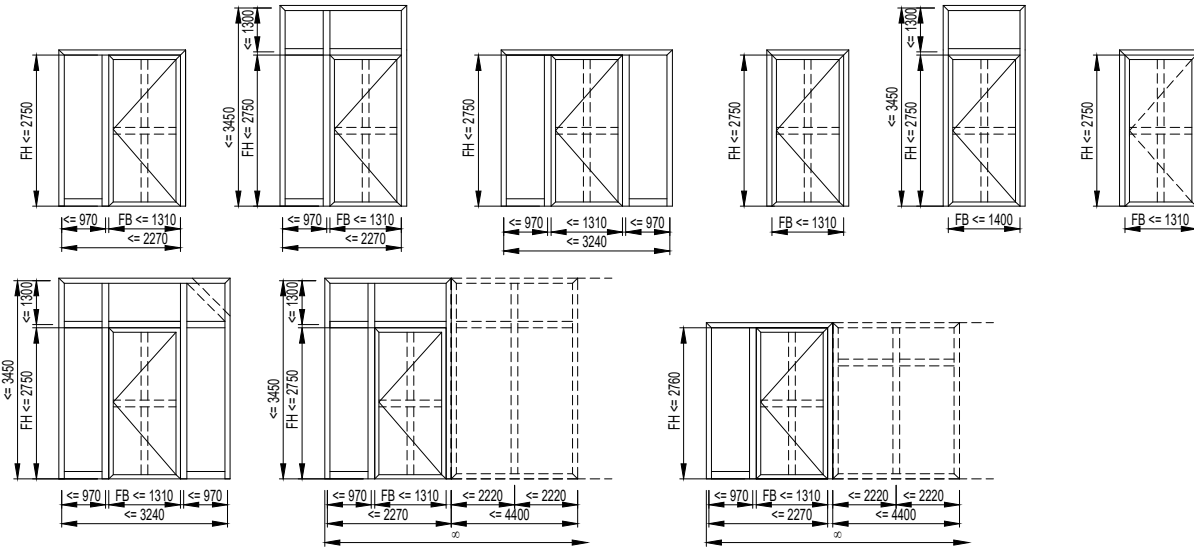
BINNENOPLOSSING
SOLUTION INTERIEUR
USE INSIDE
INNENLÖSUNG

NATIONAL APPROVAL

Fire classification following EN 13501-2
doors : 2008- Efectis- R0936 [Rev.2]



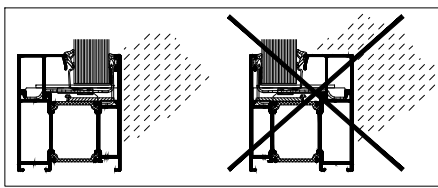
FOR BELGIUM CERTIFICATION ATG 2843



Max. draaggewicht T-verbinder
Poids de portée maximale de jonction-T
Maximal bearing weight of T-bracket
Maximales Traggewicht T-verbinder

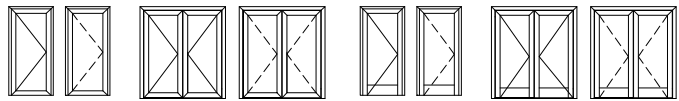
INCLUSIVE ESCAPE DOORS FOLLOWING EN179 & EN1125 - FH LIMITED TO 3000MM
- FB MIN. CHAPTER F OPENING DOORS

RAADPLEEG TABELLEN MET MAX. GLAS AFMETINGEN PER TYPE / LEVERANCIER
VERIFIEZ LES TABLES AVEC LES DIMENSIONS MAX. DU VITRAGE PAR SORTE / FOURNISSEUR
CHECK TABLES WITH MAX. GLASS SIZES PER TYPE / SUPPLIER
ÜBERPRÜFEN SIE DIE TABELLEN MIT DEN MAXIMALEN GLASSGRÖßEN PRO TYP / LIEFERANT

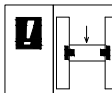
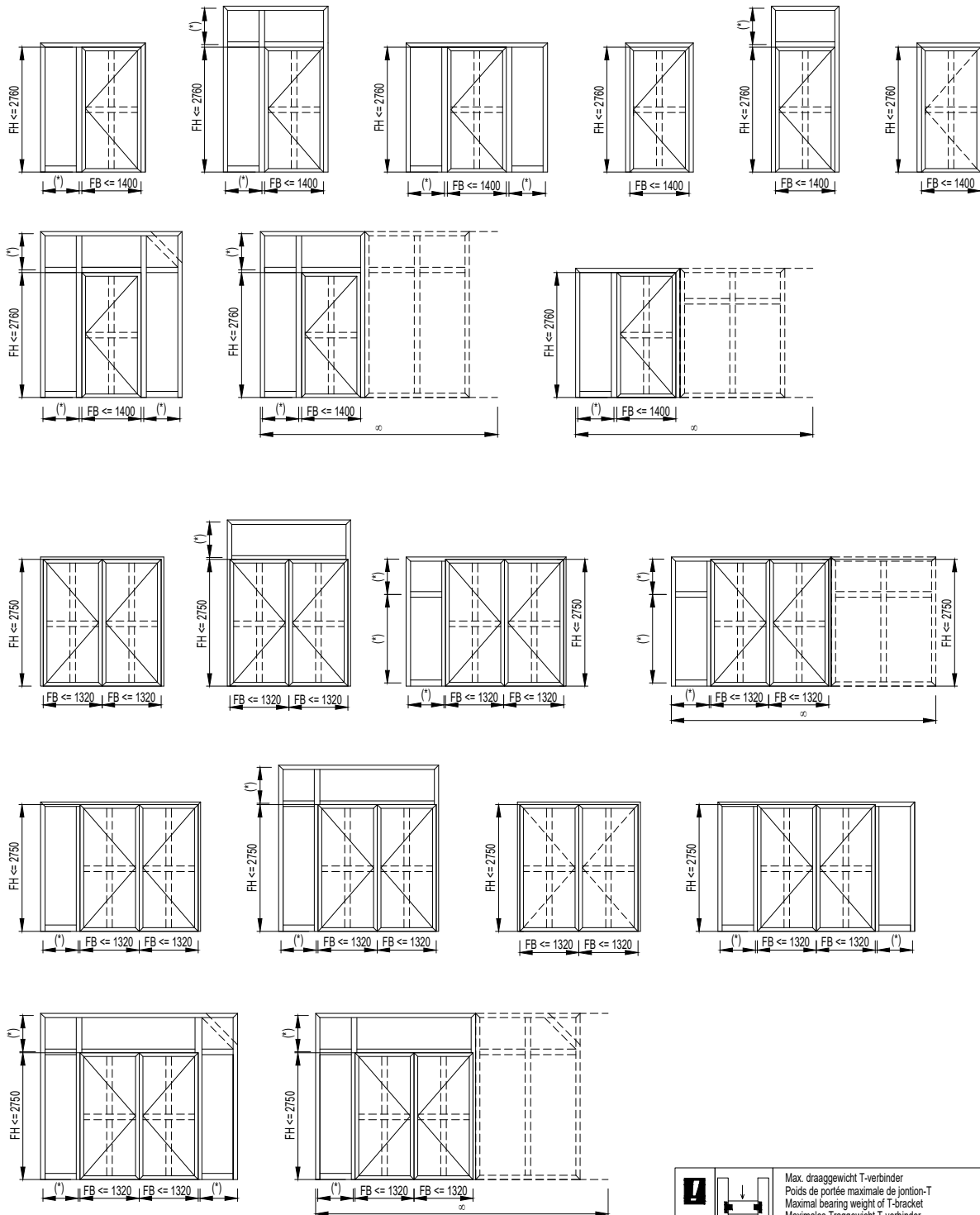


BUITENOPLOSSING
SOLUTION POUR EXTERIEUR
USE OUTSIDE
AUSSENLÖSUNG

CE
CLASSIFICATION
2019-EFFECTIS-R001885



(*) REPORT nr. 2019-EFFECTIS-R001885



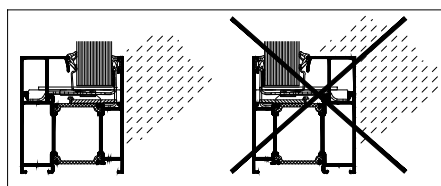
Max. draaggewicht T-verbinder
Poids de portée maximale de jonction-T
Maximal bearing weight of T-bracket
Maximales Traggewicht T-verbinder



INCLUSIVE ESCAPE DOORS FOLLOWING EN179 & EN125 - FH LIMITED TO 3000MM
- FB MIN. CHAPTER F OPENING DOORS



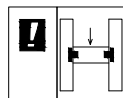
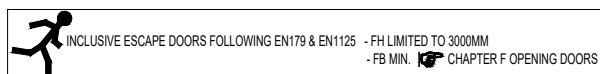
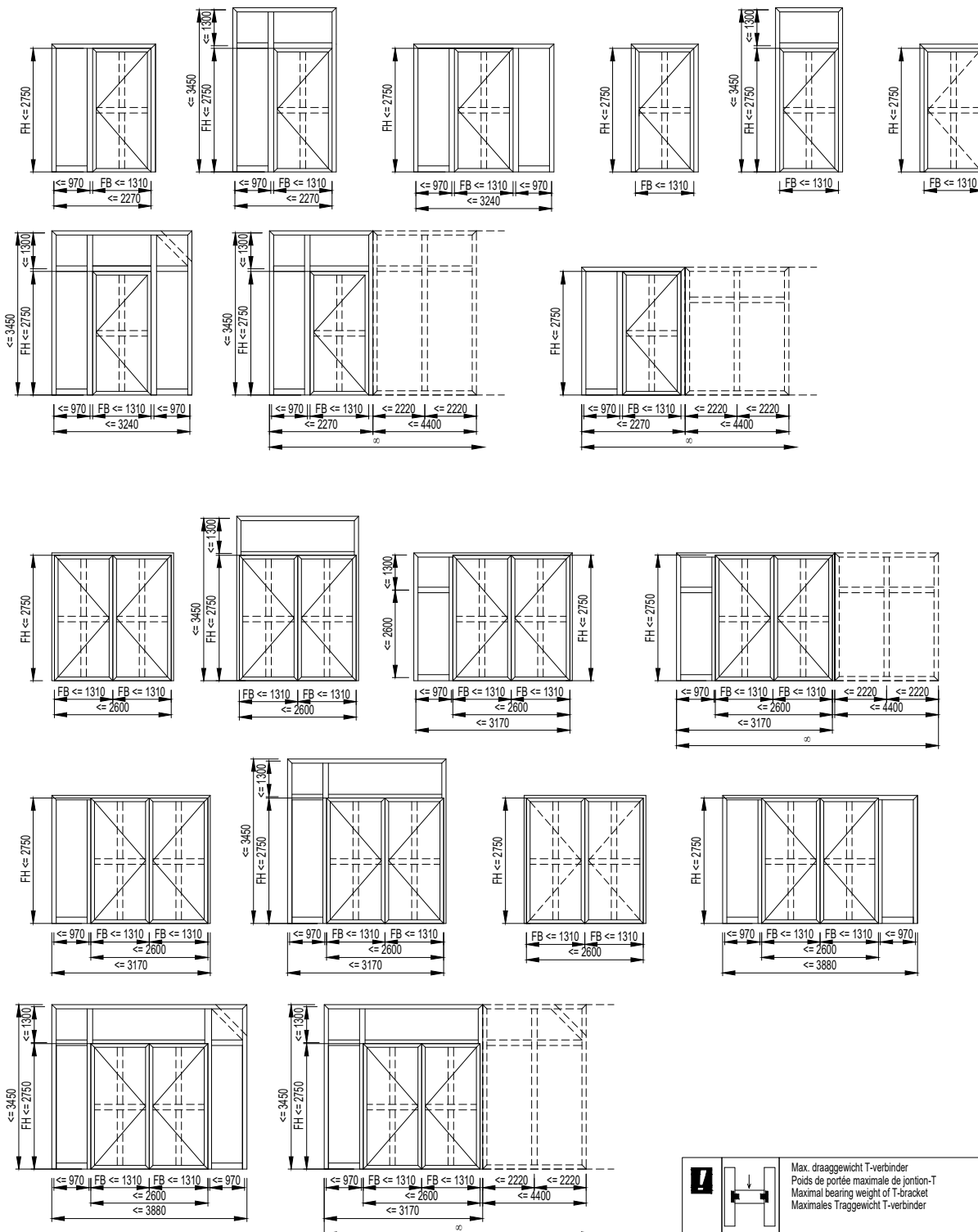
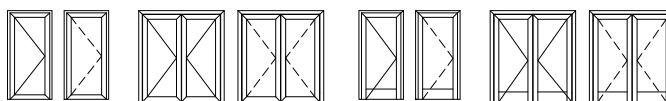
RAADPLEEG TABELLEN MET MAX. GLAS AFMETINGEN PER TYPE / LEVERANCIER
VÉRIFIEZ LES TABLES AVEC LES DIMENSIONS MAX. DU VITRAGE PAR SORTE / FOURNISSEUR
CHECK TABLES WITH MAX. GLASS SIZES PER TYPE / SUPPLIER
ÜBERPRÜFEN SIE DIE TABELLEN MIT DEN MAXIMALEN GLASSGRÖßEN PRO TYP / LIEFERANT



BINNENOPLOSSING
SOLUTION INTERIEUR
USE INSIDE
INNENLÖSUNG

NATIONAL APPROVAL

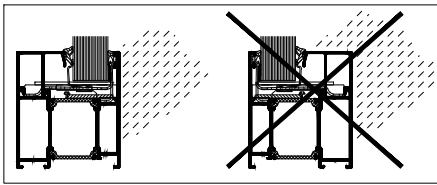
Fire classification following EN 13501-2
doors : 2008- Efectis- R0936 [Rev.2]



Max. draaggewicht T-verbinder
Poids de portée maximale de jonction-T
Maximal bearing weight of T-bracket
Maximales Traggewicht T-verbinder

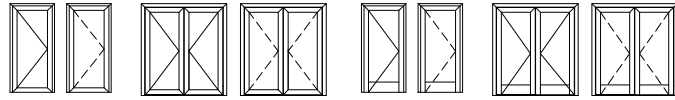


RAADPLEEG TABELLEN MET MAX. GLAS AFMETINGEN PER TYPE / LEVERANCIER
VERIFIEZ LES TABLES AVEC LES DIMENSIONS MAX. DU VITRAGE PAR SORTE / FOURNISSEUR
CHECK TABLES WITH MAX. GLASS SIZES PER TYPE / SUPPLIER
ÜBERPRÜFEN SIE DIE TABELLEN MIT DEN MAXIMALEN GLASSGRÖßEN PRO TYP / LIEFERANT

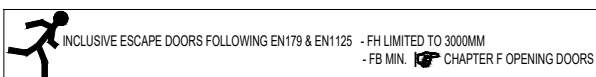
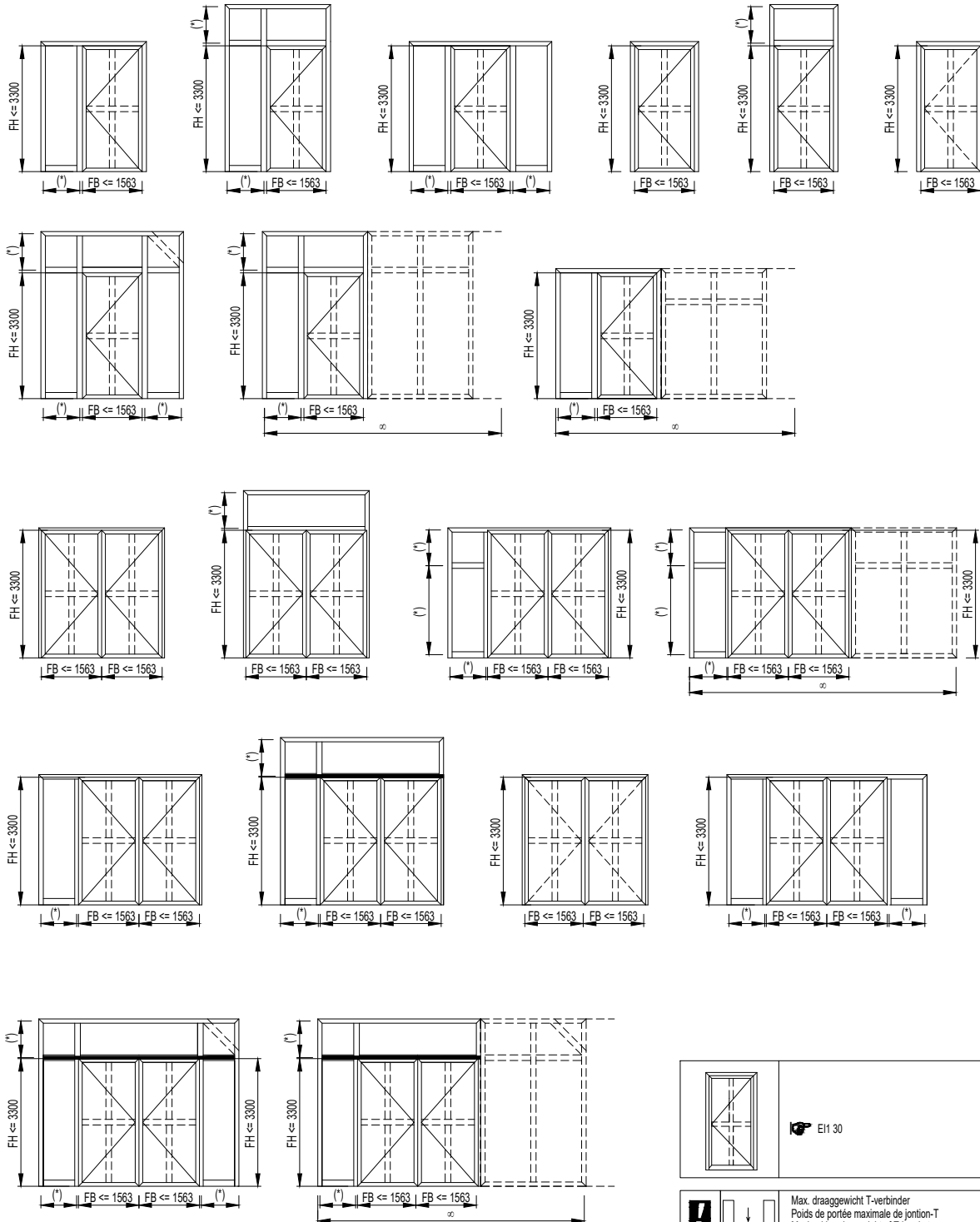


BUITENOPLOSSING
SOLUTION POUR EXTERIEUR
USE OUTSIDE
AUSSENLÖSUNG

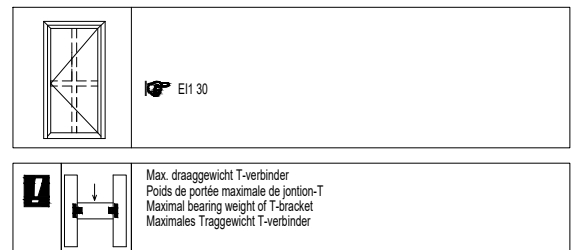
CE
CLASSIFICATION
2019-EFECTIS-R001932



(*) Report nr. 2019-EFECTIS-R001932



INCLUSIVE ESCAPE DOORS FOLLOWING EN179 & EN1125 - FH LIMITED TO 3000MM
- FB MIN. CHAPTER F OPENING DOORS



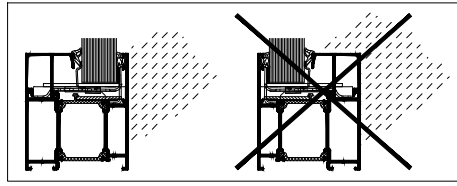
EI 30



Max. draaggewicht T-verbinder
Poids de portée maximale de jonction-T
Maximal bearing weight of T-bracket
Maximales Traggewicht T-verbinder



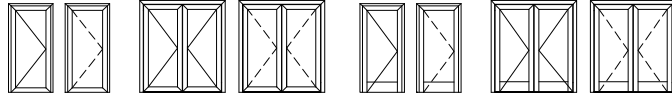
RAADPLEEG TABELLEN MET MAX. GLAS AFMETINGEN PER TYPE / LEVERANCIER
VÉRIFIEZ LES TABLES AVEC LES DIMENSIONS MAX. DU VITRAGE PAR SORTE / FOURNISSEUR
CHECK TABLES WITH MAX. GLASS SIZES PER TYPE / SUPPLIER
ÜBERPRÜFEN SIE DIE TABELLEN MIT DEN MAXIMALEN GLASSGRÖßEN PRO TYP / LIEFERANT



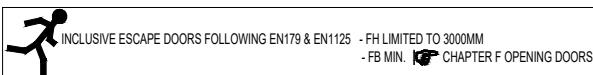
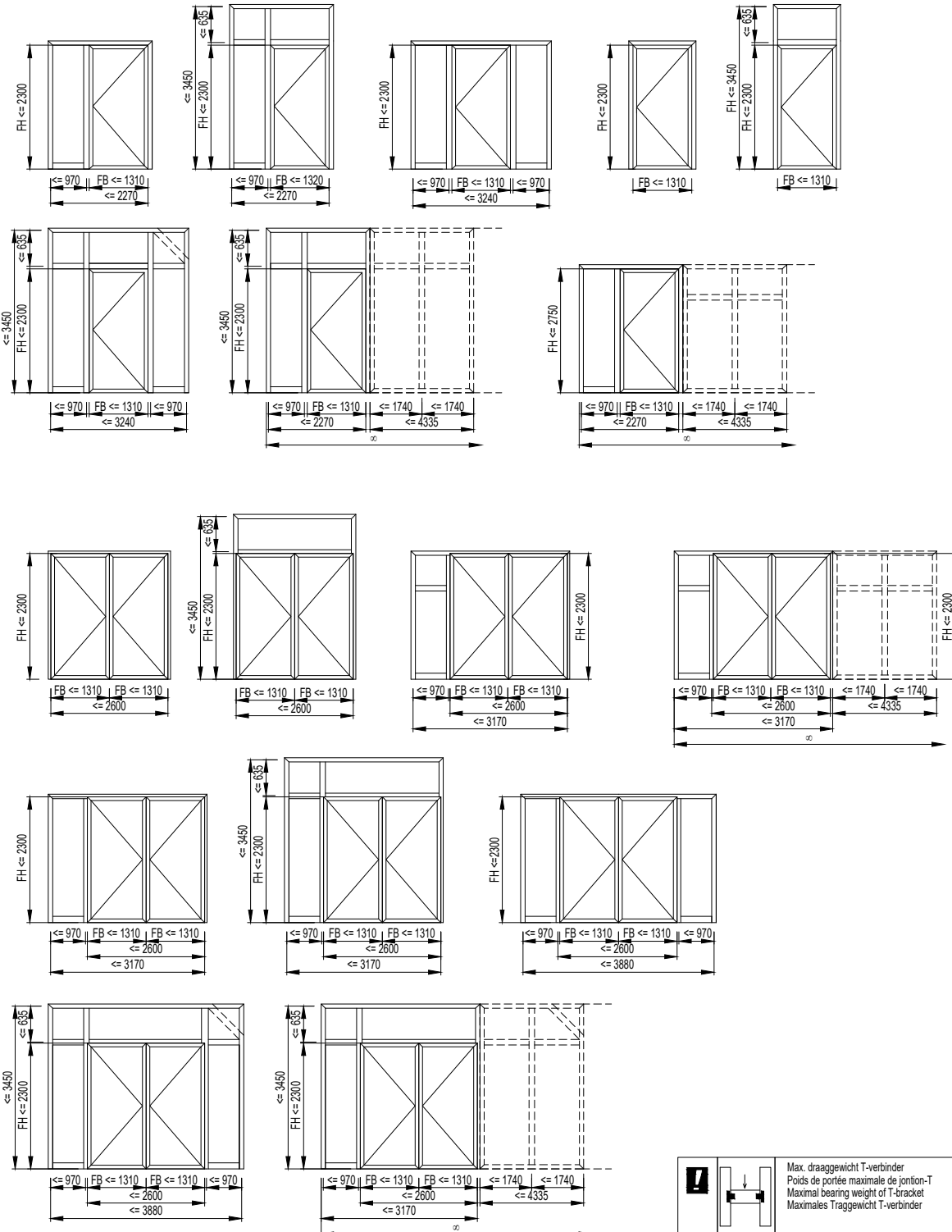
BINNENOPLOSSING
SOLUTION INTERIEUR
USE INSIDE
INNENLÖSUNG

NATIONAL APPROVAL

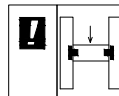
Fire classification following En 13501-2
doors : 2008- Efectis- R0934 [Rev.3]



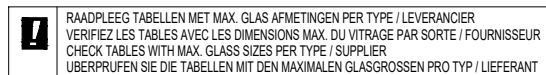
FOR BELGIUM CERTIFICATION ATG 2985



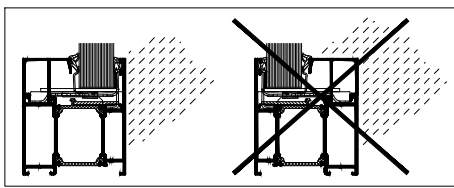
INCLUSIVE ESCAPE DOORS FOLLOWING EN179 & EN1125 - FH LIMITED TO 3000MM
- FB MIN. CHAPTER F OPENING DOORS



Max. draaggewicht T-verbinder
Poids de portée maximale de jonction-T
Maximal bearing weight of T-bracket
Maximales Traggewicht T-verbinder

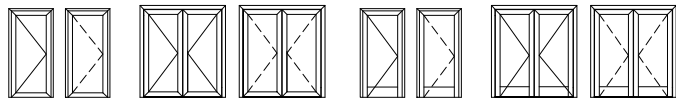


RAADPLEEG TABELLEN MET MAX. GLAS AFMETINGEN PER TYPE / LEVERANCIER
VERIFIEZ LES TABLES AVEC LES DIMENSIONS MAX. DU VITRAGE PAR SORTE / FOURNISSEUR
CHECK TABLES WITH MAX. GLASS SIZES PER TYPE / SUPPLIER
ÜBERPRÜFEN SIE DIE TABELLEN MIT DEN MAXIMALEN GLASSGRÖßEN PRO TYP / LIEFERANT

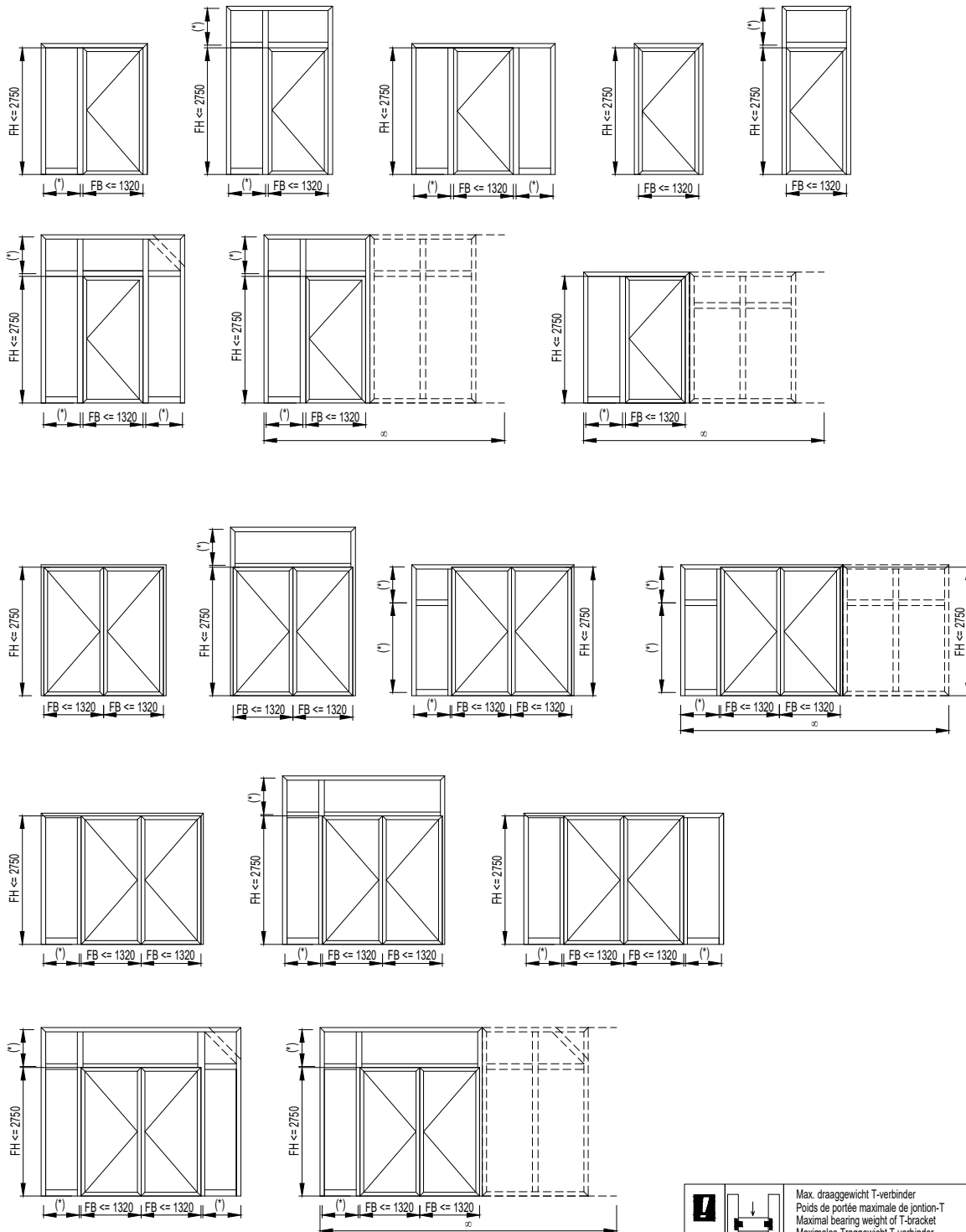


BUITENOPLOSSING
SOLUTION POUR EXTERIEUR
USE OUTSIDE
AUSSENLÖSUNG

CE
CLASSIFICATION
2019-EFFECTIS-R001886



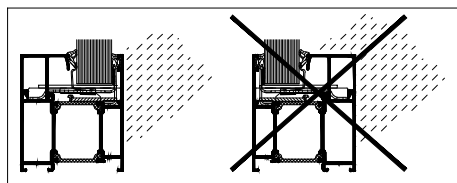
(*) Report nr. 2019-EFFECTIS-R001886



INCLUSIVE ESCAPE DOORS FOLLOWING EN179 & EN1125 - FH LIMITED TO 3000MM
- FB MIN. CHAPTER F OPENING DOORS

Max. draaggewicht T-verbinder
Poids de portée maximale de jonction-T
Maximal bearing weight of T-bracket
Maximales Traggewicht T-verbinder

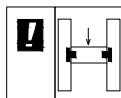
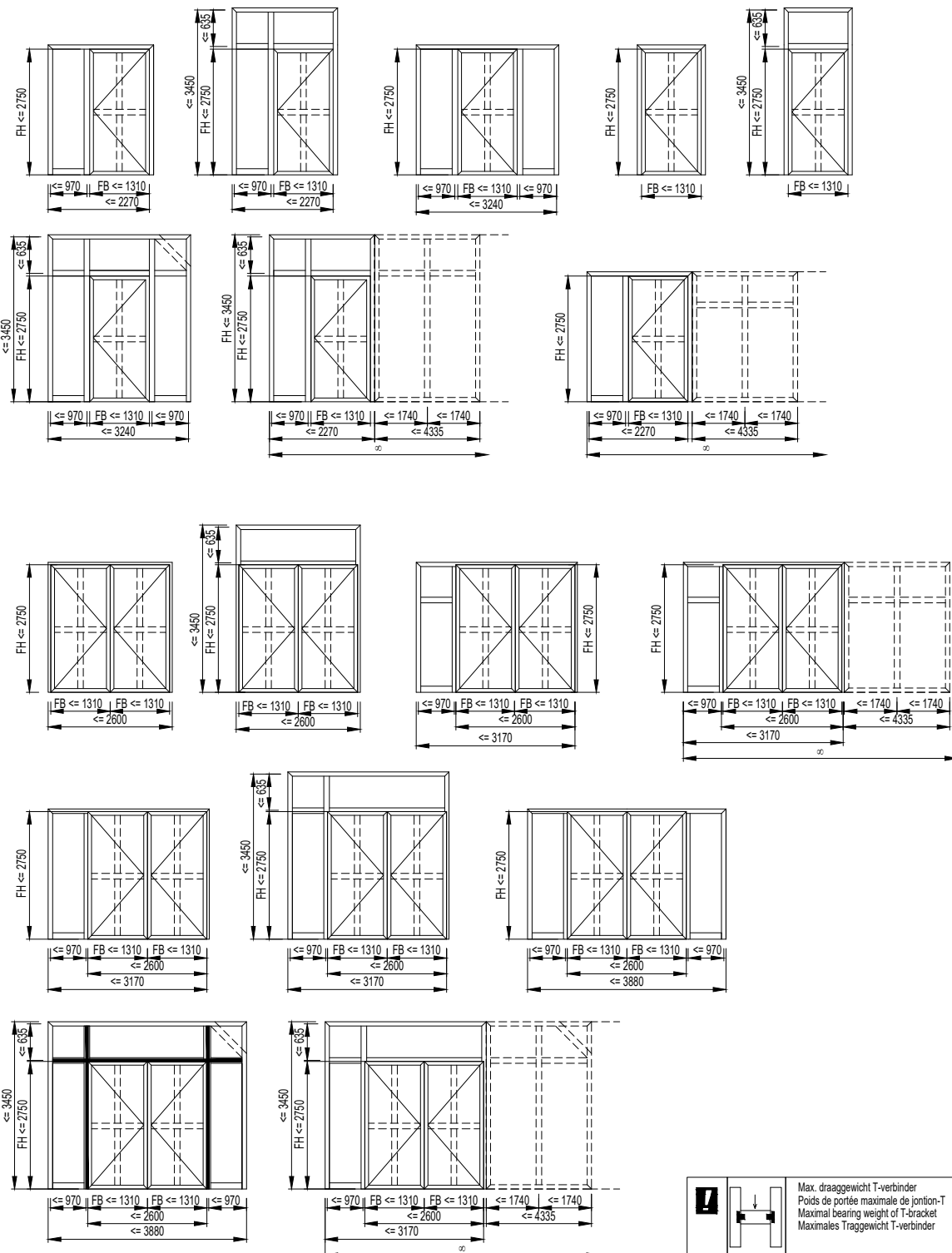
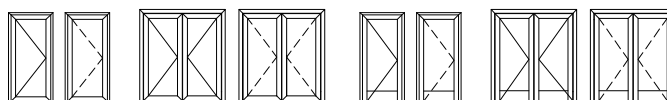
RAADPLEEG TABELLEN MET MAX. GLAS AFMETINGEN PER TYPE / LEVERANCIER
VERIFIEZ LES TABLES AVEC LES DIMENSIONS MAX. DU VITRAGE PAR SORTE / FOURNISSEUR
CHECK TABLES WITH MAX. GLASS SIZES PER TYPE / SUPPLIER
ÜBERPRÜFEN SIE DIE TABELLEN MIT DEN MAXIMALEN GLASGRÖßEN PRO TYP / LIEFERANT



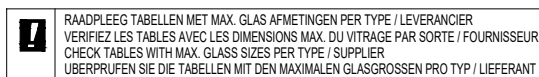
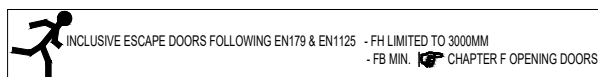
BINNENOPLOSSING
SOLUTION INTERIEUR
USE INSIDE
INNENLÖSUNG

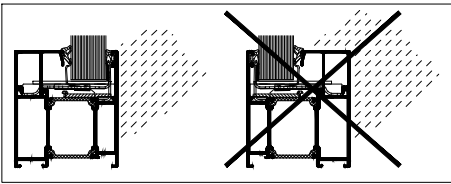
NATIONAL APPROVAL

Fire classification following En 13501-2
doors : 2008- Efectis- R0934 [Rev.3]



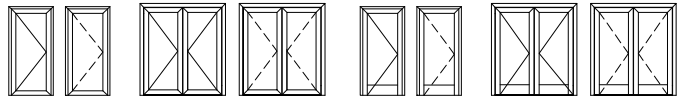
Max. draaggewicht T-verbinder
Poids de portée maximale de jonction-T
Maximal bearing weight of T-bracket
Maximales Traggewicht T-verbinder



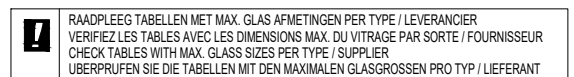
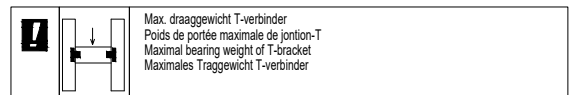
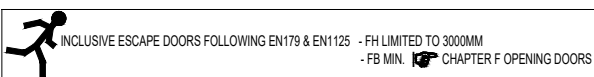
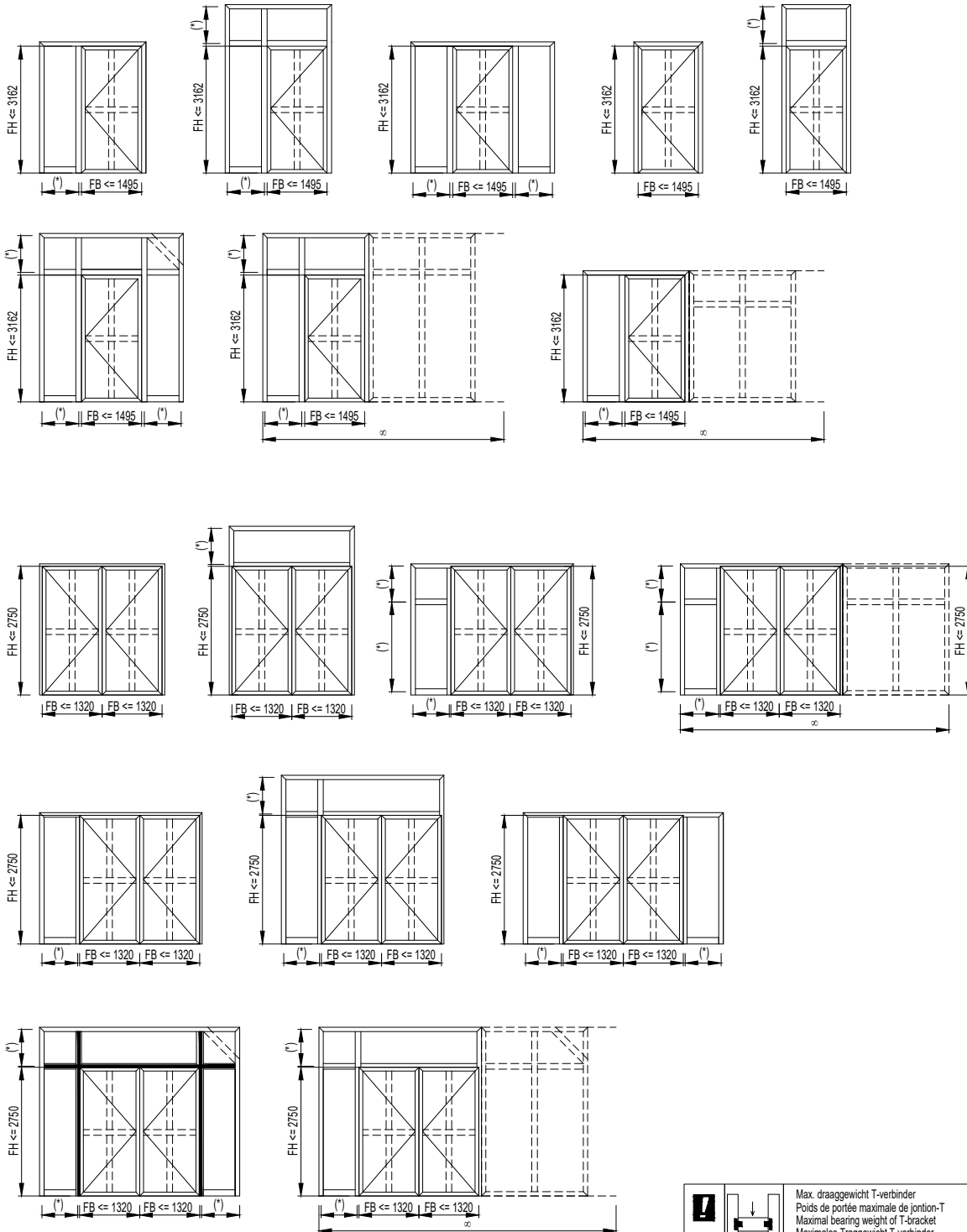


BUITENOPLOSSING
SOLUTION POUR EXTERIEUR
USE OUTSIDE
AUSSENLÖSUNG

CE
CLASSIFICATION
2019-EFECTIS-R001931



(*) Report nr. 2019-EFECTIS-R001931

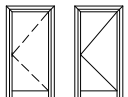
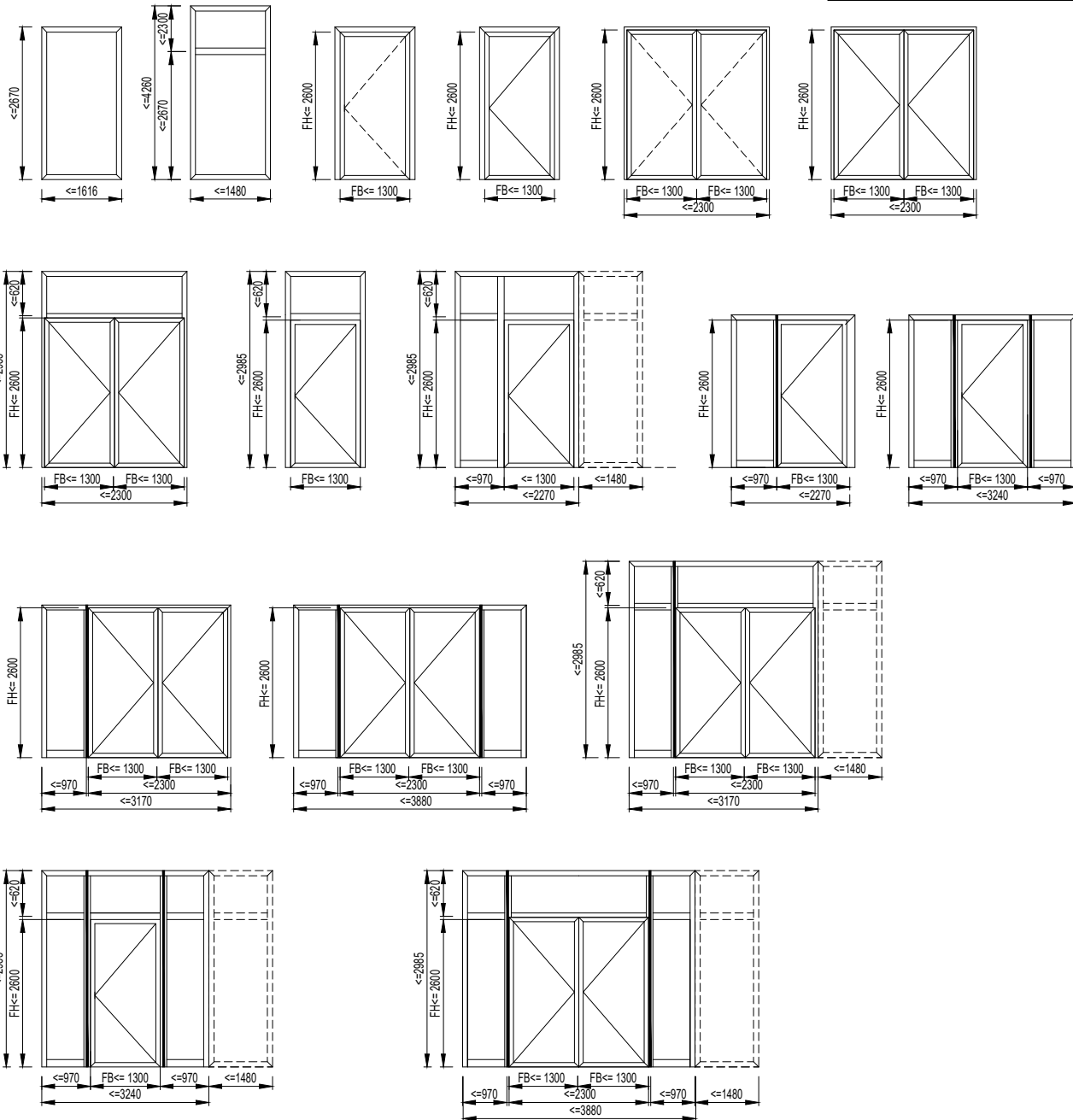


CS 77-FP EI2 30/SP

- * Smoke control doors following DIN 18095-2 and EN 13501-2
- * Fire classification following PN-EN 13501-2: 2008-Efectis-0936 (Rev.2)



ZIE CATALOGUS CS77-SP
 AVOIR CATALOGUE CS77-SP
 SEE CATALOG CS77-SP
 SEHE KATALOG CS77-SP



ALLE DEUREN MOGELIJK MET SOKKELPROFIEL
 TOUTES PORTES AVEC PLINthe BAS DE PORTE
 ALL DOORS POSSIBLE WITH BOTTOM RAIL SOLUTION
 ALLE TÜREN MIT SOCKELPROFIL MÖGLICH



ENKEL BINNENOPLOSSING
 SOLUTION POUR INTERIEUR SEULEMENT
 ONLY USE INSIDE
 NUR INNENLÖSUNG



INCLUSIEF PANIEKOPLOSSING VOLGENS EN 179 & EN 1125 - FH BEPERKT TOT 3000MM / FB MIN HOOFDSTUK F OPENING DOORS
 SOLUTION PANIQUE SUIVANT EN 179 & EN 1125 - FH LIMITÉE À TOT 3000MM / FB MIN CHAPITRE F OPENING DOORS
 INCLUSIVE PANIC SOLUTIONS FOLLOWING EN 179 & EN 1125 - FH LIMITED TO 3000MM / FB MIN. CHAPTER F OPENING DOORS
 EINSCHLIESSLICH PANIKLÖSUNG LAUT EN 179 & EN 1125 - FH LIMITED BIS 3000MM / FB MIN. KAPITEL F OPENING DOORS

BUITENOPLOSSING
 SOLUTION POUR EXTERIEUR
 USE OUTSIDE
 AUSSENLÖSUNG

CE
 FOA 2018-EFFECTIS-R000698



ZIE CATALOGUS CS77-SP
 AVOIR CATALOGUE CS77-SP
 SEE CATALOG CS77-SP
 SEHE KATALOG CS77-SP

CS 77-FP EI1 30/SP

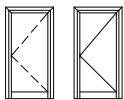
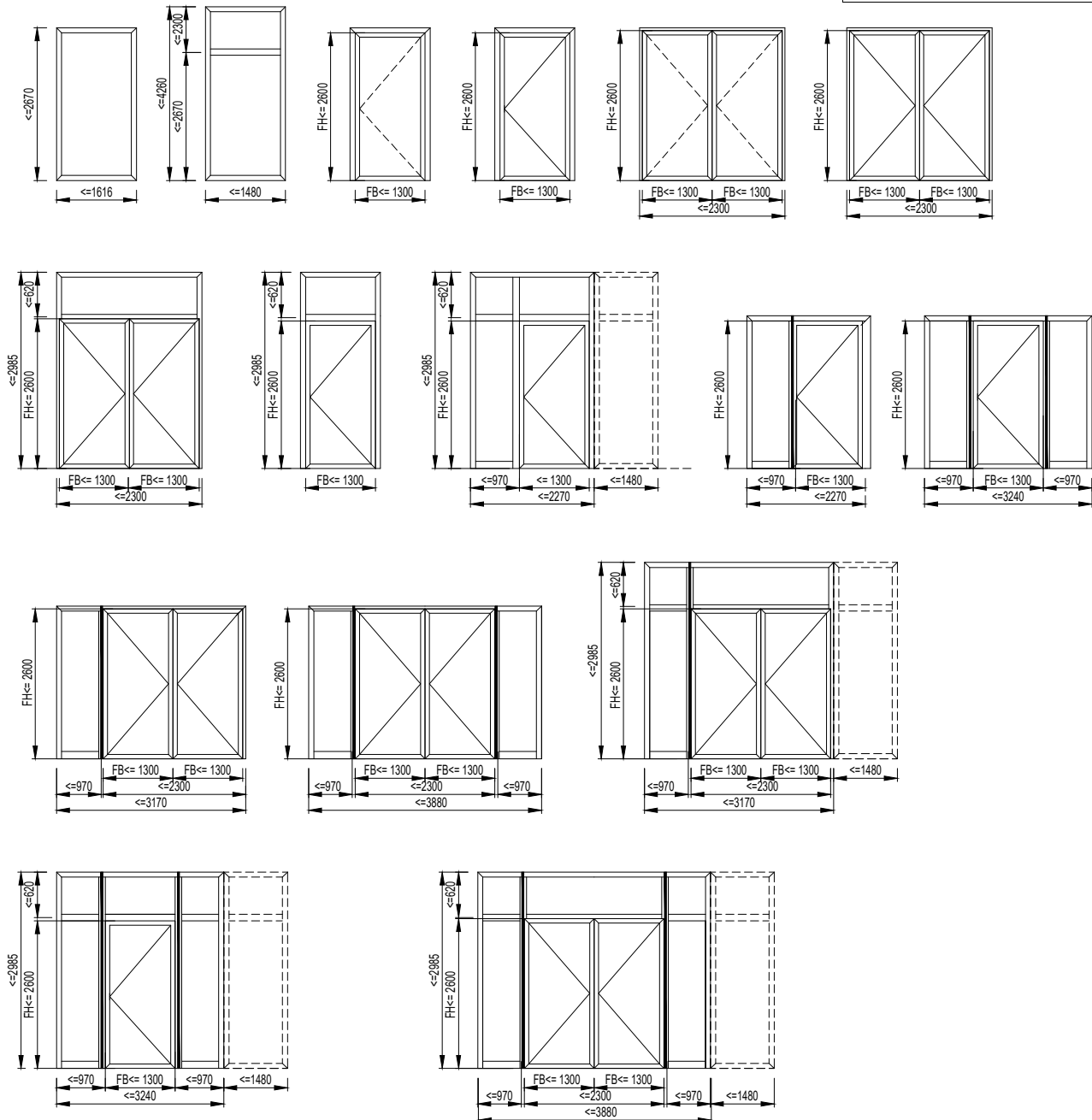
* Smoke control doors following DIN 18095-2 and EN 13501-2

* Fire classification following EN 13501-2

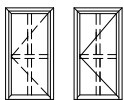
doors : 2008- Efectis- R0936 [Rev.2]



ZIE CATALOGUS CS77-SP
 AVOIR CATALOGUE CS77-SP
 SEE CATALOG CS77-SP
 SIEHE KATALOG CS77-SP



ALLE DEUREN MOGELIJK MET SOKKELPROFIEL
 TOUTES PORTES AVEC PLINTHE BAS DE PORTE
 ALL DOORS POSSIBLE WITH BOTTOM RAIL SOLUTION
 ALLE TÜREN MIT SOCKELPROFIL MÖGLICH



ALLE DEUREN BESCHIKBAAR MET T-PROFIEL
 ALL DOORS AVAILABLE WITH TRANSOMS AND MILLIONS
 TOUTES PORTES POSSIBLE AVEC TRAVERSE
 ALLE TÜREN MIT T-PROFIL MÖGLICH



INCLUSIEF PANIEKOPLOSSING VOLGENS EN 179 & EN 1125 - FH BEPERKT TOT 3000MM / FB MIN HOOFDSTUK F OPENING DOORS
 SOLUTION PANIQUE SUIVANT EN 179 & EN 1125 - FH LIMITÉE À TOT 3000MM / FB MIN CHAPITRE F OPENING DOORS
 INCLUSIVE PANIC SOLUTIONS FOLLOWING EN 179 & EN 1125 - FH LIMITED TO 3000MM / FB MIN. CHAPTER F OPENING DOORS
 EINSCHLIESSLICH PANIKLÖSUNG LAUT EN 179 & EN 1125 - FH LIMITIED BIS 3000MM / FB MIN. KAPITEL F OPENING DOORS



ENKEL BINNENOPLOSSING
 SOLUTION POUR INTERIEUR SEULEMENT
 ONLY USE INSIDE
 NUR INNENLÖSUNG

BUITENOPLOSSING
 SOLUTION POUR EXTERIEUR
 USE OUTSIDE
 AUSSENLÖSUNG



FOA 2018-EFFECTIS-R000698



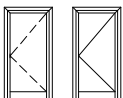
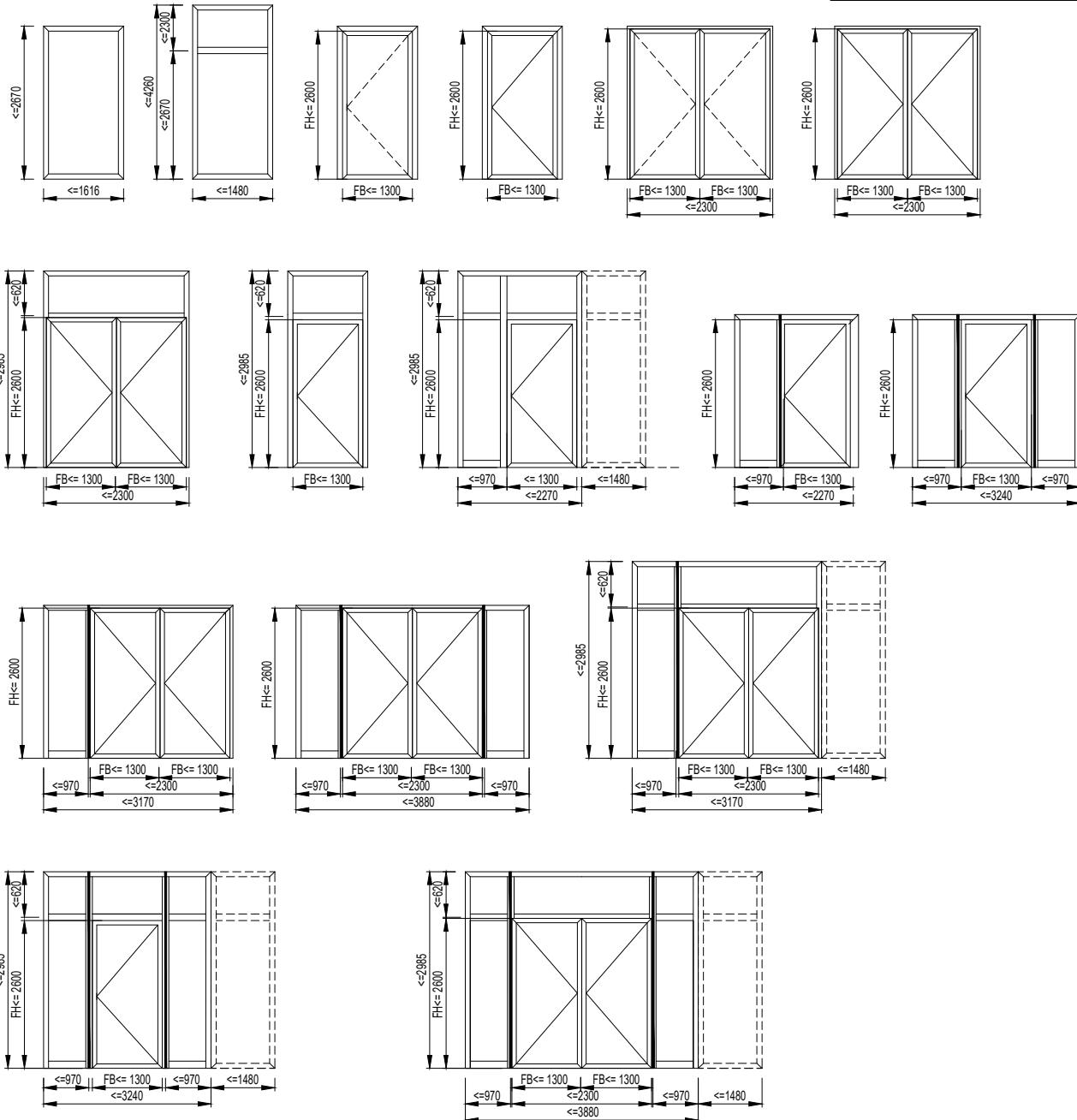
ZIE CATALOGUS CS77-SP
 AVOIR CATALOGUE CS77-SP
 SEE CATALOG CS77-SP
 SEHE KATALOG CS77-SP

CS 77-FP EI60/SP

* Smoke control doors following DIN 18095 and EN 13501-2
 * Fire classification following EN 13501-2
 doors : 2008- Efectis- R0934 [Rev.3]



ZIE CATALOGUS CS77-SP
 AVOIR CATALOGUE CS77-SP
 SEE CATALOG CS77-SP
 SEHE KATALOG CS77-SP



ALLE DEUREN MOGELIJK MET SOKKELPROFIEL
 TOUTES PORTES AVEC PLINTE BAS DE PORTE
 ALL DOORS POSSIBLE WITH BOTTOM RAIL SOLUTION
 ALLE TÜREN MIT SOCKELPROFIL MÖGLICH



ENKEL BINNENOPLOSSING
 SOLUTION POUR INTERIEUR SEULEMENT
 ONLY USE INSIDE
 NUR INNENLÖSUNG



INCLUSIEF PANIEKOPLOSSING VOLGENS EN 179 & EN 1125 - FH BEPERKT TOT 3000MM / FB MIN. HOOFDSTUK F OPENING DOORS
 SOLUTION PANIQUE SUIVANT EN 179 & EN 1125 - FH LIMITÉE À TOT 3000MM / FB MIN. CHAPITRE F OPENING DOORS
 INCLUSIVE PANIC SOLUTIONS FOLLOWING EN 179 & EN 1125 - FH LIMITED TO 3000MM / FB MIN. CHAPTER F OPENING DOORS
 EINSCHLIESSLICH PANIKLÖSUNG LAUT EN 179 & EN 1125 - FH LIMITED BIS 3000MM / FB MIN. KAPITEL F OPENING DOORS

BIJENOPLOSSING
 SOLUTION POUR EXTERIEUR
 USE OUTSIDE
 AUSSENLÖSUNG



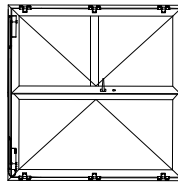
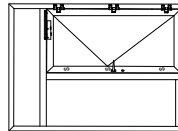
FOA 2018-EFFECTIS-R000698



ZIE CATALOGUS CS77-SP
 AVOIR CATALOGUE CS77-SP
 SEE CATALOG CS77-SP
 SEHE KATALOG CS77-SP

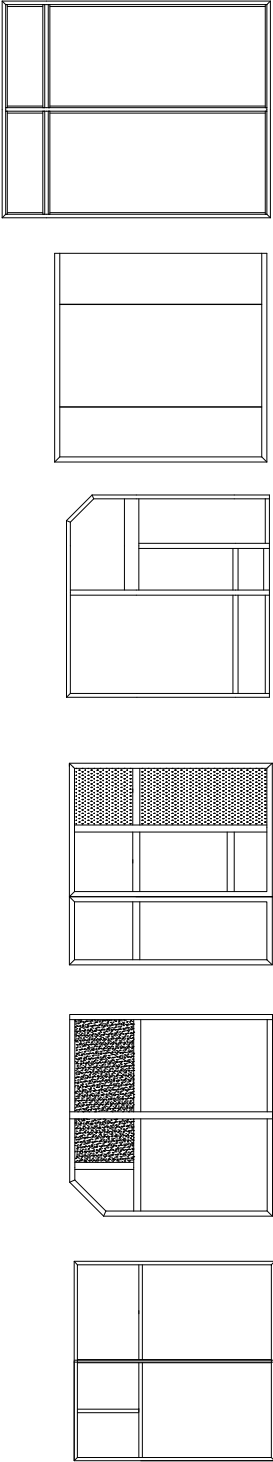
CLASSIFICATION OF FIRE RESISTANCE IN ACCORDANCE WITH PN-EN 13501-2: 2008-Efectis-0936 (Rev.2)

CS 77-FP EI2 30 Test program REYNAERS ALUMINIUM NV		TEST 1 (EI2 30)	TEST 1 (EI2 30)
		double door	single door
opening type	outward opening		outward opening
side glazing beads	towards the fire		towards the fire
dimension outer frame B x H (mm)	2676 x 2806mm		2500 x 3500mm
dimension door leaf B x H (mm)	(2x1300) x 2750		1300 x 2750
total opening	2716 x 2836		2716 x 2836
supporting construction	low density 200mm, 800kg/m³		Aerated concrete 680±40kg/m³
laboratory	ITB Poland		ITB Poland
standard	PN-EN 13501-2:2010+A1:2010		PN-EN 13501-2:2010+A1:2010
test report nr	LPP03-0498.1 /12 /R33NP		LPP03-0498.1 /13 /R40NP
class. Report nr	0498.1/2 /R33NP / 0948.1/12/R33NP		0498.1/3 /R40NP / 0948.1/13/R40NP
fire resistant classification	EI1 15, EI2 20, EW 20, E 30		EI1 15, EI2 20, EW 20, E 30
infill 1	AGC, Pyrobel 16 (17.3mm)		Pilkington Pyrostop 30-10 (15mm)
infill 2	1134 x 2584mm		2384 x 595mm
infill 3	AGC, Pyrobel 16 (17.3mm)		Pilkington Pyrostop 30-20 (18mm)
infill 4	1134 x 1260mm		970 x 2725mm
infill 5	AGC, Pyrobel 16 (17.3mm)		Pilkington Pyrostop 30-20 (18mm)
supplier hinges	Dr. Hahn		Fapim
reference hinges	065.6656.XX		065.8893.XX
supplier locking device active leaf	Fuhr		Fuhr
ref locking device active leaf	061.8127.ZC		061.8133.ZC
supplier locking device passive leaf	-		-
ref locking device passive leaf	-		-
supplier handle active leaf	Sobinco		Themans
reinforcement profile	NO		NO



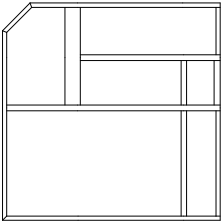
Fire classification following EN 13501-2 glazed partitions : 2008- Efectis- R0935 [Rev.2]

	TEST 1 (30)	TEST 2 (30)	TEST 3 (30)	TEST 4 (30)	TEST 5 (30)	TEST 6 (30)
	glazed partition	glazed partition	glazed partition	glazed partition	glazed partition	glazed partition
side glazing beads dimension outer frame B x H (mm)	Fire side 2960 x 2960	Cold side 2960 x 2960	Cold side 3940 x 3950	Fire side 3066 x 3116	Cold side 3180 x 3940	
supporting construction laboratory	high density, concrete WFR GENT	high density, concrete WFR GENT	concrete, density 2400 kg/m³ - 230 mm EFFECTIS Netherlands EN 1364-1:1999	aerated concrete, density 650 kg/m³ - 150 mm EFFECTIS Netherlands EN 1364-1:1999	aerated concrete, density 650 kg/m³ - 150 mm EFFECTIS Netherlands EN 1364-1:1999	
standard	EN 1364-1	EN 1364-1	EN 1364-1	EN 1364-1	EN 1364-1	
test report nr	2008-Efectis-R0798	133204	2012-Efectis-R9244a	2014-Efectis-R770	2014-Efectis-R774	
class. Report nr	2008-Efectis-R0798	-	-	-	-	
fire resistant classification	E30, EI30, EW30	E30, EI30, EW30	E30, EI30, EW30	E30, EI30, EW30	E30, EI30, EW30	
infill 1	PILKINGTON, Pyrostop 30/10, 15mm	AGC, Pyrobel 16EG, 21mm	Pilkington Pyrostop 30-25, 32mm	CONTRAFLAM STRUCTURE 30, 23mm	CONTRAFLAM 30 IGU, 37, 3mm	
infill 2	652 x 902mm	652 x 904mm	886 x 894mm	1810 x 1092mm	750 x 3000mm	
infill 3	PILKINGTON, Pyrostop 30/10, 15mm	AGC, Pyrobel 16, 17mm	Pilkington Pyrostop 30-25, 32mm	CONTRAFLAM STRUCTURE 30, 23mm	CONTRAFLAM 30 IGU, 37, 3mm	
infill 4	678 x 902mm	1392x1900mm	912 x 894mm	1950 x 3200mm	1500 x 3200mm	
infill 5	1392 x 902mm	1392x1900mm	PANEL (PRONATECT-H 25mm) + (2 x 1,5mm)	CONTRAFLAM 30 CLIMAPLUS, 32mm	CONTRAFLAM 30 IGU, 46,8mm (triple)	
infill 6	1392 x 1902mm	Qpanel eclips Type (Qpr27,5 (28mm))	875 x 855mm	900 x 2500mm	1500 x 950mm	
infill 7	1392 x 1902mm	Qpanel eclips Type (Qpr27,5 (28mm))	912 x 522mm	CONTRAFLAM 30 CLIMAPLUS, 32mm	1500 x 3200mm	
reinforcement profile	1392 x 1902mm	1395x900mm	875 x 1912mm	846 x 535mm		
	-	-	Pilkington Pyrostop 30-25, 32mm	CONTRAFLAM 30 CLIMAPLUS, 32mm		
	-	-	912 x 522mm	1950 x 570mm	-	
	-	-	Pilkington Pyrostop 30-25, 32mm	-	-	
	-	-	886 x 1910mm	-	-	
	NO	NO	NO	NO	NO	



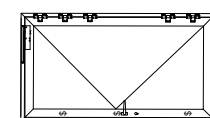
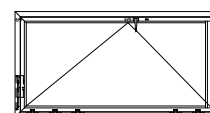
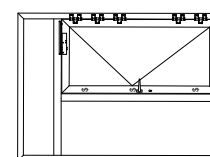
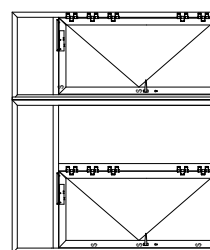
Fire classification following EN 13501-2 glazed partitions : 2008- Efectis- R0935 [Rev.2]

glazed partition	
side glazing beads	Cold side
dimension outer frame B x H (mm)	3160 x 3940
supporting construction	high density concrete
laboratory	EFFECTIS Netherlands
standard	EN 1364-1
test report nr	2016-Efectis-R000165
class. Report nr	2016-Efectis-R000648
fire resistant classification	E30, EI 20, EW30
infill 1	
infill 2	CONTRAFLAM 30 , 16mm
infill 3	1810 x 1092mm
infill 4	1950 x 320mm
infill 5	CONTRAFLAM 30 CLIMAPLUS , 32mm
infill 6	1950 x 250mm
infill 7	CONTRAFLAM 30 CLIMAPLUS , 32mm
infill 8	846 x 186mm
infill 9	CONTRAFLAM 30 , 16mm
infill 10	846 x 535mm
infill 11	CONTRAFLAM 30 CLIMAPLUS , 32mm
infill 12	1950 x 570mm
reinforcement profile	No



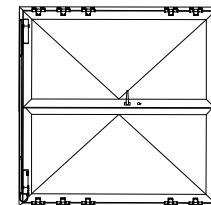
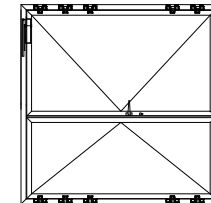
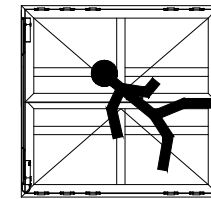
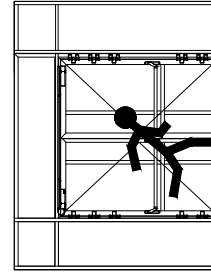
Fire classification following EN 13501-2 doors : 2008- Efectis- R0936 [Rev.2]

	TEST 4.1 (30)	TEST 4.2 (30)	TEST 5 (30)	TEST 6 (30)
	single door	single door	combined single door	2 times Single leaf door
opening type	outward opening	outward opening	outward opening	outward opening
side glazing beads	Cold side	Fire side	Cold side	Fire side
dimension outer frame B x H (mm)	1300 x 2353	1396 x 2656	2000 x 2700	3474 x 2980
dimension door leaf B x H (mm)	1204 x 2300	1300 x 2600	1000 x 2100	1100 x 2295 + 1100 x 2300
total opening	1164 x 2285	1280 x 2283	960 x 2085	1060 x 2267 + 1060 x 2285
supporting construction	low density 150mm, 675 kg/m³	low density 150mm, 675kg/m³	flexible construction, 100mm	low density 150mm, 675kg/m³
laboratory	EFFECTIS Netherlands	EFFECTIS Netherlands	ITB Poland	EFFECTIS Netherlands
standard	EN 1634-1:2000	EN 1634-1:2000	EN 1634-1:2000	EN 1634-1:2000
test report nr	2008-Efectis-R0174 Rev.1	2008-Efectis-R0800	LP-557-1-08	2008-Efectis-R0802
class. Report nr	2008-Efectis-R0175	2008-Efectis-R0801	-	2008-Efectis-R0803
fire resistant classification	E30 / EI120 / EI230 / EW30	EI1 30	EI1 30	EI1 30 - E45 - EW45
infill 1	PILKINGTON, Pyrostop 30/10, 15mm	AGC, pyrobel 16 EG, 17.3mm	PILKINGTON, Pyrostop 30/10, 15mm	PILKINGTON, Pyrostop 30/10, 15mm
infill 2	1050 x 2136	1136 x 2396	772 x 2074	936 x 2163
infill 3	-	-	PILKINGTON, Pyrostop 30/10, 15mm	PILKINGTON, Pyrostop 30/10, 15mm
infill 4	-	-	836 x 1936	880 x 2274
infill 5	-	-	PILKINGTON, Pyrostop 30/20, 18mm	PILKINGTON, Pyrostop 30/10, 15mm
supplier hinges	Dr Hahn	Dr Hahn	1886 x 450	936 x 2131
reference hinges	065.6380.XX	065.6380.XX	-	PILKINGTON, Pyrostop 30/20, 18mm
supplier locking device active leaf	WILKA	BKS	-	2294 x 530
ref locking device active leaf	061.7302.ZC	061.7840.--	-	PILKINGTON, Pyrostop 30/20, 18mm
supplier locking device passive leaf	-	-	-	1152 x 530
ref locking device passive leaf	-	-	-	Dr Hahn
reinforcement profile	NO	NO	NO	065.6380.XX
				BKS + WILKA
				061.7843.-- +
				061.7303.ZC
				-
				electrical receiver 061.6291.-- & KABA
				cylinder (for BKS lock)
				YES



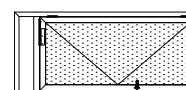
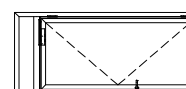
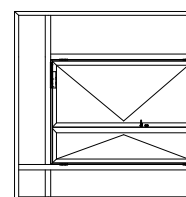
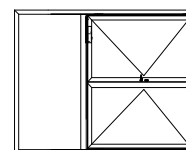
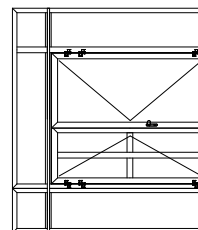
Fire classification following EN 13501-2 doors : 2008- Efectis- R0936 [Rev.2]

	TEST 7 (30)	TEST 8 (30)	TEST 9 (30)	TEST 10 (30)
	double door	double door	double door panic EN179	double door panic EN1125
opening type	outward opening	outward opening	outward opening	outward opening
side glazing beads	Cold side	Fire side	Cold side	Cold side
dimension outer frame B x H (mm)	2353 x 2396mm	2353 x 2396mm	2300 x 2353mm	3940 x 2985mm
dimension door leaf B x H (mm)	(2x1160) x 2300	(1010 + 1310) x 2300	(2x1120) x 2300	(2x1160) x 2300
total opening	2260 x 2285	2260 x 2285	2164 x 2285mm	2260 x 2285
supporting construction	low density 200mm, 800kg/m³	low density 200mm, 800kg/m³	brickwork construction	associated supp. Construction, double door in glazed wall
laboratory	ITB Poland	ITB Poland	Warrington Fire Gent	IFT Germany
standard	EN 1634-1:2000	EN 1634-1:2000	EN 1634-1:2000	EN 1634-1:2000
test report nr	LP-557-2-08	LP-557-3-08	13521A	271 37150
class. Report nr				
fire resistant classification	EI1	EI1	EI130, E45, EW45	EI230
infill 1	PILKINGTON, Pyrostop 30/10, 15mm	AGC, pyrobel 16 EG, 39mm (16-9-6)	AGC, pyrobel 16EG, 39mm	PILKINGTON, Pyrostop 30-10, 15mm
	996 x 2136mm	846 x 2136mm	2x (638 x 1037)	653 x 2279mm
infill 2	PILKINGTON, Pyrostop 30/10, 15mm	AGC, pyrobel 16 EG, 39mm (16-9-6)	AGC, pyrobel 16EG, 39mm	
	996 x 2136mm	1146 x 2136mm	2x (248 x 1037)	
infill 3			AGC, pyrobel 16EG, 39mm	
			2x (638 x 997)	
infill 4			AGC, pyrobel 16EG, 39mm	
			2x (248 x 997)	
infill 5				
supplier hinges	Dr Hahn	Dr Hahn	SAVIO	Dr Hahn
reference hinges	065.6380.XX	065.6380.XX	Savio Meccanica 1146.3/62.5	065.6381.XX + 065.6382.XX
supplier locking device active leaf	BKS	BKS	BKS	BKS, panic EN1125
ref locking device active leaf	061.7841.-	061.7840.-	061.7845.-	061.7844.-
supplier locking device passive leaf	-	-	BKS	BKS, panic EN1125
ref locking device passive leaf	-	-	061.6612.ZC	061.6612.ZC
supplier handle active leaf	BKS	BKS	BKS	BKS,
reinforcement profile	NO	NO	NO	YES



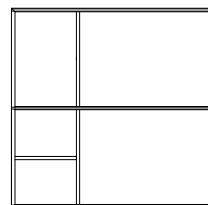
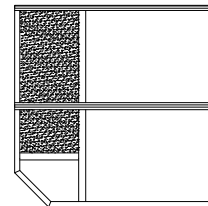
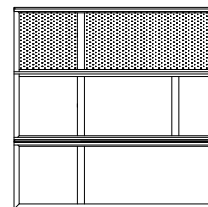
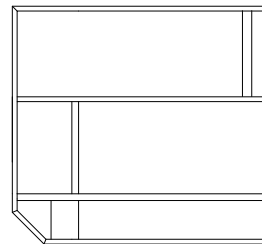
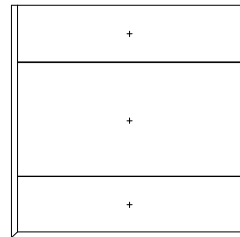
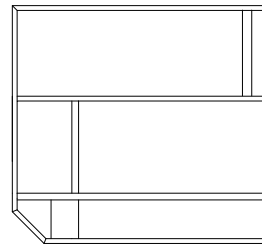
Fire classification following EN 13501-2 doors : 2008- Efectis- R0936 - [Rev.2]

	TEST 11 (30)	TEST 11 (30)	TEST 12 (30)	TEST 13 (30)	
	single door	single door	double door	double door	double door
opening type	outward opening	inward opening	outward opening	outward opening	outward opening
side glazing beads	Fire side	Cold side	Cold side	Fire side	Fire side
dimension outer frame B x H (mm)	1466 x 3200	(1303+703) x 2750	3600 x 3450	2786 x 3500	3960 x 3450
dimension door leaf B x H (mm)	1300 x 2750	1300 x 2750	3600 x 3450	1300 x 2010	1320 / 1000 x 2750
total clear opening	1260 x 2738	1260 x 2738	1946 x 2738	1260 x 1997	2260 x 2722
supporting construction	low density 150mm 650 kg/m³	low density 150mm 650 kg/m³	low density 150mm 650 kg/m³	low density 150mm 650 kg/m³	Associated supporting construction
test date	02/05/2012	02/05/2012	03/05/2012	03/2015	01/03/2016
laboratory	EFFECTIS Netherlands	EFFECTIS Netherlands	EFFECTIS Netherlands	EFFECTIS Netherlands	EFFECTIS Netherlands
standard	EN 1634-1:2008	EN 1634-1:2008	EN 1634-1:2008	EN 1634-1:2014	EN 1634-1:2014
test report nr	2012-Efectis-R0751	2012-Efectis-R0695(Rev.1)	2012-Efectis-R9119	2014-Efectis-R000970	2016-Efectis-R000316
class. Report nr	E45, EI1 15, EI2 30, EW30	E45, EI1 30, EI2 45, EW30	E11 30, EI2 30, EW30	E45, EI1 30, EI2 45, EW30	2016-Efectis-R000649
fire resistant classification	E45, EI1 15, EI2 30, EW30	E45, EI1 30, EI2 45, EW30	E11 30, EI2 30, EW30	E45, EI1 30, EI2 45, EW30	E30, EI1 30, EI1 30, EW 30
infill 1	WPI panel, 47mm	CONTRAFLAM 30 CLIMAPLUS, 34mm	CONTRAFLAM 30, 16mm	CONTRAFLAM 30-2 laminated, 24mm	PILKINGTON, Pyrostop 30-10, 15mm
infill 2	1134 x 2584mm	1134 x 2584mm	1137 x 2544mm	1134 x 1843mm	1154 x 2584mm
infill 3	CONTRAFLAM 30 CLIMAPLUS, 30mm	CONTRAFLAM 30 CLIMAPLUS, 30mm		CONTRAFLAM 30-2 laminated, 24mm	PILKINGTON, Pyrostop 30-10, 15mm
infill 4	1350 x 295mm	1350 x 295mm		1134 x 1843mm	671 x 2727mm
infill 5	-	-		CONTRAFLAM 30-2 laminated, 28mm	PILKINGTON, Pyrostop 30-10, 15mm
infill 6	-	-		2630 x 1234mm	2350 x 543mm
supplier hinges	Simonswerk	Simonswerk	Simonswerk	Fapim	Fapim Lora+
reference hinges	065.6386.XX	065.6386.XX	065.6394.XX	065.8893.XX	065.8893.XX
supplier locking device active leaf	FUHR	BKS	BKS	BKS	Fuhr
ref locking device active leaf	061.8133.ZC	061.6655.ZC	161.6655.ZC	1BF.7465.zc (SECURY 1911)	061.8240.zc (Panic, Fu-E)
supplier locking device passive leaf	-	-	-	BKS	Fuhr
ref locking device passive leaf	-	-	-	061.6634.ZC	061.8300.zc
specials	-	-	-	GEZE boxer	GEZE TS 5000 L-ISM
reinforcement profile	NO	NO	YES, cold side	NO	Cold side



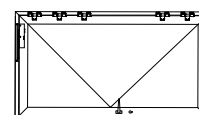
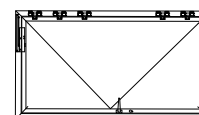
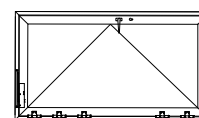
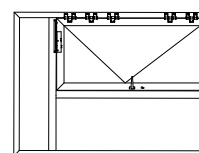
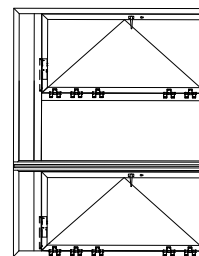
Fire classification following EN 13501-2 glazed partitions : 2008- Efectis- R0933 [Rev.2]

