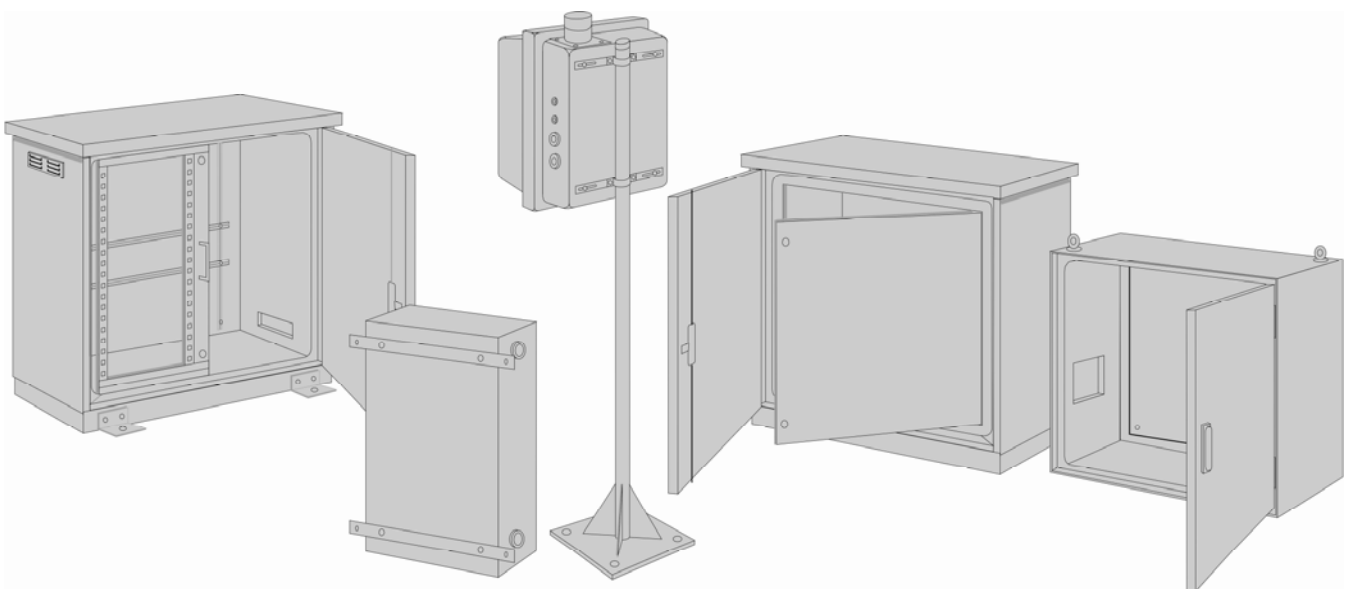


# Accessories

Accessories and extra equipment fit for SCHRAMM-switchgear cabinets and SCHRAMM-protection boxes

	<i>description</i>	<i>assignment</i>	<i>page</i>
<b>Closures</b>	Locks, closures, handles.....	Switchgear cabinets .....	9.01
<b>Internal Equipment</b>	Mounting plates.....	Switchgear cabinets and protection boxes.....	9.02
	Assembly racks.....	Switchgear cabinets and protection boxes.....	9.03
	Internal doors of sheet steel.....	Switchgear cabinets .....	9.04
	19"-swivel racks .....	Switchgear cabinets .....	9.05
	Door stops.....	Series PV, KS, and E .....	9.06
	Door stops.....	Series KS, E and ESK.....	9.07
<b>Fixing - Mounting Transport</b>	Fixing brackets.....	Series E.....	9.10
	Lifting- and fixing-brackets .....	Series ESK.....	9.10
	Lifting eye bolt.....	Switchgear cabinets .....	9.10
	Fastening parts .....	Series PV and KS.....	9.11
	Fixing rails for wall mounting.....	Series PV, KS and P 4 .....	9.11
	Fixing brackets for wall mounting .....	Series KS .....	9.11
	Pipe clips.....	Switchgear cabinets and protection boxes.....	9.12
	Tubular stands .....	Switchgear cabinets and protection boxes.....	9.13
	Tubular adaptors.....	Switchgear cabinets and protection boxes.....	9.13
<b>Ventilation - Climate</b>	Coverings for ventilation .....	Switchgear cabinets and protection boxes.....	9.15
	Insulation by foam.....	Protection boxes.....	9.15
<b>Wall Entrance Components</b>	Wall entrance for cable and pipes.....	Switchgear cabinets and protection boxes.....	9.18
	Insulating pipe adaptor.....	Switchgear cabinets and protection boxes.....	9.18

Please request further technical information for accessories and extra equipment which are not listed on this page.

