

Industrial enclosures:

# In stainless steel

- Compact enclosures
- Enclosures and support arm systems for the human / machine interface
- Large enclosures

Including  
Innovations 2003



# Rittal – system partners

## Perfect holistic solutions

Be it automation, communications or power supply technology, Rittal offers the right enclosures and cabinets to suit virtually all requirement profiles in modern industrial engineering. As you would expect, the range is also available in stainless steel with extremely high specifications on hygiene and corrosion resistance.

Ingeniously designed system platforms in conjunction with an extensive range of system accessories provide the basis for the exceptional solution diversity of the Rittal stainless steel range. Allow us to advise you. We are happy to work to your requirements.



### Global customer proximity

Regardless of where your products are developed, manufactured or used, we are at your service.

### Demand-oriented production



Fresh milk, new car paint, important medication; however varied the demands placed on stainless steel enclosures may be, we have the right solutions to accommodate them. What is more, we are constantly extending our expertise, by building on development work in close dialogue with our customers.

#### New to the range:

- Top enclosure system TS 8, see page 52 – 57
- Premium Panel, see page 30/31
- Plus a wide range of accessory components for optimum solutions.



#### Overview of diversity Quality for your success 4 – 5

#### Integral systems Meeting demands & cutting costs 6 – 7

#### Production and service Meeting individual requirements 8 – 9

#### Product combinations Ideas for new solutions 10 – 11

#### Compact enclosures Accessories 12 – 23 24 – 27

#### Enclosures for the human/ machine interface Accessories 28 – 47 48 – 49

#### Large enclosures Accessories 50 – 61 62 – 69

#### System accessories in Rittal Catalogue 30 70 – 71

#### Enclosure climate control System benefits 72 – 73

#### Individual solutions to perfection 74 – 75

#### Search and find: Order numbers, index 76 – 77

#### Countless possibilities

The use of system accessories is the first step towards rational system integration. The second step is afforded by a broad range of modules for climate control, electronics, IT networks and power distribution. The result? Holistic individual solutions, which are both perfect and cost-effective.



# Overview of diversity

## Quality for your success



You define your requirements  
– Rittal has the solution!

The system diversity offered  
by us is exemplary. It is the  
cumulation of expertise gleaned from count-  
less discussions with customers.

The result? Fast, reliable solutions available off  
the shelf, immediately – and assembled ready  
for use upon request.

### Quality is the key



... and at Rittal it is con-  
stantly being improved,  
thanks to on-going quality  
assurance in our accred-  
ited QA laboratory.

### Work more effectively, easily and reliably

Success is down to the  
individual. Rittal offers  
effective support through  
its products.


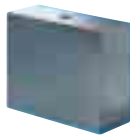
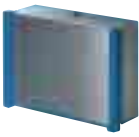





### System integration included

The basic fittings of  
every enclosure lend  
themselves to a wide  
range of external and  
internal mounted parts.



## Enclosures for the human / machine interface

Premium Panel	Command Panel	Command Panel housing with door	Support arm system/stand system	AP one-piece consoles	AP universal consoles
					
<b>Dimensions</b> for installed equip- ment 482.6 mm (19")/7 U, 120 and 220 mm deep, optionally with keyboard housing for 482.6 mm (19")/4 U	<b>2 sizes</b> 320/240/160 mm and 400/320/160 mm	<b>4 sizes</b> 300/300/150 mm to 600/400/150 mm	<b>Various support arm components</b> for enclosures KL, AE and CP	<b>4 sizes</b> 600/960/400 mm to 1200/960/400 mm Single or double- door	<b>Size</b> 600/1300/500 mm With tall or short front door and clearance for desk section or drawer
Page 30/31	Page 32/33	Page 34/35	Page 36 – 41	Page 42/43	Page 44/45



## Compact enclosures

### Terminal boxes KL



**6 sizes**  
150/150/80 mm  
to  
300/300/120 mm  
Cover, screw  
fastened

Page 14/15

### Bus enclosures BG



**5 sizes**  
200/300/80 mm  
to  
600/200/123 mm  
Hinged door with  
screw fastener

Page 16/17

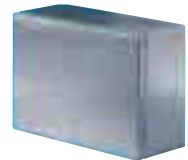
### Compact enclosures AE



**15 sizes**  
200/300/155 mm  
to  
1000/1200/300 mm  
One-door or two-  
door, lockable door  
with double-bit lock  
insert

Page 18/19

### Premium Line KL



**4 sizes**  
150/150/80 mm  
to  
400/300/120 mm  
Cover, screw  
fastened

Page 22/23

## Large enclosures

### PC enclosure systems



**Size**  
600/1600/620 mm  
With viewing win-  
dow and drawer or  
desk section

Page 46/47

### TS 8 baying systems



**8 sizes**  
800/1800/400 mm  
to  
1200/2000/600 mm  
Single or double-  
door

Page 54/55

### Free-standing enclosures ES



**6 sizes**  
600/1600/400 mm  
to  
1200/2000/500 mm  
Single or double-  
door

Page 58/59

# Integral systems

## Meeting demands and cutting costs



With over 8,000 precision products available worldwide, Rittal is a superior systems supplier. The spectrum ranges from standardised mass production to customised individual solutions.

### Our concept:

- Uniform system platforms
- Differentiated installation levels
- Cost-efficient versatility
- High standards of quality

All this from your one-stop suppliers. As competent system partners, we work with you to develop holistic solutions which are both perfect and cost-effective, tailored to your specific requirements.



### IT solutions

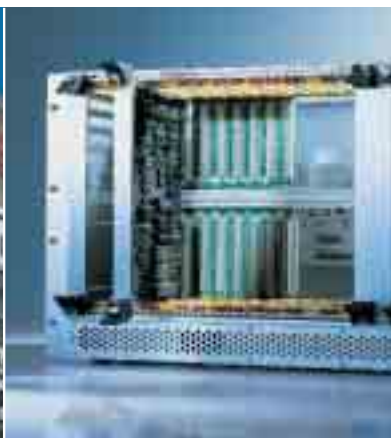
- All components for data & communications networks.
- Also available for stainless steel cases and enclosures with 482.6 mm (19") and metric installation.

### Power distribution

- From connection systems to isolators.
- Busbar systems in 40, 60, 100, 150 and 185 mm bar centre distance
- Systems up to 3200 amps.

### Electronic systems

- MPS microcomputer packaging systems
- Subracks
- Cases for industrial PCs.



## System climate control

- Integral cooling technology
- Roof- and wall-mounted cooling units
- Recooling systems
- Air/water heat exchangers
- Air/air heat exchangers
- Fan-and-filter units
- Rack-mounted climate control
- Heaters



## System accessories



### User-friendly

e.g. with system lights, socket strips, wiring plan lecterns etc.

### Early warning . . .

Signal pillars – just one example of safety. We also offer a full range of lock and monitoring systems.

### Modular solution diversity

Outstanding:  
All enclosures from the TS 8 system platform offer infinite possibilities for interior installation.



# Production and service

## Meeting individual requirements



As global players, we boast many years of experience in international markets.

With 19 production sites, 45 subsidiaries and over 70 branch offices in 5 continents,

we are always close at hand.



