

# Product overview













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## Hodapp

### Expertise for your safety

Hodapp GmbH & Co. KG from Achern-Großweier has been involved for many decades in the manufacture of special doors and gates that have to meet special requirements. In addition to an extensive range for special solutions, industry and tunnel construction, conveyor system closures are also manufactured.

#### We are certified!

The name Hodapp stands for outstanding quality. Our claim is to maintain and permanently expand our high international standard. Our ISO certifications confirm this.

#### **DIN EN ISO 9001**

Quality management systems

#### **DIN EN ISO 14001**

Environmental management systems

#### **DIN ISO 45001**

Occupational health and safety management systems

#### **DIN EN ISO 50001**

Energy management systems

#### KTA 1401

Certification for the quality requirements of nuclear safety

#### EN 1090-1

Factory production control

#### EN 1090-2

Execution of steel structures EXC1 - EXC4

#### **DIN EN ISO 3834-2**

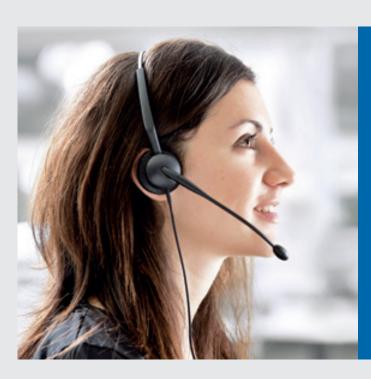
Quality requirements for fusion welding of metallic materials

#### Certified welding supervisors

Welding engineer, welding specialist, color penetrant tester, visual inspector

#### **Environmental Product Declaration (EPD)**

Multifunctional door



#### Central

Tel.: +49 7841 6006-0 E-Mail: info@hodapp.de

#### Sales doors and gates

E-Mail: vertrieb@hodapp.de

#### Sales conveyor system closures

E-Mail: faa@hodapp.de

#### Sales CNC sheet metal technology

E-Mail: cnc-blechtechnik@hodapp.de

#### Assembly, maintenance and service

E-Mail: service@hodapp.de

Service hotline: +49 7841 6006-600

# Hodapp

### Assembly, service and maintenance

Your door and gate systems are in the best hands with us - with our experienced technicians, we guarantee professional installation as well as competent service and maintenance - safely and reliable.

- Qualified personnel for installation and service work
- Rapid support in case of need
- Manufacturer-independent service work
- Extensive fleet
- Modernisation of existing installations
- Annual safety inspections
- Maintenance to comply with the legally prescribed inspection intervals

You can reach our service hotline at:

+49 7841 6006-600 or send us an e-mail to: service@hodapp.de



### International | References | Subsidiaries



DE

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# Hodapp

### Added value from a single source

We offer you customised complete solutions from a single source - "Made in Germany". With more than 240 employees, you get the entire value-added process at Hodapp.

#### This includes:

- Product development
- Project management
- Construction
- Manufacturing
- Logistics
- Assembly, maintenance and service



### CNC laser cutting centres

Our CNC laser offers complete processing by laser cutting, punching and forming

- Sheet metal formats up to 6.000 x 1.700 x 8 mm
- Sheet thickness up to 8 mm steel & stainless steel as well as 4 mm in aluminium



#### Storage of materials

Our warehouse has a large number of sheet metal in coil or sheet material.

- Steel and stainless steel in various grades and surfaces
- Strip galvanised sheets
- Aluminium und perforated sheet

# Hodapp

### Materials | Processing



### Welding technology

Welding robots for serial parts as well as spot welding and stud welding in consistent quality with MIG/MAG/WIG welding systems.

 Welding qualifications:
 DIN EN ISO 3824-2 also for stainless steels according to Z-30.3-6



#### Processing and surface finishing

We process materials through common work processes such as milling, turning, drilling and gluing.

Further possibilities:

- Cutting of sheets with a length of up to 6.000 mm
- The bending presses (up to 400 t) edge sheet thicknesses up to 12 mm
- Type of surface finishing:
  - Galvanised
  - Hot-dip galvanised
  - Painted

#### Our performance characteristics:



Fire resistance



Flood protection



Smoke protection



Sound protection



Burglaryresistance



Earthquake protection



**Explosion** protection



Shock wave resistance



Bulletresistance



Air permeability



Radiation protection



HPEM protection

## Performance characteristics

### A Hodapp door keeps its promise



### Fire resistance

Fire resistance is considered the supreme discipline among the performance characteristics, because here the focus is primarily on personal protection. The behaviour of the door in case of fire must ensure that the escaping persons have enough time to get to safety. Tested and certified according to European standards EN 1634-1, EN13501-2 and EN 16034.





### Smoke protection

The main danger in case of fire is the development of smoke. Smoke gases are produced which can cause life-threatening poisoning. It is crucial that the door has the appropriate properties to fulfill this purpose in an emergency. Tested and certified according to the European standards EN 1634-3, EN 13501-2 and EN 16034.

## Performance characteristics

### A Hodapp door keeps its promise



### **Burglary** resistance

Protection against burglary, and thus a threat to life and limb, has tended to increase in recent years. To ensure this function, we have developed our burglar-resistant doors. Due to the special design of the door, the resistance class up to RC-4 is achieved with only one main lock. Our products are manufactured according to the latest technology and are tested according to the European standard EN 1627.





### Sound protection

In our living space, we are confronted with noise sources every day. Protecting ourselves from it is a must, because unlike our health, noise does not subside. With this in mind, we have developed our HoSta soundproof doors with exceptionally high values up to 60 dB.



### Ventilation grilles

Ventilation grilles can be installed in transformer or ventilation doors as well as in fixed elements. The result is excellent ventilation with protection against splash water and burglary.

For further details, see pages 20 to 23.



# Multifunctional doors and gates

### Product design

Design details

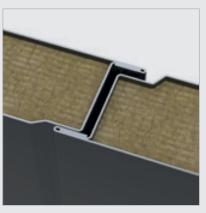
High-quality flush stainless steel striking plates protect the frame and add visual highlights. For sophisticated architecture, the HoSta - multifunctional door is also available with a flush design, depending on the version.

#### 3D-hinge

The newly developed state-of-the-art 3D hinges are designed for leaf weights of up to 300 kg. They can therefore carry the heavy sound proof or fire protection doors without a doubt. Furthermore, these hinges are completely maintenance-free and easy to replace when need be.

The adjustability of the 3D hinges makes it easy for the door to be perfectly fitted and installation tolerances can subsequently be levelled out.

The hinges are available in both galvanised steel and top quality polished stainless steel. The particularly slim hinge sits perfectly on the door frame which makes mortising work on the shell unnecessary.