	TEST 1 (60)		TEST 2 (60)		TEST 3 (60)		TEST 4 (60)		TEST (60)	
	glazed partition	glazed partition	glazed partition	glazed partition	glazed partition	glazed partition	glazed partition	glazed partition	glazed partition	glazed partition
fire side - glazing beads dimension outer frame B x H (mm)	Fire side 2960 x 2960	Fire side 2960 x 2960	Cold side 2960 x 2960	Fire side 2960 x 2960	Fire side 3940 x 3450	Cold side 3070 x 3116	Fire side 3940 x 3450	Fire side 3940 x 3450	Fire side 3940 x 3450	Fire side 3940 x 3450
supporting construction	high density, concrete	low density, aerated concrete 678kg/m³	high density, concrete	high density, concrete	test frame	low density, aerated concrete 675kg/m³	test frame	low density, aerated concrete 675kg/m³	test frame	test frame
test date	11/01/2008	4/06/2008	8/08/2008	27/05/2013	27/05/2013	27/05/2013	27/05/2013	27/05/2013	27/05/2013	27/05/2013
laboratory	EFFECTIS Netherlands	EFFECTIS Netherlands	IFT Nürnberg	EFFECTIS Netherlands	EFFECTIS Netherlands	EFFECTIS Netherlands	EFFECTIS Netherlands	EFFECTIS Netherlands	EFFECTIS Netherlands	EFFECTIS Netherlands
standard	EN 1364-1	EN 1364-1	EN 1364-1	EN 1364-1	EN 1364-1	EN 1364-1	EN 1364-1	EN 1364-1	EN 1364-1	EN 1364-1
test report nr	2008-Efectis-R0171 Rev.1	2008-Efectis-R0648	2008-Electis-R0652	2013-Electis-R0280a	2013-Electis-R0773	2014-Electis-R0773	2014-Electis-R000647	2016-Electis-R000647	2016-Electis-R000647	2016-Electis-R000647
class. Report nr	2008-Electis-R0172	2008-Electis-R0652	2008-Electis-R0652	2013-Electis-R0280a	2013-Electis-R0773	2014-Electis-R0773	2014-Electis-R000647	2016-Electis-R000647	2016-Electis-R000647	2016-Electis-R000647
fire resistant classification	E60-EI60-EW60	E60-EI60-EW60	E60-EI60-EW60	E60-EI60-EW60	E60-EI60-EW60	E60-EI60-EW60	E60-EI60-EW60	E60-EI60-EW60	E60-EI60-EW60	E60-EI60-EW60
infill 1	PILKINGTON, Pyrostop 60/101, 23mm	PILKINGTON, Pyrostop 60/101, 23mm	PILKINGTON, Pyrostop 60/101, 23mm	AGC, pyrobel 6025 EG, 45mm	CONTRAFAM 60-3	CONTRAFAM STRUCTURE 60 GU 48mm	CONTRAFAM 60-3	CONTRAFAM 60-3	CONTRAFAM 60-3	CONTRAFAM 60-3
infill 2	1394 x 1901mm	652 x 904mm	652 x 904mm	886 x 884	696 X 592 X 27 mm (corner 466 x 466 mm)	750 x 3000 mm	696 X 592 X 27 mm (corner 466 x 466 mm)	696 X 592 X 27 mm (corner 466 x 466 mm)	696 X 592 X 27 mm (corner 466 x 466 mm)	696 X 592 X 27 mm (corner 466 x 466 mm)
infill 3	PILKINGTON, Pyrostop 60/101, 23mm	PILKINGTON, Pyrostop 60/101, 23mm	PILKINGTON, Pyrostop 60/101, 23mm	AGC, pyrobel 6025 EG, 45mm	CONTRAFAM 60-3 Cinaplus	CONTRAFAM STRUCTURE 60 GU 48mm	CONTRAFAM 60-3 Cinaplus	CONTRAFAM 60-3 Cinaplus	CONTRAFAM 60-3 Cinaplus	CONTRAFAM 60-3 Cinaplus
infill 4	1394 x 1901mm	1392x1900mm	1392x1900mm	912 x 884	1500 x 770 x 39 mm	1500 x 3000 mm	1500 x 770 x 39 mm	1500 x 770 x 39 mm	1500 x 770 x 39 mm	1500 x 770 x 39 mm
infill 5	PILKINGTON, Pyrostop 60/101, 23mm	PILKINGTON, Pyrostop 60/101, 23mm	PILKINGTON, Pyrostop 60/101, 23mm	PANEL PROMATECT H 25 + (2 X 2.5)	CONTRAFAM 60-3 with SGG STADIP PROTECT 33.2	CONTRAFAM STRUCTURE 60 GU 48mm	CONTRAFAM 60-3 with SGG STADIP PROTECT 33.2	CONTRAFAM 60-3 with SGG STADIP PROTECT 33.2	CONTRAFAM 60-3 with SGG STADIP PROTECT 33.2	CONTRAFAM 60-3 with SGG STADIP PROTECT 33.2
infill 6	654 x 907mm	1392x1900mm	1392x1900mm	875 X 887	1500 x 3000 x 41 mm	1500 x 3000 x 41 mm	1500 x 3000 x 41 mm	1500 x 3000 x 41 mm	1500 x 3000 x 41 mm	1500 x 3000 x 41 mm
infill 7	PILKINGTON, Pyrostop 60/101, 23mm	IQ panel ECLIPS, type IQpr36, 44mm	AGC, pyrobel 6025 EG, 45mm	AGC, pyrobel 6025 EG, 45mm	CONTRAFAM 60-3 Cinaplus	CONTRAFAM 60-3 Cinaplus	CONTRAFAM 60-3 Cinaplus	CONTRAFAM 60-3 Cinaplus	CONTRAFAM 60-3 Cinaplus	CONTRAFAM 60-3 Cinaplus
reinforcement profile configuration	YES, one side	YES, both sides	YES, both sides	YES, both sides	CONTRAFAM 60-3 Cinaplus	CONTRAFAM 60-3 Cinaplus	CONTRAFAM 60-3 Cinaplus	CONTRAFAM 60-3 Cinaplus	CONTRAFAM 60-3 Cinaplus	CONTRAFAM 60-3 Cinaplus
					1500 x 2500 x 41 mm	1500 x 2500 x 41 mm	1500 x 2500 x 41 mm	1500 x 2500 x 41 mm	1500 x 2500 x 41 mm	1500 x 2500 x 41 mm
					CONTRAFAM 60-3 Cinaplus with SGG STADIP PROTECT 33.2	CONTRAFAM 60-3 Cinaplus with SGG STADIP PROTECT 33.2	CONTRAFAM 60-3 Cinaplus with SGG STADIP PROTECT 33.2	CONTRAFAM 60-3 Cinaplus with SGG STADIP PROTECT 33.2	CONTRAFAM 60-3 Cinaplus with SGG STADIP PROTECT 33.2	CONTRAFAM 60-3 Cinaplus with SGG STADIP PROTECT 33.2
					1500 x 218 x 41 mm	1500 x 218 x 41 mm	1500 x 218 x 41 mm	1500 x 218 x 41 mm	1500 x 218 x 41 mm	1500 x 218 x 41 mm
					886 X 1910	886 X 1910	886 X 1910	886 X 1910	886 X 1910	886 X 1910
					YES, both sides	YES, both sides	YES, both sides	YES, both sides	YES, both sides	YES, both sides
					NO	NO	NO	NO	NO	NO



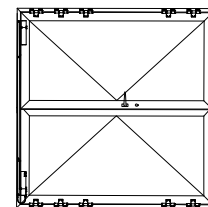
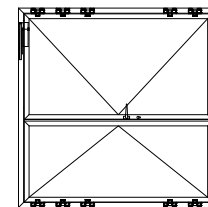
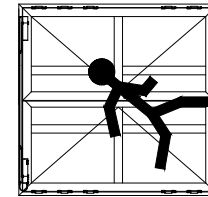
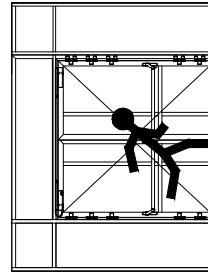
Fire classification following EN 13501-2 doors : 2008- Efectis- R0934 [Rev.3]

	TEST 4.1 (60)	TEST 4.2 (60)	TEST 4.3 (60)	TEST 5 (60)	TEST 6 (60)
	single door	single door	single door	combined single door	2 times Single leaf door
opening type	outward opening	outward opening	outward opening	outward opening	outward opening
side glazing beads	Cold side	Fire side	Fire side	Cold side	Fire side
dimension outer frame B x H (mm)	1396 x 2353	1396 x 2353	1396 x 2658mm	2000 x 2700	3474 x 2700mm
dimension door leaf B x H (mm)	1300 x 2300	1300 x 2300	1300 x 2600	1000 x 2100	1300 x 2300mm
total opening	1260 x 2285	1260 x 2285	1260 x 2590	960 x 2085	1260 x 2285mm
supporting construction	low density 150mm 675 kg/m ³	low density 150mm 675kg/m ³	low density 150mm, 675kg/m ²	flexible construction	low density 150mm
test date	26/11/2007	15/05/2008	1/09/2008	7/03/2008	30/06/2008
laboratory	EFFECTIS Netherlands	EFFECTIS Netherlands	EFFECTIS Netherlands	ITB Poland	EFFECTIS Netherlands
standard	EN 1634-1:2000	EN 1634-1:2000	EN 1634-1:2000	EN 1634-1:2000	EN 1634-1:2000
test report nr	2008-Efectis-R0165rev.1	2008-Efectis-R0647	2008-Efectis-R0656	No. 1019.5/07	2008-Efectis-R0649
class. Report nr	2008-Efectis-R0166	2008-Efectis-R0651	2008-Efectis-R0657	EI1	2008-Efectis-R0653
fire resistant classification	E60 - EI160-EI260-EW60	E60, EI1 45, EI2 60, EW60	E60, EI1 45, EI2 60, EW60		EI60, EI1 60, EI2 60, EW60
infill 1	AGC, pyrobel 25MF, 25mm	PILKINGTON, Pyrostop 60/101, 23mm	PILKINGTON, Pyrostop 60/181, 40mm	PILKINGTON, Pyrostop 60/101, 23mm	PILKINGTON, Pyrostop 60/101, 23mm
infill 2	1136 x 2136mm	1136 x 2136mm	1136 x 2436mm	2136 x 936mm	936 x 2136mm
infill 3	-	-	-	PILKINGTON, Pyrostop 60/101, 23mm	PILKINGTON, Pyrostop 60/101, 23mm
infill 4	-	-	-	2274 x 672mm	936 x 2136mm
infill 5	-	-	-	PILKINGTON, Pyrostop 60/201, 27mm	PILKINGTON, Pyrostop 60/101, 23mm
supplier hinges	Dr Hahn	Dr Hahn	Dr Hahn	250 x 1886mm	2274 x 880mm
reference hinges	065.6380.XX, A851_Y453	065.6380.XX, A851_Y453	065.6380.XX, A851_Y453	PILKINGTON, Pyrostop 60/201, 27mm	PILKINGTON, Pyrostop 60/201, 27mm
supplier locking device active leaf	WILKA	BKS	WILKA	2094 x 250mm	1152 x 250mm
ref locking device active leaf	061.7302.ZC, M835.2Q58NOL	061.7841... B1838 0211/0212	061.7303.ZC, M835.2Q58NOL	PILKINGTON, Pyrostop 60/201, 27mm	PILKINGTON, Pyrostop 60/201, 27mm
supplier locking device passive leaf	-	-	-	Dr Hahn	065.6381.XX
ref locking device passive leaf	-	-	-	065.6381.XX	BKS : WILKA
reinforcement profile	NO	NO	NO	061.7843... B1838 0814 : 061.7303.ZC, M835.2Q58NOL	061.7843... B1838 0814 : 061.7303.ZC, M835.2Q58NOL
				electrical receiver BKS: 061.6291... B 92430013	electrical receiver BKS: 061.6291... B 92430013
				YES	YES



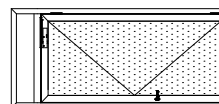
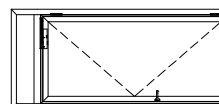
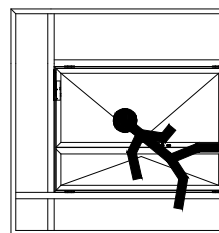
Fire classification following EN 13501-2 doors : 2008- Efectis- R0934 [Rev.3]

	TEST 7 (60)	TEST 8 (60)	TEST 9 (60)	TEST 10 (60)
	double door	double door	double door panic EN179	double door panic EN1125
opening type	outward opening	outward opening	outward opening	outward opening
side glazing beads	Cold side	Fire side	Cold side	Fire side
dimension outer frame B x H (mm)	2300 x 2396	2353 x 2396mm	2320 x 2363mm	3940 x 2985mm
dimension door leaf B x H (mm)	(2x1366) x 2300	(1010 + 1310) x 2305	(2x1366) x 2300	(2x1150) x 2305
total opening		2164 x 2285mm	2164 x 2285mm	2260 x 2285
supporting construction	low density 150mm	low density 150mm	flexible construction	associated supp. Construction, double door in glazed wall
test date	22/11/2007	6/03/2008	18/04/2008	13/08/2008
laboratory	ITB Poland	ITB Poland	IFT GmbH	EFFECTIS Netherlands
standard	EN 1634-1:2000	EN 1634-1:2000	EN 1634-1:2000	EN 1634-1:2000
test report nr	No. 1019.1/07	No. 1019.4/07	271 35444	2008-Efectis-R0650
class. Report nr	EI1	EI2		2008-Efectis-R0654
fire resistant classification			classification E60 - EW60	E60, EI1 45, EI2 60, EW 60
infill 1	PILKINGTON, Pyrostop 60/101, 23mm	AGC, pyrobel 60/25 EG, 45mm (30.4-9-6)	AGC, pyrobel 60/25 EG, 45mm	PILKINGTON, Pyrostop 60/101, 23mm
	996 x 2136	846 x 2136mm	4x (638 x 1037)	2352 x 535mm
infill 2	PILKINGTON, Pyrostop 60/101, 23mm	AGC, pyrobel 60/25 EG, 45mm (30.4-9-6)	AGC, pyrobel 60/25 EG, 45mm	
	996 x 2136	1146 x 2136mm	4x (248 x 1037)	
supplier hinges	Dr Hahn	Dr Hahn	Simonswerk	Dr Hahn
reference hinges	065.6380.XX, A851_Y453	065.6380.XX, A851_Y453	065.6387.XX,	065.6381.XX + 065.6382.XX
supplier locking device active leaf	BKS	BKS	BKS,	BKS, panic EN1125
ref locking device active leaf	061.7840-,, 1838	061.7840-,, 1838	061.7844-,, BF 7789	061.7844 -
supplier locking device passive leaf	-	-	BKS, 1890	BKS, panic EN1125
ref locking device passive leaf	-	-	061.6612.ZC	061.6612.ZC
reinforcement profile	NO	NO	NO	YES



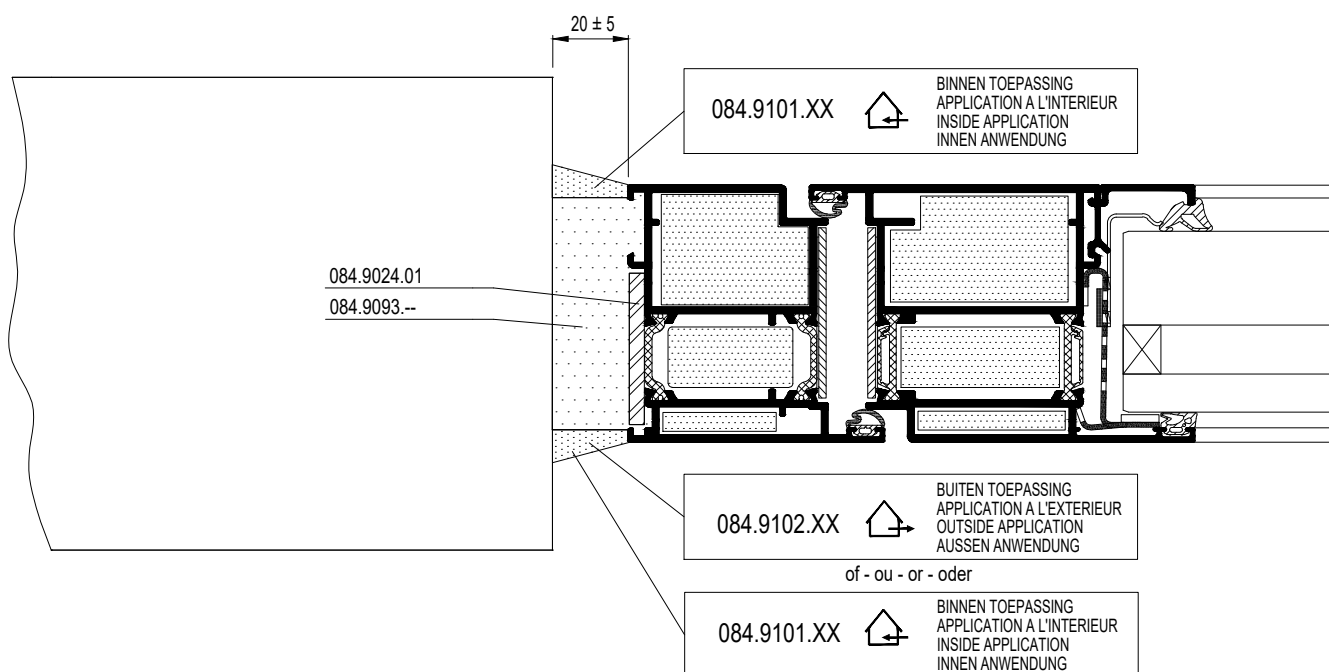
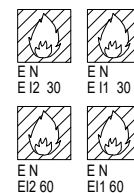
Fire classification following EN 13501-2 doors : 2008- Efectis- R0934 - [Rev.2]

CS 77-FP EI60 Test program REYNAERS ALUMINIUM NV			
	TEST 11 (60)	TEST 12 (60)	TEST 13 (60)
	single door	single door	double door
opening type	outward opening	outward opening	outward opening
side glazing beads	away from fire	away from fire	towards the fire
dimension outer frame B x H (mm)	1466 x 3200	1466 x 3200	(1303+693) x 2750
dimension door leaf B x H (mm)	1300 x 2750	1300 x 2750	3640 x 3500
total opening	1506 x 3240	1506 x 3240	1946 x 2736
supporting construction	low density 150mm 650 kg/m³	low density 150mm 650 kg/m³	high density 250mm 1200 kg/m³
test date	15/06/2012	15/06/2012	31/01/2013
laboratory	EFFECTIS Netherlands	EFFECTIS Netherlands	EFFECTIS Netherlands
standard	EN 1634-1:2008	EN 1634-1:2008	EN 1634-1:2008
test report nr	2012-Efectis-R9245b	2012-Efectis-R9245a	2012-Efectis-R9504
class. Report nr			
fire resistant classification	E60, EI1 30, EI2 30, EW60	E60, EI1 45, EI2 60, EW60	E60, EI1 45, EI2 60, EW60
infill 1	WPI panel, 52mm	CONTRAFAM 60 CLIMAPLUS, 41mm	CONTRAFAM 60-3, 27mm
infill 2	1134 x 2584mm	1134 x 2584mm	1137 x 2544mm
infill 3	1350 x 295mm	1350 x 295mm	784 x 2725mm
infill 4	-	-	-
infill 5	-	-	-
supplier hinges	Dr Hahn	Dr Hahn	Dr Hahn
reference hinges	065.6714.XX	065.6714.XX	065.6714.XX
supplier locking device active leaf	FUHR	BKS	BKS
ref locking device active leaf	061.8133.ZC	061.6655.ZC	061.6659.ZC
supplier locking device passive leaf	-	-	BKS
ref locking device passive leaf	-	-	061.6822.-
reinforcement profile	NO	NO	YES




084.9101.XX
084.9102.XX
084.9024.--
084.9093.--
084.9094.--
084.9095.--

+  095.J300.00 = 084.9095.--



	
084.9093.--	095.J300.00
084.9102.--	095.H900.00
084.9101.--	095.H900.00

	#	
084.9095.--	10	084.9093.--
FIRE-BOX	1	095.J300.00
	1	084.9094.--

The fixing to the structural work is done directly through the profiles by means of for instance screws and plugs or steel anchors.

- The fixings may not be applied less than 40 mm from the edge of the main structure.
- The anchoring may in no way influence the bearing power of the adjacent building parts.
- All anchorings, as far as they are not made of aluminium or stainless steel, should be adequately corrosion-protected and may not attack the aluminium themselves.
- When fitting the elements, sufficient fixings are required.

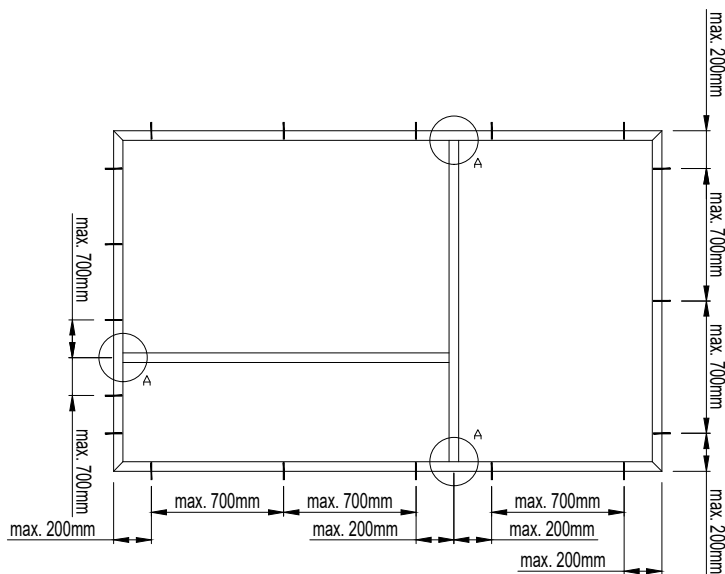
At least two fixings should be applied on all sides: the maximum distance to the corner is at least 200mm.

- The distance between the fixings is maximum 700mm.
- Where transom/mullions and outer frame profiles meet, the fixing must be applied maximum 200 mm from both sides of the transom/mullion (A). In this way, expansion and shrinkage of the transom/mullion (because of fluctuations of temperature) are possible without any damage.

Remark:

the anchorings should be applied in such a way that possible expansion/shrinkage of the window is not obstructed.

- ! Screws should always be installed in the dry zone of the wall. It should be prevented that drainage water enters the profiles through any opening.



The fixing to the structural work is done directly through the profiles by means of for instance screws and plugs or steel anchors.

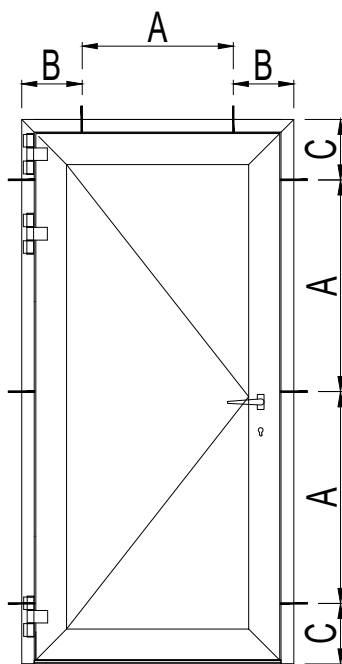
- The fixings may not be applied less than 40 mm from the edge of the main structure.
- The anchoring may in no way influence the bearing power of the adjacent building parts.
- All anchorings, as far as they are not made of aluminium or stainless steel, should be adequately corrosion-protected and may not attack the aluminium themselves.
- When fitting the elements, sufficient fixings are required.

-We recommend to position the fixings at the height of each hinge and locking point.

Remark:

the anchorings should be applied in such a way that possible expansion/shrinkage of the window is not obstructed.

- !** Screws should always be installed in the dry zone of the wall. It should be prevented that drainage water enters the profiles through any opening.



A : C.T.C DISTANCE

B : DISTANCE FROM CORNER HORIZONTAL

C : DISTANCE FROM CORNER VERTICAL



EI 30

FOA 2017-EFECTIS-R001359



EI 60

FOA 2017-EFECTIS-R001360

BUILDING CONNECTIONS TO BE USED.

A FLEXIBLE CONSTRUCTION

B LOW DENSITY

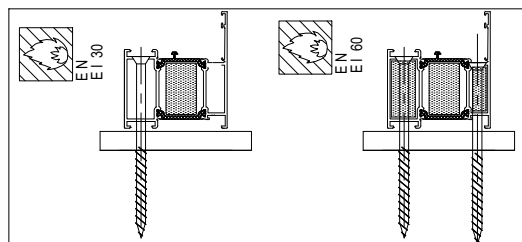
- Low density rigid supporting construction, Volumetric mass. $\geq 600\text{kg/m}^3$, $D \geq 150\text{mm}$

C HIGH DENSITY

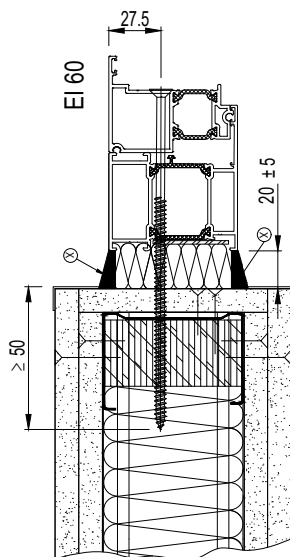
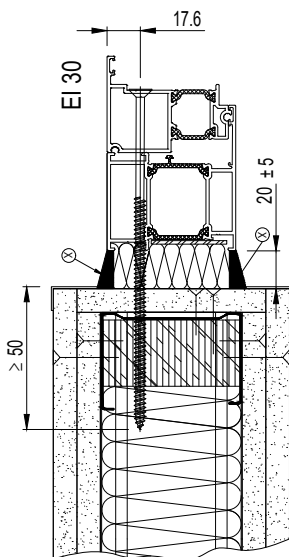
- High density rigid supporting construction, Volumetric mass. $\geq 1600\text{kg/m}^3$, $D \geq 115\text{mm}$

D BRICKWORK

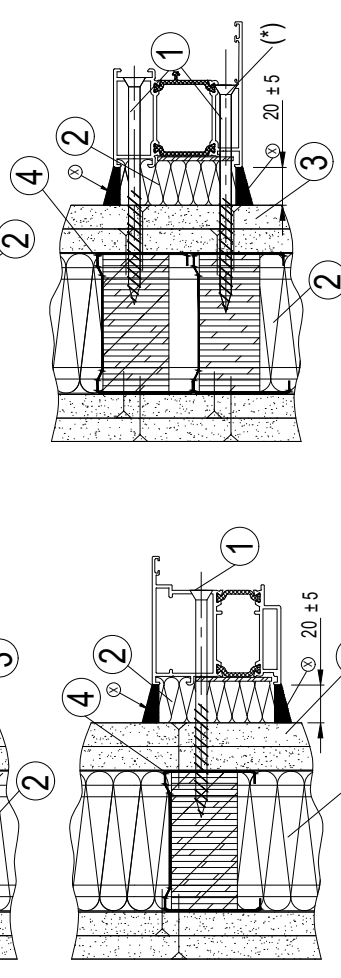
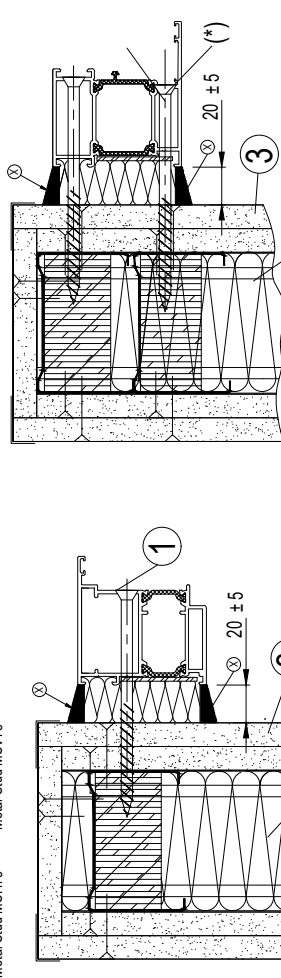
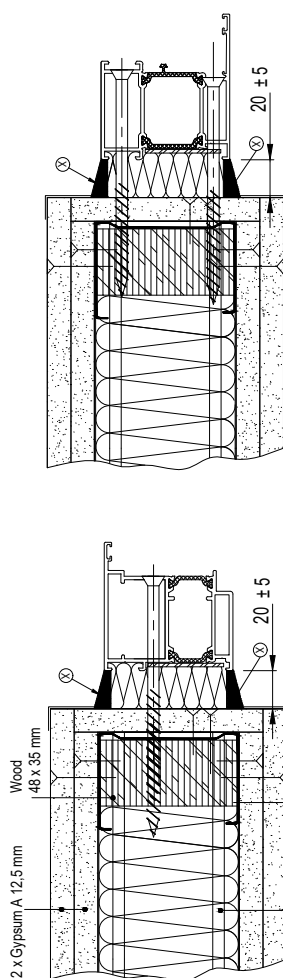
- Brickwork (masonry) supporting construction, Volumetric mass. $\geq 900\text{kg/m}^3$, $D \geq 115\text{mm}$



(*) ENKEL
SEULENMENT
EINZEL
SINGLE

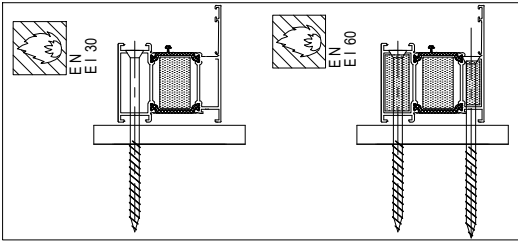


SEE REPORT EFR-20-V-000080



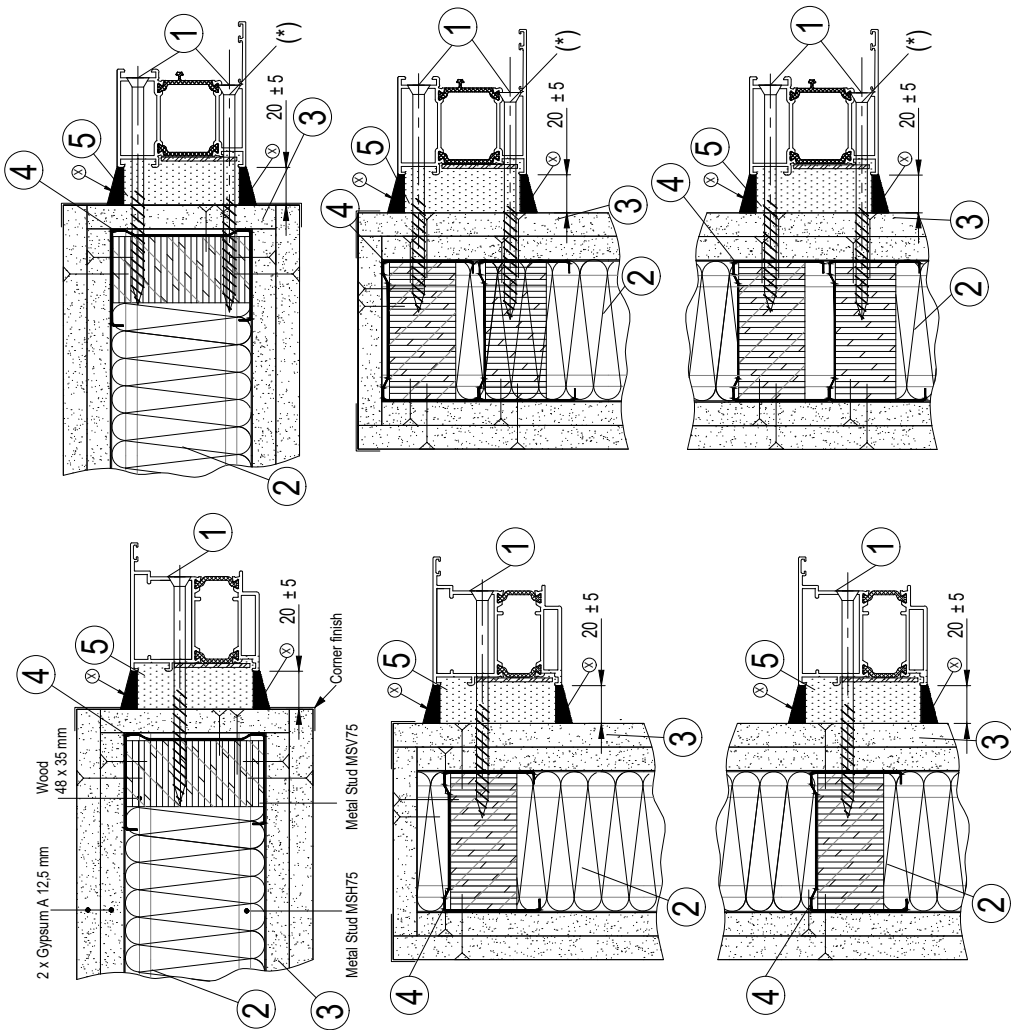
- ① Screw type:
Heco Topix 120x6(countersunk head) A2 stainless steel Ei30, OR
SPAX screw $\geq 6 \times 100$ MM Ei30 & Ei60, OR
HILTI HUS 6x120, ...
- ② Mineral wool according to EN 13501-1
- ③ Gypsum plates fire-proof 12.5mm, 2 layers
- ④ Steel profile MSV75 73.8x51x0.6

PRINCIPE TEKENINGEN, ZONDER KOELMATERIAAL
DESSINS PRINCPE, SANS MATERIAUFRAISSAGE
PRINCIPLE DRAWINGS, WITHOUT COOLING MATERIAL
PRINZIP ZEICHNUNGEN, OHNE KÜHLUNG MATERIAL

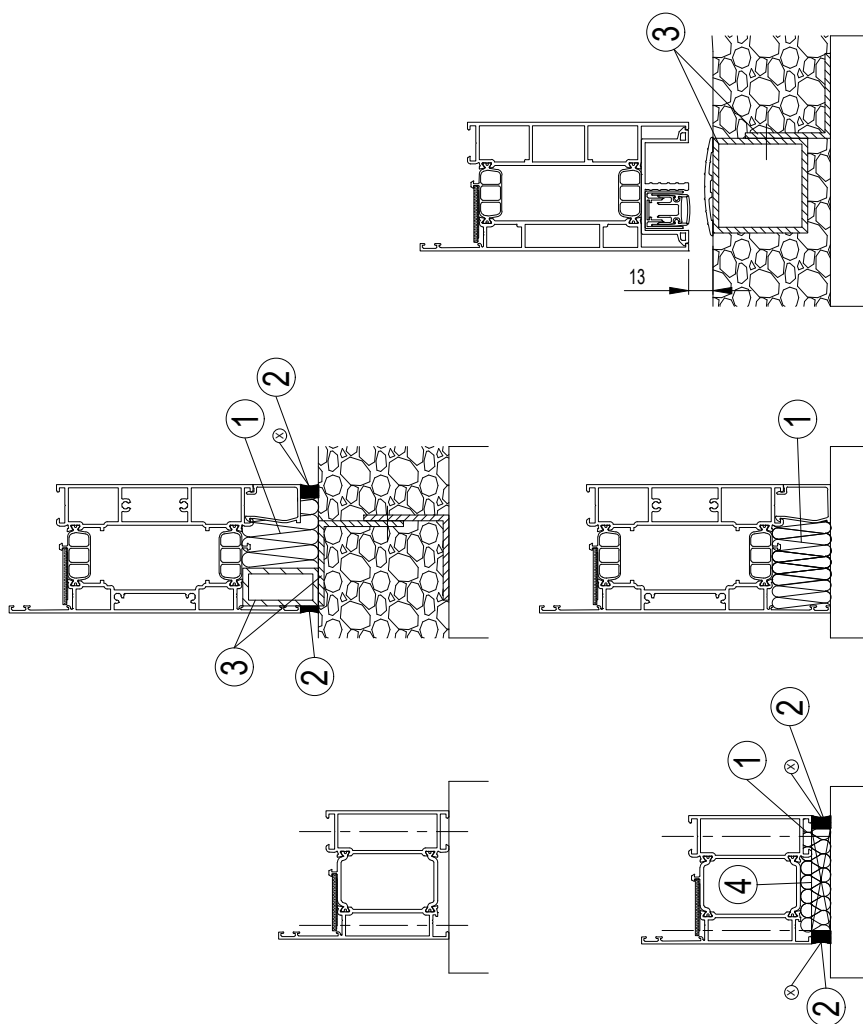


(*) ENKEL
SEULEMENT
EINZEL
SINGLE

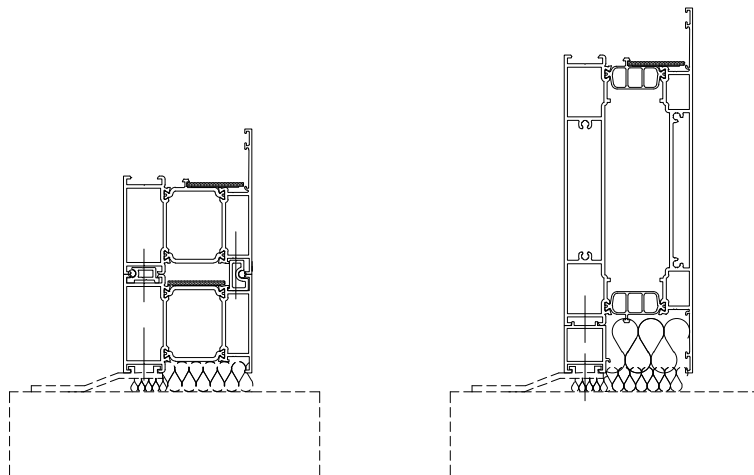
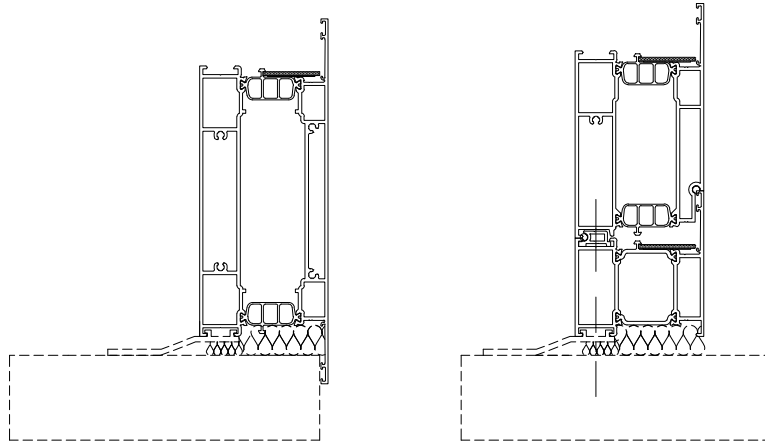
PRINCIPE TEKENINGEN, ZONDER KOELMATERIAAL
DESSINS PRINCE, SANS WATERAUFSSAGE
PRINCIPLE DRAWINGS, WITHOUT COOLING MATERIAL
PRINZIP ZEICHNUNGEN, OHNE KÜHLUNG MATERIAL



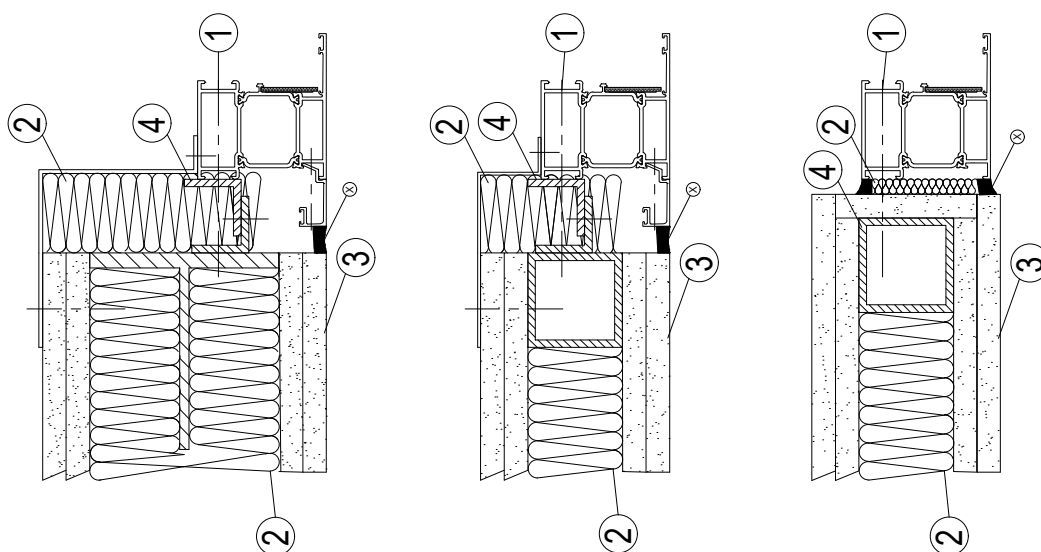
- 1 Screw Heco Topix 120x6(countersunk head, A2 stainless steel)
- 2 Mineral wool according to EN 13501-1
- 3 Gypsum plates fire-proof 12.5mm, 2 layers
- 4 Steel profile MSV75 73.8x51x0.6
- 5 PUR 084.9093.-- + 084.9024.01 + 084.9101.XX / 084.9102.XX



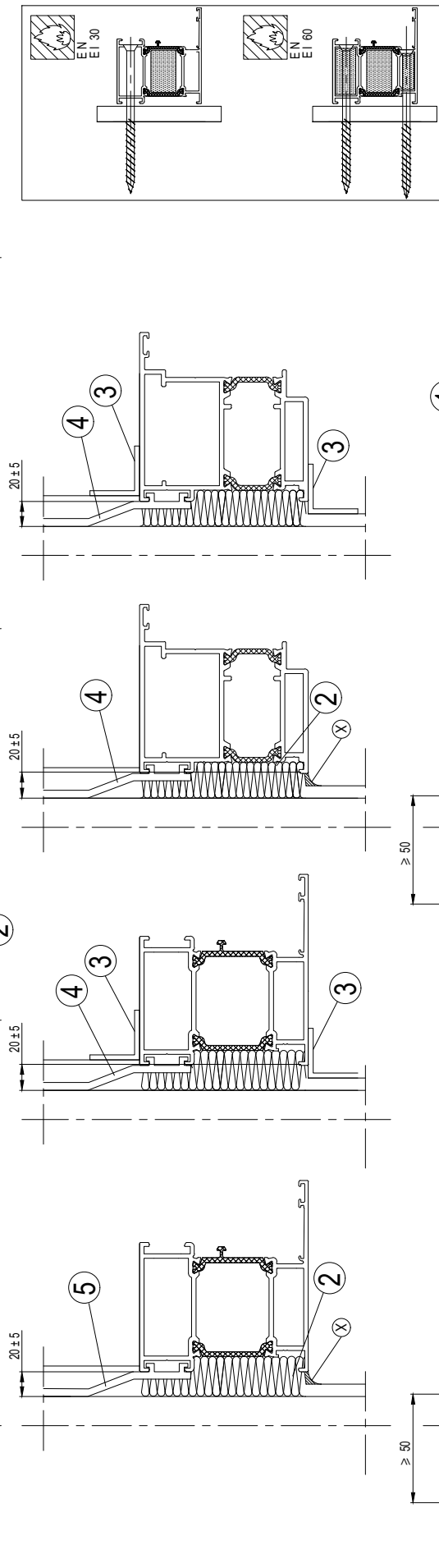
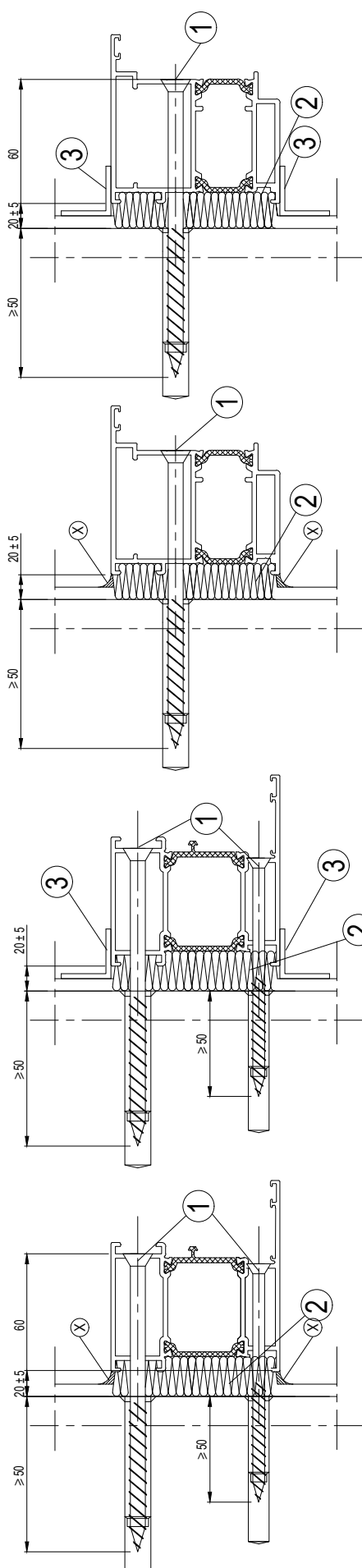
- ① Mineral wool according to EN 13501-1
- ② Neutral silicone
- ③ Steel construction conform with required resistance time
- ④ Setting blocks



Approved connection examples



- ① Screw $\varnothing 6$ mm, min grade A2 stainless steel.
- ② Mineral wool according to EN 13501-1
- ③ Gypsum plates fire-proof 12.5mm
- ④ Steel construction conform with required resistance time

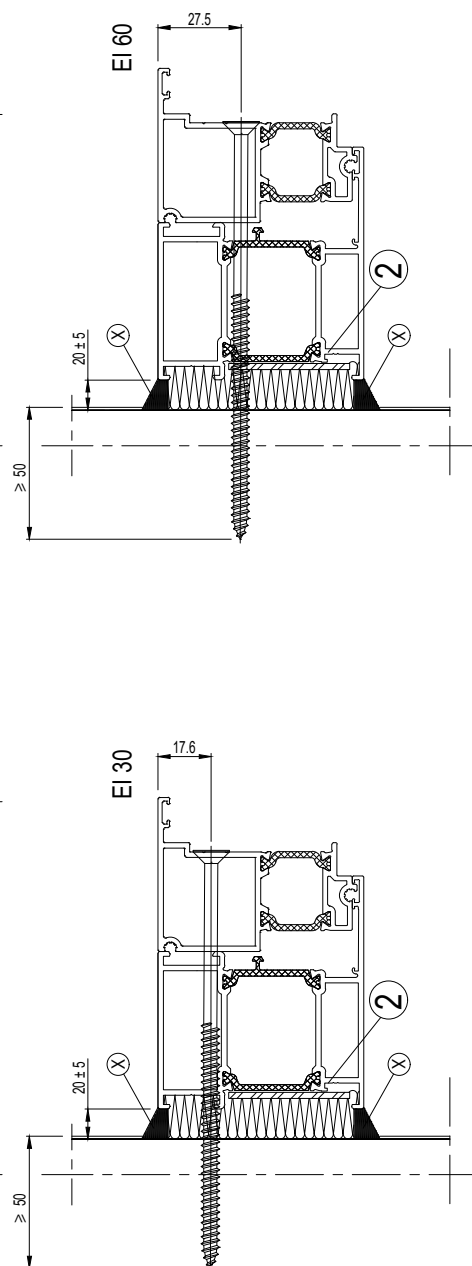


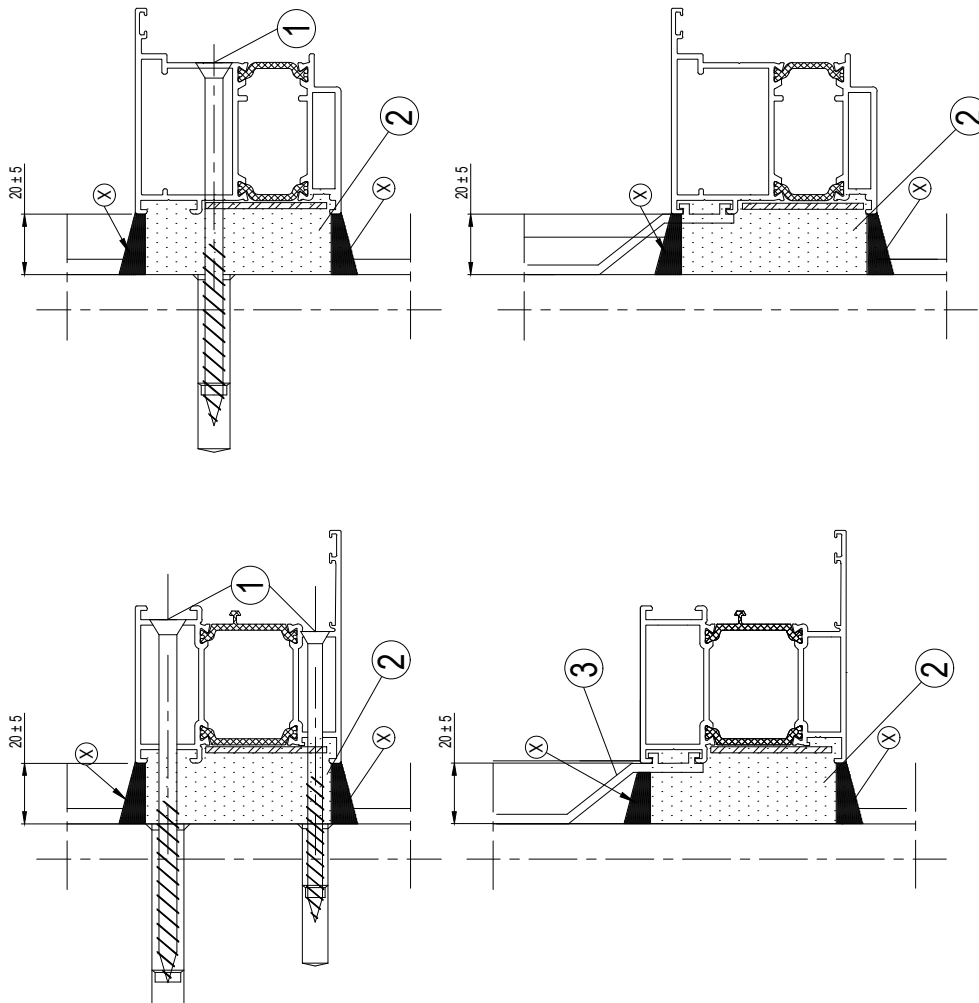
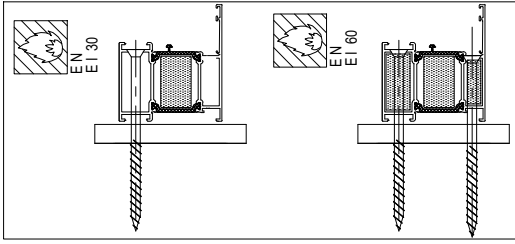
- ① Screw Type:
Screw and plug Ø10 / Ø8,
Fisher 5 x R10 x 120 (140/160/180) T A4, OR
Fischer fur 6x120 /... OR
FFS 7.5 x 122 (132/152/182) OR
Betofix k11 / 7,5x132 (180)

② Mineral wool

③ L-Profile 20x20x2

④ Screw fixing lug (art.nr. 056.6016-...) with Ø8 screw length ≥ 115MM



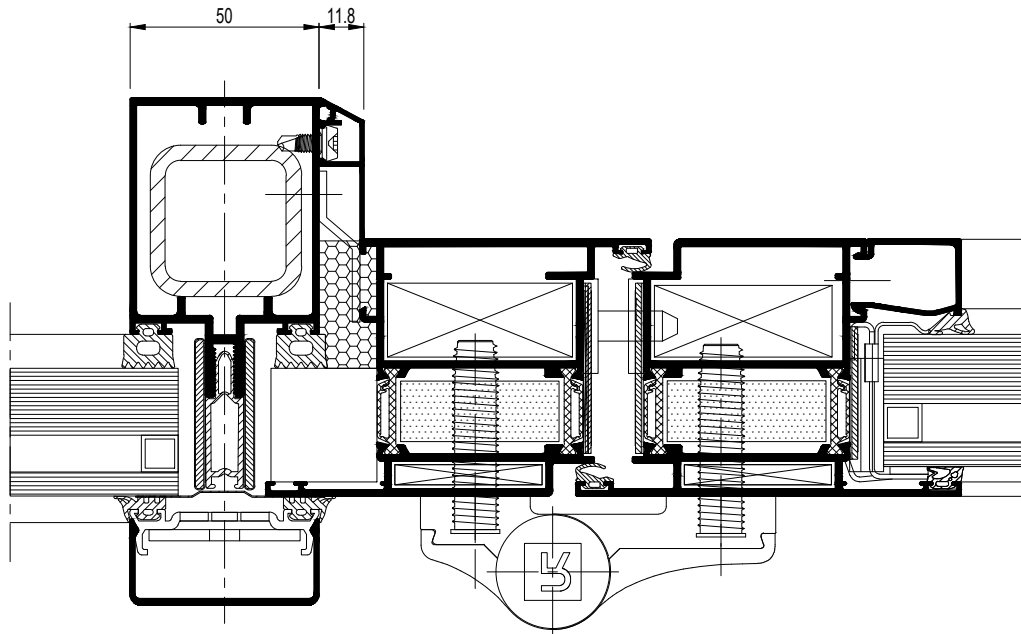


- ① Screw Type:
Screw and plug $\varnothing 10/\varnothing 8$ Fisher 5 x R10 x 120 (140/160/180) T A4, OR
FFS 7.5 x 122 (132/152/182)
- ② PUR 084.9093... + 084.9024.01 + 084.9101.XX / 084.9102.XX
- ③ Screw fixing lug (art.nr. 056.60.16.-) with $\varnothing 8$ screw length ≥ 115 MM

ITB



CW 50-FP CATALOGUE 51F



B

VERWERKINGSVOORSCHRIFTEN

I. ALGEMEEN

Zie catalogus "1.Algemene informatie" (089.C01E.00 editie 11/2004)

II. VERWERKINGSVOORSCHRIFTEN CONCEPT SYSTEM 77 FIRE PROOF

II.1 CONSTRUCTIEVOORSCHRIFTEN

Om blijvend een perfect eindproduct te garanderen, dienen tijdens de verwerking bepaalde regels in acht genomen te worden.

II.1.1 Veiligheidsvoorschriften

Brandwerende vulstukken

Voor transport, opslag en verwerking van de brandwerende vulstukken dienen de verwerkings- en veiligheidsvoorschriften van het product steeds vooraf geraadpleegd te worden.

Rechtstreeks contact met water/vocht moet ten allen tijde vermeden worden. Bewerkingen (frezingen, boringen...) in de profielen die mogelijk contact met water kunnen veroorzaken, moeten nauwkeurig met silicone afgedicht worden.

II.1.2 Verspanende bewerkingen

Onder verspanende bewerkingen wordt verstaan: alle mechanische bewerkingen zoals zagen, frezen, boren, ponsen en knippen. Voor gelakte profielen is het essentieel dat de laklagen aan de randen niet loskomen tijdens deze bewerkingen. Het is daarom van groot belang voor de kwaliteit van de verbindingen dat:

- het verspanende gereedschap geschikt en voldoende scherp is.
- de machines goed afgeregeld zijn (bv. toerental).
- een regelmatige controle van het gereedschap gebeurt.
- het verspanende gereedschap correct en voldoende gesmeerd wordt:
 - smeerstick (art. nr. 086.9191.--) voor zaagbladen
 - snijsmiddel (art. nr. 086.9175.--) voor ponsgereedschap
 - of de door de machineleveranciers voorgeschreven koel- en smeermiddelen;
- de gepaste klemblokken worden gebruikt; (zie montagetekening "klemblokken zaagmachine")
- de aan- en afvoertafel vrij zijn van spanen en verontreinigingen.
- eventuele koeling gebeurt met chemisch neutrale producten die de oppervlaktebehandeling niet aantasten.

Positie/klemming van de profielen tijdens het zagen:

De positie van de profielen op de zaagtafel tijdens het verzagen is zeer belangrijk en is de basis om perfecte verstekken te bekomen na montage van raam of deur.

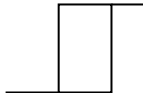
De grootste druk moet steeds op de «referentiezijde» van de profielen uitgeoefend worden.

De «referentiezijde» moet perfect horizontaal of verticaal op de zaagtafel geplaatst worden.

De klemblokken moeten gebruikt worden:

- om te vermijden dat speling op de profielen de kwaliteit van het verstek zou beïnvloeden;
- om te vermijden dat de profielen zouden kantelen op de tafel.

Referentiezijde ->



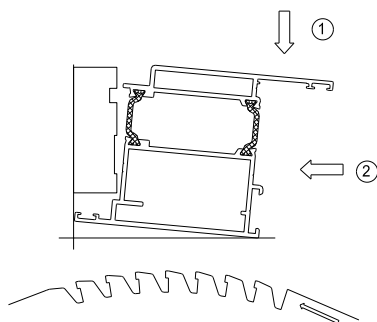
<- Referentiezijde

FOUTIEVE KLEMMING

FOUT: De hoofdklemming drukt op de zichtkant van het te verzagen profiel en het profiel kantelt.

GEVOLG: Scheve zaagsnede - de buitenzijde is korter dan de binnenzijde.

RESULTAAT: Bij het persen van de hoeken is het verstek aan de binnenzijde keurig dicht en gaapt aan de buitenzijde.



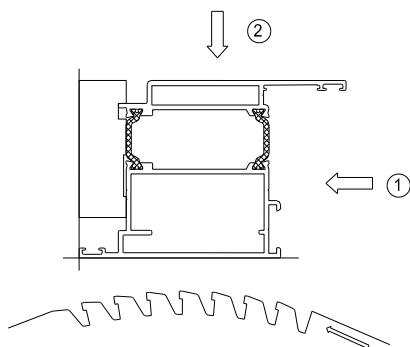
JUISTE KLEMMING

De hoofdklemming drukt op de sponningzijde. De zichtkant ondergaat een kleinere, secundaire druk. Het profiel heeft niet de neiging te kantelen of te vervormen tijdens het zagen, en het persen van de in verstek gezaagde profielen kan probleemloos verlopen.

Opmerking:

Het verdient aanbeveling om spanen die ontstaan tijdens het zagen af te zuigen.

Alle zaagsneden die een verbinding vormen zoals: hoek- en T-verbindingen, dienen beschermd te worden met reynaprotector (art.nr. 086.9208.SY + 086.9225.--). Andere zaagsneden zoals: glaslatten, klemlijsten,... dienen beschermd te worden met Reynastick (art.nr. 086.9600.06), alsook freessneden, boorgaten, ponsgaten,...



II.1.3 Assemblage

Wij maken de volgende onderverdeling:

1. ontwatering en uitsparingen voor het beslag;
2. T-verbindingen;
3. hoekverbindingen;
 - a) persen
 - b) schroeven
4. dichtingen

1.3.1 Ontwatering en uitsparingen voor het beslag

Stappen:

- a. Aftekenen uitsparingen
- b. Correct ponsen, boren of frezen
- c. Beschermen van de bewerkte vlakken door:
 - ontbramen
 - verwijderen van stof en zaagresten op de zaagsnede en in de profielkamer
 - ontvetten (Reynaers Safety Clean art. no. 086.9231.-- en Reynaers Multifoam 086.9230.--).
 - aanbrengen van Reynaers Anti-Corro (art.nr. 086.9606.--)

Aandachtspunten bij de ontwatering:

Eventueel binnendringend water moet vlot en gecontroleerd kunnen afgevoerd worden en de druk in de binnenkamers moet gelijk blijven aan die van de buitenlucht.

CS 77-FP kan niet verborgen ontwaterd worden behalve voor EI2 30 deurvleugels waar er geen koelmateriaal in de deurvleugelprofielen aanwezig zijn.

- Bij elk raam worden er ontwateringsopeningen voorzien met een maximale afstand tot de hoek van 250 mm .(voor specifieke ontwatering: zie montagetekeningen "ontwatering");
 - 2 openingen tot raambreedte van 1000 mm
 - 3 openingen tot raambreedte van 1500 mm
 - enz... opgaand per 500 mm.

- Steeds op het laagste punt van de glassponning afwateren
- De minimale oppervlakte van deze ontwateringsopeningen bedraagt 50 mm² per opening, hetzij een ronde opening van minimum 8 mm diameter, hetzij langwerpige openingen van minimaal 5 mm bij 15 mm.
- Ontwateringsgaten die aan de buitenzijde van het raam zichtbaar zijn, worden afgedekt met kunststofkapjes.
- Alle raamtypes moeten voorzien zijn van een ontwateringssysteem in de onderregels en/of de horizontale T-profielen
- Bij elk raam worden er ontluuchtingsopeningen voorzien (zie montagetekening “decompressie”). De functie hiervan is de drukegalisatie rond de beglazing te waarborgen.
- Bij een vast raam wordt boven aan de buitenbeglazingsdichting onderbroken voor 50 mm.
- Bij een opengaand raam wordt aan de zijkant bovenaan van de vleugel minstens 1 opening van minimum 5 mm geboord

1.3.2 T- en kruisverbindingen

Stappen (zie montagetekening “T-verbinding”):

- a. Voor CS 77-FP (EI60): T-verbindingen voorbereiden met koelende pasta, art 087.9551.-- (verwerking en droogtijd, zie: montagetekeningen)
- b. Correct zagen T-profiel
- c. Ponsen (Ø 7 mm): T-verbinder met nagel en schroef
- d. Uitravelen T-profiel (hoogte 25 mm)
- e. Voorbereiden van de zaagsneden en bewerkte vlakken door:
 - ontbramen
 - verwijderen van stof en zaagresten op de zaagsnede en in de profielkamer;
- f. Aanbrengen van brandwerende vulstukken, art. nr 087.9520.--, 087.9521.--, ...
- g. Beschermen van de zaagsneden en bewerkte vlakken door:
 - ontvetten (Reynaers Safety Clean art. no. 086.9231.-- en Reynaers Multifoam 086.9230.--).
 - aanbrengen van Reynaprotector (art.nr. 086.9207.SY + 095.E500.00 + 086.9225.--) op de zaagsneden en Reynaers anti-corro (art.nr. 086.9606.--) op de freessneden en bevestigingsgaten.
- h. Afdichten van de T-verbinding door een brandbestendig dichtingsmiddel (art.nr. 084.9021.04) aan te brengen:
 - op de zaagsneden
 - in de bevestigingsgaten
- i. Afdichten van de zone onder de T-verbinding op het buitenkader door middel van dichtingsstukken of een brandbestendig dichtingsmiddel (art.nr. 084.9021.04) aan te brengen. Deze zone moet waterdicht zijn.
 - Opmerking: Uitzonderingen zijn toegelaten om drukegalisatie te bekomen bij vaste panelen, mits er een gecontroleerde ontwatering plaatsvindt.
- j. Verbinding tot stand brengen: de T-verbinder wordt gepositioneerd op centerlijn, T-profiel wordt hierover aangebracht, T-verbinder wordt vastgeschroefd en vernageld (of 2x vernageld)
- k. Overtollige resten van lijm en dichtingsmiddel dienen verwijderd te worden en de zichtvlakken gereinigd met een niet-agressief middel (Reynaefinish 60 art.nr. 086.9210.-- of Reynaers safety clean 086.9231.--).

1.3.3 Hoekverbindingen

1.3.3.1. Persen

Stappen (zie montagetekening “hoekverbinding pershoek”):

*optie A: lijminjectie na persen

**optie B: lijminjectie voor persen

- a. Voor CS 77-FP (EI60): Hoeken voorbereiden met koelende pasta, art 087.9551.-- (verwerking en droogtijd, zie montagetekeningen)
- b. Correct zagen
- c. *aanbrengen van lijminjectiegaten (Ø3.5/4mm) (zie montagetekening “lijminjectie”)
- d. Voorbereiden van de zaagsneden en bewerkte vlakken door:
 - ontbramen
 - verwijderen van stof en zaagresten op de zaagsnede en in de profielkamer.
- e. Aanbrengen van brandwerende vulstukken, art. nr 087.9520.--, 087.9521.--, ...
- f. Beschermen van de zaagsneden en bewerkte vlakken door:
 - ontvetten (Reynaers Safety Clean art. no. 086.9231.-- en Reynaers Multifoam 086.9230.--).
 - aanbrengen van Reynaprotector (art.nr. 086.9207.SY + 095.E500.00 + 086.9225.--) op de zaagsneden en Reynaers anti-corro (art.nr. 086.9606.--) op de freessneden en bevestigingsgaten.
- g. **verlijmen in profielkamer: aanbrengen van een goedgekeurd dichtingslijm (Reynaseal duo art. nr. 084.9080.--)
- h. Inbrengen van de (voorbereide) hoeken (zie montagetekening “pershoeken”)
- i. Verbinding tot stand brengen en persen
- j. * Lijminjectie ter hoogte van voorziene injectiegaten door middel van een goedgekeurde dichtingslijm (Reynaseal Duo art.nr. 084.9080.--).
- k. Overtollige resten van lijm en dichtingsmiddel dienen verwijderd te worden en de zichtvlakken gereinigd met een niet-agressief middel (Reynaefinish 60 art.nr. 086.9210.-- of Reynaers safety clean 086.9231.--).
- l. Aanbrengen van steunhoek.

1.3.3.2 Schroeven

Stappen (zie montagetekening “hoekverbinding pershoek”):

*optie A: lijminjectie na schroeven

**optie B: lijminjectie voor schroeven

- a. Voor CS 77-FP (EI60): Hoeken voorbereiden met koelende pasta, art 087.9551.-- (verwerking en droogtijd, zie: montagetekeningen)
- b. Correct zagen
- c. Aanbrengen van schroefgaten (*en lijminjectiegaten)
- d. Voorbereiden van de zaagsnedes en bewerkte vlakken door:
 - ontbramen
 - verwijderen van stof en zaagresten op de zaagsnede en in de profielkamer;
- e. Aanbrengen van brandwerende vulstukken, art. nr 087.9520.--, 087.9521.--, ...
- f. Beschermen van de zaagsnedes en bewerkte vlakken
 - ontvetten (Reynaers Safety Clean art. no. 086.9231.-- en Reynaers Multifoam 086.9230.--).
 - aanbrengen van Reynaprotector (art.nr. 086.9207.SY + 095.E500.00 + 086.9225.--) op de zaagsnedes en Reynaers anti-corro (art.nr. 086.9606.--) op de freessnedes en bevestigingsgaten.
- g. **verlijmen in profielkamer: aanbrengen van een goedgekeurd dichtingslijm (Reynaseal duo art. nr.084.9080.--)
- h. Inbrengen van de (vorbereide) schroefhoeken
- i. Verbinding tot stand brengen en schroeven (inbussleutel 4) en vernagelen
- j. * Lijminjectie ter hoogte van voorziene injectiegaten door middel van een goedgekeurde dichtingslijm (Reynaseal Duo art.nr. 084.9080.--).
- k. Overtollige resten van lijm en dichtingsmiddel dienen verwijderd te worden en de zichtvlakken gereinigd met een niet-agressief middel (Reynafinish 60 art.nr. 086.9210.-- of Reynaers safety clean 086.9231.--).
- l. Aanbrengen van steunhoek.

1.3.4 Dichtingen

Alle dichtingsrubbers zijn van weer- en verouderingsbestendig EPDM. De verwerking ervan dient zorgvuldig te gebeuren, aangezien hiervan de dichtheid van het venster afhangt.

a. Het aanbrengen van de akoestische dichting

Stappen: (zie montagetekening “dichting”)

1. Correct versnijden: het versnijden van de akoestische dichting dient met een speciale schaar (art.nr. 090.0121.00) te gebeuren. Deze dichting dient recht versneden te worden en door te lopen in de hoeken (kleine insnijding in de hoeken zorgen voor een vlotte buiging). Benodigde overlengte (ca 10 mm per meter) dient voorzien te worden.
2. Aanbrengen dichting: de dichtingen worden aangebracht in de daarvoor voorziene groeven van de profielen. De overlengte wordt lichtjes opgestuikt om krimp op te vangen. Moeilijkheden bij het inbrengen kunnen opgevangen worden met siliconenspray (art.nr. 086.9551.--).
3. Ter hoogte van de scharnieren moet deze dichting ingesneden worden. De dichting wordt onder het scharnier toegeplooid.
4. Verlijmen (afdichten): de snedes dienen verlijmd te worden met vulkaniseerlijm (art.nr. 084.9103.--).

b. Het aanbrengen van de beglazingsdichtingen

Stappen: (zie montagetekening “dichting”)

1. Correct versnijden: het versnijden van de beglazingsdichting dient met een speciale schaar (art.nr. 090.0121.00) te gebeuren. De dichting kan naargelang de soort profielverbinding in verstek of recht versneden worden. Benodigde overlengte (ca 10 mm per meter) dient voorzien te worden.
2. Aanbrengen dichting: de dichtingen worden aangebracht in de daarvoor voorziene groeven van de profielen. De overlengte wordt lichtjes opgestuikt om krimp op te vangen. Moeilijkheden bij het inbrengen kunnen opgevangen worden met siliconenspray (art.nr. 086.9551.--).
3. Verlijmen (afdichten): in de hoeken dient de beglazingsdichting verlijmd te worden met vulkaniseerlijm (art.nr. 084.9103.--). Doordat de verbinding elastisch blijft, sluit de dichting ook in de hoeken perfect aan.

II.2 MONTAGEVOORSCHRIFTEN

II.2.1 Stockage

De stockage van onafgewerkte of afgewerkte elementen dient steeds in een droge, vorstvrije ruimte te gebeuren

II.2.2 Inbouw in de ruwbouw

Bevestiging van deuren

Voor bevestiging van deuren in de ruwbouw zie:

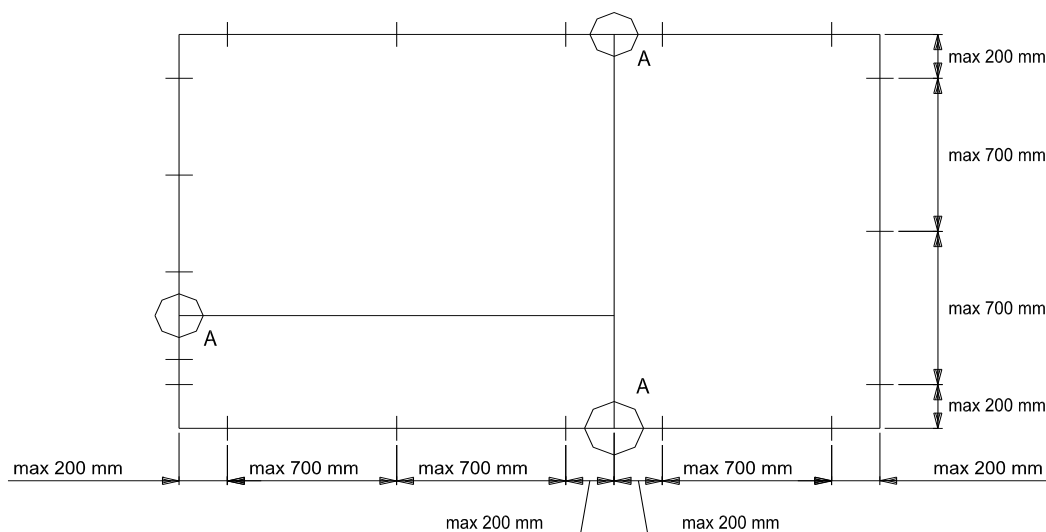
EI30: FOA 2017-EFFECTIS-R001359

EI60: FOA 2017-EFFECTIS-R001360

Bevestiging van vast raam

De bevestiging aan de ruwbouw gebeurt ofwel rechtstreeks doorheen de profielen met bijvoorbeeld schroeven en pluggen, ofwel met behulp van bevestigingsankers.

- De bevestigingen mogen niet minder dan 40 mm van de wand van de ruwbouw worden aangebracht.
- De verankering mag geenszins het draagvermogen van de aangrenzende bouwonderdelen beïnvloeden.
- Alle verankeringen, voor zover niet uit aluminium of roestvrij staal, dienen afdoende tegen corrosie te zijn beschermd en mogen zelf ook geen aantasting van het aluminium veroorzaken.
- Bij de plaatsing van de ramen worden er voldoende bevestigingen voorzien:



Er dienen aan alle zijden minstens 2 bevestigingen aangebracht te worden met een maximale afstand tot de hoek van 200 mm.

- De afstand van de bevestigingen onderling bedraagt maximum 700 mm.
- Op de plaatsen waar een tussenregel of tussenstijl op de zijstijl, boven- of onderregel aansluit, moet de verankering op maximum 200 mm naast de stijl- of regelaansluiting worden aangebracht (A). Hierdoor wordt bereikt dat de tussenregel en de tussenstijl een lengteverandering (ten gevolge van temperatuurverandering) zonder schade kunnen ondergaan.
- Aan te raden is de bevestigingen te positioneren ter hoogte van ieder scharnier- en sluitpunt.

Opmerking:

De verankeringen dienen dusdanig aangebracht te worden dat ze eventuele zettingen van het raam kunnen opvangen.

II.2.2 Inbouw van het beslag

Keuze van bevestigingspunten, aantal sluitpunten, aantal scharnieren, max. vleugelgewicht, max. vleugelafmetingen, toegepast vleugelprofiel e.a. dient te gebeuren volgens de richtlijnen van de systeemleverancier en de beslagfabrikant.

Glijdende en bewegende delen zijn van neutraal vet te voorzien.

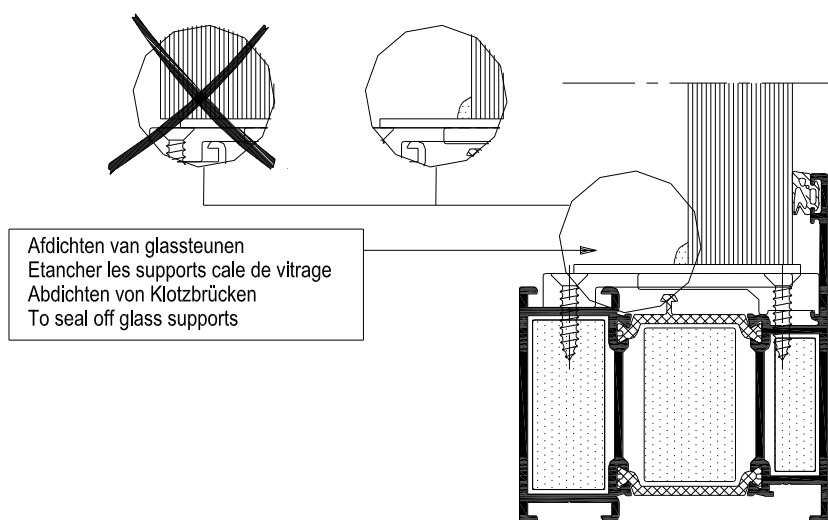
Bij montage controleren of het beslag soepel en zonder hapering te bedienen is.

II.3 BEGLAZING

Al onze systemen zijn ontworpen voor beglazing met EPDM-rubbers. Wij raden u aan onze speciaal ontwikkelde beglazingsrubbers te gebruiken. De beglazing hiermee zal vlotter en betrouwbaar verlopen, duurzamer zijn in de tijd, en beschadigde glaspanelen zullen gemakkelijker vervangen kunnen worden.

Bij de beglazing dient rekening te worden gehouden met volgende punten:

- Door opstuiken van de rubber wordt vermeden dat er daarna openingen ontstaan in de hoeken.
- Ontwateringsgaten dienen geboord te worden om waterophoping te vermijden.
- Voor het plaatsen van het glas dient rekening te worden gehouden met een speling van minimum 12 mm op het aluminiumraam (6 mm per zijde).
- De glassteunen die zich aan de onderzijde van het glaspaneel bevinden, dienen afgedicht te worden (zie tekening hieronder)



Bevestiging van de beglazing

Geen enkel glaspaneel mag rechtstreeks in contact komen met aluminium of inox zonder tussenplaatsing van beglazingsblokjes en een rubberdichting.

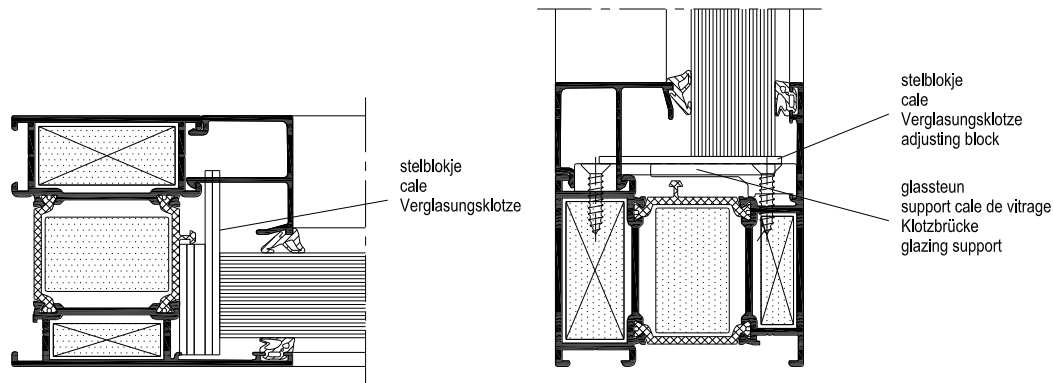
Door het opspieën van het glas vermijdt men niet enkel dit contact, maar wordt eveneens een juiste plaatsing in de kaders en vleugels bekomen en het eigen gewicht van het glas wordt op de juiste wijze overgebracht naar de scharnieren teneinde een eventuele vervorming van de deurvleugel te voorkomen.

Voor de CS 77-FP beschikken wij over inox glassteunen die gebruikt worden om de bodem van de sponning te effenen. Hierop kan men dan rechthoekige brandwerende beglazingsblokjes plaatsen.

De glaspanelen worden geborgd door middel van veerstaal glasklipsen. Deze worden mechanisch bevestigd in het kader-/vleugelprofiel.

De maximum afstand tot de hoek bedraagt maximum 100mm. De tussenafstand van de glasklipsen bedraagt maximum 450mm.

Zie ook montagevoorschriften "beglazingsmethode".



Het aantal en de plaats van de beglazingsblokjes wordt bepaald door de norm STS 38.

Een overzicht:

In de beglazingsblokjes onderscheiden wij 2 types:

Steunblokjes 

Stelblokjes 

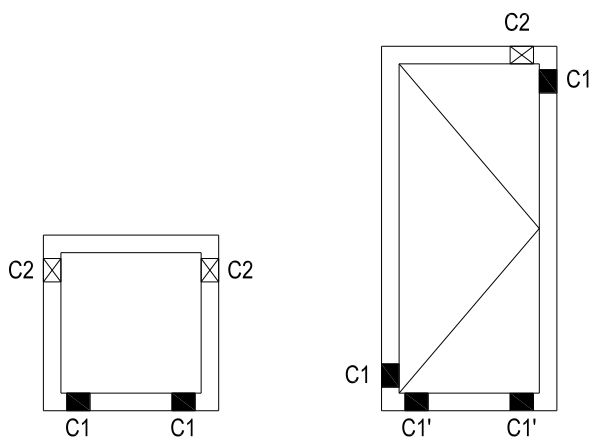
C1: steunblokjes

Deze steunblokjes brengen het gewicht van het glas over op de vleugel of het kozijn. Hun goede plaatsing is van groot belang voor de werking van de deuren.

C2: stelblokjes

Deze blokjes verzekeren de positionering van het glas tussen de sponning. Ze worden aangebracht zonder forceren. Hun doel is elke beweging van het glas in zijn vlak uit te schakelen.

De volgende schetsen geven de plaatsing van de beglazingsblokjes in de verschillende types aan.



Bij vaste beglazing brengt men de ondersteuningen aan in de hoeken van de onderregel om te beletten dat deze gaat doorbuigen onder het gewicht van het glas (zie schets vast raam).

Bij deuren wordt het glas diagonaal opgespied van de scharnieronderhoek naar de tegenoverliggende hoek bovenaan (zie schets draairaam).

Nadat de vleugel op deze wijze is gesteld met de juiste overslag kunnen de twee andere hoeken opgevuld worden alvorens de glaslatten aangebracht worden.

Bij twijfel of de juiste overslag is gesteld, raden wij u aan twee fijne potloodlijnen op de bovenhoek die diagonaal ondersteund is aan te brengen. Wanneer het raam geopend is, ziet men duidelijk deze lijnen en kan de overslag nagemeten worden.

III. ONDERHOUD

Gelieve hiervoor de standaard Reynaers onderhouds voorschriften omschreven in "operation, care and maintenance manual (for windows and doors)" te raadplegen..

Het is belangrijk dat voor volgende punten bijkomend deze catalogus CS 77-FP met aandacht wordt gevolgd mbt onderhoud englasvervanging:

- Voor het kleven van de opzwellende dichtingen, dienen de kleef instructies nauwlettend opgevolgd te worden.
- Brand vertragende beglazing staat op specifieke RVS glassteunen en brandwerende glas ondersteuning blokjes. Geen alternatieven producten mogen worden gebruikt.
- Brandvertragende beglazing dient vastgezet tussen specifieke glas clipsen. Bij glas vervanging dienen deze clipsen vervangen te worden en de schroef verbinding netjes afgekit. Tevens dezelfde tussenafstand tussen de glasclipsen toepassen als origineel aanwezig was.
- De zijde van waterwerend is van buiten naar binnen
- De opzwellende dichtingen zijn temperatuur gevoelig en mogen niet in aanraking komen met temperaturen boven 100°C
- De specifieke bouw- en bevestiging aansluitingen dienen gerespecteerd te worden.
- Bij glasvervanging, nazien dat het geselecteerde glas is toegelaten in het CS 77-FP systeem.

RECOMMANDATIONS DE MISE EN OEUVRE

I. GENERAL

Voir catalogue "1. Informations générales" (089.C01E.00 édition 11/2004)

II. RECOMMANDATIONS DE MISE EN OEUVRE CONCEPT SYSTEM ® 77 FIRE PROOF

II.1 RECOMMANDATIONS DE FABRICATION

Afin de garantir un produit final parfait, certaines règles doivent être suivies pendant la fabrication.

II.1.1 Prescriptions de sécurité

1.1.1 Pièces de remplissages anti-feu

Avant de transporter, stocker et traiter les pièces de remplissage anti-feu, les prescriptions de traitement et de sécurité du produit doivent toujours être consultées.

Un contact direct avec de l'eau/de l'humidité doit absolument être évité en toutes circonstances. Les usinages (fraisages, perçages, etc.) dans les profilés qui sont susceptibles d'engendrer un contact avec de l'eau doivent être minutieusement étanchéifiés avec de la silicone.

II.1.2 Opérations d'usinage.

Par opérations d'usinage on entend: toutes les opérations mécaniques comme le tronçonnage, le fraisage, le forage, le poinçonnage et la découpe. Il est essentiel que la couche de laque des profilés laqués ne se détache pas sur les bords pendant ces opérations. Il est donc très important pour la qualité des assemblages que:

- les outils d'usinage soient adaptés et suffisamment aiguisés;
- les machines soient bien réglées (p.ex. régime);
- un contrôle régulier des outils ait lieu;
- les outils d'usinage soient correctement et suffisamment graissés:
 - bâton lubrifiant (art.n° 086.9191.--) pour lames de scie;
 - huile de coupe (art.n° 086.9175.--) pour outils de poinçonnage
 - ou les réfrigérants et lubrifiants prescrits par les fournisseurs des machines;
- les mors de serrage adaptés soient utilisés (voir détails de fabrication 'blocs de serrage scie circulaire');
- la table d'aménée ou d'évacuation soit exempte de copeaux et de souillures;
- le refroidissement éventuel se fasse à l'aide de produits chimiquement neutres qui ne corrodent pas le traitement de surface.

Position/serrage des profilés pendant le tronçonnage:

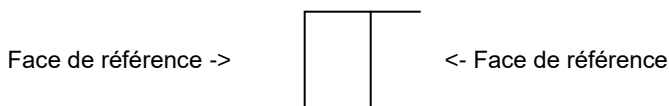
La position des profilés sur la table de sciage pendant le tronçonnage est très importante et est la base pour obtenir des onglets parfaits après montage de la fenêtre ou de la porte.

La pression principale doit toujours être exercée sur la «face de référence» des profilés.

La «face de référence» doit être positionnée parfaitement horizontalement ou verticalement sur la table de sciage.