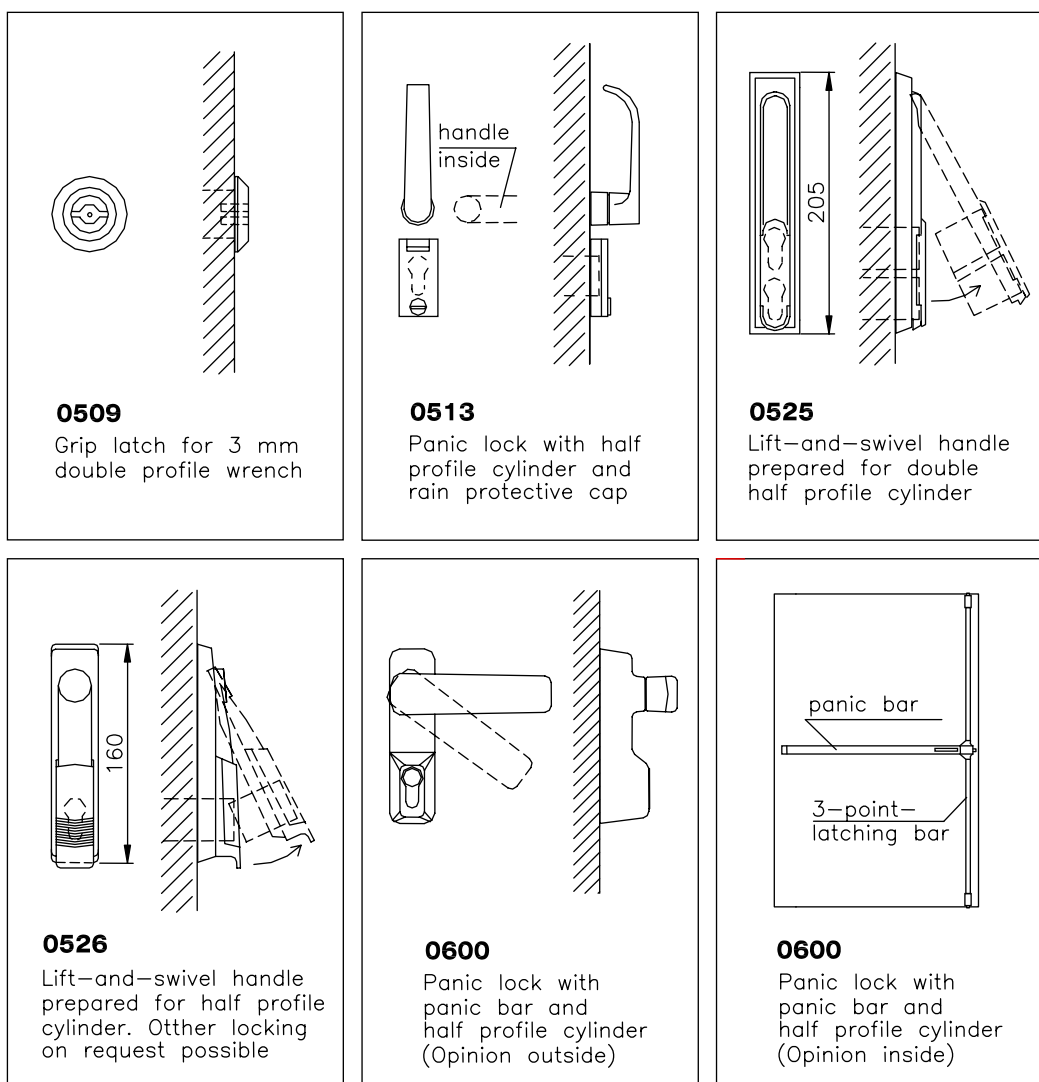


# Closures

for switchgear cabinets and gas bottle cabinets

series	Cabinet model	closure no.				
		0509	0513	0525	0526	0600
PV	all models	-	-	O	X	-
KS	all models	-	-	O	X	-
E	all models	-	-	O	X	-
ESK	ESK-20	-	X	O	O	O
FS-PS	all models	-	-	O	X	-
Internal doors, stive racks		X	-	-	-	-

- X standard equipment
- O extra equipment
- not available



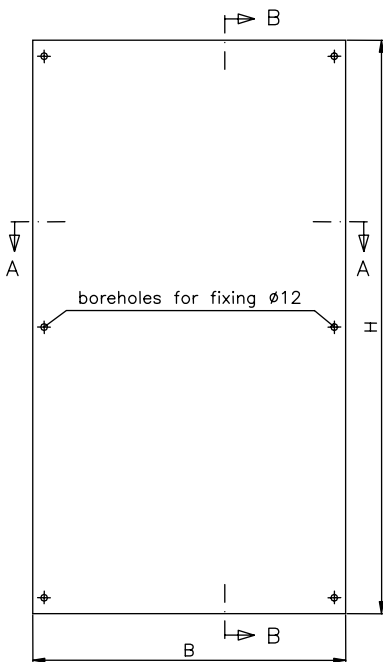
# Mounting Plates

Material: sheet steel 2,5 mm, galvanized

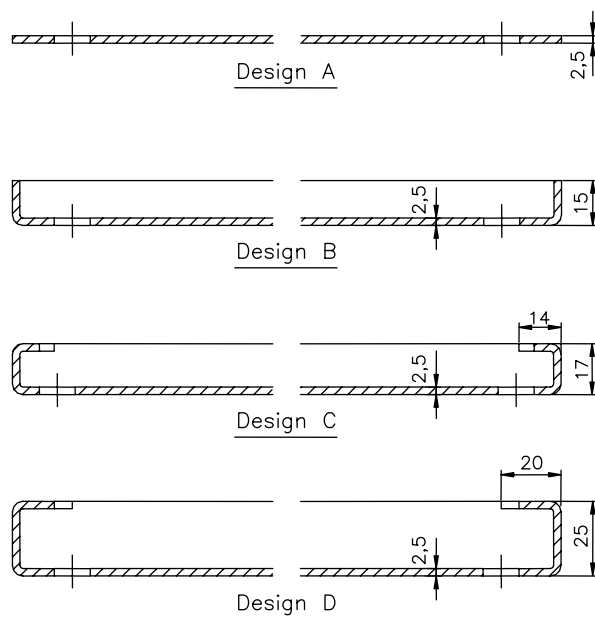
housing model	design	w mm	h mm	wt. kg	quantity
PV / KS 530-380	A	310	445	3	1
PV / KS 600-500	A	400	500	4	1
PV / KS 600-1000	B	900	500	10	1
PV / KS 700- 500	A	400	600	5	1
PV / KS 750- 750	A	650	650	9	1
PV / KS 800-1000	B	900	700	13	1
PV / KS 1000- 600	B	500	900	10	1
PV / KS 1000- 800	B	700	900	13	1
PV / KS 1000-1000	B	900	900	16	1
KS 1100-1100	C	955	955	19	1
KS 2060- 900	C	955	1915	30	1
KS 1400-1300...-20	E	1160	1250	32	1
KS 1400-1300...-10+10	E	375/685	1250	10/23	2
KS 1400-1600...-20	E	1460	1250	40	1
KS 1400-1600...-10+10	E	400/935	1250	11/26	2
KS 1400-2100...-20	E	1960	1250	54	1
KS 1400-2100...-10+20	E	400/1460	1250	11/40	2
<hr/>					
P 4.000	A	250	350	2	1
P 4.001	A	350	480	4	1
P 4.100 / 110	A	400	400	3	1
P 4.200 / 210	A	400	500	4	1
P 4.300 / 310 / 320	A	450	650	6	1

In cabinets **series E** with additional door in the rear side (...-11, ...-22) the mounting plate is movable in depth of the cabinet on c-formed steel.

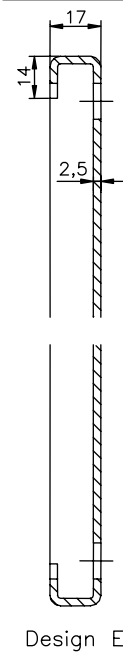
housing model	design	w mm	h mm	wt. kg	quantity
E 01-1000	D	900	960	19	1
E 01-1200	D	1100	960	23	1
E 01-1500	D	1400	960	29	1
E 01-2000...10/10	D	900	960	19/St.	2
E 01-2000...20	D	1900	960	29	1
<hr/>					
E 02-1000	D	900	1930	37	1
E 02-1000...10/10	D	900	900	19/St.	2
E 02-1200	D	1100	1930	45	1
E 02-1200...10/10	D	1100	900	23/St.	2
E 02-1500	D	700	1930	30/St.	2
E 02-2000	D	900	1930	37/St.	2
<hr/>					
E 04- 800	D	700	1570	25	1
E 04-1000	D	900	1570	30	1
E 04-1200	D	1100	1570	38	1
E 04-1560	D	700	1570	25/St.	2
E 04-1760	D	700/900	1570	25/30	2
E 04-2000	D	900	1570	30/St.	2
E 04-2320	D	700	1570	25/St.	3
E 04-2360	D	1100	1570	38/St.	2
<hr/>					
ESK-20, comp. 500	D	400	1930	18	1
ESK-20, comp. 1000	D	900	1930	37	1
<hr/>					
ESK-80, corner comp.	D	840	1930	33	1
ESK-80, middle comp.	D	900	1930	37	1