Flush center fold



Thin rebate



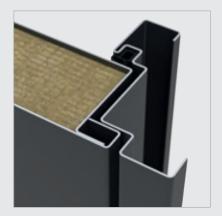
Thick rebate



3D hinge, door closed



3D hinge, door open



Flush-fitting design

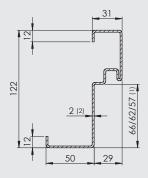
## Multifunctional doors

### Frame designs and accessories

1 4

The following selection of design options is available:

- Frame designs
- Glazings
- Fittings
- Hinges
- Door closer
- Earthing strap
- Electrical equipement
- Door drives
- Opening support



#### Note:



Overview of design options as PDF files via the QR code



Frameless-side glazing



Glass-holding frame



Fitting

## Multifunctional doors

### HoSta | Prison doors

Detention room doors are barrier-free security steel doors for use in police stations, courts, correctional facilities, forensic clinics and other detention cells. The double-walled, extremely torsion-resistant sheet steel door offers optimum protection against vandalism and escape attempts.

f	Prisons, courts					
Field of application	Forensics, police station	Forensics, police stations				
E apj	Psychiatry					
SI	Range of dimensions	Width	up to 1.500			
Dimensions	(CW)	Height	up to 2.500			
	Leaf thickness		70 - 72			
D	Sheet thickness		2,0 - 3,0			
mance eristics	Fire protection		Design T30/EI <sub>2</sub> 30			
Performance characteristics	Breakout resistance EN 1	627	up to RC-4			
	Door leaf made of 2,0 or 3,0 mm sheet steel					
res	Frame made of 2,0 or 2,5 mm sheet steel					
eatuı	Version with various types of high-security locks possible					
Equipment features	Circumferentially bonde	d, hollow c	hamber-free frame seal			
ipm	Food pass	Flush on b	ooth sides; scissorless; load capacity > 50 kg			
Equ	Turning spy	States: Wie	de-angle peephole, pill pass-through, closed			
	Shackle flap, drawer bolt	t, viewing w	vindow, push plate, pull handle			



All dimensions in mm



Food pass | Closed



Food pass flap | Open

# Multifunctional doors and gates

Air tightness /

### Product overview

				Heavy rain	/ wind load	Sound p	rotection		esistance esistance
				1-leaf	2-leaf	1-leaf	2-leaf	1-leaf	2-leaf
				7	7	79	7	75	7
		Width	from	500	1.000	500	1.000	500	1.000
ıs	Range of	wiath	to	1.500	3.000	1.500	4.200	1.850 / 2.650	3.700 / 5.250
Dimensions	dimensions (CW)	Height	from	500	1.000	500	1.000	1.000	1.000
imeı		Height	to	2.500	2.500	3.200	3.200	5.250	5.250
D	Leaf thickness			69	69	69 / 106	69 / 106	69	69
	Sheet thickness			1,5	1,5	1,5	1,5	1,5	1,5
Implementation	Galvanised steel prin Stainless steel 304 L			•	•	•	•	•	•
	Glazing			•	•	•	•	•	•
	Ventilation grilles			up to IP 43D	up to IP 43D	-	-	•	•
	Side and/or top part	Side and/or top part		•	•	•	•	•	•
	Thick or thin rebate	Thick or thin rebate		•	•	•	•	•	•
mance characteristics	Fire resistance EN 13	Fire resistance EN 13501-2(1)		-	-	-	-	-	-
	Smoke protection/Permanent function EN13501-2(1)		-	-	-	-	-	-	
	Sound protection ISO 717-1		up to 37 dB	up to 39 dB	up to 54/60 dB	up to 51/54 dB	up to 37 dB	up to 39 dl	
	Air tightness EN 12207		up to class 4	up to class 4	up to class 4	up to classe 4	up to class 4	up to class	
arac	Water tightness EN 12208		up to class 9A	-	up to class 9A	-	up to class 9A	-	
e cha	Wind load resistance EN 12210		up to CE 4000	up to CE 400					
anc	Burglary resistance EN 1627		-	-	-	-	up to RC-4	up to RC-4	
form	Heat transfer coefficient	Steel	(W/m <sup>2</sup> K)	$U_D \ge 1,5$	$U_{_{\rm D}} \ge 1,5$	$U_{_{\rm D}} \ge 1.8$	$U_D \ge 1.8$	$U_{_{\rm D}} \ge 1,5$	$U_{_{\rm D}} \ge 1,5$
Perfor	ISO 10077	Stainless stee	l (W/m <sup>2</sup> K)	$U_{_{\rm D}} \ge 1.0$	$U_{_{\rm D}} \ge 1.0$	$U_{_{\rm D}} \ge 1,3$	$U_{_{\rm D}} \ge 1.3$	$U_{_{\rm D}} \ge 1.0$	$U_{_{\rm D}} \ge 1.0$
	<b>Protection class</b> <i>EN 6</i>	80529		up to IP 66	-	up to IP 66	-	-	-
	Bullet resistance EN	1522		-	-	-	-	FB 4 / FB 6	FB 4
	3- or 4-sided frame			•	•	•	•	•	•
ints	Installation in masor	nry		•	•	•	•	≥ 115	≥ 115
varia	Installation in reinfo	rced concrete		•	•	•	•	≥ 100	≥ 100
Frame variants	Installation in cellula	ar concrete		•	•	•	•	≥ 170	≥ 170
Fra	Installation in light p	partition walls		•	•	• (2)	• (2)	≥ 100 <sup>(2)</sup>	≥ 100 (2)
	Installation in clad s	teel construct	ion	•	•	•	•	• (2)	• (2)

# Multifunctional doors and gates

Pra		AVAR	$\mathbf{V} \mathbf{I} \mathbf{\Phi} \mathbf{W}$
110	auct	over	A T C AA

