

IV Product pass declaration of performance & CE marking

IV.1 GENERAL EXPLANATION

Following paragraphs indicate the performances which can be declared on the Declaration of Performance (DoP) in accordance with the Regulation EU 305/2011 of the European Parliament and of the Council of 9 March 2011.

The listed essential characteristics are the essential characteristics mentioned in hEN 14351-1+A1:2010: Windows and doors - Product standard, performance characteristics - Part 1: Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics.

All essential characteristics should be mentioned on the DoP. Where no performance is required, NPD (No Performance Declared) can be used.

The mentioned performances are performances which can be achieved for the given dimensions when the product is fabricated following the Reynaers instruction manual (catalogue). The performances as mentioned will meet the requirements of the majority of projects.

Higher performances for smaller dimensions or lower performances for larger dimensions might be possible. In this case contact your Reynaers office. For AWW performances, the maximum dimensions indicated in the system catalogue must be respected.

It is evident that it is allowed to declare lower performances than those mentioned in the product pass. E.g. when resistance to wind load of 1600 Pa was tested, also 1200 Pa can be declared.

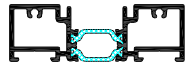

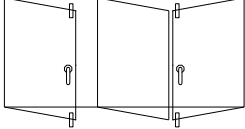
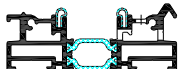

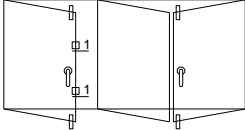
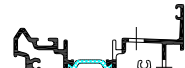

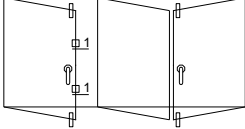


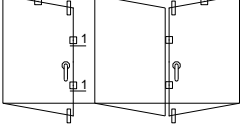


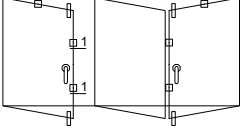


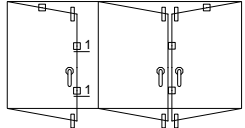
In the second part of the table the non essential characteristics are indicated. These are the characteristics which give information about the performance of a product, but which are not legally required in any European country and thus not mandatory to declare.

IV.2 NOTIFIED BODIES

No	Notified body	Name	Adress	Country
[1]	0960	SKG	Nieuwe Kanaal 9F 6700 AJ Wageningen	Netherlands
[2]	0757	IFT ROSENHEIM	Theodor-Gietl-Strasse 7-9 83026 Rosenheim	Germany
[3]	1488	INSTYTUT TECHNIKI BUDOWLANEJ (ITB)	ul. Filtrowa 1 00-611 Warszawa	Poland
[4]	1136	BELGIAN BUILDING RESEARCH INSITUTE (BBRI)	Lombardstraat 42 1000 Brussel	Belgium
[5]	1769	UNIVERSITY OF GENT	Sint-Pietersnieuwstraat 41 9000 Gent	Belgium
[6]	0432	MATERIALPRÜFUNGSAMT NORDRHEIN-WESTFALEN (MPA NRW)	Auf den Thränen 2 59597 Erwitte	Germany
[7]	1288	WINTTECH ENGINEERING LIMITED	Halesfield 2 Telford, Shropshire TF7 4QH	United Kingdom
[8]	0679	CENTRE SCIENTIFIQUE ET TECHNIQUE DU BÂTIMENT (CSTB)	84, Avenue Jean Jaurès Champs-sur-Marne F-77447 Marne-la-Vallée Cedex 2	France
[9]	0074	CENTRE D'EXPERTISE DU BÂTIMENT ET DES TRAVAUX PUBLICS (CEBTP)	Domaine De Saint-Paul – 102, Route de Limours 78471 Saint-Remy-Les-Chevreuse Cedex	France
[10]	0744	SOCOTEC	Les Quadrants – 3, Avenue du Centre – Guyancourt 78182 St-Quentin en Yvelines	France
[11]	1671	PEUTZ	Lindenlaan 41 – Molenhoek PO Box 66 6585 ZH Mook	Netherlands
[12]	1749	TNO DEFENCE, SECURITY AND SAFETY	Lange Kleiweg 137 Postbus 45 2280 AA Rijswijk	Netherlands
[13]	0749	BELGIAN CONSTRUCTION CERTIFICATION ASSOCIATION (BCCA)	Aarlenstraat 53 1040 Brussel	Belgium
[14]	1309	PRÜFINSTITUT SCHLÖSSER UND BESCHLÄGE, VELBERT (PIV)	Wallstrasse 41 42551 Velbert	Germany
[15]	0845	DANISH INSTITUTE OF FIRE AND SECURITY TECHNOLOGY (DBI)	Jernholmen, 12 2650 Hvidovre	Denmark

IV.3 VARIANTS

Different variants have been grouped based on similar design and following the guidelines of the harmonised standard.