Section A-A



Section B-B



## Assembly Racks

Material: c-formed steel, galvanized

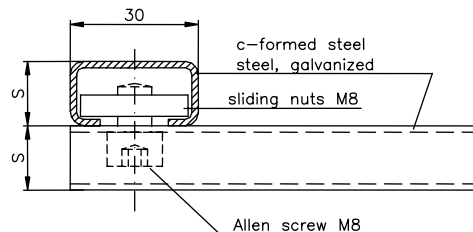
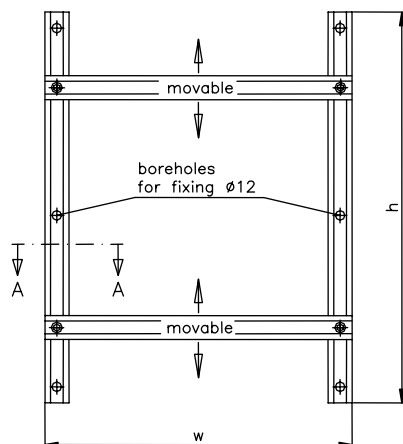
housing model	s mm	w mm	h mm	wt. kg	quan- tity
<b>PV 530-380</b>	15	320	425	1,4	1
<b>PV 600-500</b>	15	370	520	1,7	1
<b>PV / KS 600-1000</b>	15	870	480	2,3	1
<b>PV / KS 700- 500</b>	15	370	620	1,8	1
<b>PV / KS 750- 750</b>	15	720	640	2,2	1
<b>PV / KS 800-1000</b>	15	870	680	2,6	1
<b>PV / KS 1000- 600</b>	15	470	880	2,3	1
<b>PV / KS 1000- 800</b>	15	670	880	2,6	1
<b>PV / KS 1000-1000</b>	15	870	880	2,9	1
<b>KS 1100-1100</b>	15	955	955	3,3	1
<b>KS 2060- 900</b>	15	755	1915	4,2	1
<b>KS 1400-1300...-20</b>	15	1150	1250	5,8	1
<b>KS 1400-1300...-10+10</b>	15	365/675	1250	3,9/4,7	2
<b>KS 1400-1600...-20</b>	15	1450	1250	6,5	1
<b>KS 1400-1600...-10+10</b>	15	390/925	1250	4,0/5,3	2
<b>KS 1400-2100...-20</b>	15	1950	1250	7,8	1
<b>KS 1400-2100...-10+20</b>	15	390/1450	1250	4,0/6,5	2
<hr/>					
<b>P 4.000</b>	15	260	350	1,2	1
<b>P 4.001</b>	15	360	480	1,6	1
<b>P 4.100 / 110</b>	15	390	390	1,5	1
<b>P 4.200 / 210</b>	15	360	500	1,6	1
<b>P 4.300 / 310 / 320</b>	15	430	650	1,9	1

In cabinets series E with additional door in the rear side (...-11, ...-22) mounting racks are possible only on the lateral walls.

Attached to shipment: Necessary bolts, sliding nuts M8 screws with hexagonal recess hole M8. As additional on request: cross-c-rails with bolts/nuts.

housing model	s mm	w mm	h mm	wt. kg	quan- tity
<b>E 01-1000</b>	24	890	960	3,8	1
<b>E 01-1200</b>	24	1090	960	4,2	1
<b>E 01-1500</b>	24	1390	960	5,2	1
<b>E 01-2000...10/10</b>	24	890	960	3,8/pc.	2
<b>E 01-2000...20</b>	24	890	960	3,8/pc.	2
<hr/>					
<b>E 02-1000</b>	24	890	1950	5,7	1
<b>E 02-1000...10/10</b>	24	890	960	3,8/pc.	2
<b>E 02-1200</b>	24	1090	1950	6,1	1
<b>E 02-1200...10/10</b>	24	1090	960	4,2/pc.	2
<b>E 02-1500</b>	24	690	1950	5,0/pc.	2
<b>E 02-2000</b>	24	890	1950	5,7/pc.	2
<hr/>					
<b>E 04- 800</b>	24	690	1590	4,6	1
<b>E 04-1000</b>	24	890	1590	5,0	1
<b>E 04-1200</b>	24	1090	1590	5,4	1
<b>E 04-1560</b>	24	690	1590	4,6/ pc.	2
<b>E 04-1760</b>	24	690/890	1590	4,6/5,0	2
<b>E 04-2000</b>	24	890	1590	5,0/pc.	2
<b>E 04-2320</b>	24	690	1590	4,6/pc.	3
<b>E 04-2360</b>	24	1090	1590	5,4/pc.	2

<b>ESK-20, Elem. 500</b>	24	390	1950/2365	4,8/5,6	1
<b>ESK-20, Elem. 1000</b>	24	890	1950/2365	5,7/6,5	1
<hr/>					
<b>ESK-80, Eckelement</b>	24	800	2365/2365	6,0/7,0	1
<b>ESK-80, Zwischenel.</b>	24	860	2365/2365	6,4/7,4	1