Smoke protection		Fire resistance EI <sub>2</sub> 30			Fire resistance EI <sub>2</sub> 60		Fire resistance EI <sub>2</sub> 90		Fire resistance EI <sub>2</sub> 120	
1-flg.	2-flg.	1-flg.	2-flg.	1-flg.	2-flg.	1-flg.	2-flg.	1-flg.	2-flg.	
1	10		-8	7	-1		-19	-3	7	
500	1.000	500	950	500	1.000	450	950	650	-	
1.700	3.150	1.700	3.050	1.900	3.050	1.900	2.500	1.600	-	
500	1.000	550	1.700	550	1.700	500	1.700	1.050	-	
2.950	2.950	4.400	3.400	4.000	3.400	4.000	3.500	2.550	-	
69	69	69 / 70	69	69 / 70	69	69 / 70	69	69	-	
1,5	1,5	1,5 / 2,0	1,5	1,5 / 2,0	1,5	1,5 / 2,0	1,5	1,5	-	
•	•	•	•	•	•	•	•	•	-	
•	•	•	•	•	•	•	•	•	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
•	•	•	•	•	•	•	•	•	-	
-	-	EI <sub>2</sub> 30	EI <sub>2</sub> 30	EI <sub>2</sub> 60	EI <sub>2</sub> 60	EI <sub>2</sub> 90	EI <sub>2</sub> 90	EI <sub>2</sub> 120	-	
S <sub>a3</sub> /S <sub>200</sub> C5	S <sub>a3</sub> /S <sub>200</sub> C0	S <sub>a3</sub> /S <sub>200</sub> C5	S <sub>a3</sub> /C0	S <sub>a3</sub> /S <sub>200</sub> C5	S <sub>a3</sub> /C0	S <sub>a3</sub> /C5	S <sub>a3</sub> /S <sub>200</sub> C0	S <sub>a3</sub> /S <sub>200</sub> C5	-	
up to 54 dB	bis 51 dB	bis 54 dB	bis 51 dB	bis 54 dB	bis 51 dB	bis 54 dB	bis 51 dB	bis 54 dB	-	
up to class 4	up to class 4	up to class 4	up to class 4	up to class 4	up to class 4	up to class 4	up to class 4	up to class 4	-	
up to class 9A	-	up to class 9A	-	up to class 9A	-	up to class 9A	-	up to class 9A	-	
up to CE 4000	up to CE 4000	up to CE 4000	up to CE 4000	up to CE 4000	up to CE 4000	up to CE 4000	up to CE 4000	up to CE 4000	-	
up to RC-4	up to RC-4	up to RC-4	up to RC-4	up to RC-4	up to RC-4	up to RC-4	up to RC-4	up to RC-4	-	
$U_{_{\rm D}} \ge 1,5$	$U_{_{\rm D}} \ge 1,5$	$U_{_{\rm D}} \ge 1,6$	$U_{_{\rm D}} \ge 1,6$	$U_{_{\rm D}} \ge 1,6$	$U_{_{\rm D}} \ge 1,6$	$U_{_{\rm D}} \ge 1,9$	$U_D \ge 1,9$	$U_D \ge 1,9$	-	
$U_{_{\rm D}} \ge 1,0$	$U_{_{\rm D}} \ge 1,0$	$U_D \ge 1,1$	$U_D \ge 1,1$	$U_{_{\rm D}} \ge 1,1$	$U_D \ge 1,1$	$U_D \ge 1,5$	-	$U_D \ge 1,5$	-	
up to IP 66	-	up to IP 66	-	up to IP 66	-	up to IP 66	-	up to IP 66	-	
FB 4	-	FB 4	FB 4	FB 4	FB 4	FB 4	FB 4	-	-	
•	•	•	•	•	•	•	•	•	-	
≥ 115	≥ 115	≥ 125	≥ 125	≥ 175	≥ 175	≥ 175	≥ 175	≥ 175	-	
≥ 100	≥ 100	≥ 100	≥ 100	≥ 140	≥ 140	≥ 140	≥ 140	≥ 175	-	
≥ 150	≥ 150	≥ 150	≥ 150	≥ 150	≥ 150	≥ 150	≥ 150	-	-	
F30 / EI30	F30 / EI30	F90 / EI90	F90 / EI90	F60 / EI60	F60 / EI60	F90 / EI90	F90 / EI90	-	-	
F30 / EI30	F30 / EI30	F90 / EI90	F90 / EI90	F60 / EI60	F60 / EI60	F90 / EI90	F90 / EI90	-	-	

<sup>•</sup> possible / - not possible CW = Civil works dimension AbP = general test certificate issued by the building authorities All dimensions in mm

# Fire protection hinge doors

## T30 | Indoor use

16

		TSN-1	TSN-1 with side and/or top part	TSN-2	TSN-2 with side and/or top part	
ı			-8		-8	
S	Range	Width	500 - 1.500	625 - 3.450	1.375 - 3.000	1.375- 3.700
sion	of dimensions (CW)	Height	500 - 3.250	1.750 - 3.150	1.750 - 3.250	1.750 - 3.200
Dimensions	Leaf thickness		69	69	69	69
	Sheet thickness		1,5	1,5	1,5	1,5
	Galvanised steel primed / pain Stainless steel 304 L / 316 L		•		•	
Design	Glazing		•	•	•	
De	Side and/or top part		-	•	-	
	Thick or thin rebate		•	•	•	•
Performance characteristics	Fire protection DIN 410	Fire protection DIN 4102-5		Т30	T30	T30
	Smoke protection DIN 18095		•	•	•	•
	Sound protection ISO 717-1		up to 49 dB	-	up to 45 dB	-
harad	Air tightness EN 12207		up to class 4	-	up to class 3	-
ıce c	Water tightness EN 12208		up to class 8A	-	up to class 4A	-
rmar	Wind load resistance EN 12210		up to class C5	-	up to class C4	-
Perfo	Burglary resistance EN 1627		up to RC-4	up to RC-2 with top part	up to RC-4	up to RC-2 with top part
	Heat transfer coefficent ISO 10077		$U_D \ge 1.4 \text{ W/(m}^2\text{K)}$	$U_D \ge 1.4 \text{ W/(m}^2\text{K)}$	$U_{\rm D} \ge 1.4 \text{ W/(m}^2\text{K)}$	$U_D \ge 1.4 \text{ W/(m}^2\text{K)}$
	Corner frame, wrap-are block frame	ound frame,	•	•	•	•
	3- or 4-sided frame		•	•	•	•
nts	Installation in masonry	У	≥ 115	≥ 115	≥ 115	≥ 115
Frame variants	Installation in reinforc	ed concrete	≥ 100	≥ 100	≥ 100	≥ 100
ame v	Installation in cellular	concrete	≥ 175	≥ 175	≥ 175	≥ 175
Fré	Installation in assembl	y walls F90	≥ 100	≥ 100	≥ 100	≥ 100
	Installation in clad steel	construction	≥ 100	≥ 100	≥ 100	≥ 100
	Installation in fire resi assembly walls with Al		Wall thickness according to AbP	Wall thickness according to AbP	Wall thickness according to AbP	Wall thickness according to AbP