Les mors de serrage doivent être utilisés:

- pour éviter que les tolérances sur les profilés influencent la qualité de l'onglet;
- pour éviter que les profilés ne basculent sur la table.



MAUVAIS TRONÇONNAGE

DEFAULT:

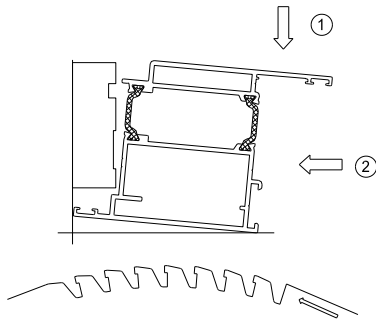
CONSEQUENCES:

RESULTAT:

Le vérin principal presse sur la surface visible du profilé à tronçonner entraînant son décalage.

Coupe d'onglet en biais, côtés extérieurs raccourcis par rapport aux côtés intérieurs.

Après sertissage, l'assemblage sur la face intérieure est correct, tandis qu'à l'extérieur l'onglet s'est ouvert.



TRONCONNAGE CORRECT

Le vérin principal exerce sa pression sur la face de la feuillure. La surface visible ne subit que la pression réduite du vérin secondaire.

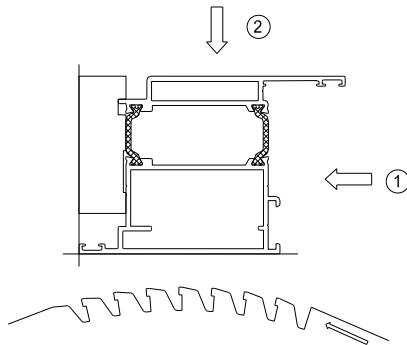
Le profilé n'a pas tendance à se décaler ou à se déformer pendant la coupe et le sertissage des profilés sciés à onglet peut s'effectuer sans problèmes

Remarque:

Toutes les coupes des profilés qui forment une jonction comme les équerres d'assemblage angulaires et les jonctions-T doivent être protégées à l'aide de Reynaprotector (art.n°086.9208.SY + 086.9225.--).

Toutes les autres coupes (comme parclozes, fixations, ...) doivent être protégées à l'aide de Reynastick (art.n°086.9600.06) ainsi que les fraisages, trous d'alésage, perforations, ...

Il est recommandé d'aspirer les copeaux pendant le tronçonnage.



II.1.3 Assemblage

Nous faisons la subdivision suivante:

1. Découpes pour les accessoires.
2. Assemblages T.
3. Raccords d'angle
 - a. à sertir
 - b. à visser
 - c. à goupiller
4. Joints.

1.3.1. Drainage et découpes pour les accessoires

Etapes:

- a. Marquer les découpes.
- b. Poinçonnage, forage ou fraisage correct.
Pour le fraisage et le forage de découpes pour les accessoires, nous conseillons d'usiner des profilés remplis de matières réfrigérantes.
- c. Protection des surfaces traitées par:
 - ébavurage;
 - enlèvement des poussières et des copeaux sur les sciages et dans la chambre du profilé.
 - dégraissage (Reynaers Safety Clean art. no. 086.9231.—et Reynaers Multifoam 086.9230.--).
 - application de Reynaers Anti-Corro (art.nr. 086.9606.--)
 -

Lors du drainage, il faut prêter attention aux points suivants:

Les eaux d'infiltration éventuelles doivent être évacués de façon rapide et contrôlée vers l'extérieur et il faut maintenir la chambre de décompression à la pression atmosphérique.

Drainage invisible du CS 77-FP est interdit sauf pour les ouvrants porte EI2 30 dans lesquels il n'y a pas de matériau de refroidissement dans les profilés ouvrants porte.

- Pour chaque fenêtre, des ouvertures de drainage sont prévues à une distance maximale de l'angle de 250 mm (en cas de drainage spécifique: voir détails de fabrication 'drainage')
- a. ouvertures jusqu'à une largeur de fenêtre 1000 mm
- b. ouvertures jusqu'à une largeur de fenêtre 1500 mm
etc... une ouverture en plus par 500 mm supplémentaires en largeur.

Pour chaque surface vitrée il faut prévoir 2 trous de drainage!

- Les ouvertures de drainage qui sont visibles de l'extérieur de la fenêtre doivent recevoir des capuchons en matière synthétique.
- Tous les types d'élément doivent obligatoirement être drainées au niveau des traverses basses et intermédiaires..

- Chaque fenêtre doit être prévue de trous d'aération (voir détails de fabrication 'decompression'). Sa fonction est de garantir l'égalisation de la pression autour du vitrage.

Pour cela, le joint de vitrage extérieur est interrompu dans le haut de la fenêtre ou de l'ouvrant de porte fixe sur une longueur de 50 mm.

1.3.2 Assemblage T et jonctions transversales

Etapes (voir détails de fabrication 'raccordement-T'):

- a. Pour CS 77-FP (EI60): ppéparation des jonctions-T avec une pâte réfrigérante, art. 087.9551.-- (application et temps de séchage, voir détails de fabrication)
- b. Tronçonnage parfait de la traverse.
- c. Poinçonnage (Ø 7mm: jonction-T avec cheville)
- d. Fraiser la hauteur de la rainure de la traverse (hauteur 25 mm)
- e. Préparation des coupes et des surfaces traitées par:
 - ébavurage
 - enlèvement des poussières et des copeaux sur les sciages et dans la chambre du profilé;
- f. Application de pièces de remplissage anti-feu, art. nr 087.9520.--, 087.9521.--, ...
- g. Protection des coupes et des surfaces traitées par:
 - dégraissage (Reynaers Safety Clean art. no. 086.9231.— et Reynaers Multifoam 086.9230.--).
 - application de produit Reynaprotector (art.nr. 086.9207.SY + 095.E500.00 + 086.9225.--) sur les sciages et Reynaers Anti-Corro (art.nr. 086.9606.--) sur les fraisages et les trous de fixation.
- h. Etanchement de la traverse en appliquant d'une matière d'étanchéité résistant au feu (art.nr 094.9021.04) sur les coupes et les trous de fixation.
- i. Etanchement de la zone au dessous des traverses sur le profilé dormant en appliquant des éléments d'étanchéité ou d'une matière d'étanchéité résistant au feu (art.nr 094.9021.04). Ceux-ci doivent être complètement étanches à l'eau.
 - Remarque: Des exceptions afin d'obtenir une égalisation de pression, dans le cas de panneaux fixes, sont permises à condition de réaliser un drainage contrôlé.
- j. Assemblage: la jonction T est positionnée sur la ligne de centrage, la traverse est introduit, vissée et chevillée (ou 2x chevillée).
- k. Les résidus de colle et de joint doivent être éliminés. On nettoiera aussi les surfaces visibles avec un produit non agressif (Reynafinish 60 art.nr. 086.9210.-- ou Reynaers safety clean 086.9231.--).

1.3.3 Raccords d'angle

1.3.3.1. A sertir

Etapes (voir détails de fabrication 'assemblage angulaire équerre à sertir'):

* option A : injection de colle après le sertissage

** option B : injection de colle avant le sertissage

- a. Pour CS 77-FP (EI60): préparation des équerres avec une pâte réfrigérante, art. Nr 087.9551.-- (application et temps de séchage, voir détails de fabrication)
- b. Tronçonnage parfait
- c. *Application des trous pour l'injection de colle (Ø3.5 / 4mm) (voir détails de fabrication 'injection de colle')
- d. Préparation des coupes et des surfaces traitées par:
 - ébavurage
 - enlèvement des poussières et des copeaux sur les sciages et dans la chambre du profilé;
- e. Application de pièces de de remplissage anti-feu, art. nr 087.9520.--, 087.9521.--, ...
- a. Protection des coupes et des surfaces traitées par:
 - dégraissage (Reynaers Safety Clean art. no. 086.9231.— et Reynaers Multifoam 086.9230.--).
 - application de produit Reynaprotector (art.nr. 086.9207.SY + 095.E500.00 + 086.9225.--) sur les sciages et Reynaers Anti-Corro (art.nr. 086.9606.--) sur les fraisages et les trous de fixation.
- f. ** Encollage dans la chambre du profilé : application d'une colle d'étanchéité approuvée (Reynaseal Duo art. n°084.9080.--)
- g. Poser les équerres (préparées) (voir détails de fabrication 'Equerres à sertir')
- h. Raccorder et sertir (voir détails de fabrication 'Equerres à sertir')
- i. *Injection de colle d'étanchéité approuvée dans les trous prévus à cet effet (Reynaseal Duo art. N° 084.9080.--).

- j. Les résidus de colle et de joint doivent être éliminés. On nettoiera aussi les surfaces visibles avec un produit non agressif (Reynafinish 60 art.nr. 086.9210.-- ou Reynaers safety clean 086.9231.--).
- k. Application de la cale de feuillure.

1.3.3.2. À visser

Étapes (voir détails de fabrication 'assemblage angulaire équerre à visser'):

* option A : injection de colle après le vissage

** option B : injection de colle avant le vissage

- a. Pour CS 77-FP (EI60): préparation des équerres avec une pâte réfrigérante, art. Nr 087.9551.-- (application et temps de séchage, voir détails de fabrication)
- b. Tronçonnage parfait
- c. Réalisation des trous des vis.
- l. Préparation des coupes et des surfaces traitées par:
 - ébavurage
 - enlèvement des poussières et des copeaux sur les sciages et dans la chambre du profilé;
- m. Application de pièces de remplissage anti-feu, art. nr 087.9520.--, 087.9521.--, ...
- b. Protection des coupes et des surfaces traitées par:
 - dégraissage (Reynaers Safety Clean art. no. 086.9231.-- et Reynaers Multifoam 086.9230.--).
 - application de produit Reynaprotector (art.nr. 086.9207.SY + 095.E500.00 + 086.9225.--) sur les sciages et Reynaers Anti-Corro (art.nr. 086.9606.--) sur les fraisages et les trous de fixation.
- n. ** Encollage dans la chambre du profilé : application d'une colle d'étanchéité approuvée (Reynaseal Duo art. n°084.9080.--)
- o. Application des équerres à visser (préparées)
- g. Raccorder, visser (clé à six pans de 4) et clouer
- p. *Injection de colle d'étanchéité approuvée dans les trous prévus à cet effet (Reynaseal Duo art. N° 084.9080.--).
- q. Les résidus de colle et de joint doivent être éliminés. On nettoiera aussi les surfaces visibles avec un produit non agressif (Reynafinish 60 art.nr. 086.9210.-- ou Reynaers safety clean 086.9231.--).
- r. Application de la cale de feuillure.

1.3.4 Joints

Tous les joints sont en EPDM résistant aux intempéries et au vieillissement. Leur montage doit se faire soigneusement, puisque l'étanchéité de la fenêtre en dépend.

a. Application du joint de porte

Étapes:

1. Découpe correcte: la découpe du joint acoustique doit se faire avec le gabarit de coupe (art.n° 090.0121.UN). Ce joint doit être coupé droit et doit être continu dans les angles. (une petite coupe dans les angles permet de plier le joint facilement). Une longueur supplémentaire (environ 10 mm par mètre) doit être prévue.
2. Application du joint: les joints sont appliqués dans les rainures des profilés prévues à cet effet; la longueur supplémentaire est légèrement refoulée pour neutraliser le rétrécissement. Les difficultés de mise en place peuvent être résolues à l'aide d'un aérosol silicone (art.n° 086.9551.--).
3. Encollage (étanchement): les coupes doivent être vulcanisées avec de la colle de vulcanisation (Unionzement art.n° 084.9103.--).

b. Application des joints de vitrage

Étapes (voir détails de fabrication 'joint'):

- a. Découpe correcte: la découpe du joint de vitrage doit se faire avec le gabarit de coupe (art.n° 090.0121.00) et le joint peut être coupé à onglet ou droit en fonction du type de jonction entre les profilés. Une longueur supplémentaire (environ 10 mm par mètre) doit être prévue.
- b. Application du joint: les joints sont appliqués dans les rainures des profilés prévues à cet effet; la longueur supplémentaire est légèrement refoulée pour neutraliser la dilatation ou le rétrécissement. Les difficultés de mise en place peuvent être résolues à l'aide d'un aérosol silicone (art.n° 086.9551.--).
- c. Encollage (étanchement): dans les angles, le joint de vitrage doit être encollé avec de la colle de vulcanisation (art.n° 084.9103.--). Cette colle permet à la jonction de rester élastique et de garantir parfaitement le rôle du joint même dans les angles.

II.2 RECOMMANDATIONS DE MONTAGE

II.2.1 Stockage

Les éléments non finis et finis doivent seulement être stockés dans un local sec, à l'abri du gel.

II.2.2 Montage dans le gros œuvre

Montage de portes

Pour la fixation des portes au gros oeuvre, voyez:

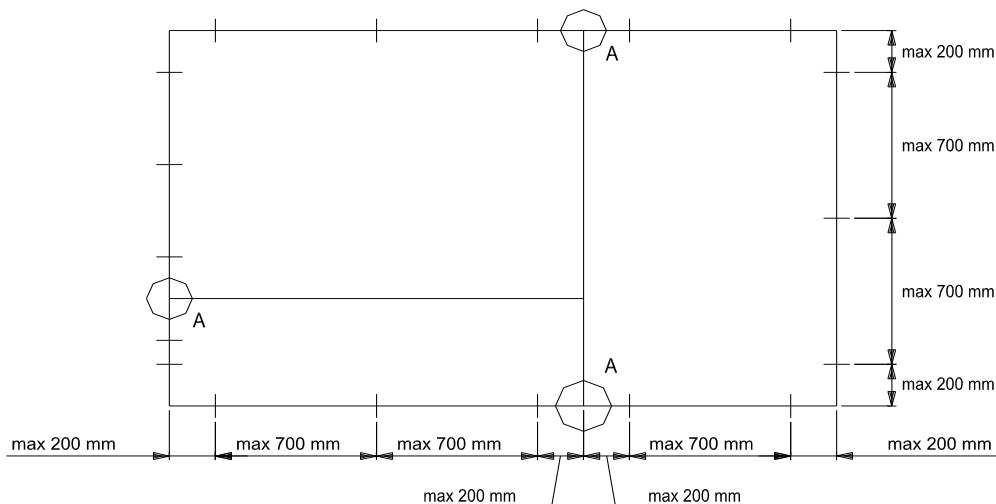
EI30: FOA 2017-EFFECTIS-R001359

EI60: FOA 2017-EFFECTIS-R001360

Montage de fenêtres

La fixation au gros oeuvre se fait soit directement à travers les profilés avec par exemple des vis et des chevilles, soit à l'aide d'ancrages de fixation.

- Les fixations ne peuvent pas être appliquées à une distance inférieure à 40 mm du mur du gros oeuvre.
- L'ancrage ne peut surtout pas influencer la force portante des éléments de construction contigus.
- Tous les ancrages, pour autant qu'ils ne soient pas en aluminium ou en acier inoxydable, doivent être efficacement protégés contre la corrosion et ne peuvent pas corroder l'aluminium.
- Lors de la pose des fenêtres, on prévoit des fixations en suffisance:



De tous les côtés il doit y avoir au moins 2 fixations avec une distance maximale jusqu'à l'angle de 200 mm.

- La distance entre les fixations est de 700 mm au maximum.
- A l'endroit où des profilés T et des profilés dormants se rencontrent, l'ancrage doit être appliqué à une distance maximale de 200 mm des deux côtés du profilé T (A). De cette façon, une dilatation ou un rétrécissement du profilé T (dus aux fluctuations de température) sont possibles sans dégâts.
- Il est conseillé de positionner les fixations à la hauteur de chaque point de charnière et de fermeture.
- Remarque:
- Les ancrages doivent être appliqués d'une telle façon qu'ils peuvent neutraliser des dilatations/rétrécissements éventuels de la fenêtre.

II.2.3 Montage des accessoires

Le choix des points de fixation, du nombre de points de fermeture, du nombre de charnières, du poids max. d'ouvrant, des dimensions max. d'ouvrant, etc. doit se faire suivant les instructions du fournisseur des systèmes et du fabricant des accessoires.

Les parties coulissantes et mobiles doivent être pourvues de graisse neutre.

Lors du montage, il faut contrôler si les accessoires peuvent être actionnés de façon souple et sans bloquer.

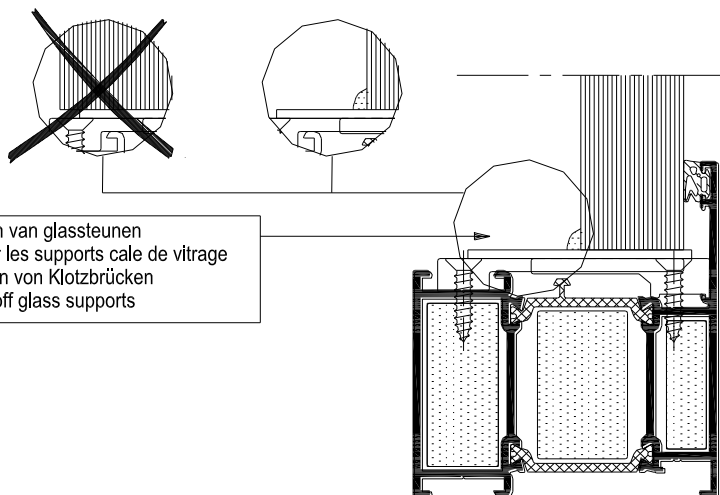
II.3 VITRAGE

Tous nos systèmes sont conçus pour vitrer à l'aide de joints EPDM.

Nous vous recommandons d'utiliser notre système de joints de vitrage pour des raisons de facilité et fiabilité de mise en oeuvre, de bonne tenue dans le temps et de simplicité dans le remplacement de volumes verriers.

Le vitrage devra se faire en respectant les points suivants:

- Le joint doit être refoulé pour éviter qu'apparaissent, dans le temps, des ouvertures dans les angles dues au rétrécissement de ce joint.
- Des ouvertures de drainage doivent être forées/fraisées afin d'éviter toute stagnation d'eau (voir détails de fabrication 'drainage').
- Pour la pose des vitrages, le jeu entre vitrage et fond de feuillure doit être de 12 mm (6 mm par côté) au minimum.
- Les supports de vitrage qui se trouvent en dessous du panneau de vitrage doivent être rendus étanches (voir dessin ci-après).



Fixation du vitrage

Aucun volume verrier ne peut être directement en contact avec l'aluminium. La pose de cales de vitrage et d'un joint est indispensable.

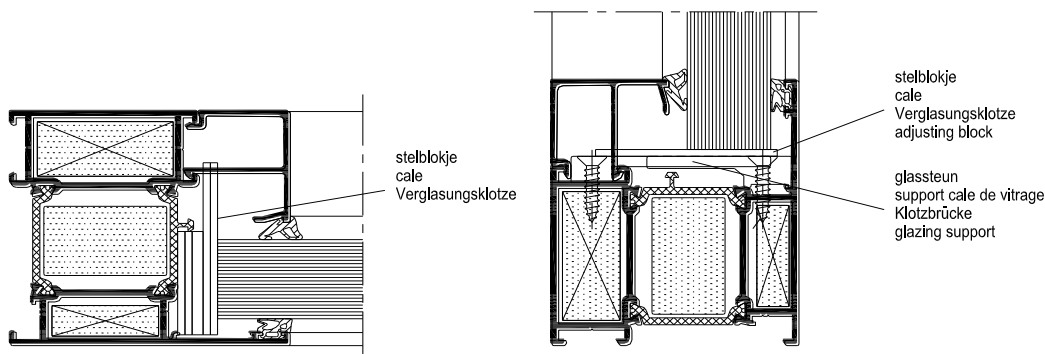
Le but du calage du verre est non seulement d'éviter ce contact, mais également d'obtenir une bonne pose dans les portes et de transmettre de façon correcte le poids du verre même sur les charnières afin de prévenir une déformation éventuelle de l'ouvrant porte.

Pour le CS 77-FP, nous disposons de supports de vitrage en acier inoxydable qui sont utilisés pour égaliser le fond de la feuillure. Sur ces supports on peut utiliser des cales de vitrage rectangulaires anti-feu.

Les panneaux de vitrage sont bloqués au moyen de clips de vitrage en acier à ressorts. Ceux-ci sont fixés de façon mécanique dans le profilé dormant/ouvrant.

La distance maximale jusqu'à l'angle s'élève à 100 mm. La distance entre les clips de vitrage s'élève à 500 mm au maximum.

Voir également recommandations de traitement "méthode de vitrage".



Le nombre et la position des supports de cale de vitrage sont déterminés par le STS 38.

Un aperçu:

Nous distinguons 2 types de cales de vitrage:

cale de support 

cale d'ajustement 

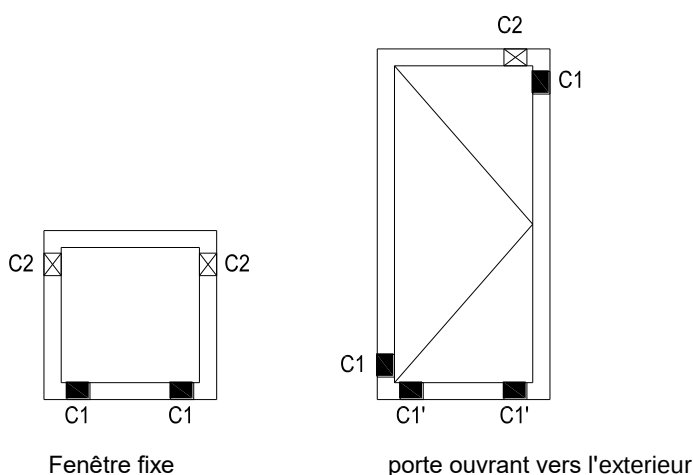
C1: Cales de support

Ces cales de support transmettent le poids du verre sur l'ouvrant ou sur l'allège, et leur bonne pose est d'une importance capitale pour le fonctionnement des fenêtres.

C2: Cales d'ajustement

Ces cales assurent le positionnement du verre par rapport à la feuillure, et sont appliquées sans forcer. Elles empêchent tout mouvement du verre dans son logement.

Les schémas suivants indiquent la pose des différentes cales de vitrage dans les différents types de fenêtres.



En cas de vitrage fixe, on applique les supports dans les angles de la traverse basse pour empêcher que celle-ci ne plie sous le poids du verre (voir schéma fenêtre fixe).

En cas de portes, le verre est calé diagonalement de l'angle inférieur de la charnière à l'angle supérieur opposé (voir schéma fenêtre ouvrante).

Après le réglage de l'ouvrant au recouvrement correct, les deux autres angles peuvent être traités avant d'appliquer les parcloles.

En cas de doute si le recouvrement est correct, nous vous recommandons de tracer deux fines lignes de crayon sur l'angle supérieur supporté diagonalement. Quand la fenêtre est ouverte, on voit clairement ces lignes et le recouvrement peut être mesuré.

II. ENTRETIEN

S'il vous plaît, consultez les instructions standard d'entretien Reynaers Aluminium "operation, care and maintenance manual (for windows and doors)"

Il est important que, pour les points suivants, en outre, ce catalogue CS 77-FP soit suivi de près en ce qui concerne l'entretien et le remplacement du verre :

- Pour coller les joints de gonflement, suivez de près les instructions adhésives.
- Le vitrage coupe-feu est pris en charge sur des supports spécifiques en verre en acier inoxydable et des cales de soutien en verre résistantes au feu. Aucun autre produit ne doit être utilisé.
- Le vitrage de retagging de feu doit être fixé entre des clips en verre spécifiques. En cas de remplacement du verre, ces clips doivent être remplacés et la connexion vis soigneusement scellée. La même distance entre les pinces en verre doit être respectée.
- Le côté résistant à l'eau est de l'extérieur à l'intérieur
- Les joints enflés sont sensibles à la température et ne doivent pas entrer en contact avec des températures supérieures à 100°C
- Les connexions spécifiques de construction et de fixation doivent être respectées.
- En cas de remplacement de la vitre, veuillez consulter le catalogue CS 77-FP si le type de verre est autorisé à l'utiliser avec ce système.:

PROCESSING DATA

I. GENERAL

See catalogue "1.General information"(089.C01E.00 edition 11/2004)

II. PROCESSING DATA CONCEPT SYSTEM ® 77 FIRE PROOF

II.1 FABRICATING INSTRUCTIONS

In order to guarantee a perfect end product, the following guidelines should be adhered to during the production process.

II.1.1 Safety regulations

1.1.1 Fire-resistant filling pieces

Before transporting, storing and processing the fire-resistant filling pieces, the processing and security prescriptions of the product always have to be consulted.

II.1.2 Metal-removing operations

Metal-removing operations are understood to mean all mechanical operations such as sawing, milling, drilling, punching and cutting. For painted profiles it is essential that the paint coatings do not come off on the edges during these operations. Therefore it is very important for the quality of the connections that:

- the metal-removing tools are appropriate and sufficiently sharp;
- the machines are well adjusted (e.g. number of revolutions);
- the tools are regularly checked;
- the metal-removing tools are greased sufficiently and correctly:
 - cutting grease block (art.no. 086.9191.--) for saw blades,
 - cutting spray (art.no. 086.9175.--) for punch tools
 - or the cooling agents and lubricants prescribed by the machine suppliers;
- the appropriate clamp blocks are used; (see assembly drawing 'clamp blocks saw')
- the cutting table is free of swarf and dust;
- possible cooling is done by means of chemically neutral products which do not attack the surface treatment.

Position/clamping of the profiles during cutting:

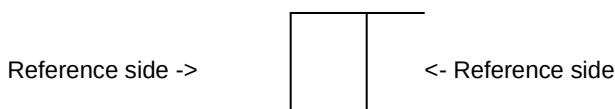
The position of the profiles on the sawing table during cutting is very important and is the basis to get perfect mitres after assembly of the window/door.

The biggest clamping pressure should always be on the "reference side" of the profiles.

The "reference side" has to be put perfectly horizontally or vertically on the sawing table.

The clamp blocks should be used:

- a. to ensure that tolerances on the profiles do not influence the quality of the mitre;
- b. to ensure that the profiles do not twist on the table.

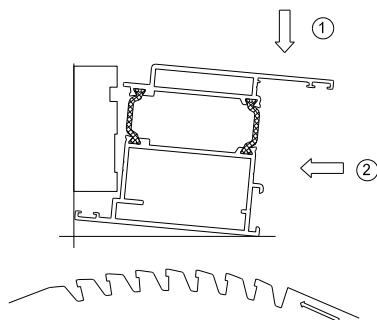


INCORRECT CLAMPING

FAULT: The clamping pressure is on the upper side of the profile, allowing it to twist during cutting.

CONSEQUENCE: An oblique saw cut resulting in the outside of the profile being shorter than the inside.

RESULT: On assembly, the corner is closed on the inside and open on the outside.



CORRECT CLAMPING

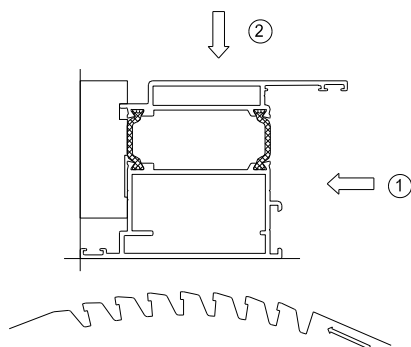
Here, the clamping pressure is on the rebate side of the profile, and the visible side undergoes a smaller, secondary pressure.

The profile is prevented from twisting or deforming during cutting. A perfect joint is obtained on assembly.

Remark: It is recommended to exhaust the swarf during the cutting.

All the saw cuts that form a joint such as corner joints and T-junctions have to be protected with Reynaprotector (art.nr. 086.9208.SY + 086.9225.--)

The other saw cuts (such as glazing beads, terminal strips, ...) have to be protected with Reynastick (art.nr. 086.9600.06) as well as milling cuts, drill holes, punch holes, ...



II.1.3 Assembly

We make the following subdivision:

1. Drainage and recesses for the accessories;
2. T-brackets;
3. Corner connections
 - a) crimping
 - b) screwing;
4. Gaskets

1.3.1 Drainage and recesses for the accessories

Steps:

- a. Marking of recesses
- a. Correct punching, drilling or milling.
- b. Protection of the treated surfaces by :
 - deburring (if necessary);
 - removing dust and saw-dust on the saw cuts and in the profile chamber;
 - degreasing (Reynaers Safety Clean art. no. 086.9231.—and Reynaers Multifoam 086.9230.--).
 - applying Reynastick (art.nr. 086.9600.06) or Reynaers Anti-Corro (art.nr. 086.9606.--)

Special attention should be paid to the following regarding drainage:

Possible infiltrating water must be drained smoothly under control and one must be sure that the profile's chambers remain at atmospheric pressure.

For CS 77-FP no hidden drainage is allowed except for EI2 30 door vents where no cooling block inserts are used in the door vent profiles.

For windows, drainage holes should be a maximum of 250 mm from the corner (for specific drainage: see assembly drawings 'drainage')

up to a window width of 1000 mm: 2 drainage holes;
 up to a window width of 1500 mm: 3 drainage holes.

Additional holes are required every 500 mm.

- Always drain at the lowest point of the glass rebate.
- The minimum surface of these openings is 50 mm² per opening, either a round opening of minimum 8 mm diameter, or elongated openings of minimum 5 mm by 15 mm.
 Drainage holes which are visible on the outside of the window are covered with drainage covers in synthetic material.
 All window types must be provided with a drainage system in the sills and/or the horizontal transoms.
- All window types are provided with ventilation holes (see assembly drawing 'decompression'). Its function is to guarantee the pressure equalization around the glazing.
- In case of fixed windows, on top the outer glazing gasket is interrupted over a length of 50mm.
- In case of side hung windows, at the side on top of the vent at least 1 opening of at least 5mm is drilled.

1.3.2 T-brackets and cross connections

Steps (see assembly drawings 'T-connection') :

- a. For CS 77-FP (EI60): Preparation of the T-brackets with cooling paste, art. no. 087.9551.-- (processing and drying time, see: assembly drawings)
- b. Correct sawing of the transom-mullion
- c. Punching (Ø 7 mm: T-bracket with drive pin)
- d. Notching of the transom-mullion (height 25 mm)
- e. Preparation of the saw cuts and treated surfaces by:
 - deburring
 - removing dust and saw-dust on the saw cut and in the profile chamber;
- f. Inserting fire protection filling pieces, art. nr 087.9520.- -, 087.9521.- -, ...
- g. Protection of the saw cuts and treated surfaces by:
 - degreasing (Reynaers Safety Clean art. no. 086.9231.—and Reynaers Multifoam 086.9230.--).
 - Apply Reynaprotector (art.nr. 086.9207.SY + 095.E500.00 + 086.9225.--) on the saw cuts and Reynaers anti-corro (art.nr. 086.9606.--) on the milling edges and holes.
- h. Sealing of the transom-mullion by applying a fire-resistant sealing agent (art.nr. 084.9021.04) :
 - on the saw cuts;
 - on the fixing holes;
- i. Sealing of the zone under the transom-mullion on the outer frame by applying sealing elements or a fire-resistant elastic sealing agent. These parts should be watertight.
 - Remark: Exceptions are allowed in order to obtain pressure equalization in the case of fixed panels, provided controlled drainage is applied.
- j. Making the connection: the T-bracket is positioned on the center line, the transom-mullion is inserted, and the T-bracket is fixed with screws and driving-in pins (or 2x driving-in pins).
- k. Remove adhesive residue on the visible sides of the completed elements with a non-aggressive product (Reynafinish 60 art.no. 086.9210.—or Reynaers Safety Clean 086.9231.--).

1.3.3 Corner connections

1.3.3.1 Crimping

Steps (see assembly drawing 'corner connection crimp corner cleat'):

* option A : glue injection after crimping

** option B : glue injection before crimping

- a. For CS 77-FP (EI60): Preparation of corners with cooling paste, art. 087.9551.-- (processing and drying time, see: assembly drawings)
- b. Correct sawing
- c. *applying holes for glue injection (Ø3.5/4mm) (see assembly drawing 'glue injection')
- d. Preparation of the saw cuts and treated surfaces by:
 - deburring
 - removing dust and saw-dust on the saw cut and in the profile chamber;
- e. Inserting fire protection filling pieces, art. nr 087.9520.- -, 087.9521.- -, ...
- f. Protection of the saw cuts and treated surfaces by:
 - degreasing (Reynaers Safety Clean art. no. 086.9231.—and Reynaers Multifoam 086.9230.--).
 - Applying Reynaprotector (art.nr. 086.9207.SY + 095.E500.00 + 086.9225.--) on the saw cuts and Reynaers anti-corro (art.nr. 086.9606.--) on the milling edges and holes.
- g. **Gluing in the profile chamber: applying an approved sealing glue (Reynaseal Duo art.no. 084.9080.--)
- h. Insert prepared corners (see assembly drawing "crimp corner cleats")
- i. Make the connection by crimping
- j. *Glue injection at the height of the injection holes by means of an approved sealing glue (Reynaseal duo art. Nr. 084.9080.--)

- k. Remove adhesive residue on the visible sides of the completed elements with a non-aggressive product (Reynafinish 60 art.no. 086.9210.—or Reynaers Safety Clean 086.9231.--).
- l. Apply rebate supports

1.3.3.2. Screws

Steps

* option A : glue injection after screwing

** option B : glue injection before screwing

- a. For CS 77-FP (EI60): Preparation of corners with cooling paste, art. 087.9551.-- (processing and drying time, see: assembly drawings)
- b. Correct sawing
- c. Creating screw holes (*and glue injection holes)
- d. Preparation of the saw cuts and worked surfaces by:
 - deburring
 - removing dust and saw-dust on the saw cuts and in the profile chamber;
- e. Applying fire-resistant filling pieces, art. no. 087.9520.--, 087.9521.--, ...
- f. Protection of the saw cuts and treated surfaces by:
 - degreasing (Reynaers Safety Clean art. no. 086.9231.—and Reynaers Multifoam 086.9230.--).
 - Applying Reynaprotector (art.nr. 086.9207.SY + 095.E500.00 + 086.9225.--) on the saw cuts and Reynaers anti-corro (art.nr. 086.9606.--) on the milling edges and holes.
- g. **Gluing in the profile chamber: applying an approved sealing glue (Reynaseal Duo art.no. 084.9080.--)
- h. Inserting (prepared) screw corners
- i. Make the connection and fix with screws (Allen key 4) and driving-in pins
- j. *Glue injection at the height of the injection holes by means of an approved sealing glue (Reynaseal duo art. Nr. 084.9080.--)
- k. Remove adhesive residue on the visible sides of the completed elements with a non-aggressive product (Reynafinish 60 art.no. 086.9210.—or Reynaers Safety Clean 086.9231.--).
- l. Apply rebate supports

1.3.4 Gaskets

All gaskets are of EPDM resistant to weathering and ageing. They should be carefully applied since the tight sealing of the window depends on their correct application.

a. Applying the acoustic gasket

Steps (see assembly drawing 'gasket'):

1. Correct cutting: the acoustic gasket should be cut with special gasket shears (art.no. 090.0121.00). This gasket should be cut straight and should continue into the corners (small cuts in the corners will facilitate the bending). Extra overhanging (about 10 mm per metre) is required.
2. Application of the gasket: the gaskets are applied in the appropriate grooves within the profiles; they should be cut slightly longer than is necessary to compensate for any shrinkage that may occur. Difficulties in applying the gasket can be solved by the use of silicone spray (art.no. 086.9551.--).
3. At hinge height this gasket should be cut. The gasket is folded underneath the hinge.
4. Glueing (sealing): the cuts should be glued with vulcanizing agent (Unionzement art.no. 084.9103.--).

b. Applying the glazing gaskets

Steps (see assembly drawing 'gasket'):

1. Correct cutting: the glazing gasket should be cut with special gasket shears (art.no. 090.0121.00) and can be cut straight or mitred according to the kind of profile connection. Extra overhanging (about 10 mm per metre) is required.
2. Application of the gasket: the gaskets are applied in the appropriate grooves within the profiles; they should be cut slightly longer than is necessary to compensate for any shrinkage that may occur. Difficulties in applying the gasket can be solved by the use of silicone spray (art.no. 086.9551.--).
3. Glueing (sealing): in the corners, glazing gaskets should be glued with vulcanizing agent (art.no. 084.9103.--). This vulcanizing agent will remain elastic and because of this the gasket will also fit perfectly into the corners.

II.2 INSTALLATION

II.2.1 Storage

Unfinished or finished elements should always be stored in a dry, frost-free room.

II.2.2 Fitting in the structural work

Fixing of doors

The fixing to the structural work of doors is described in the following documents:

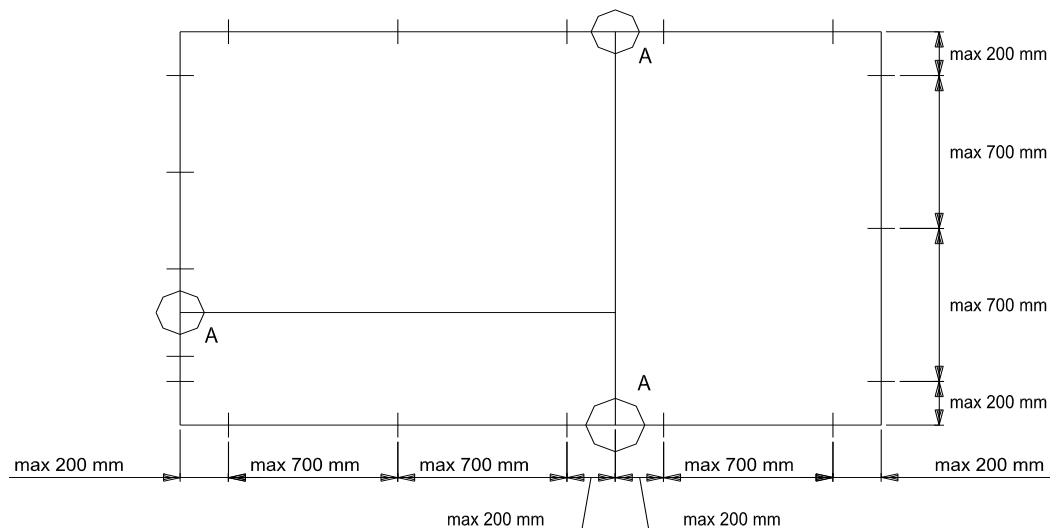
EI30: FOA 2017-EFFECTIS-R001359

EI60: FOA 2017-EFFECTIS-R001360

Fixing of partition walls

The fixing to the structural work is done either directly through the profiles by means of for instance screws and plugs, or by means of fixing lugs.

- The fixings may not be applied less than 40 mm of the wall of the structural work.
- The anchoring may in no way influence the bearing power of the adjacent building parts.
- All anchorings, as far as they are not made of aluminium or stainless steel, should be adequately corrosion protected and may not attack the aluminium themselves.
- When fitting the windows, sufficient fixings are required:



At least two fixings should be applied on all sides; the maximum distance to the corner is at least 200 mm.

- The distance between the fixings is maximum 700 mm.
- Where transom/mullions and outer frame profiles meet, the fixing must be applied maximum 200 mm from both sides of the transom/mullion (A). In this way, expansion and shrinkage of the transom/mullion (because of fluctuations of temperature) are possible without any damage.
- We recommend to position the fixings at the height of each hinge and locking point.

II.2.3 Fitting of the accessories

The choice of the fixing points, number of locking points, number of hinges, max. vent weight, max. vent sizes, vent profile used etc. depends on the instructions of the system supplier and the accessory producer.

Sliding and moving parts should be provided with neutral grease.

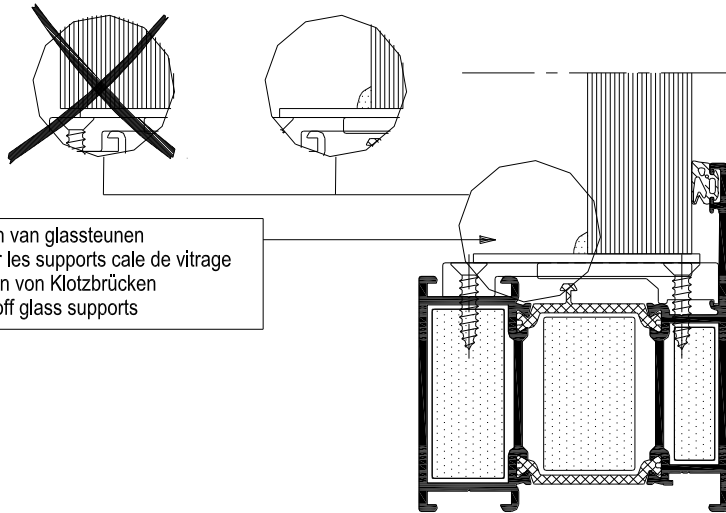
When fitting, please check whether all accessories can be operated easily and without getting stuck.

II.3 GLAZING

Reynaers' systems are designed for EPDM gasket or neutral silicone glazing. In case of silicone glazing a backing rod should be applied to create a correct opening between the glass panel and the aluminium frame. For easy and reliable fitting, durability and reglazing simplicity, we recommend using only Reynaers' gaskets - specially adapted for our profiles.

The following precautions should be taken when fitting the glazing:

- Cut the glazing gaskets slightly longer than is necessary to avoid openings in the corners at a later stage.
- Drainage holes should be drilled to avoid a build-up of moisture.
- Glass panels should be 12 mm (6 mm per side) smaller than the actual measured glazing size.
- The glass supports on the bottom of the glass panel should be sealed (see drawing below).



Fitting of the glass panels

Glass panels should not come into contact with the aluminium frame; always use glazing blocks and gaskets.

Wedging prevents this contact and also ensures correct positioning of the glass into the door, distributing the weight equally onto the hinges to avoid deformation of the door vent.

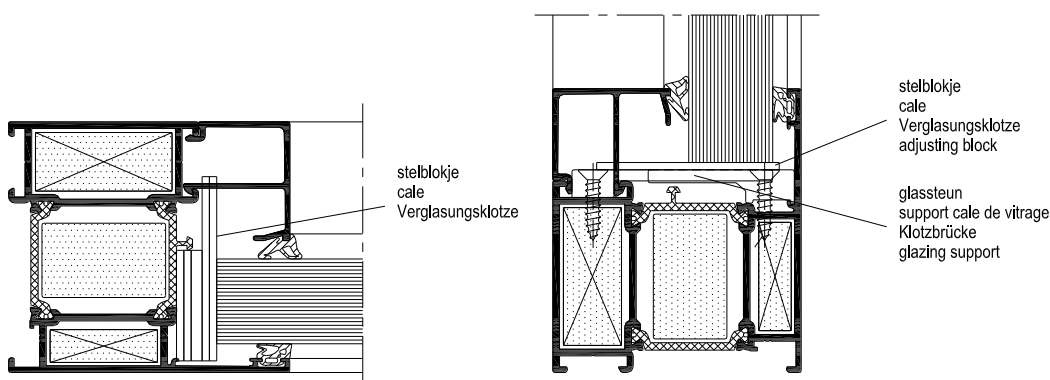
For the CS 77-FP we dispose of stainless steel glass supports that can be used to level the bottom of the rebate.

In this case it will be possible to apply rectangular fire resistant glazing blocks.

The glass panels are locked by means of spring steel glazing clips. These are fixed mechanically in the outer frame/vent profile.

The maximum distance to the corner is 100 mm. The distance in between the glazing clips is maximum 500 mm.

See also processing data "glazing method".



The number and position of the glass supports is defined by the STS 38.

An overview:

There are 2 types of glazing blocks:

support block



adjusting block



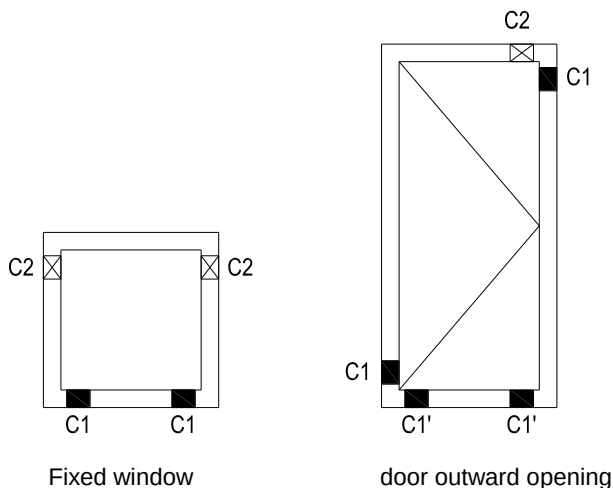
C1: Support blocks

These support blocks distribute the weight of the glass onto the vent or the outer frame. Correct positioning is very important for the vent to function correctly.

C2: Adjusting blocks

These blocks guarantee the correct positioning of the glass between the rebates. They must be positioned without twisting or damaging the profile. Adjusting blocks also prevent the glass panels from moving.

The following sketches indicate the different glazing blocks in different types of windows.



In case of fixed glazing corner supports are applied in the corners of the sill in order to avoid them from bending under the glass weight (see sketch fixed window).

In casement of doors, the glass is wedged diagonally from hinge corner to the opposite top corner (see sketch casement window).

If the vent is set up with the correct overlap, the remaining two corners can be wedged before beading.

If in doubt, the overlap can be checked by tracing two pencil lines on the top corner which has been wedged.

These lines are visible when the vent is opened and the overlap can then be measured.

III. MAINTENANCE

Please, consult the standard Reynaers Aluminium maintenance instructions "operation, care and maintenance manual".

It is important that for the following points, in addition, this catalogue CS 77-FP is closely followed with regard to maintenance and glass replacement:

- To stick the swelling seals, closely follow the adhesive instructions.
- Fire-proof glazing is supported on specific stainless steel glass supports and fire-resistant glass support shims. No alternatives products should be used.
- Fire-retagging glazing must be secured between specific glass clips. In case of glass replacement, these clips must be replaced and the screw connection neatly sealed. The same distance between the glass clips have to be respected.
- The side of water resistant is from the outside to the inside
- The swelling seals are temperature sensitive and must not come into contact with temperatures above 100°C
- The specific construction and fastening connections must be respected.
- In case of replacing the glass pane, please see in the CS 77-FP catalogue if the glass type is allowed to use with this system.

VERARBEITUNGSVORSCHRIFTEN

I. ALLGEMEIN

Siehe Katalog "1. Allgemeine information (089.C01E.00 Ausgabe 11/2004)

II. VERARBEITUNGSVORSCHRIFTEN CONCEPT SYSTEM ® 77 FIRE PROOF

II.1 VERARBEITUNG

Um ein qualitativ hochwertiges Endprodukt zu erstellen, sollen bei der Verarbeitung folgende Punkte berücksichtigt werden:

II.1.1 Sicherheitsvorschrift

1.1.1 Feuerhemmende Füllstücke

Bevor die feuerhemmende Füllstücke zu transportieren, zu lagern und zu verarbeiten, sollen die Verarbeitungs- und Sicherheitsvorschriften des Produkts immer konsultiert werden.

II.1.2 Spanende Bearbeitungen

Mit spanenden Bearbeitungen sind alle mechanischen Bearbeitungen, wie Sägen, Fräsen, Bohren, Stanzen gemeint. Bei allen mechanischen Bearbeitungen ist auf den Einsatz geeigneter Sägeblätter, Fräser und Bohrer zu achten, damit die Oberfläche nicht durch Grate oder abplatzende Beschichtung beschädigt wird.

Zur Profilbearbeitung geben wir folgende Hinweise:

- Die spanabhebenden Werkzeuge müssen für den Werkstoff geeignet und ausreichend scharf sein.
- Die Maschinendrehzahl muss auf den Werkstoff Aluminium abgestimmt sein.
- Die Profilaufgaben müssen sauber und spanfrei sein.
- Zur Verlängerung der Werkzeugstandzeiten können geeignete Gleitmittel, wie :
der Fettstift (Art.-Nr. 086.9191.--);
das Schneidmittel (Art.-Nr. 086.9175.--)
oder die von den Maschinenlieferanten vorgeschriebenen Kühl- und Schneidmittel
- Die geeignete Spanbacken sollen angewandt werden (siehe Montagezeichnung 'Spanbacken Säge')
- Der Auflage- und Ablauftisch soll frei von Spänen und Verunreinigungen sein;
Diese Kühl- und Schneidmittel müssen chemisch neutrale Produkte sein, die die Oberfläche nicht angreifen.

Position/Klemmung der Profile während des Zersägens :

Der Auflage-/Säge-Tisch sollte eine glatte und ebene Auflagefläche bieten.

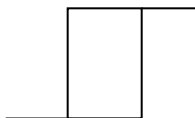
Der dahinterliegende Anschlag sollte exakt im Winkel von 90° positioniert sein.

Auf dem Maschinentisch sollen keine Verunreinigungen, wie Sägespäne oder Kleberreste vorhanden sein.

Eine Fixierung der Profile erfolgt mittels Hand- oder pneumatischer Spannzylinder, welche von oben und von vorne auf das Profil wirken..

Ein Verdrehen der Profile während des Sägevorganges ist durch den Einsatz von Schneidzulagen zu verhindern.

Bezugsseite ->



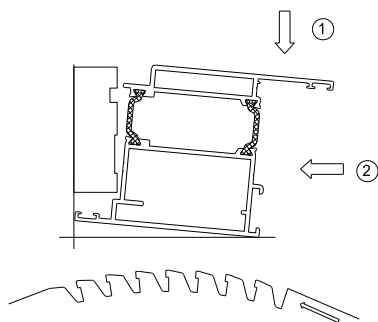
<- Bezugsseite

FALSCH EINSpannung

FEHLER: Da der Hauptdruck der Spannvorrichtung auf die Falzseite des zu sägenden Profils einwirkt, verdreht sich das Werkstück.

FOLGE: Schiefer Sägeschnitt. Die Aussenseite des Profils ist kürzer als die Innenseite.

ERGEBNIS: Beim Verpressen der Winkel ist die Gehrung an der Innenseite dicht, steht aber an der Aussenseite offen.



RICHTIGES SPANNEN

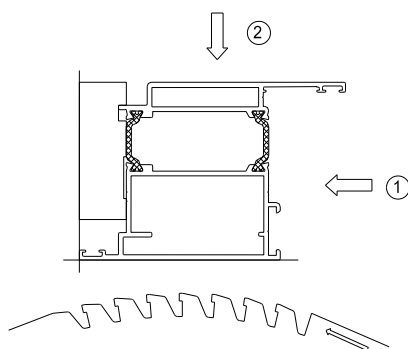
Der Hauptdruck der Spannvorrichtung wirkt ein auf die gesamte Fläche. Die Falzseite wird durch eine zweite Spannvorrichtung mit geringerer Kraft gehalten.

Durch diese korrekte Einspannung kann sich das Profil beim Sägevorgang nicht verdrehen.

Die Gehrung wird in der Eckverbindermaschine in der gleichen Art und Weise fixiert, so dass eine exakte Verbindung erreicht wird.

Anmerkung:

Es empfiehlt sich die Späne während des Sägevorganges



II.1.3 Profilverbindungen und deren Verarbeitung

1. In den Reynaers-Katalogen wird nach 4 Verarbeitungsschritten unterschieden
2. Entwässerung und Vorbereitung für den Beschlageinbau; T-Verbindungen
3. Eckverbindungen
 - a) Presseckverbinder
 - b) Schraubeckverbinder
4. Dichtungen

1.3.1 Entwässerung und Bearbeitung für den Beschlageinbau

Verfahrensweise:

- a. die Aussparungen markieren;
- b. Korrekt stanzen, bohren oder fräsen.
- c. Schutz der Schnittkanten:
 - Entgraten (falls erforderlich).
 - Schnittfläche und Profilkammern von Staub und Sägeresten säubern.
 - Entfetten der Profile (Art.-Nr. 086.9182.--).
 - Korrosionsschutzprodukt Reynaers Anti-Corro (art.nr. 086.9606.--) aufbringen.

Insbesondere ist auf folgendes zu achten:

Eventuell eingedrungenes Wasser muss problemlos und kontrolliert abgeleitet werden können.

Es sind entsprechende Dampfdruckausgleichsbohrungen vorzunehmen.

Beim CS 77-FP ist keine verdeckte Entwässerung zulässig, ausgenommen beim EI2 30 Türflügel, bei dem kein Kühlmittelmaterial in den Türflügelprofilen verwendet wird.

- Bei jedem Rahmen sind grundsätzlich zwei Entwässerungsbohrungen vorzunehmen.

Diese sitzen max. 250 mm aus der Ecke (für spezifische Entwässerung : siehe Montagezeichnung 'Entwässerung') :

Bei Rahmenbreiten bis 1000 mm sind 2 Öffnungen vorzusehen;
bei Rahmenbreiten bis 1500 mm sind 3 Öffnungen vorzusehen
Je weiteren 500 mm ist eine zusätzliche Öffnung vorzusehen.

- Die Entwässerungsöffnungen sind grundsätzlich am tiefsten Punkt der Profilkontur anzubringen. Die Mindestoberfläche der Entwässerungsöffnung beträgt 50 mm² pro Öffnung, wobei eine Bohrung von mind. 8 mm Durchmesser oder ein Schlitz von 5 x 15 mm vorzusehen ist.
- Alle sichtbaren Entwässerungsöffnungen müssen mit systemabhängigen Kunststoff-Abdeckkappen versehen werden.
- Alle Rahmenkonstruktionen müssen im Solbankbereich bzw. an den horizontalen T-Profilen mit entsprechenden Ausnehmungen versehen werden.
- Bei jedem Rahmen sind grundsätzlich zwei Entlüftungsbohrungen vorzunehmen (siehe Montagezeichnung 'Dekompression') damit die Druckegalisierung rundum die Verglasung zu gewährleisten.
- Bei einem festen Fenster wird die Außenverglasungsdichtung an der Oberseite 50mm unterbrochen.
- An der Flügel- oder Rahmenoberkante sind Druckausgleichsöffnungen von mind. 5 mm Grösse vorzunehmen.

1.3.2 T-Verbinder

Verfahrensweise (siehe Montagezeichnung 'T-Verbindung') :

- a. Bei CS 77-FP (EI60): Vorbereiten von T-Verbinder mit Kühlpaste, Art 087.9551.- (Verarbeitung und Trockenzeit: siehe Montagezeichnungen)
- b. Korrekt zuschneiden.
- c. Stanzen oder bohren der Sprosse (Ø 7mm: T-verbinder mit Stift)
- d. Abfräsen der Falzhöhe der Sprosse (Höhe 25 mm)
- e. Die Sägeschnitte und bearbeiteten Flächen wie folgt vorbereiten:
 - Entgraten
 - Schnittfläche und Profilkammern von Staub und Sägeresten säubern.
- f. Anbringen von feuerhemmenden Füllstücken, art.nr 087.9520.--, 087.9521.--
- g. Beschützung der Sägeschnitte und bearbeiteten Oberflächen durch :
 - Entfetten der Profile (Reynaers Safety Clean art. no. 086.9231.-- und Reynaers Multifoam 086.9230.--).
 - Korrosionsschutzprodukt Reynaprotector (art.nr. 086.9207.SY + 095.E500.00 + 086.9225.--) auf die Sägeschnitte und Reynaers anti-corro (art.nr. 086.9606.--) auf die bearbeitete Schnittkanten und Befestigungsbohrungen aufbringen
- h. Abdichtung: der Bereich im T-Stoss sowie der Bereich der Befestigungsmittel ist durch den Einsatz geeigneter feuerfest Dichtungsmittel (084.9021.04) wasserdicht auszuführen:
 - Auf die Schnittfläche
 - In die Befestigungsbohrungen
- i. Abdichten der Zone unter der Sprosse auf dem Blendrahmen durch das Anbringen von Dichtungsstücke oder einem geeigneten feuerfest Dichtungsmittel (084.9021.04). Diese sollen wasserdicht ausgeführt werden.
 - Anmerkung : Eine Ausnahme ist möglich, wenn ein Druckausgleich und eine kontrollierte Entwässerung gewährleistet ist.
- j. Verbinden: nach dem Einbringen des T-Verbinders, der Kleber und Dichtungsmittel, werden die Bauteile zusammengefügt, verstiftet bzw. verschraubt.
- k. Nach dem Zusammenfügen müssen überschüssige Kleber und Dichtungsmittelreste auf den sichtbaren Seiten entfernt werden (Reynafinish 60 art.n°086.9210.—oder Reynaers safety clean 086.9231.--).

1.3.3 Eckverbindungen

1.3.3.1 Presseckverbinder

Verfahrensweise (siehe Montagezeichnungen 'Eckverbindung Presseckwinkel') :

* Option A : Leiminjektion nach dem Pressen

** Option B : Leiminjektion vor dem Pressen

- a. Für CS 77-FP (EI60): Eckverbinder vorbereiten mit Kühlpaste, Art 087.9551.- (Verarbeitung und Trockenzeit: siehe Montagezeichnungen)
- b. Korrekt zuschneiden
- c. *anbringen von Löchern für Leiminjektion (Ø 3.5 / 4mm) (siehe Montagezeichnung Leiminjektion')
- d. Vorbereiten der Schnittkanten und bearbeiteten Oberflächen durch:
 - Entgraten
 - Schnittfläche und Profilkammern von Staub und Sägeresten säubern.
- a. Anbringen von feuerhemmenden Füllstücken, art.nr 087.9520.--, 087.9521.--
- b. Schutz der Schnittkanten und bearbeiteten Oberflächen durch:
 - Entfetten der Profile (Reynaers Safety Clean art. no. 086.9231.— und Reynaers Multifoam 086.9230.--).
 - Reynaprotector (art.nr. 086.9207.SY + 095.E500.00 + 086.9225.--) aufbringen auf Schnittflächen und Reynaers anti-corro (art.nr. 086.9606.--) auf Frässchnitte und Löchern.
- c. Anbringen der vorbereiteten Presseckwinkel
- d. Verbinden und pressen
- e. * Leiminjektion auf der Höhe anbringen von Korrosionsschutzprodukt (Reynaseal duo art. Nr. 084.9080.--)
- f. Ausgetretener Kleber oder Dichtungsmittelreste müssen von den Sichtseiten entfernt werden (Reynafinish 60 art.nr. 086.9210.-- oder Reynaers safety clean 086.9231.--).
- g. Bringen Sie die Eckwinkel.

1.3.3.2 Schrauben

Verfahrensweise (siehe Montagezeichnung „Eckverbindung Schraubwinkel“):

* Option A : Leiminjektion nach dem Schrauben

** Option B : Leiminjektion vor dem Schrauben

- a. Für CS 77-FP (EI60): Ecken mit Kühlpaste Art.-Nr. 087.9551.-- vorbereiten (Verarbeitung und Trockenzeit: siehe Montagezeichnungen)
- b. Korrekt zuschneiden
- c. Schraublöcher anbringen (*und anbringen von Löchern für Leiminjektion)
- d. Vorbereiten der Schnittkanten und bearbeiteten Oberflächen durch:
 - Entgraten
 - Schnittfläche und Profilkammer von Staub und Sägerückständen säubern;
- e. Anbringen von feuerhemmenden Füllstücke, Art.-Nr. 087.9520.--, 087.9521.--, ...
- f. Schützen der Sägeschnitte und bearbeiteten Flächen durch:
 - Entfetten der Profile (Reynaers Safety Clean art. no. 086.9231.— und Reynaers Multifoam 086.9230.--).
 - Reynaprotector (art.nr. 086.9207.SY + 095.E500.00 + 086.9225.--) aufbringen auf Schnittflächen und Reynaers anti-corro (art.nr. 086.9606.--) auf Frässchnitte und Löchern.
 - Einbringen der (vorbereiteten) Schraubwinkel
- g. Verbindung herstellen, verschrauben (Innensechskantschlüssel 4) und vernageln
- h. Ausgetretener Kleber oder Dichtungsmittelreste müssen von den Sichtseiten entfernt werden (Reynafinish 60 art.nr. 086.9210.-- oder Reynaers safety clean 086.9231.--).
- i. Bringen Sie die Eckwinkel.

1.3.4 Dichtungen

Alle angebotenen Dichtungsprofile bestehen aus EPDM mit einer hohen Alterungs und Witterungsbeständigkeit.

Die Verarbeitung der Dichtungen hat sorgfältig und entsprechend den folgenden Hinweisen zu erfolgen:

a. Einbringen der Türdichtung

Verfahrensweise :

1. 1. Korrekt zuschneiden : die Dichtung wird mit einer speziellen Schere (Art.-Nr. 090.0121.00) gerade abgeschnitten und im oberen Bereich mittig gestossen. Das Dichtungsprofil läuft in den Ecken durch.
2. Der Zuschnitt entspricht dem Flügelaussenmass. (Ein kleiner Schnitt in den Ecken wird das Biegen der Dichtung erleichtern) Je lfdm. Dichtungslänge werden 10 mm Überlänge hinzugerechnet.
3. 2. Das Einbringen der Dichtung erfolgt in die vorgesehenen Dichtungsaufnahmen. Beim Einbringen der Dichtungen wird der überlange Zuschnitt durch stauchen der Dichtungsprofile ausgeglichen. Durch die Anwendung des Silikonssprays (Art.-Nr. 086.9551.--) wird das Einbringen der Dichtungen erleichtert.
4. 3. Der Dichtungsstoss ist mit unserem Vulkanisierkleber (Art.-Nr. 084.9103.--) zu verbinden.

c. Einbringen der Verglasungsdichtung

Verfahrensweise (siehe Montagezeichnung (Dichtung'))

1. Korrekt zuschneiden : Die Verglasungsdichtung wird je nach Erfordernis mit einer speziellen Schere (Art.-Nr. 090.0121.00) gerade oder auf Gehrung zugeschnitten. Je lfdm. Dichtung ist eine Überlänge von 10 mm hinzuzurechnen.
2. Das Einbringen der Dichtung erfolgt in die vorgesehenen Dichtungsaufnahmen. Beim Einbringen der Dichtungen wird der überlange Zuschnitt durch stauchen der Dichtungsprofile ausgeglichen. Durch die Anwendung des Silikonssprays (Art.-Nr. 086.9551.--) wird das Einbringen der Dichtungen erleichtert.
3. Verkleben (abdichten) : Die Gehrungs- oder T-Stösse der Dichtungen sollen grundsätzlich mit unserem Vulkanisierkleber (Art.-Nr. 084.9103.--) verklebt werden. Der Einsatz dieses Klebers verhindert das Aushärten der Dichtungen im Stossbereich.

II.2 MONTAGE

II.2.1 Lagerung

Die Lagerung nicht verarbeiteter oder verarbeiteter Elemente muss in jedem Fall in einem trockenen, frostfreien Raum erfolgen.

II.2.2 Befestigung am Baukörper

Befestigung von Türen

Die Befestigung am Baukörper von Türen ist in folgenden Dokumenten beschrieben:

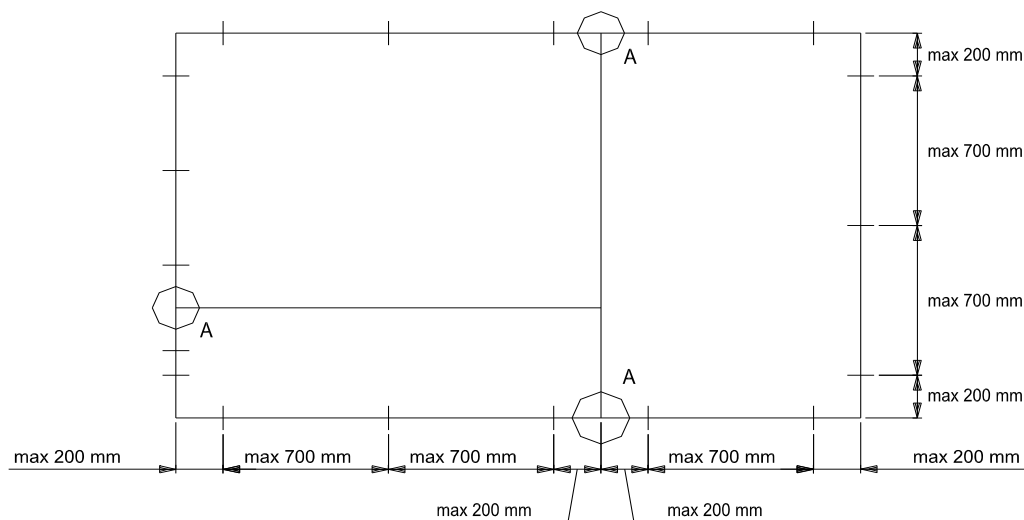
EI30: FOA 2017-EFFECTIS-R001359

EI60: FOA 2017-EFFECTIS-R001360

Befestigung von Trennwänden

Die Befestigung am Baukörper erfolgt durch systemabhängige Befestigungsanker, Rohrrahmendübel oder andere Befestigungsteile.

- Beim Einsatz von Schrauben und Dübeln ist zu gewährleisten, dass die Mindestabstände gemäss den Verarbeitungsrichtlinien der Befestigungshersteller eingehalten werden
- Die Verankerung ist so zu wählen, dass die auf die Fensterkonstruktion einwirkenden Lasten sicher an den Baukörper abgeleitet werden.
- Alle zum Einsatz kommenden Verankerungen sollen aus Aluminium oder Edelstahl bzw. korrosionsgeschützt sein, damit die Aluminiumprofile nicht angegriffen werden.
- Die Anzahl der Befestigungspunkte ist wie folgt festzulegen:



Je Rahmenseite müssen mind. zwei Befestigungen eingebracht werden.

- Der max. Abstand zur Rahmenecke darf 200 mm nicht unterschreiten.
- Der max. Abstand der Befestigungspunkte untereinander darf 700 mm nicht unterschreiten.
- Im Bereich von Pfosten- und Riegelanschluss sind die Befestigungspunkte ebenfalls 200 mm aus der Ecke vorzunehmen.
- Es wird empfohlen, die Befestigungspunkte in den Bereich der Eck- und Scherenlager bzw. der Türbänder sowie im Bereich der Verriegelungspunkte (des Schlosses) zu legen.

Anmerkung:

Die Befestigungen sollen so angebracht werden, dass ein eventuelles Arbeiten der Aluminiemelemente aufgenommen werden kann

II.2.3 Einbau der Beschläge

Die Auswahl der Beschläge hat entsprechend den Vorgaben des Systemlieferanten bzw. des Herstellers der Beschläge zu erfolgen. Die hier angegebenen Werte bzgl. der max. Flügelabmessungen, des max. Flügelgewichtes, der Anzahl der Verschlusspunkte und der Anzahl der Türbänder sind einzuhalten. Bewegliche Teile sind, entsprechend den Angaben des Beschlagherstellers, mit säurefreiem Fett zu versehen. Eine Funktionsprüfung der Beschläge ist nach erfolgter Fertigung und Montage unerlässlich.

II.3 VERGLASUNG

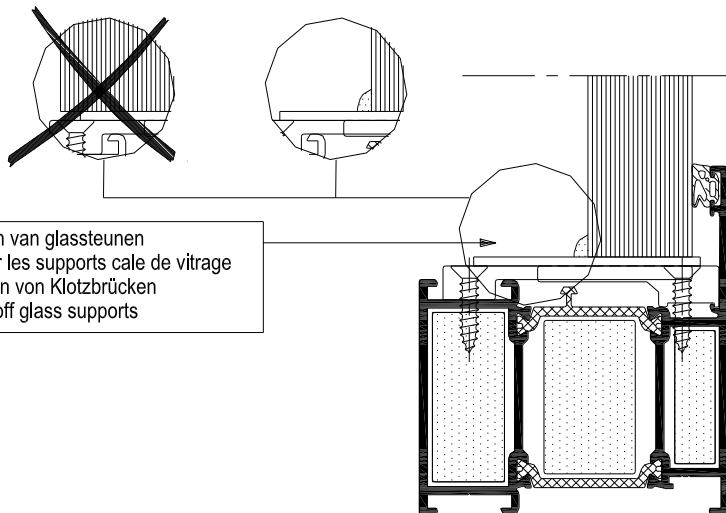
Alle Reynaers-Systeme können mit speziellen EPDM-Dichtprofilen als Trockenverglasung auf Vorlegeband mit Vorprimern verarbeitet werden.

Wir empfehlen den Einsatz unserer EPDM-Dichtprofile, da diese leicht zu verarbeiten sind und den Austausch beschädigter Verglasungen oder Paneele erleichtern.

Bei der Verglasung müssen folgende Punkte berücksichtigt werden:

- Durch Stauchen des Gummis wird vermieden, dass anschließend Öffnungen in den Ecken entstehen.
- Entwässerungsöffnungen müssen gebohrt/gefräst werden, um eine Ansammlung von Wasser zu vermeiden. (siehe Montagezeichnung „Entwässerung“).

Verglasungen oder Paneelen sollten so bemessen sein, dass mind. eine umlaufende Falzluft von 12 mm vorhanden ist (6mm pro Seite). Für alle Reynaers-Systeme stehen sogenannte Klotzbrücken zur Verfügung. Diese überbrücken den Falzgrund, so dass die Luft um die Scheibe zirkulieren kann, und bieten durch ihre glatte Oberfläche eine saubere Auflage für die einzubringenden Verglasungsklotze. Die Verglasungsklotze sollten mind. 2 mm breiter als die Gesamtscheibenstärke sein.



Befestigung der Verglasung

Sofortes Kontakt zwischen den Paneelen und dem Aluminium soll vermieden werden wenn keine Verglasungsklotze oder Dichtungen angewandt sind.

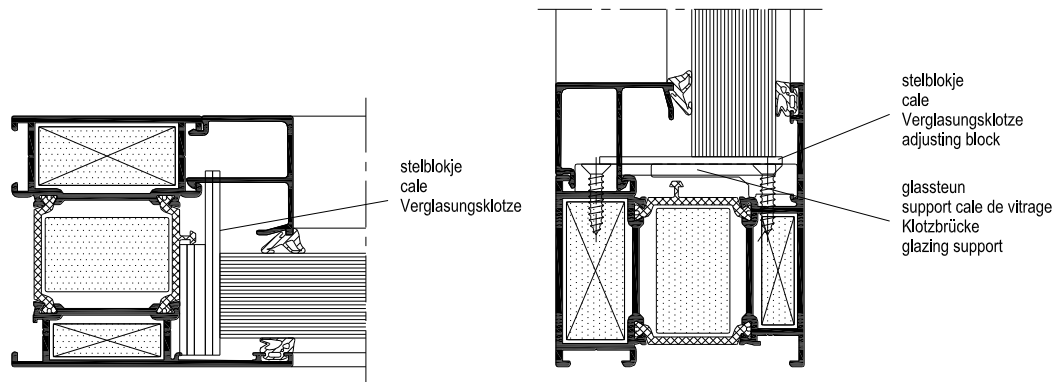
Dieses Kontakt wird vermieden durch das Aufkeilen der Verglasung. Auf diese Weise bekommt man ebenso eine richtige Aufstellung der Verglasung und wird das Eigengewicht des Glases auf eine korrekte Weise auf den Bänder übertragen. Eventuelle Verformung des Türflügels wird also vermieden.

Um die Befestigung zu erleichtern, verfügt Reynaers für CS 77-FP über Glasauflageprofile (Edelstahl) die angewandt werden um die Falzbasis auszugleichen. Rechteckige feuerhemmende Verglasungsklotze können jetzt aufgestellt werden.

Die Verglasungspaneele werden mittels Federstahl Glasklemmen gesichert. Diese werden mechanisch im Blendrahmen-/Flügelprofil befestigt.

Der Höchstabstand zur Ecke beträgt 100 mm. Der Zwischenabstand der Glasklemmen beträgt höchstens 450 mm.

Siehe auch Verarbeitungsvorschriften "Verglasungsmethode".



Die Anzahl und die Position der Klotzbrücken bzw. Verglasungsklotze wird durch Verarbeitungsvorschriften der Isolierglasindustrie und technische Richtlinien des Glaserhandwerks vorgegeben.

Überzicht:

Bei der Verglasung unterscheiden wir Trag- und Distanzklotzen. Die Verglasungsklotze sind gegen Verrutschen zu sichern.

Tragklotze



Distanzklotze



C1: Die Stützklotze

übertragen das Scheibengewicht auf den Rahmen bzw. Flügel und stellen die Gangbarkeit der beweglichen Flügel sicher.

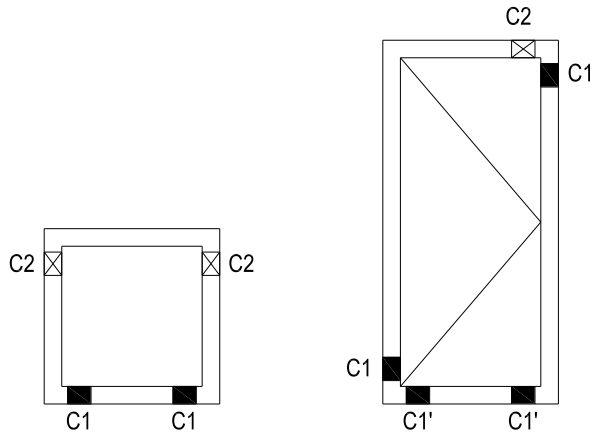
C1': Glasauflageprofile + Stützklotze

Diese Kombinationen von Glasauflageprofile und Stützklotze übertragen das Scheibengewicht auf den Rahmen bzw. Flügel und stellen die Gangbarkeit der beweglichen Flügel sicher.

C2: Die Distanzklotze

Stellen den Abstand zwischen Rahmen und Verglasung sicher. Je nach Flügelöffnungsart können diese auch eine tragende Funktion übernehmen.

Nachstehend eine Übersicht über den Sitz und die Anzahl der Verglasungsklotze in den verschiedenen Fenstertypen.



Falls Festverglasung werden die Stützklötze in den Ecken des horizontalen T-Profils aufgestellt damit zu vermeiden das dieses Profil sich unter dem Glasgewicht durchbiegen wird (siehe Zeichnung Festverglasung).

Falls Türen wird das Glas diagonal aufgekeilt von der unteren Bandoche zu der gegenüberliegenden Band an der Oberseite (siehe Zeichnung Drehfenster). Nachdem können die zwei anderen Ecken gefüllt werden bevor die Glasleisten anzubringen.

Falls Zweifel empfehlen wir zwei Bleistiftlinien auf die obere Ecke – die diagonal unterstützt ist - anzubringen. Beim Öffnen des Fenster sind diese Linien sichtbar und kann der Umschlag nachgemessen werden.

III. WARTUNG

Bitte beachten Sie die standardmäßige Wartungsanleitung von Reynaers Aluminium "operation, care and maintenance manual (for windows and doors)"

Es ist wichtig, dass dieser Katalog CS 77-FP für folgende Punkte in Bezug auf Wartung und Glasaustausch genau verfolgt wird:

- Um die Quelldichtungen zu kleben, folgen Sie genau den Haftanweisungen.
- Feuerfeste Verglasung wird auf speziellen Edelstahl-Glasstützen und feuerfesten Glasstützen unterstützt. Es sollten keine alternativen Produkte verwendet werden.
- Die Feuerverglasung muss zwischen bestimmten Glasclips gesichert werden. Beim Glaswechsel müssen diese Clips ausgetauscht und der Schraubanschluss sauber abgedichtet werden.
- Die Seite der wasserdichten ist von außen nach innen
- Die Quelldichtungen sind temperaturempfindlich und dürfen nicht mit Temperaturen über 100°C in Berührung kommen
- Die spezifischen Konstruktions- und Befestigungsverbindungen sind zu beachten.
- Im Falle des Austauschs der Glasscheibe, siehe im CS 77-FP Katalog, ob die Glasart mit diesem System verwendet werden darf.