Section A - A

# Internal Doors of Sheet Steel

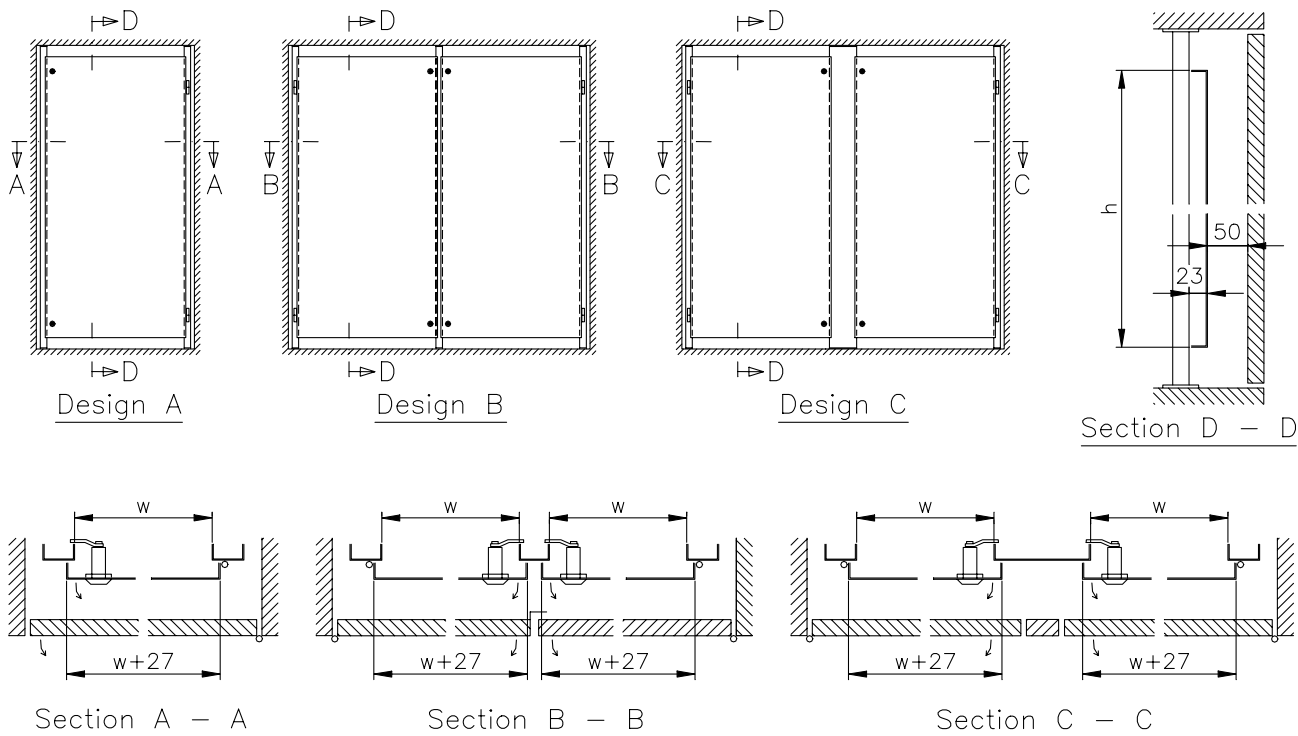
Material: sheet steel 2 mm, galvanized

housing model	design	w mm	h mm	weight approx. kg	housing model	design	w mm	h mm	weight approx. kg
PV / KS 530-380	A	225	410	4	E 01-1000	A	820	910	17
PV / KS 600-500	A	345	465	5	E 01-1200	A	1020	910	20
PV / KS 600-1000	A	845	465	10	E 01-1500	B	637	910	26
PV / KS 700- 500	A	345	565	6	E 01-2000...10+10	C	824	910	34
PV / KS 750- 750	A	590	615	9	E 01-2000...20	B	862	910	35
PV / KS 800-1000	A	845	665	13	E 02-1000	A	820	1860	34
PV / KS 1000- 600	A	445	865	10	E 02-1000...10/10	2xA	820	860	je 16
PV / KS 1000- 800	A	645	865	13	E 02-1200	A	1020	1860	40
PV / KS 1000-1000	A	845	865	16	E 02-1200	B	487	1860	44
KS 1100-1100	A	900	900	18	E 02-1200...10/10	2xA	1020	860	je 18
KS 2060- 900	A	720	1880	33	E 02-1500	B	637	1860	53
KS 1400-1300...-20	B	533	1200	22	E 02-2000	B	887	1860	68
KS 1400-1300...-10+10	A	623	1200	14	E 04- 800	A	620	1498	22
KS 1400-1600...-20	B	683	1200	24	E 04-1000	A	820	1498	27
KS 1400-1600...-10+10	A	873	1200	19	E 04-1200	A	1020	1498	32
KS 1400-2100...-20	B	933	1200	38	E 04-1560...10+10	C	624	1498	45
KS 1400-2100...-10+20	B	683	1200	24	E 04-1560...20	B	667	1498	41
					E 04-1760...10+10	C	624/824	1498	50
					E 04-1760...20	B	767	1498	46
					E 04-2000...10+10	C	824	1498	53
					E 04-2000...20	B	862	1498	56
					E 04-2320	(C)	3x624	1498	68
					E 04-2360	B	1067	1498	65

Standard closures: grip latch for 3 mm double profile wrench (closure no. 0509);

Standard mounting depth: 50 mm (other mounting depths are possible)

In cabinets model E 02-...-10/10: design A possible in upper chamber and chamber below



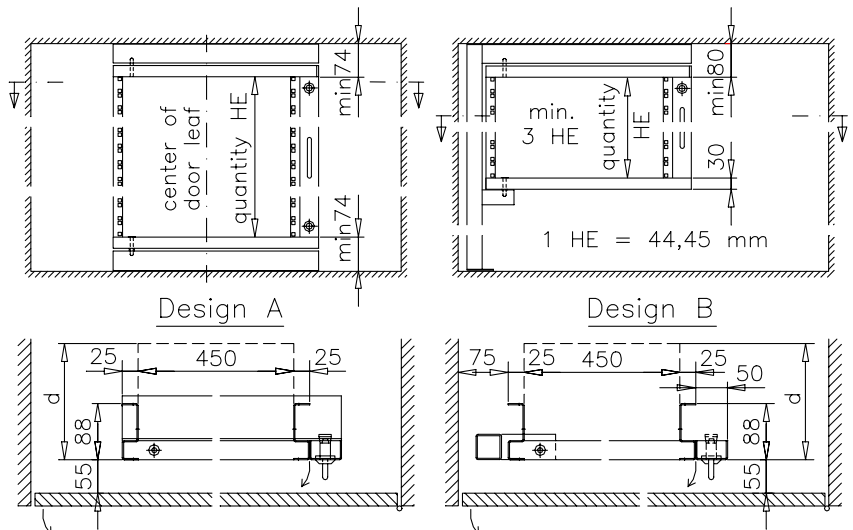
# 19"-Swivel Racks

Material: sheet steel, lacquered RAL 7035 or galvanized

housing model	max. quantity HE		-----mounting depth d (mm) with cabinet depth-----					
	design A	design B	300	400	450	500	600	1000 mm
	PV / KS		PV / KS	PV / KS	PV / KS			
<b>PV 530-380</b>	--	--						
<b>PV 600-500</b>	--	--						
<b>PV / KS 600-1000</b>	9 / 8	8	200/185			345/330		
<b>PV / KS 700- 500</b>	--	--						
<b>PV / KS 750- 750</b>	13 / 12	12	205/190	305/290				
<b>PV / KS 800-1000</b>	14 / 13	13	200/185			345/330		
<b>PV / KS 1000- 600</b>	18 / 17	special design						
<b>PV / KS 1000- 800</b>	18 / 17	17	200/185			345/330		
<b>PV / KS 1000-1000</b>	18 / 17	17	200/185			345/330		
<b>KS 1100-1100</b>	19	18			330	380	480	
<b>KS 1400- ...</b>	26	18				380	480	
<b>KS 2060- 900</b>	41	18			330	380	480	
<b>E 01-1000</b>	20	18				370	470	870
<b>E 01-1200</b>	20	18				370	470	870
<b>E 01-1500</b>	20	18				370	470	870
<b>E 01-2000...10+10</b>	2x 20	2x 18				370	470	870
<b>E 01-2000...20</b>	20	18				370	470	870
<b>E 02-1000</b>	42	18				370	470	870
<b>E 02-1000...10/10</b>	2x 19	2x 18				370	470	870
<b>E 02-1200</b>	42	18				370	470	870
<b>E 02-1200...10/10</b>	2x 19	2x 18				370	470	870
<b>E 02-1500</b>	42	18				370	470	870
<b>E 02-2000</b>	42	18				370	470	870
<b>E 04- 800</b>	33	18				370	470	870
<b>E 04-1000</b>	33	18				370	470	870
<b>E 04-1200</b>	33	18				370	470	870
<b>E 04-1560...10+10</b>	2x 33	2x 18				370	470	870
<b>E 04-1560...20</b>	33	18				370	470	870
<b>E 04-1760...10+10</b>	2x 33	2x 18				370	470	870
<b>E 04-1760...20</b>	33	18				370	470	870
<b>E 04-2000...10+10</b>	2x 33	2x 18				370	470	870
<b>E 04-2000...20</b>	33	18				370	470	870
<b>E 04-2320</b>	3x 33	3x 18				370	470	870
<b>E 04-2360</b>	33	18				370	470	870

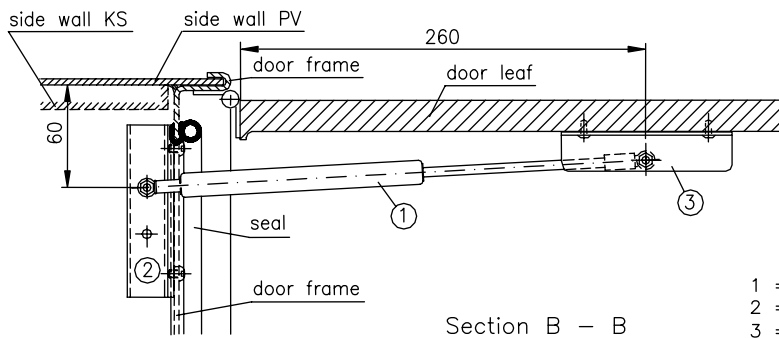
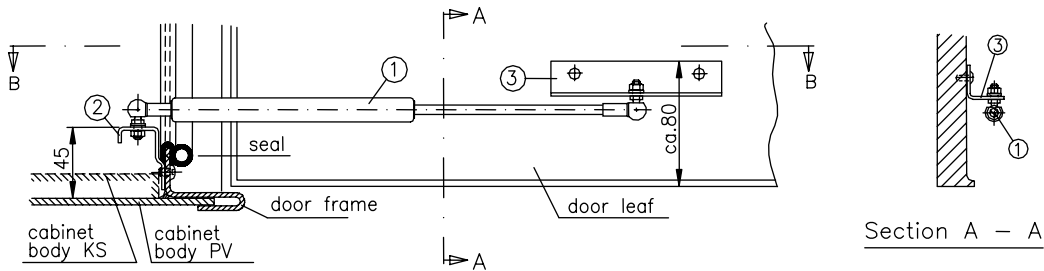
All figured designs are standard designs. Special designs and other mounting positions on request.  
 Closures: grip latch for 3 mm double profile wrench (closure no. 0509).  
 Standard mounting distance: 55 mm (other distances possible on request).  
 In cabinets model E 02-...-10/10: possible in upper chamber and chamber below.