**Customer proximity regionally and worldwide**



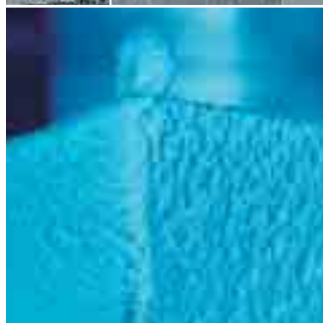




Innovative production techniques at the Wissenbach stainless steel factory ensure a successful symbiosis between individual solutions and cost-effective, top-quality mass production. Stainless steel is a special material which demands the special expertise offered by our team.

### Uncompromisingly high quality

At Rittal, quality is not defined by a one-off certificate, but is instead an on-going process. Every day, our products are put through their paces at our in-house laboratories. This includes EMC testing, climatic chambers, load tests, 3D measurement, dust testing and hosed water tests, as well as electrical safety testing.



### Individual solutions – off the shelf



Particularly for customers who require small batches in individual sizes or cut-outs in enclosure and case surfaces, laser technology covers all the options for cost-effective implementation of specific requirements.

### Excellent benefits from standardised quality



Cost-effective products in an exemplary quality are the result of innovative mass production. For example, we have developed special techniques for shaping and welding. One outstanding example is the 16-fold profiled stainless steel section in the TS 8 Top enclosure system, with its infinite installation possibilities.

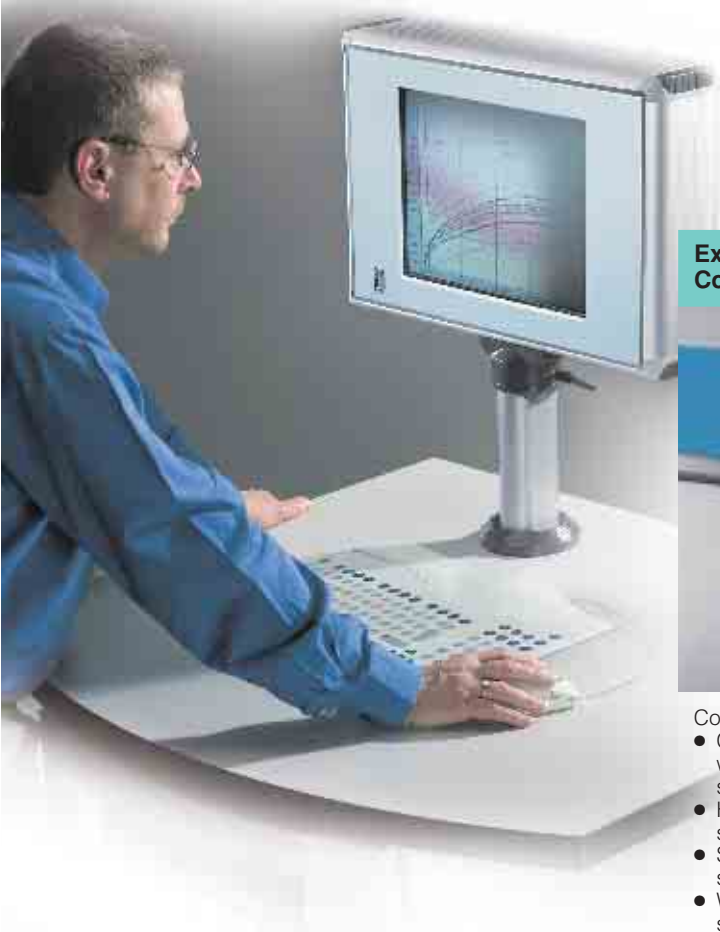
# Product combinations

## Ideas for new solutions



Leave the conventional path behind!  
Combine standard products in a new way  
to meet your requirements, and significantly broaden the range of options available.

Here are just a few suggestions.



### Example 1 Console with rotating operating housing



- Consisting of:
- Command panel housing with door, see page 34/35
  - Housing coupling, rotating, see page 37
  - Support section, see page 36
  - Wall/base mounting, see page 38
  - Wall console, see page 40
  - One-piece console, see page 42



### Example 2 Enclosure attached to a machine

Consisting of:

- AE compact enclosure, see page 18/19
- With wall console, also suitable for cable entry, see page 40



### Example 3 Mini operating unit

Consisting of:

- Premium Line KL, see page 22/23
- With support arm system, see page 36



### Example 4 Enclosure combination

Consisting of:

- Electronic Kombi system EL (on request)
- With bus enclosure BG, see page 16/17



### Example 5 Mini operating console

Consisting of:

- Terminal box KL, see page 14/15
- Two enclosure attachments, see page 37
- Support section, see page 36
- Pedestal base plate, small, see page 41



### Industrial Workstations IW

Outside of the Rittal stainless steel enclosure range, this is an example of solution diversity with the most varied product combinations. Take a look at the IW brochure, and allow yourself to be inspired with new solutions from this modular system.





# Compact enclosures

Like the entire stainless steel range, our small and medium-sized models are ideal for all segments of industry with superior demands in terms of hygiene and corrosion protection.

They offer the correct volume to suit every requirement, together with practical fittings and accessory components for every application.

Rittal always has the solution you need. Every design innovation helps to save your valuable time, whilst every standard mounting part helps to cut costs.

## Terminal boxes KL

- Screw-fastened cover
- Integral profile strip with mounting holes for top-hat rails or mounting plate
- Enclosure sealed all-round



**Terminal boxes KL (Protection category IP 66)**

W mm	H mm	D mm	Model No. KL	Page
150	150	80	<b>1521.010</b>	14/15
300	150	80	<b>1522.010</b>	
200	200	80	<b>1523.010</b>	
300	200	80	<b>1524.010</b>	
400	200	120	<b>1525.010</b>	
300	300	120	<b>1526.010</b>	

## Bus enclosures BG



- Hinged lid secured with screw fastenings
- Including support rail TS 35/7.5
- Enclosure sealed all-round

**Bus enclosure BG (Protection category IP 66)**

W mm	H mm	D mm	Model No. BG	Page
200	300	80	<b>1583.010</b>	16/17
300	300	80	<b>1584.010</b>	
400	300	80	<b>1585.010</b>	
400	200	123	<b>1558.010</b>	
600	200	123	<b>1559.010</b>	

### Premium Line KL

- Screw-fastened lid for stringent requirements in the food and hygiene sectors
- Threaded bolts for the installation of support rails, mounting brackets and mounting plates
- Enclosure sealed all-round



**Premium Line KL (Protection category IP 69K)**

W mm	H mm	D mm	Model No. KL	Page
150	150	80	1024.010	22/23
150	150	120	1024.020	
300	200	120	1024.030	
400	300	120	1024.040	

### Compact enclosures AE



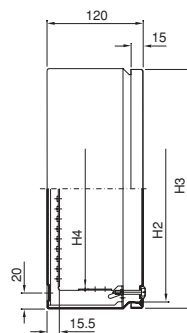
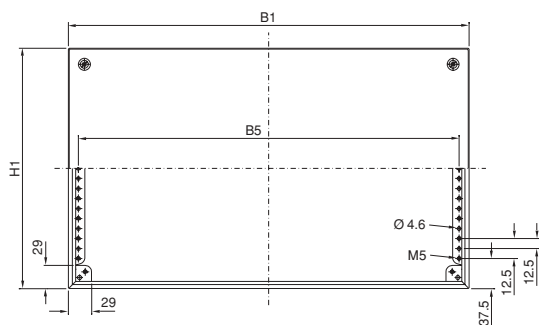
- Door(s) with 3 mm double-bit lock insert
- Including mounting plate
- Enclosure sealed all-round