C

R

Reynaers
Aluminium

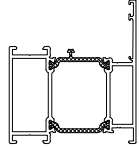
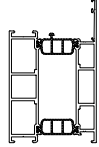
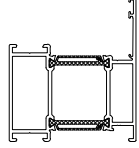
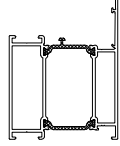
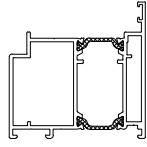
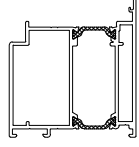
Profielen

Profilés

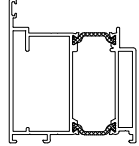
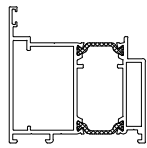
Profiles

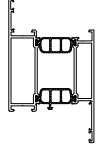
Profile

BUITENKADER
DORMANT
OUTER FRAME
BLENDRAHMEN

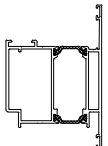
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008.0125.XX		33.34	13.4	7.00	28.497	20.086
008.0142.XX		40.33	20.4	7.00	51.146	74.144
008.0525.XX		33.32	13.4	7.00	11.018	20.059
008.0140.XX		36.06	15.9	7.00	33.230	34.562
008.1898.XX		30.31	12.9	7.00 6.00	28.044	20.552
008.0598.XX		30.73	14.7	7.00	31.523	31.011

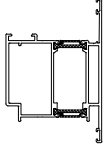
BUITENKADER NAAR BUITENDRAAIEND
DORMANT OUVRANT VERS L'EXTERIEUR
OUTER FRAME OUTWARD OPENING
BLENDRAHMEN NACH AUSSEN OEFFNEND

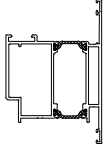
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008.0569.XX		30.73	14.7	7.00	32.557	31.019
008.0469.XX		30.10	12.9	7.00 6.00	28.438	20.308

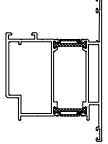
		$\frac{A}{dm^2/m}$	$\frac{P}{dm^2/m}$	$\leftarrow L_m \rightarrow$	$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
Z-PROFIEL PROFILE-Z Z-PROFILE Z-PROFIL						
008.3444.XX		42.53	18.5	7.00	37.381	45.519

VLEUGEL DEUR NAAR BUITENDRAAIEND
 OUVRANT PORTE OUVRANT VERS L'EXTERIEUR
 VENT DOOR OUTWARD OPENING
 FLUEGEL TUER NACH AUSSEN OEFFNEND

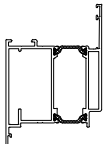
		$\frac{A}{dm^2/m}$	$\frac{P}{dm^2/m}$	$\leftarrow L_m \rightarrow$	$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
008.0414.XX		40.56	17.5	7.00	33.915	39.685

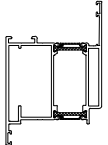
008.2014.XX		39.18	18.0	7.00	33.916	39.685
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008.0016.XX		40.56	17.8	7.00	33.389	39.383
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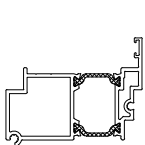
008.1016.XX		39.18	17.5	7.00	33.389	39.383
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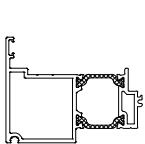
 VLEUGEL DEUR NAAR BINNENDRAAIEND
 OUVRANT PORTE OUVRANT VERS L'INTERIEUR
 VENT DOOR INWARD OPENING
 FLUEGEL TUER NACH INNEN OEFFNEND

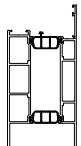
		$\frac{A}{dm^2/m}$	$\frac{P}{dm^2/m}$	$\leftarrow L_m \rightarrow$	$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
008.0426.XX		38.38	17.5	7.00	35.937	40.383

008.2026.XX		37.00	17.4	7.00	35.936	40.378
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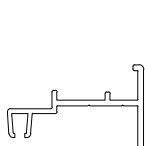
 AANSLAGPROFIEL DEUR
 PROFILE DE BUTEE PORTE
 CONNECTION PROFILE DOOR
 ANSCHLAGPROFIL TUER

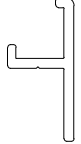
		$\frac{A}{dm^2/m}$	$\frac{P}{dm^2/m}$	$\leftarrow L_m \rightarrow$	$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
008.2027.XX		25.02	7.5	7.00	19.146	8.228

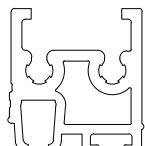
008.1428.XX		23.34	7.1	7.00 6.00	9.379	7.181
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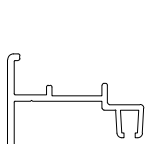
		$\frac{A}{dm^2/m}$	$\frac{P}{dm^2/m}$	$\leftarrow L_m \rightarrow$	$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
008.0011.XX		47.93	27.0	7.00	45.652	127.708

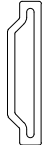
 BORSTELPROFIEL
 PROFILE SUPPORT JOINT-BROSSE
 SUPPORTING PROFILE BRUSH
 ZUSATZPROFIL BUERSTENDICHTUNG

		$\frac{A}{dm^2/m}$	$\frac{P}{dm^2/m}$	$\leftarrow L_m \rightarrow$	$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
108.0030.XX		18.30	2.7	6.00	3.322	0.393

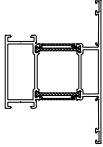
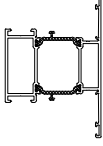
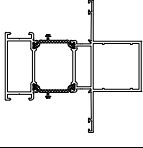
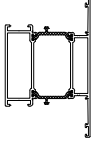
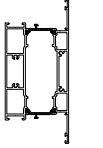
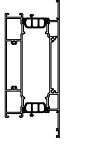
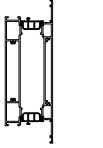
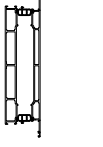
108.0082.XX		8.19	2.7	6.00	0.090	0.294
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008.0083.00		21.24	-	7.00	0.667	0.755
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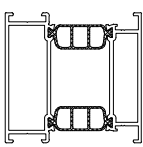
008.1175.XX		17.28	2.7	7.00	2.385	0.391
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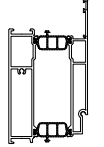
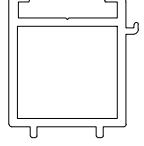
030.1050.XX		7.01	3.9	7.00	0.058	0.799
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T-PROFIEL
TRAVERSE
TRANSOM
RIEGEL

					$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
008.0544.XX		39.44	16.2	7.00	12.246	28.302
008.0114.XX		39.44	16.2	7.00 5.00	25.337	28.302
008.0400.XX		51.94	22.9	7.00	65.911	25.268
008.0123.XX		42.36	18.1	7.00	36.488	45.642
008.3824.XX		50.00	26.6	7.00	47.642	142.550
008.3817.XX		55.27	31.8	7.00	69.599	254.251
008.3850.XX		60.47	37.0	7.00	79.653	411.203
008.0155.XX		74.99	51.8	7.00	98.618	1195.647

VERBREDINGSPROFIEL
PROFILE D'ELARGISSEMENT
ENLARGING PROFILE
VERBREITERUNGSPROFIL

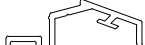
					$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
008.3894.XX		29.84	13.1	7.00	29.429	24.888

					$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
008.3004.XX		40.38	20.3	7.00	48.168	96.434
005.0535.XX		12.32	2.6	7.00	1.165	1.122

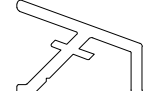
BODEMPROFIEL NAAR BINNENDRAAIEND
 PROFILE DE SEUIL OUVRANT VERS L'INTERIEUR
 FLOOR PROFILE INWARD OPENING
 SCHWELLE NACH INNEN OEFFNEND

		$\frac{A}{dm^2/m}$	$\frac{P}{dm^2/m}$	$\leftarrow L_m \rightarrow$	$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
008.2873.XX		19.16	5.3	7.00	7.859	0.663
008.1874.XX		21.69	5.6	7.00	7.771	0.655
008.0071.XX		11.59	5.9	6.00	2.508	0.016

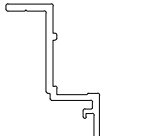
 RUBBERPROFIEL
 PROFILE DE JOINT
 PROFILE GASKET
 PROFIL DICHTUNG

		$\frac{A}{dm^2/m}$	$\frac{P}{dm^2/m}$	$\leftarrow L_m \rightarrow$	$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
108.0080.XX		14.01	2.6	6.00	1.255	0.170
108.0081.XX		8.37	1.4	6.00	0.283	0.061

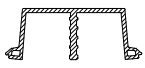
 DRUPNEUS
 REJET D'EAU
 DRIP CAP
 WETTERSCHENKEL

		$\frac{A}{dm^2/m}$	$\frac{P}{dm^2/m}$	$\leftarrow L_m \rightarrow$	$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
108.0085.XX		8.51	2.6	6.00	0.174	0.080

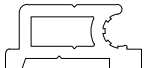
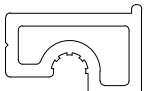
 AANSLAGPROFIEL
 PROFILE DE BUTEE
 BUTT STRIP PROFILE
 ANSCHLAGPROFIL

		$\frac{A}{dm^2/m}$	$\frac{P}{dm^2/m}$	$\leftarrow L_m \rightarrow$	$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
008.0086.XX		13.62	1.5	7.00	1.469	0.450

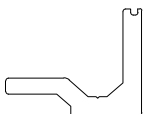
		$\frac{A}{dm^2/m}$	$\frac{P}{dm^2/m}$	$\leftarrow L_m \rightarrow$	$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
HULPPROFIEL PROFILE DE RACCORDEMENT ADDITIONAL PROFILE ZUSATZPROFIL						

		$\frac{A}{dm^2/m}$	$\frac{P}{dm^2/m}$	$\leftarrow L_m \rightarrow$	$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
008.0009.04		26.55	-	7.00	2.283	11.194

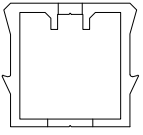
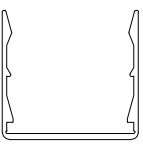
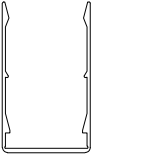
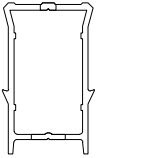
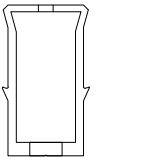
 KOPPELPROFIEL
 PROFILE DE RACCORDEMENT
 CONNECTION PROFILE
 KUPPLUNGSPROFIL

		$\frac{A}{dm^2/m}$	$\frac{P}{dm^2/m}$	$\leftarrow L_m \rightarrow$	$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
030.0138.00		-	-	7.00	-	-
030.0139.00		-	-	7.00	0.202	0.072

 VERSTERKINGSPROFIEL
 PROFILE DE RENFORCEMENT
 REINFORCEMENT PROFILE
 VERSTAERKUNGSPROFIL

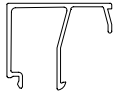
		$\frac{A}{dm^2/m}$	$\frac{P}{dm^2/m}$	$\leftarrow L_m \rightarrow$	$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
005.0829.00		-	-	7.00	0.844	0.390

VERSTEVIGINGSPROFIEL
PROFILE DE RENFORCEMENT
REINFORCEMENT PROFILE
VERSTAERKUNGSPROFIL

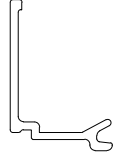
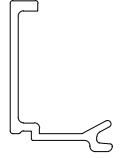
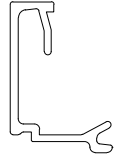
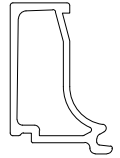
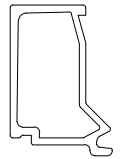
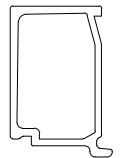
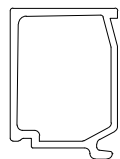
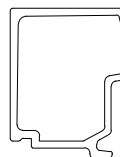
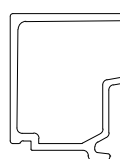
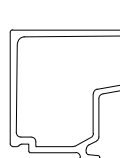
						$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
030.1096.00		-	-	7.00	4.881	5.085	
030.3097.XX		22.81	11.3	7.00	2.767	5.037	
030.3099.XX		31.23	15.3	7.00	9.625	5.654	
030.1097.00		-	-	7.00	10.260	4.477	
030.1098.00		-	-	7.00	19.656	6.287	

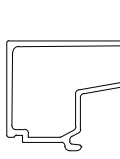
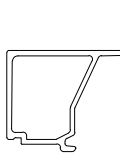
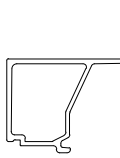
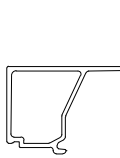
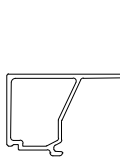
						$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
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GLASLAT
PARCLOSE
GLAZING BEAD
GLASLEISTE

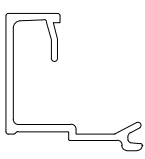
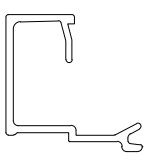
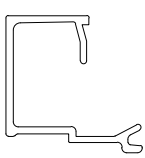
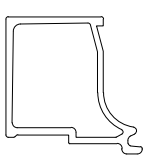
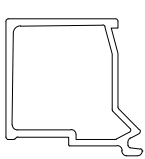
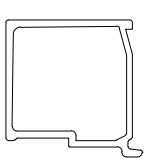
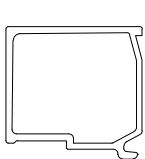
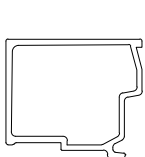
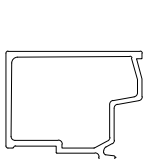
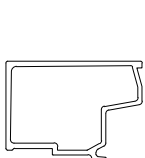
					$I_x \text{ cm}^4$	$I_y \text{ cm}^4$						$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
030.3606.XX		12.37	3.4	7.00	0.277	0.919			20.86	6.1	7.00	1.750	1.252
030.3200.XX		10.77	2.9	7.00	0.273	0.632			21.65	6.4	7.00	2.197	1.313
030.3607.XX		15.11	3.7	7.00	0.333	0.895			22.66	6.7	7.00	2.650	1.369
030.3608.XX		15.10	4.0	7.00	0.431	0.914							
030.3609.XX		15.56	4.3	7.00	0.544	0.967							
030.3610.XX		16.19	4.6	7.00	0.691	1.022							
030.3611.XX		16.93	4.9	7.00	0.875	1.076							
030.3612.XX		18.97	5.2	7.00	0.995	1.148							
030.3613.XX		19.57	5.5	7.00	1.192	1.184							
030.3614.XX		20.17	5.8	7.00	1.431	1.217							

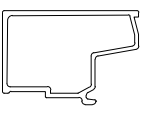
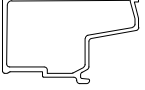
**GLASLAT
PARCLOSE
GLAZING BEAD
GLASLEISTE**

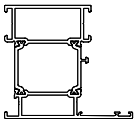
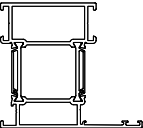
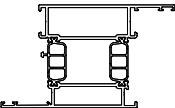
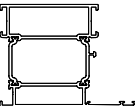
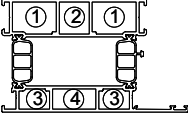
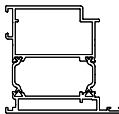
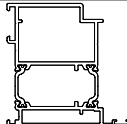
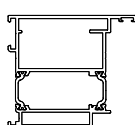
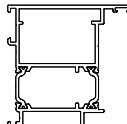
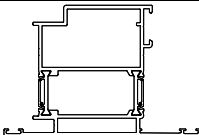
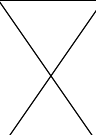
		$\frac{A}{dm^2/m}$	$\frac{P}{dm^2/m}$	$\leftarrow L_m \rightarrow$	$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
130.3644.XX		10.05	2.8	7.00	0.545	0.311
130.3645.XX		10.63	3.1	7.00	0.712	0.314
130.3646.XX		12.87	3.4	7.00	0.929	0.315
130.3647.XX		9.41	3.7	7.00	1.040	0.372
130.3648.XX		9.60	4.0	7.00	1.113	0.458
130.3649.XX		9.62	4.3	7.00	1.165	0.545
130.3650.XX		10.09	4.6	7.00	1.257	0.739
130.3651.XX		10.61	4.9	7.00	1.314	0.898
130.3652.XX		11.16	5.2	7.00	1.376	1.127
130.3653.XX		11.71	5.5	7.00	1.434	1.408

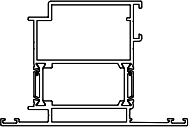
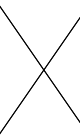
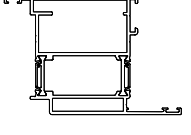
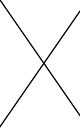
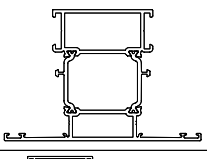
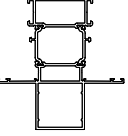
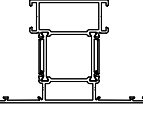
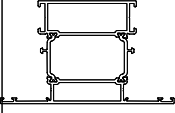
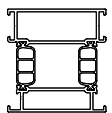
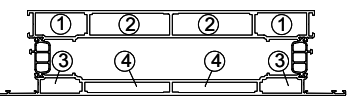
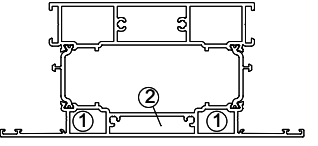
		$\frac{A}{dm^2/m}$	$\frac{P}{dm^2/m}$	$\leftarrow L_m \rightarrow$	$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
130.3655.XX		12.82	6.1	7.00	1.540	2.133
130.3656.XX		14.09	6.4	7.00	1.649	2.059
130.3657.XX		14.69	6.7	7.00	1.691	2.417
130.3658.XX		15.29	7.0	7.00	1.730	2.833
130.3659.XX		15.89	7.3	7.00	1.768	3.307

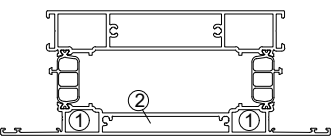
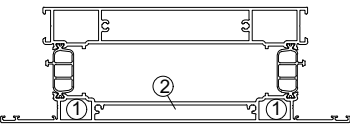
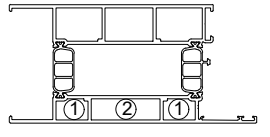
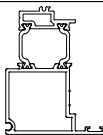
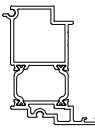
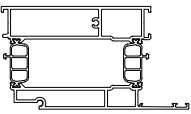
GLASLAT
 PARCLOSE
 GLAZING BEAD
 GLASLEISTE

					$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
130.3664.XX		15.27	3.7	7.00	1.114	0.862
130.3665.XX		15.87	4.0	7.00	1.205	0.881
130.3666.XX		16.47	4.3	7.00	1.290	0.927
130.3667.XX		11.21	4.6	7.00	1.400	1.140
130.3668.XX		11.40	4.9	7.00	1.466	1.313
130.3669.XX		11.42	5.2	7.00	1.515	1.463
130.3670.XX		11.89	5.5	7.00	1.605	1.792
130.3671.XX		12.41	5.8	7.00	1.661	2.064
130.3672.XX		12.96	6.1	7.00	1.723	2.425
130.3673.XX		13.51	6.4	7.00	1.781	2.846

					$I_x \text{ cm}^4$	$I_y \text{ cm}^4$
130.3674.XX		14.06	6.7	7.00	1.836	3.331
130.3675.XX		14.62	7.0	7.00	1.889	3.882

		 EI2-30	 EI1-30		 EI-60	
008.0125.XX		087.5529.--	087.5529.--	087.5520.--	087.5529.--	087.5522.--
008.0525.XX		087.5529.--	087.5529.--	087.5520.--	087.5529.--	087.5522.--
008.3444.XX		087.5529.--	087.5529.--	2x 087.5534.--	087.5529.--	087.5549.--
008.0140.XX		087.5527.--	087.5527.--	2x 087.5534.--	087.5527.--	087.5549.--
008.0142.XX		087.5546.--	087.5546.--	① 087.5534.-- ② 087.5530.--	087.5546.--	③ 087.5537.-- ④ 087.5544.--
008.0598.XX		087.5526.--	087.5526.--	087.5525.--	087.5526.--	087.5523.--
008.1898.XX		087.5528.--	087.5528.--	087.5566.--	087.5528.--	087.5524.--
008.0569.XX		087.5526.--	087.5526.--	087.5525.--	087.5526.--	087.5523.--
008.0469.XX		087.5528.--	087.5528.--	087.5566.--	087.5528.--	087.5524.--
008.1016.XX			087.5526.--	087.5565.-- 087.5533.-- 	087.5526.--	087.5523.--

						
		EI2-30	EI1-30	EI-60		
008.2014.XX			087.5526.--	087.5525.-- 087.5531.-- <i>of - ou or - oder</i>	087.5526.--	087.5523.--
008.2026.XX			087.5526.--	087.5525.-- 087.5531.-- <i>of - ou or - oder</i>	087.5526.--	087.5523.--
008.0114.XX		087.5529.--	087.5529.--	087.5520.--	087.5529.--	087.5522.--
008.0400.XX		087.5529.--	087.5529.--	087.5520.--	087.5529.--	087.5522.--
008.0544.XX		087.5529.--	087.5529.--	087.5520.--	087.5529.--	087.5522.--
008.0123.XX		087.5527.--	087.5527.--	2x 087.5534.--	087.5527.--	087.5549.--
008.3894.XX		087.5529.--	087.5529.--	2x 087.5534.--	087.5529.--	087.5549.--
008.0155.XX		087.5540.--	087.5540.--	① 087.5520.-- ② 087.5539.--	087.5540.--	③ 087.5522.-- ④ 087.5541.--
008.3824.XX		087.5536.--	087.5536.--	3x 087.5534.--	087.5536.--	① 087.5537.-- ② 2x 087.5538.--

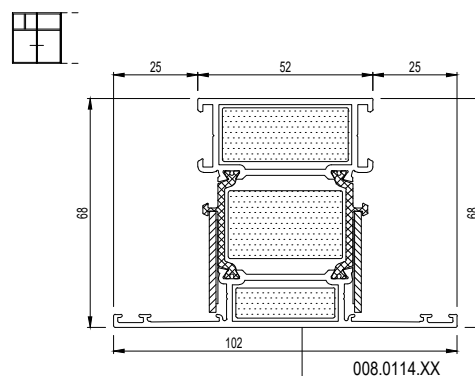
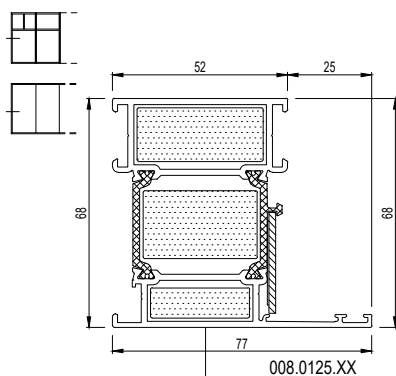
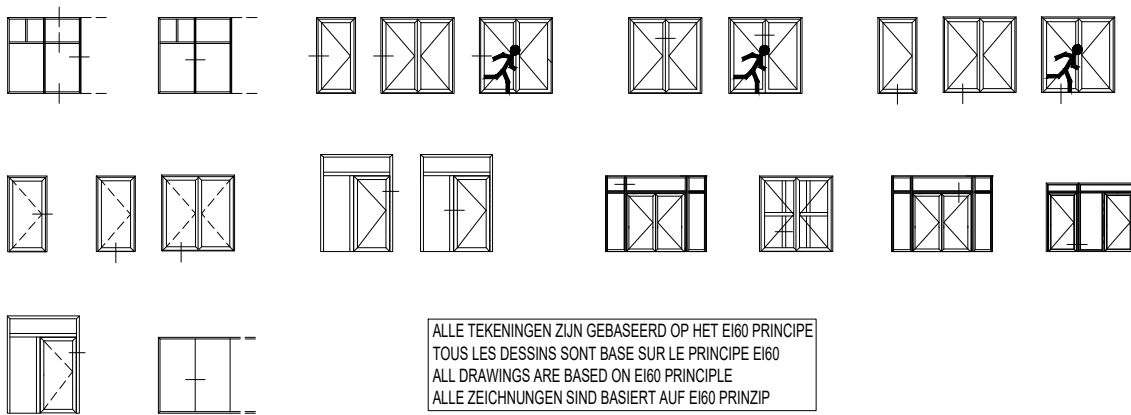
						
		EI2-30	EI1-30		EI-60	
008.3817.XX		087.5535.--	087.5535.--	4x 087.5534.--	087.5535.--	① 087.5537.-- ② 2x 087.5538.-- + 087.5548.--
008.3850.XX		087.5552.--	087.5552.--	5x 087.5534.--	087.5552.--	① 2x 087.5537.-- ② 2x 087.5538.-- + 2x 087.5548.--
008.0011.XX			087.5532.--	3x 087.5534.--	087.5532.--	① 087.5537.-- ② 087.5545.--
008.1428.XX		087.5530.--	087.5530.--	087.5529.--	087.5530.--	
008.2027.XX		087.5542.--	087.5542.--	087.5543.--	087.5542.--	
008.3004.XX		087.5532.--	087.5532.--			
005.0535.XX		087.5530.--	087.5530.--		087.5530.--	

E

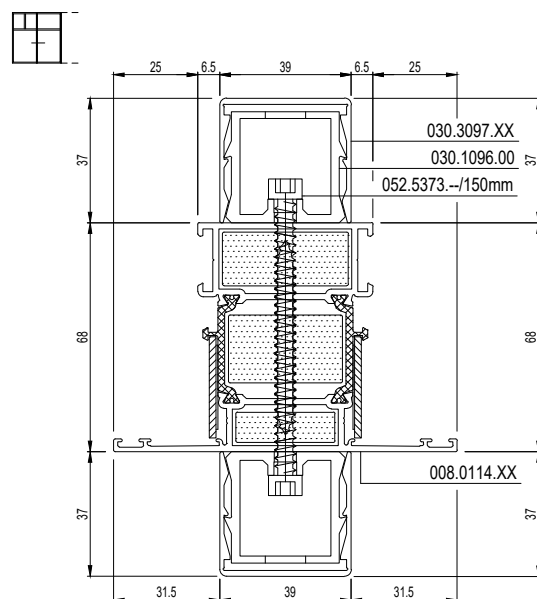
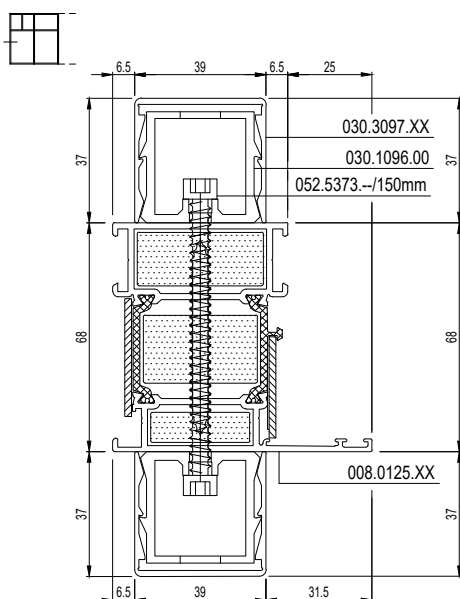


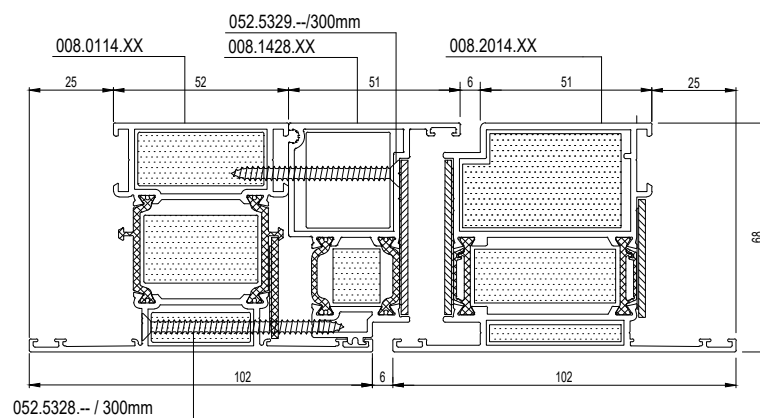
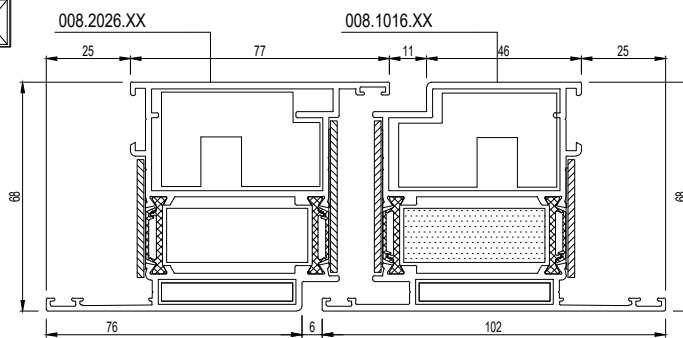
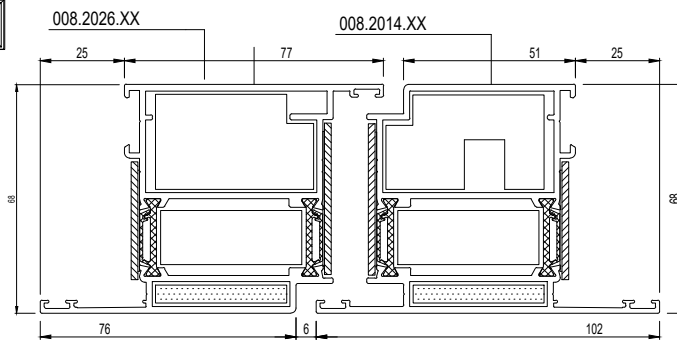
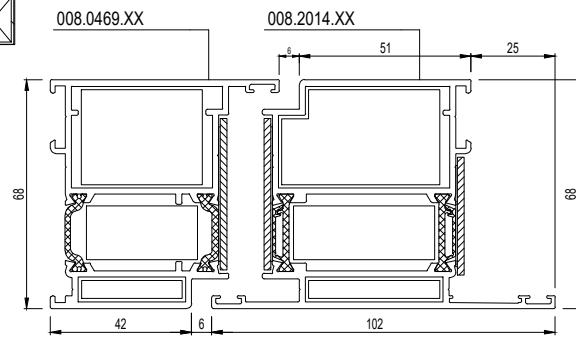
Reynaers
Aluminium

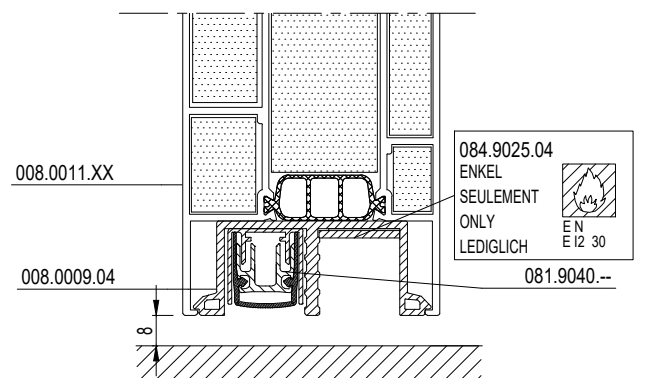
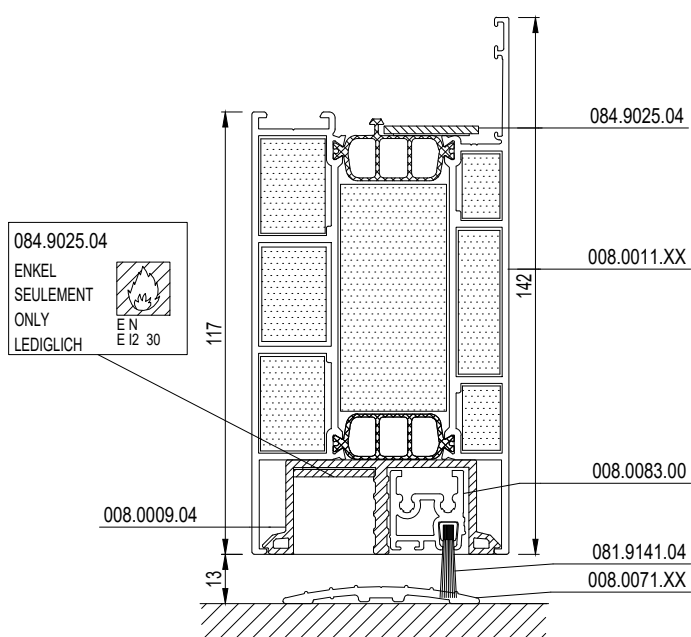
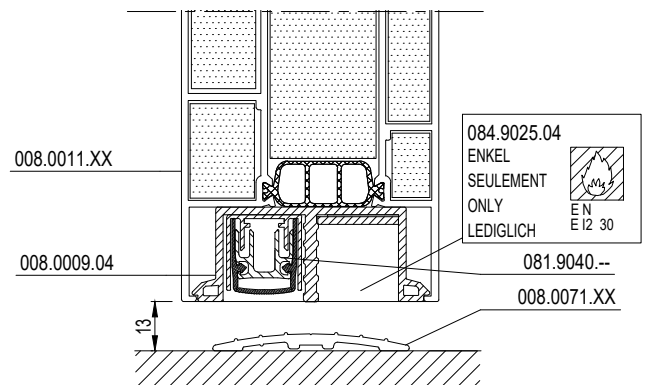
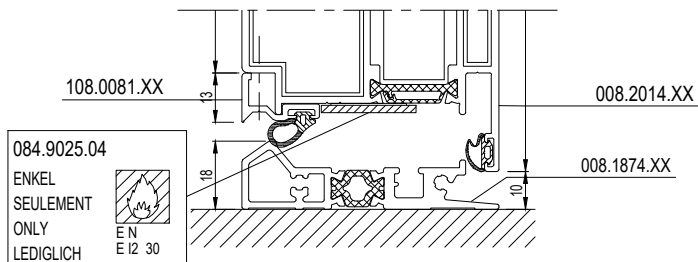
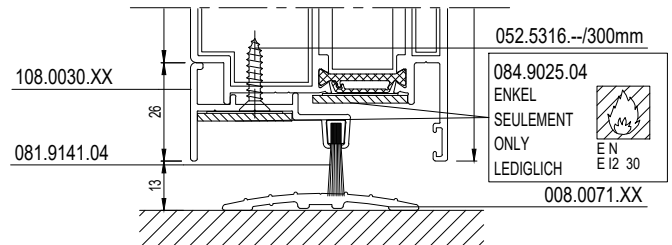
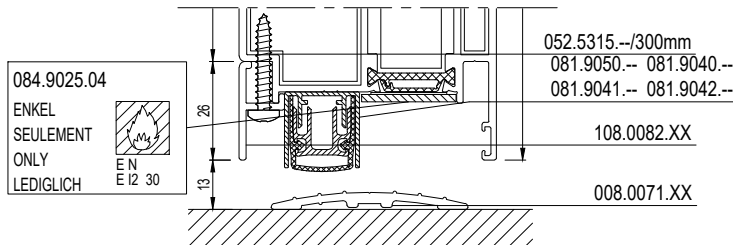
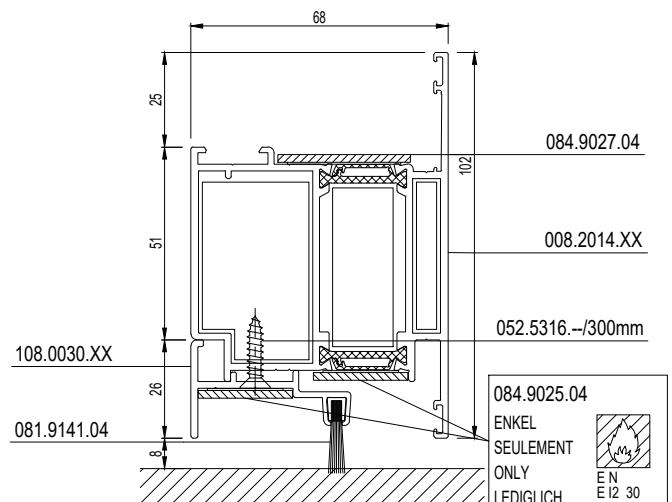
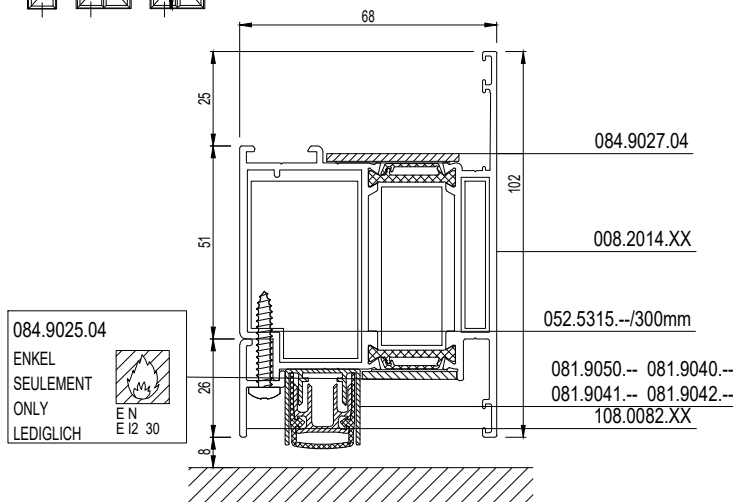
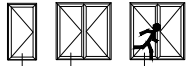
Werktekeningen
Coupes et débits
Work drawings
Werkzeichnungen



VERSTEVIJING OPTIONEEL; ENKEL INDIEN VOOR WINDBELASTING NOODZAKELIJK
REINFORCEMENT EN OPTION; SEULEMENT SI NECESSAIRE POUR LA CHARGE DUE A L'ACTION DU VENT
OPTIONEEL REINFORCEMENT; ONLY IF NECESSARY FOR WIND LOAD
OPTIONALE VERSTARKUNG; NUR WENN NOTIG FÜR WINDLAST

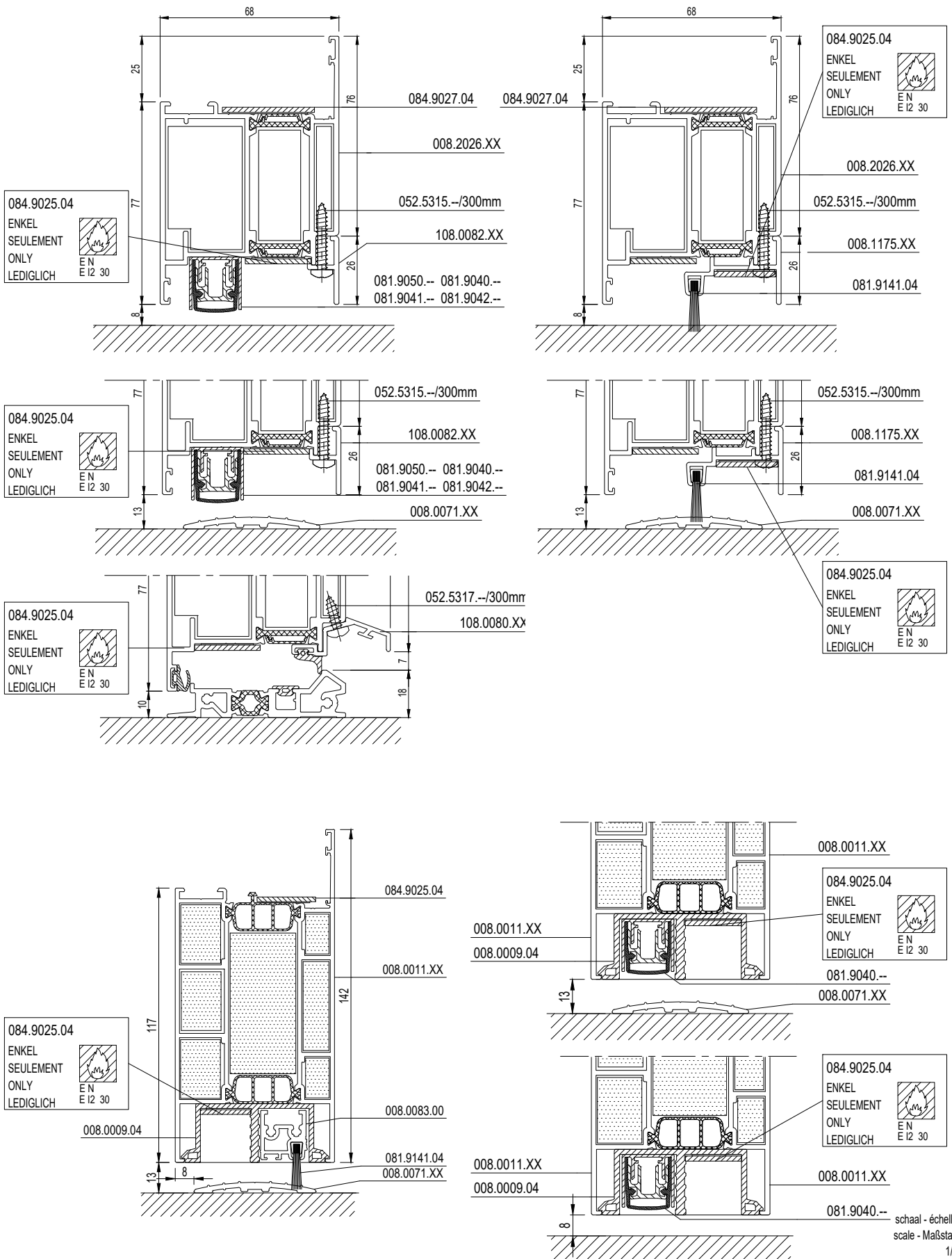
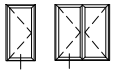


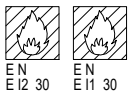
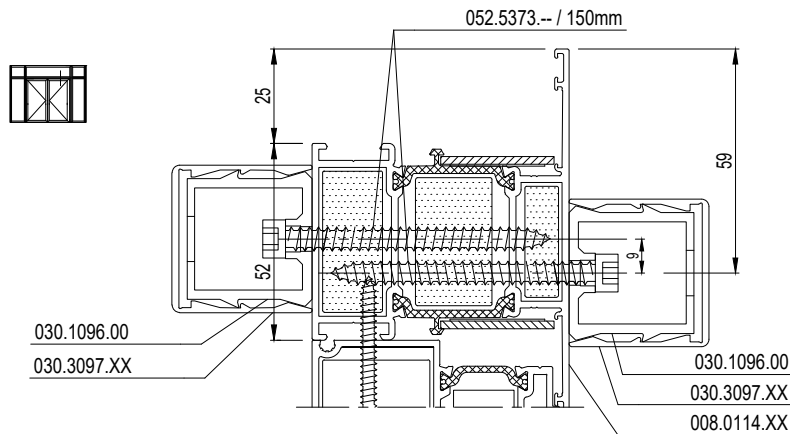




schaal - échelle
scale - Maßstab
1/2

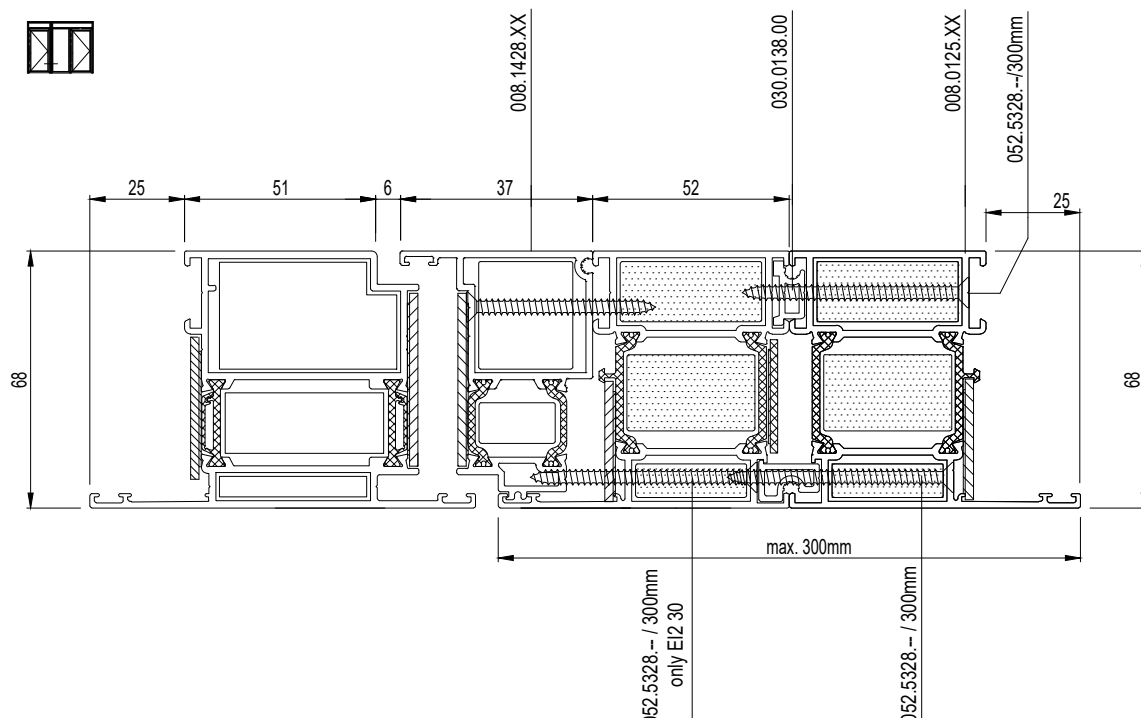
D0100481





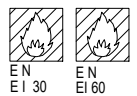
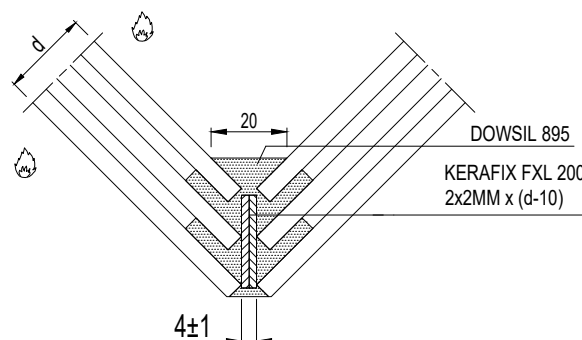
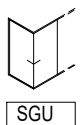
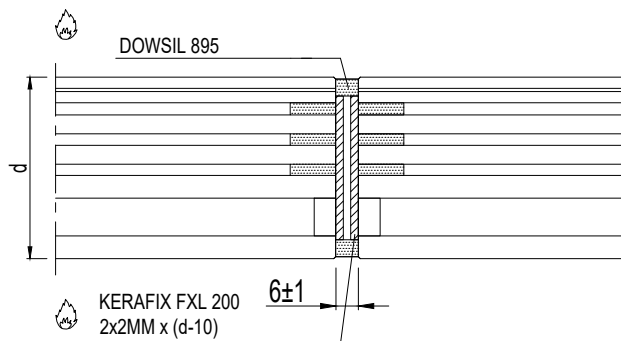
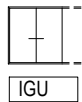
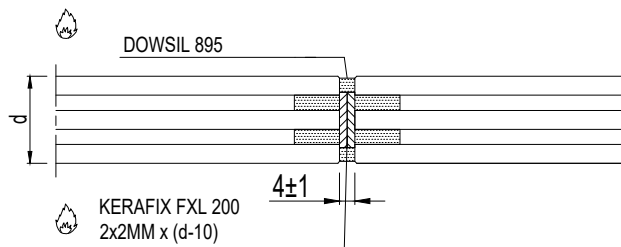
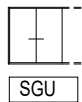
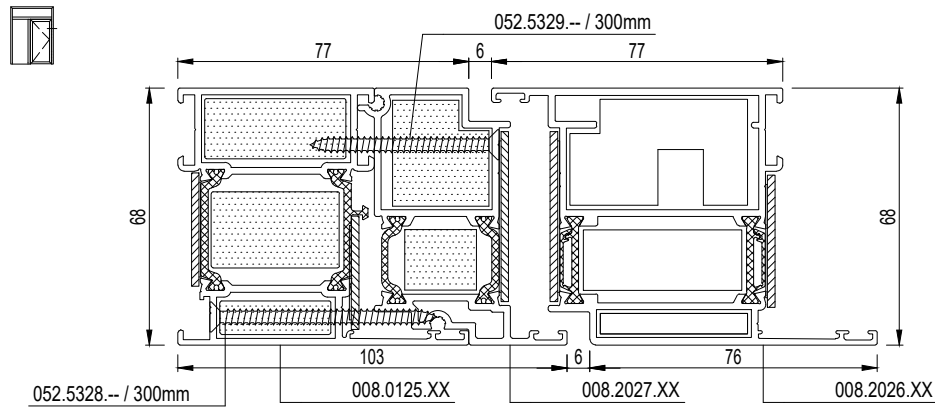
VERSTIJFING AAN KOUDE ZIJDE. INDIEN VUURZIJDE NIET GEKEND; VERSTIJFING BEIDE ZIJDEN.
RAIDISSEMENT AU COTE FROID. SI LE COTE DE FEU EST INCONNU, RAIDISSEMENT DE DEUX COTES.
STIFFENING AT COLD SIDE. IN CASE OF UNKNOWN FIRE SIDE, STIFFENING OF BOTH SIDES.
VERSTEIFUNG AN DE KALTE SEITE. WENN DIE FEUERSEITE NICHT GEKANNT IST, VERSTEIFUNG DER BEIDEN SEITEN.

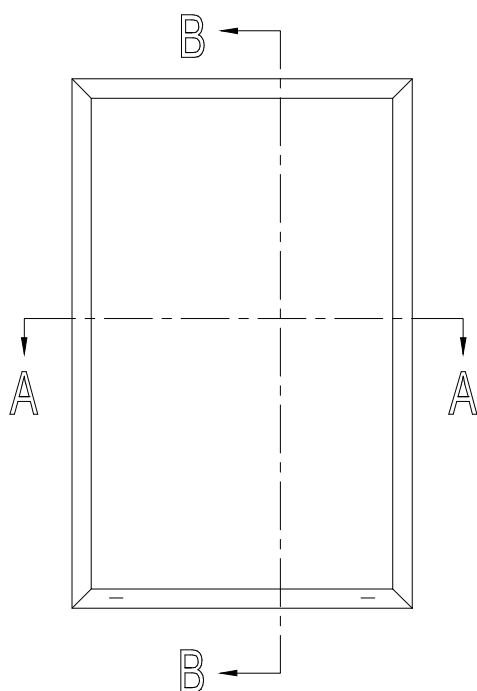
! ALTIJD BOVEN DUBBELE DEUR MET VAST BOVENLICHT + ZIJLICHT
TOUJOURS AU-DESSUS DOUBLE PORTE AVEC WINDOW FIXE
ALWAYS ABOVE DOUBLE DOOR WITH FIXED LIGHT
IMMER ÜBER DOPPELTÜR MIT FESTEM OBERLICHT



schaal - échelle
scale - Maßstab
1/2

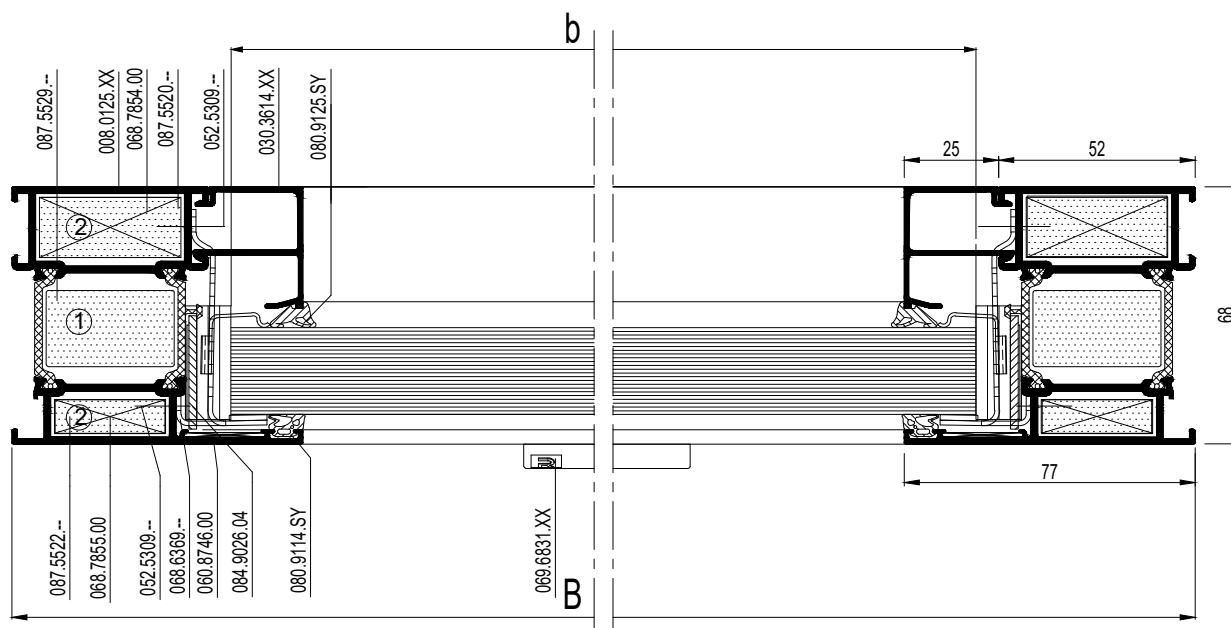
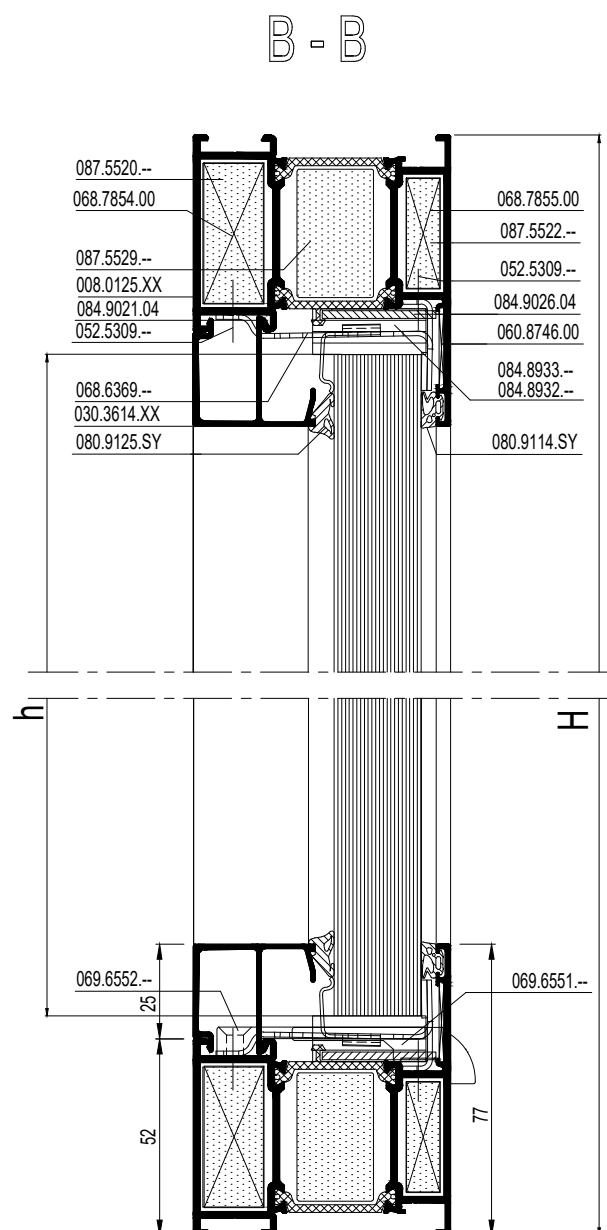
D0100482





ALLE TEKENINGEN ZIJN GEBASEERD OP HET EI60 PRINCIPE
TOUS LES DESSINS SONT BASE SUR LE PRINCIPE EI60
ALL DRAWINGS ARE BASED ON EI60 PRINCIPLE
ALLE ZEICHNUNGEN SIND BASIERT AUF EI60 PRINZIP

A - A



schaal - échelle
scale - Maßstab
1/2

			#		
008.0125.XX			2	H	13R.G. ...
			2	B	13R.G. ...
030.3614.XX			2	H - 154	13R.G. ...
			2	B - 104	13R.G. ...


h = H - 116
b = B - 116

		#	
060.8723.--		4	ACCESS CS
068.7854.00		4	13R.G. ...
068.7855.00		4	13R.G. ...
069.6831.XX		13R.F....	ACCESS CS
069.8704.01		13R.F....	ACCESS CS
080.9114.SY		(2xb)+(2xh)	ACCESS CS
080.9125.SY		(2xb)+(2xh)	ACCESS CS



+

068.6369.--		13R.F. ...	13R.G. ...
052.5309.--		13R.F. ...	
069.6551.--		2	13R.G. ...
052.5316.--		4	
069.6552.--		2	13R.G. ...
052.5316.--		4	



+

 EN
 EW 30

084.8932.--		13R.F. ...	13R.G. ...
084.8933.--		13R.F. ...	13R.G. ...
084.8952.--		13R.F. ...	13R.G. ...
084.9026.04		(4xB+4xH)	13K.G. ...



+

 EN
 EI 30

084.8932.--		13R.F. ...	13R.G. ...
084.8933.--		13R.F. ...	13R.G. ...
084.8952.--		13R.F. ...	13R.G. ...
087.5529.-- ①		(2xB+2xH)/1200	13R.G. ...
084.9026.04		(4xB+4xH)	13K.G. ...



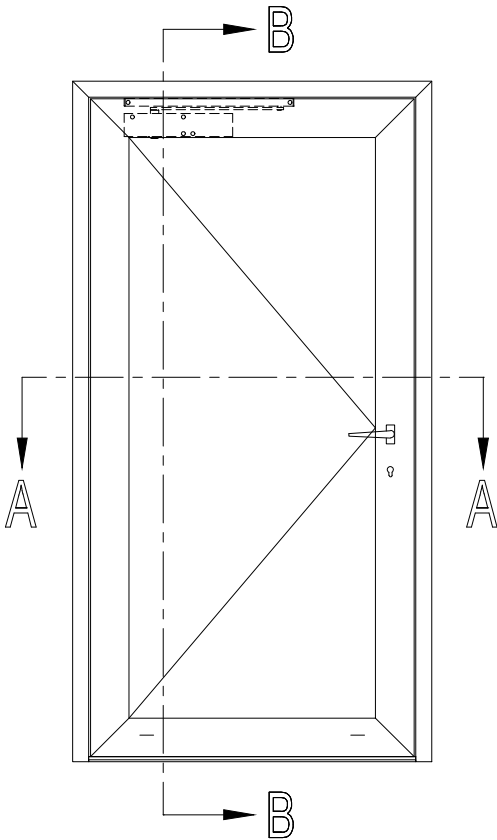
+

 EN
 EI 60

084.8932.--		13R.F. ...	13R.G. ...
084.8933.--		13R.F. ...	13R.G. ...
084.8952.--		13R.F. ...	13R.G. ...
087.5520.-- ②		(2xB+2xH)/1200	13R.G. ...
087.5529.-- ①		(2xB+2xH)/1200	13R.G. ...
087.5522.-- ②		(2xB+2xH)/1200	13R.G. ...
084.9026.04		(4xB+4xH)	13R.G. ...

 schaal - échelle
 scale - Maßstab
 1/2

 D0100362
 E

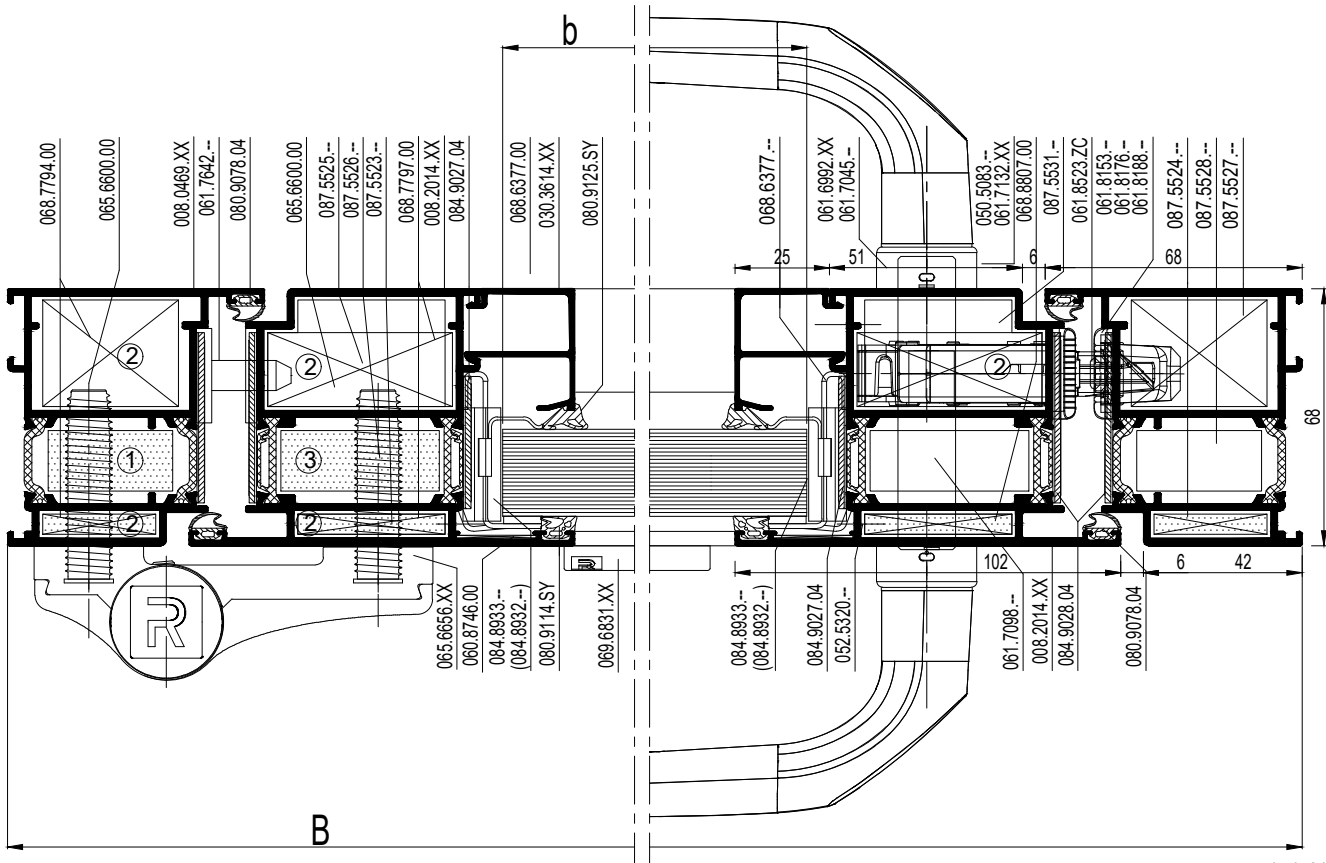


			#	Lm	
008.0469.XX			1	B	CS 77
			1	H	
			1	H	
008.2014.XX			2	B - 96	CS 77
			2	H - 56	
030.3614.XX			2	B - 250	CS 77
			2	H - 260	
108.0082.XX			1	B - 138	CS 77

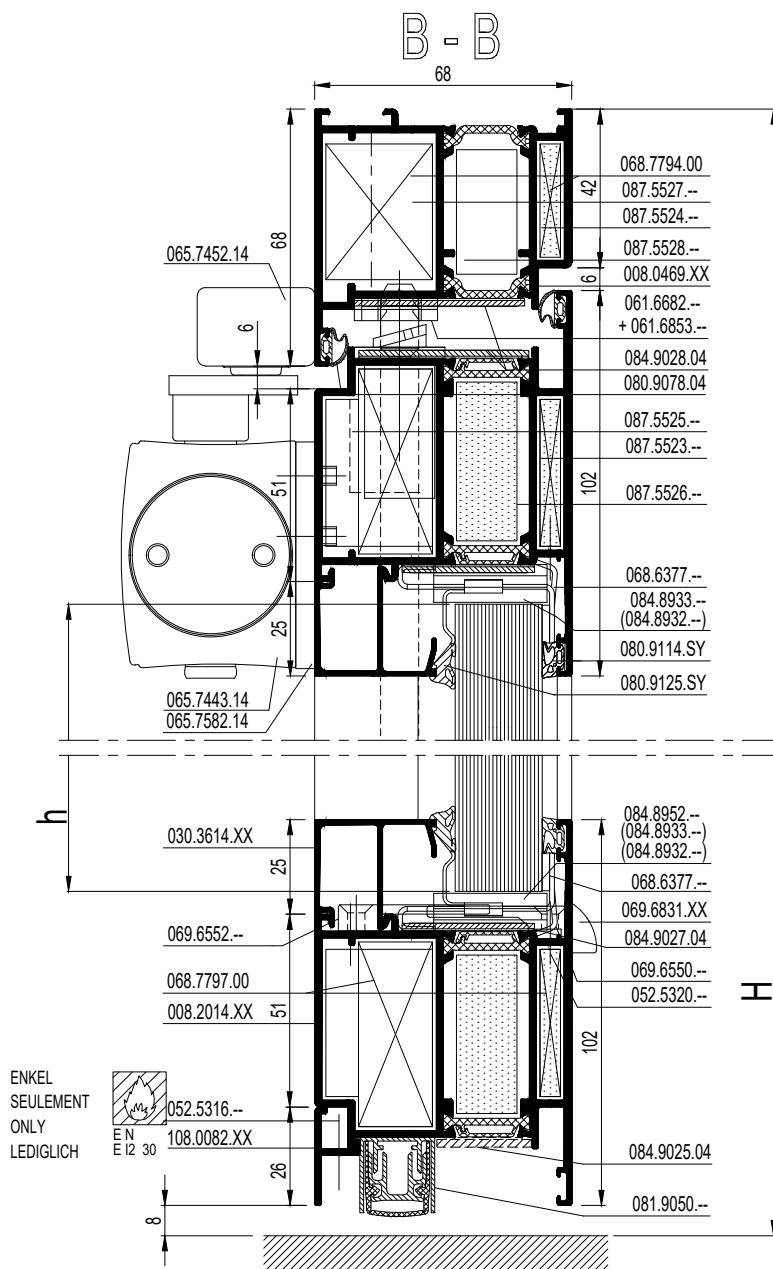
ALLE TEKENINGEN ZIJN GEBASEERD OP HET EI60 PRINCIPE
TOUS LES DESSINS SONT BASE SUR LE PRINCIPE EI60
ALL DRAWINGS ARE BASED ON EI60 PRINCIPLE
ALLE ZEICHNUNGEN SIND BASIERT AUF EI60 PRINZIP

b = B - 262
h = H - 222

A - A



schaal - échelle
scale - Maßstab
1/2



		#	
068.7794.00		2	13R.G. ...
068.7797.00		3	13R.G. ...

060.8723.--		4	ACCESS CS
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065.6656.XX		13R.F....	ACCESS CS
065.6601.--		13R.F....	ACCESS CS

061.8523.ZC		1	ACCESS CS
052.5316.--		2	ACCESS CS
061.8188.--		1	ACCESS CS
052.5316.--		4	ACCESS CS
061.8176.04		1	ACCESS CS
061.8153.04		2	ACCESS CS
052.5316.--		6	ACCESS CS



 3 ZIE "BESTELTABEL SLOTEN"
 VOIRE "TABLEAU DE COMMANDE SERRURES"
 SEE "ORDERING TABLE LOCKS"
 SIEHE "BESTELTABELLE SCHLOESSER" 13R.F....

061.7045.--		1	13R.G. ...
061.6992.XX		2	13R.G. ...
050.5083.--		4	13R.G. ...
061.6484.--		1	13R.G. ...
061.6433.--		2	13R.G. ...
052.5339.--		4	13R.G. ...
069.6831.XX		13R.F....	ACCESS CS



069.8702.01		13R.F....	ACCESS CS
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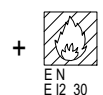
069.6552.--		2	13R.G. ...
052.5316.--		4	
069.6550.--		2	13R.G. ...
052.5316.--		4	
084.8932.--		13R.F. ...	13R.G. ...
084.8933.--		13R.F. ...	13R.G. ...
084.8952.--		13R.F. ...	13R.G. ...
068.6377.--		13R.F. ...	13R.G. ...
052.5309.--		13R.F. ...	

069.8460.04		2	13R.G. ...
052.5316.--		4	13R.G. ...
069.8453.04		1	13R.G. ...
052.5316.--		4	13R.G. ...
080.9125.SY		(2xB)+(2xH)	13R.G. ...
080.9114.SY		(2xB)+(2xH)	13R.G. ...
080.9078.04		(2xB)+(4xH)	13R.G. ...
080.9091.04		2	ACCESS CS
081.9050.--		13R.F. ...	13R.G. ...

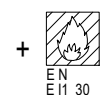


068.8807.00		1	13R.G. ...
061.7642.--		1	13R.G. ...
052.5316.--		4	13R.G. ...
065.7443.14		1	13R.G. ...
065.7452.14		1	13R.G. ...
065.7582.14		1	13R.G. ...
052.5316.--		1/300mm	13R.G. ...
068.6377.--		2	13R.G. ...
084.9025.04		B	13R.G. ...
084.9027.04		(2xB+2xH)	13R.G. ...
084.9028.04		(2xB+4xH)	13R.G. ...

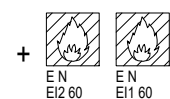
084.9026.04		B	13R.G. ...
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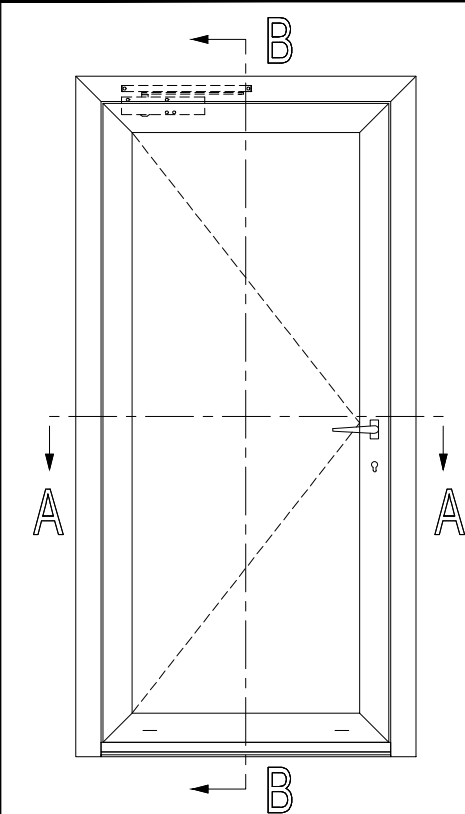
087.5528.-- ①		(B+2xH)/1200	13R.G. ...
084.9025.04		1xb or 2xb	13R.G. ...



087.5528.-- ①		(B+2xH)/1200	13R.G. ...
087.5526.-- ③		(B+2xH+1000)/1200	13R.G. ...



087.5527.-- ②		(B+2xH)/1200	13R.G. ...
087.5528.-- ①		(B+2xH)/1200	13R.G. ...
087.5524.-- ②		(B+2xH)/1200	13R.G. ...
087.5525.-- ②		(2xB+H+1000)/1200	13R.G. ...
087.5526.-- ③		(2xB+2xH)/1200	13R.G. ...
087.5523.-- ②		(2xB+2xH)/1200	13R.G. ...
087.5531.-- ②		(H - 1000)/1200	13R.G. ...
087.9551.-- ②		13R.F. ...	13R.G. ...

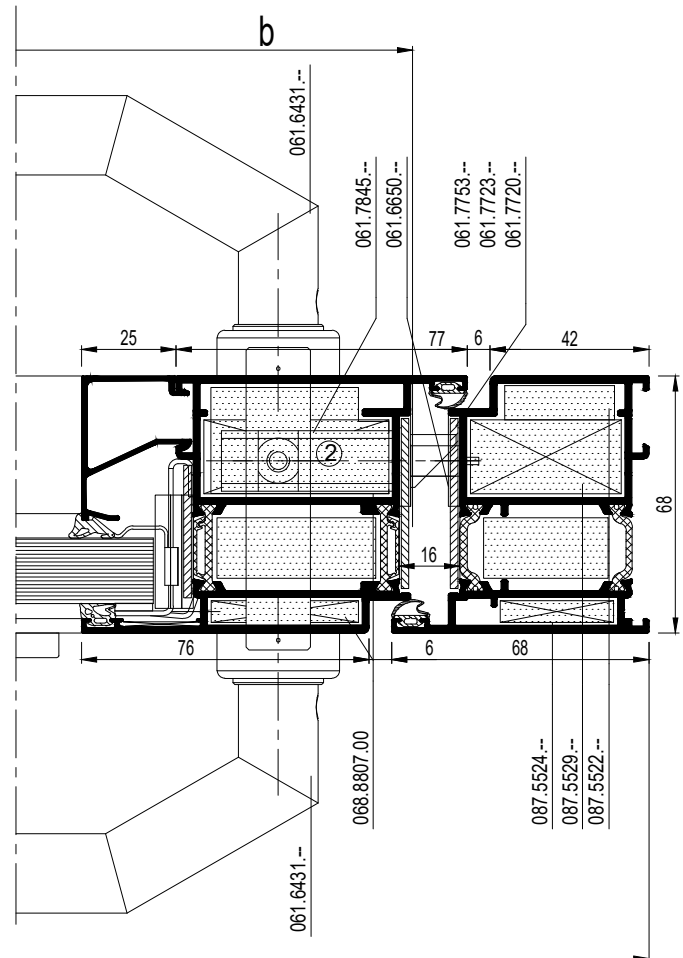
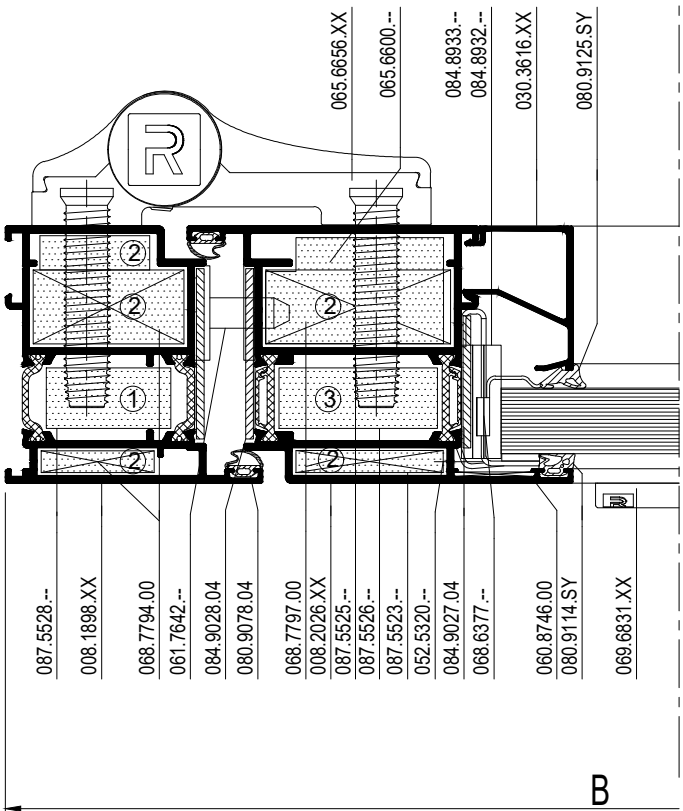


ALLE TEKENINGEN ZIJN GEBASEERD OP HET EI60 PRINCIPE
TOUS LES DESSINS SONT BASE SUR LE PRINCIPE EI60
ALL DRAWINGS ARE BASED ON EI60 PRINCIPLE
ALLE ZEICHNUNGEN SIND BASIERT AUF EI60 PRINZIP

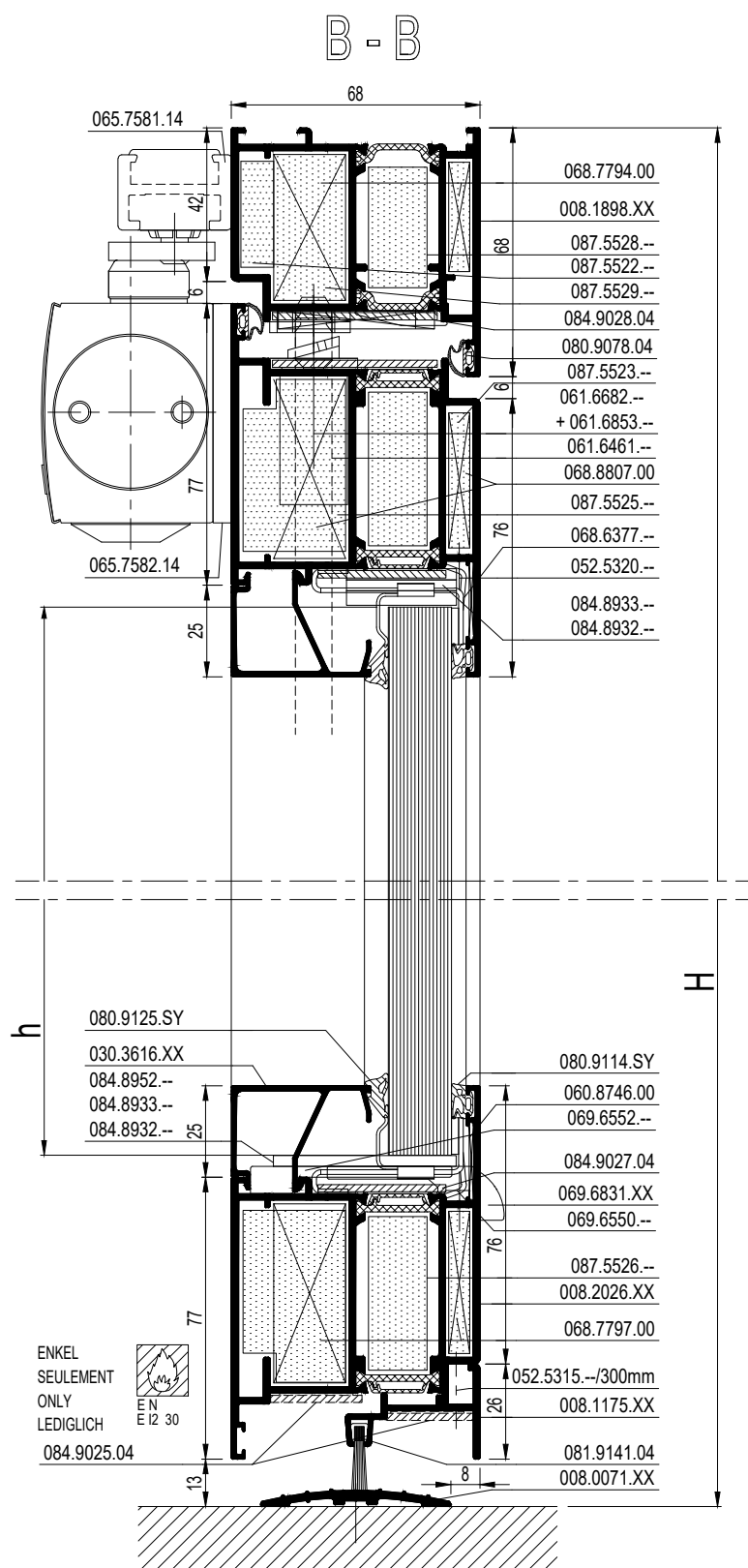
			#	L _m	
008.1898.XX			1	B	CS 77
			1	H	
			1	H	
008.2026.XX			2	B - 96	CS 77
			2	H - 61	
030.3616.XX			2	B - 250	CS 77
			2	H - 265	
008.1175.XX			1	B - 138	CS 77
008.0071.XX			1	B - 118	CS 77

b = B - 262
h = H - 227

A - A



schaal - échelle
scale - Maßstab
1/2



		#	
068.7794.00		2	ACCESS CS
068.7797.00		4	ACCESS CS
060.8723.--		4	ACCESS CS
065.6656.XX		13R.F. ...	ACCESS CS
065.6600.--		13R.F. ...	ACCESS CS

061.7650.ZC		1	ACCESS CS
052.5316.--		2	ACCESS CS

061.7704.--		1	ACCESS CS
052.5316.--		3	ACCESS CS

 ZIE "BESTELTABEL SLOTEN"
 VOIRE "TABLEAU DE COMMANDE SERRURES"
 SEE "ORDERING TABLE LOCKS"
 SIEHE "BESTELTABELLE SCHLOESSER" 13R.F....

061.6431.--		2	13R.G....
050.5161.--		4	13R.G....
061.6484.--		1	13R.G. ...
061.6433.--		2	13R.G....
052.5312.--		4	13R.G....
061.7045.--		1	ACCESS CS
069.6831.XX		13R.F. ...	ACCESS CS
069.8702.01		13R.F. ...	ACCESS CS

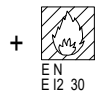


069.6552.--		2	13R.G. ...
052.5316.--		4	
069.6550.--		2	13R.G. ...
052.5316.--		4	
084.8932.--		13R.F. ...	13R.G. ...
084.8933.--		13R.F. ...	13R.G. ...
084.8952.--		13R.F. ...	13R.G. ...
068.6377.--		13R.F. ...	13R.G. ...
052.5309.--		13R.F. ...	

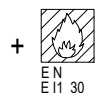
069.8453.04		1	ACCESS CS
052.5311.--		4	
069.8460.04		1	ACCESS CS
052.5311.--		4	
080.9078.04		(2xB)+(4xH)	ACCESS CS
080.9091.04		2	ACCESS CS
080.9114.SY		(2xb)+(2xh)	ACCESS CS
080.9125.SY		(2xb)+(2xh)	ACCESS CS
081.9092.04		12 x 51.5	ACCESS CS
081.9141.04		13R.F. ...	ACCESS CS
052.5315.--		1/300mm	ACCESS CS



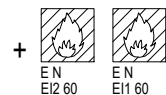
068.8807.00		1	13R.G. ...
065.7581.14		1	13R.G. ...
065.7582.14		1	13R.G. ...
061.7642.--		1	13R.G. ...
052.5316.--		4	13R.G. ...
084.9025.04		B	13R.G. ...
084.9027.04		(2xB+2xH)	13R.G. ...
084.9028.04		(2xB+4xH)	13R.G. ...



087.5528.-- ①		(B+2xH)/1200	13R.G. ...
061.6455.--		1	13R.G. ...
084.9025.04		1xb or 2xb	13R.G. ...



087.5526.-- ③		(2xB+2xH)/1200	13R.G. ...
087.5528.-- ①		(B+2xH)/1200	13R.G. ...



087.5529.-- ②		(B+2xH)/1200	13R.G. ...
087.5522.-- ②		(B+2xH)/1200	13R.G. ...
087.5523.-- ②		(2xB+2xH)/1200	13R.G. ...
087.5524.-- ②		(B+2xH)/1200	13R.G. ...
087.5525.-- ②		(2xB+2xH)/1200	13R.G. ...
087.5526.-- ③		(2xB+2xH)/1200	13R.G. ...
087.5528.-- ①		(B+2xH)/1200	13R.G. ...