Weight (kg) design A =  $0.26 \times \text{quantity HE} + 6.2$   
 weight (kg) design B =  $0.37 \times \text{quantity HE} + 4.0$   
 (+ 2.4 kg/m for support depending on height of cabinet and quantity of HE)



## Door Stops Typ 010/1

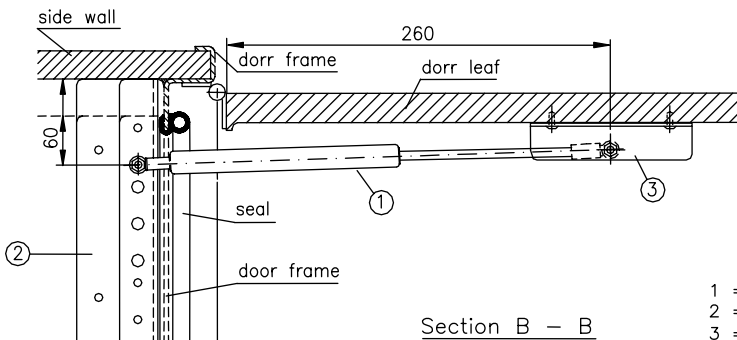
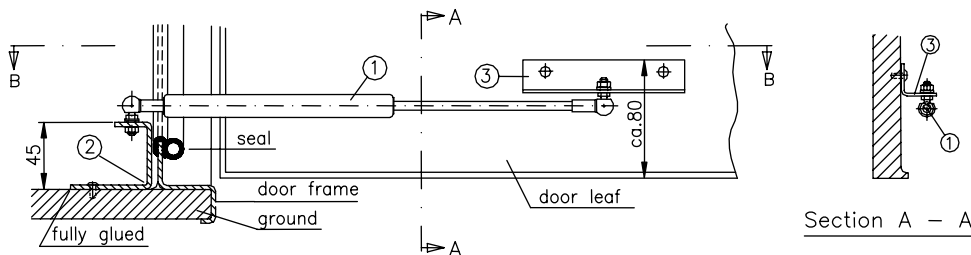
Series PV and KS to sizes 1000–1000



- 1 = pressurized spring 6-15-120
- 2 = mounting bracket
- 3 = knee-table

## Door Stops Typ 010/2

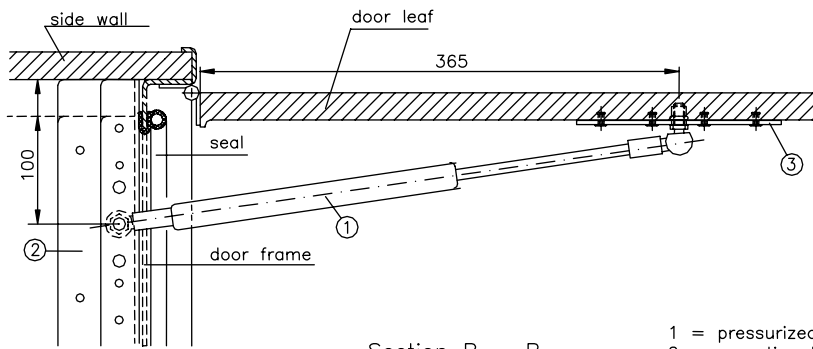
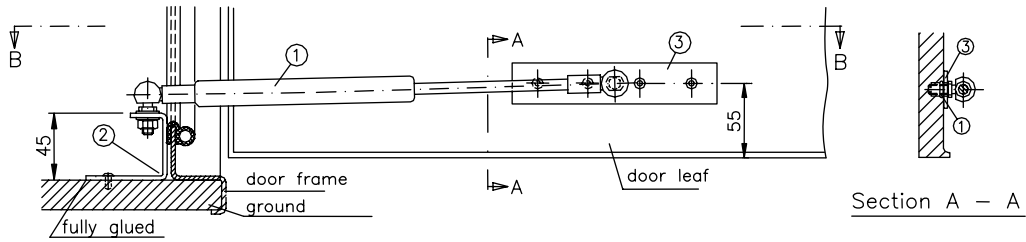
Series KS from size 1100–1100 and E01/E02/E04



- 1 = pressurized spring 6-15-120
- 2 = mounting bracket
- 3 = knee-table

## Door Stops Typ 021/1

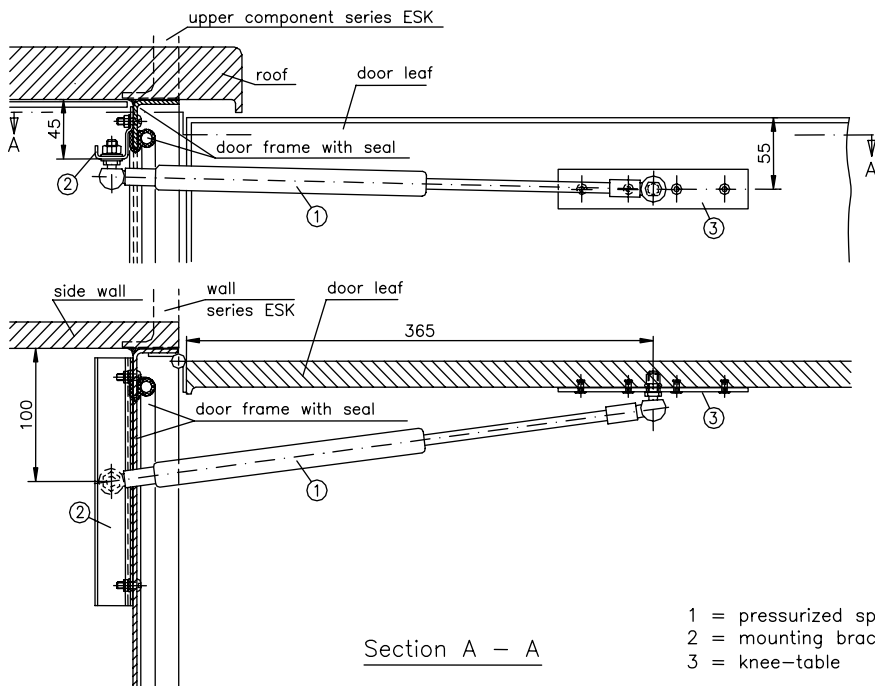
Series KS from size 1100-1100 and E01/E02/E04