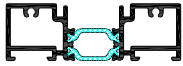
Opening type (in and outward opening)		Covered variants		
IV.5.1	 108.0934.XX Only internal use	L1 		1-1-0 2-0-2/2-1-1/2-2-0 3-0-3/3-1-2/3-2-1/3-3-0 4-0-4/4-1-3/4-2-2/4-3-1/4-4-0 5-0-5/5-1-4/5-2-3/5-3-2/5-4-1/5-5-0 6-0-6/6-1-5/6-2-4/6-3-3/6-4-2/6-5-1/6-6-0 7-0-7/7-1-6/7-2-5/7-3-4/7-4-3/7-5-2/7-6-1/7-7-0 8-0-8/8-1-7/8-2-6/8-3-5/8-4-4/8-5-3/8-6-2/8-7-1/8-8-0
IV.5.2	 108.1935.XX	L2 		1-1-0 2-0-2/2-1-1/2-2-0 3-0-3/3-1-2/3-2-1/3-3-0 4-0-4/4-1-3/4-2-2/4-3-1/4-4-0 5-0-5/5-1-4/5-2-3/5-3-2/5-4-1/5-5-0 6-0-6/6-1-5/6-2-4/6-3-3/6-4-2/6-5-1/6-6-0 7-0-7/7-1-6/7-2-5/7-3-4/7-4-3/7-5-2/7-6-1/7-7-0 8-0-8/8-1-7/8-2-6/8-3-5/8-4-4/8-5-3/8-6-2/8-7-1/8-8-0
IV.5.3	 108.0945.XX	L3 		1-1-0 2-0-2/2-1-1/2-2-0 3-0-3/3-1-2/3-2-1/3-3-0 4-0-4/4-1-3/4-2-2/4-3-1/4-4-0 5-0-5/5-1-4/5-2-3/5-3-2/5-4-1/5-5-0 6-0-6/6-1-5/6-2-4/6-3-3/6-4-2/6-5-1/6-6-0 7-0-7/7-1-6/7-2-5/7-3-4/7-4-3/7-5-2/7-6-1/7-7-0 8-0-8/8-1-7/8-2-6/8-3-5/8-4-4/8-5-3/8-6-2/8-7-1/8-8-0
IV.5.4	 108.0946.XX	L4 		1-1-0 2-0-2/2-1-1/2-2-0 3-0-3/3-1-2/3-2-1/3-3-0 4-0-4/4-1-3/4-2-2/4-3-1/4-4-0 5-0-5/5-1-4/5-2-3/5-3-2/5-4-1/5-5-0 6-0-6/6-1-5/6-2-4/6-3-3/6-4-2/6-5-1/6-6-0 7-0-7/7-1-6/7-2-5/7-3-4/7-4-3/7-5-2/7-6-1/7-7-0 8-0-8/8-1-7/8-2-6/8-3-5/8-4-4/8-5-3/8-6-2/8-7-1/8-8-0
IV.5.5	 108.0946.XX	L5 		1-1-0 2-0-2/2-1-1/2-2-0 3-0-3/3-1-2/3-2-1/3-3-0 4-0-4/4-1-3/4-2-2/4-3-1/4-4-0 5-0-5/5-1-4/5-2-3/5-3-2/5-4-1/5-5-0 6-0-6/6-1-5/6-2-4/6-3-3/6-4-2/6-5-1/6-6-0 7-0-7/7-1-6/7-2-5/7-3-4/7-4-3/7-5-2/7-6-1/7-7-0 8-0-8/8-1-7/8-2-6/8-3-5/8-4-4/8-5-3/8-6-2/8-7-1/8-8-0
IV.5.6	 108.0946.XX	L6 		1-1-0 2-0-2/2-1-1/2-2-0 3-0-3/3-1-2/3-2-1/3-3-0 4-0-4/4-1-3/4-2-2/4-3-1/4-4-0 5-0-5/5-1-4/5-2-3/5-3-2/5-4-1/5-5-0 6-0-6/6-1-5/6-2-4/6-3-3/6-4-2/6-5-1/6-6-0 7-0-7/7-1-6/7-2-5/7-3-4/7-4-3/7-5-2/7-6-1/7-7-0 8-0-8/8-1-7/8-2-6/8-3-5/8-4-4/8-5-3/8-6-2/8-7-1/8-8-0