# Fire protection hinge doors

## T90 | Indoor use

			TSN-11	TSN-12	THF Ceiling flap
				-8	
	Range	Width	500 - 1.500	1.375 - 3.000	500 - 1.100
Dimensions	of dimension (CW)	Height	500 - 3.250	1.750 - 3.250	500 - 1.350
imer	Leaf thickness		69	69	69
Д	Sheet thickness		1,5	1,5	1,0
	Galvanised steel primed / painted Stainless steel 304 L / 316 L  Glazing		•	•	•
Design			•	•	-
De	Side and/or top part		-	-	-
	Thick or thin rebate		•	•	Thin rebate
	Fire protection DIN 4102-5		Т90	Т90	Т90
tics	Smoke protection DIN 18095		•	•	•
teris	Sound protection ISO 717-1		up to 49 dB	up to 45 dB	-
Performance characteristics	Air tightness EN 12207		up to class 4	up to class 3	up to class 4
ice c	Water tightness EN 12208		up to class 8A	up to class 4A	-
rmar	Wind load resistance EN 12210		up to class C5	up to class C4	up to class C5
erfo	Burglary resistance EN 1627		up to RC-4	up to RC-4	-
	Heat transfer coefficient ISO 10077		$U_{_D} \ge 1.7 \text{ W/(m}^2\text{K)}$	$U_D \ge 1.7 \text{ W/(m}^2\text{K)}$	$U_D \ge 1.7 \text{ W/(m}^2\text{K)}$
	Corner frame, wrap-aroun block frame	id frame,	•	•	
	3- or 4-sided frame		•	•	4-sided frame
nts	Installation in masonry		≥ 175	≥ 175	-
/aria	Installation in reinforced	concrete	≥ 140	≥ 140	≥ 140
Frame variants	Installation in cellular co	ıcrete	≥ 175	≥ 175	-
Fre	Installation in assembly w	alls F90	≥ 100	≥ 100	-
	Installation in clad steel cor	struction	≥ 140	≥ 140	-
	Installation in fire resista assembly walls with AbP	nt	Wall thickness according to AbP	Wall thickness according to AbP	-

# Fire protection hinge doors



EI<sub>2</sub>30 | Outdoor use/Gate

1.8

			TSN-1	TSN-2	
			-18	-8	
S	Range	Width	600 - 2.300	1.375 - 4.250	
ısion	of dimensions (CW)	Height	500 - 4.600	1.750 - 4.250	
Dimensions	Leaf thickness		69	69	
Д	Sheet thickness		1,5	1,5	
	Galvanised steel primed / Stainless steel 304 L / 31	painted <b>6 L</b>	•	•	
Glazing  Glazing			•	•	
De	Side and/or top part		-	-	
	Thick or thin rebate		•	•	
	Fire resistance EN 13501-	2	EI <sub>2</sub> 30	EI <sub>2</sub> 30	
Performance characteristics	Smoke protection EN 135	01-2	S <sub>a3</sub> /S <sub>200</sub> C5	S <sub>a3</sub> /S <sub>200</sub> C5	
	Sound protection ISO 717	<b>'-1</b>	up to 49 dB	up to 45 dB	
	Air tightness EN 12207		up to class 4	up to class 3	
ice cl	Water tightness EN 12208	3	up to class 8A	up to class 4A	
rmar	Wind load resistance EN	12210	up to class C5	up to class C4	
erfo	Burglary resistance EN 16	527	up to RC-4	up to RC-4	
	Heat transfer coefficient ISO 10077		$U_{_{\rm D}} \ge 1.4 \text{ W/(m}^2\text{K)}$	$U_D \ge 1.4 \text{ W/(m}^2\text{K)}$	
п	Corner frame, wrap-aroun block frame	nd frame,	•	•	
	3- or 4-sided frame		•	•	
nts	Installation in masonry		≥ 115	≥ 115	
varia	Installation in reinforced	concrete	≥ 100	≥ 100	
Frame variants	Installation in cellular co	ncrete	≥ 150	≥ 150	
Fré	Installation in assembly v	walls F90	≥ 100	≥ 100	
	Installation in clad steel co	nstruction	≥ 100	≥ 100	
	Installation in fire resista assembly walls with AbP	ınt	Wall thickness according to AbP	Wall thickness according to AbP	
ssible /	- not possible CW = Civil worl	ks dimension	AbP = general test certificate iss	ued by the building authorities	

# Multiınctional doors

# Fire protection hinge doors





			TSN-11	TSN-12	
			) 		
	Range	Width	500 - 1.450	1.375 - 3.250	
sions	of dimension (CW)	Height	710 - 2.950	1.750 - 2.950	
Dimensions	Leaf thickness		69	69	
	Sheet thickness		1,5	1,5	
	Galvanised steel primed / Stainless steel 304 L / 31	painted 6 <b>L</b>	•	•	
Design	Glazing		•	•	
De	Side and/or top part		-	-	
	Thick or thin rebate		•	•	
	Fire resistance EN 13501-2	2	EI <sub>2</sub> 90	EI <sub>2</sub> 90	
tics	Smoke protection EN 1350	01-2	S <sub>a3</sub> /S <sub>200</sub> C5	S <sub>a3</sub> /S <sub>200</sub> C5	
teris	Sound protection ISO 717	-1	up to 49 dB	up to 45 dB	
Performance characteristics	Air tightness EN 12207		up to class 4	up to class 3	
ce cl	Water tightness EN 12208		up to class 8A	up to class 4A	
rmar	Wind load resistanceEN 1.	2210	up to class C5	up to class C4	
erfo	Burglary resistance EN 16	27	up to RC-4	up to RC-4	
-	Heat transfer coefficient ISO 10077		$U_{_{\rm D}} \ge 1.7 \text{ W/(m}^2\text{K)}$	$U_{_{\rm D}} \ge 1.7 \text{ W/(m}^2\text{K)}$	
	Corner frame, wrap-aroun block frame	ıd frame,	•	•	
	3- or 4-sided frame		•	•	
nts	EInstallation in masonry		≥ 175	≥ 175	
Frame variants	Installation in reinforced	concrete	≥ 140	≥ 140	
ıme ı	Installation in cellular co	acrete	≥ 175	≥ 175	
Fre	Installation in assembly w	valls F90	≥ 100	≥ 100	
	Installation in clad steel cor	nstruction	≥ 140	≥ 140	
	Installation in fire resista assembly walls with AbP	nt	Wall thickness according to AbP	Wall thickness according to AbP	



# Transformer station doors | Ventilation grilles

### Product overview

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#### The transformer station door: a versatile solution for technical buildings

The transformer station door was specially developed for use in technical buildings such as transformer stations, data centres and substations.

In addition, the aluminium door variant is excellently suited for factory-built AC stations, both walk-in and non-walk-in.