- 1 = pressurized spring 8-19-150
- 2 = mounting bracket
- 3 = knee-table

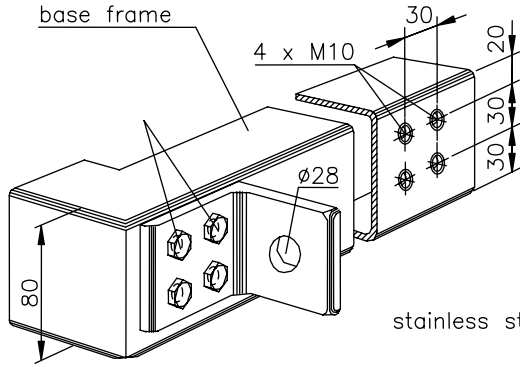
## Door Stops Typ 021/2

Series ESK



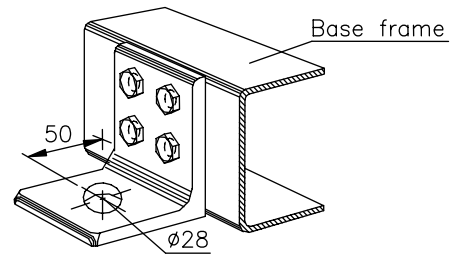
- 1 = pressurized spring 8-19-150
- 2 = mounting bracket
- 3 = knee-table

**Transport- and Fixing Brackets**  
(Series ESK)



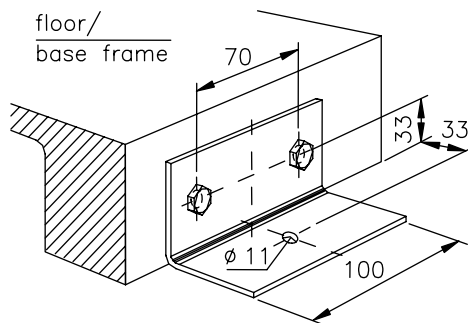
Use as Lifting Bracket

stainless steel 80x80x65



Use as Fixing Bracket

**Fixing Bracket** (Series E)

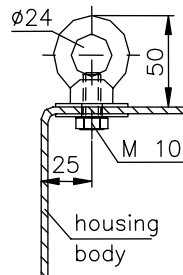


stainless steel 60x60x100  
fixing with screws M10

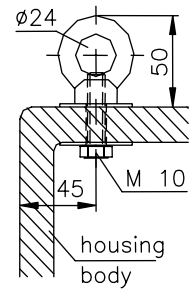
**Lifting Eye Bolts**

stainless steel

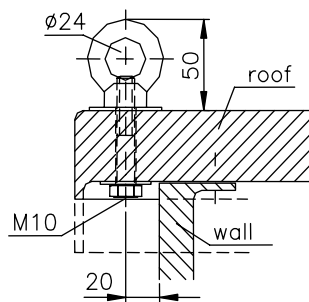
loading with  
4 lifting eye bolts  
and 4 strands  
of lifting rope.  
slope angle 60°  
to the roof



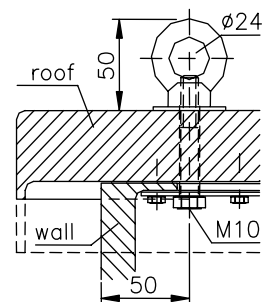
Series PV  
max. 100 kg



Series KS  
max. 300 kg



Series E, FS  
max. 300 kg

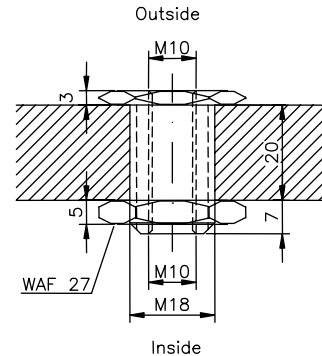
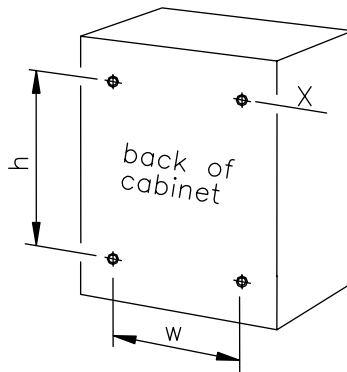


max. 800 kg

# Fixing

**Fastening parts** (Series PV, KS)

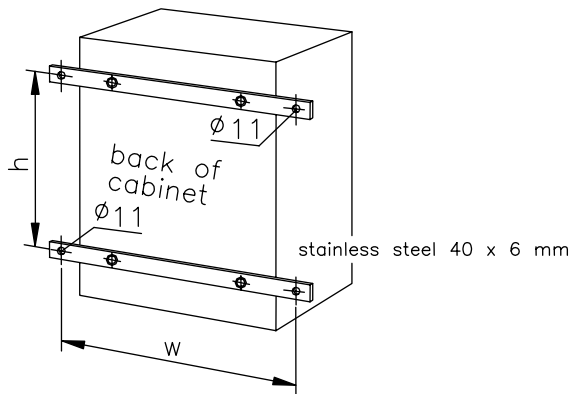
housing model	w	h
PV 530-380	290	385
PV 600-500	340	480
PV 600-1000	840	440
PV 700-500	340	580
PV 750-750	590	590
PV 800-1000	840	640
PV 1000-600	440	840
PV 1000-800	640	840
PV 1000-1000	840	840
KS 1000-1000	840	840
KS 1100-1100	925	925
KS 1400-1300	1120	1220
KS 1400-1600	1420	1220
KS 1400-2100	1920	1220



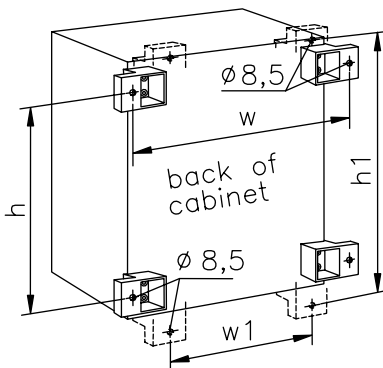
Detail X

**Fixing Rails for Wall-Mounting** (Series PV, KS, P4)  
with fastening parts in the cabinet rear wall

housing model	w	h
PV 530-380	400	385
PV 600-500	515	480
PV 600-1000	1015	440
PV 700-500	515	580
PV 750-750	765	590
PV 800-1000	1015	640
PV 1000-600	615	840
PV 1000-800	815	840
PV 1000-1000	1015	840
KS 600-500	515	480
KS 600-1000	1015	440
KS 700-500	515	580
KS 750-750	765	590
KS 800-1000	1015	640
KS 1000-600	615	840
KS 1000-800	815	840
KS 1000-1000	1015	840
P 4.000	330	330
P 4.001	455	450
P 4.1...	480	360
P 4.2...	480	450
P 4.2... Q	630	330
P 4.3...	530	630
P 4.3... Q	730	400