**Compact enclosures AE (Protection category IP 66)**

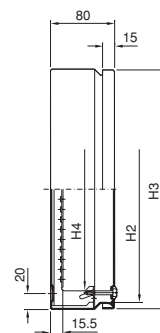
Compact enclosures AE (Protection category IP 55)				Page
W mm	H mm	D mm	Model No. AE	18/19
200	300	155	1002.600	
380	300	155	1004.600	
300	380	210	1005.600	
380	380	210	1006.600	
500	500	210	1007.600	
500	500	300	1013.600	
380	600	210	1008.600	
600	380	210	1009.600	
600	600	210	1010.600	
600	760	210	1012.600	
760	760	300	1014.600	
800	1000	300	1016.600	
800	1200	300	1017.600	
(Protection category IP 55)				
1000	1000	300	1018.600	
1000	1200	300	1019.600	

The enclosure Model Numbers listed here apply to variants in 1.4301 (AISI 304).  
For the variant in 1.4404 (AISI 316L) the Model Number can be found on the respective product page.

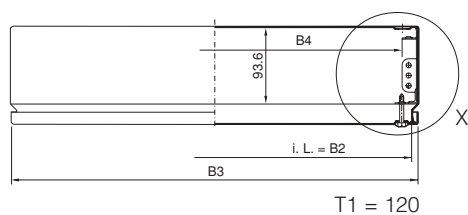
        	Approvals	Terminal boxes KL	Bus enclosures BG	Compact enclosures AE
	UL	•	•	•
	CSA	•	•	•
	TÜV	•	•	•
	Germanischer Lloyd	•	—	•
	Norske Veritas	•	•	•
	Russian Maritime Register of Shipping	•	•	•
	Lloyds Register of Shipping	•	•	•
	Bureau Veritas	•	•	•
	VDE	•	•	•



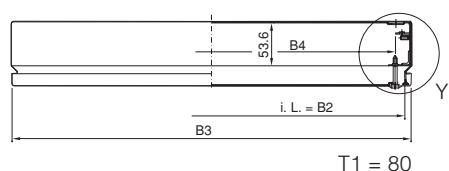
T1 = 120



T1 = 80

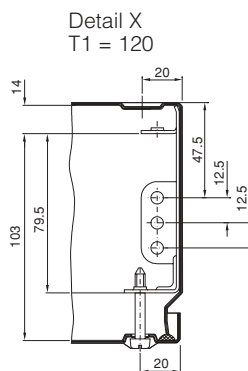


T1 = 120

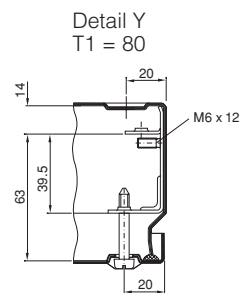


T1 = 80

i.L. = Clearance width



Detail X  
T1 = 120



Detail Y  
T1 = 80

#### Supply includes:

Enclosure, cover with all-round foamed-in PU seal and cover screws, including plastic bushes.

	Packs of							Page
Width (B1) in mm		150	300	200	300	400	300	
Height (H1) in mm		150	150	200	200	200	300	
Depth (T1) in mm		80	80	80	80	120	120	
<b>Model No. KL</b>	<b>1</b>	<b>1521.010</b>	<b>1522.010</b>	<b>1523.010</b>	<b>1524.010</b>	<b>1525.010</b>	<b>1526.010</b>	
B2 = Clearance opening width		132	282	182	282	382	282	
B3 = Cover width		148	298	198	298	398	298	
B4 = Clearance width between profile strips		109	259	159	259	359	259	
B5 = Hole-centre distance of profile strips		125	275	175	275	375	275	
H2 = Clearance opening height		132	132	182	182	182	282	
H3 = Cover height		148	148	198	198	198	298	
H4 = Clearance height between profile strips		100	100	150	150	150	250	
Weight (kg)		1.3	1.8	1.8	2.4	3.6	3.9	
Cover screws		4	4	4	4	4	4	

#### Accessories

Mounting plate KL	1	1560.700	1561.700	1562.700	1563.700	1564.700	1567.700	27
Wall mounting bracket KL	4	1594.000						26
Wall angle SZ	1	2583.000						26
Pole clamp SZ	1	2584.000						25
Support rails TS 35/7.5 SZ	10	2314.000	2316.000	2315.000	2316.000	2317.000	2316.000	Cat. 30 983

To order terminal boxes in 1.4404 (AISI 316L), please change the last three digits of the Model No. to .510. Delivery times available on request.





Punching for wall mounting bracket.



Enclosure with slotted profile strips, some tapped.



Resistant sealing ring for screw fastening.



## Accessories:

see page 24 – 27  
and page 70/71  
or refer to index.

### Material:

Stainless steel 1.4301  
Box: 1.25 mm  
Cover: 1.25 mm

### Surface finish:

Box and cover:  
Brushed, grain 180

### Protection category:

IP 66 to EN 60 529/10.91  
Complies with NEMA 4x



**Support rails** to accommodate terminal blocks and electrical equipment.  
See Cat. 30, page 983.



**Housing coupling**  
For attaching the 120 mm deep KL to the support arm system..  
See page 37.



**Mounting plate**  
For component mounting even outside of the box.  
See page 27.



③ = Support rail TS 35/7.5



180° hinges made from die-cast zinc, plated.



Support rail adjustable on profile strip (with BG 1558.010, BG 1559.010).



Support rail secured on studs (with BG 1583.010, BG 1584.010, BG 1585.010).



## Accessories:

see page 24 – 27  
and page 70/71  
or refer to index.

### Material:

Stainless steel 1.4301  
Box: 1.25 mm  
Cover: 1.25 mm  
Hinges:  
Die-cast zinc

### Surface finish:

Box and cover:  
Brushed, grain 180  
Hinges: Plated

### Protection category:

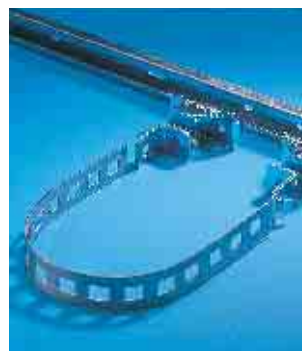
IP 66 to EN 60 529/10.91  
Complies with NEMA 4x

### Modification:

- Viewing window for I/O displays
- Holes for screw connections
- Other designs available on request.



**Wall mounting bracket**  
For secure attachment of enclosures.  
See page 26.



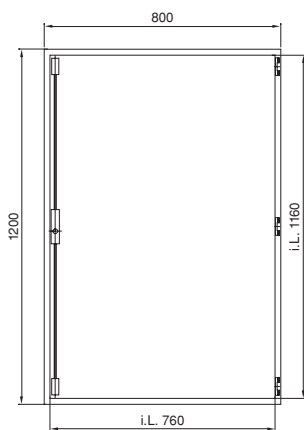
**Pole clamp**  
For fastening to round or square poles.  
See page 25.