IV.4 EXPLANATIONS AND SYMBOLS

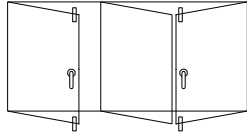
H	Element Height
B	Element Width
Fh	Vent Height
Fb	Vent Width
npd	No Performance Declared
CWFT	Classification Without Further Testing

IV.5 PERFORMANCE

IV.5.1 Classifications for L1

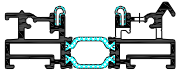


108.0934.XX

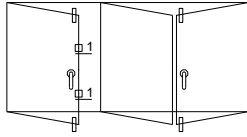


Characteristic	No	Classification	Notified body - Report	Limits (mm)
Essential characteristics				
Watertightness (EN 12208)	4.5	npd		
Dangerous substances	4.6	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN14351-1 are used		
Resistance to wind load (EN 12210)	4.2	B2 (800 Pa) only for AP version	[1] – 10.1155	FbxFh<1200x3000
Impact resistance (EN 13049)	4.7	npd		
Load-bearing capacity of safety devices (EN 948)	4.8	npd		
Height and width	4.9	Height: Width:	See IV.6	
Acoustic performance (EN ISO 140-3 & EN ISO 717-1)	4.11	npd		
Thermal transmittance (EN ISO 10077-1)	4.12	Ud to be calculated in function of the project. Uf-values are calculated under certification of BCCA [13]. Certificate BPCB - 420 - 72 - 10077/2 REYN - 02.		
Radiation properties (EN 410)	4.13	These properties must be evaluated by the CE-label of the glass		
Air permeability (EN 12207)	4.14	npd		
Non-essential characteristics				
Reaction to fire (EN 13501-1)	4.4	Painted alu. profile: A2 Gaskets: E	Certificate P155748 [6] – 230006500-6	
Operating forces (EN 12217)	4.16	npd		
Mechanical strength (EN 1192)	4.17	npd		
Ventilation (EN 13141-1)	4.18	npd		
Bullet resistance (EN 1522)	4.19	npd		
Explosion resistance (EN 13123-1 & EN 13123-2)	4.20	npd		
Resistance to repeated opening and closing (EN 12400)	4.21	npd		
Behaviour between different climates (EN 12219)	4.22	npd		
Burglar resistance (EN 1627) AP version	4.23	RC 2	[4] – CAR 10237-1&2 [4] – CAR 11294	See report

IV.5.2 Classifications for L2

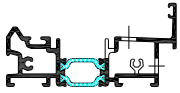


108.1935.XX

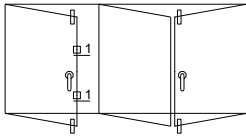


Characteristic	No	Classification	Notified body - Report	Limits (mm)
Essential characteristics				
Watertightness (EN 12208)	4.5	4A (150 Pa)	[1] – 10.1155	FbxFh<1200x3000
Dangerous substances	4.6	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN14351-1 are used		
Resistance to wind load (EN 12210)	4.2	B2 (800 Pa)	[1] – 10.1155	FbxFh<1200x3000
Impact resistance (EN 13049)	4.7	3	[1] – 11.186	FbxFh>1000x2250
Load-bearing capacity of safety devices (EN 948)	4.8	npd		
Height and width	4.9	Height: Width:	See IV.6	
Acoustic performance (EN ISO 140-3 & EN ISO 717-1)	4.11	npd		
Thermal transmittance (EN ISO 10077-1)	4.12	Ud to be calculated in function of the project. Uf-values are calculated under certification of BCCA [13]. Certificate BPCB - 420 - 72 - 10077/2 REYN - 02.		
Radiation properties (EN 410)	4.13	These properties must be evaluated by the CE-label of the glass		
Air permeability (EN 12207)	4.14	2	[1] – 10.1155	FbxFh<1200x3000
Non-essential characteristics				
Reaction to fire (EN 13501-1)	4.4	Painted alu. profile: A2 Gaskets: E	Certificate P155748 [6] – 230006500-6	
Operating forces (EN 12217)	4.16	1	[1] – 10.1155	FbxFh<1200x3000
Mechanical strength (EN 1192)	4.17	4	[1] – 10.1155	FbxFh<1200x3000
Ventilation (EN 13141-1)	4.18	npd		
Bullet resistance (EN 1522)	4.19	npd		
Explosion resistance (EN 13123-1 & EN 13123-2)	4.20	npd		
Resistance to repeated opening and closing (EN 12400)	4.21	3 (20 000)	[1] – 09.1159	FbxFh<754x2112 120 kg Notter wheels & hinges
Behaviour between different climates (EN 12219)	4.22	npd		
Burglar resistance (EN 1627) AP version	4.23	RC 2	[4] – CAR 10237-1&2 [4] – CAR 11294	See report