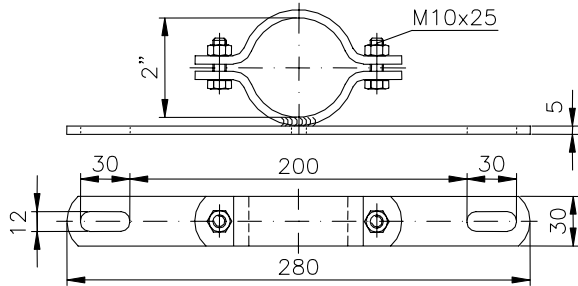
**Fixing Brackets for Wall-Mounting** (Series KS)



housing model	lateral		top/bottom	
	w	h	w1	h1
KS 600-500	510	517	417	610
KS 600-1000	1010	517	917	610
KS 700-500	510	617	417	710
KS 750-750	760	667	667	760
KS 800-1000	1010	717	917	810
KS 1000-600	610	917	517	1010
KS 1000-800	810	917	717	1010

arrangement of the plastic brackets  
lateral or on top/bottom possible

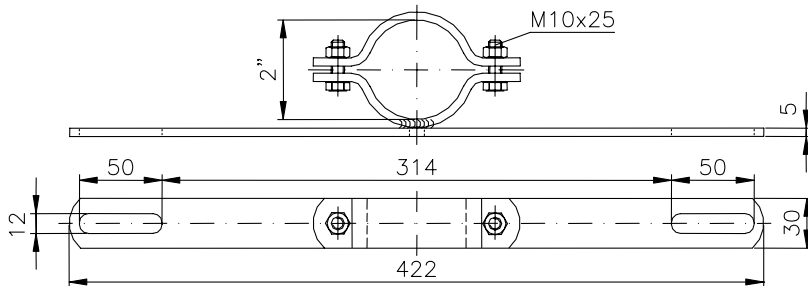
# Pipe Clips



Pipe clips  
made of steel galvanized

**Model 120**

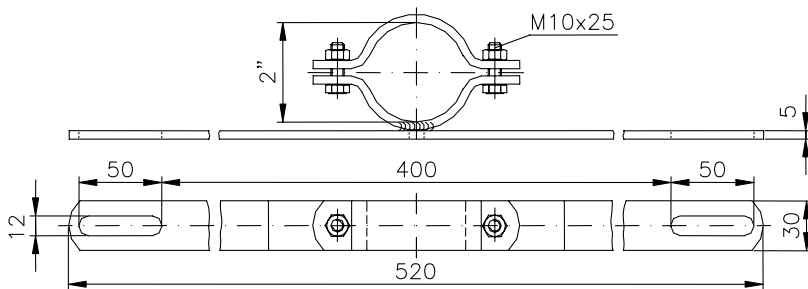
for P 4.000



Pipe clips  
made of steel galvanized

**Model 121**

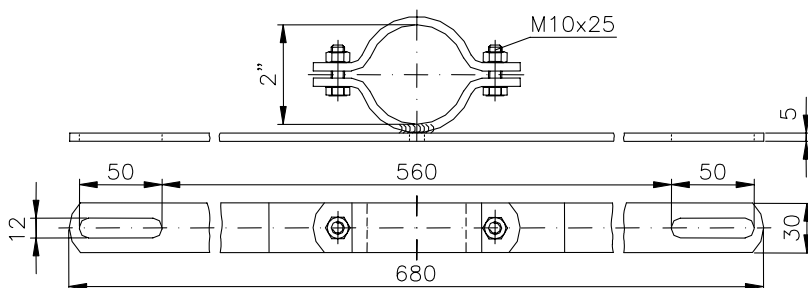
for P 4.001  
P 4.1.., P 4.2.., P 4.3..



Pipe clips  
made of steel galvanized

**Model 123**

for P 4.2.. Q

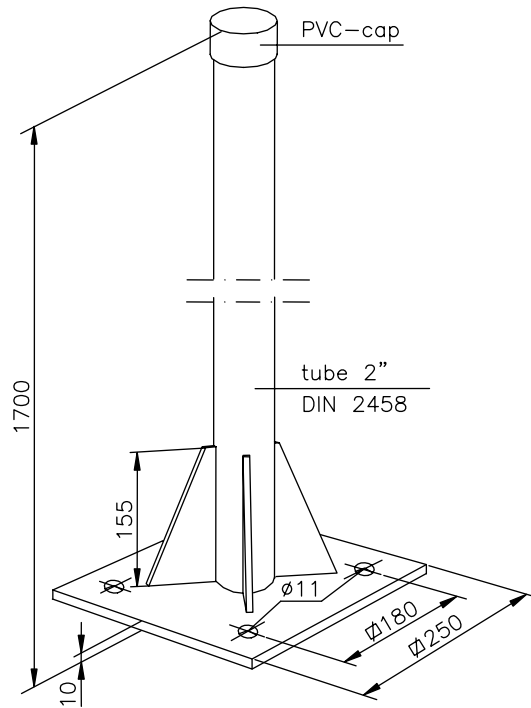


Pipe clips  
made of steel galvanized

**Model 124**

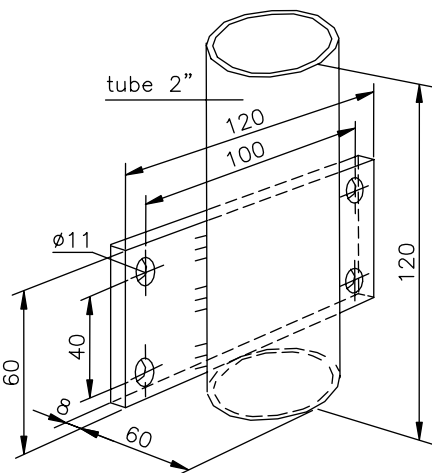
for P 4.3.. Q

## Tubular Stands – Tubular Adaptors



Tubular stand, steel galvanized

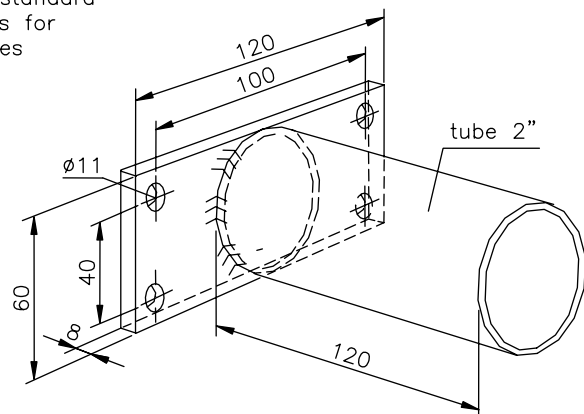
**Model 102**



Tubular adaptor, steel galvanized,  
for vertical tube-assembly of  
equipment parts