CS 77-FP

DEUR BINNENDRAAIEND
PORTE OUVRANT VERS L'INTERIEUR
DOOR INWARD OPENING
TUER NACH INNEN OEFFNEND

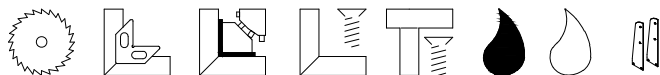


F

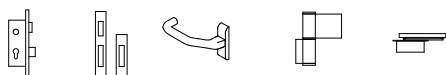


Reynaers
Aluminium

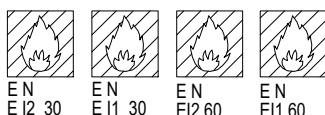
Montagetekeningen
Fabrication et montage
Assembly drawings
Montagezeichnungen



STANDAARD BEWERKINGEN: ZIE CATALOGUS CS 77
OPÉRATIONS STANDARD: AVOIR CATALOGUE CS 77
STANDARD OPERATIONS: SEE CATALOG CS 77
STANDARDOPERATIONEN: SIEHE KATALOG CS 77



STANDAARD BEWERKINGEN: ZIE CATALOGUS OPENING DOORS
OPÉRATIONS STANDARD: AVOIR CATALOGUE OPENING DOORS
STANDARD OPERATIONS: SEE CATALOG OPENING DOORS
STANDARDOPERATIONEN: SIEHE KATALOG OPENING DOORS



HOOFDSTUK B, ALGEMENE TOELICHTING
 SECTION B, REMARQUES GENERALES
 CHAPTER B, GENERAL COMMENTS
 KAPITEL B, ALLGEMEINE BEMERKUNGEN

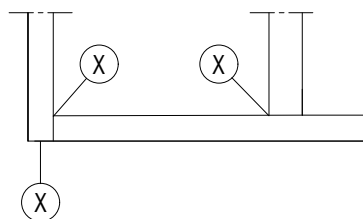
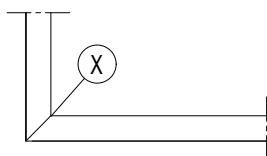
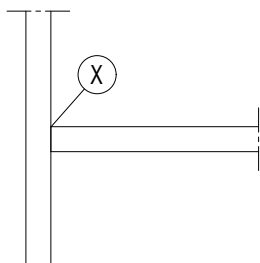
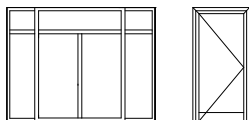
APPLICATION AREA	 EN E12 30 EUROPE (EXCL. BELGIUM)	 EN E11 30 BELGIUM	 EN E12 60 EUROPE (EXCL. BELGIUM)	 EN E11 60 BELGIUM
COOLING MATERIAL 				
CORNER CLEATS TYPE 				
CORNER PIECE TREATMENT 			APPLY COOLINGPASTE IN THE CORNERPIECE : 087.9551.--	APPLY COOLINGPASTE IN THE CORNERPIECE : 087.9551.--
LOCKS 	ZIE CATALOGUS OPENING DOORS (F1) VOIR CATALOGUE OPENING DOORS (F1) SEE CATALOG OPENING DOORS (F1) SEHE KATALOG OPENING DOORS (F1)			
TEMPERATURE PEN * 061.6455.-- 	ONLY USE WITH 			
HINGES 	ZIE CATALOGUS OPENING DOORS (F2) VOIR CATALOGUE OPENING DOORS (F2) SEE CATALOG OPENING DOORS (F2) SEHE KATALOG OPENING DOORS (F2)			
INSULATION LOCK 	INSULATE CENTRAL LOCK CASE			
LOCK CLIPS 	ONLY USE WITH 			
GLAZING 	* VETROTECH SAINT GOBAIN CONTRAFLAM 30 / 30 CLIMAPLUS * AGC PYROBEL 16 / 16 EG * PILKINGTON 30-10 / 30-25 / 30-20	* VETROTECH SAINT GOBAIN CONTRAFLAM 30 / 30 CLIMAPLUS * AGC PYROBEL 16 / 16 EG * PILKINGTON 30-10 / 30-25 / 30-20	* VETROTECH SAINT GOBAIN CONTRAFLAM 60 / 60 CLIMAPLUS * AGC PYROBEL 25 / 25 EG * PILKINGTON 60-101 / 60-181 / 60-201	* VETROTECH SAINT GOBAIN CONTRAFLAM 60 / 60 CLIMAPLUS * AGC PYROBEL 25 / 25 EG * PILKINGTON 60-101 / 60-181 / 60-201
BUILDING CONNECTION 				
TRANSOM MULLION IN THE VENT 				



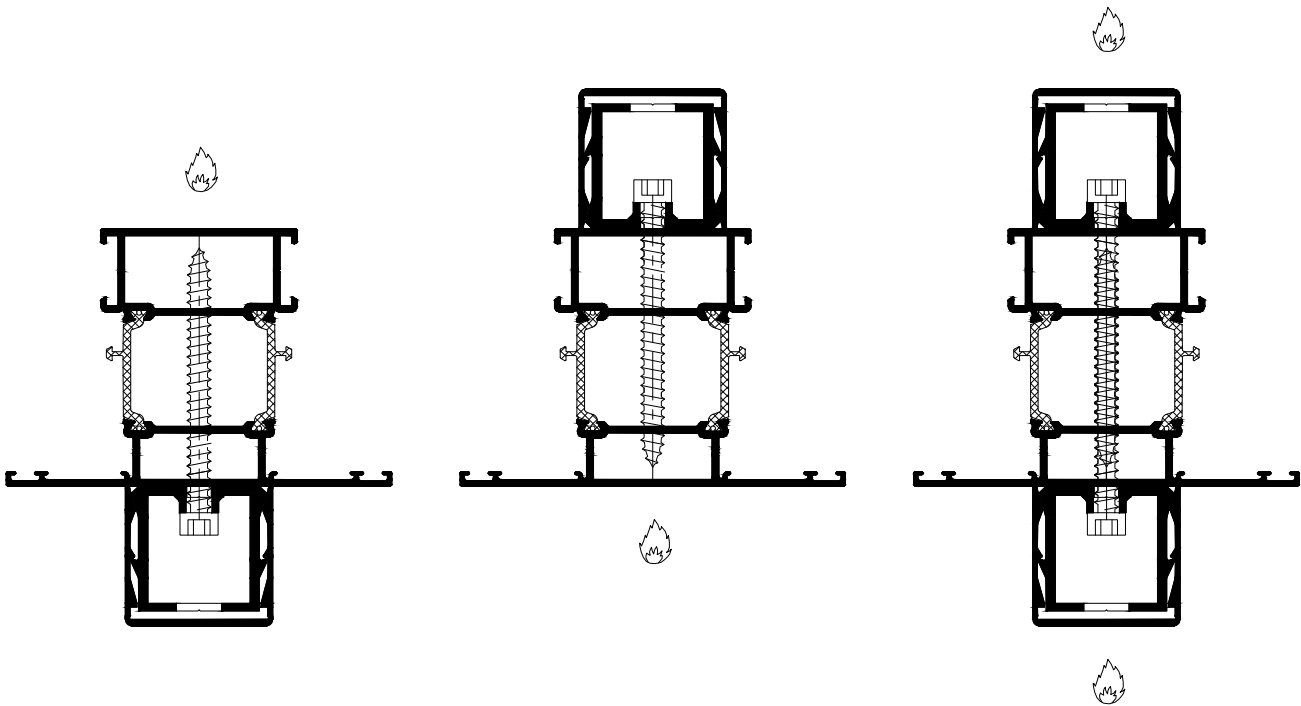
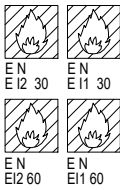
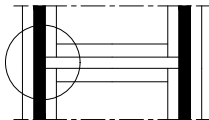
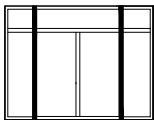
SPECIFIEKE BEWERKINGEN: ZIE CATALOGUS CS 77-FP
 OPÉRATIONS SPÉCIFIQUES: AVOIR CATALOGUE CS 77-FP
 SPECIFIC OPERATIONS: SEE CATALOG CS 77-FP
 SPEZIFISCHE OPERATIONEN: SIEHE KATALOG CS 77-FP

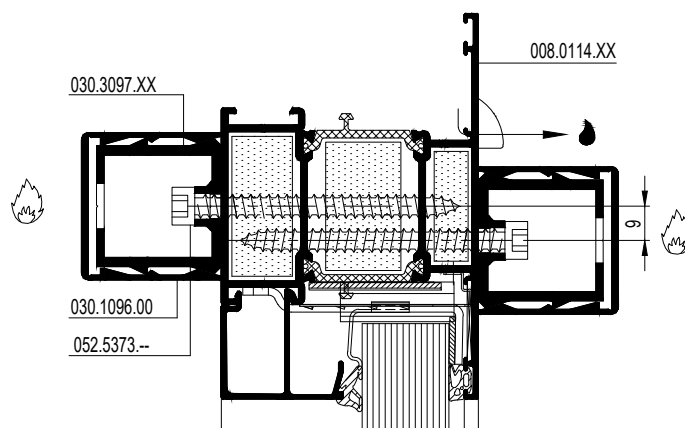
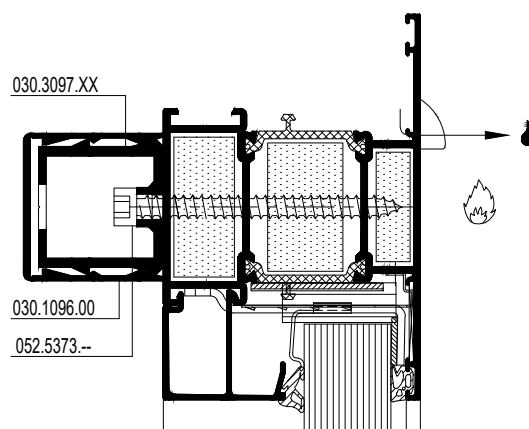
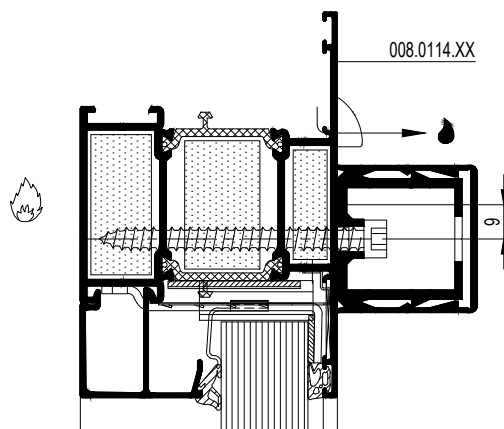
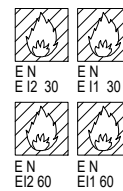
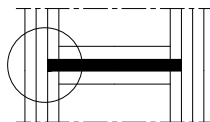


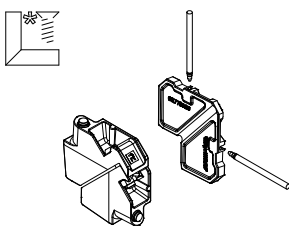
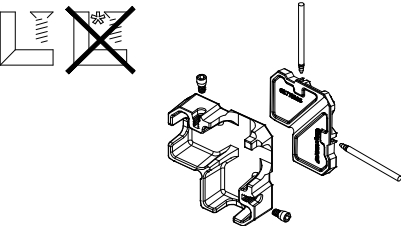
BESLAG DEUREN > ZIE "OPENING DOORS"
 ACCESSOIRES PORTES > VOIRE "OPENING DOORS"
 DOORS GEAR > SEE "OPENING DOORS"
 TUERENBESCHLAG > SIEHE "OPENING DOORS"




 DICHTINGSMIDDEL
 MATIERE D'ETANCHEITE
 SEALING AGENT
 ABDICHTUNG

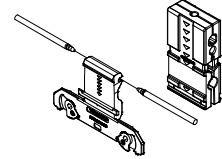
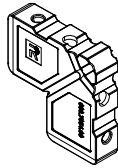
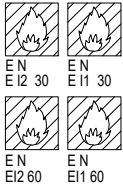




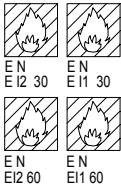
						
		EI2-30 EI1-30 EI2-60 EI1-60				EI2-30 EI1-30 EI2-60 EI1-60
008.0125.XX 008.0525.XX	068.8842.00	097.W900.00 097.X000.00	097.0411.00	068.7854.00 + 068.7855.00 	097.W900.00 097.X000.00 097.X100.00	097.0411.00
008.0140.XX	068.8843.00	097.W900.00 097.X000.00 097.X100.00	097.0411.00	----	----	----
008.0114.XX	068.8842.00	097.W900.00 097.X000.00 097.X100.00	097.0411.00	068.7854.00 + 068.7855.00 	097.W900.00 097.X000.00 097.X100.00	097.0411.00
008.0123.XX	068.8843.00	097.W900.00 097.X000.00 097.X100.00	097.0411.00	----	----	----
008.2026.XX 008.2014.XX 008.1016.XX	068.8817.00 of - ou - or - oder 068.8807.00	097.P300.00 097.P500.00	097.0095.00	068.8807.00	097.T400.00 097.P500.00	097.0095.00
008.1898.XX 008.0469.XX	068.8805.00	097.P300.00 097.P500.00	097.0015.00	----	----	----
008.0598.XX 008.0569.XX	068.8817.00 of - ou - or - oder or 068.8807.00	097.P300.00 097.P500.00	097.0015.00	068.8807.00	097.T400.00 097.P500.00	097.0015.00



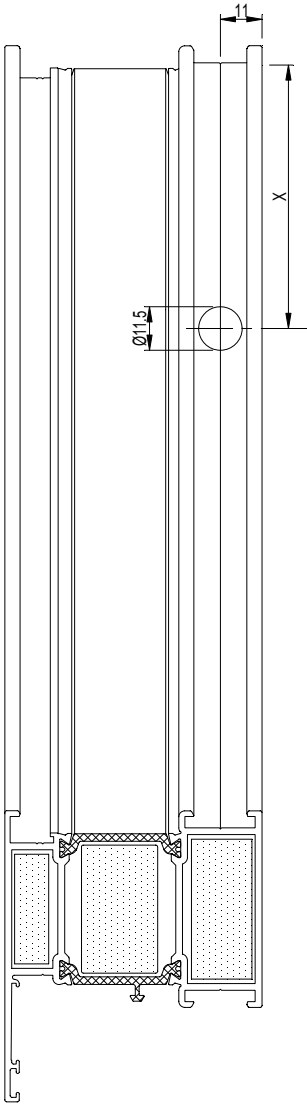
STANDAARD BEWERKINGEN: ZIE CATALOGUS CS 77
 OPERATIONS STANDARD: AVOIR CATALOGUE CS 77
 STANDARD OPERATIONS: SEE CATALOG CS 77
 STANDARDOPERATIONEN: SIEHE KATALOG CS 77

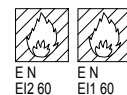


	EN E12 30 EN E11 30 EN E12 60 EN E11 60	E12-30 E11-30 E12-60 E11-60	095.H800.00 095.B500.00	095.H811.00 095.B533.00 095.B530.00	095.H853.00 095.H854.00 095.B562.00 095.B563.00	068.8732.00 + 068.8742.00	068.8737.00 + 068.8745.00	097.X300.00 097.X000.00 097.X100.00	097.0410.00
008.0125.XX 008.0525.XX		068.7854.00 + 068.7855.00	095.H800.00 095.B500.00	095.H811.00 095.B533.00 095.B530.00	095.H853.00 095.H854.00 095.B562.00 095.B563.00	068.8732.00 + 068.8742.00	068.8737.00 + 068.8745.00	097.X300.00 097.X000.00 097.X100.00	097.0410.00
008.0140.XX		068.7743.00	095.H800.00 095.B500.00	095.H811.00 095.B533.00 095.B530.00	095.H853.00 095.H854.00 095.B562.00 095.B563.00	068.8633.00 + 068.8743.00	068.8735.00 + 068.8745.00	097.X300.00 097.X000.00 097.X100.00	097.0410.00
008.0114.XX		068.7854.00 + 068.7855.00	095.H800.00 095.B500.00	095.H811.00 095.B533.00 095.B530.00	095.H853.00 095.H854.00 095.B562.00 095.B563.00	068.8732.00 + 068.8742.00	068.8732.00 + 068.8742.00	097.X300.00 097.X000.00 097.X100.00	097.0410.00
008.0123.XX		068.7843.00	095.H800.00 095.B500.00	095.H811.00 095.B533.00 095.B530.00	095.H853.00 095.H854.00 095.B562.00 095.B563.00	068.8733.00 + 068.8743.00	----	097.X300.00 097.X000.00 097.X100.00	097.0410.00
008.2026.XX 008.2014.XX 008.1016.XX		068.8807.00 of - ou - or - oder 068.7797.00	097.B500.00 097.H800.00	095.B530.00 095.B539.00 095.H817.00	095.B562.00 095.B574.00 095.H853.00 095.H862.00	----	----	----	----
008.1898.XX 008.1898.XX		068.7794.00	095.H800.00 095.B500.00	095.H813.00 095.B532.00 095.B537.00	095.H853.00 095.H860.00 095.B562.00 095.B572.00	----	----	----	----
008.0598.XX 008.0569.XX		068.7797.00	095.H800.00 095.B500.00	095.H813.00 095.B532.00 095.B537.00	095.H853.00 095.H860.00 095.B562.00 095.B572.00	----	----	----	----

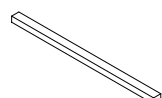
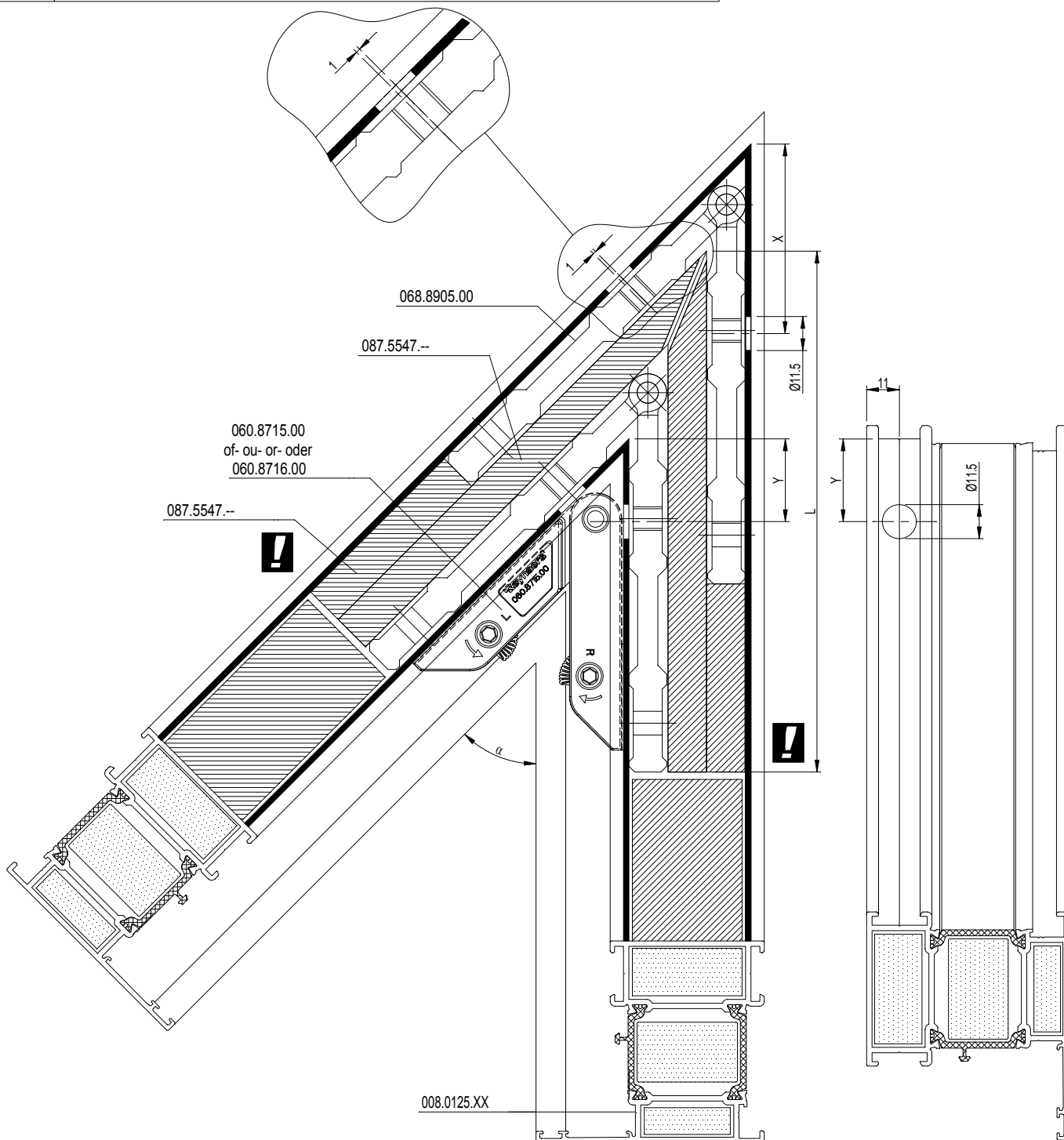


 008.0125.XX 008.0525.XX 008.0400.XX 008.0544.XX 008.0114.XX				
 068.8905.00 x 2 087.5547.--				
 097.0008.00				
	α	X	Y	L
MIN	45	63.5	27.9	176.5
	50	61.1	29.9	171.3
	55	59.3	31.3	166.9
	60	57.7	32.8	163.1
	65	56.4	33.6	159.8
	70	55.3	33.6	156.9
	75	54.2	35.3	154.2
	80	53.3	36	152.1
	85	52.5	36.5	150.1
	90	51.8	37.4	147.4
	95	51.1	37.7	147.8
	100	50.5	38.2	144.9
	105	51.9	38.6	143.5
	110	49.4	39.1	142.1
	115	48.8	39.5	140.8
	120	48.3	39.8	139.7
	125	47.9	40.3	138.4
	130	47.5	40.6	137.4
	135	47.1	40.9	136.3
	140	46.7	41.5	135.3
	145	46.3	41.6	134.3
	150	46.0	42.0	133.8
	155	45.6	42.1	132.4
	160	45.4	42.7	131.6
	165	45.2	42.8	131.2
	170	44.9	43.2	129.5
	MAX	175	44.8	128.4





VANAF HOEK < 90° EXTRA 087.5547.-- BESTELLEN OM RESTRUIMTE TE VULLEN.
À PARTIR D'UN ANGLE < 90° IL FAUT COMMANDER EN SUPPLÉMENT L'ARTICLE 087.5547.-- AFIN DE REMPLIR L'ESPACE RÉSIDUEL.
IF CORNER < 90° EXTRA ORDER ARTICLE 087.5547.-- TO FILL UP THE RESIDUAL SPACE.
WENN ECKE < 90° ARTIKEL 087.5547.-- EXTRA BESTELLEN UM DEN RESTRAUM ZU FÜLLEN.



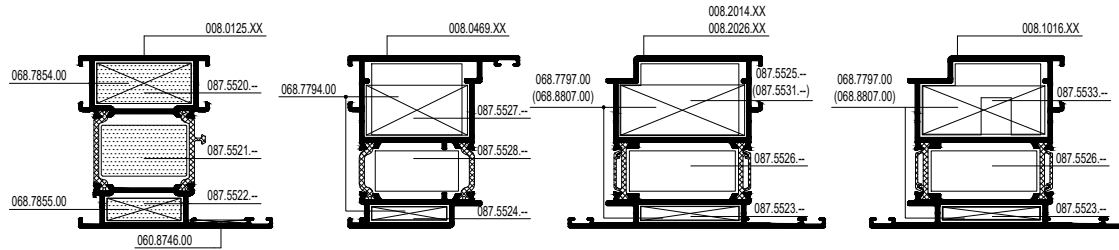
ART. 087.5547.-- VERZAGEN OP GEWENSTE LENGTE/HOEK
ART. 087.5547.-- SCIAGE A L'ANGLE DESIRE/A LA LONGUEUR DESIRE
ART. 087.5547.-- TO BE SAWN AT DESIRED ANGLE/LENGTH
ART. 087.5547.-- SAGEN AUF GEWUNSCHTEN WINKEL/ GEWUNSTE LANGE



RAADPLEGEN VEILIGHEIDSGEINFORMATIEBLAD VOOR VERWERKEN VAN KOELMATERIAAL --> ONLINE
CONSULTER TECHNIQUES SANTE SECURITE POUR LE TRAITEMENT DES MATERIAUX DE REFROIDISSEMENT --> ONLINE
PLEASE CONSULT MATERIAL SAFETY DATA SHEET FOR PROCESSING THE COOLING MATERIALS --> ONLINE
SICHERHEITSDATENBLATTFICHES KONSULTIEREN FUR BEARBEITUNG DES KUHLMATERIAL --> ONLINE



BIJKOMENDE INFO VOORBEREIDING/VERWERKING -> ZIE CATALOGUS CS 77
 INFO COMPLEMENTAIRE PREPARATION/USINAGE -> AVOIR CATALOGUE CS 77
 ADDITIONAL INFO PREPARATION/PROCESSING -> SEE CATALOG CS 77
 ZUSÄTZLICHE INFO VORBEREITUNG/VERARBEITUNG -> SIEHE KATALOG CS 77



Pershoeken VOLGORDE

1. Hoeken voorbereiden met art.nr 087.9551.--
2. Correct zagen
3. Ontbramen (indien noodzakelijk)
4. Stof en zaagresten verwijderen
5. Ontvetten met Reynafinish 60 art. nr. 086.9210.--
6. Inbrengen van brandwerende vulstukken
7. Product Reynaprotector art. nr. 086.9208.-- aanbrengen
8. Aanbrengen van voorbereide hoeken (zie tekening)
9. De verbinding maken door persen
10. Verlijmen met Reynaseal Duo art. nr. 084.9080.-- zie cat. CS77 C13F.
11. Zichtvlakken reinigen met Reynaclean, art.nr 086.9203.--
12. Steunhoek 060.8746.00 aanbrengen (verlijmbaar 084.9080.--)

Équerres à serrer ORDRE

1. Préparation des câles au moyen de art.nr 087.9551.--
2. Tronçonnage correct
3. Ebavurage (si nécessaire)
4. Enlèvement des poussières et des copeaux de sciage
5. Dégraissage avec Reynafinish 60 art. nr. 086.9210.--
6. Application de pièces de remplissage anti-feu
7. Application de produit Reynaprotector art. nr. 086.9208.--
8. Application des équerres préparées (voir dessin)
9. Connecter par sertissage
10. Injection de Reynaseal Duo art. nr. 084.9080.-- voir cat. CS77 C13F
11. Nettoyer les surfaces visibles au moyen de Reynaclean, art.nr 086.9203.--
12. Application câle de feuillure art.nr 060.8746.00 (collable 084.9080.--)

Crimp corner cleats SEQUENCE

1. Preparation of corners with art.nr 087.9551.--
2. Correct sawing
3. Deburring (if necessary)
4. Removing dust and saw-dust
5. Degreasing with Reynafinish 60 art. nr. 086.9210.--
6. Inserting fire protection filling pieces
7. Applying anti-corrosion product Reynaprotector art. nr. 086.9208.--
8. Insert prepared corners (see drawing)
9. Make the connection by crimping
10. Glue injection with Reynaseal Duo art. nr. 084.9080.-- see cat. CS77 C13F.
11. Cleaning visible surfaces by means of Reynaclean, art.nr 086.9203.--
12. Insert rebate support, art.nr 060.8746.00 (can be glued 084.9080.--)

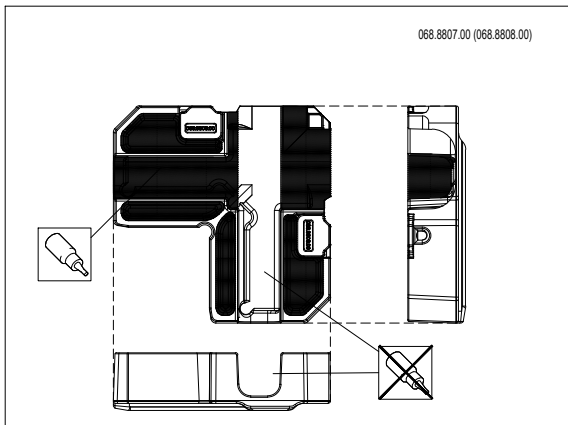
Presseckwinkel REIHENFOLGE

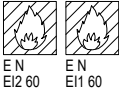
1. Eckverbinder vorbereiten mit art.nr 087.9551.--
2. Zuschneiden
3. Entgraten (falls erforderlich)
4. Staub und Sägereste entfernen
5. Entfetten mit Reynafinish 60 Art. nr. 086.9210.--
6. Anbringen von feuerhemmenden Füllstücken
7. Produkt Reynaprotector art. nr. 086.9208.-- anbringen
8. Anbringen der vorbereiteten Eckwinkel (siehe Zeichnung)
9. Verbinden durch pressen
10. Injektion von Reynaseal Duo art. nr. 084.9080.-- siehe cat. CS77 C13F.
11. Reinigen Sie die sichtbaren Flächen mittels Reynafinish 60 art. nr. 086.9210.--
12. Bringen Sie die Eckstütze 060.8746.00 an (verleimbar 084.9080.--)



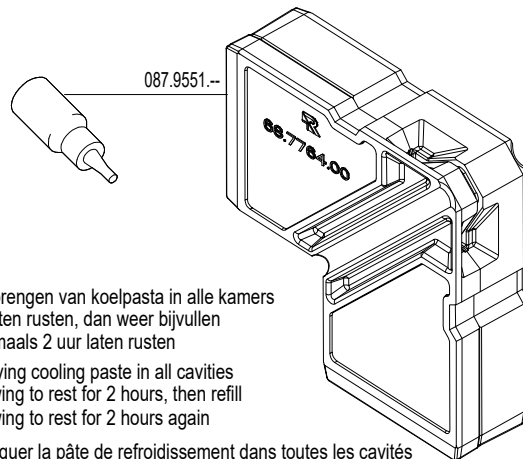
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 INFO COMPLEMENTAIRE PREPARATION/USINAGE -> CONSULTEZ CHAPITRE B!
 ADDITIONAL INFO PREPARATION/PROCESSING -> CONSULT CHAPTER B!
 ZUSÄTZLICHE INFO VORBEREITUNG/VERARBEITUNG -> SIEHE KAPITEL B!

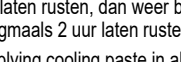
LIJMINJECTIE VOOR HET PERSEN / NA HET PERSEN
 INJECTION DE COLLE AVANT LE SERTISSAGE / APRES LE SERTISSAGE
 GLUE INJECTION BEFORE CRIMPING / AFTER CRIMPING
 KLEBEINJEKTION VOR DEM PRESSEN / NACH DEM PRESSEN

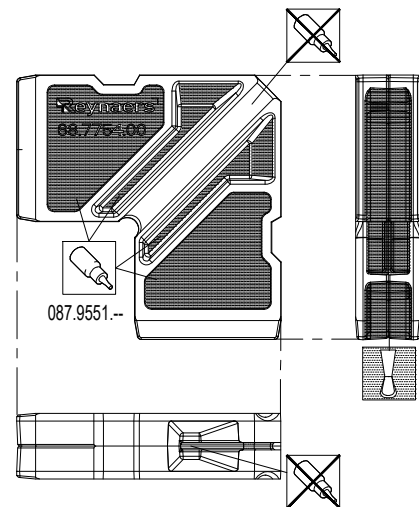




1



- 
1. Aanbrengen van koelpasta in alle kamers
 2. 2u laten rusten, dan weer bijvullen
 3. Nogmaals 2 uur laten rusten
1. Applying cooling paste in all cavities
 2. Allowing to rest for 2 hours, then refill
 3. Allowing to rest for 2 hours again
1. Appliquer la pâte de refroidissement dans toutes les cavités
 2. Laisser reposer pendant 2 heures, puis remplir à nouveau
 3. Laisser reposer de nouveau pendant 2 heures
1. Anwendung Kühlpast in alle Kammer
 2. 2 stunden ruhen lassen, dann nachfüllen
 3. Wieder 2 stunden ruhen lassen



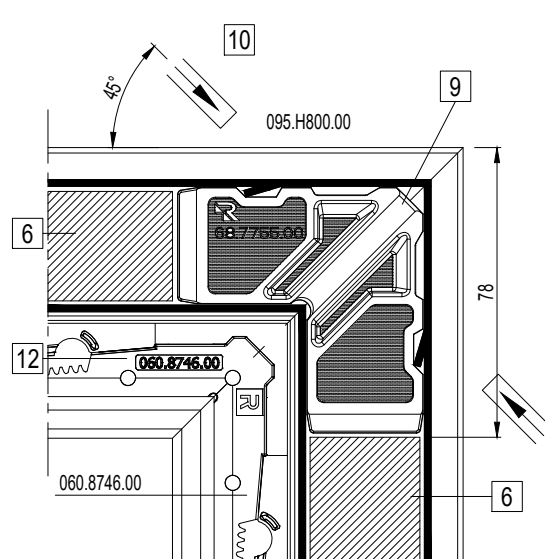
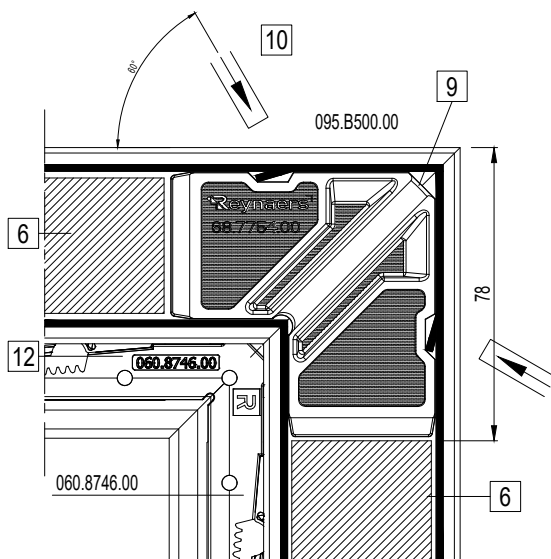
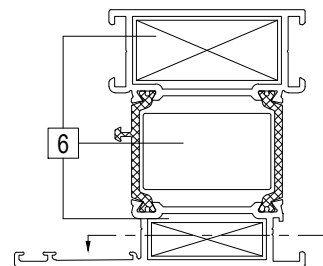
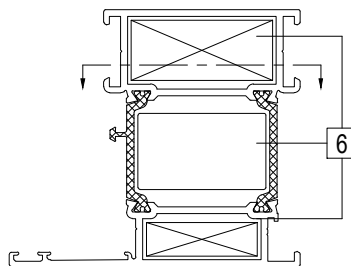
 Compleet vullen met koelpasta 087.9551.--
Remplir complètement à l'aide de pâte de refroidissement 087.9551.--
Fill completely with cooling paste 087.9551.--
Vollständig füllen mit Kühlpasta 087.9551.--

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MONTAGEVOLGORDE
L'ORDRE DE MONTAGE
THE ORDER OF ASSEMBLY
MONTAGEREIHENFOLGE



12 MONTAGEVOLGORDE

1. Nadien monteerbaar
2. Aanschroefbaar
3. Verlijmbaar

L'ORDRE DE MONTAGE

1. Montable après
2. Vissable
3. Collable

ORDER OF ASSEMBLY

1. Can be assembled afterwards
2. Screwable
3. Can be glued

MONTAGEREIHENFOLGE

1. Nachher montierbar
2. Schraubbar
3. Verleimbar

1.3.2 T-verbindingen

1. Voor CS 77-FP (EI60): T-verbindingen voorbereiden met koelende pasta, art. 087.9551.-- (verwerking en droogtijd, zie: montagetekeningen)
 2. Correct zagen T-profiel
 3. Ponsen (Ø 7 mm): T-verbinder met nagel en schroef
 4. Uitvellen T-profiel (hoogte 25 mm)
 5. Voorbereiden van de zaagsneden en bewerkte vlakken door:
 - ontbramen
 - verwijderen van stof en zaagresten op de zaagsnede en in de profielkamer;
 6. Aanbrengen van brandwerende vulstukken, art. nr. 087.9520.--, 087.9521.--...
 7. Beschermen van de zaagsneden en bewerkte vlakken door:
 - ontvetten (Reynaers Safety Clean art. nr. 086.96231.-- en Reynaers Multifoam 086.9230.--).
 - aanbrengen van Reynaprotector (art.nr. 086.9207.SY + 395.E500.00 + 086.9225.--) op de zaagsneden en Reynaers anti-corro (art.nr. 086.9606.--) op de freessneden en bevestigingsgaten.
 8. Afdichten van de T-verbinding door een brandbestendig dichtingsmiddel (art.nr. 094.9021.04) aan te brengen op de zaagsneden en in de bevestigingsgaten
 9. Afdichten van de zone onder de T-verbinding op het buitenkader door middel van dichtingsstukken of een brandbestendig dichtingsmiddel (art.nr. 094.9021.04). Deze zone moet waterdicht zijn.
- Opmerking: Uitzonderingen zijn toegelaten om drukegalisatie te bekomen bij vaste panelen, mits er een gecontroleerde ontwatering plaatsvindt.
10. Verbinding tot stand brengen: de T-verbinder wordt gepositioneerd op centerlijn, T-profiel wordt hierover aangebracht, T-verbinder wordt vastgeschroefd en vernageld (of 2x vernageld)
 11. Overblijvende resten van lijm en dichtingsmiddel dienen verwijderd te worden en de zichtvlakken gereinigd met een niet agressief middel (Reynaefinish 60 art.nr. 086.9210.-- of Reynaers safety clean 086.9231.--)

1.3.2 T-brackets and cross connections

1. For CS 77-FP (EI60): Preparation of the T-brackets with cooling paste, art. no. 087.9551.-- (processing and drying time, see: assembly drawings)
 2. Correct sawing of the transom-mullion
 3. Punching (Ø 7 mm: T-bracket with drive pin)
 4. Endmilling of the transom-mullion (height 25 mm)
 5. Preparation of the saw cuts and treated surfaces by:
 - deburring
 - removing dust and saw-dust on the saw cut and in the profile chamber;
 6. Inserting fire protection filling pieces, art. nr. 087.9520.--, 087.9521.--, ...
 7. Protection of the saw cuts and treated surfaces by:
 - degreasing (Reynaers Safety Clean art. nr. 086.96231.-- and Reynaers Multifoam 086.9230.--).
 - applying Reynaprotector (art.nr. 086.9207.SY + 395.E500.00 + 086.9225.--) on the saw cuts and Reynaers anti-corro (art.nr. 086.9606.--) on the milling edges and holes.
 8. Sealing of the transom-mullion by applying a fire-resistant sealing agent (art.nr. 084.9021.04):
 - on the saw cuts;
 - on the fixing holes;
 9. Sealing of the zone under the transom-mullion on the outer frame by applying sealing elements or a fire-resistant elastic sealing agent. These parts should be watertight.
- Remark : Exceptions are allowed in order to obtain pressure equalization in case of fixed panels, provided controlled drainage is provided.
10. Making the connection: the T-bracket is positioned on the center line, the transom-mullion is inserted, and the T-bracket is fixed with screws and driving-in pins (or 2x driving-in pins).
 11. Remove adhesive residue on the visible sides of the completed elements with a non-aggressive product (Reynaefinish 60 art.nr. 086.9210.-- or Reynaers safety clean 086.9231.--)

1.3.2 Assemblage T et jonctions transversales

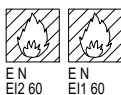
1. Pour CS 77-PF (EI60): préparation des jonctions-T avec une pâte réfrigérante, art. 087.9551.-- (application et temps de séchage, voir détails de fabrication)
 2. Tronçonnage parfait de la traverse.
 3. Poinçonnage (Ø 7mm: jonction-T avec cheville)
 4. Fraiser la hauteur de la rainure de la traverse (hauteur 25 mm)
 5. Préparation des coupes et des surfaces traitées par:
 - ébavurage
 - enlèvement des poussières et des copeaux sur les sciages et dans la chambre du profilé;
 6. Application de pièces de remplissage anti-feu, art.nr. 087.9520.--, 087.9521.--
 7. Protection des coupes et des surfaces traitées par:
 - dégraissage (Reynaers Safety Clean art. nr. 086.96231.-- et Reynaers Multifoam 086.9230.--).
 - application de produit Reynaprotector (art. n°. 086.9207.SY + 095.E500.00 + 086.9225.--) sur les sciages et Reynaers anti-corro (art.n° 086.9606.--) sur les fraisages et les trous.
 8. Etanchement de la traverse en appliquant d'une matière d'étanchéité résistante au feu (art.nr. 094.9021.04) sur les coupes et les trous de fixation.
 9. Etanchement de la zone au dessous des traverses sur le profilé dormant en appliquant des éléments d'étanchéité ou d'une matière d'étanchéité résistante au feu. Ceux-ci doivent être complètement étanches à l'eau.
- Remarque:
Des exceptions afin d'obtenir une égalisation de pression, dans le cas de panneaux fixes, sont permises à condition de réaliser un drainage contrôlé.
10. Assemblage: la jonction T est positionnée sur la ligne de centrage, la traverse est introduit, vissée et chevillée (ou 2x chevillée).
 11. Les résidus de colle et de joint doivent être éliminés.
- On nettoiera aussi les surfaces visibles avec un produit non agressif (Reynaefinish 60 art.nr. 086.9210.-- ou Reynaers safety clean 086.9231.--)

1.3.2 T-Verbinder

1. Bei CS 77-FP (EI60): Vorbereiten von T-Verbinder mit Kühlpaste, Art 087.9551.- (Verarbeitung und Trockenzeit: siehe Montagezeichnungen)
 2. Korrekt zuschneiden
 3. Stanzen oder bohren der Sprosse (Ø 7mm: T-verbinder mit Stift)
 4. Abfräsen der der Falzhöhe der Sprosse (Höhe 25 mm)
 5. Die Sägeschnitte und bearbeiteten Flächen wie folgt vorbereiten:
 - Entgraten (falls erforderlich).
 - Schnittfläche und Profilkammern von Staub und Sägeresten säubern.
 6. Anbringen von feuerhemmenden Füllstücken, art.nr. 087.9520.--, 087.9521.--
 7. Beschützung der Sägeschnitte und bearbeiteten Oberflächen durch:
 - Entfetten der Profile (Reynaers Safety Clean art. nr. 086.96231.-- und Reynaers Multifoam 086.9230.--).
 - Korrosionsschutzprodukt (Reynaprotector art.nr. 086.9207.SY + 095.E500.00 + 086.9225.--) auf die bearbeitete Schnittkanten und Befestigungsbohrungen aufbringen.
 8. Abdichtung: der Bereich im T-Stoss sowie der Bereich der Befestigungsmittel ist durch den Einsatz geeigneter feuerfest Dichtungsmittel (084.9021.04) wasserdicht auszuführen:
 - Auf die Schnittfläche
 - In die Befestigungsbohrungen
 9. Abdichten der Zone unter der Sprosse auf dem Blendrahmen durch das Anbringen von Dichtungsstücke oder einem geeigneten Dichtungsmittel (084.9021.04). Diese sollen wasserdicht ausgeführt werden.
- Anmerkung: Eine Ausnahme ist möglich, wenn ein Druckausgleich und eine kontrollierte Entwässerung gewährleistet ist.
10. Verbinden: nach dem Einbringen des T-Verbinders, der Kleber und Dichtungsmittel, werden die Bauteile zusammengefügt, verstiftet bzw. verschraubt.
 11. Nach dem Zusammenfügen müssen überschüssige Kleber und Dichtungsmittelreste auf den sichtbaren Seiten entfernt werden (Reynaefinish 60 art.nr. 086.9210.-- oder Reynaers safety clean 086.9231.--)



BIJKOMENDE INFO VOORBEREIDING/VERWERKING -> RAADPLEEG HOOFDSTUK B !
INFO COMPLÉMENTAIRE PRÉPARATION/USINAGE -> CONSULTEZ CHAPITRE B !
ADDITIONAL INFO PREPARATION/PROCESSING -> CONSULT CHAPTER B !
ZUSÄTZLICHE INFO VORBEREITUNG/VERARBEITUNG -> SIEHE KAPITEL B !



1

1. Aanbrengen van koelpasta in alle kamers
1. Applying cooling paste in all cavities
1. Appliquer la pâte de refroidissement dans toutes les cavités
1. Anwendung Kühlpaste in alle Kammer

087.9551.--

Compleet vullen met koelpasta 087.9551.--
Remplir complètement à l'aide de pâte de refroidissement 087.9551.--
Fill completely with cooling paste 087.9551.--
Vollständig füllen mit Kühlpasta 087.9551.--

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MONTAGEVOLGORDE
L'ORDRE DE MONTAGE
THE ORDER OF ASSEMBLY
MONTAGEREIHENFOLGE

MONTAGEVOLGORDE

1. Nadien monteerbaar
2. Aanschroefbaar
3. Verlijmbaar

L'ORDRE DE MONTAGE

1. Montable après
2. Vissable
3. Collable

ORDER OF ASSEMBLY

1. Can be assembled afterwards
2. Screwable
3. Can be glued

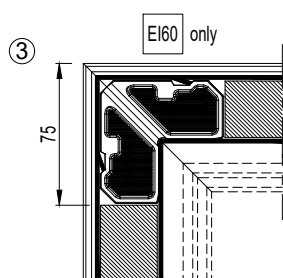
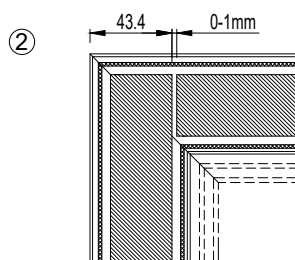
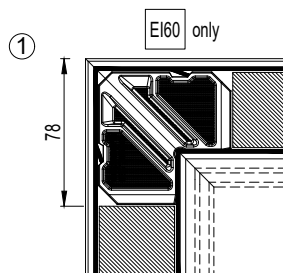
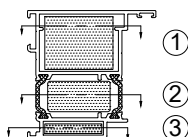
MONTAGEREIHENFOLGE

1. Nachher montierbar
2. Schraubbar
3. Verleimbar

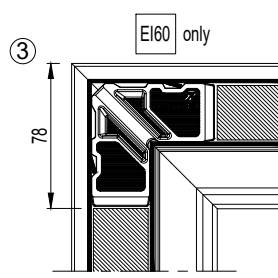
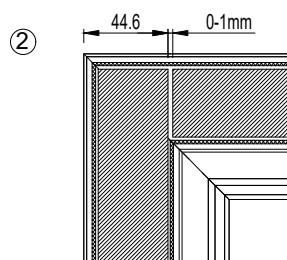
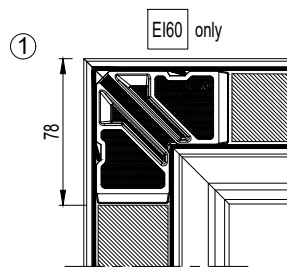
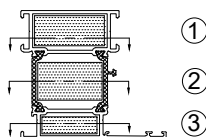
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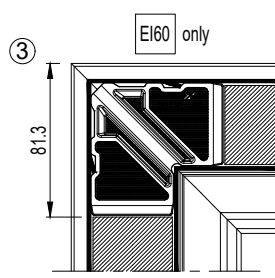
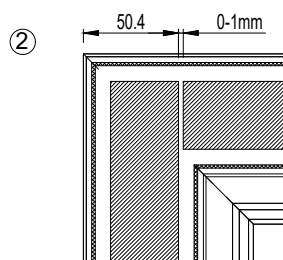
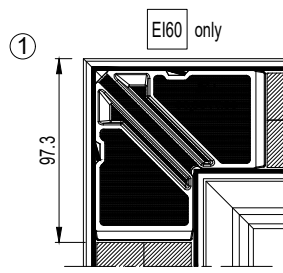
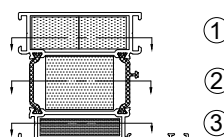
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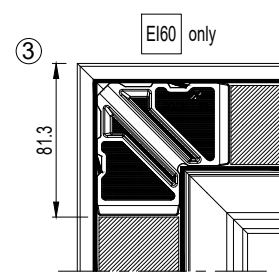
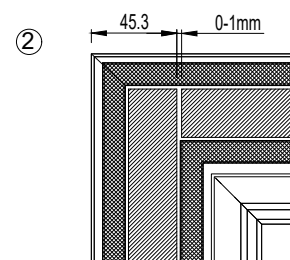
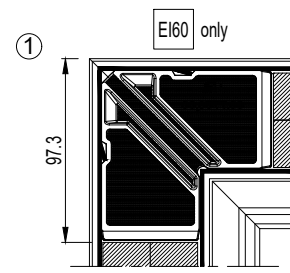
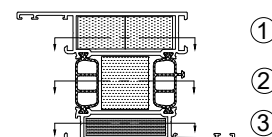
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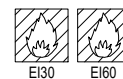


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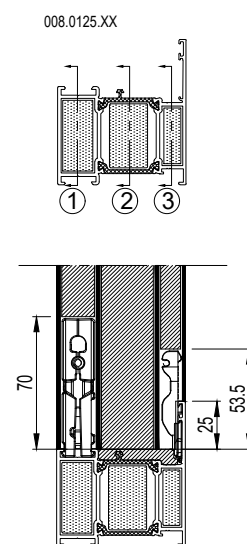
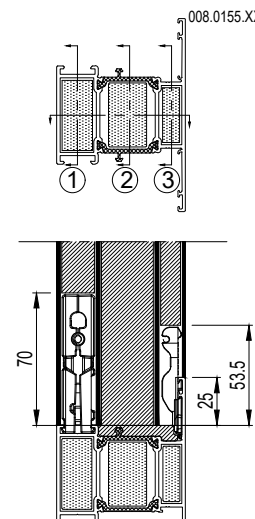
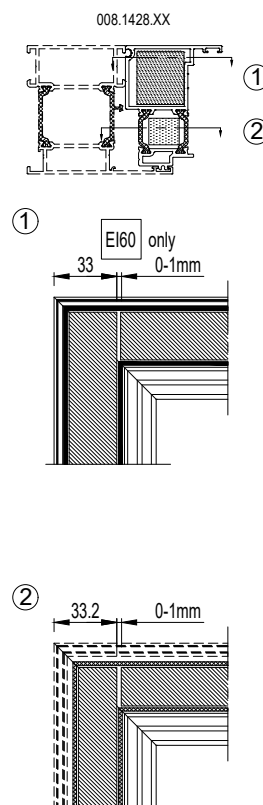
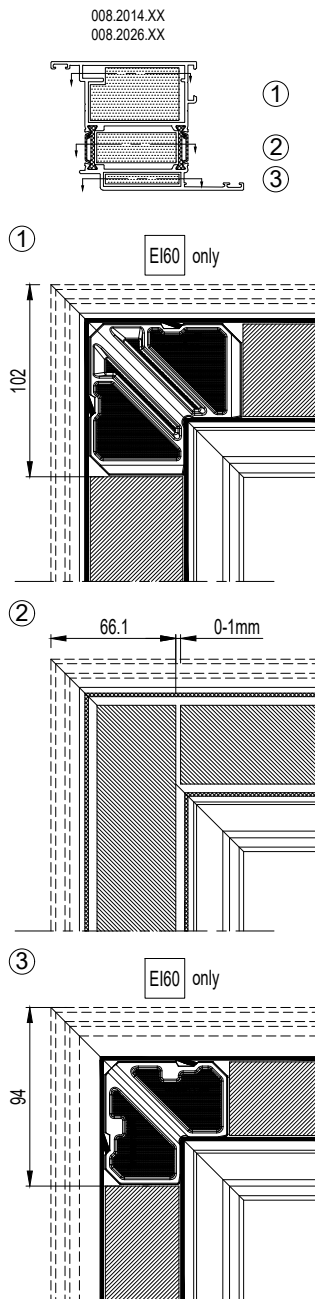
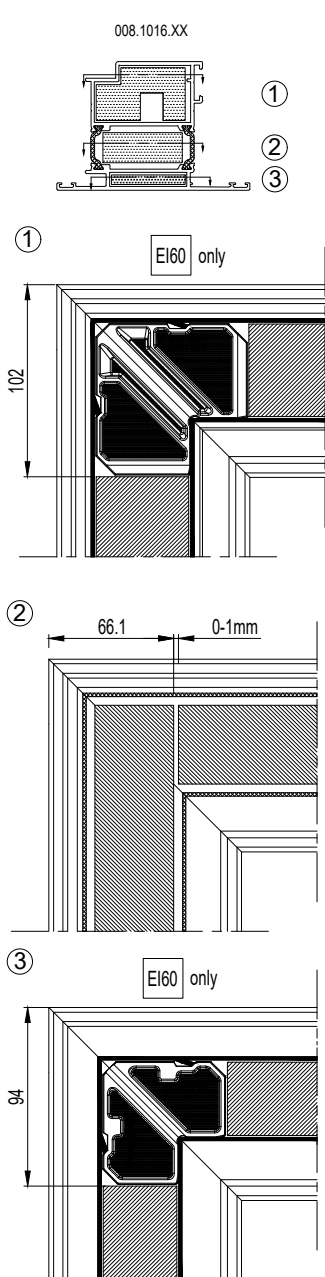


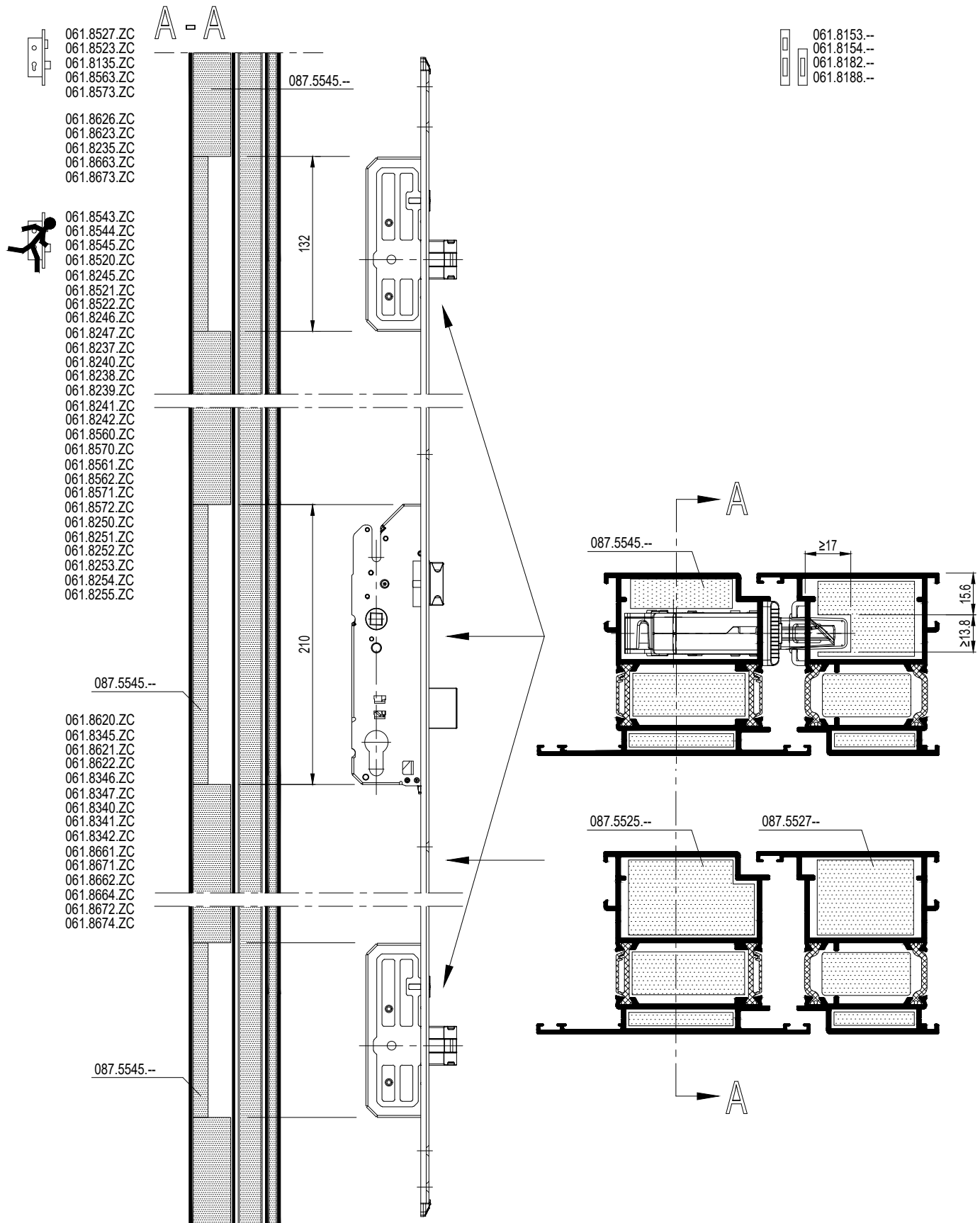
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061.6657.ZC



061.6671.--

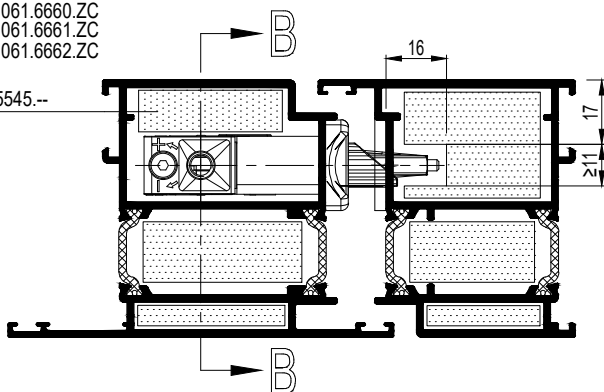


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061.6660.ZC
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061.6626.ZC

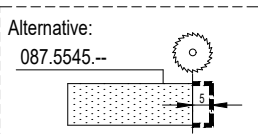
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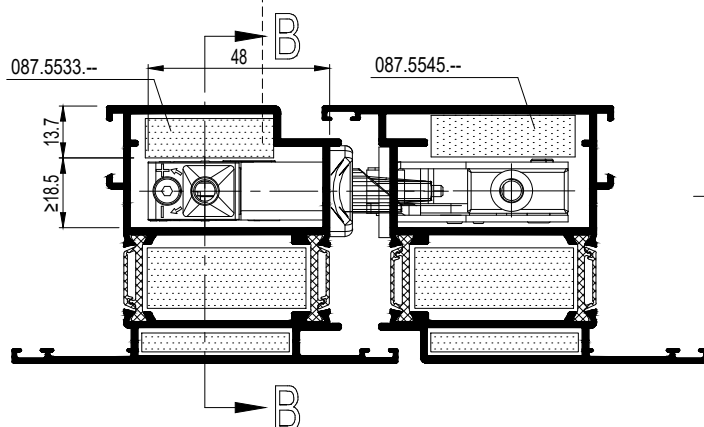
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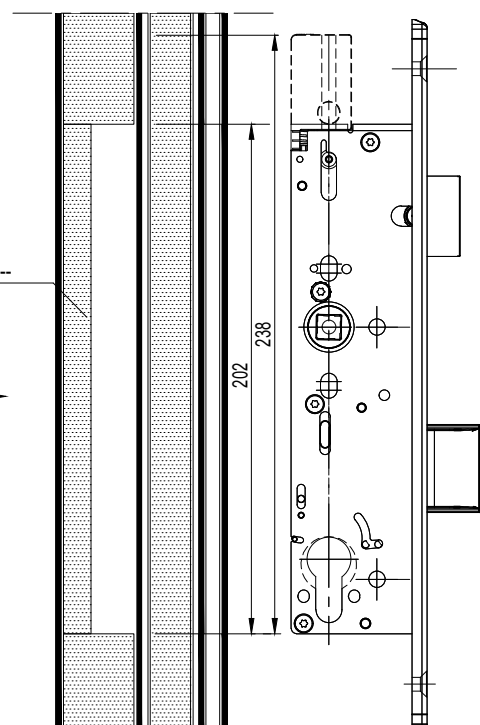
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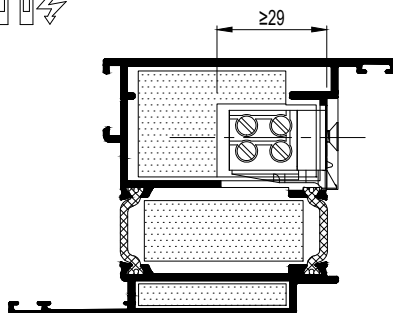
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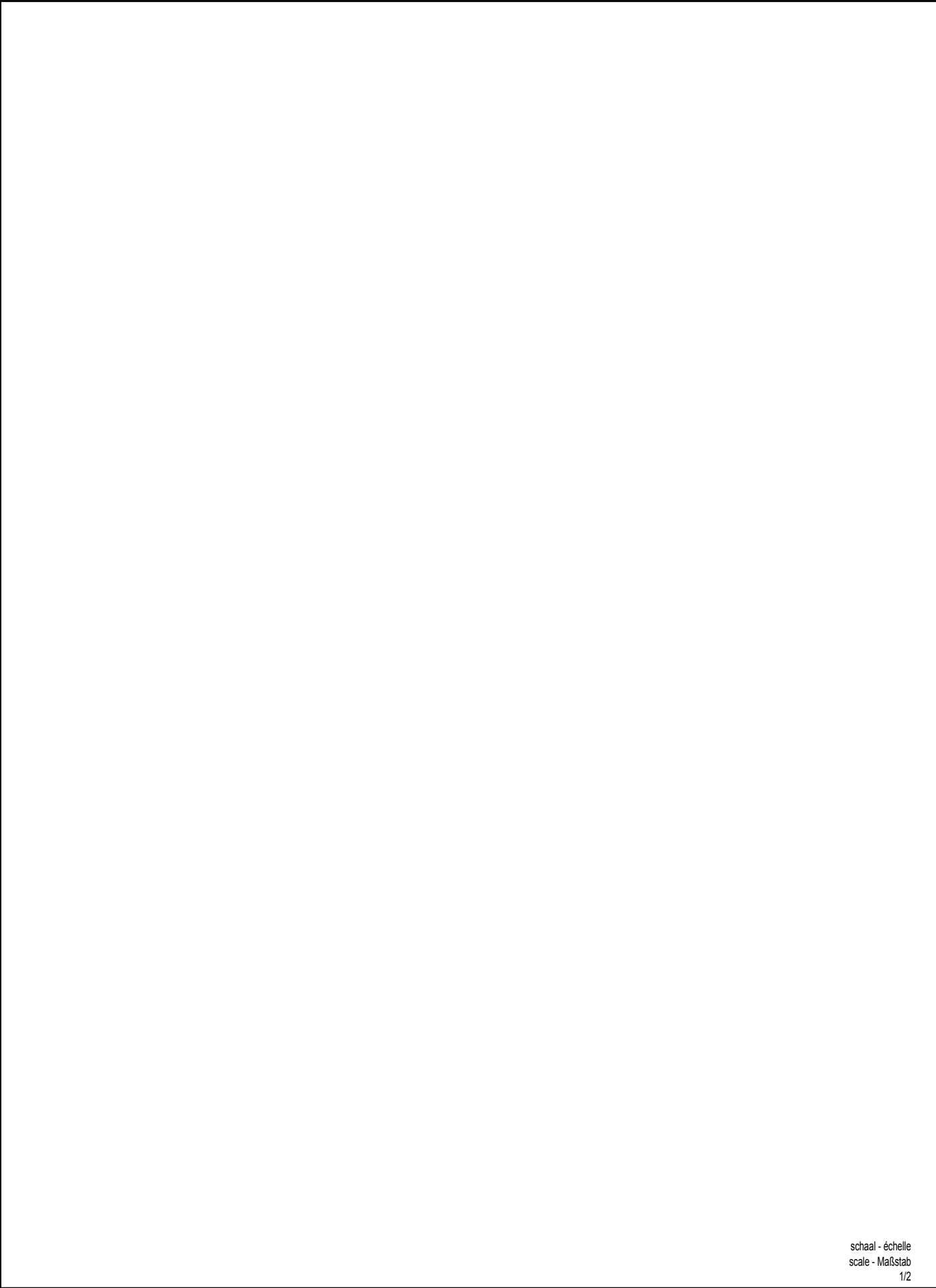


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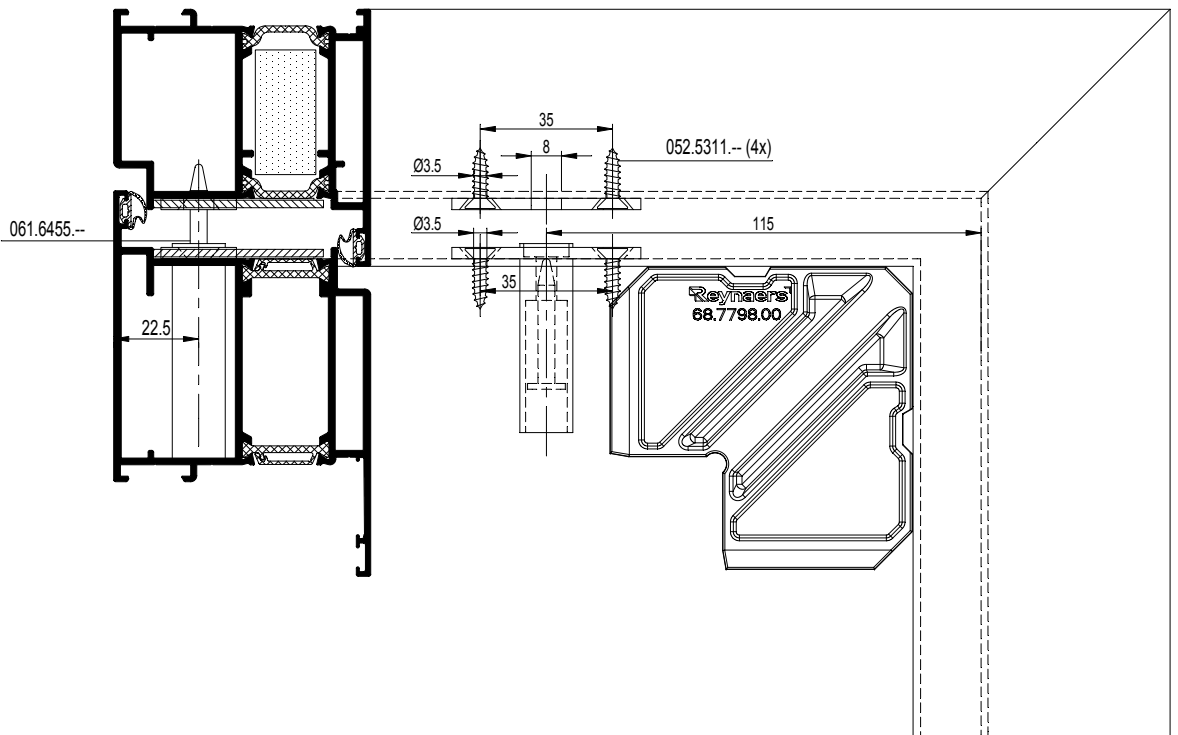
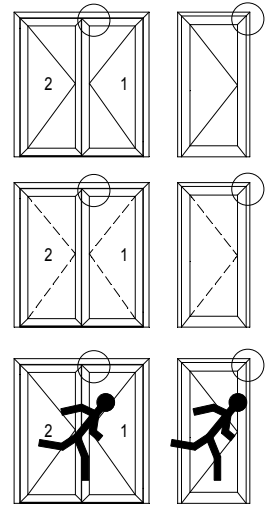
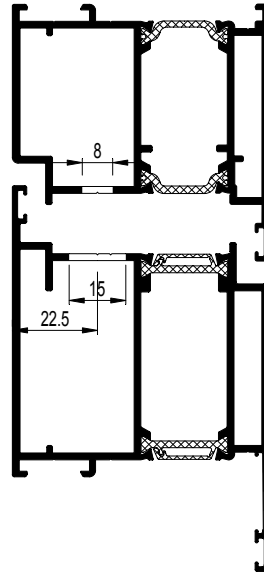
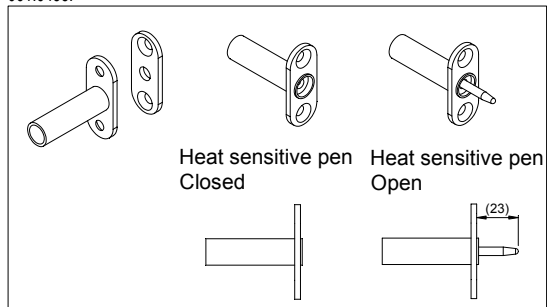


061.6590.--
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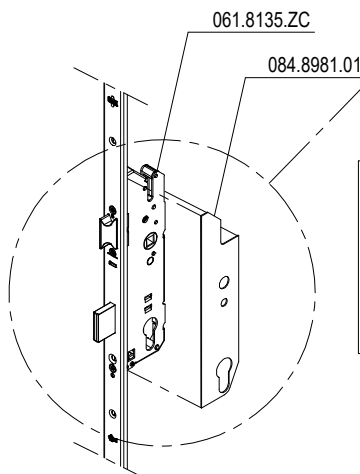
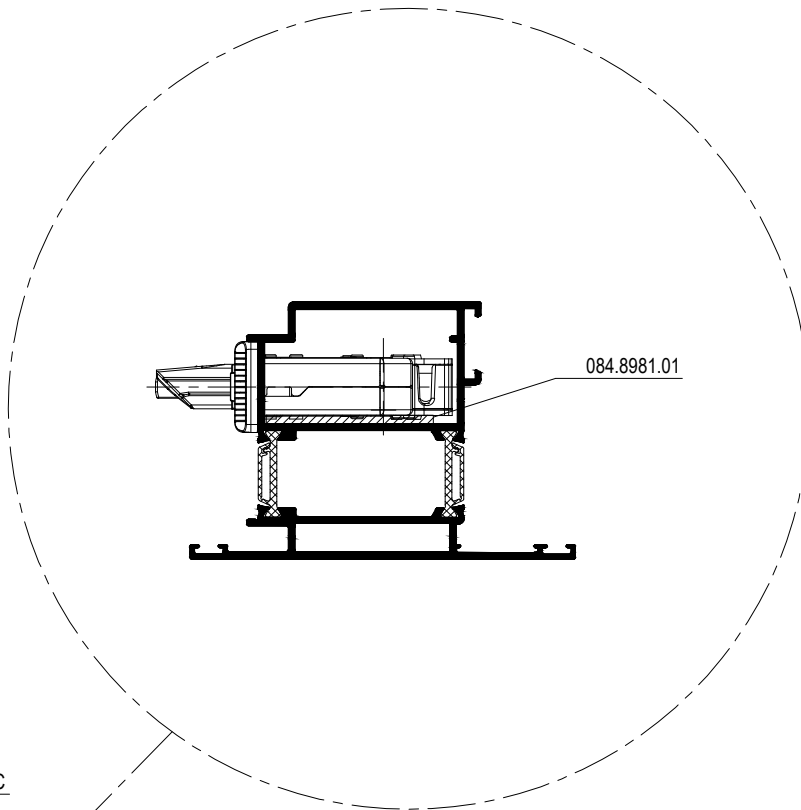
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schaal - échelle
scale - Maßstab
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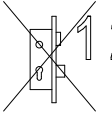
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D0100372



- 084.8980.01 - FUHR PZ DIN L
- 084.8981.01 - FUHR PZ DIN R
- 084.8982.01 - BKS PZ DIN L
- 084.8983.01 - BKS PZ DIN R
- 084.8990.01 - FUHR KABA DIN L
- 084.8991.01 - FUHR KABA DIN R
- 084.8992.01 - BKS KABA DIN L
- 084.8993.01 - BKS KABA DIN R



ENKEL UNIQUEMENT NUR ONLY		ENKEL UNIQUEMENT NUR ONLY		
NIET NE PAS NICHT NOT				

068.6380.--

052.5311.--

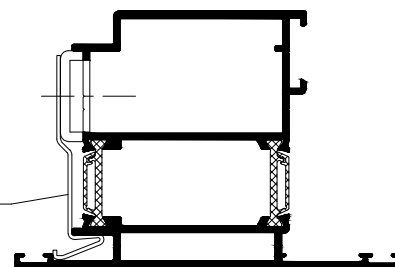
061.8135.ZC

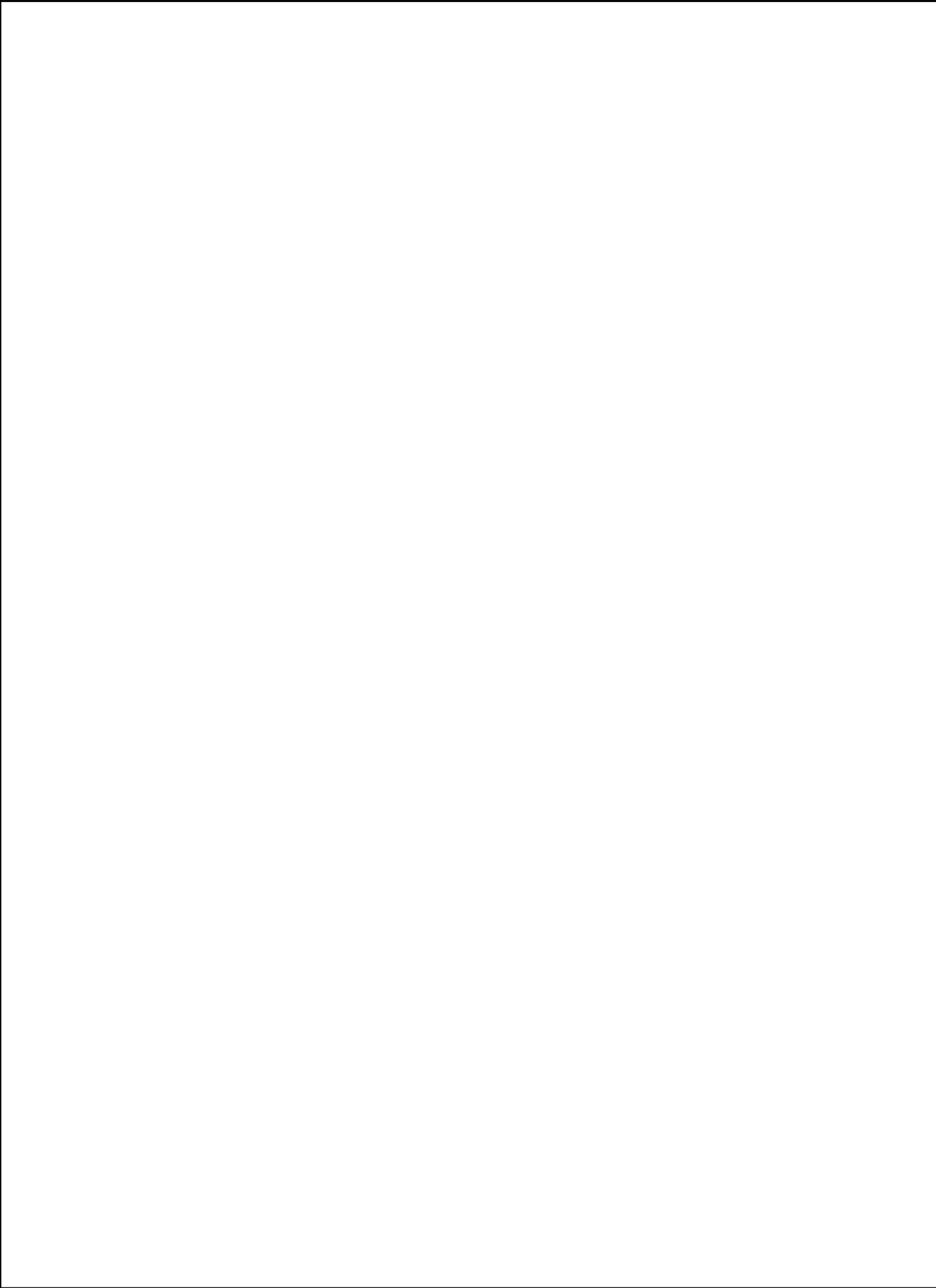
084.8981.01

052.5311.--



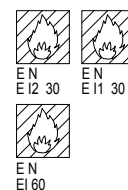
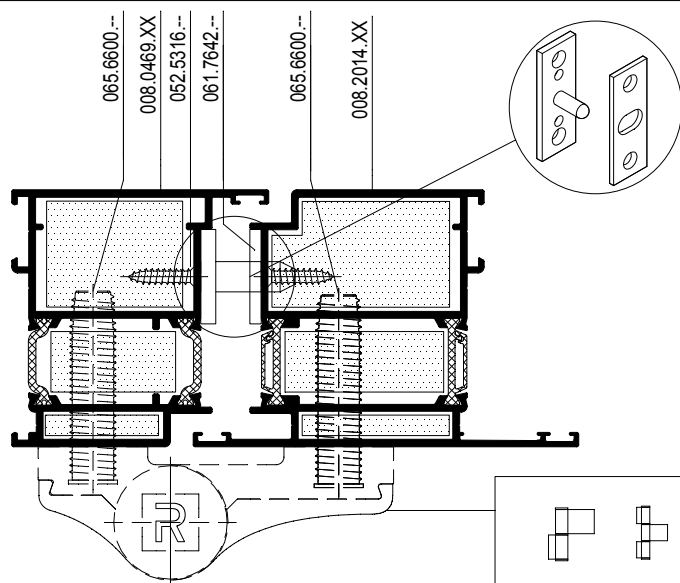
068.6380.--



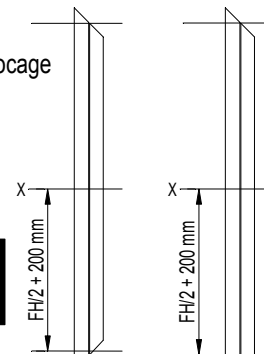


F

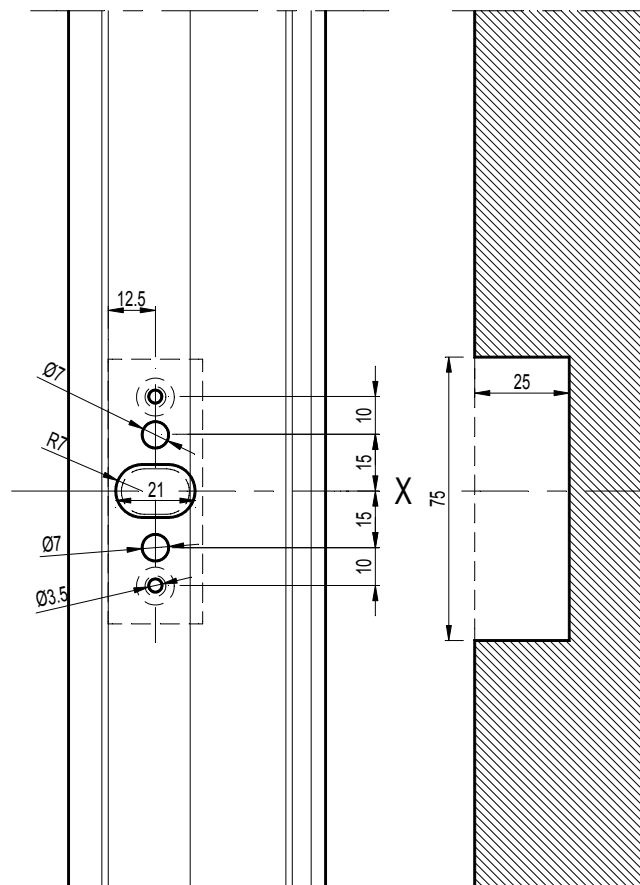
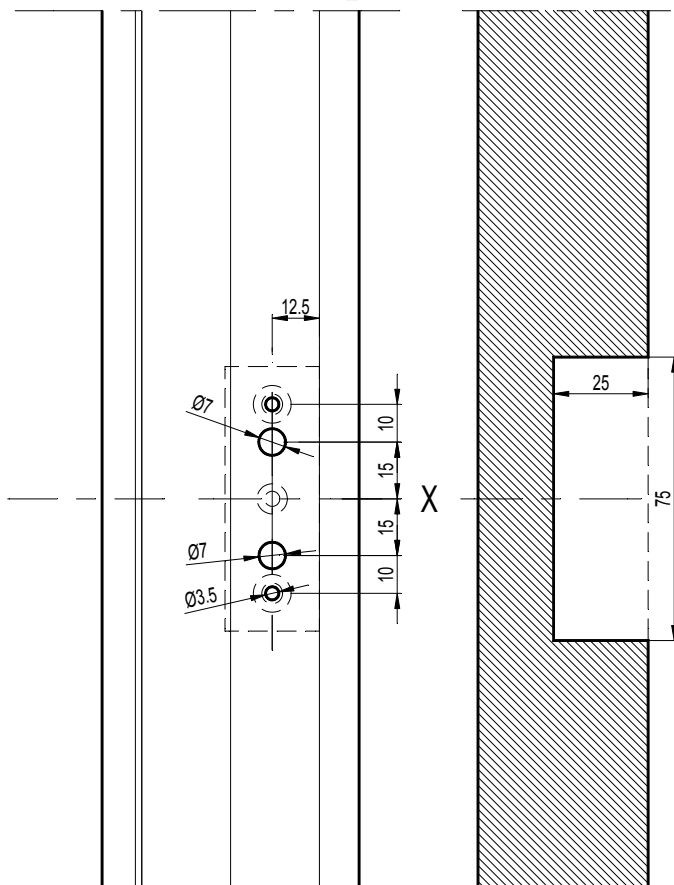
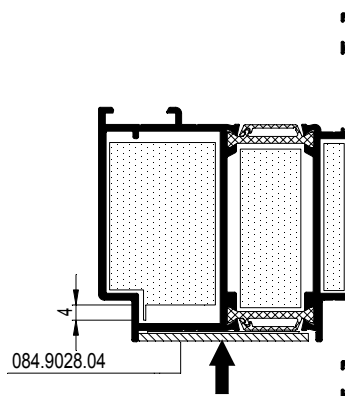
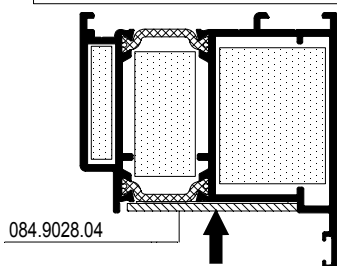
D0100381

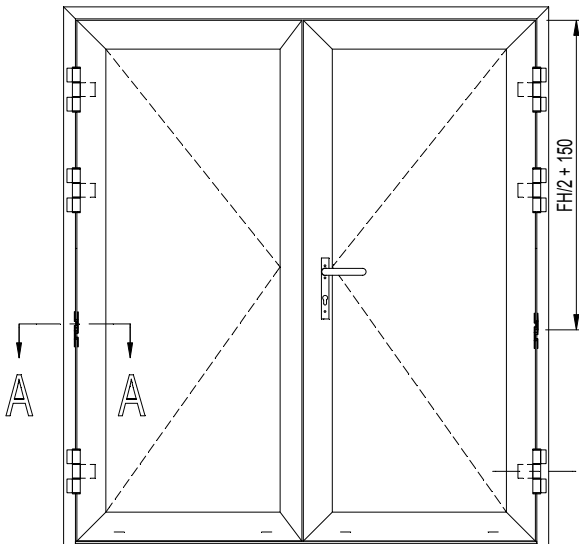
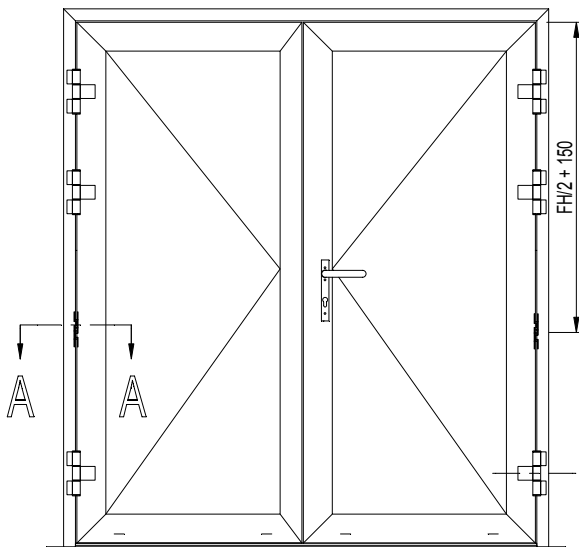


X=Hoogte borgbout
X=Hauteur de boulon de blocage
X= height safety bolt
X=höhe Sicherungsbolzen



KOELBLOKKEN MEE BOREN
AUSSI FORER LES BLOCS DE REFROIDISSEMENT
ALSO DRILL OUT THE COOLING BLOCKS
KÜHLBLÖCKE AUCH BOHREN

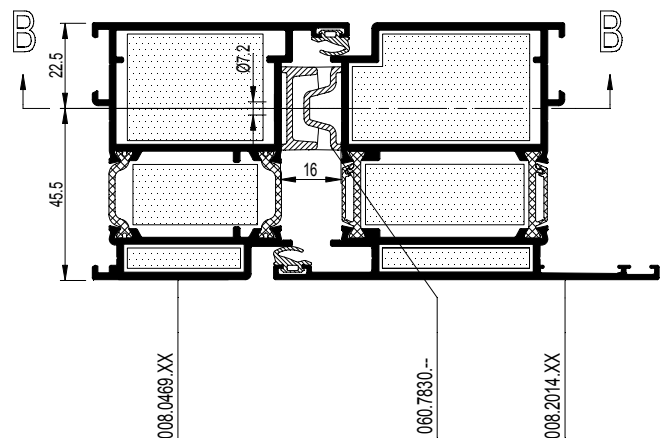
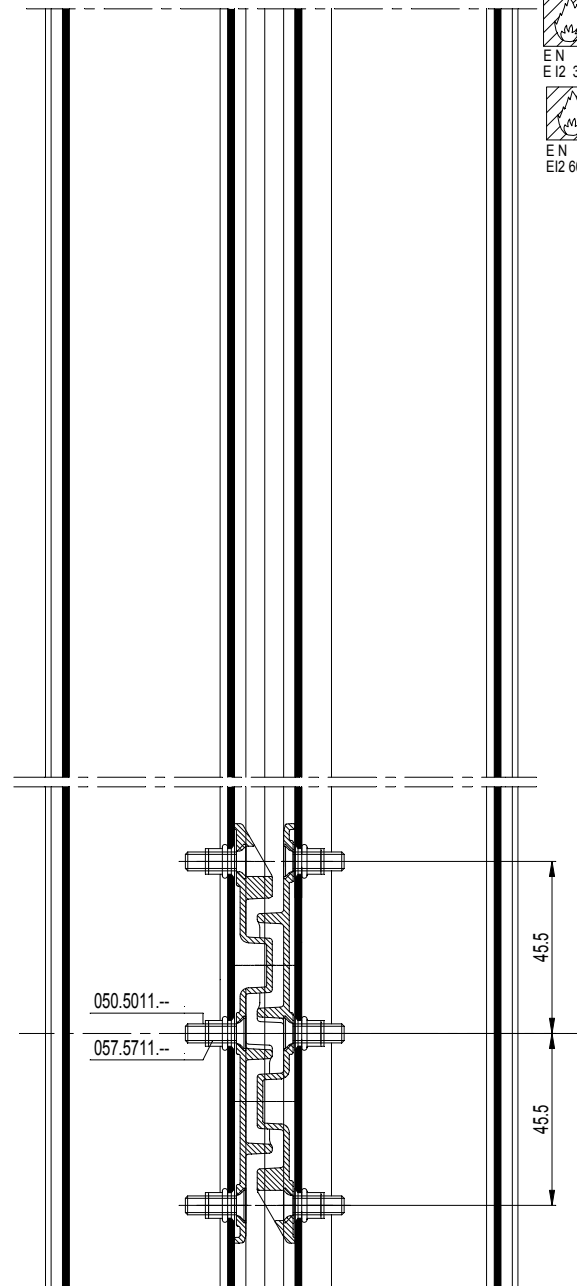
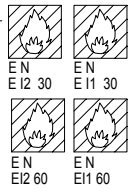


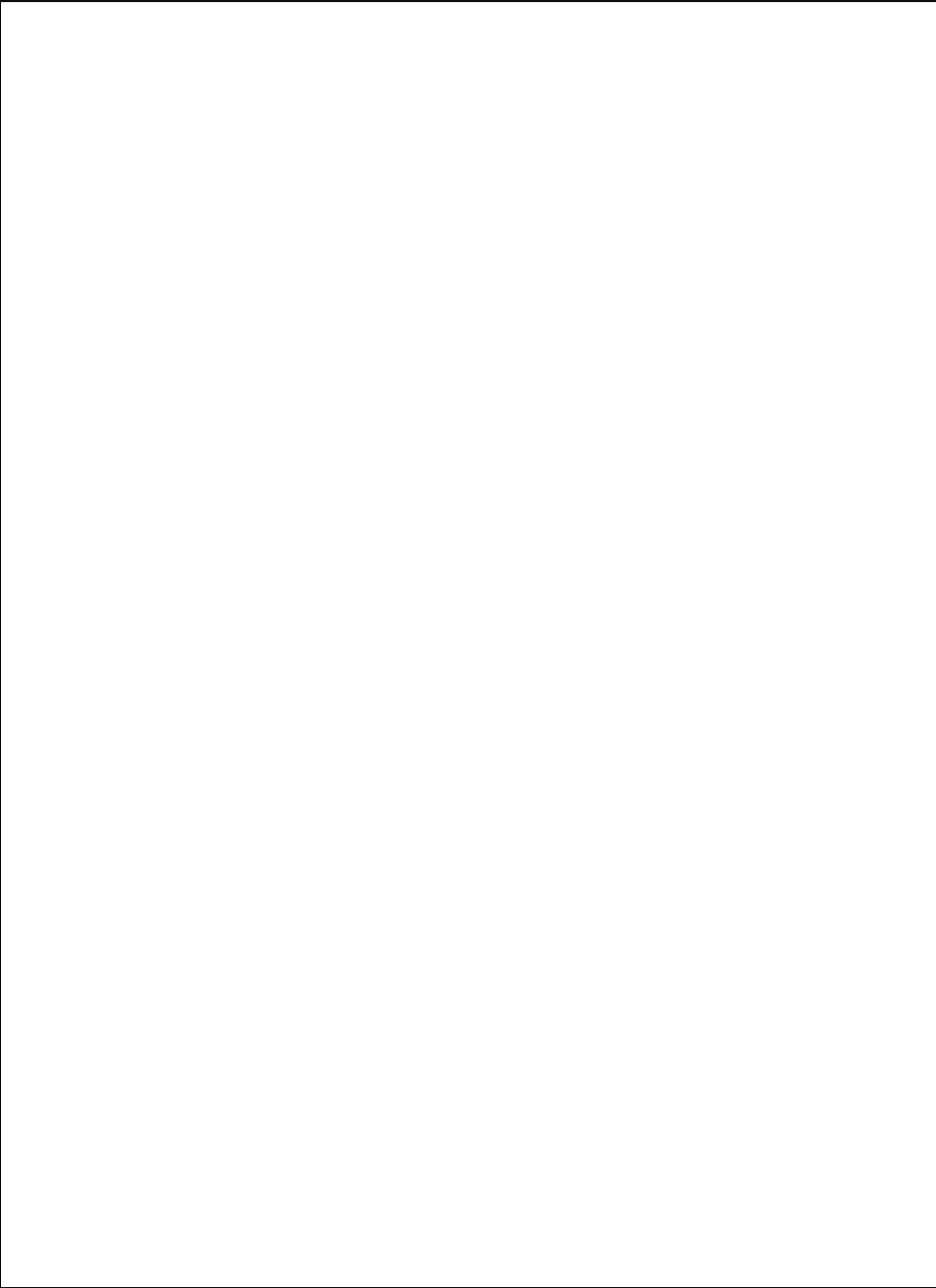

$$A - A$$

KOELBLOKKEN MEE BOREN
AUSSI FORER LES BLOCS DE REFRROIDISSEMENT
ALSO DRILL OUT THE COOLING BLOCKS
KÜHLBLÖCKE AUCH BOHREN

B - B

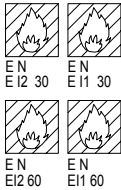
ADDITIONAL FOR 



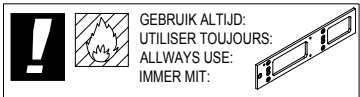


F

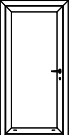
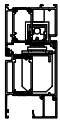
D0100383

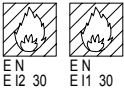


	-	FB ≤ 1250mm : 065.7440.14 + 065.7450.14 + 065.7587.14
	950mm < FB > 1300mm : 065.7443.14 + 065.7452.14 + 065.7582.14	FB > 1250mm : 065.7441.14 + 065.7450.14 + 065.7582.14
	950mm < FB < 1300mm : 065.7442.14 (x2) + 065.7455.14 + 065.7461.14 + 065.7588.14 (x2)	-
	950mm < FB > 1300mm : 065.7444.14 (x2) + 065.7455.14 + 065.7461.14 + 065.7582.14 (x2)	

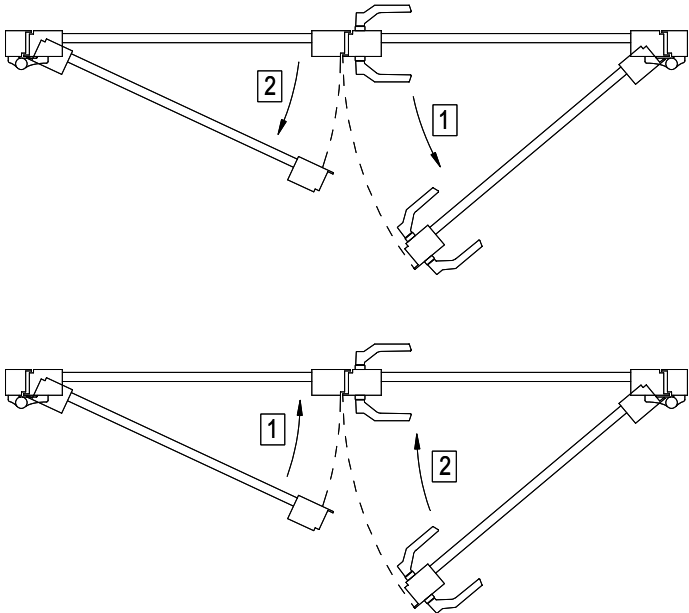
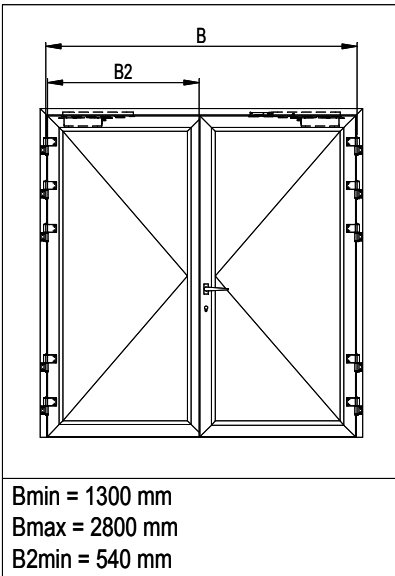


STANDAARD BEWERKINGEN: ZIE CATALOGUS OPENING DOORS
OPÉRATIONS STANDARD: AVOIR CATALOGUE OPENING DOORS
STANDARD OPERATIONS: SEE CATALOG OPENING DOORS
STANDARDOPERATIONEN: SIEHE KATALOG OPENING DOORS

				
Door Closers		Position	CS 77-FP	CS 77-FP
Boxer 3-6	065.7446.14		YES	YES
	065.7456.14			
Boxer 3-6 ISM	065.7446.14		YES	YES
	065.7457.14			



Boxer 3-6 ISM





Filling block:
recommended material
Promat Promatect H
(or similar) 20 x 25 x 40 mm

087.5564.--

008.1898.XX

084.9028.04

087.5560.--

008.2026.XX

087.5528.--

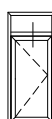
084.8970.01

084.9028.04

087.5523.--

084.9500.-- (oil protection)

084.9027.04



008.0114.XX

Filling block:
recommended material
Promat Promatect H
(or similar) 12.5 x 20 x 40 mm

008.2027.XX

087.5564.--

087.5563.--

084.8970.01

084.9028.04

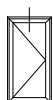
087.5560.--

008.2026.XX

087.5523.--

084.9500.-- (oil protection)

084.9027.04



Filling block:
recommended material
Promat Promatect H
(or similar) 20 x 25 x 40 mm



008.0469.XX

087.5523.--



008.2014.XX

087.5523.--

087.5528.--

084.8970.01

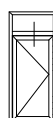
084.9028.04



087.5523.--

084.9500.-- (oil protection)

084.9027.04



008.0114.XX

Filling block:
recommended material
Promat Promatect H
(or similar) 12.5 x 20 x 40 mm

087.5564.--

008.1428.XX



087.5523.--

008.2014.XX

087.5561.--

084.8970.01

084.9028.04



087.5523.--

084.9500.-- (oil protection)

084.9027.04



VERMIJD DAT WATER IN DE VLEUGELPROFIEL KAN DRINGEN.
SVP EVITEZ L'INTRUSION DE L'EAU DANS LA PROFILE DU VENTAIL.
PLEASE VERIFY THAT NO WATER CAN INFILTRATE IN THE LEAF PROFILE.
BITTE VERGEWISERN SIE SICH DASS KEIN WASSER IN FLÜGELPROFIL INFILTRIEREN KANN.