**EMC cable glands**  
With special ring for 360° contact.  
See Cat. 30, page 894.

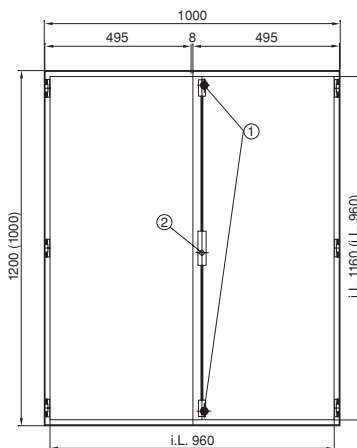


## AE 1017.600

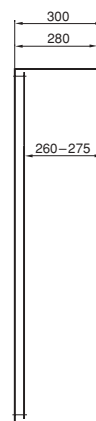


i.L. = Clearance width

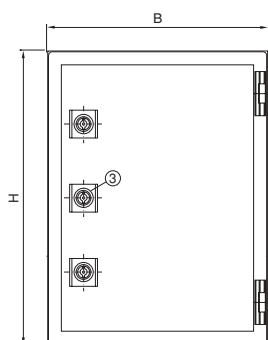
## AE 1018.600 / AE 1019.600



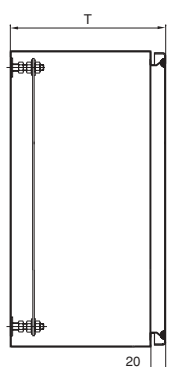
① = Cam lock for AE 1018.600  
② = Locking rod for AE 1019.600  
Dimensions in brackets for AE 1018.600



## AE 1002.600 – AE 1016.600



③ = For AE 1002.600, AE 1004.600, AE 1005.600, AE 1006.600,  
AE 1009.600 only one cam lock in the centre



**Detailed drawings**  
page 20/21.

Width (B) in mm	Packs of	200	380	300	380	500	500	380	600	Page
Height (H) in mm		300	300	380	380	500	500	600	380	
Depth (T) in mm		155	155	210	210	210	300	210	210	
<b>Model No. AE</b>	<b>1</b>	<b>1002.600</b>	<b>1004.600</b>	<b>1005.600</b>	<b>1006.600</b>	<b>1007.600</b>	<b>1013.600</b>	<b>1008.600</b>	<b>1009.600</b>	
Doors		1	1	1	1	1	1	1	1	
Weight (kg)		4.5	8.8	8.7	12.0	18.4	18.9	17.0	17.0	

### Accessories

Rain canopy SZ	1	2470.000	2471.000	2361.000	2472.000	2362.000	–	2472.000	2473.000	25
Wall mounting bracket SZ	4	2433.000								26
Wall angle SZ	1	2583.000								26
Pole clamp SZ	1	2584.000								25
Cam lock of 1.4301 SZ	1	2304.000								24

Width (B) in mm	Packs of	600	600	760	800	800	1000	1000	
Height (H) in mm		600	760	760	1000	1200	1000	1200	
Depth (T) in mm		210	210	300	300	300	300	300	
<b>Model No. AE</b>	<b>1</b>	<b>1010.600</b>	<b>1012.600</b>	<b>1014.600</b>	<b>1016.600</b>	<b>1017.600</b>	<b>1018.600</b>	<b>1019.600</b>	
Doors		1	1	1	1	1	2	2	
Weight (kg)		25.0	31.7	42.5	52.9	70.0	71.0	85.0	

### Accessories

Rain canopy SZ	1	2473.000	2473.000	2474.000	2475.000	2475.000	2363.000	2363.000	25
Wall mounting bracket SZ	4	2433.000							26
Wall angle SZ	1	2583.000							26
Pole clamp SZ	1	2584.000	2584.000	–	–	–	–	–	25
Cam lock of 1.4301 SZ	1	2304.000	2304.000	2304.000	2304.000	–	–	–	24

### Lock systems

In enclosures fitted with a cam lock, the standard double-bit lock insert (except for AE 1018.600 / AE 1019.600) may be exchanged for a 41 mm lock insert, security cylinder insert, plastic handle, T-handles, design C, see Cat. 30, page 940 – 943.

With AE 1018.600, may only be exchanged for 41 mm lock inserts.

In enclosures with a locking rod, may be exchanged for 27 mm lock inserts, design A, see Cat. 30, page 942 and

Ergoform-S lock system, see Cat. 30, page 939.

**To order compact enclosures in 1.4404 (AISI 316L), please change the last three digits of the Model No. to .500. Delivery times available on request.**



Enclosure protection channel prevents the ingress of dirt and water when the door is opened.



To dismantle the door, the hinge pin is simply pulled out.



## Accessories:

see page 24 – 27  
and page 70/71  
or refer to index.

### Supply includes:

Enclosure, door(s) with  
foamed-in seal, mounting plate.

### Material:

Stainless steel 1.4301  
Enclosure and door:  
Stainless steel  
Mounting plate: Sheet steel  
Cam lock: Die-cast zinc,  
nickel-plated

### Surface finish:

Enclosure and door:  
Brushed, grain 180  
Mounting plate: Zinc-plated

### Protection category:

IP 66 to EN 60 529/10.91  
for AE 1002.600 – AE 1017.600,  
complies with NEMA 4x.  
IP 55 to EN 60 529/10.91  
for AE 1018.600 / AE 1019.600,  
complies with NEMA 12.



### Lock cover

Prepared for padlock or  
multiple lock.  
See Cat. 30, page 945.



### Lock inserts

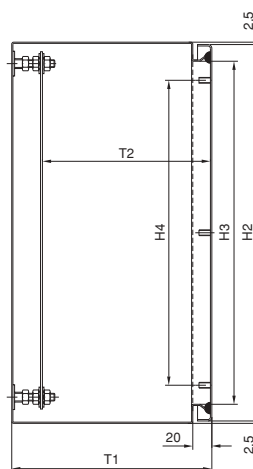
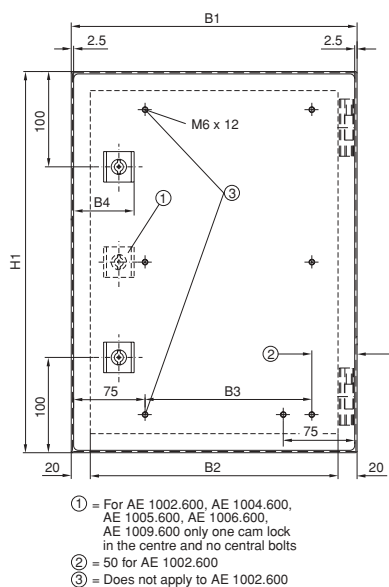
See Cat. 30, page 942.



### Rain canopies

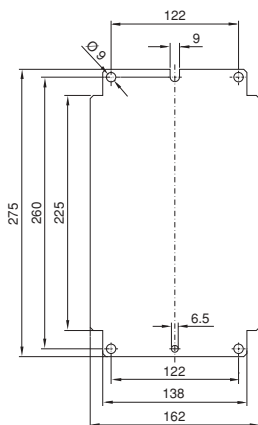
For protection against direct  
water inflow.  
see page 25.