This full-leaf door system meets the highest standards of functionality and security. Particularly in facilities where a constant supply of fresh air is essential, the door impresses with integrated ventilation grilles in a range of designs.

These ensure the necessary air exchange, which prevents overheating and ensures the reliable operation of the electrical components.

Thanks to its versatility, the transformer station door is an optimal solution for a wide range of applications.

#### Perfect balance between air supply and safety

The transformer station door is available in the following material variants:

- Aluminum in silver coloured (E6/EV1) anodized
- Steel primed or painted in RAL colour
- Stainless steel mill-finished, stainless steel polished grain 240

This product diversity ensures that the door can be perfectly matched to requirements.



Stainless steel wire mesh



Anodized aluminium slats



Vanished steel slats

# Transformer station doors

### Product overview

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			TrafoSt-1	TrafoSt-2	TrafoAl-1	TrafoAl-2
.0	Range	Width	500 - 1.500	1.000 - 3.000	500 - 1.500	1.000 - 3.000
sions	of dimensions (CW)	Height	500 - 3.000	500 - 3.000	500 - 3.000	500 - 3.000
Dimensions	Leaf thickness		69	69	67	67
	Sheet thickness		1,5	1,5	2	2
	Galvanised steel primed / pair Stainless steel 304 L / 316 L	nted	•	•	Aluminium	Aluminium
	Glazing		•	•	-	-
Design	Ventilation grilles		•	•	•	•
Des	Pressure relief flap		•	•	•	•
	Side and/or top part		•	•	•	•
	Thick or thin rebate		•	•	Flush design	Flush design
tics	Water tightness EN 12208		-	-	-	-
terist	Wind load resistance EN 12210		•	•	-	-
harac	Explosion pressure		up to 6.000 Pa	up to 6.000 Pa	•	•
ınce c	Burglary resistance EN 1627		up to RC-4	up to RC-4	-	-
Performance characteristics	<b>Protetction class</b> <i>EN 60529</i>		up to IP 43D	up to IP 43D	up to IP 43D	up to IP 43D
Perí	PEHLA certified		•	•	•	•
	corner frame, wrap-around fr frame, block frame in front o	ame, block f the wall	•	•	Square pipe	Square pipe
ıts	3- or 4-sided frame		•	•	•	•
variar	Installation in masonry		≥ 125	≥ 125	≥ 100	≥ 100
Frame variants	Installation in reinforced con	crete	≥ 100	≥ 100	≥ 100	≥ 100
H	Installation in cellular concre	te	≥ 150	≥ 150	•	•
	Installation in light partition	walls	≥ 100	≥ 100	•	•

# Ventilation grilles

## Product overview

				TrafoLG		Pressure relief flap
			69	69	109	80.5
us	Range of	Width	300 - 4.350	300 - 4.350	300 - 1.500	300 - 1.500
Dimensions	dimensions (CW)	Height	300 - 3.000	300 - 3.000	300 - 3.000	300 - 3.000
Jime	Leaf thickness		69	69	109	80,5
Н	Sheet thickness		1,5	1,5	1,5	1,5
Design	Frames		(galvanised s	Aluminum Z-profile (natural / EV-1 anodised / powder coated)		
	Ventilation lamellas Y-shape (poke-proof)		Aluminum (natural / EV-1 anodised / powder coated)	Wrap-aro	Aluminum Z-profile (natural / EV-1 anodised / powder coated)	
	Ventilation cross section		up to 43 %	up to 47 %	up to 56 %	-
	Wire mesh Small animal protection VA MW 10 mm Insect protection Alu MW 1 mm			•		-
CS	Water tightness EN 12208		-	-	-	-
eristi	Wind load resistance EN 12210		•	•	•	-
aracteristics	Explosion pressure		up to 6.000 Pa	up to 6.000 Pa	up to 6.000 Pa	up to 6.000 Pa
e cha	Burglary resistance E	N 1627	up to RC-2	up to RC-4	-	-
Performance ch	Protection class EN 60	0529	IP 23D / IP 43D	IP 23D / IP 43D	IP 23D / IP 43D	-
rforn	PEHLA certified EN 62	2271-202/EN	•	•	•	•
Pe	Ventilation character	istics	-	•	-	-
S	corner frame, wrap-around frame, block frame in from	d frame, block at of the wall	•	•	•	•
riant	Installation in door ty	pe	TrafoSt	TrafoSt	TrafoSt	TrafoSt / TrafoAL
Frame variants	Installation in mason	ry	•	•	•	•
Fran	Installation in reinforc	ced concrete	•	•	•	·
	Installation in light cells	ular concrete	•	•	•	•

## Road and railway tunnels



## Tunnel doors

### Product overview



possible / - not possible

## Road and railway tunnels



# Tunnel doors

## Road and railway tunnels

			HFS		HTS	HTD
		1-leaf	1-leaf	1-leaf	2-leaf	
			→   ·	· · · · · · · · · · · · · · · · · · ·	->	D
(0	Range of dimensions (CW)	Width	500 - 3.000	500 - 1.400	750 - 4.750	1.400 - 4.200
Dimensions		Height	1.500 - 3.200	1.500 - 2.200	1.750 - 3.750	2.000 - 4.900
imer	Leaf thickness		69	62	128	123
Д	Sheet thickness		1,5	1,0	1,5	1,5
	Galvanised steel primed / painted Stainless steel 304 L /316 L		•	•	•	•
n,	Automatic operation		•	-	-	•
Design	Pressure relief assistance		•	•	•	only wicket door
	Glazing		•	-	-	•
	With wicket door		-	-	-	•
S	Fire resistance EN 13501-2		up to EI <sub>2</sub> 30	up to EI <sub>2</sub> 120	up to EI <sub>2</sub> 120	up to EI <sub>2</sub> 120
ristic	Smoke protection EN 13501-2		-	S <sub>a3</sub> /S <sub>200</sub>	-	-
acte	Permanent function EN 1191		C0	C0	CO	CO
Performance characteristics	Certificate constancy of performance		in preperation	-	in preperation	EN 13241 EN 16034
nanc	Pressure-suction resistance		up to ±2 kPa	up to ±2 kPa	up to ±10 kPa	up to ±10 kPa
rfor	Load change		up to ±1 Mio.	up to ±6 Mio.	up to ±6 Mio.	up to ±3 Mio.
Pe	Escape route suitability		•	•	•	only with wicket door
ants	3- or 4-sided frame		•	•	•	•
Frame variants	Installation in masonry		≥ 175	≥ 200	≥ 200	≥ 175
Fran	Installation in reinforced concrete		≥ 140	≥ 200	≥ 200	≥ 175

# More tunnel products

### Emergency niche doors

In order to minimize the time of installation on the construction site, it is our permanent goal to maximize the degree of prefabrication of our products. This reduces errors and assembly times during installation on the construction site.