IV.5.3 Classifications for L3

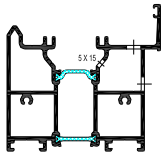


108.0945.XX

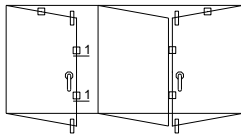


Characteristic	No	Classification	Notified body - Report	Limits (mm)	
Essential characteristics					
Watertightness (EN 12208)	4.5	5A (200 Pa)	[1] – 10.198	FbxFh<1200x3000	
Dangerous substances	4.6	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN14351-1 are used			
Resistance to wind load (EN 12210)	4.2	B2 (800 Pa)	[1] – 10.198	FbxFh<1200x3000	
Impact resistance (EN 13049)	4.7	3	[1] – 11.186	FbxFh>1000x2250	
Load-bearing capacity of safety devices (EN 948)	4.8	npd			
Height and width	4.9	Height: Width:	See IV.6		
Acoustic performance (EN ISO 140-3 & EN ISO 717-1)	4.11	Glass	Element	[1] – 11.167	BxH = 4070x2400
		35 (-2;-6)	34 (-2;-5)		
		45 (-2;-6)	39 (-1;-4)	[1] – 13.00013	BxH = 2705x2360
		50 (-3;-8)	40 (-1;-4)		
51 (-1;-4)	45 (-1;-5)				
Thermal transmittance (EN ISO 10077-1)	4.12	Ud to be calculated in function of the project. Uf-values are calculated under certification of BCCA [13]. Certificate BPCB - 420 - 72 - 10077/2 REYN - 02.			
Radiation properties (EN 410)	4.13	These properties must be evaluated by the CE-label of the glass			
Air permeability (EN 12207)	4.14	2	[1] – 10.198	FbxFh<1200x3000	
Non-essential characteristics					
Reaction to fire (EN 13501-1)	4.4	Painted alu. profile: A2 Gaskets: E	Certificate P155748 [6] – 230006500-6		
Operating forces (EN 12217)	4.16	1	[1] – 10.1155	FbxFh<1200x3000	
Mechanical strength (EN 1192)	4.17	4	[1] – 10.1155	FbxFh<1200x3000	
Ventilation (EN 13141-1)	4.18	npd			
Bullet resistance (EN 1522)	4.19	npd			
Explosion resistance (EN 13123-1 & EN 13123-2)	4.20	npd			
Resistance to repeated opening and closing (EN 12400)	4.21	3 (20 000)	[1] – 09.1159	FbxFh<754x2112 120 kg Notter wheels & hinges	
Behaviour between different climates (EN 12219)	4.22	npd			
Burglar resistance (EN 1627) AP version	4.23	RC 2	[4] – CAR 10237-1&2 [4] – CAR 11294	See report	

IV.5.4 Classifications for L4

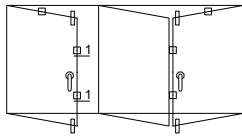
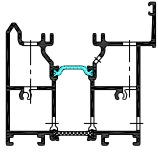