## AE 1002.600 – AE 1016.600

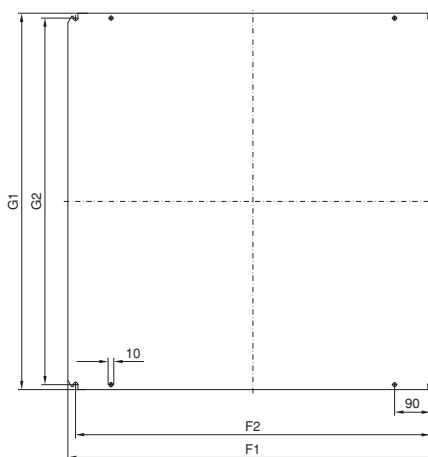


## Mounting plates

### AE 1002.600



### AE 1004.600 – AE 1016.600



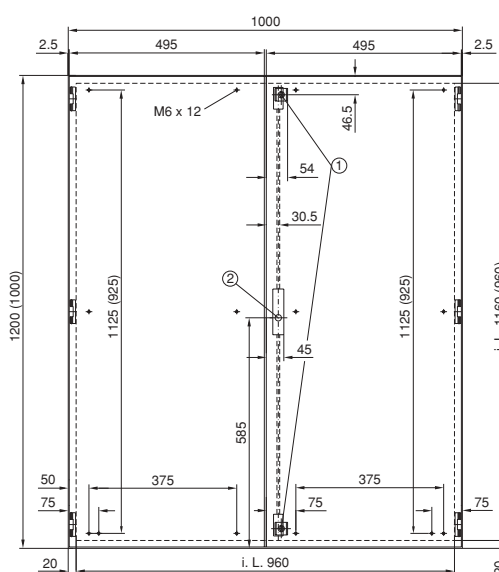
Installation position of the mounting plate is rotated through 90° for AE 1005.600

## Compact enclosures AE

Model No. AE	Dimensions of enclosures										Dimensions of mounting plate				Material thicknesses in mm		
	B1	B2	B3	B4	H1	H2	H3	H4	T1	T2	G1	G2	F1	F2	Enclosure	Door	Mounting plate
<b>1002.600</b>	200	167	–	56	300	295	274	225	155	135	–	–	–	–	1.25	1.5	2.0
<b>1004.600</b>	380	340	250	66	300	295	260	225	155	113 – 129	275	250	334	295	1.38	1.5	2.0
<b>1005.600</b>	300	260	175	66	380	375	340	275	210	168 – 184	275	250	334	295	1.38	1.5	2.0
<b>1006.600</b>	380	340	250	66	380	375	340	275	210	168 – 184	355	330	334	295	1.38	1.5	2.5
<b>1007.600</b>	500	460	375	66	500	495	460	425	210	168 – 184	470	445	449	410	1.38	1.5	2.5
<b>1013.600</b>	500	460	375	66	500	495	460	425	300	258 – 274	470	445	449	410	1.50	1.5	2.5
<b>1008.600</b>	380	340	250	66	600	595	560	525	210	168 – 184	570	545	334	295	1.38	1.5	2.5
<b>1009.600</b>	600	560	475	66	380	375	340	275	210	168 – 184	355	330	549	510	1.38	1.5	2.5
<b>1010.600</b>	600	560	475	66	600	595	560	525	210	168 – 184	570	545	549	510	1.38	2.0	2.5
<b>1012.600</b>	600	560	475	66	760	755	720	675	210	168 – 184	730	705	549	510	1.38	2.0	3.0
<b>1014.600</b>	760	720	625	66	760	755	720	675	300	258 – 274	730	705	704	665	1.50	2.0	3.0
<b>1016.600</b>	800	760	675	66	1000	955	960	925	300	258 – 274	955	930	739	700	1.50	2.0	3.0

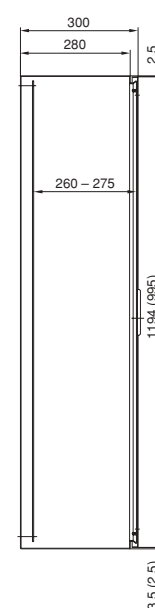


**AE 1018.600 / AE 1019.600**



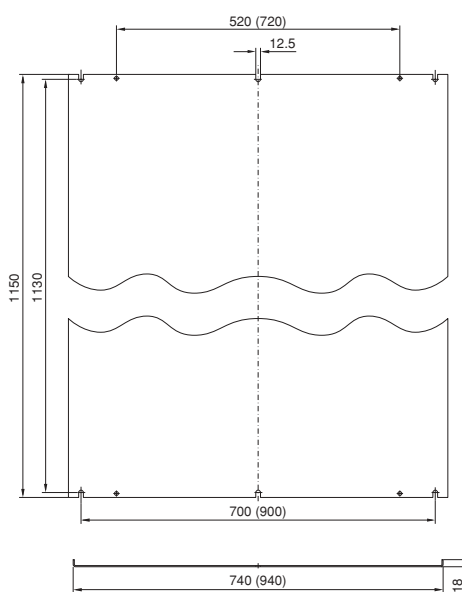
① = Cam lock for AE 1018.600  
② = Locking rod for AE 1019.600  
Dimensions in brackets are for AE 1018.600

i.L. = Clearance width



## Mounting plates

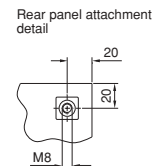
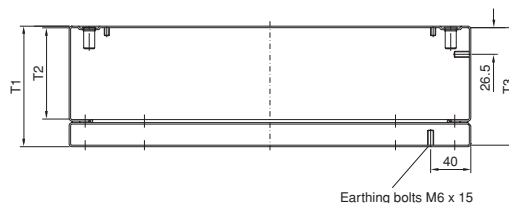
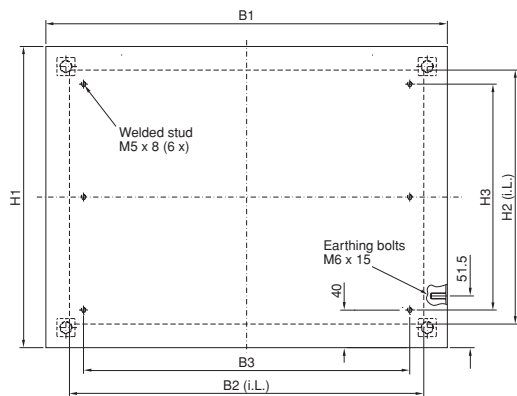
**AE 1017.600 / AE 1019.600**



Dimensions in brackets are for AE 1019.600

### Compact enclosures AE

Dimensions of enclosures				Dimensions of mounting plate				Material thicknesses in mm		
Model No. AE	B1	H1	T1	G1	G2	F1	F2	Enclosure	Door	Mounting plate
<b>1017.600</b>	800	1200	300	–	–	–	–	1.50	2.0	3.0
<b>1018.600</b>	1000	1000	300	955	930	939	900	1.50	2.0	3.0
<b>1019.600</b>	1000	1200	300	–	–	–	–	1.50	2.0	3.0



i. L. = Clearance width

B1 = Overall width in mm	Packs of	150	150	300	400
H1 = Overall height in mm		150	150	200	300
T1 = Overall depth in mm		80	120	120	120
<b>Model No. KL</b>	<b>1</b>	<b>1024.010</b>	<b>1024.020</b>	<b>1024.030</b>	<b>1024.040</b>
B2 = Clearance width of enclosure		103	103	253	353
B3 = Distance between axes of bolts		75	75	225	325
H2 = Clearance height of enclosure		103	103	153	253
H3 = Distance between axes of bolts		75	75	125	225
T2 = Clearance depth, enclosure only		51.5	91.5	91.5	91.5
T3 = Clearance depth		77	117	117	117
Possible mounting depth: T4 = Mounting plate configuration, see mounting plate		60	100	100	100
T5 = Support rail configuration – see mounting bracket		69.5/54.5	109.5/94.5	109.5/94.5	109.5/94.5
Number of lid screws		4	4	6	10

#### Accessories

Support rail TS 35/7.5 SZ	10	2314.000	2314.000	2316.000	2317.000
---------------------------	----	----------	----------	----------	----------

To order Premium Line KL in 1.4404 (AISI 316L), please change the last three digits of the Model No. to 5X0. Delivery times available on request.