Based on this consideration, the emergency niche walls developed by Hodapp were created. The entire wall panel, including door and fire extinguisher compartment, is completely prefabricated at Hodapp, transported to the tunnel and then delivered to the designated location by forklift or crane. There, the concrete wall is then attached to the existing tunnel wall and the joints are mortared.



Emergency niche door

# More tunnel products

### Electromechanical opening assistance

The electromechanical opening assistance enables to open the door also at back-pressures up to 400Pa, with an opening force below 100N (EN 1125). The break pulse is triggered by the actuation of the door handle or panic bar by means of a micro switch. In case of upgrading, the door closer already in use can be maintained without any difficulty.

	Panga of dimensions (CW)	560 - 1.500	
	Range of dimensions (CW)	1.700 - 2.600	
	Opening direction	DIN Left/DIN Right	
istics	Fire resistance nach EN 1634-1	EI <sub>2</sub> 120	
ıcteri		Fire proof closures	
characteristics	Door construction	Smoke protection closures	
		Doors for escape and rescue routes	
Performance	Material	Stainless steel 304 L / 316 L   Galvanised steel primed / painted	
Perf	Power supply	230/400V	
	Control unit (24V-DC)	Where necessary, the use of potential free contacts or pressure switches can activate the opening mechanism. Thus, during normal operation there are no restrictions with regard to movement of persons and the self-closing property of the door is maintained.	



Electromechanical opening assistance



# Special doors

When it comes to the design and manufacture of doors and gates to be used in unusual and highly sensitive areas, our special and custom doors have proven their worth. Our many years of experience in the construction of special doors guarantees you an individual and high-quality complete solution, which is developed, planned and manufactured according to your requirements and ideas.





Radiation shielding door



Air lock door

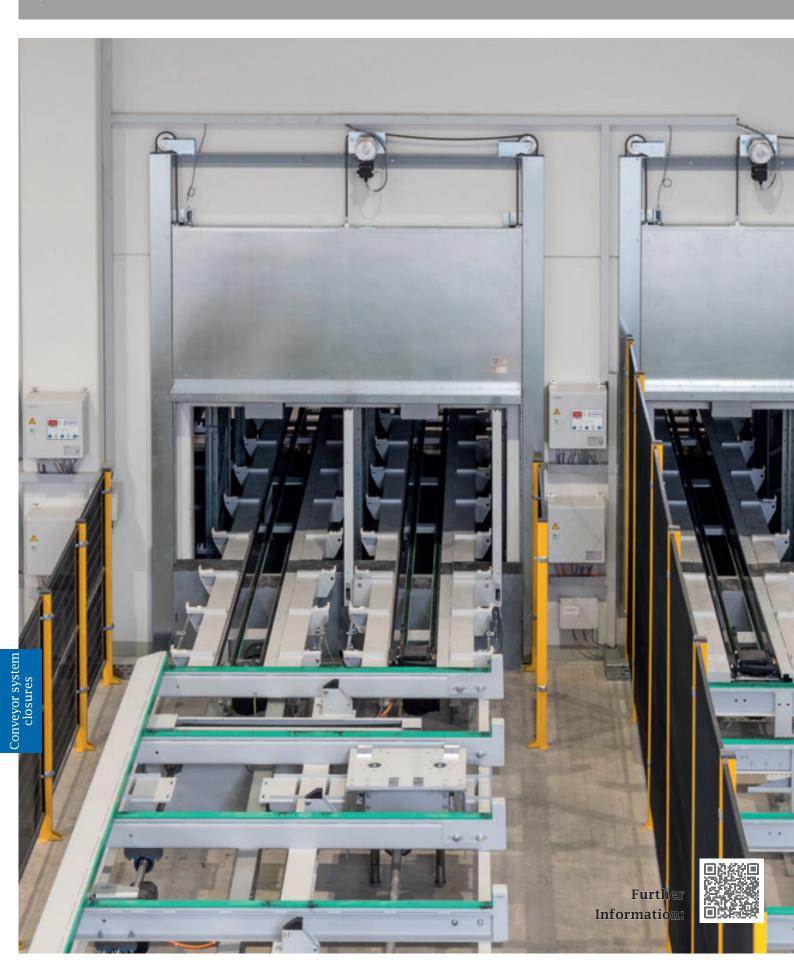


# Folding doors

### Product overview

The product group of folding doors includes two different door products: HFT-classic and RFT. They can be designed and equipped in a variety of ways and thus perfectly match the architectural aesthetics of the building facade.