108.0946.XX



Characteristic	No	Classification	Notified body - Report	Limits (mm)	
Essential characteristics					
Watertightness (EN 12208)	4.5	7A (300 Pa)	[1] – 11.153	FbxFh<1200x2500	
Dangerous substances	4.6	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN14351-1 are used			
Resistance to wind load (EN 12210)	4.2	C2 (800 Pa)	[1] – 11.153	FbxFh<1200x2500	
Impact resistance (EN 13049)	4.7	3	[1] – 11.186	FbxFh>1000x2250	
Load-bearing capacity of safety devices (EN 948)	4.8	npd			
Height and width	4.9	Height: Width:	See IV.6		
Acoustic performance (EN ISO 140-3 & EN ISO 717-1)	4.11	Glass	Element	[1] – 11.167	BxH = 4070x2400
		35 (-2;-6) 45 (-2;-6) 50 (-3;-8)	34 (-2;-5) 39 (-1;-4) 40 (-1;-4)		
		51 (-1;-4)	45 (-1;-5)	[1] – 13.00013	BxH = 2705x2360
Thermal transmittance (EN ISO 10077-1)	4.12	Uf to be calculated in function of the project. Uf-values are calculated under certification of BCCA [13]. Certificate BPCB - 420 - 72 - 10077/2 REYN - 02.			
Radiation properties (EN 410)	4.13	These properties must be evaluated by the CE-label of the glass			
Air permeability (EN 12207)	4.14	3	[1] – 11.153	FbxFh<1200x2500	
Non-essential characteristics					
Reaction to fire (EN 13501-1)	4.4	Painted alu. profile: A2 Gaskets: E	Certificate P155748 [6] – 230006500-6		
Operating forces (EN 12217)	4.16	1	[1] – 10.1155	FbxFh<1200x3000	
Mechanical strength (EN 1192)	4.17	4	[1] – 10.1155	FbxFh<1200x3000	
Ventilation (EN 13141-1)	4.18	npd			
Bullet resistance (EN 1522)	4.19	npd			
Explosion resistance (EN 13123-1 & EN 13123-2)	4.20	npd			
Resistance to repeated opening and closing (EN 12400)	4.21	3 (20 000)	[1] – 09.1159	FbxFh<754x2112 120 kg Notter wheels & hinges	
Behaviour between different climates (EN 12219)	4.22	npd			
Burglar resistance (EN 1627) AP version	4.23	RC 2	[4] – CAR 10237-1&2 [4] – CAR 11294	See report	

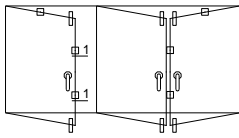
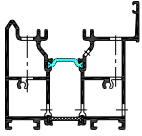
IV.5.5 Classifications for L5



108.0946.XX

Characteristic	No	Classification	Notified body - Report	Limits (mm)	
Essential characteristics					
Watertightness (EN 12208)	4.5	8A (450 Pa)	[1] – 11.169	FbxFh<1200x2500	
Dangerous substances	4.6	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN14351-1 are used			
Resistance to wind load (EN 12210)	4.2	C2 (800 Pa)	[1] – 11.169	FbxFh<1200x2500	
Impact resistance (EN 13049)	4.7	3	[1] – 11.186	FbxFh>1000x2250	
Load-bearing capacity of safety devices (EN 948)	4.8	npd			
Height and width	4.9	Height: Width:	See IV.6		
Acoustic performance (EN ISO 140-3 & EN ISO 717-1)	4.11	Glass	Element	[1] – 11.167	BxH = 4070x2400
		35 (-2;-6) 45 (-2;-6) 50 (-3;-8)	34 (-2;-5) 39 (-1;-4) 40 (-1;-4)		
			51 (-1;-4)	45 (-1;-5)	[1] – 13.00013
Thermal transmittance (EN ISO 10077-1)	4.12	Ud to be calculated in function of the project. Uf-values are calculated under certification of BCCA [13]. Certificate BPCB - 420 - 72 - 10077/2 REYN - 02.			
Radiation properties (EN 410)	4.13	These properties must be evaluated by the CE-label of the glass			
Air permeability (EN 12207)	4.14	4	[1] – 11.169	FbxFh<1200x2500	
Non-essential characteristics					
Reaction to fire (EN 13501-1)	4.4	Painted alu. profile: A2 Gaskets: E	Certificate P155748 [6] – 230006500-6		
Operating forces (EN 12217)	4.16	1	[1] – 10.1155	FbxFh<1200x3000	
Mechanical strength (EN 1192)	4.17	4	[1] – 10.1155	FbxFh<1200x3000	
Ventilation (EN 13141-1)	4.18	npd			
Bullet resistance (EN 1522)	4.19	npd			
Explosion resistance (EN 13123-1 & EN 13123-2)	4.20	npd			
Resistance to repeated opening and closing (EN 12400)	4.21	3 (20 000)	[1] – 09.1159	FbxFh<754x2112 120 kg Notter wheels & hinges	
Behaviour between different climates (EN 12219)	4.22	npd			
Burglar resistance (EN 1627) AP version	4.23	RC 2	[4] – CAR 10237-1&2 [4] – CAR 11294	See report	