### Mounting plate

For installation with spacer bolts, including drilled holes for earthing.

#### Material:

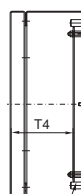
Sheet steel, zinc-plated, passivated

#### Supply includes:

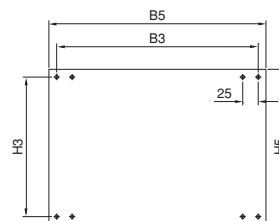
Including assembly screws and earthing material.

For enclosure	B5	H5	Packs of	Model No. KL
1024.010 1024.020	100	100	1	<b>1024.910</b>
1024.030	250	150	1	<b>1024.920</b>
1024.040	350	250	1	<b>1024.930</b>

Mounting plate attachment



Spacer bolts  
M5 x 15



### Mounting bracket

For attaching support rails on a 12.5 mm pitch pattern.

#### Material:

Stainless steel 1.4301

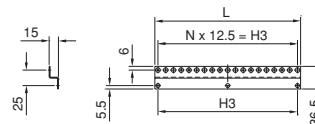
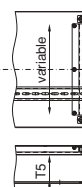
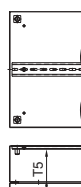
#### Supply includes:

Including assembly parts

For enclosure	B5	H5	Packs of	Model No. KL
1024.010 1024.020	85	6	1 set	<b>1024.810</b>
1024.030	135	10	1 set	<b>1024.820</b>
1024.040	235	18	1 set	<b>1024.830</b>

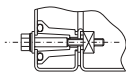
Variant 1:  
In the centre of  
the rear panel

Variant 2:  
Variable on a mounting  
bracket

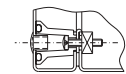




The **seal** lies between two surfaces and is easily cleaned.



Depending on customer requirements, **screw head** on the outside . . .



. . . or **plastic stoppers** on the outside with concealed screws (included in the supply).



## Material:

Stainless steel 1.4301, 1.5 mm

## Surface finish:

Brushed, grain 240

## Protection category:

IP 69K to DIN 40 050-9/5.93

## A new design, a new concept for the seal and lock

- Resistant to high-pressure cleaning (protection category IP 69K).  
The seal lies between two seals and is perfectly compressed by screw fastening (see detailed drawing).
- Screw fastening for stringent requirements in the food and hygiene sectors.  
With plastic stoppers on the inside or hex screws on the outside.

- Optimum EMC conditions.  
The sealing labyrinth achieves a particularly high level of RF shielding of the enclosure.
- Cover retainer on the inside.  
This solution is clearly superior to external hinges from a hygiene point of view.
- Wall mounting can be implemented directly from the rear using M8 pull-in nuts, or from the front using wall mounting brackets.



## Rittal service:

Other sizes and other enclosures with this sealing concept are available on request. Cutouts and drilled holes to your specifications.



**Retainer for lid**  
in the extended position.  
**Model No. CP 6682.000.**



**Wall mounting bracket**  
KL 1594.000, see page 26.

# Accessories

## Compact enclosures



### Cam lock

Complete cam lock with double-bit insert for AE stainless steel enclosures (with cam lock).

**Material:**

Stainless steel 1.4301

**Supply includes:**

Assembly parts included

Packs of	Model No. SZ
1	2304.000



### Semi-cylinder lock

For retrospective mounting on all single-door AE compact enclosures in stainless steel with cam lock. The cover plate is latched by semi-cylinders with a total length of 40 or 45 mm (to DIN 18 254). An extra cover protects the cylinder from dirt.

The protection category of the enclosure is not reduced.

Supplied without semi-cylinder.

Packs of	Model No. SZ
1	2534.500

**Material:**

Die-cast zinc, plated (matt).

**German patent no. 195 12 280**

**US patent no. 5,916,282**

**Jap. patent no. 3.088.465**

**European patent no. 0778 913**  
with validity for GB, FR, IT



### Lock cover

**For padlocks and multiple locks.**

For retrospective mounting on all single-door compact enclosures AE with cam lock.

Lug with 11 mm diameter hole for padlocks or multiple locks.

The protection category of the enclosure is not reduced.

Packs of	Model No. SZ
1	2493.000

**Material:**

Die-cast zinc, plated (matt).

**Supply includes:**

Lock cover  
assembly parts included.



**Accessories:**

Multiple lock,  
see Cat. 30, page 945.





### Rain canopies for AE

Reliable protection for outdoor siting – with water run-off to the rear. Easily retrofitted.

#### Material:

Stainless steel 1.4301

#### Surface finish:

Brushed

#### Supply includes:

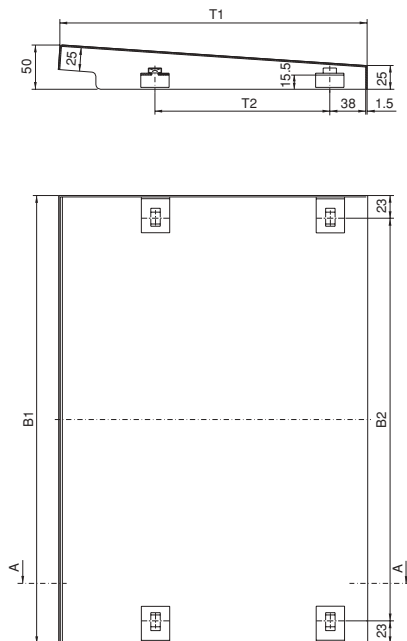
Including assembly parts

#### Note:

For outdoor siting, as a general principle, we recommend a rain canopy above the enclosure or above the gap between the door or screw-fastened rear panel and the enclosure, in order to protect against water and UV rays.

The tests of IP protection levels for water protection (2nd code digit to EN 60 529) should not be applied to enclosures sited outdoors or in similar conditions.

Rain canopies for other enclosures available on request.



For AE enclosures	B1	B2	T1	T2	Model No. SZ
1002.600	211	160	180	65	<b>2470.000</b>
1005.600	311	260	235	120	<b>2361.000</b>
1004.600	391	340	180	65	<b>2471.000</b>
1006.600 1008.600	391	340	235	120	<b>2472.000</b>
1007.600	511	460	235	120	<b>2362.000</b>
1009.600 1010.600 1012.600	611	560	235	95	<b>2473.000</b>
1014.600	771	720	325	185	<b>2474.000</b>
1016.600 1017.600	811	760	325	185	<b>2475.000</b>
1018.600 1019.600	1011	960	325	185	<b>2363.000</b>



#### Accessories:

Condensate discharge, see Cat. 30, page 900.