Range of dimensions (CW)   Height   2.500 - 12.000   2.500 - 12.000   2.500 - 6.000				HFT-classic	RFT	
Possible configuration   Possible configura						
Possible configuration   1:2/2:1/1:3/3:1/2:2/2:3/   3:2/3:3/3:4/4:3/4:4   3:2/3:3/3:4/4:4   3:2/3:3/3:4/4:3/4:4   3:2/3:3/3:4/4:3/4:4   3:2/3:3/3:4/4:3			Width	2.500 - 12.000	2.500 - 12.000	
More variants   Multi-leaf sliding folding door   Multi-leaf sliding folding door	S		Height	2.500 - 5.500	2.500 - 6.000	
More variants   Multi-leaf sliding folding door   Multi-leaf sliding folding door	sion	Door leaf width		800 - 1.500	800 - 1.500	
More variants   Multi-leaf sliding folding door   Multi-leaf sliding folding door	imen	Possible configuration				
Material, steel sheet thickness Surface   1,5 / 2,0 / 3,0	Д	More variants		Multi-leaf sliding folding door	Multi-leaf sliding folding door	
Surface   1,5 / 2,0 / 3,0   rolled glazing bar    Opening angle (manually operated)   up to 180°   up to 180°    Opening angle (power operated)   90°   90°    Glazing   Rectangular/round glazing Insulating glass as safety glass Glass thickness 24 · 46 mm    Types of drive system Configuration 2:2/90°   Semi-automatic - Fire department opening Power operated central drive -1 jack screw drive per leaf package    Wicket door   possible, with/without threshold   possible, with/without threshold    Divided walking wing   Fittings   Surface mounted / Concealed shoot bolt   Concealed shoot bolt    Burglary protection ENV 1627 · 1630   WK 3, WK 4   WK 3    Sound insulation ISO 717-1   up to 39 dB   25 dB    Heat transfer coefficient EN ISO 2567-1, EN 12428   Up ≥ 1,8 W/(m²K)   Up ≥ 2,2 W/(m²K)    Resistance to wind load DIN EN 12424   up to class 5, bzw. 2000 Pa    Water tightness   up to class 4   •    Water tightness   up to class 3/150 Pa   •    Ventilation grille   •   •		Depth		63	80	
Opening angle (power operated) 90° 90°  Glazing Rectangular/round glazing Insulating glass as safety glass Glass thickness 24 - 46 mm  Types of drive system Configuration 2:2/90°  Wicket door Possible, with/without threshold possible, with/without opening Fittings Surface mounted / Concealed shoot bolt Concealed shoot bolt  Burglary protection $ENV 1627 - 1630$ WK 3, WK 4 WK 3  Sound insulation $ISO 717 - 1$ up to 39 dB 25 dB  Heat transfer coefficient $EN ISO 2567 - 1$ , $EN I2428$ $EN ISO 2567 - 1$ , $EN ISO$			et thickness	1,5 / 2,0 / 3,0		
Glazing  Rectangular/round glazing Insulating glass as safety glass Glass thickness 24 - 46 mm  Types of drive system Configuration 2:2/90°  Wicket door  Divided walking wing  Fittings  Surface mounted / Concealed shoot bolt  Burglary protection ENV 1627 - 1630  Surface mounted / Concealed shoot bolt  Heat transfer coefficient EN ISO 2567-1, EN 12428  Resistance to wind load DIN EN 12424  Air permeability EN 12427, EN 12426  Water tightness EN 12489, EN 12425  Ventilation grille  Rectangular fround glazing Insulating glass as safety glass Glass thickness 24 mm  Semi-automatic - Fire department opening Power operated central drive -1 jack screw drive per leaf pockage  possible, with/without threshold  possible, with/without threshold  Concealed shoot bolt  Concealed shoot bolt  Un to 39 dB  25 dB  Un to class 5, bzw. 2000 Pa  •  Water tightness EN 12489, EN 12425  Ventilation grille  Ventilation grille  Ventilation grille  Rectangular flazing Insulating glass as safety glass Glass thickness 24 mm  Semi-automatic - Fire department opening Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  possible, with/without threshold  Power operated central drive -1 jack screw drive per leaf package  power operated central drive -1 jack screw drive per leaf package  power operated central drive -1 jack screw drive per leaf package  power operated central drive -1 jack screw drive per leaf package  power operated central drive -1 jack screw drive per leaf package  power operated central drive -1 jack screw drive per leaf package  power operated central drive -1 jack screw drive per leaf package  power operated central drive -1 jack screw drive per leaf package  power operated central drive -1 jack screw drive per leaf package  power operated central drive -1 jack screw drive per leaf package  power operated central drive -1 jack screw drive per leaf package  power operated centra		Opening angle (manu	ally operated)	up to 180°	up to 180°	
Types of drive system Configuration 2:2/90° Semi-automatic - Fire department opening Power operated central drive - 1 jack screw drive per leaf package Wicket door possible, with/without threshold concealed shoot bolt Surface mounted / Concealed shoot bolt Concealed shoot bolt Sound insulation ISO 717-1 up to 39 dB 25 dB 25 dB 4		Opening angle (power	er operated)	90°	90°	
Power operated central drive -1 jack screw drive per leaf package  Wicket door  Divided walking wing  Fittings  Surface mounted / Concealed shoot bolt  Burglary protection $ENV 1627 - 1630$ WK 3, WK 4  WK 3  Sound insulation $ISO 717 - 1$ up to 39 dB  Heat transfer coefficient $ENV 1627 - 1630$ W <sub>D</sub> $\geq 1,8$ W/(m <sup>2</sup> K)  W <sub>D</sub> $\geq 1,8$ W/(m <sup>2</sup> K)  W <sub>D</sub> $\geq 2,2$ W/(m <sup>2</sup> K)  Water tightness $EN 12427$ , $EN 12426$ Up to class 3/150 Pa  Ventilation grille  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated central drive -1 jack screw drive per leaf package  Power operated shoot bolt	sign	Glazing		Rectangular/round glazing Insulating glass as safety glass Glass thickness 24 - 46 mm	Insulating glass as safety glass	
Divided walking wingFittingsSurface mounted / Concealed shoot boltConcealed shoot boltBurglary protection $ENV 1627 - 1630$ WK 3, WK 4WK 3Sound insulation $ISO 717 - 1$ up to 39 dB25 dBHeat transfer coefficient $EN ISO 2567 - 1$ , $EN 12428$ $U_D \ge 1.8 \text{ W/(m}^2\text{K)}$ $U_D \ge 2.2 \text{ W/(m}^2\text{K})$ Resistance to wind load $DIN EN 12424$ up to class 5, bzw. 2000 Pa•Air permeability $EN 12427$ , $EN 12426$ up to class 4•Water tightness $EN 12489$ , $EN 12425$ up to class 3/150 Pa•Ventilation grille••	De			Semi-automatic - Fire department opening Power operated central drive - 1 jack screw drive per leaf package	Semi-automatic - Fire department opening Power operated central drive - 1 jack screw drive per leaf package	
Fittings Surface mounted / Concealed shoot bolt Concealed shoot bolt WK 3, WK 4 WK 3  Sound insulation ISO 717-1 up to 39 dB 25 dB  Heat transfer coefficient EN ISO 2567-1, EN 12428 $U_D \ge 1.8 \text{ W/(m}^2\text{K)}$ $U_D \ge 2.2 \text{ W/(m}^2\text{K)}$ Resistance to wind load DIN EN 12424 up to class 5, bzw. 2000 Pa  Air permeability EN 12427, EN 12426 up to class 4  Water tightness EN 12489, EN 12425 up to class 3/150 Pa  • • • • • • • • • • • • • • • • • • •		Wicket door		possible, with/without threshold	possible, with/without threshold	
Burglary protection ENV 1627 - 1630   WK 3, WK 4   Sound insulation ISO 717-1   up to 39 dB   25 dB   Heat transfer coefficient EN ISO 2567-1, EN 12428   Up to class 5, bzw. 2000 Pa   Air permeability EN 12427, EN 12426   up to class 4   Water tightness EN 12489, EN 12425   ventilation grille   • • • •		Divided walking wing			-	
Sound insulation ISO 717-1 up to 39 dB 25 dB  Heat transfer coefficient EN ISO 2567-1, EN 12428 $U_D \ge 1.8 \text{ W/(m}^2\text{K})$ $U_D \ge 2.2 \text{ W/(m}^2\text{K})$ Resistance to wind load DIN EN 12424 up to class 5, bzw. 2000 Pa  Air permeability EN 12427, EN 12426 up to class 4  Water tightness EN 12489, EN 12425 up to class 3/150 Pa  •  Ventilation grille  •  •		Fittings		Surface mounted / Concealed shoot bolt	Concealed shoot bolt	
Resistance to wind load DIN EN 12424  Air permeability EN 12427, EN 12426  Water tightness EN 12489, EN 12425  Ventilation grille  up to class 5, bzw. 2000 Pa  up to class 4  up to class 4  •  up to class 3/150 Pa  •		Burglary protection El	NV 1627 - 1630	WK 3, WK 4	WK 3	
Resistance to wind load DIN EN 12424  Air permeability EN 12427, EN 12426  Water tightness EN 12489, EN 12425  Ventilation grille  up to class 5, bzw. 2000 Pa  up to class 4  up to class 3/150 Pa  •	ics	Sound insulation ISO 717-1		up to 39 dB	25 dB	
Resistance to wind load DIN EN 12424  Air permeability EN 12427, EN 12426  Water tightness EN 12489, EN 12425  Ventilation grille  up to class 5, bzw. 2000 Pa  up to class 4  up to class 4  •  up to class 3/150 Pa  •	cterist			$U_D \ge 1.8 \text{ W/(m}^2\text{K)}$	$U_{D} \ge 2,2 \text{ W/(m}^{2}\text{K)}$	
Air permeability EN 12427, EN 12426 up to class 4  Water tightness EN 12489, EN 12425  Ventilation grille  •  up to class 3/150 Pa  •	chara		load	up to class 5, bzw. 2000 Pa	•	
		Air permeability EN 12427, EN 12426		up to class 4	•	
	forma			up to class 3/150 Pa	•	
Control HPS-Motion II   SPS-Control HPS-Motion II   SPS-Control	Per	Ventilation grille		•	•	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Control		HPS-Motion II   SPS-Control	HPS-Motion II   SPS-Control	