IV.5.6 Classifications for L6



108.0946.XX

Characteristic	No	Classification	Notified body - Report	Limits (mm)	
Essential characteristics					
Watertightness (EN 12208)	4.5	9A (600 Pa)	[1] – 11.176	FbxFh<1200x2500	
Dangerous substances	4.6	In the materials delivered by Reynaers, no dangerous substances as indicated in hEN14351-1 are used			
Resistance to wind load (EN 12210)	4.2	B3 (1200 Pa) C2 (800 Pa)	[1] – 11.176	FbxFh<1200x2500	
Impact resistance (EN 13049)	4.7	3	[1] – 11.186	FbxFh>1000x2250	
Load-bearing capacity of safety devices (EN 948)	4.8	npd			
Height and width	4.9	Height: Width:	See IV.6		
Acoustic performance (EN ISO 140-3 & EN ISO 717-1)	4.11	Glass	Element	[1] – 11.167	BxH = 4070x2400
		35 (-2;-6) 45 (-2;-6) 50 (-3;-8)	34 (-2;-5) 39 (-1;-4) 40 (-1;-4)		
		51 (-1;-4)	45 (-1;-5)	[1] – 13.00013	BxH = 2705x2360
		Ud to be calculated in function of the project. Uf-values are calculated under certification of BCCA [13]. Certificate BPCB - 420 - 72 - 10077/2 REYN - 02.			
Radiation properties (EN 410)	4.13	These properties must be evaluated by the CE-label of the glass			
Air permeability (EN 12207)	4.14	4	[1] – 11.176	FbxFh<1200x2500	
Non-essential characteristics					
Reaction to fire (EN 13501-1)	4.4	Painted alu. profile: A2 Gaskets: E	Certificate P155748 [6] – 230006500-6		
Operating forces (EN 12217)	4.16	1	[1] – 10.1155	FbxFh<1200x3000	
Mechanical strength (EN 1192)	4.17	4	[1] – 10.1155	FbxFh<1200x3000	
Ventilation (EN 13141-1)	4.18	npd			
Bullet resistance (EN 1522)	4.19	npd			
Explosion resistance (EN 13123-1 & EN 13123-2)	4.20	npd			
Resistance to repeated opening and closing (EN 12400)	4.21	3 (20 000)	[1] – 09.1159	FbxFh<754x2112 120 kg Notter wheels & hinges	
Behaviour between different climates (EN 12219)	4.22	npd			
Burglar resistance (EN 1627) AP version	4.23	RC 2	[4] – CAR 10237-1&2 [4] – CAR 11294	See report	

IV.6 RULE FOR DEFINITION OF CLEAR OPENING HEIGHT AND WIDTH

The clear opening height g and clear opening width a are defined as indicated in following sketches out of EN 12519:2004:

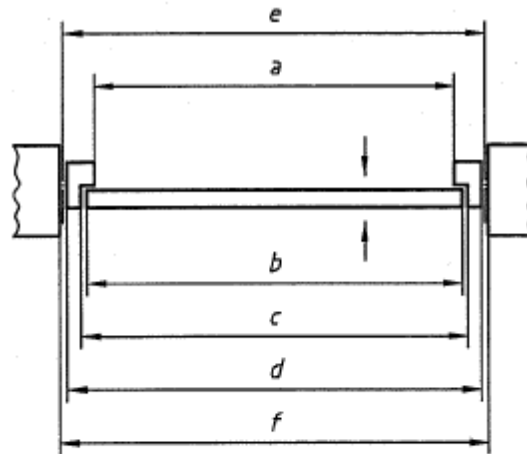


Figure 1/Figure 1/Bild 1

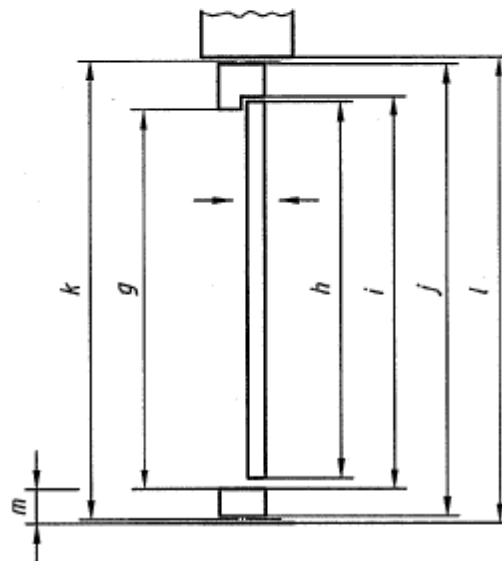


Figure 2/Figure 2/Bild 2