DICHTINGSMIDDEL
MATIERE D'ETANCHEITE
SEALING AGENT
ABDICHTUNG



Filling block:
recommended material
Promat Promatect H
(or similar) 20 x 16 x 40 mm

008.1898.XX

087.5524.--

084.8971.01

084.9028.04

(X)

(X)

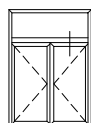
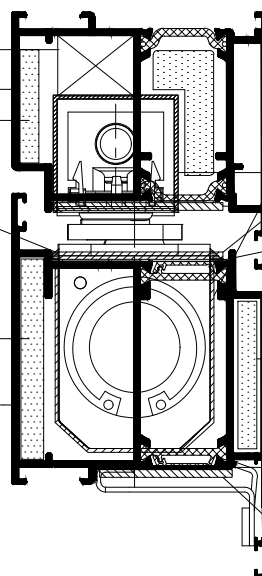
087.5560.--

087.5523.--

008.2026.XX

084.9500.-- (oil protection)

084.9027.04



008.3114.XX

Filling block:
recommended material
Promat Promatect H
(or similar) 20 x 16 x 40 mm

087.5562.--

008.2027.XX

087.5563.--

084.8971.01

084.9028.04

(X)

(X)

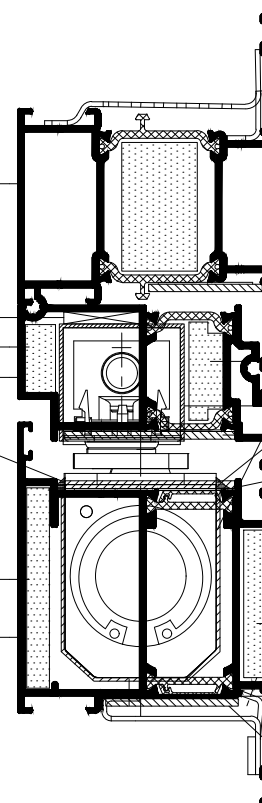
087.5560.--

087.5523.--

008.2026.XX

084.9500.-- (oil protection)

084.9027.04





Filling block:
recommended material
Promat Promatect H
(or similar) 20 x 16 x 40 mm



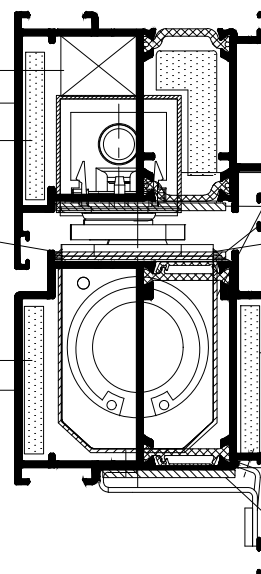
008.0469.XX

087.5523.--



087.5523.--

008.2014.XX



084.8971.01

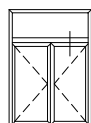
084.9028.04



087.5523.--

084.9500.-- (oil protection)

084.9027.04



008.3114.XX

Filling block:
recommended material
Promat Promatect H
(or similar) 20 x 16 x 40 mm

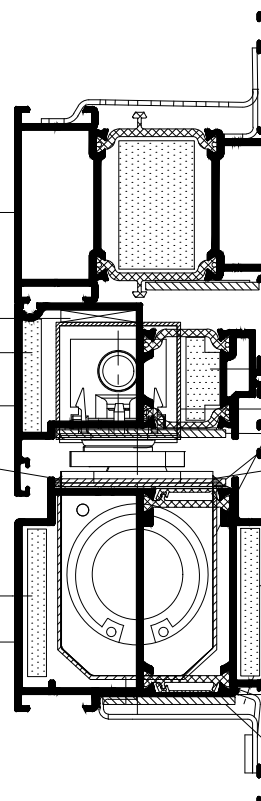
087.5564.--

008.1428.XX



087.5523.--

008.2014.XX



087.5561.--

084.8971.01

084.9028.04



087.5523.--

084.9500.-- (oil protection)

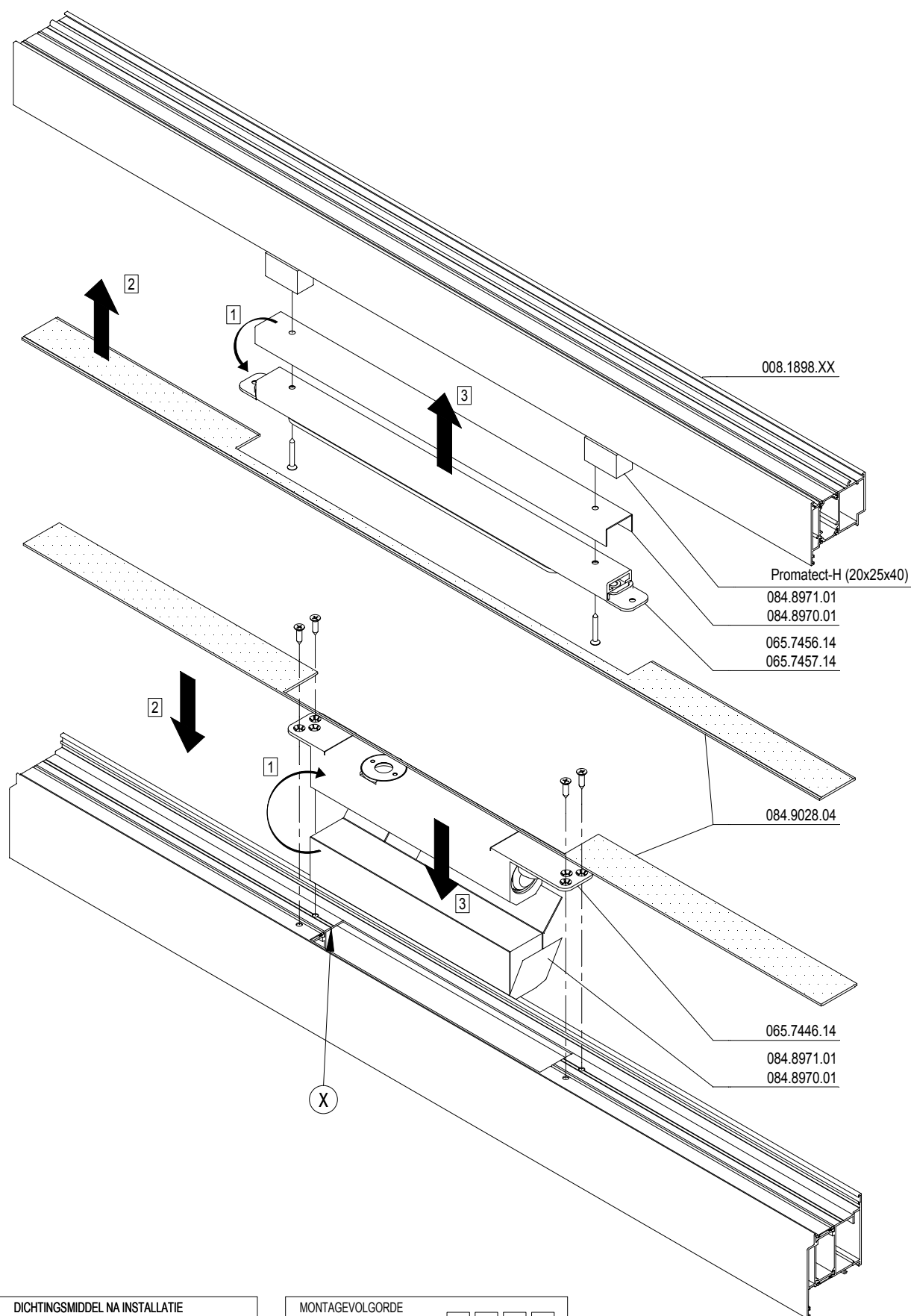
084.9027.04



VERMIJD DAT WATER IN DE VLEUGELPROFIEL KAN DRINGEN.
SVP EVITEZ L'INTRUSION DE L'EAU DANS LA PROFILE DU VENTAIL.
PLEASE VERIFY THAT NO WATER CAN INFILTRATE IN THE LEAF PROFILE.
BITTE VERGEWISSEN SIE SICH DASS KEIN WASSER IN FLÜGELPROFIL INFILTRIEREN KANN.



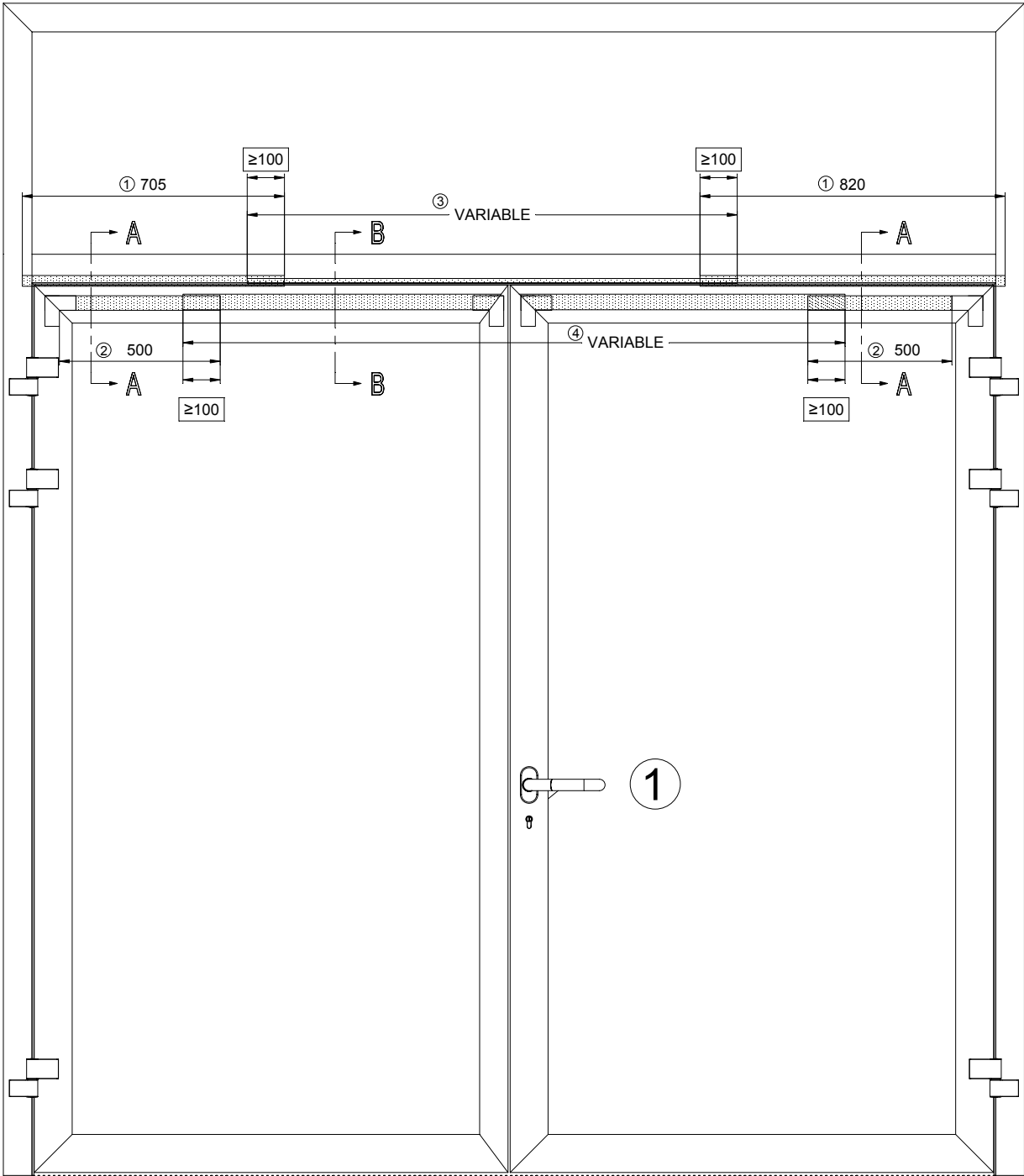
DICHTINGSMIDDEL
MATIERE D'ETANCHEITE
SEALING AGENT
ABDICHTUNG



(X) DICHTINGSMIDDEL NA INSTALLATIE
APRES D'INSTALLATION MATIERE D'ETANCHEITE
SEALING AGENT AFTER INSTALLATION
ABDICHTUNG NACH DER INSTALLATION

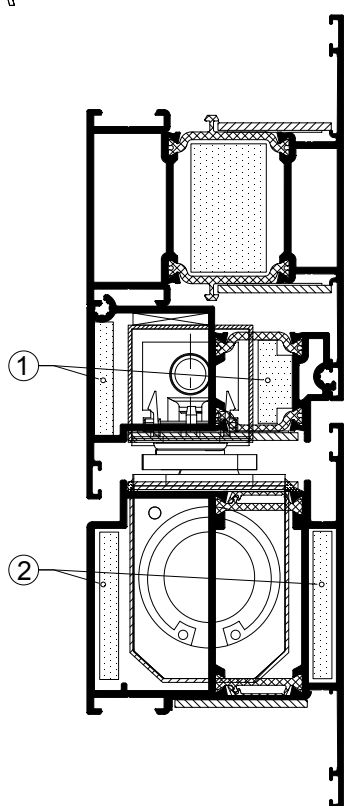
MONTAGEVOLGORDE
L'ORDRE DE MONTAGE
THE ORDER OF ASSEMBLY
MONTAGEREIHENFOLGE

1 2 3 .

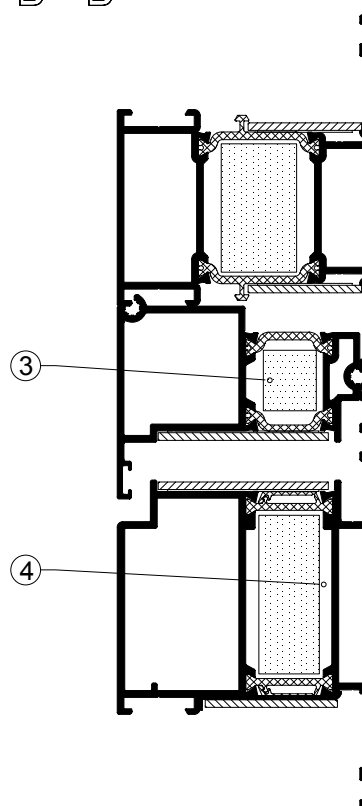


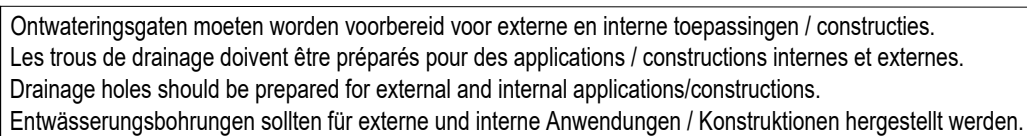
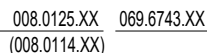
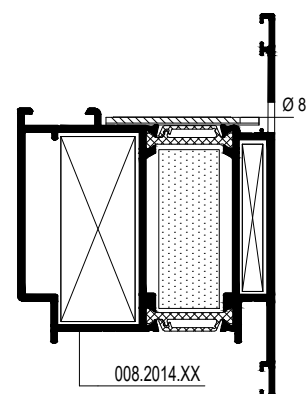
Principe tekening
Principle drawing
Dessin de principe
Prinzipzeichnung

A - A

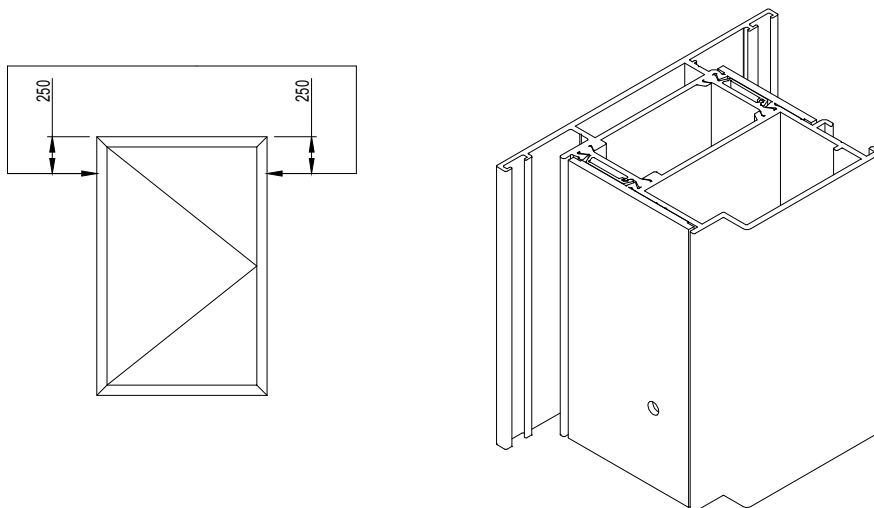


B - B





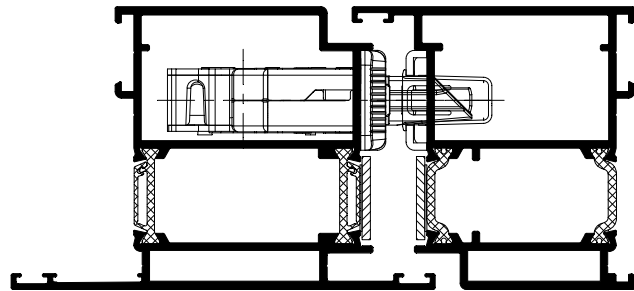
DECOMPRESSIE Ø5 IN DE VLEUGEL
DECOMPRESSION Ø5 DANS L' OUVRANT
DECOMPRESSION Ø5 IN THE VENT
DEKOMPRESSION Ø5 IM FLÜGEL



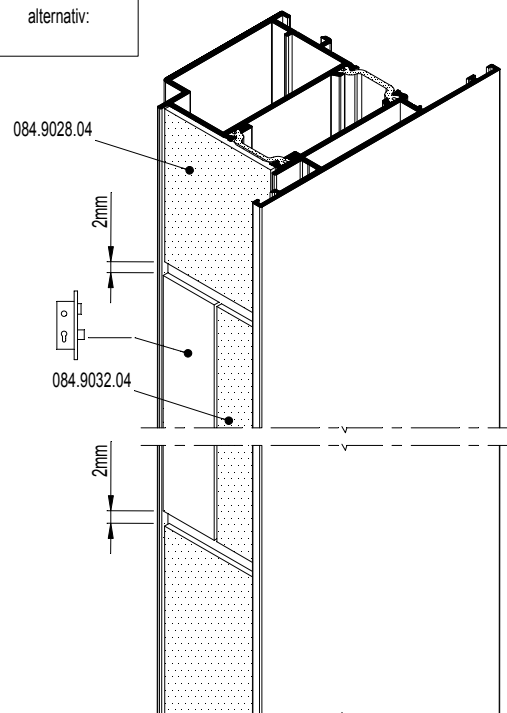
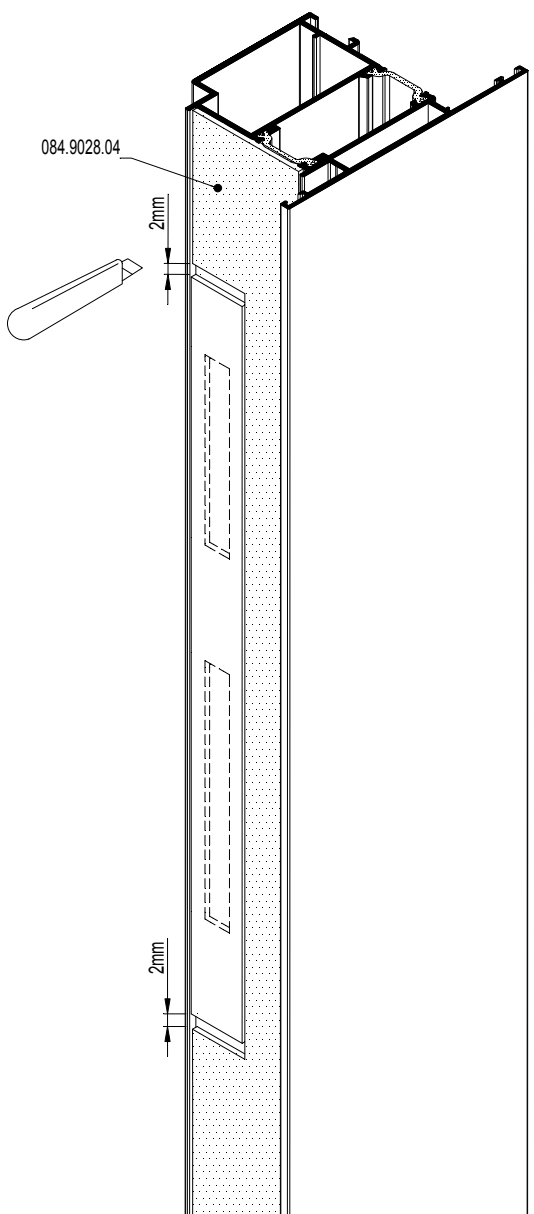
DECOMPRESSIE IN VAST RAAM
DECOMPRESSION DANS CHASSIS FIXE
DECOMPRESSION IN FIXED WINDOW
DEKOMPRESSION IN DER FESTVERGLASUNG

☞ ZIE CATALOGUS CS 77
☞ AVOIR CATALOGUE CS 77
☞ SEE CATALOG CS 77
☞ SIEHE KATALOG CS 77

084.9028.04	
084.9032.04	



Alternatief:
Alternatively:
Alternativement:
alternativ:



IN DE LENGTERICHTING VAN DE STRIP/VOEG 2MM:

- AAN DE VERSTEEKEN
- AANSLUITEND AAN BESLAG (SLOTEN, ONTVANGERS, DIEVENPENNEN, ...)

DANS LA DIRECTION LONGITUDINALE DE LA BANDE / JOINT 2 MM :

- AUX ONGLETS
- ASSEMBLÉ AUX ACCESSOIRES (SERRURES, RÉCEPTEURS, ...)

IN THE LONGITUDINAL DIRECTION OF THE STRIP / JOINT 2 MM :

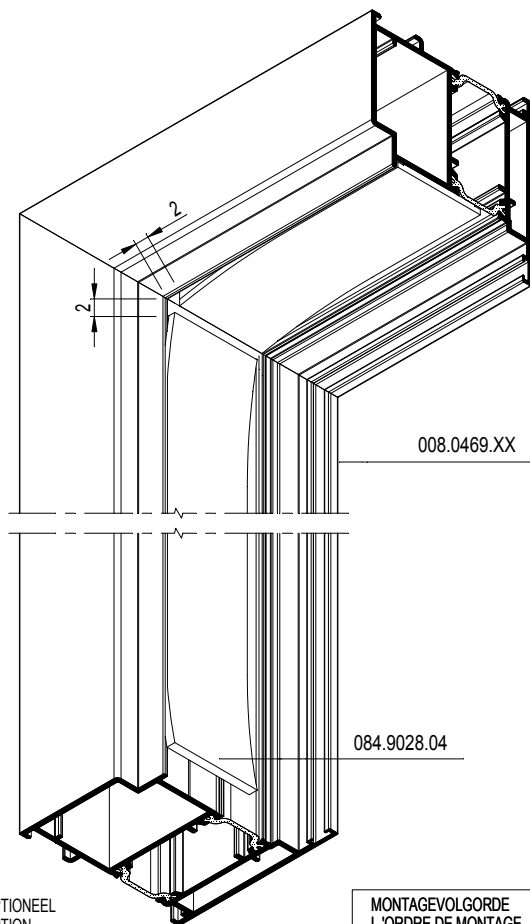
- AT THE MITRES
- LINKED UP TO ACCESSORIES (LOCKS, RECIEVERS, ...)

IN LÄNGSRICHTUNG DES STREIFENS / FUGE 2 MM :

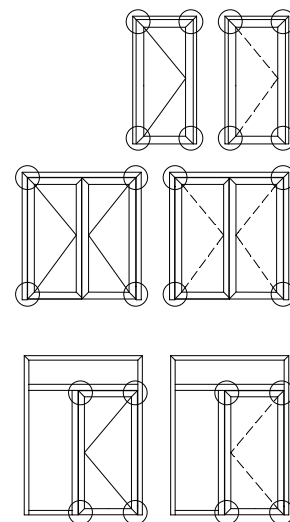
- AN DEN GEHRUNGEN
- ANSCHLIESSEND AN BESCHLÄGE (SCHLÖSSER, EMPFÄNGER, ...)



ZWELSTRIP AANDRUKKEN BIJ AANBRENGEN
PRESSER LA BANDE GONFLANTE EN CAS DE MONTAGE
PRESS ON SWELLING STRIP WHEN FIXING
SCHWELLBAND ANDRÜCKEN BEIM BEFESTIGEN



- | | |
|---|-----------------|
| 1 | 086.9231.-- (*) |
| 2 | 086.9230.-- |
| 3 | 086.9232.-- |
| 4 | 084.9028.04 |



(*) OPTIONEEL
OPTION
OPTIONAL
OPTIONAL

MONTAGEVOLGORDE
L'ORDRE DE MONTAGE
THE ORDER OF ASSEMBLY
MONTAGEREIHENFOLGE

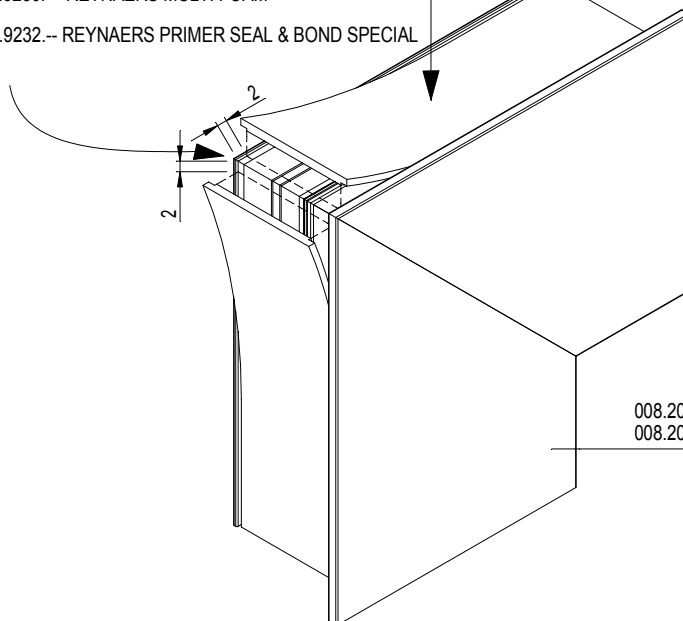
- | | | | |
|---|---|---|---|
| 1 | 2 | 3 | . |
|---|---|---|---|

1 086.9231.-- (*) REYNAERS SAFETY CLEAN

2 086.9230.-- REYNAERS MULTI FOAM

3 086.9232.-- REYNAERS PRIMER SEAL & BOND SPECIAL

4 084.9028.04

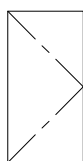


2mm /1000 mm

1000



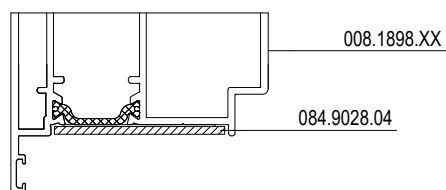
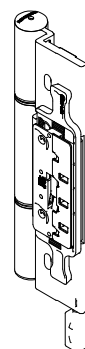
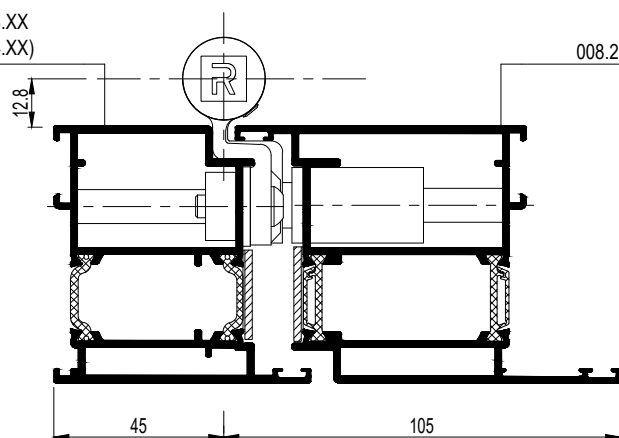
VERLIJMINGSOPPERVLAKTE ONTVETTEN MET ART. NR. 086.9231.-- EN ART. NR. 086.9230.-- VOOR HET AANBRENGEN VAN DE OPZWELLENDE DICHTING
DEGRAISSER LA SURFACE A COLLER AVEC ART. NR. 086.9231.-- ET ART. NR. 086.9230.-- AVANT D'APPLIQUER LE JOINT GONFLANT
DEGREASE GLUEING SURFACE WITH ART. NR. 086.9231.-- AND ART. NR. 086.9230.-- BEFORE APPLYING THE SWELLING GASKET
VERLEIMUNGSOBERFLAECHE ENTFETTEN MIT ART. NR. 086.9231.-- UND ART. NR. 086.9230.-- VORHER DIE SCHWELLENDE DICHTUNG ANZUBRINGEN



PRINCIPE TEKENINGEN
DESSINS PRINCPE
PRINCIPLE DRAWINGS
PRINZIP ZEICHNUNGEN

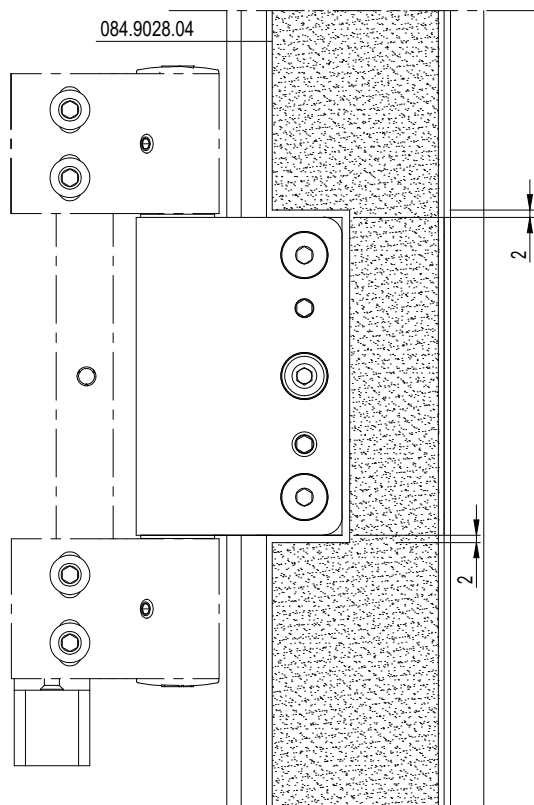
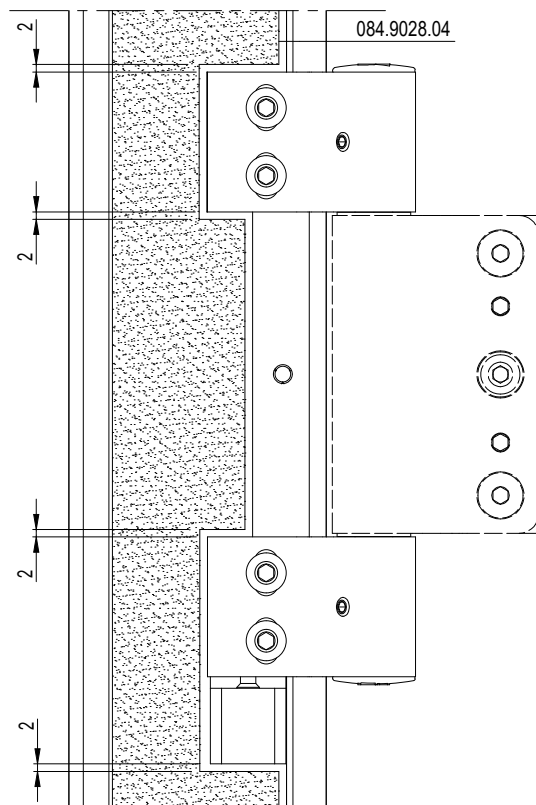
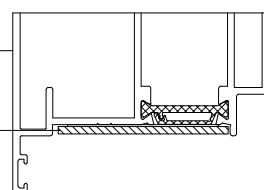
008.1898.XX
(008.2014.XX)

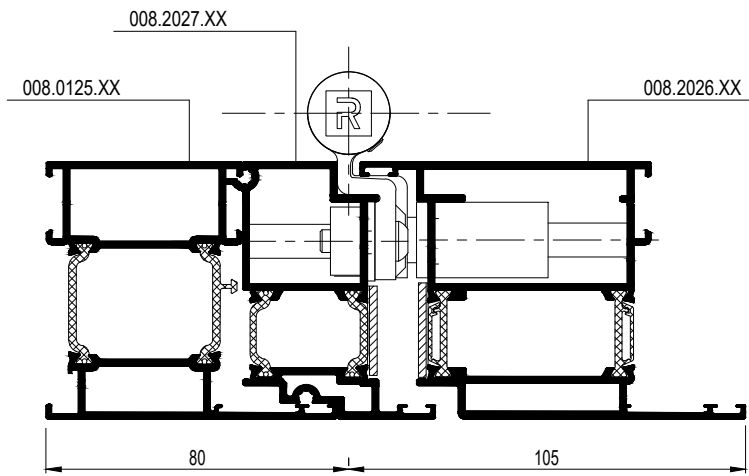
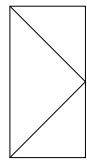
008.2026.XX



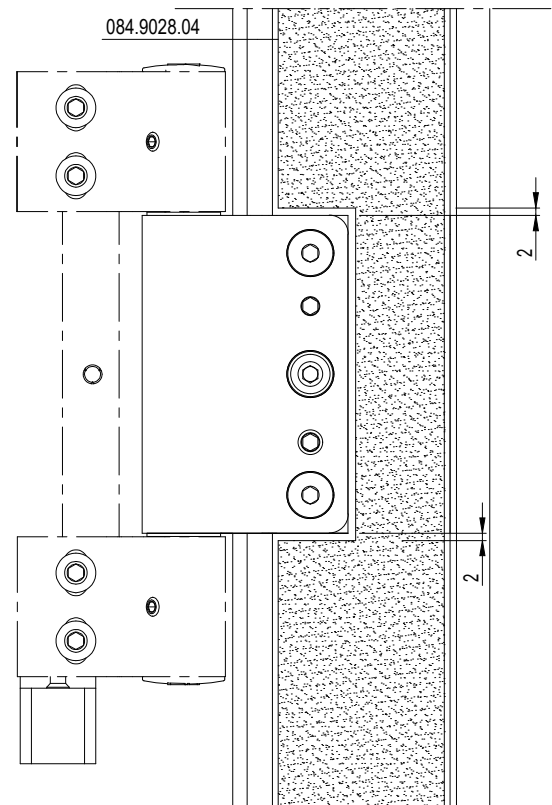
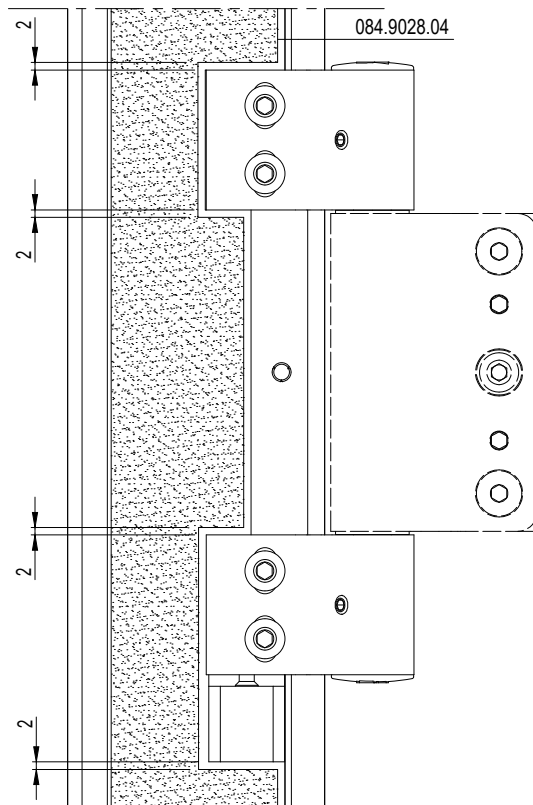
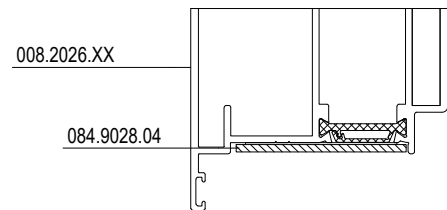
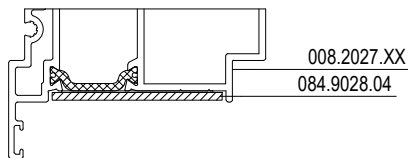
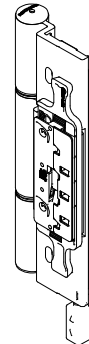
008.2026.XX

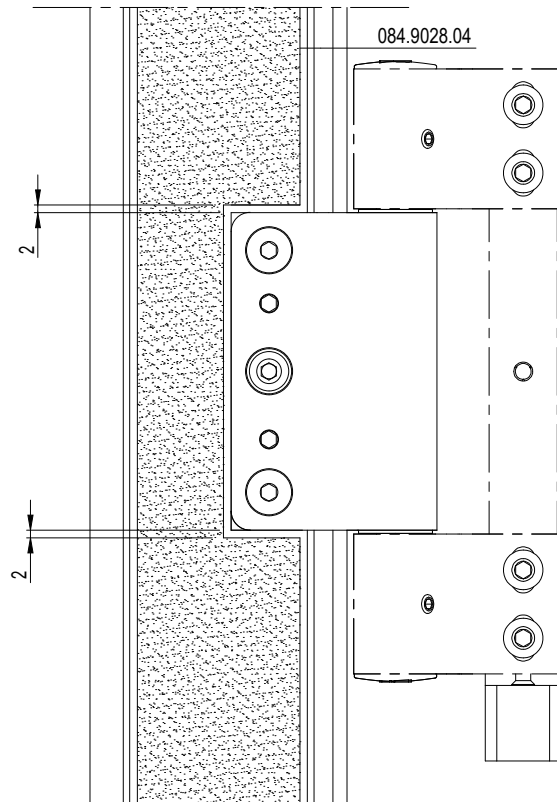
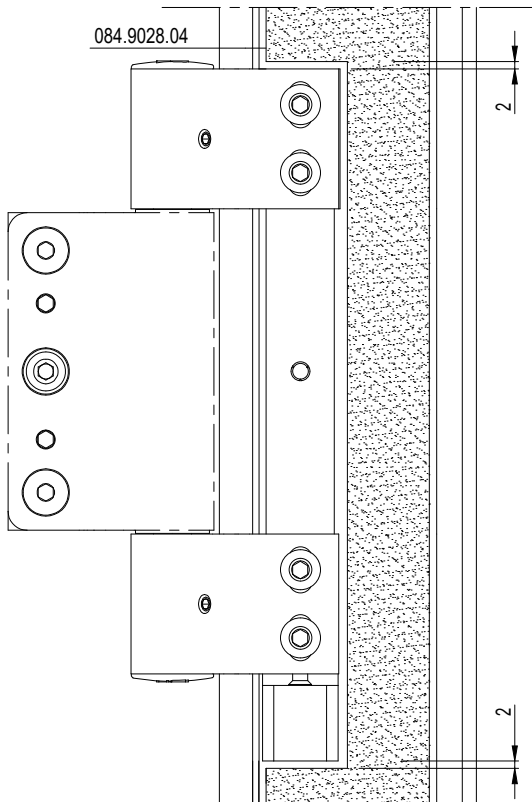
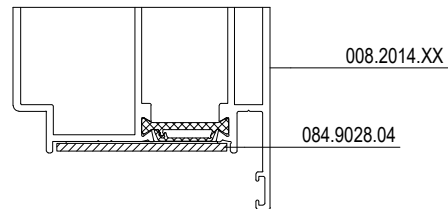
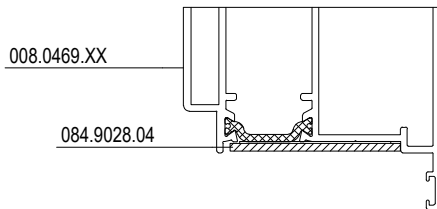
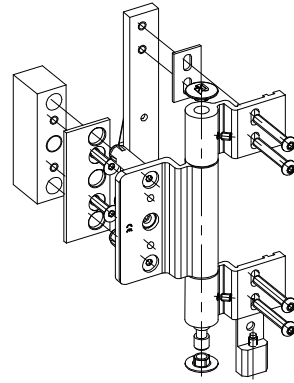
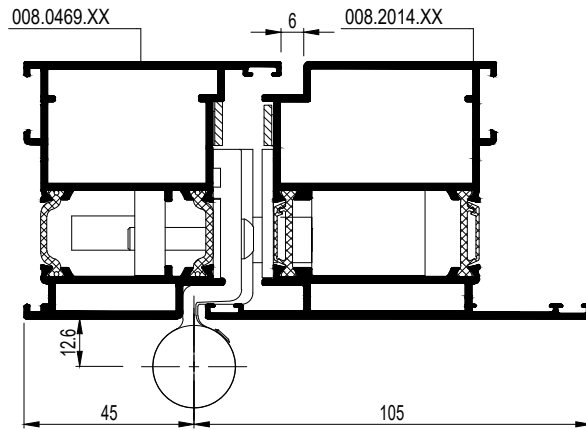
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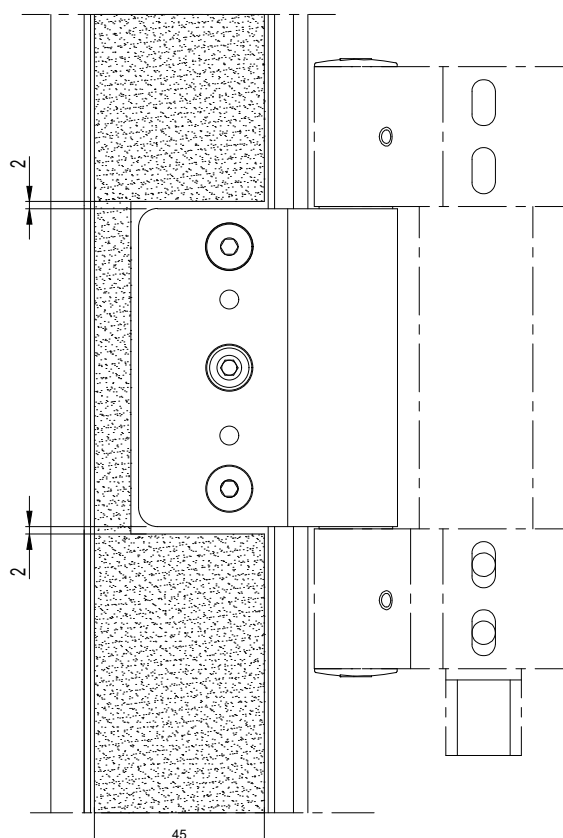
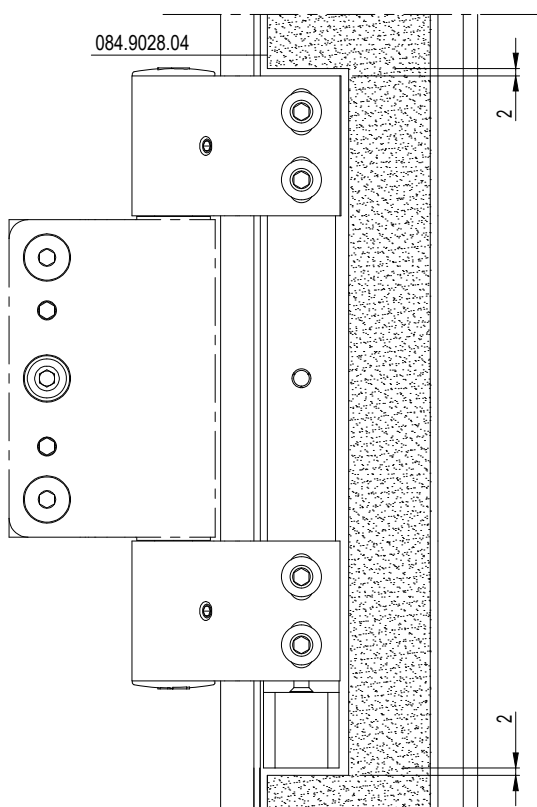
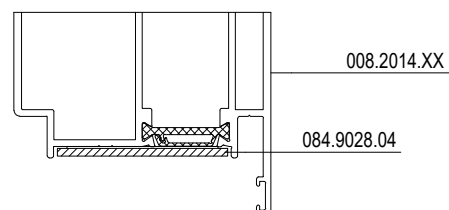
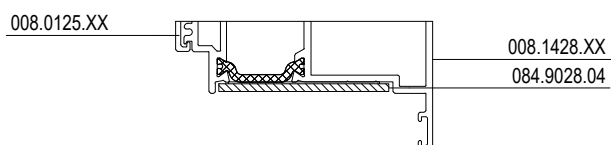
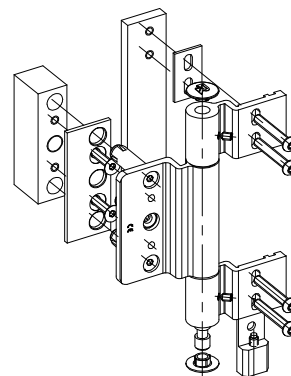
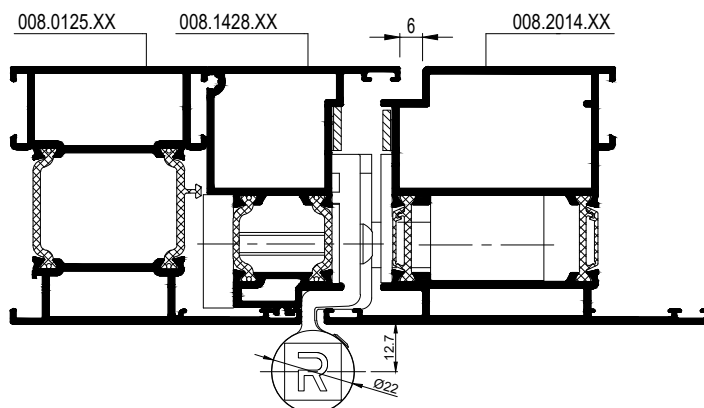


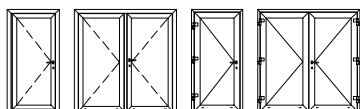
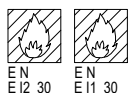


PRINCIPE TEKENINGEN
DESSINS PRINCPE
PRINCIPLE DRAWINGS
PRINZIP ZEICHNUNGEN









MONTAGEVOLGORDE
L'ORDRE DE MONTAGE
THE ORDER OF ASSEMBLY
MONTAGEREIHENFOLGE

1 2 3 .

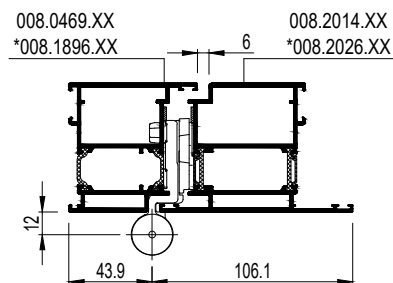
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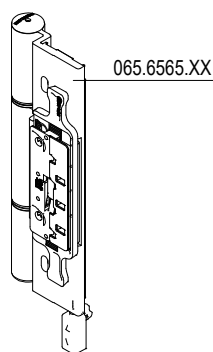
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DEGRAISSER LA SURFACE A COLLER AVEC ART. NR. 086.9231.- ET ART. NR. 086.9230.- AVANT D'APPLIQUER LE JOINT GONFLANT
DEGREASE GLUEING SURFACE WITH ART. NR. 086.9231.- AND ART. NR. 086.9230.- BEFORE APPLYING THE SWELLING GASKET
VERLEIMUNGSOBERFLAECHE ENTFETTEN MIT ART. NR. 086.9231.- UND ART. NR. 086.9230.- VORHER DIE SCHWELLEND DICHUNG ANZUBRINGEN

2 ? > 089.L15...

4 SCHARNIER > 089.L15...
CHARNIERE > 089.L15...
HINGE > 089.L15...
BAND > 089.L15...



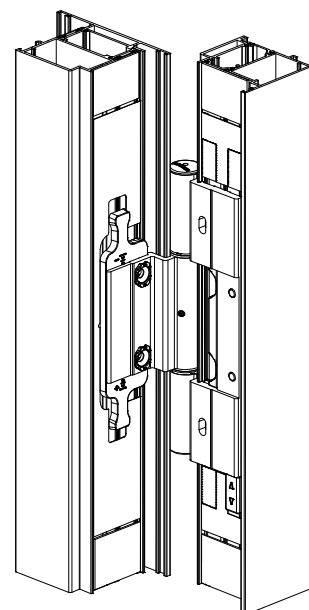
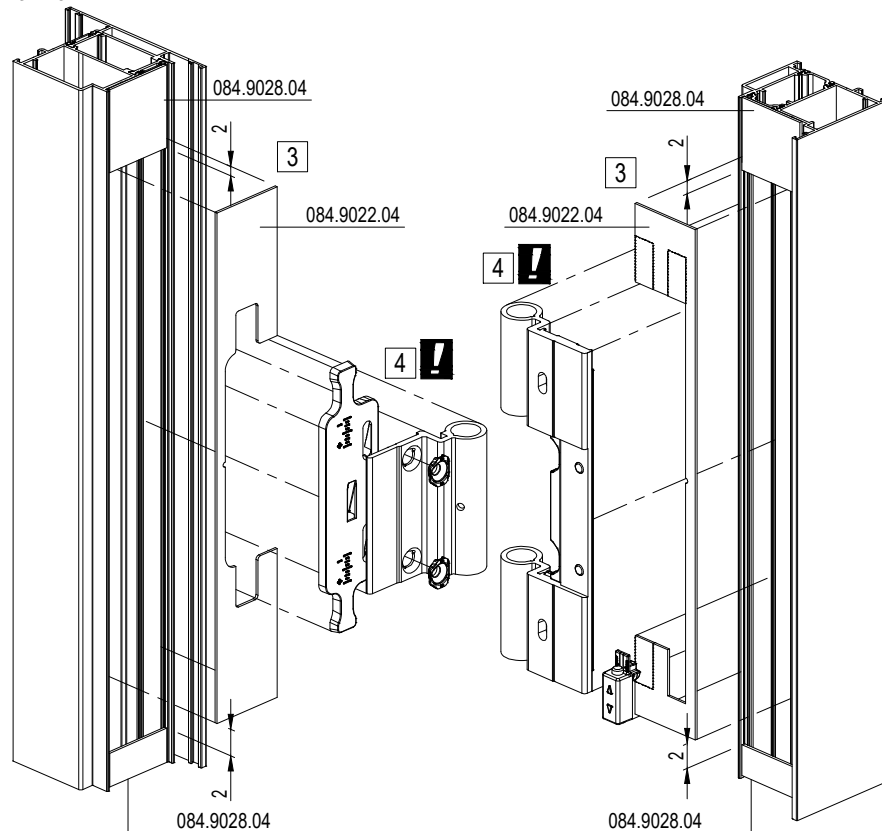
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*OPTION
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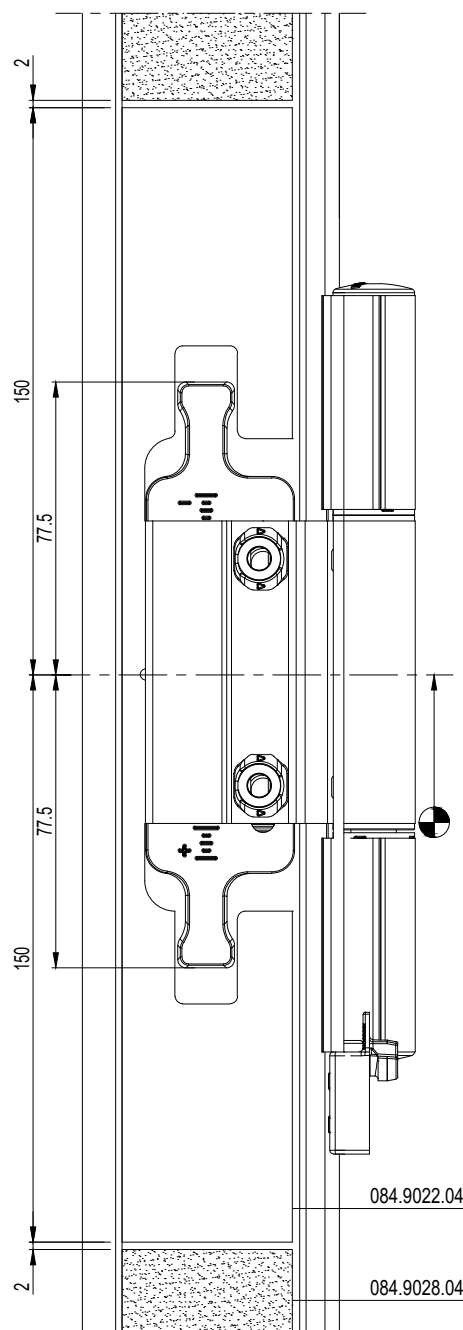
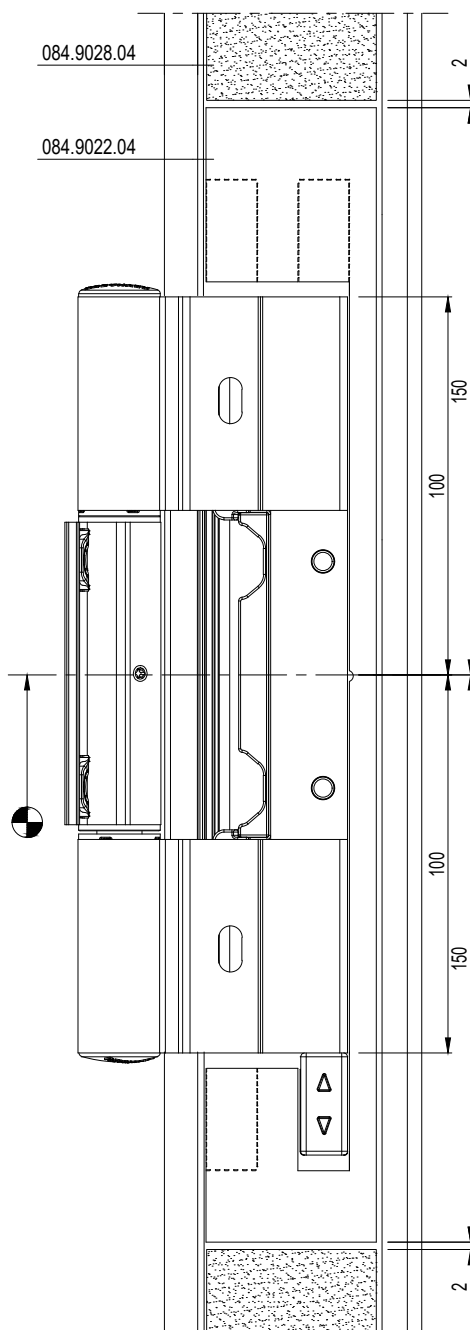
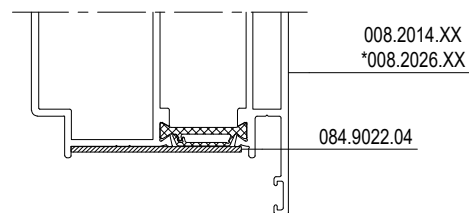
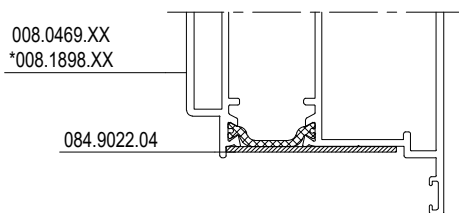
Referentiemaat
Dimension de référence
Reference dimension
Referenzmass

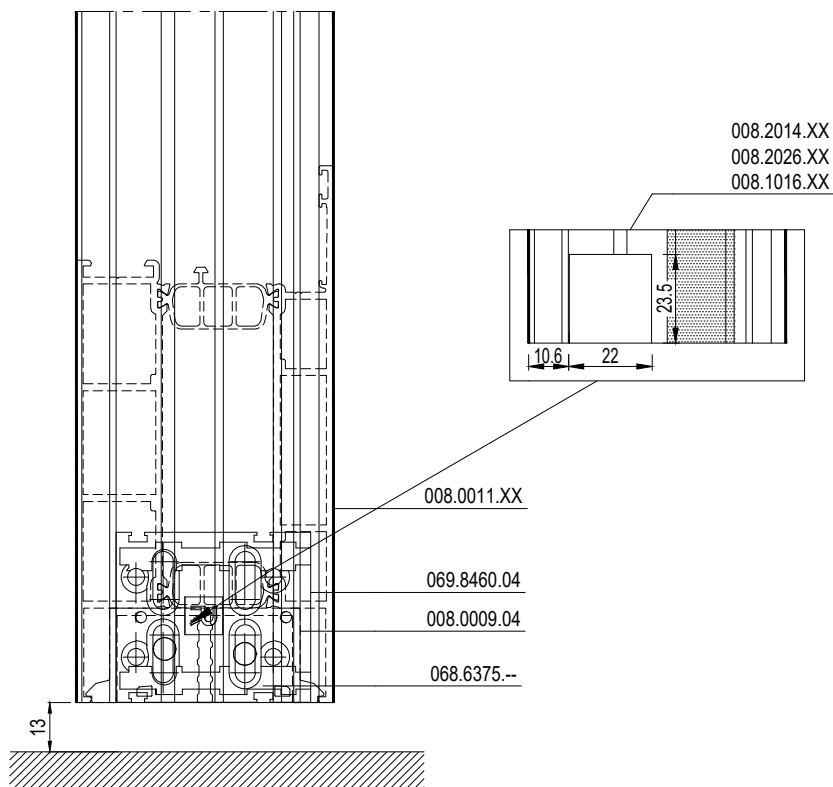
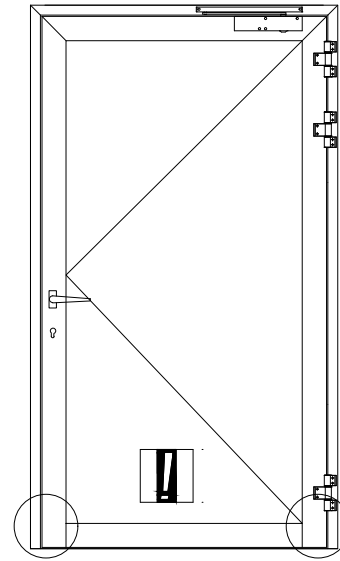
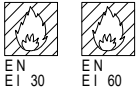
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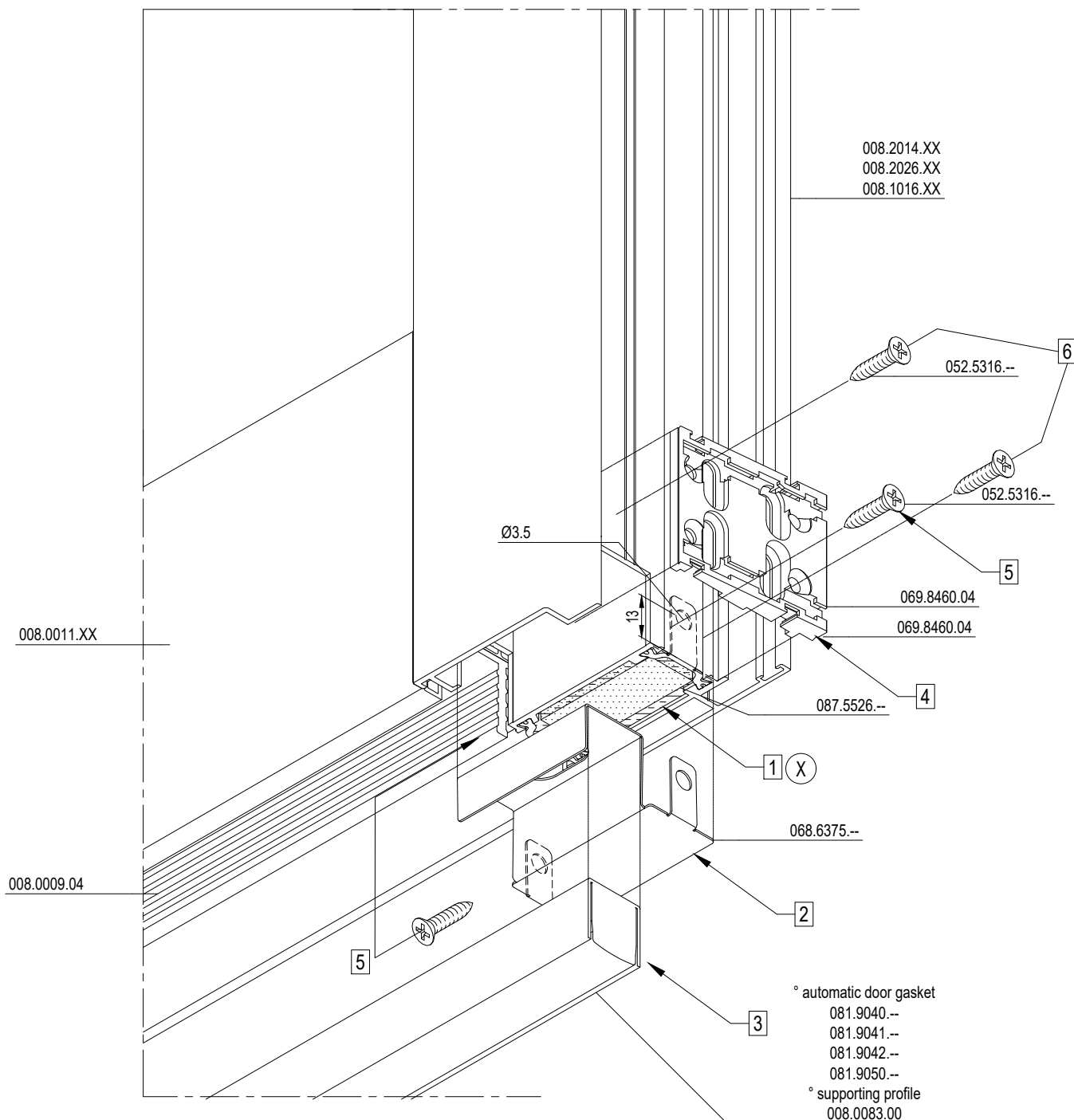
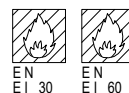
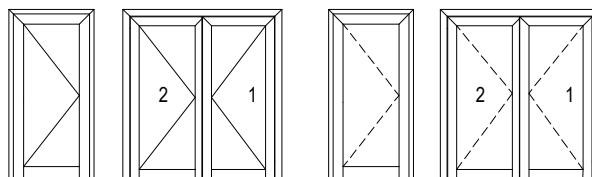
2 !



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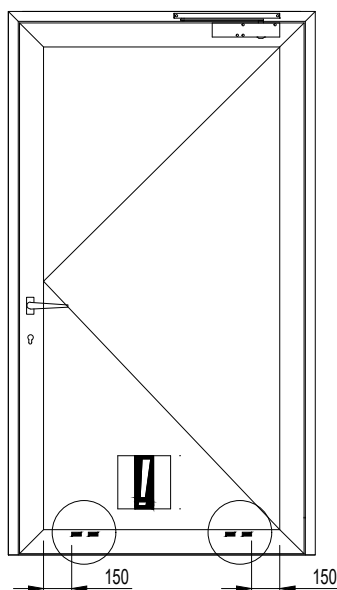


MONTAGEVOLGORDE
L'ORDRE DE MONTAGE
THE ORDER OF ASSEMBLY
MONTAGEREIHENFOLGE

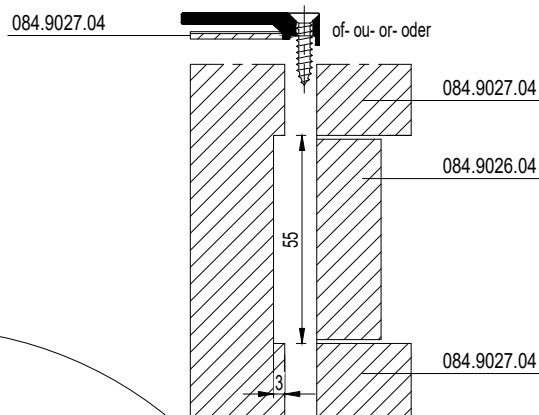
1 2 3 .

X

SILICONE BRANDWEREND
MASTIC ANTI-FEU
SEALANT FIRE-RESISTANT
BRANDSCHUTZSILIKON



HET PLAATSEN VAN BEGLAZINGSBLOKKEN BIJ EEN DEURVLEUGEL
MONTAGE DE COTES DE VITRAGE EN CAS D'OUVRANT PORTE
ASSEMBLY OF GLAZING BLOCKS IN CASE OF DOOR VENT
MONTAGE VON VERGLASUNGSKLÖTZEN BEI EINEM TÜRFLÜGEL



052.5316.--
069.6552.--

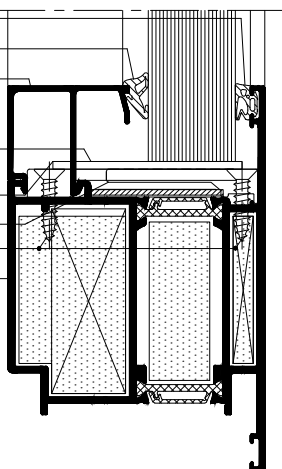
(X)

+

052.5316.-
069.6550.-

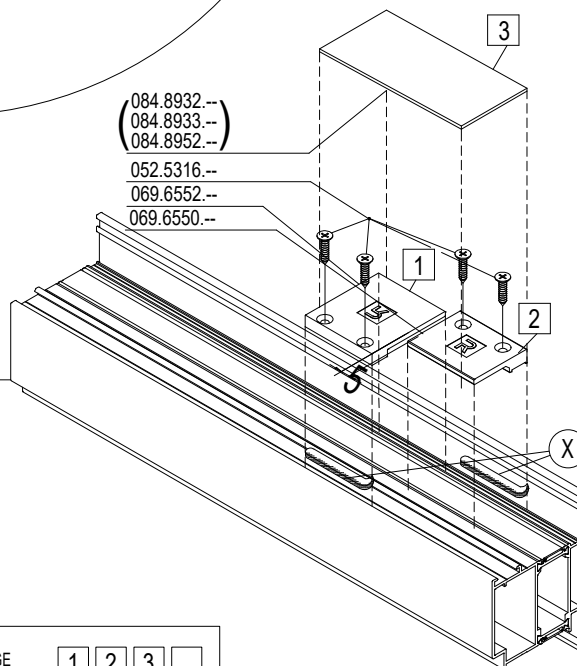
(X)

080.9114.SY
080.9105.SY
030.3614.XX
(084.8932.--
084.8933.--
084.8952.--)
069.6552.--
069.6550.--
052.5316.--
008.2014.XX



008.2014.XX

(084.8932.--
084.8933.--
084.8952.--)
052.5316.--
069.6552.--
069.6550.--

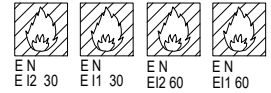


(X)

DICHTINGSMIDDEL
MATIERE D'ETANCHEITE
SEALING AGENT
ABDICHTUNG

MONTAGEVOLGORDE
L'ORDRE DE MONTAGE
THE ORDER OF ASSEMBLY
MONTAGEREIHENFOLGE

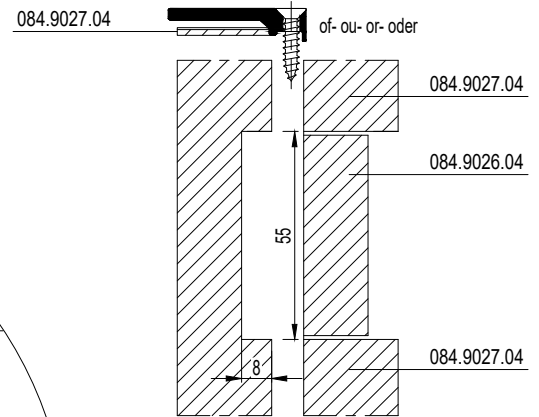
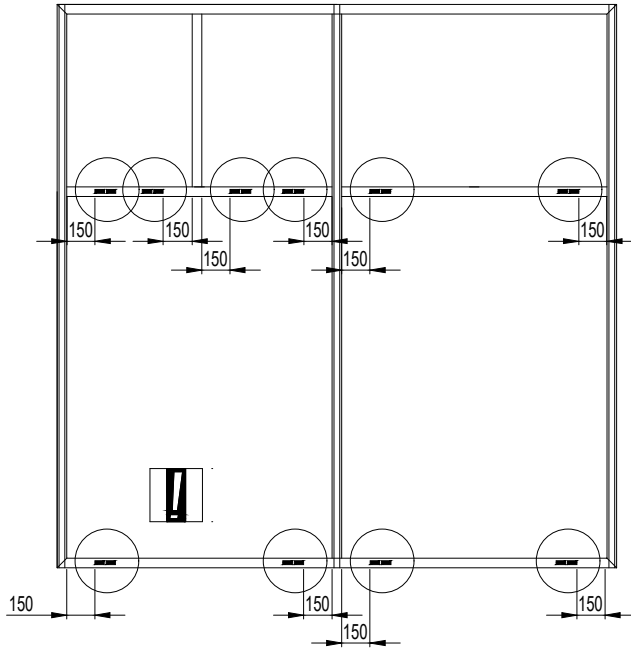
1 2 3 .



HET PLAATSEN VAN BEGLAZINGSBLOKKEN BIJ EEN VAST RAAM
MONTAGE DE COTES DE VITRAGE EN CAS D'UNE FENETRE FIXE
ASSEMBLY OF GLAZING BLOCKS IN CASE OF FIXED WINDOW
MONTAGE VON VERGLASUNGSKLÖTZEN BEI EINER FESTVERGLASUNG



BIJ POSITIONERING GLASSTEUNEN MOGEN DE ONTWERINGSGATEN NIET BEDEKT WORDEN.
LORS DE POSITIONNEMENT DES SUPPORTS CALE DE VITRAGE, LES OUVERTURES DE DRAINAGE NE PEUVENT PAS ETRE COUVERTES.
DURING THE POSITIONING OF THE GLASS SUPPORTS, THE DRAINAGE HOLES SHOULD NOT BE COVERED.
WÄHREND DER POSITIONIERUNG DER GLASAUFLAGEPROFILE DÜRFEN DIE ENTWÄSSERUNGSÖFFNUNGEN NICHT BEDECKT WERDEN.