# onveyor systen closures

# Conveyor system closures

### Conveyor system closures

If conveyor systems pass through a fire wall, specially tested and approved "fire protection closures in the course of rail-bound conveyor systems" are required.

These closures seal wall openings through which, for example, conveyor systems such as roller, chain or belt conveyors or electric monorails are routed.

In order to take into account the different construction types of the systems, the fire protection closures are individually adapted to the respective situation and the specific framework conditions.

Thanks to the low door leaf thickness, the closures can be optimally used for separate conveyor systems. Alternatively, they can also be adapted for systems that lead through. In this case, an additional sealing element is added, which dissipates the heat from the conveyor system in the event of a fire.

Depending on the requirements and product type, a surface with fire protection plates, sheet metal cladding or stainless steel is possible.

This is also possible in the desired color if required. Re-opening of the closure is possible either manually or automatically with a drive.

### Reliably opened and safely closed in case of fire.



Partitioning of a high-bay warehouse

# Conveyor system closures

## Product overview

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			Sliding e single		Lifting elements, single-leaf	
	Wall opening	Width	200 - 3.600	400 - 4.540	200 - 3.600	400 - 6.900
		Height	200 - 3.400	400 - 4.850	200 - 3.400	400 - 5.700
	Approval		Z- 6.6 -1993	ETA-22/0585	Z- 6.6 -1993	ETA-22/0585
	Fire resistance		Т90	EI <sub>2</sub> 120	Т90	EI <sub>2</sub> 120
	Closing directions					
CIOSCILES	Design		Sliding leaf optionally with or without sheet steel cladding  Sliding leaf can be designed in segmental construction  Floor level or elevated installation position possible  Seperate and continous conveying systems possible	Sliding leaf with sheet steel cladding  Sliding leaf can be designed in segmental construction  Floor level or elevated installation position possible  Seperate and continous conveying systems possible	Sliding leaf optionally with or without sheet steel cladding  Floor level or elevated installation position possible  Seperate and continous conveying systems possible	· Sliding leaf with sheet steel cladding · Sliding leaf can be designed in segmental construction · Floor level or elevated installation position possible · Seperate and continous conveying systems possible

# Conveyor system closures

## Product overview

		Hinged door, single-leaf	Slider for ceiling and floor installation	Sliding elements, double leaf	Hinged doors, double leaf
Wall ananing	Width	600 - 1.200	200 - 1.000	200 - 3.600	1.200 - 3.000
Wall opening	Height	700 - 3.500	200 - 1.500	200 - 3.400	700 - 3.500
Approval		Z- 6.6 -1994	Z- 6.6 -1993	Z- 6.6 -1993	Z- 6.6 -1994
Fire resistance		Т90	Т90	Т90	Т90
Closing directions				<u>7////</u> → ← <u>7////</u>	
Design		· Rotary leaf optionally with or without sheet steel cladding · Conveyor system can be continous at the top or continous at the bottom · Floor level or elevated installation position possible · Seperate and continous conveying systems possible	· Sliding leaf optionally with or without sheet steel cladding · Use in cross-story conveyor systems · Application with small space conditions · Installation position on or under the ceiling possible · Various types of continous conveyor systems possible · Seperate and continous conveying systems possible	· Sliding leaf optionally with or without sheet steel cladding · Asymmetrical leaf arrangement possible · Conveyor profile can be continous at the top or bottom, as well as in floor level or elevated installation position · Various types of continous conveyor systems possible · Seperate and continous conveying systems possible	· Hinged leaf optionally with or without sheet steel cladding · Asymmetrical leaf arrangement possible · Conveyor profile can be continous at the top or bottom, as well as in floor level or elevated installation position · Tested with thermally unseperated, continous aluminum conveyor profile (EHB rail) · Seperate and continous conveying systems possible

# Control systems

### Standard solutions HPS | Special solutions SPS

Our electrotechnical department realizes your technical requirements in the field of door and gate control. The development, programming, control and switch cabinet construction from one source.





SPS-Control II



## Hold open systems

### Hold open system | HPS-ADVANCED

The approved module combines the system components of the triggering device, power supply, evaluation of the fire detectors as well as operating elements and status displays.

The modular design allows flexible adaption to the requirements through the integration of the optional override control and the backup power supply.

An individual adaption of the system to the termination is possible via the system's own configuration software.

Potential-free interfaces are available for the communication with the conveyor system, as well as with a fire alarm system.

For service purposes a removable data carrier for system data and error memory is integrated.

Optionally, the central unit can be equipped with an additional operating point and, if necessary, a graphic display for status and error indication.







Control panel including display