### Pole clamp

For reliable, convenient fastening to round or square poles.

For pole diameter/size:

Ø from 40 up to 190 mm

□ from 50 up to 150 mm

#### Material:

Cross rails, clamping section:

Sheet steel, zinc-plated

Clamping strap:

Stainless steel 1.4301



	Model No. SZ
Pole clamp	<b>2584.000</b>

#### Supply includes:

2 cross rails, 600 mm long,  
4 clamping sections,  
2 clamping straps,  
4 clamping brackets,  
4 screws and M8 nuts  
for mounting on the enclosure.

German patent no. 36 10 152

# Accessories

## Compact enclosures



### Wall mounting bracket

For fastening KL, EB and BG enclosures.

**Material:**

Stainless steel 1.4301

Wall distance	Packs of	Model No. KL
8 mm	4	1594.000

See drawing A for dimensions



### Wall mounting bracket

For fastening KL, EB, BG, AE and EL enclosures.

**Material:**

Stainless steel 1.4301

Wall distance	Packs of	Model No. SZ
10 mm	4	2433.000

See drawing B for dimensions

With stainless steel enclosures, additional holes are required in the rear wall for reasons of hygiene and because of the protection category.



### Wall angle

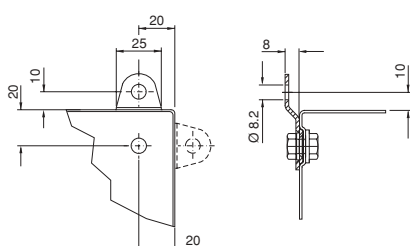
For compact enclosures (additional holes required in the enclosure). Simple mounting, no distance from the wall.

Material	Packs of	Model No. SZ
Stainless steel 1.4301	1	2583.000

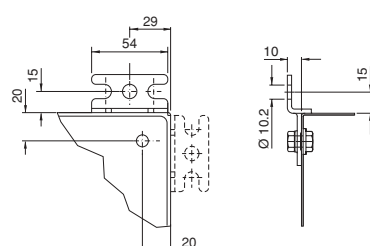
See drawing C for dimensions

## Wall mounting brackets / angles

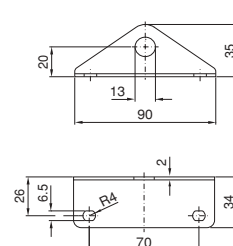
Drawing A



Drawing B



Drawing C





### Mounting plates for KL

For component mounting, even before fitting in the enclosure. Assembly screws included in the accessory of the enclosure.

**Material:**  
2 mm sheet steel

**Surface finish:**  
Zinc-plated



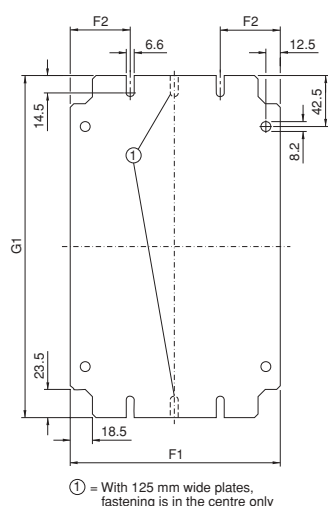
#### Accessories:

Self-drilling screws SZ 2487.000, see Cat. 30, page 969.



#### Possible alternative:

Support rails, see Cat. 30, page 983.



For dimensions mm	For Model No.	Dimensions in mm			Model No. KL
		G1	F1	F2	
150 x 150	KL 1500.210, KL 1514.210, KL 1521.010	135	125	–	<b>1560.700</b>
200 x 150	KL 1528.210, KL 1529.210	185	125	–	<b>1575.700</b>
300 x 150	KL 1501.210, KL 1515.210, KL 1522.010, KL 1530.210	285	125	–	<b>1561.700</b>
400 x 150	KL 1589.210	385	125	–	<b>1576.700</b>
200 x 200	KL 1502.210, KL 1516.210, KL 1523.010	185	175	50	<b>1562.700</b>
300 x 200	KL 1503.210, KL 1517.210, KL 1524.010, KL 1531.210	285	175	50	<b>1563.700</b>
400 x 200	KL 1504.210, KL 1518.210, KL 1525.010, KL 1532.210	385	175	50	<b>1564.700</b>
500 x 200	KL 1505.210, KL 1533.210	485	175	50	<b>1565.700</b>
600 x 200	KL 1506.210, KL 1519.210, KL 1534.210	585	175	50	<b>1566.700</b>
800 x 200	KL 1527.210, KL 1542.210	785	175	50	<b>1574.700</b>
300 x 300	KL 1507.210, KL 1526.010, KL 1535.210	285	275	50	<b>1567.700</b>
400 x 300	KL 1508.210, KL 1536.210	385	275	50	<b>1568.700</b>
500 x 300	KL 1509.210, KL 1537.210	485	275	50	<b>1569.700</b>
600 x 300	KL 1510.210, KL 1538.210	585	275	50	<b>1570.700</b>
400 x 400	KL 1511.210, KL 1539.210	385	375	62.5	<b>1571.700</b>
600 x 400	KL 1512.210, KL 1540.210	585	375	62.5	<b>1572.700</b>
800 x 400	KL 1513.210, KL 1541.210	785	375	62.5	<b>1573.700</b>

# Human / machine interface

When it comes to ergonomics and user-friendliness, operating housings (particularly in conjunction with the support arm system), consoles and PC cases are capable of meeting the most discerning demands.

Machines with modern, flexible production technology need solutions at the operating interface which meet their requirements precisely.

These include rational enclosure population, versatile positioning of monitoring and control components, and high-quality controllers with an outstanding design.

Under the motto "Standardised, not customised", Rittal offers complete solutions to boost productivity at the interface between human and machine.

## Premium Panel

- Screw fastened rear panel to meet discerning requirements in the food and hygiene sectors
- Support arm connection with reinforcement plate optionally at the top or bottom
- With keyboard housing on request
- Two duct connectors, also suitable for cable routing between the operating housing and keyboard housing
- All-round sealed enclosure, with designer front



Premium Panel with keyboard housing (Protection category IP 69K)						
Command panel	W mm	H mm	D mm	Support arm connection	Model No.	Page
	530	460	120	top	<b>6680.000</b>	30/31
	530	460	120	bottom	<b>6680.010</b>	
	530	460	220	top	<b>6680.100</b>	
	530	460	220	bottom	<b>6680.110</b>	
Keyboard housing	530	200	80/63			
<b>Premium Panel without keyboard housing (Protection category IP 69K)</b>						
	530	360	120		<b>6681.000</b>	
	530	360	220		<b>6681.100</b>	

## Command Panel



- Front panel or rear panel screw-fastened all round
- Support arm connection with reinforcement plate at the top/bottom by rotating the enclosure
- All-round sealed enclosure, projection over the front panel to protect installed equipment

Command Panel (Protection category IP 65)				
W mm	H mm	D mm	Model No. CP	Page
320	240	160	<b>6670.000</b>	32/33
400	320	160	<b>6672.000</b>	