069.6552.--

052.5316.--

052.5316.-

069.6551.-

080.9114.SY

080.9105.SY

030.3614.XX

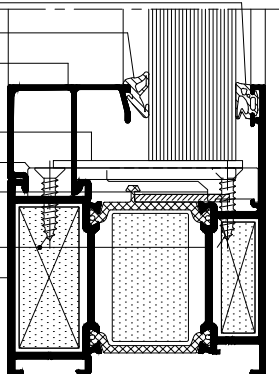
(084.8932.--)
(084.8933.--)
(084.8952.--)

069.6552.--

069.6551.--

052.5316.--

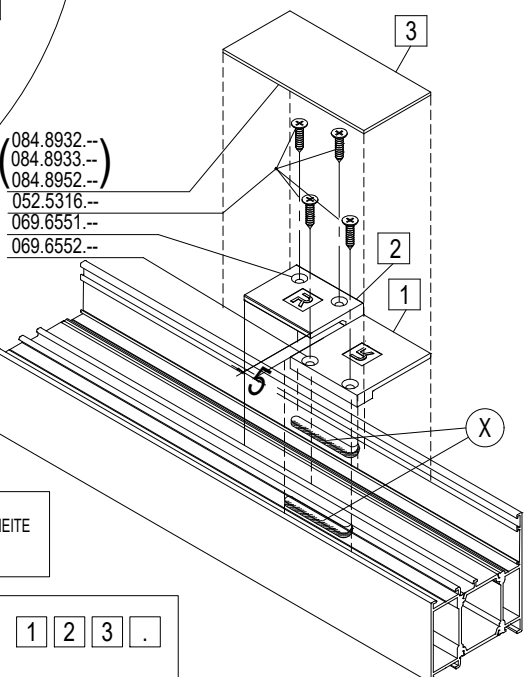
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008.0125.XX

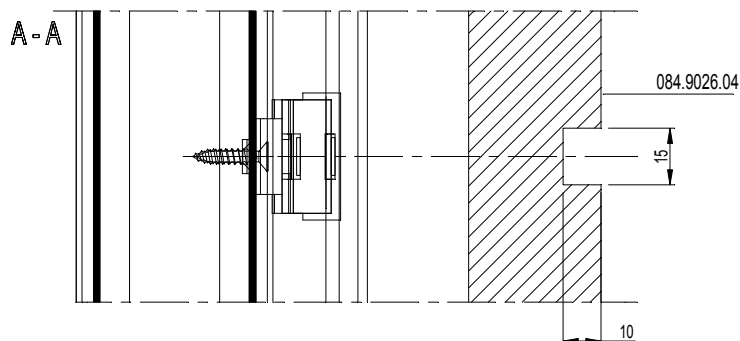
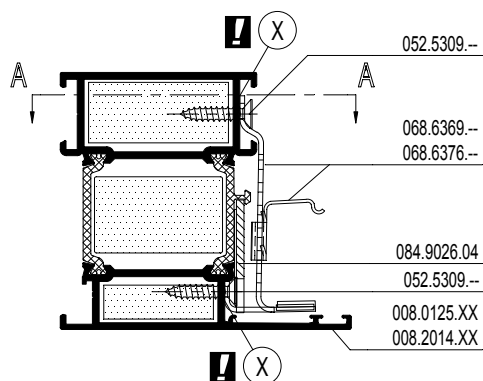
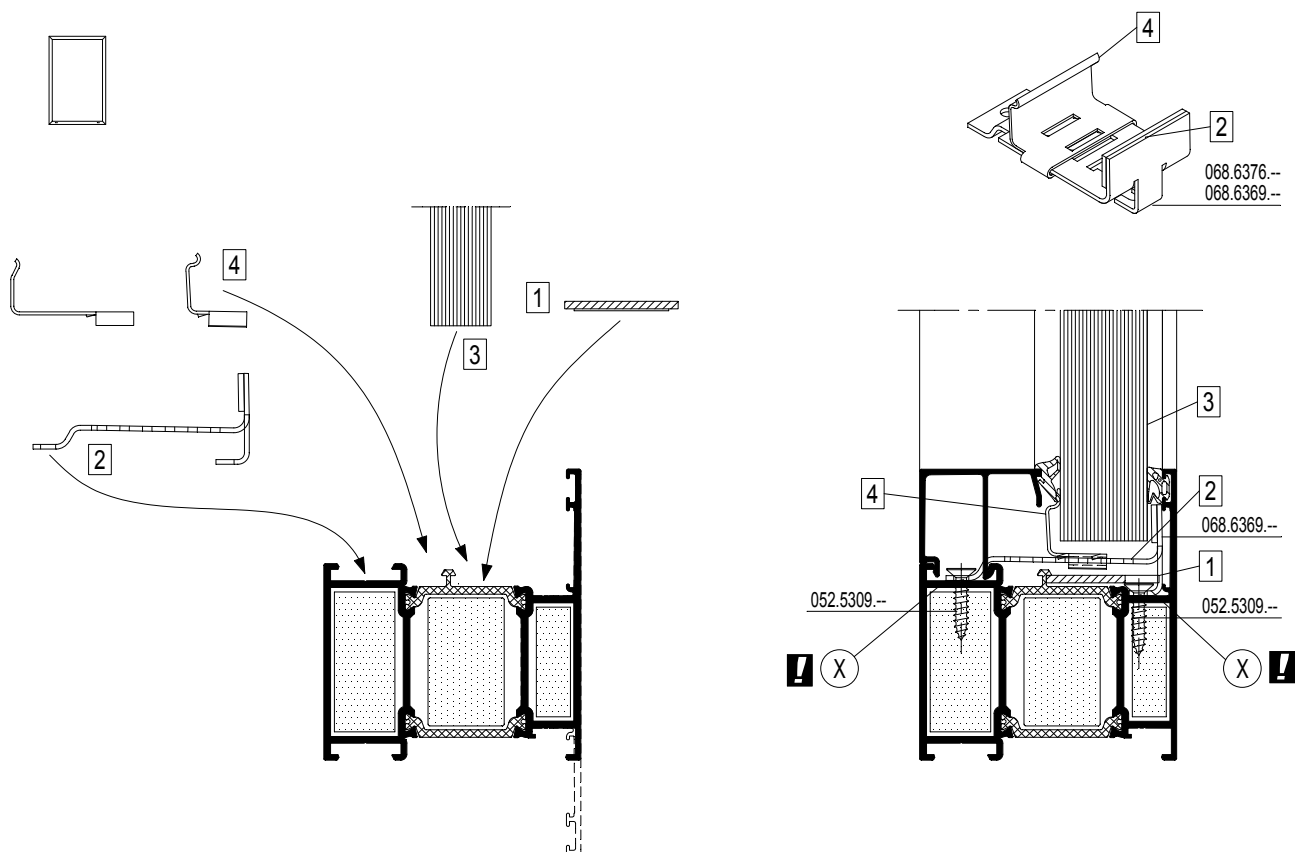
(X) DICHTINGSMIDDEL
MATIERE D'ETANCHEITE
SEALING AGENT
ABDICHTUNG

MONTAGEVOLGORDE
L'ORDRE DE MONTAGE
THE ORDER OF ASSEMBLY
MONTAGEREIHENFOLGE



(084.8932.--)
(084.8933.--)
(084.8952.--)
052.5316.--
069.6551.--
069.6552.--

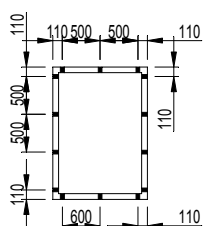
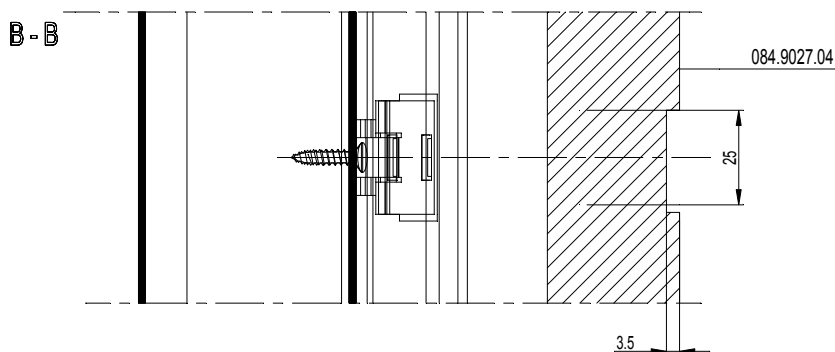
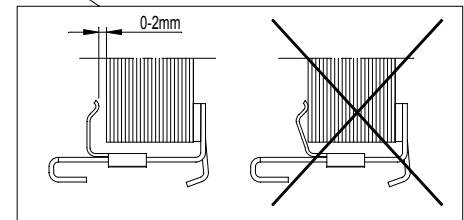
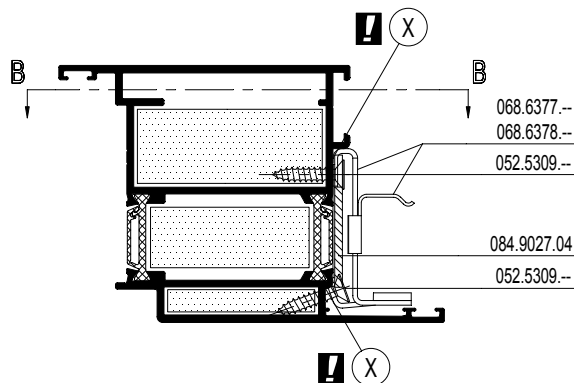
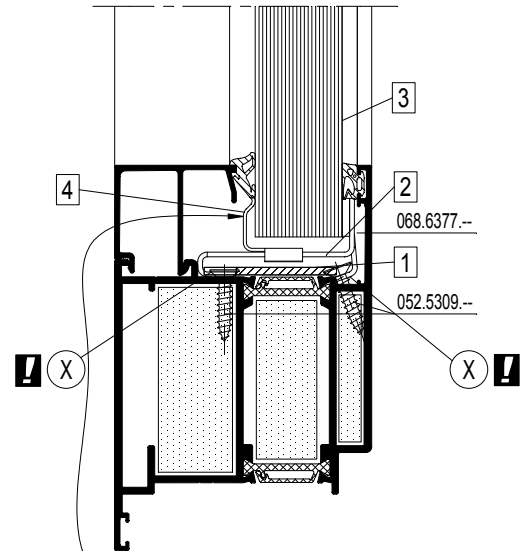
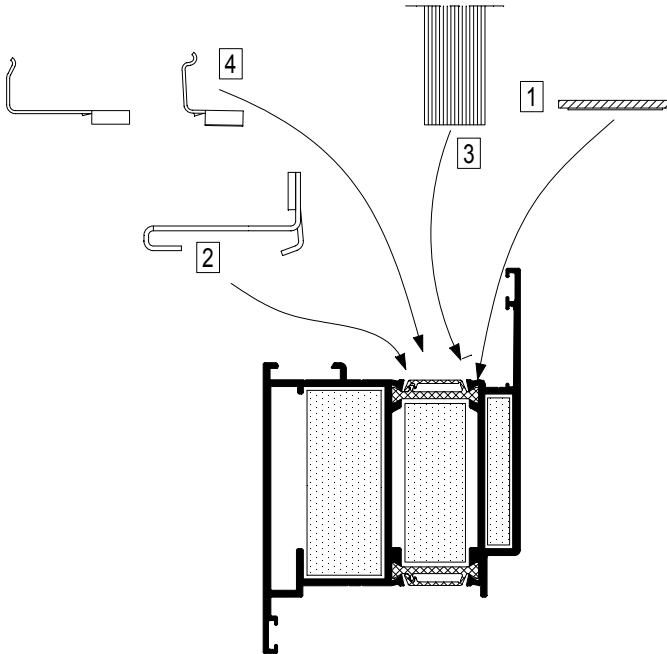
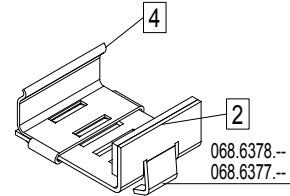
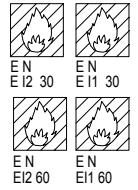
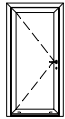
1 2 3 .



MONTAGEVOLGORDE
L'ORDRE DE MONTAGE
THE ORDER OF ASSEMBLY
MONTAGEREIHENFOLGE

1 2 3 .

(X) DICHTINGSMIDDEL
MATIERE D'ETANCHEITE
SEALING AGENT
ABDICHTUNG



Tussenafstand glasklippen max. 500mm en 600mm onderaan
Distance intermédiaire clippes de vitrage max 500mm et 600mm en bas
Max intermediate distance glazing clips 500mm and 600mm at the bottom
Maximalzwischen Abstand Glasklemmen 500mm und 600mm am unteren



 097.Y700.00
030.3606.XX 030.3200.XX

130.3644.XX

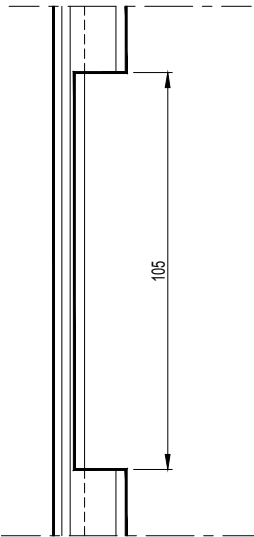
13.9



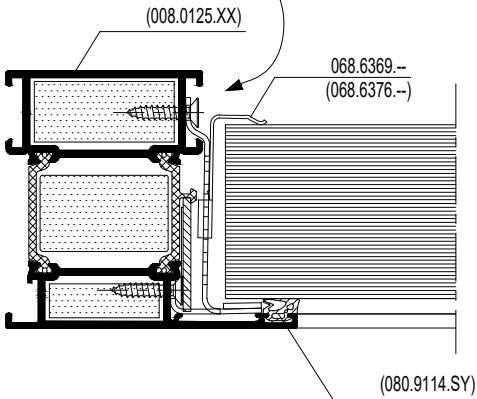
068.6369.--
068.6376.--



069.6550.--
069.6551.--
069.6552.--



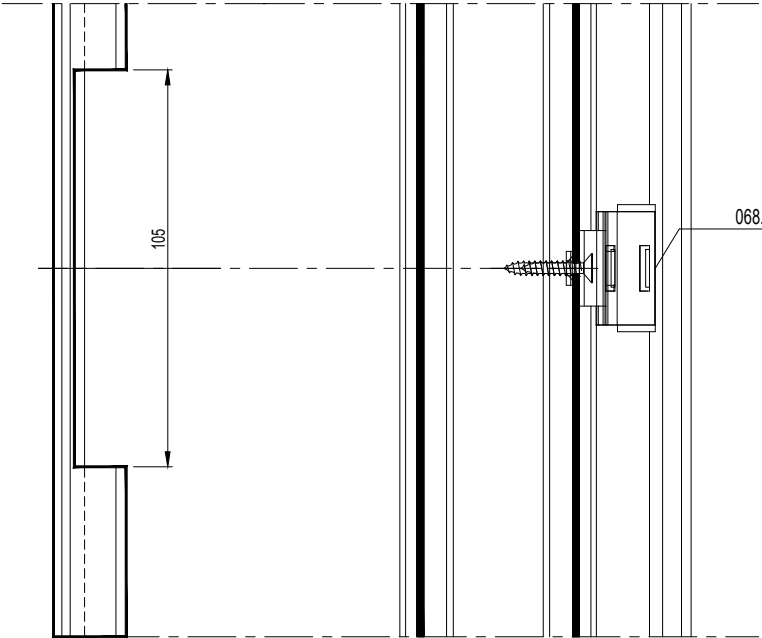
105



(008.0125.XX)

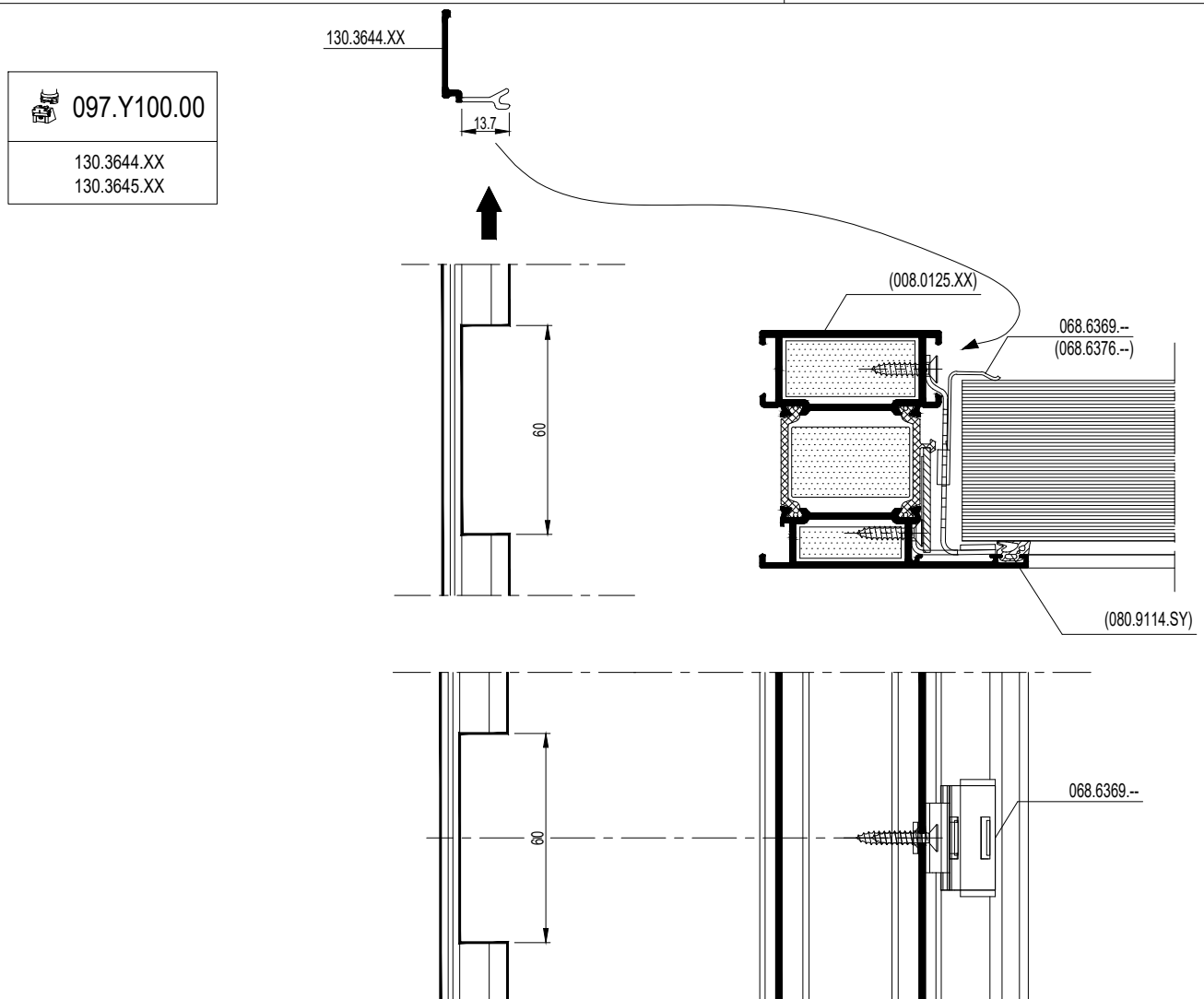
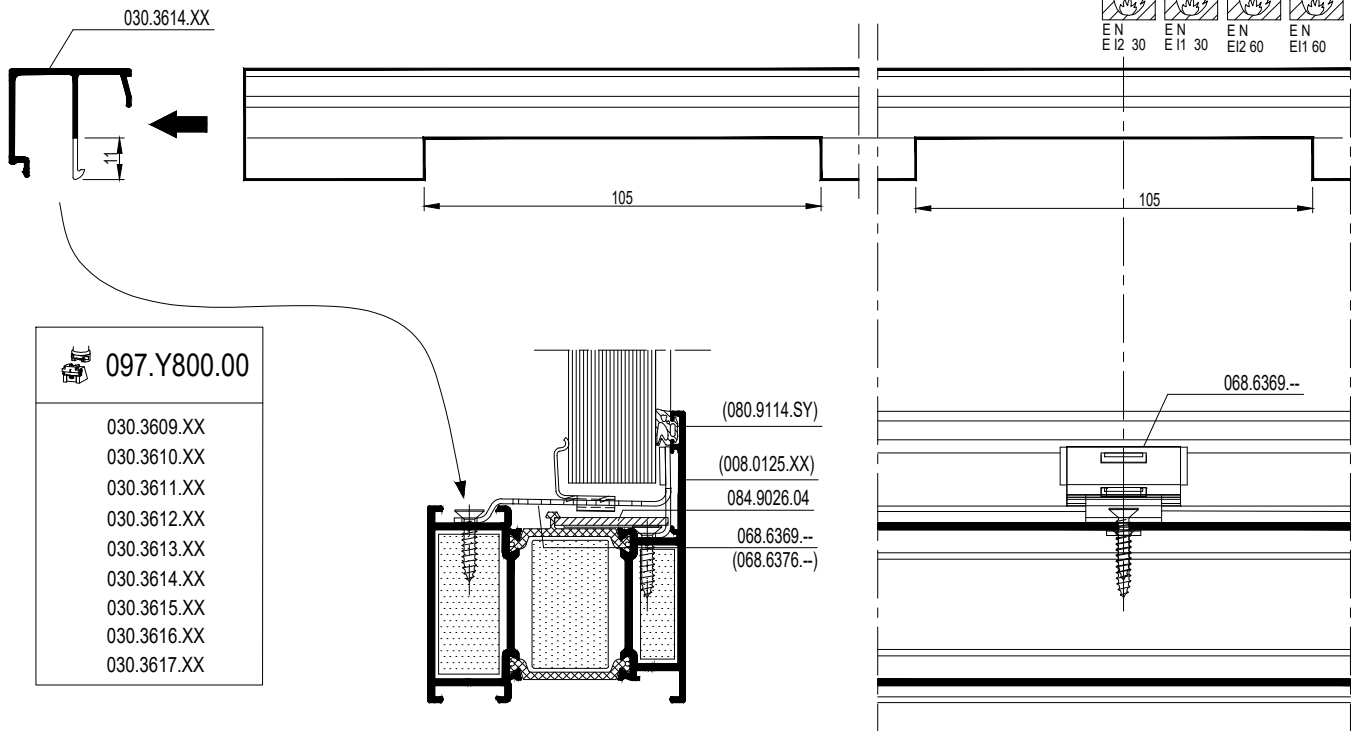
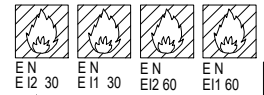
068.6369.--
(068.6376.--)

(080.9114.SY)



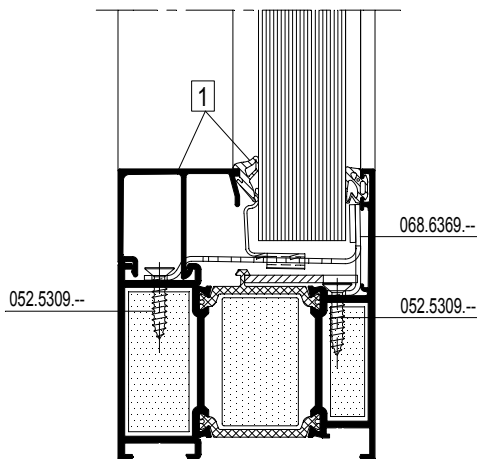
105

068.6369.--



1

Verwijder de binnenbeglazingsdichting en glaslat
Retirez le joint de vitrage intérieur et la parclose
Remove inner glazing gasket and glazing beads
Entfernen Sie die Innenverglasungsdichtung und glasleiste



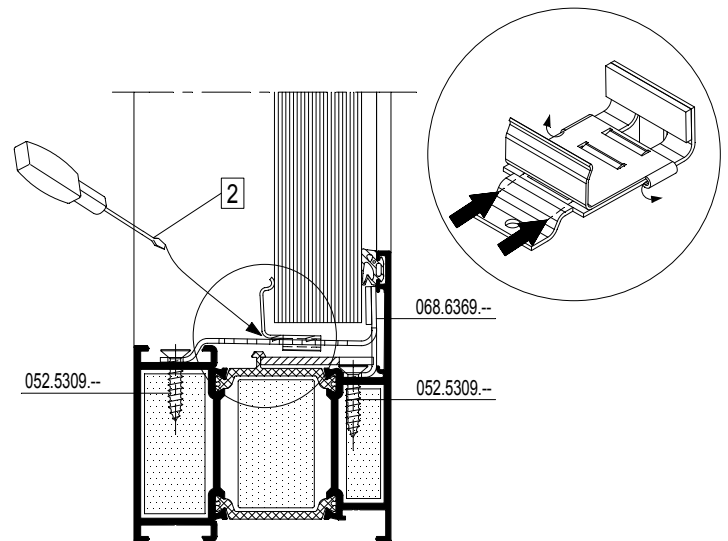
2

Plaats de schroevendraaier tussen de boven en onderkant van de clips telkens aan de buitenzijde. Klop VOORZICHTIG op de schroevendraaier tot er speling is tussen de clips delen.

Insérez le tournevis entre le haut et le bas du clip, chaque fois à l'extérieur. Frappez DOUCEMENT sur la tournevis jusqu'à ce qu'il y a de jeu entre les parties du clip.

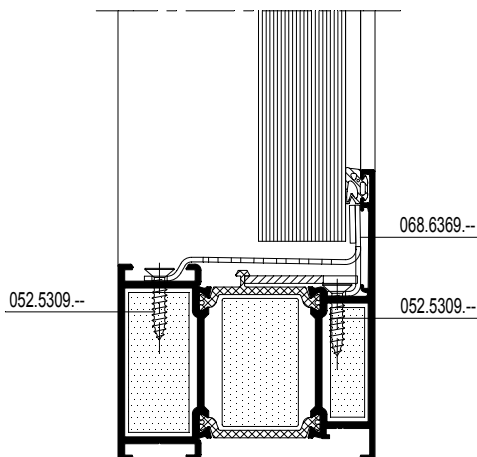
Place the screwdriver between the top and bottom clipping part, at both outer ends. CAREFULLY hit the screwdriver in these positions until there is some play between both clipping parts.

Stecken Sie den Schraubendreher zwischen der Ober- und Unterseite der Klemme, jedes Mal an der Aussenseite. Klopfen Sie VORSICHTIG auf dem Schraubendreher bis es Spielraum zwischen den Teilen der Klemme gibt.



3

Het bovenste clips onderdeel kan nu verwijderd worden van het basis stuk.
Maintenant la partie supérieure du clip peut être enlevée de la pièce de base.
The top clipping part can now be removed from the base part.
Der obere Teil der Klemme kann jetzt von dem Basisteil entfernt werden.



MONTAGEVOLGORDE
L'ORDRE DE MONTAGE
THE ORDER OF ASSEMBLY
MONTAGEREIHENFOLGE

1 2 3 .

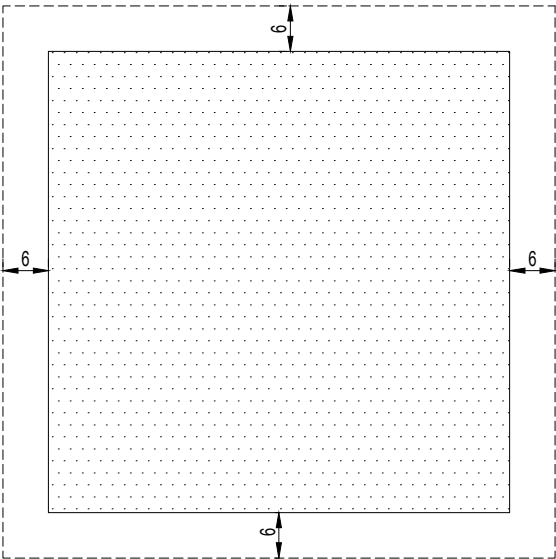
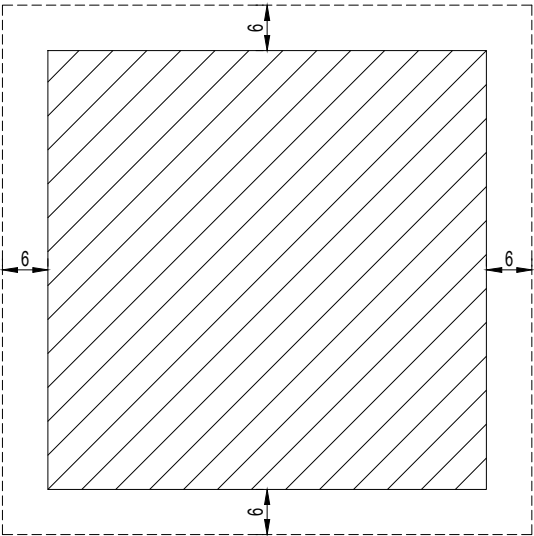
! bij glasdiktes rekening houden met de toleranties opgegeven door de leverancier
avec des épaisseurs de verre en compte les tolérances spécifiées par le fournisseur
with glass thicknesses into account the tolerances specified by the supplier
mit Glasdicken Berücksichtigung der Toleranzen des Lieferanten angegeben



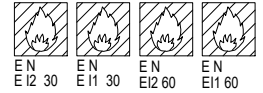
GLAS
VITRE
GLASS
GLAS



PANEEL
PANNEAU
PANEL
PANEL

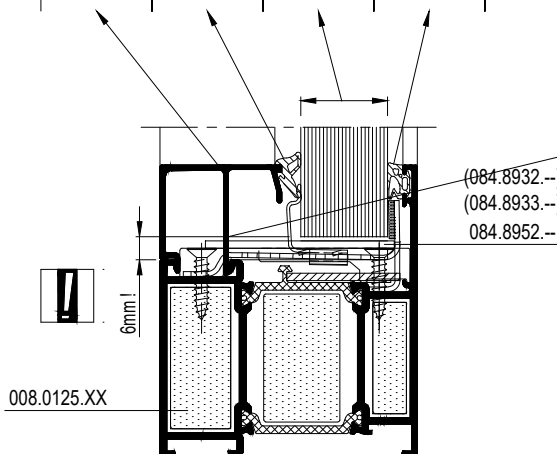
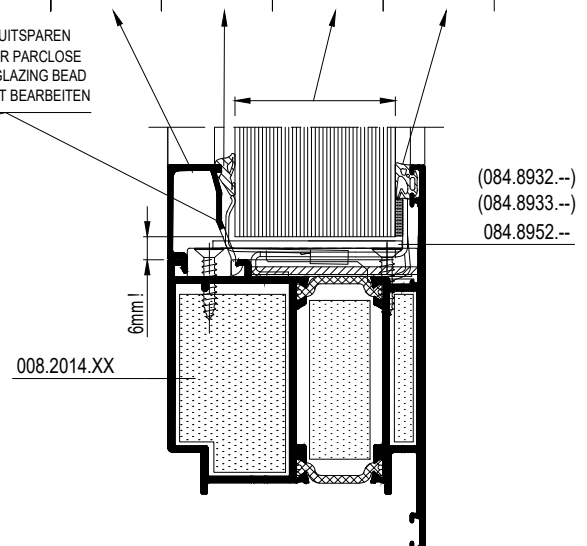


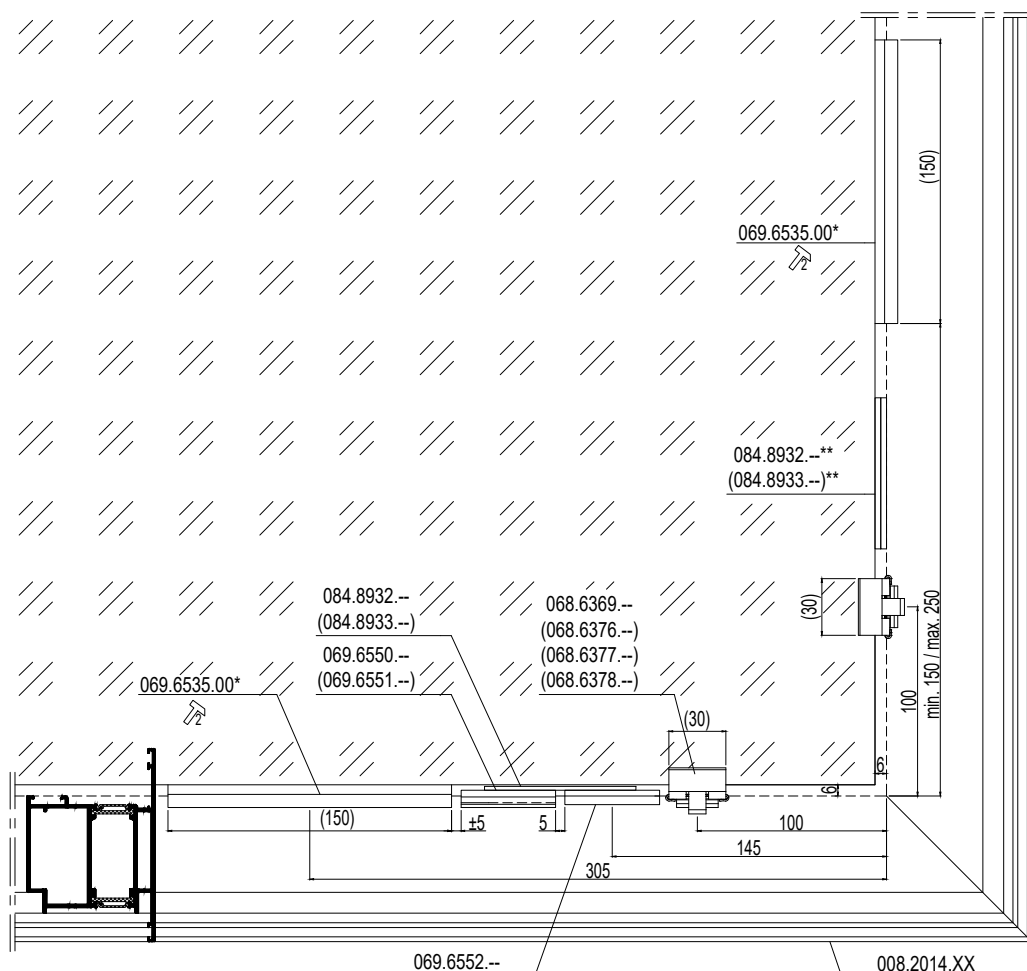
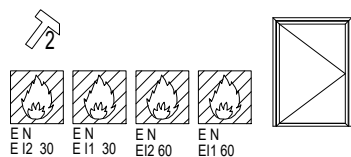
Buitenkader
 Dormant
 Outer frame
 Blenrahmen

 Vleugel deur
 Ouvrant porte ouvrant
 Vent door
 Fluegel tuer


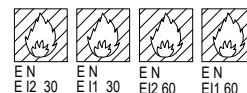
Glaslat Pardose Glazing bead Glasleiste	Beglazingsrubber binnen Joint de vitrage intérieur Glazing gasket inside Verglasungsdichtung innen	Glasdikte Épaisseur de vitrage Glazing thickness Glasdicke	Beglazingsrubber buiten Joint de vitrage extérieur Glazing gasket outside Verglasungsdichtung außen	Glasclips Clippe de vitrage Clasklemm Glazing Clip
030.3617.XX	080.9124.SY	15	080.9114.SY	068.6369.--
030.3616.XX	080.9126.SY	16	080.9114.SY	068.6369.--
030.3616.XX	080.9125.SY	17	080.9114.SY	068.6369.--
030.3616.XX	080.9124.SY	18	080.9114.SY	068.6369.--
030.3615.XX	080.9126.SY	19	080.9114.SY	068.6369.--
030.3615.XX	080.9125.SY	20	080.9114.SY	068.6369.--
030.3615.XX	080.9124.SY	21	080.9114.SY	068.6369.--
030.3614.XX	080.9126.SY	22	080.9114.SY	068.6369.--
030.3614.XX	080.9125.SY	23	080.9114.SY	068.6369.--
030.3614.XX	080.9124.SY	24	080.9114.SY	068.6369.--
030.3613.XX	080.9126.SY	25	080.9114.SY	068.6369.--
030.3613.XX	080.9125.SY	26	080.9114.SY	068.6369.--
030.3613.XX	080.9124.SY	27	080.9114.SY	068.6369.--
030.3612.XX	080.9126.SY	28	080.9114.SY	068.6369.--
030.3612.XX	080.9125.SY	29	080.9114.SY	068.6369.--
030.3612.XX	080.9124.SY	30	080.9114.SY	068.6369.--
030.3611.XX	080.9126.SY	31	080.9114.SY	068.6369.--
030.3611.XX	080.9125.SY	32	080.9114.SY	068.6369.--
030.3611.XX	080.9124.SY	33	080.9114.SY	068.6369.--
030.3610.XX	080.9126.SY	34	080.9114.SY	068.6369.--
030.3610.XX	080.9125.SY	35	080.9114.SY	068.6376.--
030.3610.XX	080.9124.SY	36	080.9114.SY	068.6376.--
030.3609.XX	080.9126.SY	37	080.9114.SY	068.6376.--
030.3609.XX	080.9125.SY	38	080.9114.SY	068.6376.--
030.3609.XX	080.9124.SY	39	080.9114.SY	068.6376.--
030.3608.XX	080.9126.SY	40	080.9114.SY	068.6376.--
030.3608.XX	080.9125.SY	41	080.9114.SY	068.6376.--
030.3608.XX	080.9124.SY	42	080.9114.SY	068.6376.--
030.3607.XX	080.9126.SY	43 (!)	080.9114.SY	068.6376.--
030.3607.XX	080.9125.SY	44 (!)	080.9114.SY	068.6376.--
030.3607.XX	080.9124.SY	45 (!)	080.9114.SY	068.6376.--
030.3606.XX	080.9126.SY	46 (!)	080.9114.SY	068.6376.--
030.3606.XX	080.9125.SY	47 (!)	080.9114.SY	068.6376.--
030.3606.XX	080.9124.SY	48 (!)	080.9114.SY	068.6376.--
030.3200.XX	080.9126.SY	49 (!)	080.9114.SY	068.6376.--
030.3200.XX	080.9126.SY	50 (!)	080.9114.SY	068.6376.--
030.3200.XX	080.9125.SY	51 (!)	080.9114.SY	068.6376.--
030.3200.XX	080.9124.SY	52 (!)	080.9114.SY	068.6376.--

Glaslat Pardose Glazing bead Glasleiste	Beglazingsrubber binnen Joint de vitrage intérieur Glazing gasket inside Verglasungsdichtung innen	Glasdikte Épaisseur de vitrage Glazing thickness Glasdicke	Beglazingsrubber buiten Joint de vitrage extérieur Glazing gasket outside Verglasungsdichtung außen	Glasclips Clippe de vitrage Clasklemm Glazing Clip
030.3617.XX	080.9124.SY	15	080.9114.SY	068.6377.--
030.3616.XX	080.9126.SY	16	080.9114.SY	068.6377.--
030.3616.XX	080.9125.SY	17	080.9114.SY	068.6377.--
030.3616.XX	080.9124.SY	18	080.9114.SY	068.6377.--
030.3615.XX	080.9126.SY	19	080.9114.SY	068.6377.--
030.3615.XX	080.9125.SY	20	080.9114.SY	068.6377.--
030.3615.XX	080.9124.SY	21	080.9114.SY	068.6377.--
030.3614.XX	080.9126.SY	22	080.9114.SY	068.6377.--
030.3614.XX	080.9125.SY	23	080.9114.SY	068.6377.--
030.3614.XX	080.9124.SY	24	080.9114.SY	068.6377.--
030.3613.XX	080.9126.SY	25	080.9114.SY	068.6377.--
030.3613.XX	080.9125.SY	26	080.9114.SY	068.6377.--
030.3613.XX	080.9124.SY	27	080.9114.SY	068.6377.--
030.3612.XX	080.9126.SY	28	080.9114.SY	068.6377.--
030.3612.XX	080.9125.SY	29	080.9114.SY	068.6377.--
030.3612.XX	080.9124.SY	30	080.9114.SY	068.6377.--
030.3611.XX	080.9126.SY	31	080.9114.SY	068.6378.--
030.3611.XX	080.9125.SY	32	080.9114.SY	068.6378.--
030.3611.XX	080.9124.SY	33	080.9114.SY	068.6378.--
030.3610.XX	080.9126.SY	34	080.9114.SY	068.6378.--
030.3610.XX	080.9125.SY	35	080.9114.SY	068.6378.--
030.3610.XX	080.9124.SY	36	080.9114.SY	068.6378.--
030.3609.XX	080.9126.SY	37	080.9114.SY	068.6378.--
030.3609.XX	080.9125.SY	38	080.9114.SY	068.6378.--
030.3609.XX	080.9124.SY	39	080.9114.SY	068.6378.--
030.3608.XX	080.9126.SY	40	080.9114.SY	068.6378.--
030.3608.XX	080.9125.SY	41	080.9114.SY	068.6378.--
030.3608.XX	080.9124.SY	42	080.9114.SY	068.6378.--
030.3607.XX	080.9126.SY	43 (!)	080.9114.SY	068.6378.--
030.3607.XX	080.9125.SY	44 (!)	080.9114.SY	068.6378.--
030.3607.XX	080.9124.SY	45 (!)	080.9114.SY	068.6378.--
030.3606.XX	080.9126.SY	46 (!)	080.9114.SY	068.6378.--
030.3606.XX	080.9125.SY	47 (!)	080.9114.SY	068.6378.--
030.3606.XX	080.9124.SY	48 (!)	080.9114.SY	068.6378.--
030.3200.XX	080.9126.SY	49 (!)	080.9114.SY	068.6378.--
030.3200.XX	080.9126.SY	50 (!)	080.9114.SY	068.6378.--
030.3200.XX	080.9125.SY	51 (!)	080.9114.SY	068.6378.--
030.3200.XX	080.9124.SY	52 (!)	080.9114.SY	068.6378.--


 (!) { GLASLAT UITSPAREN
 DECOUPER PARCLOSE
 RECESS GLAZING BEAD
 GLASLEIST BEARBEITEN


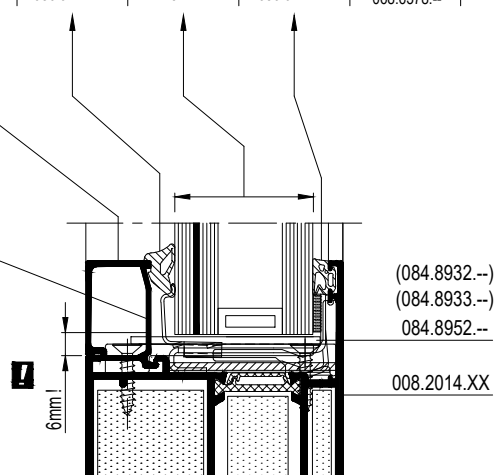
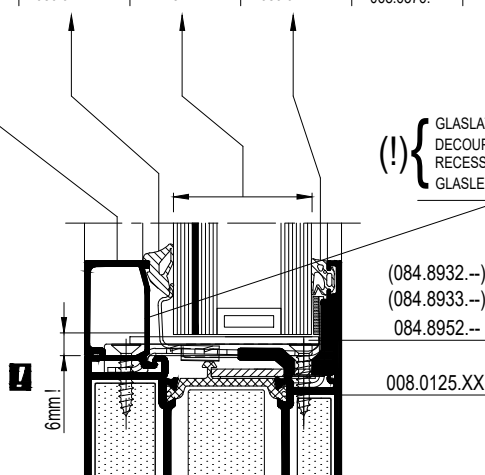


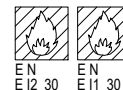
(*) RC 2 (EN 1627)
(**) 13C.B....

Voor vaste kader
Pour dormantFor outer frame
Für BlendrahmenVoor deurvleugel
Pour ouvrant porteFor door vent
Für Haustürflügel

Glaslat Parclose Glazing bead Glasleiste	Beglazingsrubber binnen Joint de vitrage intérieur Glazing gasket inside Verglasungsdichtung innen	Glasdikte Epaisseur de vitrage Glazing thickness Glasdicke	Beglazingsrubber buiten Joint de vitrage extérieur Glazing gasket outside Verglasungsdichtung aussen	Glasclips Clippe de vitrage Glaskelemm Glazing Clip
130.3656.XX	080.9126.SY	16	080.9114.SY	068.6369.--
130.3656.XX	080.9125.SY	17	080.9114.SY	068.6369.--
130.3656.XX	080.9124.SY	18	080.9114.SY	068.6369.--
130.3655.XX	080.9126.SY	19	080.9114.SY	068.6369.--
130.3655.XX	080.9125.SY	20	080.9114.SY	068.6369.--
130.3655.XX	080.9124.SY	21	080.9114.SY	068.6369.--
130.3654.XX	080.9126.SY	22	080.9114.SY	068.6369.--
130.3654.XX	080.9125.SY	23	080.9114.SY	068.6369.--
130.3654.XX	080.9124.SY	24	080.9114.SY	068.6369.--
130.3653.XX	080.9126.SY	25	080.9114.SY	068.6369.--
130.3653.XX	080.9125.SY	26	080.9114.SY	068.6369.--
130.3653.XX	080.9124.SY	27	080.9114.SY	068.6369.--
130.3652.XX	080.9126.SY	28	080.9114.SY	068.6369.--
130.3652.XX	080.9125.SY	29	080.9114.SY	068.6369.--
130.3652.XX	080.9124.SY	30	080.9114.SY	068.6369.--
130.3651.XX	080.916.SY	31	080.9114.SY	068.6376.--
130.3651.XX	080.9125.SY	32	080.9114.SY	068.6376.--
130.3651.XX	080.9124.SY	33	080.9114.SY	068.6376.--
130.3650.XX	080.9126.SY	34	080.9114.SY	068.6376.--
130.3650.XX	080.9125.SY	35	080.9114.SY	068.6376.--
130.3650.XX	080.9124.SY	36	080.9114.SY	068.6376.--
130.3649.XX	080.9126.SY	37	080.9114.SY	068.6376.--
130.3649.XX	080.9125.SY	38	080.9114.SY	068.6376.--
130.3649.XX	080.9124.SY	39	080.9114.SY	068.6376.--
130.3648.XX	080.9126.SY	40	080.9114.SY	068.6376.--
130.3648.XX	080.9125.SY	41	080.9114.SY	068.6376.--
130.3648.XX	080.9124.SY	42	080.9114.SY	068.6376.--
130.3647.XX	080.9126.SY	43	080.9114.SY	068.6376.--
130.3647.XX	080.9125.SY	44	080.9114.SY	068.6376.--
130.3647.XX	080.9124.SY	45	080.9114.SY	068.6376.--
130.3646.XX	080.9126.SY	46	080.9114.SY	068.6376.--
130.3646.XX	080.9125.SY	47	080.9114.SY	068.6376.--
130.3646.XX	080.9124.SY	48	080.9114.SY	068.6376.--
130.3645XX	080.9126.SY	49	080.9114.SY	068.6376.--
130.3645.XX	080.9125.SY	50	080.9114.SY	068.6376.--
130.3645.XX	080.9124.SY	51	080.9114.SY	068.6376.--
130.3644.XX	080.9126.SY	52	080.9114.SY	068.6376.--
130.3644.XX	080.9125.SY	53	080.9114.SY	068.6376.--
130.3644.XX	080.9124.SY	54	080.9114.SY	068.6376.--

Glaslat Parclose Glazing bead Glasleiste	Beglazingsrubber binnen Joint de vitrage intérieur Glazing gasket inside Verglasungsdichtung innen	Glasdikte Epaisseur de vitrage Glazing thickness Glasdicke	Beglazingsrubber buiten Joint de vitrage extérieur Glazing gasket outside Verglasungsdichtung aussen	Glasclips Clippe de vitrage Glaskelemm Glazing Clip
130.3656.XX	080.9126.SY	16	080.9114.SY	068.6377.--
130.3656.XX	080.9125.SY	17	080.9114.SY	068.6377.--
130.3656.XX	080.9124.SY	18	080.9114.SY	068.6377.--
130.3655.XX	080.9126.SY	19	080.9114.SY	068.6377.--
130.3655.XX	080.9125.SY	20	080.9114.SY	068.6377.--
130.3655.XX	080.9124.SY	21	080.9114.SY	068.6377.--
130.3654.XX	080.9126.SY	22	080.9114.SY	068.6377.--
130.3654.XX	080.9125.SY	23	080.9114.SY	068.6377.--
130.3654.XX	080.9124.SY	24	080.9114.SY	068.6377.--
130.3653.XX	080.9126.SY	25	080.9114.SY	068.6377.--
130.3653.XX	080.9125.SY	26	080.9114.SY	068.6377.--
130.3653.XX	080.9124.SY	27	080.9114.SY	068.6377.--
130.3652.XX	080.9126.SY	28	080.9114.SY	068.6377.--
130.3652.XX	080.9125.SY	29	080.9114.SY	068.6377.--
130.3652.XX	080.9124.SY	30	080.9114.SY	068.6377.--
130.3651.XX	080.916.SY	31	080.9114.SY	068.6378.--
130.3651.XX	080.9125.SY	32	080.9114.SY	068.6378.--
130.3651.XX	080.9124.SY	33	080.9114.SY	068.6378.--
130.3650.XX	080.9126.SY	34	080.9114.SY	068.6378.--
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130.3650.XX	080.9124.SY	36	080.9114.SY	068.6378.--
130.3649.XX	080.9126.SY	37	080.9114.SY	068.6378.--
130.3649.XX	080.9125.SY	38	080.9114.SY	068.6378.--
130.3649.XX	080.9124.SY	39	080.9114.SY	068.6378.--
130.3648.XX	080.9126.SY	40	080.9114.SY	068.6378.--
130.3648.XX	080.9125.SY	41	080.9114.SY	068.6378.--
130.3648.XX	080.9124.SY	42	080.9114.SY	068.6378.--
130.3647.XX	080.9126.SY	43	080.9114.SY	068.6378.--
130.3647.XX	080.9125.SY	44	080.9114.SY	068.6378.--
130.3647.XX	080.9124.SY	45	080.9114.SY	068.6378.--
130.3646.XX	080.9126.SY	46	080.9114.SY	068.6378.--
130.3646.XX	080.9125.SY	47	080.9114.SY	068.6378.--
130.3646.XX	080.9124.SY	48	080.9114.SY	068.6378.--
130.3645XX	080.9126.SY	49	080.9114.SY	068.6378.--
130.3645.XX	080.9125.SY	50	080.9114.SY	068.6378.--
130.3645.XX	080.9124.SY	51	080.9114.SY	068.6378.--
130.3644.XX	080.9126.SY	52	080.9114.SY	068.6378.--
130.3644.XX	080.9125.SY	53	080.9114.SY	068.6378.--
130.3644.XX	080.9124.SY	54	080.9114.SY	068.6378.--

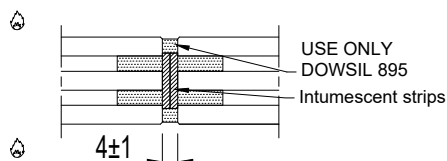




Vetrotech Saint-Gobain International

Contraflam Structure 30

fire resistant glas EI 30 following EN 13501-2

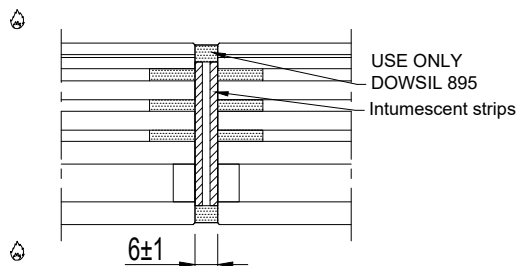


CONTRAFLAM STRUCTURE 30			
Glazing type	Single		
Application	Internal		
Thickness	23 mm(±2mm)	28 mm(±2mm)	30 mm(±2mm)
Weight	52 kg/m²	64 kg/m²	69 kg/m²
Light transmittance	83%	81%	80%
U _g -value	4,6 W/m²k	4,5 W/m²k	4,5 W/m²k
Sound reduction index	42 dB	43 dB	43 dB
Max approved glass dimensions(b x h)	SEE GLASS DIMENSIONS		
max. product. dimensions	1800x3500	2300x3800	-
CPD nr.	0336-CPR-5064D/IL		
Intumescent strips	2x13mm Kerafix FXL 200	2x18mm Kerafix FXL 200	2x20mm Kerafix FXL 200

Vetrotech Saint-Gobain International

Contraflam Structure 30 IGU

fire resistant glas EI 30 following EN 13501-2



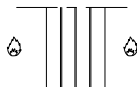
CONTRAFLAM STRUCTURE 30 IGU			
Glazing type	Double		
Application	Internal/External		
Thickness	6/12/23=43 mm(±3mm)	6/14/28=48 mm(±3mm)	6/14/30=50 mm(±3mm)
Weight	67 kg/m²	79 kg/m²	84 kg/m²
Light transmittance	73%	71%	71%
U _g -value	1,1 W/m²k	1,1 W/m²k	1,1 W/m²k
Sound reduction index	-	-	-
Max approved glass dimensions(b x h)	SEE GLASS DIMENSIONS		
max. production dimensions	1800x3500	2300x3800	-
CPD nr.	0336-CPR-5064D/IL		
Intumescent strips	2x32mm Kerafix FXL 200	2x38mm Kerafix FXL 200	2x40mm Kerafix FXL 200



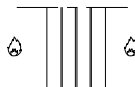
CONTACTEER JE LOKALE VETROTECH-SAINT GOBAIN INT. KANTOOR VOOR BELANGRIJKE INSTRUCTIES AANGAANDE DE INSTALLATIE
MERCİ DE CONTACTER LE BUREAU LOCAL DE VETROTECH SAINT-GOBAIN INT. OFFICE POUR OBTENIR LES INSTRUCTIONS IMPOTANTES RELATIVES A L'INSTALLATION.
PLEASE CONTACT YOUR LOCAL VETROTECH SAINT-GOBAIN INT. OFFICE FOR IMPORTANT INSTRUCTIONS RELATED TO INSTALLATION
BITTE KONTAKTIERENSIE DAS LOKALE BURO VETROTECH SAINT-GOBAIN INT. OFFICE FUR WICHTIGE ANWEISUNGEN BEZUGLICH DER INSTALLATION

Vetrotech Saint-Gobain International
Contraflam 30

fire resistant glas EI 30 following EN 13501-2


Vetrotech Saint-Gobain International
Contraflam 30-2

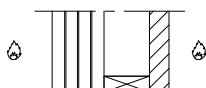
fire resistant glas EI 30 following EN 13501-2



CONTRAFLAM 30			
Glazing type	Single		
Application	Internal		
Thickness	16 mm (+2/-1mm)	18 mm (+2/-1mm)	22 mm (+2/-1mm)
Weight	34 kg/m ²	39 kg/m ²	49 kg/m ²
Light transmittance	86%	85%	84%
Ug -value	4,8 W/m ² k	4,8 W/m ² k	4,7 W/m ² k
Sound reduction index	38 dB	40 dB	40 dB
Max approved glass dimensions(b x h) (mm)	SEE GLASS DIMENSIONS		
Max production glass dimensions(b x h) (mm)	1500 x 3000	1800 x 3500	2300 x 3800
CPD nr.	0336-CPR-5064C/IL		

Vetrotech Saint-Gobain International
Contraflam 30 IGU

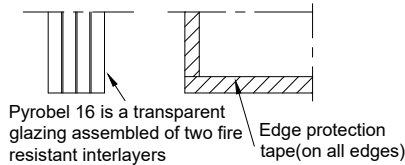
fire resistant glas EI 30 following EN 13501-2



CONTRAFLAM 30 Climaplust			
Glazing type	Double/triple		
Application	Internal/External		
Thickness	6/14/16=36 mm(+3/-2mm)	6/14/18=38 mm(+3/-2mm)	6/14/22=42 mm(+3/-2mm)
Weight	50 kg/m ²	55 kg/m ²	65 kg/m ²
Light transmittance	75%	74%	72%
Ug -value	1,1 W/m ² k	1,1 W/m ² k	1,1 W/m ² k
Sound reduction index	42 dB	43 dB	45 dB
Max approved glass dimensions(b x h) (mm)	SEE GLASS DIMENSIONS		
Max production glass dimensions(b x h) (mm)	1500 x 3000	1800 x 3500	2300 x 3800
CPD nr.	0336-CPR-5064C/IL		

**AGC Pyrobel 16**

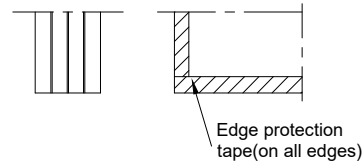
fire resistant glas EI 30 following EN 13501-2



AGC Pyrobel 16	
Glazing type	Single
Application	Internal
Thickness	17,3 mm(+/-1mm)
Weight	40 kg/m ²
Light transmittance	84%
Ug -value	5,4 W/m ² k
Sound reduction index	39 (-1/-3) dB
Max approved glass dimensions(b x h)	SEE GLASS DIMENSIONS
CPD nr.	1121-CPD-CA-0004

AGC Pyrobel 16 EG

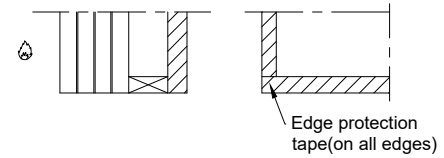
fire resistant glas EI 30 following EN 13501-2



AGC Pyrobel 16 EG	
Glazing type	Single
Application	External
Thickness	21,1
Weight	48 kg/m ²
Light transmittance	83%
Ug -value	5,2 W/m ² k
Sound reduction index	39 (-1/-3) dB
Max approved glass dimensions(b x h)	SEE GLASS DIMENSIONS
CPD nr.	1121-CPD-CA-0004

AGC Pyrobel 16 EG

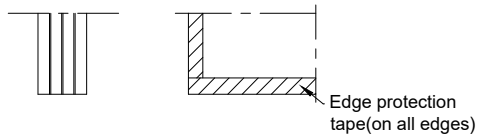
fire resistant glas EI 30 following EN 13501-2



AGC Pyrobel 16 EG	
Glazing type	Double
Application	External
Thickness	6/12/16=39,1 mm(+/-3mm)
Weight	64 kg/m ²
Light transmittance	74%
Ug -value	2,7 W/m ² k
Sound reduction index	-
Max approved glass dimensions(b x h)	SEE GLASS DIMENSIONS
CPD nr.	1121-CPD-CA-0004

Pilkington Pyrostop 30-10

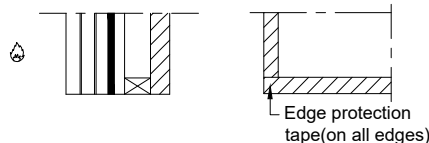
fire resistant glas EI 30 following EN 13501-2



Pilkington Pyrostop 30-10	
Glazing type	Single
Application	Internal
Thickness	15 mm (+/-1 mm)
Weight	35 kg/m ²
Light transmittance	86%
Ug -value	5,1 W/m ² k
Sound reduction index	38 (0/-2) dB
Max approved glass dimensions(b x h)	SEE GLASS DIMENSIONS
CPD nr.	1121-CPD-CA-0002

Pilkington Pyrostop 30-25

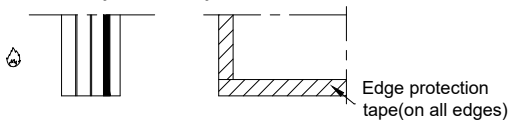
fire resistant glas EI 30 following EN 13501-2



Pilkington Pyrostop 30-25	
Glazing type	Double
Application	Internal/External
Thickness	6/8/18=32 mm(+/-2mm)
Weight	58 kg/m ²
Light transmittance	76%
Ug -value	2,9 W/m ² k
Sound reduction index	39 (-0/-3) dB
Max approved glass dimensions(b x h)	SEE GLASS DIMENSIONS
CPD nr.	1121-CPD-CA-0002

Pilkington Pyrostop 30-20

fire resistant glas EI 30 following EN 13501-2



Pilkington Pyrostop 30-20	
Glazing type	Single
Application	Internal/External
Thickness	18 mm (+/-1 mm)
Weight	42 kg/m ²
Light transmittance	85%
Ug -value	5,0 W/m ² k
Sound reduction index	38 dB
Max approved glass dimensions(b x h)	SEE GLASS DIMENSIONS
CPD nr.	1121-CPD-CA-0002

 Aanbevolen brandzijde Côté feu recommandé Recommended fire-side Empfohlen Feuerseite
--

 Navolgen voorschriften van glasleverancier! Suivre les prescriptions du fournisseur de verre! Follow the prescriptions of the glass supplier! Folgen Sie die Vorschriften des Glaslieferanten
--

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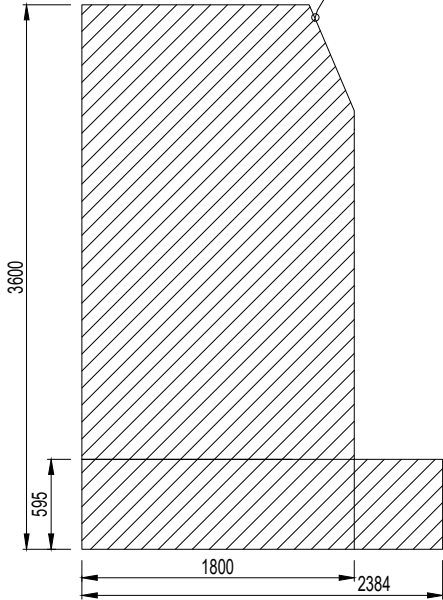
 Voor bijkomende goedgekeurde glastypes, raadpleeg uw landgebonden goedkeuring. Pour de types de verre approuvés supplémentaires, veuillez consulter votre agrément nationale. For additional approved glass types, consult your national approval. Für zusätzliche geprüften Glastypen bitte heranziehen Sie Ihre Landeszulassung.

Classification report n°
2017-Efectis-R000474

Pilkington
Pyrostop 30-xxx



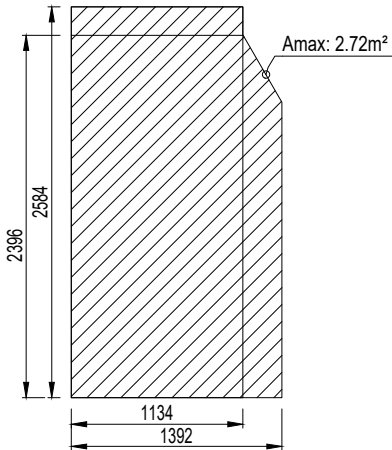
Amax: 5.45m²



AGC
Pyrobel 16 (EG)



Amax: 2.72m²



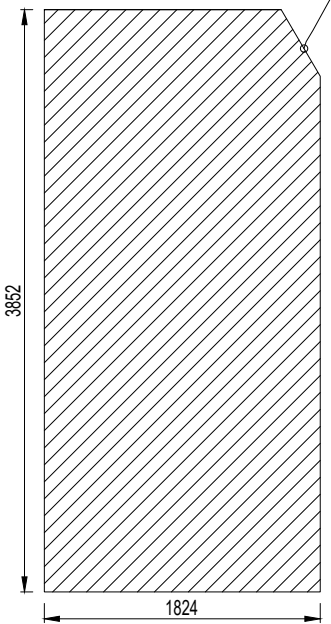
Classification report n° EFR-19-004226

Laboratory Assesment n°
EFR-19-004226 Rev.1

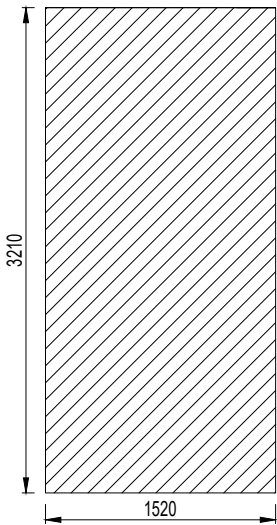
Pyroguard T-30/18-2 TVI



Amax: 5.9m²



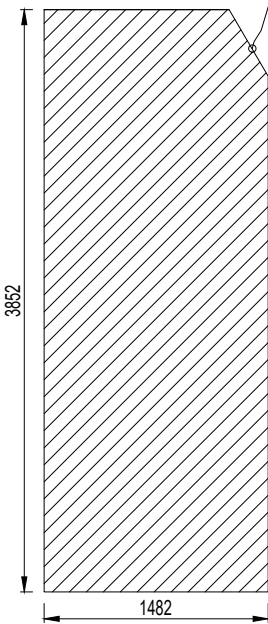
Pyroguard T-EI30/18-2 TVI



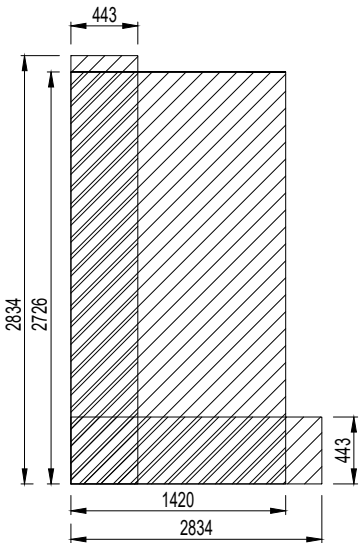
Pyroguard T-EI30/18-2 VI



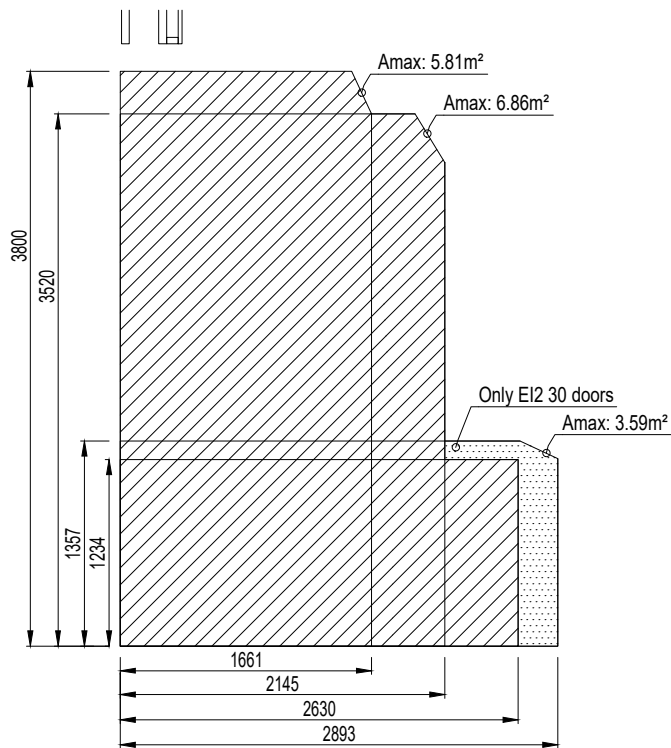
Amax: 4.8m²



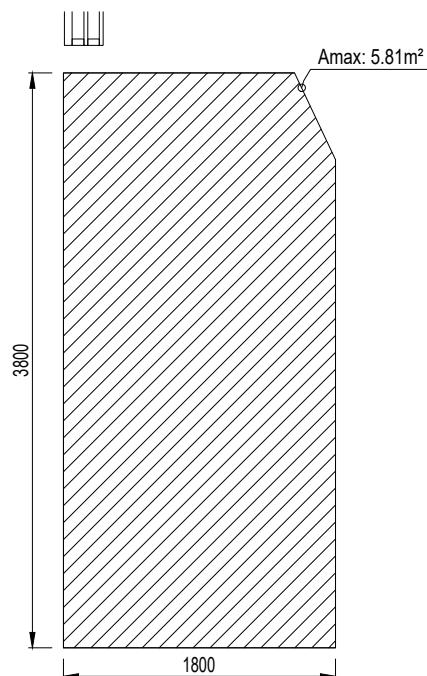
Pyroguard T-EI30/18-2
Pyroguard T-EI30/18-2 VF



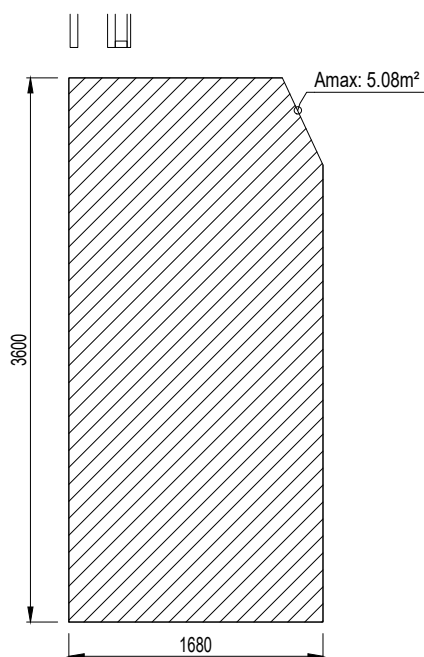
Vetrotech Saint-Gobain Int.
CONTRAFLAM 30 / 30-2
CONTRAFLAM 30 / 30-2 Climaplus



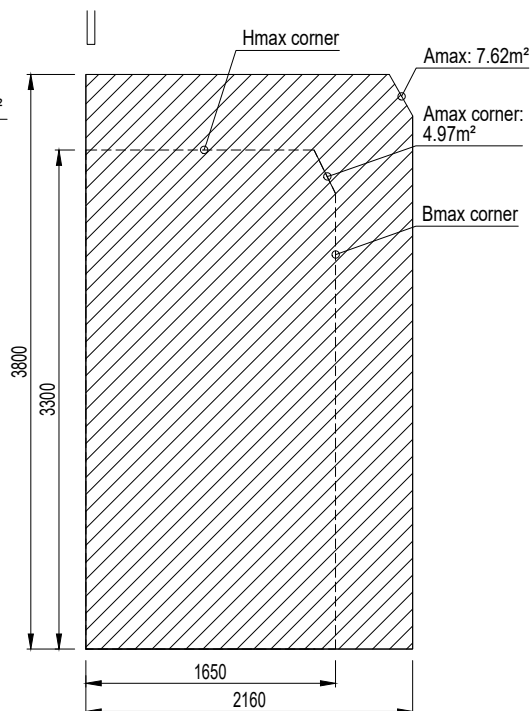
Vetrotech Saint-Gobain Int.
CONTRAFLAM 30 / 30-2 Climatop



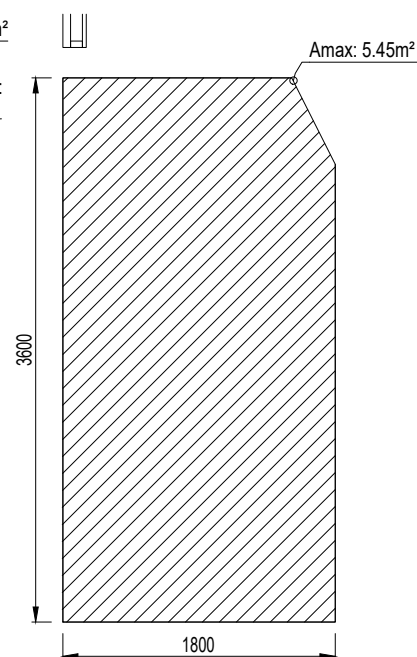
Vetrotech Saint-Gobain Int.
CONTRAFLAM Structure LITE 30
(EW 30)



Vetrotech Saint-Gobain Int.
CONTRAFLAM Structure 30
(incl. corner)

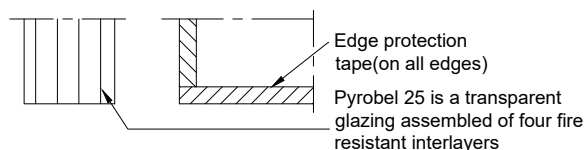


Vetrotech Saint-Gobain Int.
CONTRAFLAM Structure 30



AGC Pyrobel 25

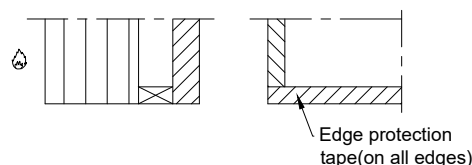
fire resistant glas EI 60 following EN 13501-2



AGC Pyrobel 25	
Glazing type	Single
Application	Internal
Thickness	25 mm(+/-2mm)
Weight	60 kg/m ²
Light transmittance	82%
Ug -value	5 W/m ² k
Sound reduction index	42 dB
Max approved glass dimensions(b x h)	SEE GLASS DIMENSIONS
CPD nr.	1121-CPD-CA-0004

AGC Pyrobel 25

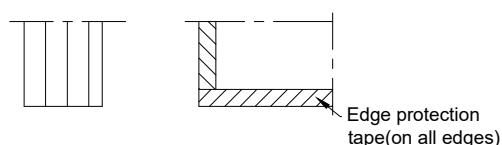
fire resistant glas EI 60 following EN 13501-2



AGC Pyrobel 25 EG	
Glazing type	Double
Application	External
Thickness	6/12/29=47 mm(+/-3mm)
Weight	83 kg/m ²
Light transmittance	72%
Ug -value	2.6 W/m ² k
Sound reduction index	44 dB
Max approved glass dimensions(b x h)	SEE GLASS DIMENSIONS
CPD nr.	1121-CPD-CA-0004

Pilkington Pyrostop 60-101

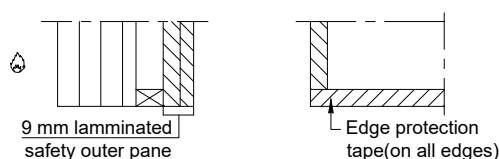
fire resistant glas EI 60 following EN 13501-2



Pilkington Pyrostop 60-101		EI1 60
Glazing type	Single	Single
Application	Internal	Internal
Thickness	23 mm (+/-2 mm)	23 mm (+/-2 mm)
Weight	55 kg/m ²	55 kg/m ²
Light transmittance	87%	87%
Ug -value	4,8 W/m ² k	4,8 W/m ² k
Sound reduction index	41 dB	41 dB
Max approved glass dimensions(b x h)	SEE GLASS DIMENSIONS	SEE GLASS DIMENSIONS
CPD nr.	1121-CPD-CA-0002	1121-CPD-CA-0002

Pilkington Pyrostop 60-181

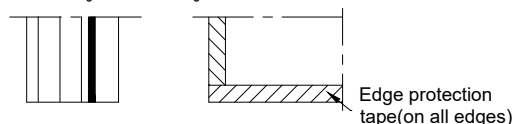
fire resistant glas EI 60 following EN 13501-2



Pilkington Pyrostop 60-181		EI1 60
Glazing type	Double	Double
Application	Internal/External	Internal/External
Thickness	9/8/23=40 mm(+/-2mm)	9/8/23=40 mm(+/-2mm)
Weight	75 kg/m ²	75 kg/m ²
Light transmittance	74%	74%
Ug -value	1.6 W/m ² k	1.6 W/m ² k
Sound reduction index	43 dB	43 dB
Max approved glass dimensions(b x h)	SEE GLASS DIMENSIONS	SEE GLASS DIMENSIONS
CPD nr.	1121-CPD-CA-0002	1121-CPD-CA-0002

Pilkington Pyrostop 60-201

fire resistant glas EI 60 following EN 13501-2



Pilkington Pyrostop 60-201		EI1 60
Glazing type	Single	Single
Application	Internal/External	Internal/External
Thickness	27 mm (+/-2 mm)	27 mm (+/-2 mm)
Weight	61 kg/m ²	61 kg/m ²
Light transmittance	86%	86%
Ug -value	4.7 W/m ² k	4.7 W/m ² k
Sound reduction index	41 dB	41 dB
Max approved glass dimensions(b x h)	SEE GLASS DIMENSIONS	SEE GLASS DIMENSIONS
CPD nr.	1121-CPD-CA-0002	1121-CPD-CA-0002

 Aanbevolen brandzijde Côté feu recommandé Recommended fire-side Empfohlen Feuerseite

Navolgen voorschriften van glasleverancier!
Suivre les prescriptions du fabricant de verre!
Follow the prescriptions of the glass supplier!
Folgen Sie die Vorschriften des Glaslieferanten

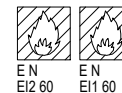
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Voor bijkomende goedgekeurde glastypes, raadpleeg uw landgebonden goedkeuring.
Pour d' autres types de verre, veuillez consulter votre certificat nationale.
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Für zusätzliche geprüften Glastypen bitte heranziehen Sie Ihre Landeszulassung.