**Model 1**

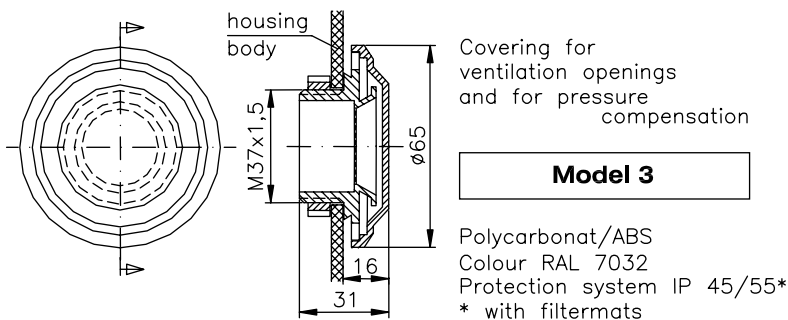
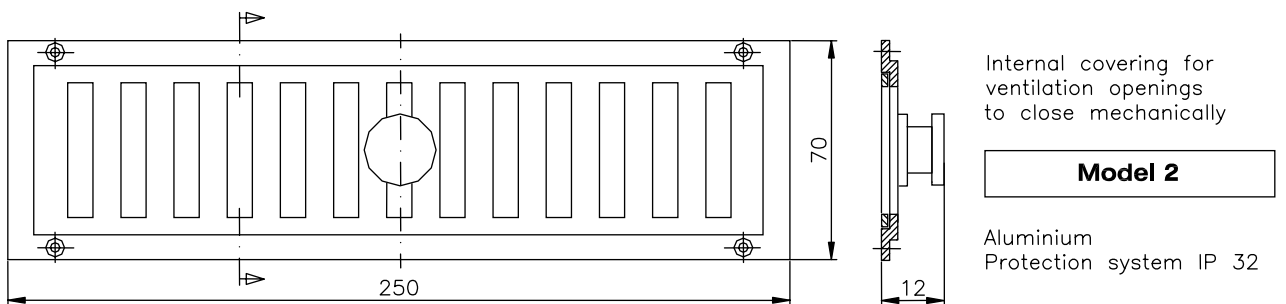
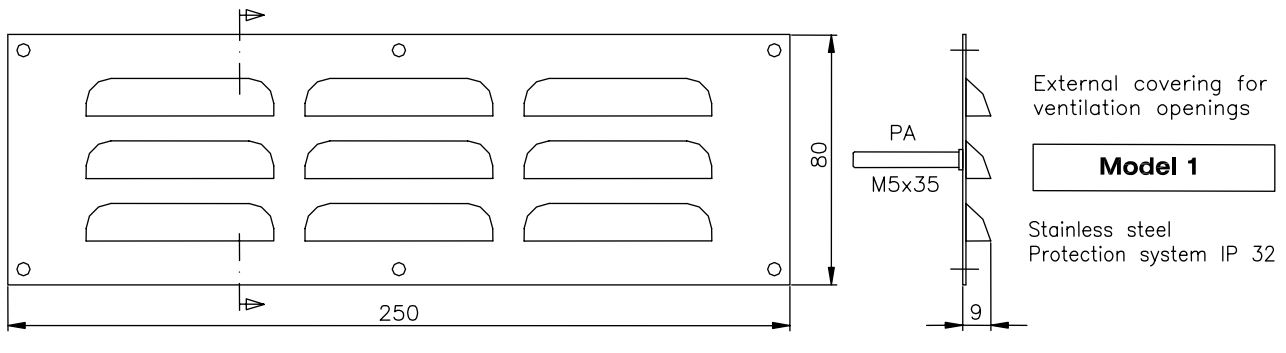
For fixing on standard  
assembly racks for  
protection boxes  
series P 4



Tubular adaptor, steel galvanized,  
for horizontal tube-assembly of  
equipment parts

**Model 2**

**Ventilation - Climate**

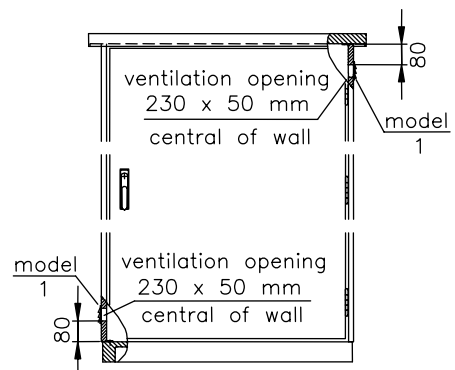
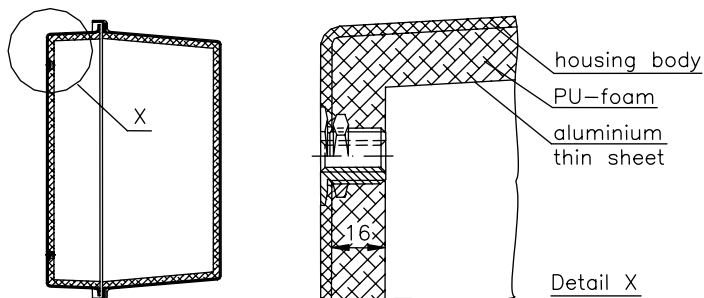


**Model 1 / Model 2** (Series PV, KS, E):  
standard arrangement in the side walls see draft below

**Model 1 / Model 2** (Series ESK):  
arrangement according to customers specification

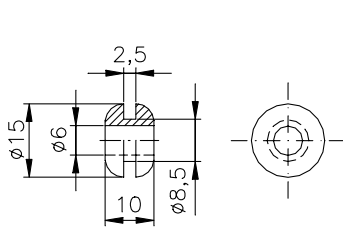
**Model 3** (Series P 4):  
arrangement according to customers specification

**Insulation with PU-Foam** (Series P 4)



Other ventilation openings, coverings and ventilators on request

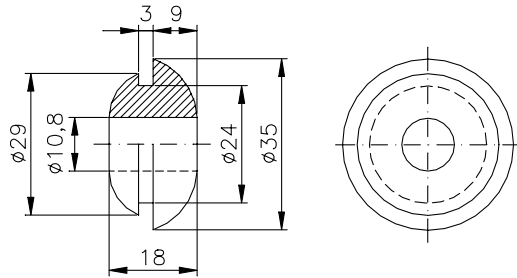
## Wall Entrance Components



Wall entrances for cables and pipes

**GD 6**

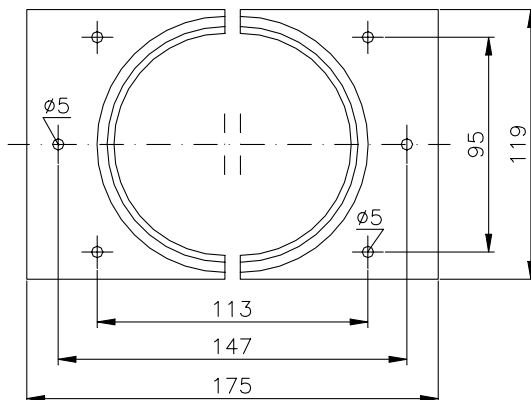
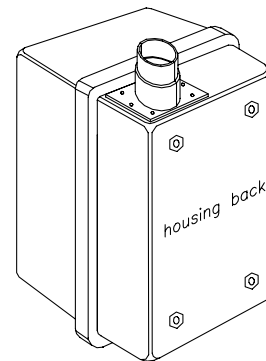
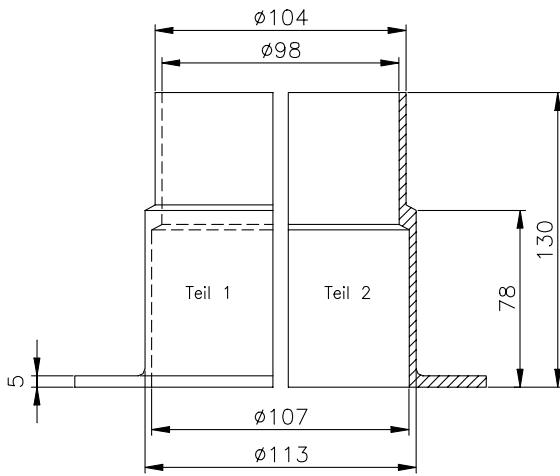
Temperature resistant up to 200°C



Wall entrances for cables and pipes

**GD 12**

Temperature resistant up to 200°C



### Insulating Pipe-Adaptor

for the entrance of impulse leads/heating cables into protection box

2 parts made of fiberglass reinforced polyester