Vetrotech Saint-Gobain International

Contraflam 60-3

fire resistant glas EI 60 following EN 13501-2



CONTRAFLAM 60-3			
Glazing type	Single		
Application	Internal		
Thickness	27 mm (+/-2mm)	31 mm (+/-2mm)	-
Weight	59 kg/m ²	64 kg/m ²	-
Light transmittance	81%	81%	-
Ug -value	4,3 W/m ² k	4,3 W/m ² k	-
Sound reduction index	43 dB	-	-
Max approved glass dimensions(b x h) (mm)	SEE GLASS DIMENSIONS		
Max production glass dimensions(b x h) (mm)	1500 x 3000	1800 x 3500	-
CPD nr.	0336-CPR-5064C/IL		

Vetrotech Saint-Gobain International

Contraflam 60-3 IGU

fire resistant glas EI 60 following EN 13501-2



CONTRAFLAM 60-3 IGU			
Glazing type	Double		
Application	Internal/External		
Thickness	6/14/27=47 mm(+/-3mm)	6/14/29=49 mm(+/-3mm)	-
Weight	74 kg/m ²	79 kg/m ²	-
Light transmittance	72%	71%	-
Ug -value	1,2 W/m ² k	1,2 W/m ² k	-
Sound reduction index	-	-	-
Max approved glass dimensions(b x h) (mm)	SEE GLASS DIMENSIONS		
Max production glass dimensions(b x h) (mm)	1500 x 3000	1500 x 3500	-
CPD nr.	0336-CPR-5064C/IL		

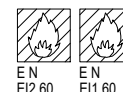
 Brandzijde Côté feu Fire-side Feuerseite	Voor bijkomende goedgekeurde glastypes, raadpleeg uw landgebonden goedkeuring. Pour d' autres types de verre, veuillez consulter votre certificat nationale. For additional approved glass types, consult your national approval. Für zusätzliche geprüften Glastypen bitte heranziehen Sie Ihre Landeszulassung.
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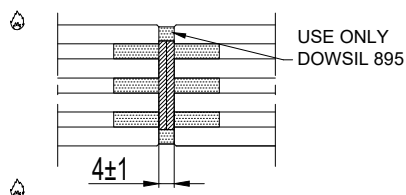
CONTACTEER JE LOKALE VETROTECH-SAINT GOBAIN INT. KANTOOR VOOR BELANGRIJKE INSTRUCTIES AANGAANDE DE INSTALLATIE
MERCİ DE CONTACTER LE BUREAU LOCAL DE VETROTECH SAINT-GOBAIN INT. OFFICE POUR OBTENIR LES INSTRUCTIONS IMPOTANTES RELATIVES A L'INSTALLATION.
PLEASE CONTACT YOUR LOCAL VETROTECH SAINT-GOBAIN INT. OFFICE FOR IMPORTANT INSTRUCTIONS RELATED TO INSTALLATION
BITTE KONTAKTIERENSIE DAS LOKALE BURO VETROTECH SAINT-GOBAIN INT. OFFICE FÜR WICHTIGE ANWEISUNGEN BEZUGLICH DER INSTALLATION



Vetrotech Saint-Gobain International

Contraflam Structure 60

fire resistant glas EI 30 following EN 13501-2



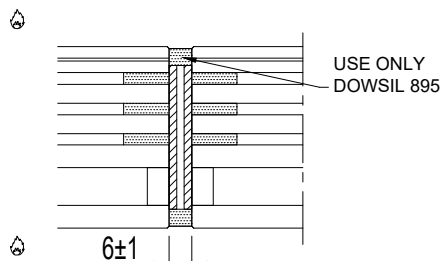
CONTRAFLAM STRUCTURE 60			
Glazing type	Single		
Application	Internal		
Thickness	31 mm(±2mm)	37 mm(±2mm)	-
Weight	69 kg/m²	74 kg/m²	-
Light transmittance	80%	79%	-
Ug -value	4,3 W/m²k	4,2 W/m²k	-
Sound reduction index	43 dB	-	-
Max approved glass dimensions(b x h)	SEE GLASS DIMENSIONS		
max. product. dimensions	1800x3500	2300x3800	-
CPD nr.	0336-CPR-5064C/IL		

intumescent strips	2x20mm Kerafix FXL 200	2x28mm Kerafix FXL 200	-
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Vetrotech Saint-Gobain International

Contraflam Structure 60 IGU

fire resistant glas EI 30 following EN 13501-2



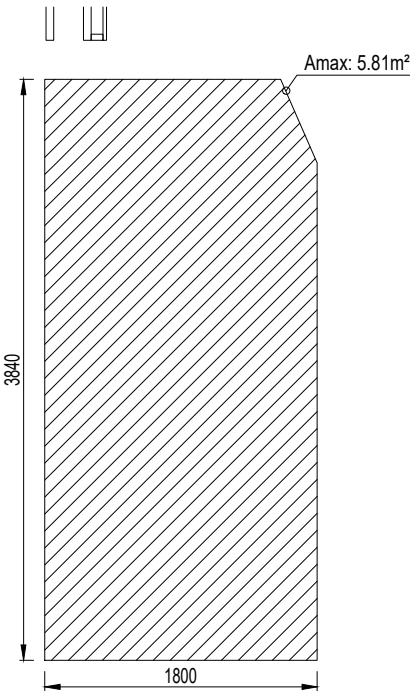
CONTRAFLAM STRUCTURE 60 IGU			
Glazing type	Double		
Application	Internal/External		
Thickness	6/14/31=51 mm(±3mm)	6/12/37=51 mm(±3mm)	-
Strip width	41	41	-
Strip reference	084.9040.04	084.9040.04	-
Weight	67 kg/m²	79 kg/m²	-
Light transmittance	73%	71%	-
Ug -value	1,1 W/m²k	1,1 W/m²k	-
Sound reduction index	-	-	-
Max approved glass dimensions(b x h)	SEE GLASS DIMENSIONS		
max. product. dimensions	1800x3500	2300x3800	-
CPD nr.	0336-CPR-5064C/IL		

intumescent strips	2x40mm Kerafix FXL 200	2x40mm Kerafix FXL 200	-
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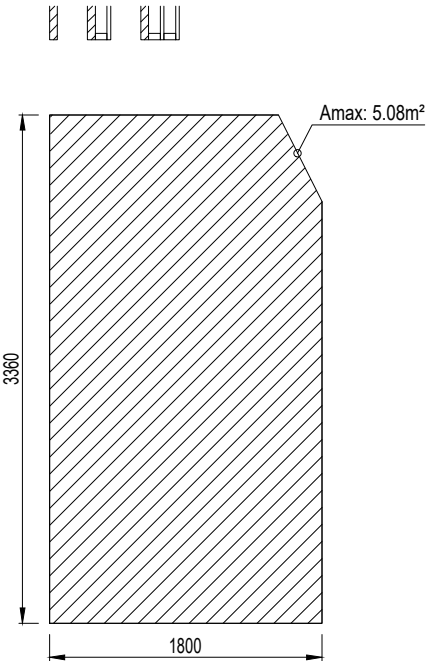


CONTACTEER JE LOKALE VETROTECH-SAINT GOBAIN INT. KANTOOR VOOR BELANGRIJKE INSTRUCTIES AANGAANDE DE INSTALLATIE
 MERCI DE CONTACTER LE BUREAU LOCAL DE VETROTECH SAINT-GOBAIN INT. OFFICE POUR OBTENIR LES INSTRUCTIONS IMPOTANTES RELATIVES A L'INSTALLATION.
 PLEASE CONTACT YOUR LOCAL VETROTECH SAINT-GOBAIN INT. OFFICE FOR IMPORTANT INSTRUCTIONS RELATED TO INSTALLATION
 BITTE KONTAKTIERENSIE DAS LOKALE BURO VETROTECH SAINT-GOBAIN INT. OFFICE FUR WICHTIGE ANWEISUNGEN BEZUGLICH DER INSTALLATION

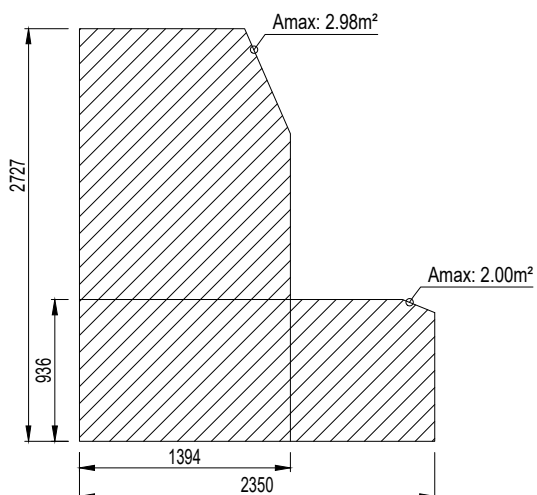
Classification report
2016-Efectis-R001761
AGC
Pyrobel 25 (EG)



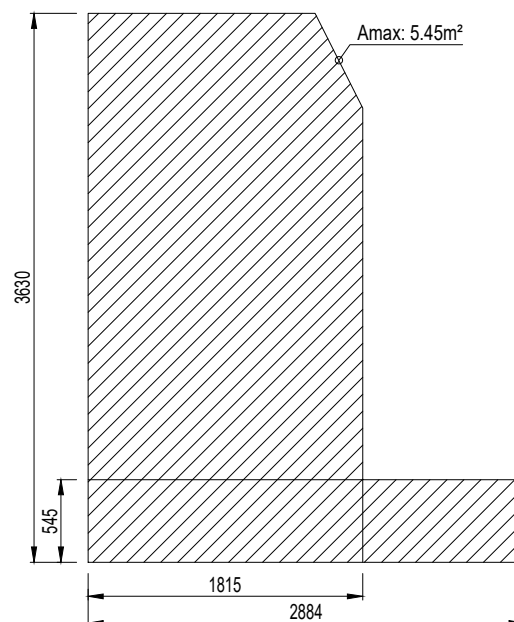
Classification report Applus
19/19835-1056-1
Pyroguard T-EI60/25-3
Pyroguard T-EI60/25-3 VI
Pyroguard T-EI60/25-3 TVI
Pyroguard T-EI60/25-3 VF



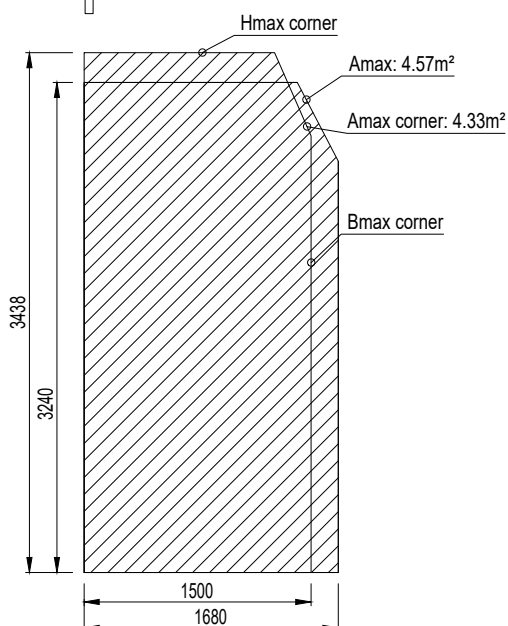
Pilkington
Pyrostop 60-xxx



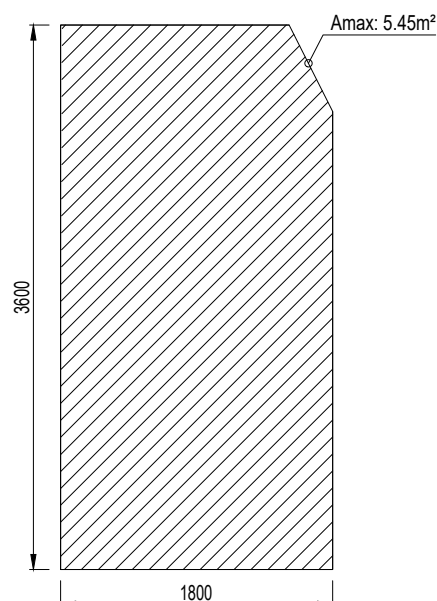
Vetrotech Saint-Gobain Int.
CONTRAFLAM 60-3

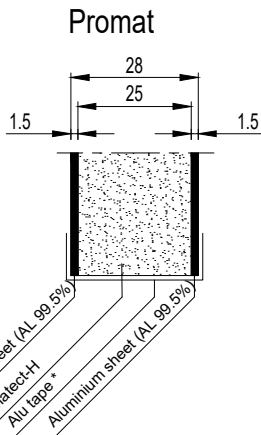


Vetrotech Saint-Gobain Int.
CONTRAFLAM Structure 60
(incl. corner)



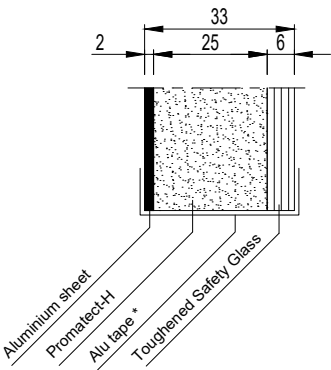
Vetrotech Saint-Gobain Int.
CONTRAFLAM Structure 60



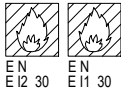


Promat	
Weight	30 kg/m ²
Max approved panel dimension(b x h)	width ≤ 875 mm height ≤ 1912 mm area ≤ 1.68 m ²
U-values	3.20 W/m ² K
Application	Internal/External
Glue (optional: see EI60 door vent panel)	

IQpanel (B)
IQpanel eclips type IQpr33

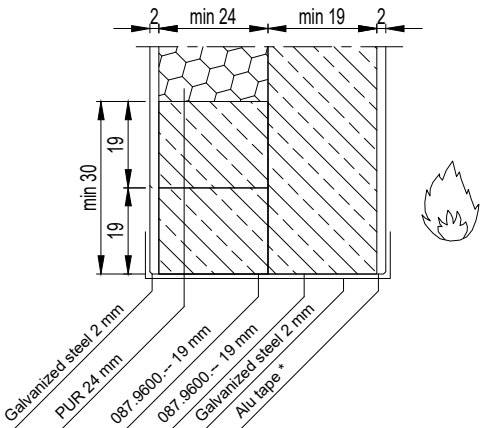


IQpanel eclips_type IQpr36	
Tested	2-Sided
Weight	43 kg/m ²
Max approved panel dimension(b x h)	width ≤ 1395 mm height ≤ 906 mm area ≤ 1.27 m ²
U-values	3.14 W/m ² K
Application	Internal/External
Glue	Henkel hotmelt adhesive (full surface)

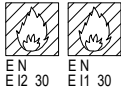


Only
partition
Wall

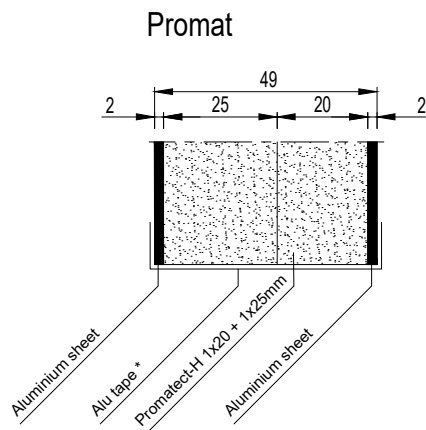
Weerter Panel Industrie B.V. (NL)
WPI Panel



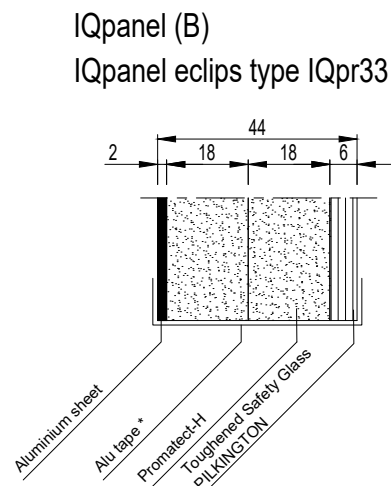
WPI Panel	
Weight	42 kg/m ² excl. PUR PUR 35kg/m ²
Max approved panel dimension(b x h)	width ≤ 1134 mm height ≤ 2584 mm area ≤ 2.93 m ²
U-values (PUR 24mm)	0.73 W/m ² K
U-values (PUR 28mm)	0.65 W/m ² K
Application	Internal/External
Glue	PUR hotmelt (full surface)



Only
Door leaf
OR adjacent



Promat	
Weight	50 kg/m ²
Max approved panel dimension(b x h)	width ≤ 875 mm height ≤ 1914 mm area ≤ 1.68 m ²
U-values	2.34 W/m ² K
Application	Internal/External
Glue (optional: see EI60 door vent panel)	



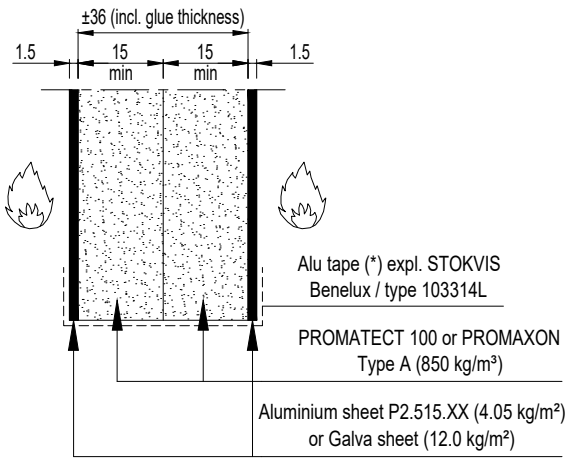
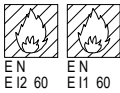
IQpanel eclips_type IQpr36	
Tested	2-Sided
Weight	52 kg/m ²
Max approved panel dimension(b x h)	width ≤ 1395 mm height ≤ 908 mm area ≤ 1.27 m ²
U-values	2.62 W/m ² K
Application	Internal/External
Glue	Henkel hotmelt adhesive (full surface)

EN
12601

Only
partition
Wall

* Alu tape (0.05mm) voor lucht dichte bescherming van de zijkanen, voor buiten toepassing of damp ruimtes
Bande adhésive en aluminium (0,05 mm) pour la protection étanche à l'air des côtés, pour application à l'extérieur ou dans des zones humides.
Alu tape (0.05mm) for air tight edge coverage for outside application or in damp areas
Aluminium Band (0,05 mm) für luftdichter Schutz der Seiten, für Außenanwendung oder in einer feuchte Umgebung.

Classification report No. K-5048-DMT-D0



Promat	
Weight	33.8 kg/m² with alu sheets 41.2 kg/m² with galva sheets
Max approved panel dimension (b x h)	see panel views for EI2 60 & EI1 60
U-value for 36 thick panel incl. glue	3.56 W/m²K
Application	Internal/External
Glue	n° 084.9021.04 dots Ø25 - see panel views

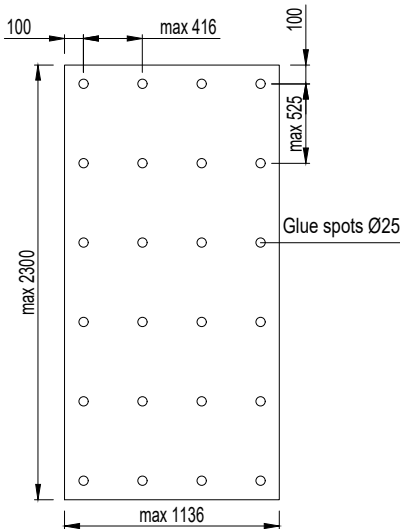
Only
Door leafs
& panels
around leafs

- Assembly instructions:
- clean surfaces of Promatect 100 sheets with a brush
 - degrease aluminium surface with Safety clean 086.9231.--
 - degrease aluminium surface with Multifoam 086.9230.--
 - apply glue (art. nr 084.9021.04) dots Ø25mm over the surface

* Alu tape (0.05mm) voor lucht dichte bescherming van de zijkanen, voor buiten toepassing of damp ruimtes
Bande adhésive en aluminium (0,05 mm) pour la protection étanche à l'air des côtés, pour application à l'extérieur ou dans des zones humides.
Alu tape (0.05mm) for air tight edge coverage for outside application or in damp areas
Aluminium Band (0,05 mm) für luftdichter Schutz der Seiten, für Außenanwendung oder in einer feuchte Umgebung.

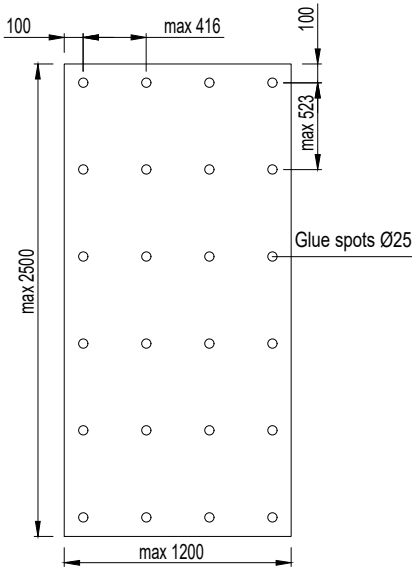


Panel view without joints



	Width [mm]	Height [mm]	Surface [m²]
Max Door leaf dimension	1300	2466	3.2058
Max Panel dimension	1136	2300	2.6128
Min Panel dimension	250	250	0.0625

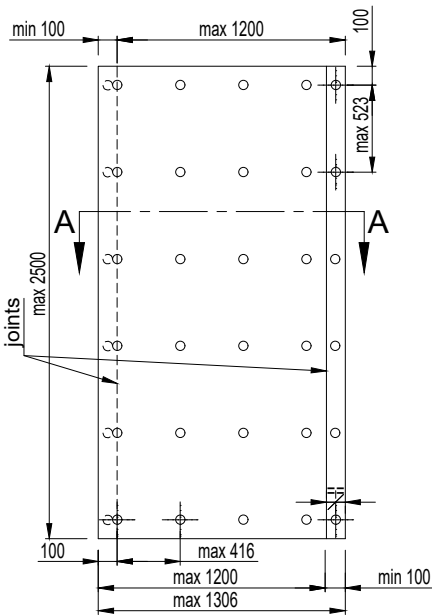
Panel view without joints



	Width [mm]	Height [mm]	Surface [m²]
Max Door leaf dimension	1495	2835	3.88
Max Panel dimension	see panel views		3.135
Min Panel dimension	250	250	0.0625

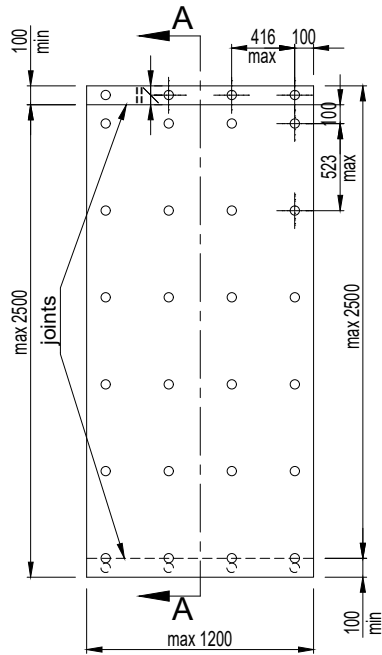


Panel view with vertical joints

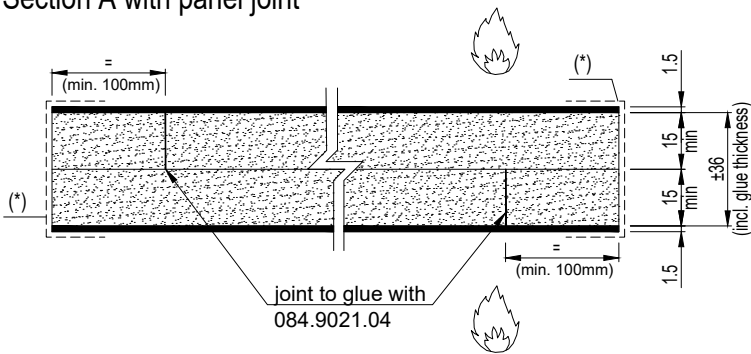


Attention: Max surface = 3.135 m²

Panel view with horizontal joints



Section A with panel joint



CS 77-FP

PANEEL EI60
PANNEAU EI60
PANEL EI60
PANEL EI60



G

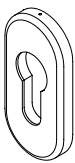
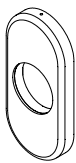
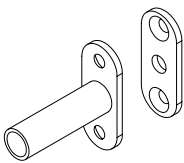
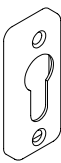
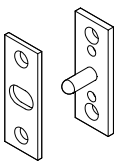
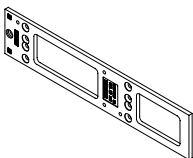
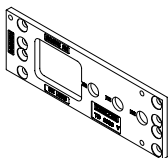
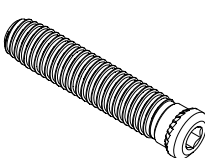
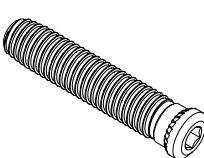
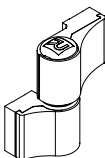
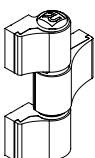
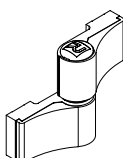
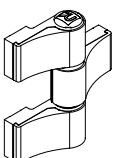
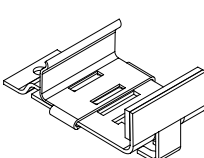
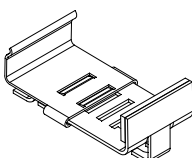
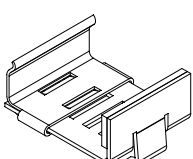
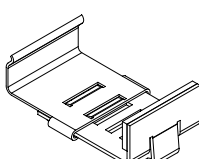
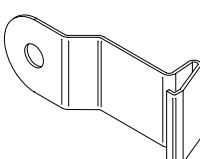
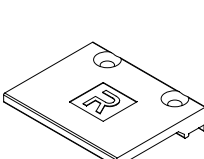
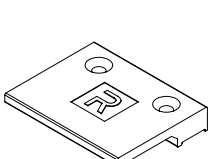
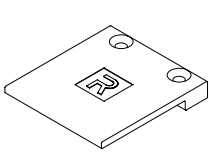
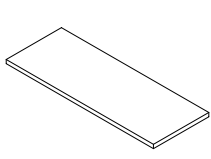
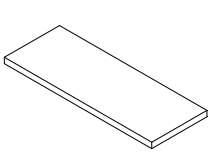
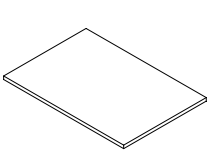
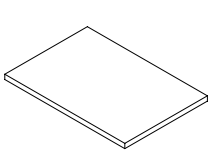
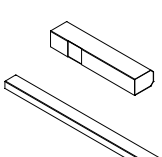
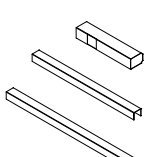
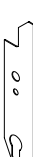
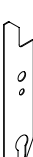
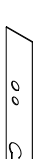
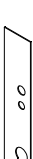
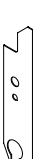
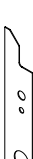
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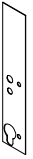
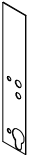
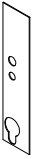
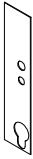
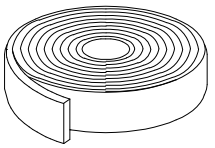
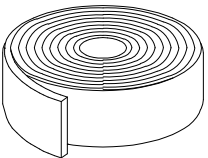
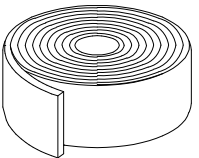
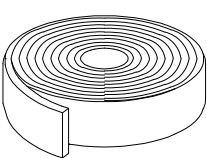
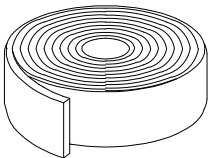
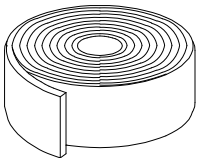
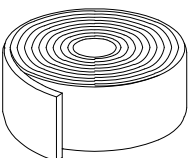
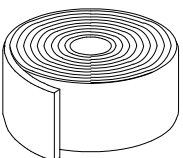
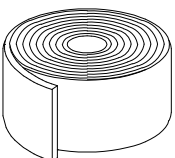
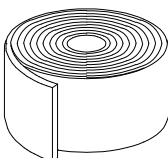
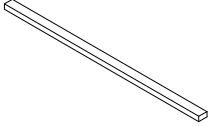
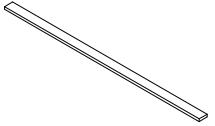
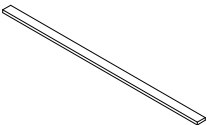
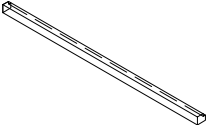
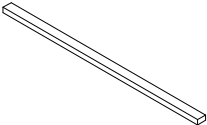
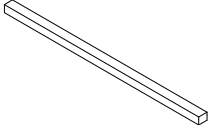
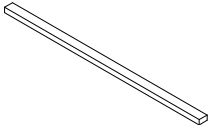
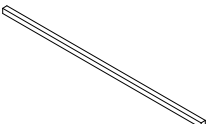
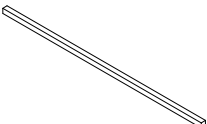
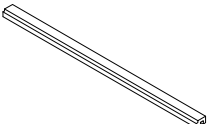
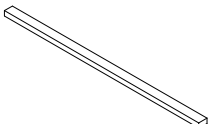
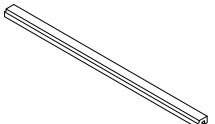
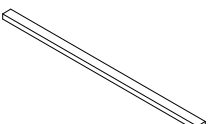
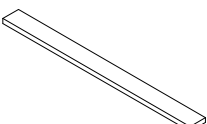
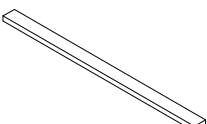
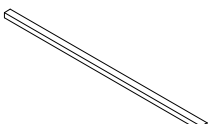
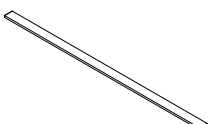
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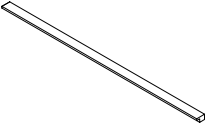
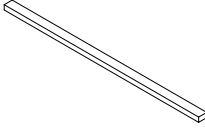
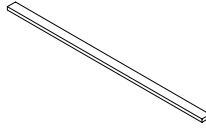
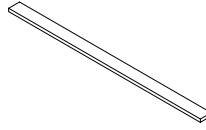
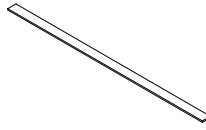
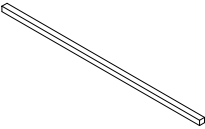
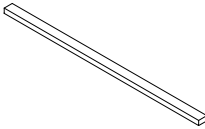
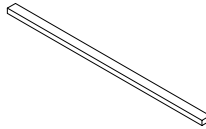
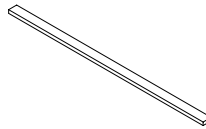
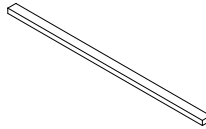
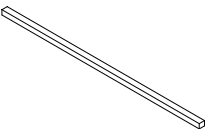
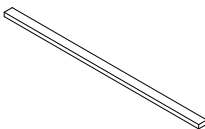
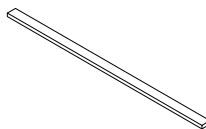
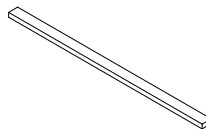
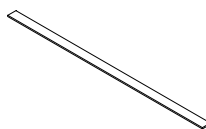
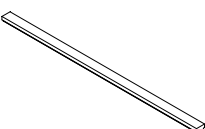
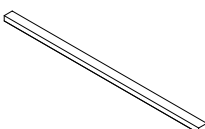
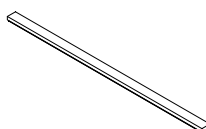
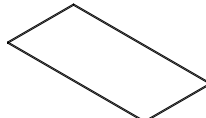
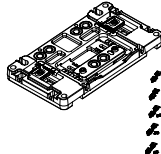
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Accessoires
Accessories
Zubehör

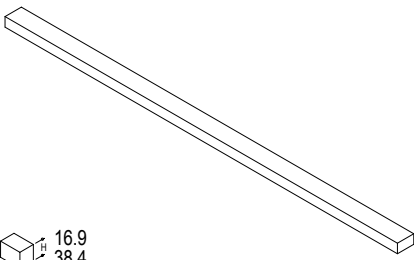
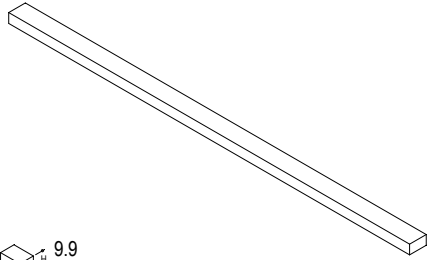
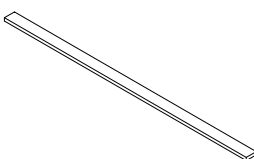
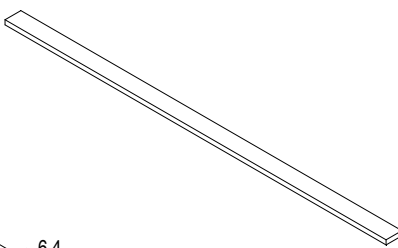
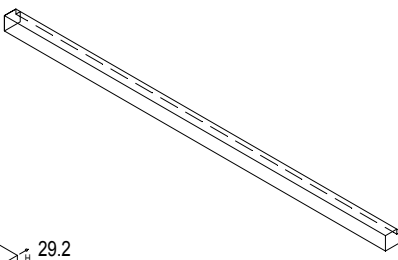
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065.8893.XX	13S.G.025	D0093445	087.5549.-	13S.G.009	D0100494
065.8894.XX	13S.G.025	D0093445	087.5552.-	13S.G.009	D0100494
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068.6377.-	13S.G.018	D0092908	087.5562.-	13S.G.010	D0100495
068.6378.-	13S.G.018	D0092908	087.5563.-	13S.G.010	D0100495
068.6380.-	13S.G.027	D0092970	087.5564.-	13S.G.010	D0100495
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069.6551.-	13S.G.017	D0092963	087.5566.-	13S.G.012	D2001622
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08/2019

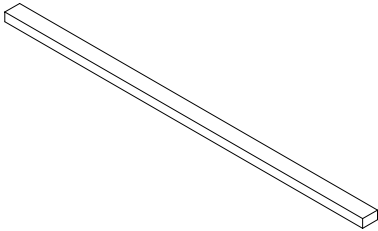
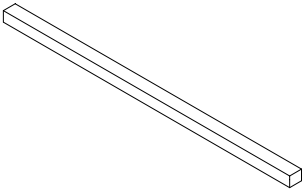
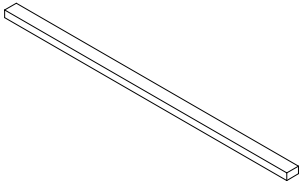
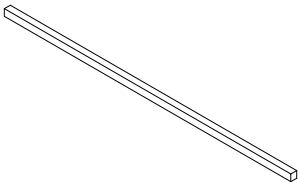
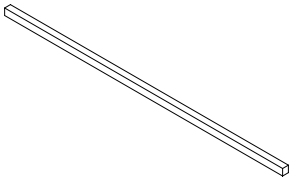
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065.7582.14 (13S.G.020) 	065.7587.14 (13S.G.021) 	065.8810.-- (13S.G.024) 	065.8811.-- (13S.G.024) 	065.8890.XX (13S.G.023) 
065.8891.XX (13S.G.023) 	065.8893.XX (13S.G.023) 	065.8894.XX (13S.G.023) 	068.6369.-- (13S.G.016) 	068.6376.-- (13S.G.016) 
068.6377.-- (13S.G.016) 	068.6378.-- (13S.G.016) 	068.6380.-- (13S.G.025) 	069.6550.-- (13S.G.015) 	069.6551.-- (13S.G.015) 
069.6552.-- (13S.G.015) 	084.8932.-- (13S.G.017) 	084.8933.-- (13S.G.017) 	084.8952.-- (13S.G.017) 	084.8953.-- (13S.G.017) 
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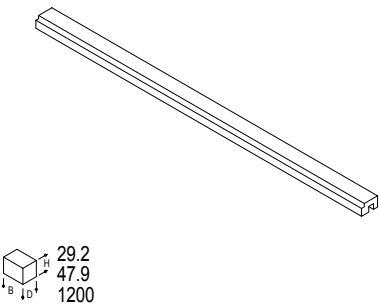
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087.5529.-- (13S.G.005) 	087.5530.-- (13S.G.005) 	087.5531.-- (13S.G.006) 	087.5532.-- (13S.G.006) 	087.5533.-- (13S.G.006) 
087.5534.-- (13S.G.006) 	087.5535.-- (13S.G.006) 	087.5536.-- (13S.G.007) 	087.5537.-- (13S.G.007) 	087.5538.-- (13S.G.007) 

087.5538.-- (13S.G.007)	087.5539.-- (13S.G.007)	087.5540.-- (13S.G.007)	087.5541.-- (13S.G.008)	087.5542.-- (13S.G.008)
				
087.5543.-- (13S.G.008)	087.5544.-- (13S.G.008)	087.5545.-- (13S.G.008)	087.5546.-- (13S.G.009)	087.5547.-- (13S.G.009)
				
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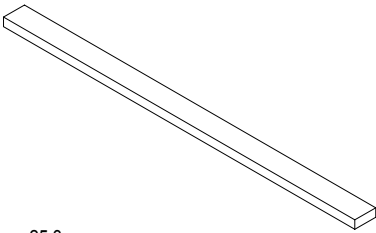
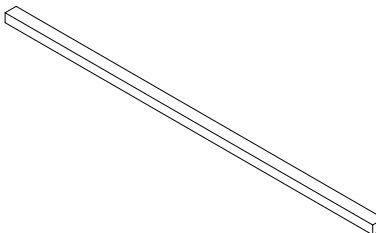
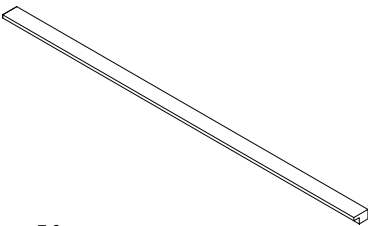
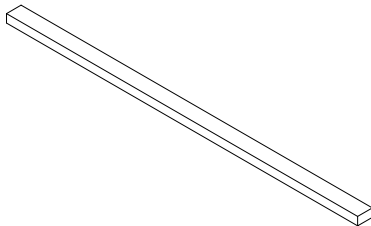
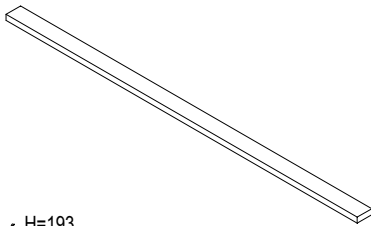
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  16.9 38.4 1200	087.5520.-- VULSTUK BRANDWEREND 16.9MMx38.4MM PIECE DE REMPL. PROTECTION ANTI-FEU 16.9MMx38.4MM FILLING PIECE FIRE PROTECTION 16.9MMx38.4MM FUELLSTUECK FEUERHEMMEND 16.9MMx38.4MM	CS 77-FP		
  9.9 30.4 1200	087.5522.-- VULSTUK BRANDWEREND 9.9MMx30.4MM PIECE DE REMPL. PROTECTION ANTI-FEU 9.9MMx30.4MM FILLING PIECE FIRE PROTECTION 9.9MMx30.4MM FUELLSTUECK FEUERHEMMEND 9.9MMx30.4MM	CS 77-FP		
  6.4 39.9 1200	087.5523.-- VULSTUK BRANDWEREND 6.4MMx39.9MM PIECE DE REMPL. PROTECTION ANTI-FEU 6.4MMx39.9MM FILLING PIECE FIRE PROTECTION 6.4MMx39.9MM FUELLSTUECK FEUERHEMMEND 6.4MMx39.9MM	CS 77-FP		
  6.4 30.9 1200	087.5524.-- VULSTUK BRANDWEREND 6.4MMx30.9MM PIECE DE REMPL. PROTECTION ANTI-FEU 6.4MMx30.9MM FILLING PIECE FIRE PROTECTION 6.4MMx30.9MM FUELLSTUECK FEUERHEMMEND 6.4MMx30.9MM	CS 77-FP		
  29.2 47.9 1200	087.5525.-- VULSTUK BRANDWEREND 29.2MMx47.9MM PIECE DE REMPL. PROTECTION ANTI-FEU 29.2MMx47.9MM FILLING PIECE FIRE PROTECTION 29.2MMx47.9MM FUELLSTUECK FEUERHEMMEND 29.2MMx47.9MM	CS 77-FP		

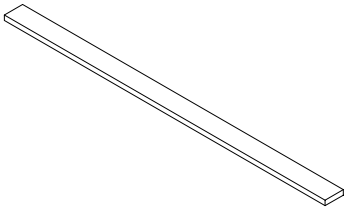
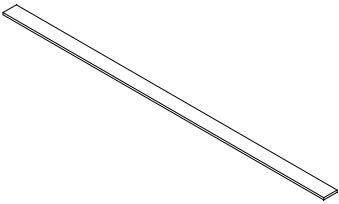
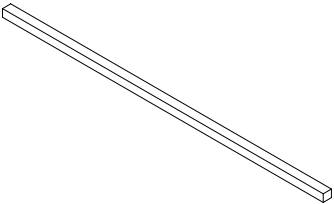
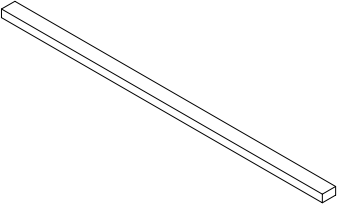
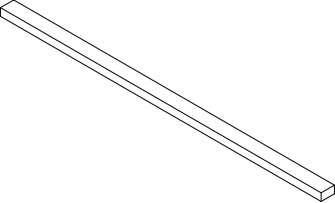
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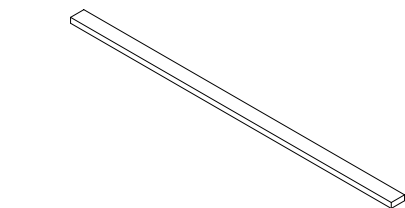
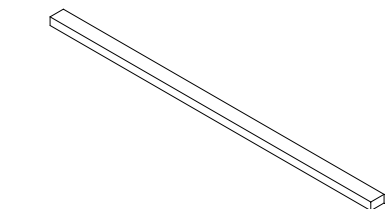
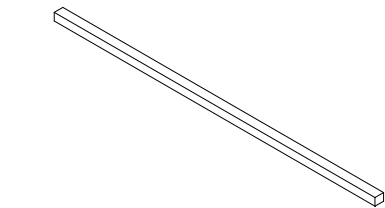
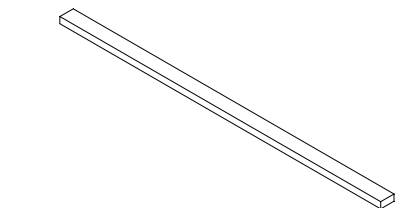
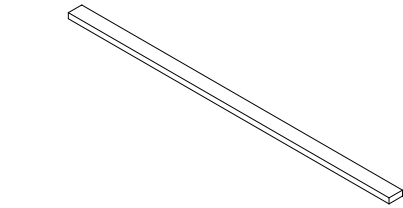
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 	087.5526.-- VULSTUK BRANDWEREND 17MMx43.5MM PIECE DE REMPL. PROTECTION ANTI-FEU 17MMx43.5 FILLING PIECE FIRE PROTECTION 17MMx43.5MM FUELLSTUECK FEUERHEMMEND 17MMx43.5MM	CS 77-FP	
 	087.5527.-- VULSTUK BRANDWEREND 26MMx41.3MM PIECE DE REMPL. PROTECTION ANTI-FEU 26MMx41.3 FILLING PIECE FIRE PROTECTION 26MMx41.3MM FUELLSTUECK FEUERHEMMEND 26MMx41.3MM	CS 77-FP	
 	087.5528.-- VULSTUK BRANDWEREND 16MMx34MM PIECE DE REMPL. PROTECTION ANTI-FEU 16MMx34MM FILLING PIECE FIRE PROTECTION 16MMx34MM FUELLSTUECK FEUERHEMMEND 16MMx34MM	CS 77-FP	
 	087.5529.-- VULSTUK BRANDWEREND 26MMx28MM PIECE DE REMPL. PROTECTION ANTI-FEU 26MMx28MM FILLING PIECE FIRE PROTECTION 26MMx28MM FUELLSTUECK FEUERHEMMEND 26MMx28MM	CS 77-FP	
 	087.5530.-- VULSTUK BRANDWEREND 17MMx14.5MM PIECE DE REMPL. PROTECTION ANTI-FEU 17MMx14.5 FILLING PIECE FIRE PROTECTION 17MMx14.5MM FUELLSTUECK FEUERHEMMEND 17MMx14.5MM	CS 77-FP	

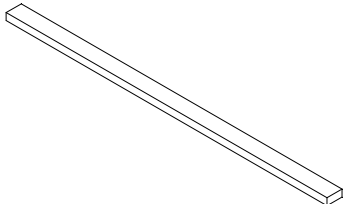
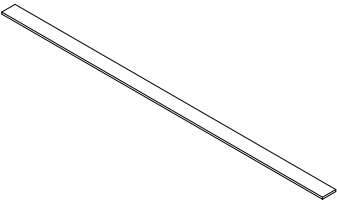
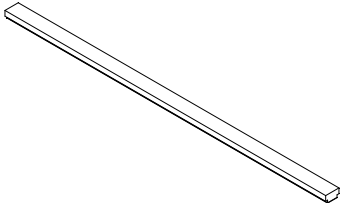
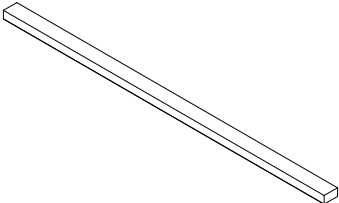
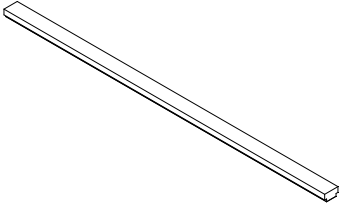
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	087.5532.--	VULSTUK BRANDWEREND 28.4MMx60.6MM PIECE DE REMPL. PROTECTION ANTI-FEU 28.4MMx60 FILLING PIECE FIRE PROTECTION 28.4MMx60.6MM FUELLSTUECK FEUERHEMMEND 28.4MMx60.6MM	CS 77-FP		
	087.5533.--	VULSTUK BRANDWEREND 29.2MMx47.9MM PIECE DE REMPL. PROTECTION ANTI-FEU 29.2MMx47 FILLING PIECE FIRE PROTECTION 29.2MMx47.9MM FUELLSTUECK FEUERHEMMEND 29.2MMx47.9MM	CS 77-FP		
	087.5534.--	VULSTUK BRANDWEREND 17MMx25.4MM PIECE DE REMPL. PROTECTION ANTI-FEU 17MMx25.4 FILLING PIECE FIRE PROTECTION 17MMx25.4MM FUELLSTUECK FEUERHEMMEND 17MMx25.4MM	CS 77-FP		
	087.5535.--	VULSTUK BRANDWEREND 25.3MMx93.3MM PIECE DE REMPL. PROTECTION ANTI-FEU 25.3MMx93 FILLING PIECE FIRE PROTECTION 25.3MMx93.3MM FUELLSTUECK FEUERHEMMEND 25.3MMx93.3MM	CS 77-FP		

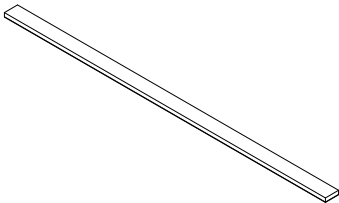
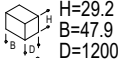
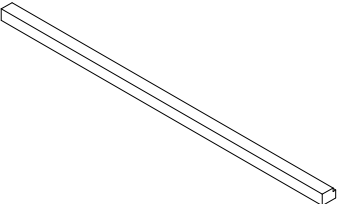
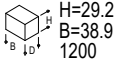
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  25.3 80.5 1200	087.5536.-- VULSTUK BRANDWEREND 25.3MMx80.5MM PIECE DE REMPL. PROTECTION ANTI-FEU 25.3MMx80 FILLING PIECE FIRE PROTECTION 25.3MMx80.5MM FUELLSTUECK FEUERHEMMEND 25.3MMx80.5MM	CS 77-FP	
  10 17.5 1200	087.5537.-- VULSTUK BRANDWEREND 10MMx17.5MM PIECE DE REMPL. PROTECTION ANTI-FEU 10MMx17.5 FILLING PIECE FIRE PROTECTION 10MMx17.5MM FUELLSTUECK FEUERHEMMEND 10MMx17.5MM	CS 77-FP	
  7.6 21 1200	087.5538.-- VULSTUK BRANDWEREND 7.6MMx21MM PIECE DE REMPL. PROTECTION ANTI-FEU 7.6MMx21M FILLING PIECE FIRE PROTECTION 7.6MMx21MM FUELLSTUECK FEUERHEMMEND 7.6MMx21MM	CS 77-FP	
  B=15.4 H=63 D=1200	087.5539.-- VULSTUK BRANDWEREND 15.4x63 PIECE DE REMPL. PROTECTION ANTI-FEU 15.4x63 FILLING PIECE FIRE PROTECTION 15.4x63 FUELLSTUECK FEUERHEMMEND 15.4x63 (!) Consult MSDS	CS 77-FP	
  H=193 B=24.6 D=1200	087.5540.-- VULSTUK BRANDWEREND 24.6x193 PIECE DE REMPL. PROTECTION ANTI-FEU 24.6x193 FILLING PIECE FIRE PROTECTION 24.6x193 FUELLSTUECK FEUERHEMMEND 24.6x193 (!) Consult MSDS	CS 77-FP	

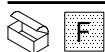
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  H=67 B=6.2 D=1200	087.5541.-- VULSTUK BRANDWEREND 6.2x67 PIECE DE REMPL. PROTECTION ANTI-FEU 6.2x67 FILLING PIECE FIRE PROTECTION 6.2x67 FUELLSTUECK FEUERHEMMEND 6.2x67 (!) Consult MSDS	CS 77-FP		
  H=17 B=19.5 D=1200	087.5542.-- VULSTUK BRANDWEREND 19.5x17MM PIECE DE REMPL. PROTECTION ANTI-FEU 19.5x17MM FILLING PIECE FIRE PROTECTION 19.5x17MM FUELLSTUECK FEUERHEMMEND 19.5x17MM (!) Consult MSDS	CS 77-FP		
  H=29.4 B=28.4 D=1200	087.5543.-- VULSTUK BRANDWEREND 28.4x29.4mm PIECE DE REMPL. PROTECTION ANTI-FEU 28.4x29.4 FILLING PIECE FIRE PROTECTION 28.4x29.4mm FUELLSTUECK FEUERHEMMEND 28.4x29.4mm (!) Consult MSDS	CS 77-FP		
  H=25 B=11 D=1200	087.5544.-- VULSTUK BRANDWEREND 11x25 PIECE DE REMPL. PROTECTION ANTI-FEU 11x25 FILLING PIECE FIRE PROTECTION 11x25 FUELLSTUECK FEUERHEMMEND 11x25 (!) Consult MSDS	CS 77-FP		
  H=38.5 B=11.2 D=1200	087.5545.-- VULSTUK BRANDWEREND 11.2x38.5 PIECE DE REMPL. PROTECTION ANTI-FEU 11.2x38.5 FILLING PIECE FIRE PROTECTION 11.2x38.5 FUELLSTUECK FEUERHEMMEND 11.2x38.5 (!) Consult MSDS	CS 77-FP		

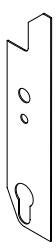
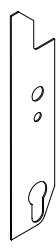
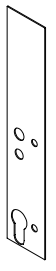
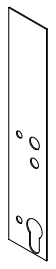
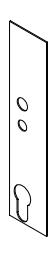
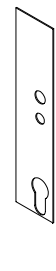
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 H=49.5 B=28.4 D=1200	087.5546.-- VULSTUK BRANDWEREND 28.4x49.5 PIECE DE REMPL. PROTECTION ANTI-FEU 28.4x49.5 FILLING PIECE FIRE PROTECTION 28.4x49.5 FUELLSTUECK FEUERHEMMEND 28.4x49.5 (!) Consult MSDS	CS 77-FP		
 H=13 B=18 D=354	087.5547.-- VULSTUK BRANDWEREND 13x18 PIECE DE REMPL. PROTECTION ANTI-FEU 13x18 FILLING PIECE FIRE PROTECTION 13x18 FUELLSTUECK FEUERHEMMEND 13x18 (!) Consult MSDS	CS 77-FP		
 H=7.6 B=26 D=1200	087.5548.-- VULSTUK BRANDWEREND 26 x 7.6mm PIECE DE REMPL. PROTECTION ANTI-FEU 26 x 7.6m FILLING PIECE FIRE PROTECTION 26 x 7.6mm FUELLSTUECK FEUERHEMMEND 26 x 7.6mm	CS 77-FP		
 H=9.9mm B=43.4mm D=1200mm	087.5549.-- VULSTUK BRANDWEREND 43.4x9.9mm PIECE DE REMPL. PROTECTION ANTI-FEU 43.4x9.9m FILLING PIECE FIRE PROTECTION 43.4x9.9mm FUELLSTUECK FEUERHEMMEND 43.4x9.9mm	CS 77-FP		
 H=25.3mm B=119mm D=1200mm	087.5552.-- VULSTUK BRANDWEREND 119x25.3mm PIECE DE REMPL. PROTECTION ANTI-FEU 119x25.3m FILLING PIECE FIRE PROTECTION 119x25.3mm FUELLSTUECK FEUERHEMMEND 119x25.3mm	CS 77-FP		

F				
  H=53MM B=6MM D=1200MM	087.5560.-- VULSTUK BRANDWEREND 6 X 53MM PIECE DE REMPL. PROTECTION ANTI-FEU 6 X 53MM FILLING PIECE FIRE PROTECTION 6 X 53MM FUELLSTUECK FEUERHEMMEND 6 X 53MM	CS 77-FP		
  H=22MM B=9MM D=1200MM	087.5561.-- VULSTUK BRANDWEREND 9 X 22MM PIECE DE REMPL. PROTECTION ANTI-FEU 9 X 22MM FILLING PIECE FIRE PROTECTION 9 X 22MM FUELLSTUECK FEUERHEMMEND 9 X 22MM	CS 77-FP		
  H=18MM B=8MM D=1200MM	087.5562.-- VULSTUK BRANDWEREND 8 X 18MM PIECE DE REMPL. PROTECTION ANTI-FEU 8 X 18MM FILLING PIECE FIRE PROTECTION 8 X 18MM FUELLSTUECK FEUERHEMMEND 8 X 18MM	CS 77-FP		
  H=26MM B=9MM D=1200MM	087.5563.-- VULSTUK BRANDWEREND 9 X 26MM PIECE DE REMPL. PROTECTION ANTI-FEU 9 X 26MM FILLING PIECE FIRE PROTECTION 9 X 26MM FUELLSTUECK FEUERHEMMEND 9 X 26MM	CS 77-FP		
  H=30.9MM B=6.4MM D=1200MM	087.5564.-- VULSTUK BRANDWEREND 6.4x30.9mm PIECE DE REMPL. PROTECTION ANTI-FEU 6.4x30.9mm FILLING PIECE FIRE PROTECTION 6.4x30.9mm FUELLSTUECK FEUERHEMMEND 6.4x30.9mm	CS 77-FP		

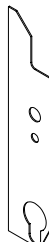
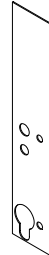
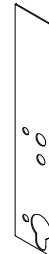
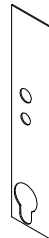
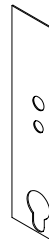
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 	087.5565.-- VULSTUK BRANDWEREND 47.9MM x 29.2MM PIECE DE REMPL. PROTECTION ANTI-FEU 47.9MM x 29.2MM FILLING PIECE FIRE PROTECTION 47.9MM x 29.2MM FUELLSTUECK FEUERHEMMEND 47.9MM x 29.2MM	CS 77-FP		
 	087.5566.-- VULSTUK BRANDWEREND 29.2x36.9mm PIECE DE REMPL. PROTECTION ANTI-FEU 29.2x36.9 FILLING PIECE FIRE PROTECTION 29.2x36.9mm FUELLSTUECK FEUERHEMMEND 29.2x36.9mm	CS 77-FP		

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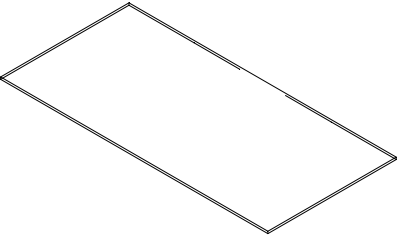


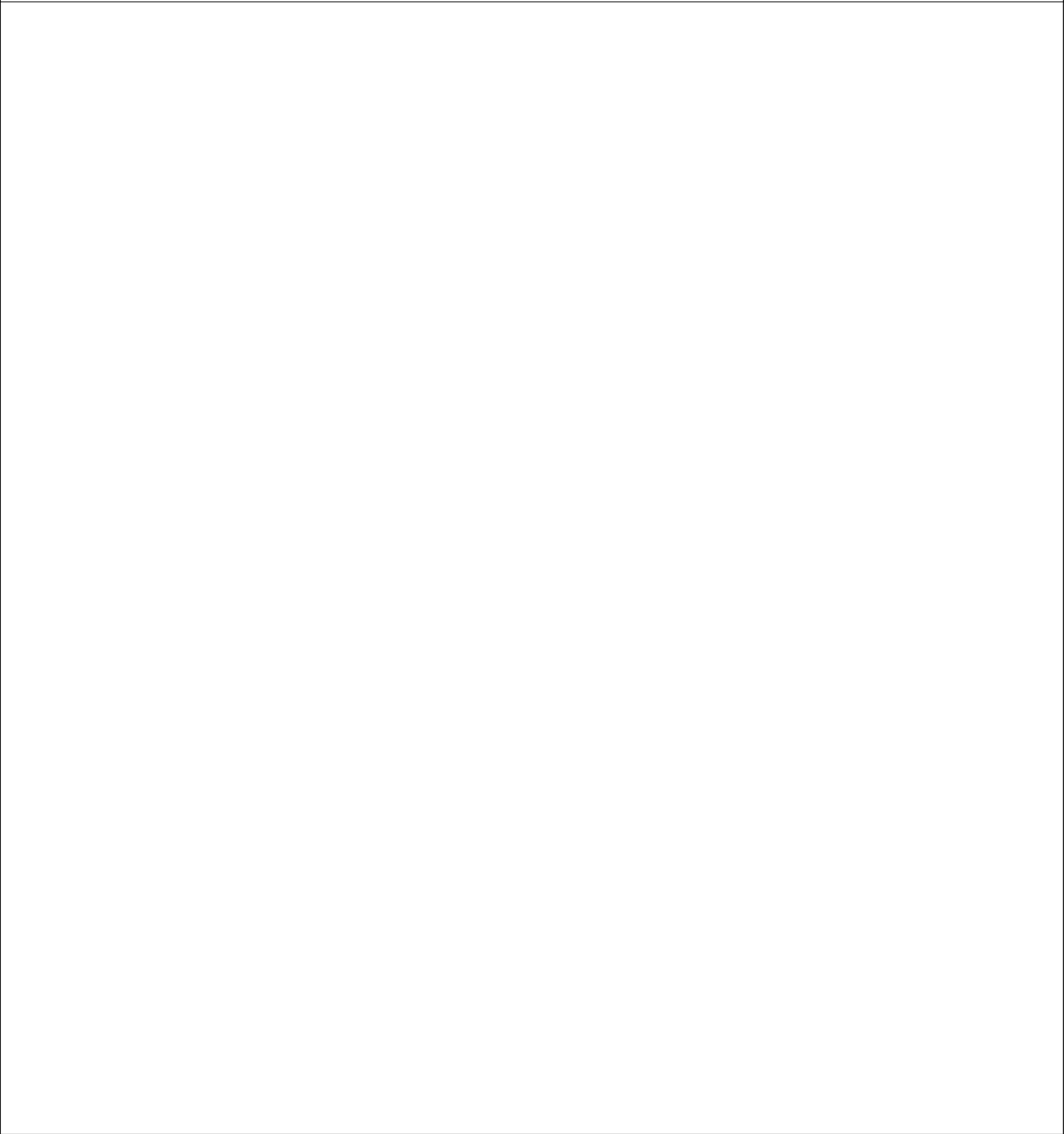
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	084.8981.01 ISOLATIE SLOT DIN R ISOLATION SERRURE DIN R INSULATION LOCK DIN R ISOLATION SCHLOSS DIN R	CS 77-FP		
	084.8982.01 ISOLATIE SLOT DIN L ISOLATION SERRURE DIN L INSULATION LOCK DIN L ISOLATION SCHLOSS DIN L	CS 77-FP		
	084.8983.01 ISOLATIE SLOT DIN R ISOLATION SERRURE DIN R INSULATION LOCK DIN R ISOLATION SCHLOSS DIN R	CS 77-FP		
	084.8984.01 ISOLATIE SLOT DIN L ISOLATION SERRURE DIN L INSULATION LOCK DIN L ISOLATION SCHLOSS DIN L	CS 77-FP		
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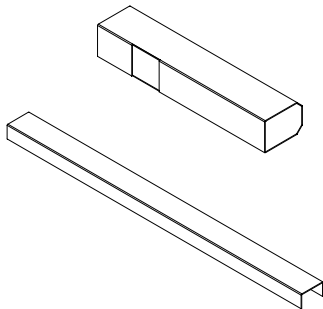
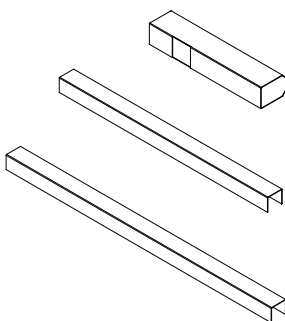


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	084.8992.01 ISOLATIE SLOT DIN L KABA ISOLATION SERRURE DIN L KABA INSULATION LOCK DIN L KABA ISOLATION SCHLOSS DIN L KABA	CS 77-FP		
	084.8993.01 ISOLATIE SLOT DIN R KABA ISOLATION SERRURE DIN R KABA INSULATION LOCK DIN R KABA ISOLATION SCHLOSS DIN R KABA	CS 77-FP		
	084.8994.01 ISOLATIE SLOT DIN L KABA ISOLATION SERRURE DIN L KABA INSULATION LOCK DIN L KABA ISOLATION SCHLOSS DIN L KABA	CS 77-FP		
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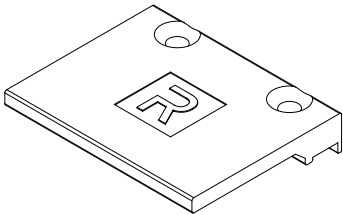
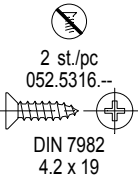
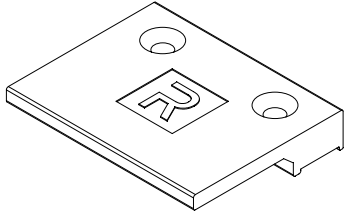
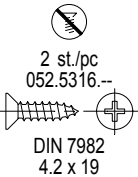
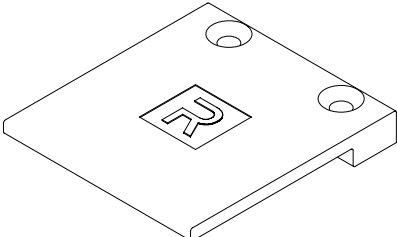
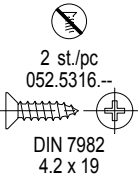


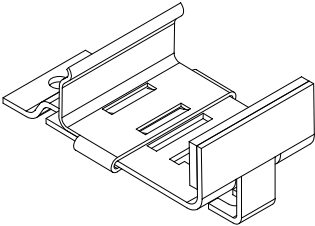
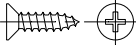
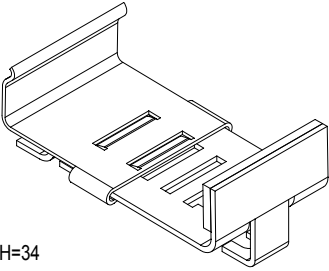
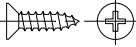
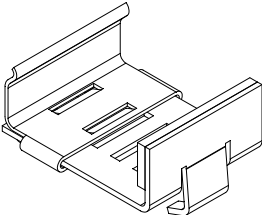
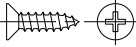
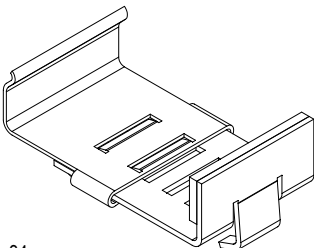
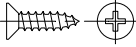
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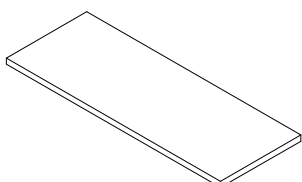
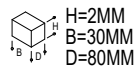
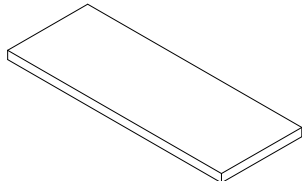
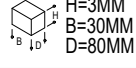
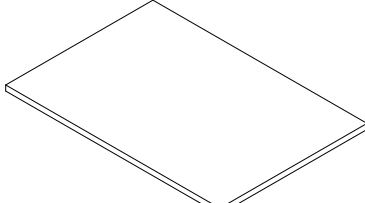
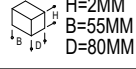
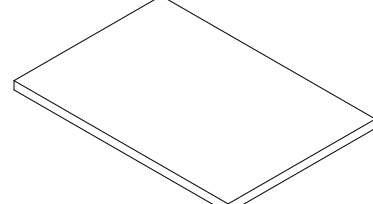
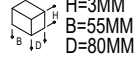


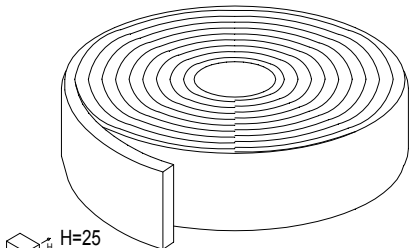
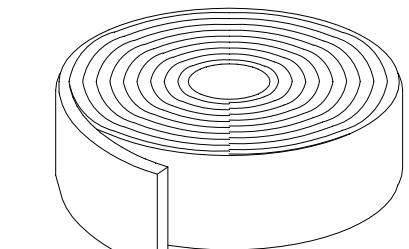
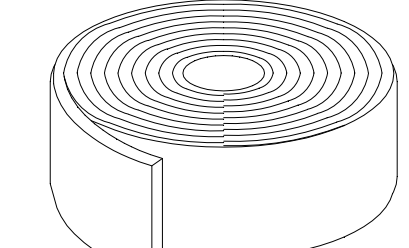
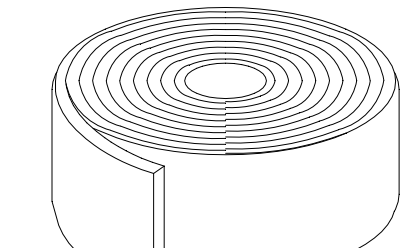
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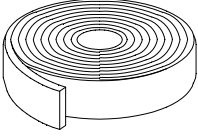
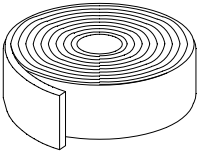
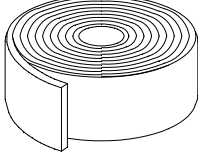
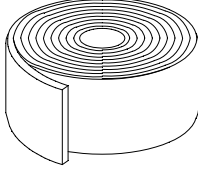
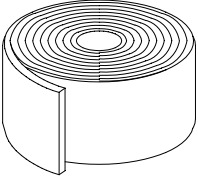
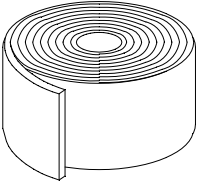
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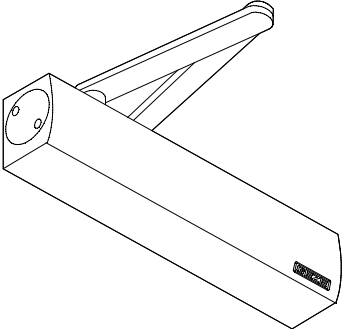
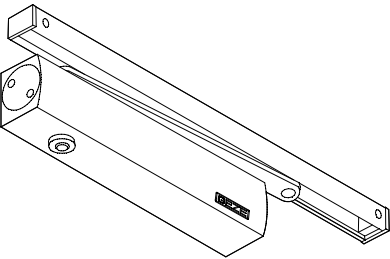
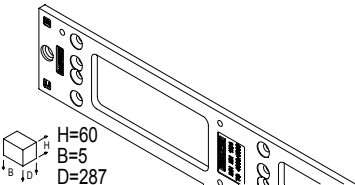
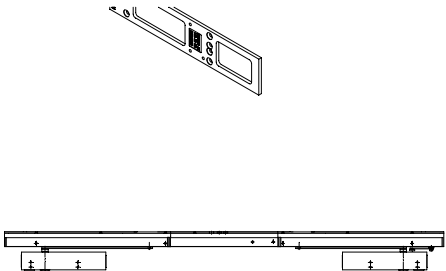
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 H=9 B=50 D=40	069.6550.-- GLASSTEUN INOX SUPPORT CALE DE VITRAGE INOX GLASS SUPPORT INOX GLASAUFLAGEPROFIL INOX	CS 77 008.2014.XX 0F8.2014.XX CS 77-FP 008.2014.XX CS 77-SP 008.2014.XX	 2 st/pc 052.5316.-- DIN 7982 4.2 x 19	
 H=9 B=50 D=40	069.6551.-- GLASSTEUN INOX SUPPORT CALE DE VITRAGE INOX GLASS SUPPORT INOX GLASAUFLAGEPROFIL INOX	CS 77 008.0114.XX 008.0125.XX 0F8.0114.XX 0F8.0125.XX CS 77-FP 008.0114.XX 008.0125.XX CS 77-SP 008.0114.XX 008.0125.XX	 2 st/pc 052.5316.-- DIN 7982 4.2 x 19	
 H=7.5 B=50 D=55	069.6552.-- GLASSTEUN INOX SUPPORT CALE DE VITRAGE INOX GLASS SUPPORT INOX GLASAUFLAGEPROFIL INOX	CS 77 008.0114.XX 008.0125.XX 008.2014.XX 0F8.0114.XX 0F8.0125.XX 0F8.2014.XX CS 77-FP 008.0114.XX 008.0125.XX 008.2014.XX	CS 77-SP 008.0114.XX 008.0125.XX 008.2014.XX  2 st/pc 052.5316.-- DIN 7982 4.2 x 19	

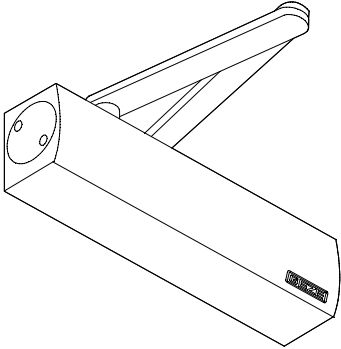
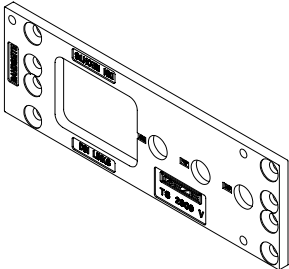
  H=34 D=24.5	068.6369.-- VERBINDINGS GLASKLIPS CLIPPE CONNEXION DE VITRAGE CONNECTION GLAZING CLIP VERBINDUNGS GLASKLEMME	CS 77-FP	 2 st./pc 052.5309.--  DIN 7982 3.9 x 19	  
  H=34 D=23.5	068.6376.-- VERBINDINGS GLASKLIPS CLIPPE CONNEXION DE VITRAGE CONNECTION GLAZING CLIP VERBINDUNGS GLASKLEMME	CS 77-FP	 2 st./pc 052.5309.--  DIN 7982 3.9 x 19	  
  H=34 D=22	068.6377.-- VERBINDINGS GLASKLIPS CLIPPE CONNEXION DE VITRAGE CONNECTION GLAZING CLIP VERBINDUNGS GLASKLEMME	CS 77-FP	 2 st./pc 052.5309.--  DIN 7982 3.9 x 19	  
  H=34 D=22	068.6378.-- VERBINDINGS GLASKLIPS CLIPPE CONNEXION DE VITRAGE CONNECTION GLAZING CLIP VERBINDUNGS GLASKLEMME	CS 77-FP	 2 st./pc 052.5309.--  DIN 7982 3.9 x 19	  

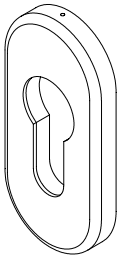
				
 	084.8932.-- STEUNBLOK BRANDWEREND 80 x 30 x 2 SUPPORT ANTI-FEU 80 x 30 x 2 SUPPORTING PIECE FIRE-RESISTANT 80 x 30 x 2 BRANDSCHUTZSTUETZKLOTZ 80 x 30 x 2	CS 77-FP CW 50-FP		
 	084.8933.-- STEUNBLOK BRANDWEREND 80 x 30 x 3 SUPPORT ANTI-FEU 80 x 30 x 3 SUPPORTING PIECE FIRE-RESISTANT 80 x 30 x 3 BRANDSCHUTZSTUETZKLOTZ 80 x 30 x 3	CS 77-FP CW 50-FP		
 	084.8952.-- STEUNBLOK BRANDWEREND 80 x 55 x 2 SUPPORT ANTI-FEU 80 x 55 x 2 SUPPORTING PIECE FIRE-RESISTANT 80 x 55 x 2 BRANDSCHUTZSTUETZKLOTZ 80 x 55 x 2	CS 77-FP CW 50-FP		
 	084.8953.-- STEUNBLOK BRANDWEREND 80 x 55 x 3 SUPPORT ANTI-FEU 80 x 55 x 3 SUPPORTING PIECE FIRE-RESISTANT 80 x 55 x 3 BRANDSCHUTZSTUETZKLOTZ 80 x 55 x 3	CS 77-FP CW 50-FP		

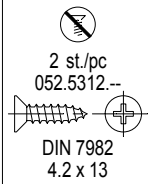
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 H=30 B=2 L=25000	084.9026.04 OPZWELLENDEN DICHUNG 2x30MM L=25M JOINT GONFLANT 2x30MM L=25M SWELLING GASKET 2x30MM L=25M SCHWELLENDEN DICHUNG 2x30MM L=25M	CS 77 008.0114.XX 008.0125.XX 0F8.0114.XX 0F8.0125.XX CS 77-FP 008.0114.XX 008.0125.XX 008.0400.XX CS 77-SP 008.0114.XX	008.0125.XX 008.0400.XX	
 H=35 B=2 L=25000	084.9027.04 OPZWELLENDEN DICHUNG 2x35MM L=25M JOINT GONFLANT 2x35MM L=25M SWELLING GASKET 2x35MM L=25M SCHWELLENDEN DICHUNG 2x35MM L=25M	CS 77 008.0125.XX 008.1016.XX 008.2014.XX 008.2026.XX 0F8.0125.XX 0F8.1016.XX 0F8.2014.XX 0F8.2026.XX CS 77-FP 008.0125.XX 008.1016.XX	008.2014.XX 008.2026.XX CS 77-SP 008.0125.XX 008.1016.XX 008.2014.XX 008.2026.XX	
 H=45 B=2 L=25000	084.9028.04 OPZWELLENDEN DICHUNG 2x45MM L=25M JOINT GONFLANT 2x45MM L=25M SWELLING GASKET 2x45MM L=25M SCHWELLENDEN DICHUNG 2x45MM L=25M	CS 77 008.1016.XX 008.2014.XX 008.2026.XX 0F8.1016.XX 0F8.2014.XX 0F8.2026.XX CS 77-FP 008.1016.XX 008.2014.XX 008.2026.XX	CS 77-SP 008.1016.XX 008.2014.XX 008.2026.XX	

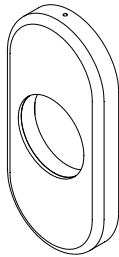
F			
 H=13MM B=2MM D=25000MM 	084.9013.04 OPZWELLENDEN DICHUNG 2x13MM L=25MM JOINT GONFLANT 2x13MM L=25MM SWELLING GASKET 2x13MM L=25MM SCHWELLENDEN DICHUNG 2x13MM L=25MM	CS 77-FP	
 H=18MM B=2MM L=25000MM 	084.9018.04 OPZWELLENDEN DICHUNG 2x18MM L=25M JOINT GONFLANT 2x18MM L=25M SWELLING GASKET 2x18MM L=25M SCHWELLENDEN DICHUNG 2x18MM L=25M	CS 77-FP	
 H=23MM B=2MM L=25000MM 	084.9023.04 OPZWELLENDEN DICHUNG 2x23MM L=25M JOINT GONFLANT 2x23MM L=25M SWELLING GASKET 2x23MM L=25M SCHWELLENDEN DICHUNG 2x23MM L=25M	CS 77-FP	
 H=33MM B=2MM D=25000MM 	084.9033.04 OPZWELLENDEN DICHUNG 2x33MM L=25M JOINT GONFLANT 2x33MM L=25M SWELLING GASKET 2x33MM L=25M SCHWELLENDEN DICHUNG 2x33MM L=25M	CS 77-FP	
 H=38MM B=2MM D=25000MM 	084.9038.04 OPZWELLENDEN DICHUNG 2x38mm L=25M JOINT GONFLANT 2x38mm L=25M SWELLING GASKET 2x38mm L=25M SCHWELLENDEN DICHUNG 2x38mm L=25M	CS 77-FP	
 H=40MM B=2MM D=25000MM 	084.9040.04 OPZWELLENDEN DICHUNG 2x40MM L=25M JOINT GONFLANT 2x40MM L=25M SWELLING GASKET 2x40MM L=25M SCHWELLENDEN DICHUNG 2x40MM L=25M	CS 77-FP	

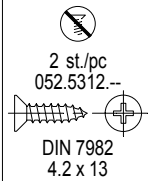
 GEZE TS 4000 H=98 B=287 D=46	065.7580.14 DEURSLUITER FERMETURE PORTE DOOR CLOSER TUERSCHLIESSER	CS 59Pa CS 59 CS 68 VISION 50 CS 77 CS 77-AP CS 77-BP CS 77-FP Eco system Eco system-AP CS 86-HI/AP CS 104 CS 77-SP		
 GEZE TS 5000 H=100 B=448.5 D=46	065.7581.14 DEURSLUITER FERMETURE PORTE DOOR CLOSER TUERSCHLIESSER	CS 59Pa CS 59 CS 68 CS 77 CS 77-AP CS 77-BP CS 77-FP Eco system Eco system-AP CS 86-HI/AP CS 104 CS 77-SP		
 H=60 B=5 D=287	065.7582.14 BEVESTIGINGSPLAAT PIECE DE FIXATION FIXATION PLATE BEFESTIGUNGSPLATTE	CS 59Pa 065.7580.14 065.7581.14 CS 59 065.7580.14 065.7581.14 CS 68 065.7580.14 065.7581.14 CS 77 065.7580.14 065.7581.14	Eco system 065.7580.14 065.7581.14 CS 77-FP 065.7581.14 065.7583.14 065.7584.14 CS 77-SP 065.7581.14 065.7584.14 Eco system-AP CS 104	
 GEZE TS 5000 L-ISM H=110 B=1300-2750 D=55	065.7584.14 DEURSLUITER DUBBEL DEUR FERMETURE PORTE DOUBLE DOOR CLOSER DOUBLE DOOR TURSCHLIESSER DOPPELTUER	CS 68-FP CS 77-AP CS 77-FP CS 86-HI/AP CS 77-SP		

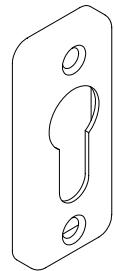
 GEZE TS 2000 H=98 B=226 D=46	065.7585.14 DEURSLUITER FERMETURE PORTE DOOR CLOSER TUERSCHLIESSER	CS 77-AP CS 77-FP CS 86-HI/AP CS 77-SP CI 45 Eco PL		
 GEZE TS 3000 L-ISM H=100 B=1300-2750 D=46	065.7586.14 DEURSLUITER FERMETURE PORTE DOOR CLOSER TUERSCHLIESSER	CS 77-AP CS 77-FP CS 86-HI/AP CS 77-SP		
 H=55 B=160.5 D=5	065.7587.14 ONDERVULLING SUPPORT SUPPORT FUELLSTUECK	CS 77-FP CS 77-SP CI 45 Eco PL		

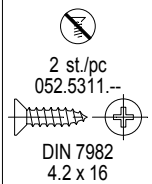
**061.6433.--**
 ROZET PZ
 ROSACE PZ
 ROSETTE PZ
 ROSETTE PZ

 CS 59Pa
 CS 68-FP
 CS 77-FP
 CS 59-PD
 CS 68-PD
 CS 77-PD
 Eco system
 CS 86-HI
 CS 77-SP


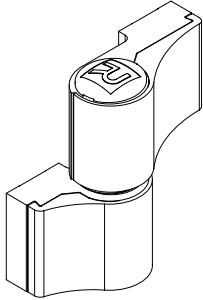
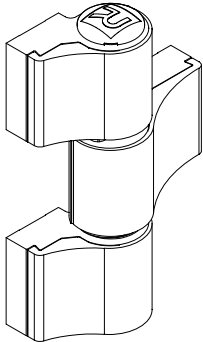
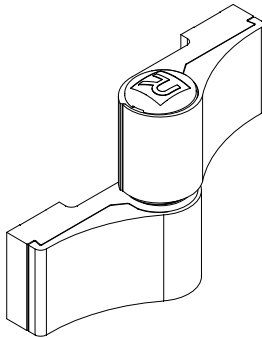
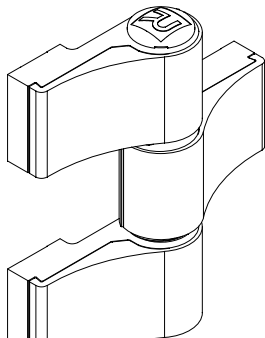
 H=67
B=32
D=7
**061.6434.--**
 ROZET KABA
 ROSACE KABA
 ROSETTE KABA
 ROSETTE KABA

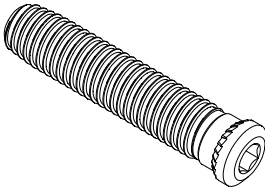
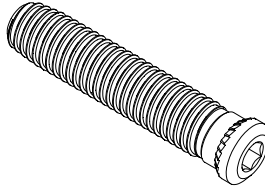
 CS 59Pa
 CS 68-FP
 CS 77-FP
 CS 59-PD
 CS 68-PD
 CS 77-PD
 Eco system
 CS 86-HI
 CS 77-SP


 H=67
B=32
D=7
**061.7640.17**
 CILINDERPLAAT
 ECUSSON
 CYLINDER COVER
 PZ - ROSETTE

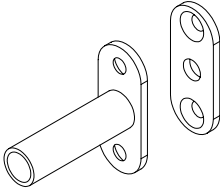
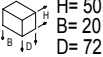
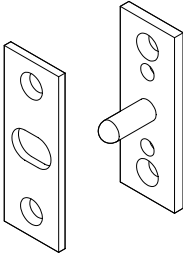
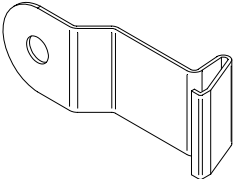
 CS 68-FP
 CS 77-FP
 CS 77-SP


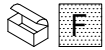
 H=65
B=7
D=28

?				
  LOIRA+ X=20.5 Y=39.5 Z=20 ANCHORS NOT INCLUDED: SEE OPENING DOORS	065.8890.XX SCHARNIER 60mm CHARNIERE 60mm HINGE 60mm BAND 60mm	CS 77-FP 008.1898.XX 008.2026.XX 008.0469.XX 008.2014.XX ES 50 CS 59 CS 68 CS 77 CS 86-HI CS 77-AP CS 86-HI/AP CS 59-PD	CS 68-PD CS 77-PD	
  LOIRA+ X=20.5 Y=39.5 Z=20 ANCHORS NOT INCLUDED: SEE OPENING DOORS	065.8891.XX SCHARNIER 60mm CHARNIERE 60mm HINGE 60mm BAND 60mm	CS 77-FP 008.1898.XX 008.2026.XX 008.0469.XX 008.2014.XX ES 50 CS 59 CS 68 CS 77 CS 86-HI CS 77-AP CS 86-HI/AP CS 59-PD	CS 68-PD CS 77-PD	
  LOIRA+ X=46.5 Y=46.5 Z=20 ANCHORS NOT INCLUDED: SEE OPENING DOORS	065.8893.XX SCHARNIER 93mm CHARNIERE 93mm HINGE 93mm BAND 93mm	CS 77-FP 008.0125.XX 008.1428.XX 008.2014.XX 008.0125.X 008.2027.XX 008.2026.XX ES 50 CS 59 CS 68 CS 77 CS 86-HI CS 77-AP CS 86-HI/AP	CS 59-PD CS 68-PD CS 77-PD	
  LOIRA+ X=46.5 Y=46.5 Z=20 ANCHORS NOT INCLUDED: SEE OPENING DOORS	065.8894.XX SCHARNIER 93mm CHARNIERE 93mm HINGE 93mm BAND 93mm	CS 77-FP 008.0125.XX 008.1428.XX 008.2014.XX 008.0125.X 008.2027.XX 008.2026.XX ES 50 CS 59 CS 68 CS 77 CS 86-HI CS 77-AP CS 86-HI/AP	CS 59-PD CS 68-PD CS 77-PD	

				
	065.8810.-- ANKERSCHROEF VIS D'ANCRAGE DIRECT ANCHOR SCREW ANKER-SCHRAUBE	CS 59 CS 68 CS 77 CS 77-FP Eco system CS 86-HI		
  H=76.8MM B=10.9MM	065.8811.-- ANKERSCHROEF 76MM VIS D'ANCRAGE DIRECT 76MM ANCHOR SCREW 76MM ANKER-SCHRAUBE 76MM	CS 77-FP		

10033446

 	061.6455.-- TEMPERATUURPEN GOUPILLE DE TEMPERATURE TEMPERATURE PEN TEMPERATURSTIFT	CS 68-FP CS 77-FP CS 38-SL/FP	 2 st./pc 052.5311.-- DIN 7982 4.2 x 16
	061.7642.-- BORGBOUT BOULON DE BLOCAGE SAFETY BOLT SICHERUNGSBOLZEN	CS 68-FP CS 77-FP	 4 st./pc 052.5316.-- DIN 7982 4.2 x 19
	068.6380.-- BEVESTIGING KLIPS SLOT FIXATION CLIP SERRURE FIXATION CLIP LOCK BEFESTIGUNG KLEMME SCHLOSS	CS 77-FP	 1 st./pc 052.5311.-- DIN 7982 4.2 x 16



084.9080.--

 REYNASEAL DUO
 REYNASEAL DUO
 REYNASEAL DUO
 REYNASEAL DUO


 550GR

086.9230.--

 REYNAERS MULTI FOAM
 REYNAERS MULTI FOAM
 REYNAERS MULTI FOAM
 REYNAERS MULTI FOAM


 500ML

086.9231.--

 REYNAERS SAFETY CLEAN
 REYNAERS SAFETY CLEAN
 REYNAERS SAFETY CLEAN
 REYNAERS SAFETY CLEAN


 2L

086.9232.--

 REYNAERS PRIMER SEAL & BOND SPECIAL
 REYNAERS PRIMER SEAL & BOND SPECIAL
 REYNAERS PRIMER SEAL & BOND SPECIAL
 REYNAERS PRIMER SEAL & BOND SPECIAL


 200ML

087.9551.--

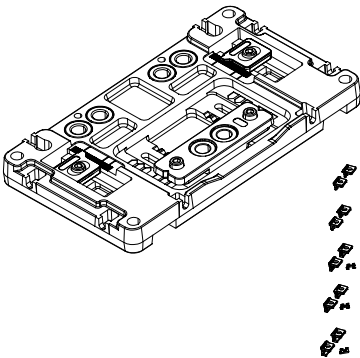
 VULPASTA FP
 REMPLISSAGE COLLER FP
 FILLING PASTE FP
 FUELLUNGSPASTE FP


 310 ml

CS 77-FP



	095.H900.00 MANUEEL PISTOOL PISTOLET MANUEL MANUAL GUN MANUELLE SPRITZE	CW 50 084.9104.04 CS 77-FP CW 50-VL 084.9104.04	
	095.J300.00 MANUEEL PISTOOL PISTOLET MANUEL MANUAL GUN MANUELLE SPRITZE	CS 77-FP	



097.0108.00

BOORMAL SCHARNIER
CALIBRE DE PERCAGE PAUMELLE
BORING JIG HINGE
BOHRLEHRE SCHARNIER

CS 59
CS 68
CS 77
CS 77-FP
Eco system
CS 86-HI



Together
for better