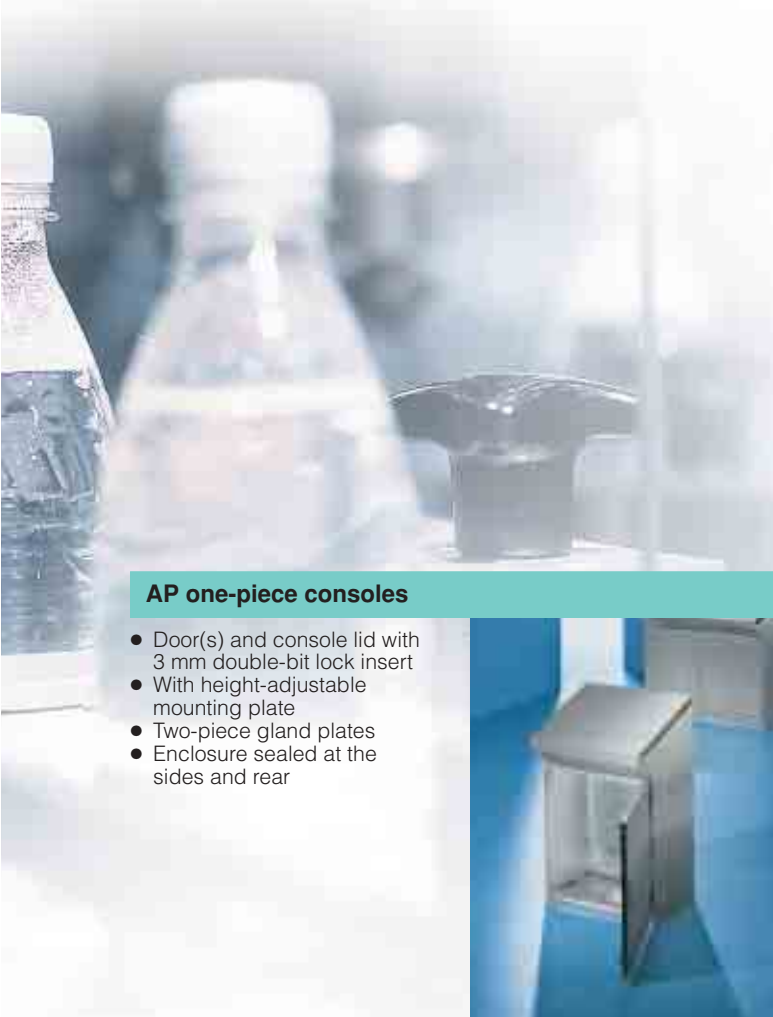
## Command Panel housing with door



- Door 40 mm deep, left-hand hinge, side handle strips made from plastic approved for use in the food industry
- Support arm connection with reinforcement plate at the top/bottom by rotating the enclosure
- All-round sealed enclosure, 3 mm double-bit lock insert on the right-hand side

Command Panel housing with door (Protection category IP 66)				
W mm	H mm	D mm	Model No. CP	Page
300	300	150	<b>6535.010</b>	34/35
400	300	150	<b>6536.010</b>	
400	400	150	<b>6538.010</b>	
600	400	150	<b>6539.010</b>	





### AP one-piece consoles

- Door(s) and console lid with 3 mm double-bit lock insert
- With height-adjustable mounting plate
- Two-piece gland plates
- Enclosure sealed at the sides and rear



AP one-piece consoles (Protection category IP 55)				
W mm	H mm	D mm	Model No. AP	Page
600	960	400/480	2683.600	42/43
800	960	400/480	2684.600	
1000	960	400/480	2685.600	
1200	960	400/480	2686.600	

### AP universal consoles

- Front doors with 3 mm double-bit lock insert at the bottom, optionally in tall or short version for desk section or keyboard drawer
- Rear door with tubular door frame and 3 mm double-bit lock insert
- Depth-adjustable with mounting plate
- Three-piece gland plates
- Enclosure sealed at the sides and top, with 25 mm system punchings



Universal consoles AP (Protection category IP 56)					
W mm	H mm	D mm	Model No. AP with short front door	Model No. AP with tall front door	Page
600	1300	500	2688.600	2689.600	44/45










### PC enclosure systems



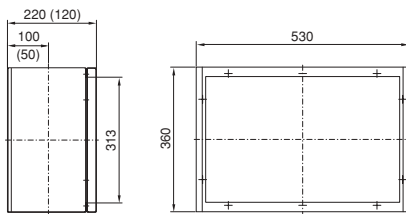
- Front doors with 3 mm double-bit lock insert at the bottom, viewing window at the top
- With keyboard drawer or desk section
- Rear door with tubular door frame and 3 mm double-bit lock insert
- Three-piece gland plates
- Enclosure sealed at the sides and top, with 25 mm system punchings

PC enclosure systems (Protection category IP 55)					
W mm	H mm	D mm	Model No. PC with keyboard drawer	Model No. PC with desk section	Page
610	1600	620	4650.000	4650.704	46/47

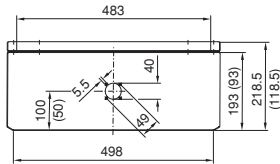
The enclosure Model Numbers listed here apply to the variant in 1.4301 (AISI 304).  
For the variant in 1.4404 (AISI 316L), the Model Number can be found on the respective product page.

        	Approvals	Command panel	Command panel housing with door	AP one-piece consoles	AP universal consoles	PC enclosure systems
	UL	•	•	•	•	•
	CSA	•	•	•	•	•
	TÜV	–	•	•	•	•
	Germanischer Lloyd	–	–	•	•	•
	Norske Veritas	–	•	•	•	•
	Russian Maritime Register of Shipping	–	–	•	•	•
	Lloyds Register of Shipping	–	–	•	•	•
	Bureau Veritas	–	•	•	•	•
	VDE	–	•	•	•	•

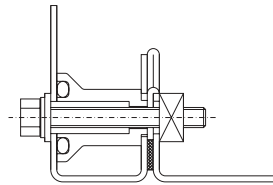
## Operating housing



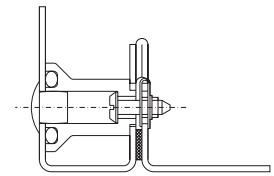
Support arm connection at bottom by rotating the enclosure  
Dimensions in brackets for CP 6681.000



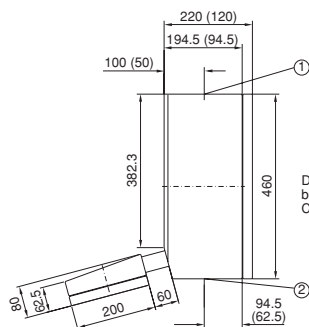
Hex screw  
external



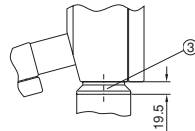
Screw, internal  
with plastic bungs



## Operating and keyboard housing

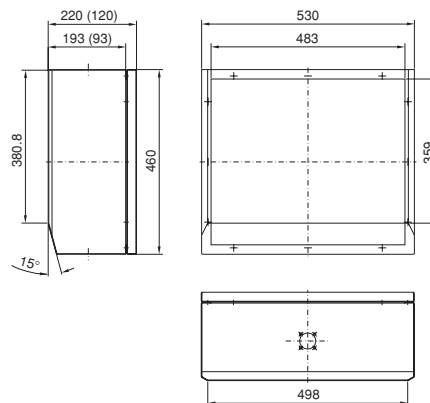


Dimensions in brackets for CP 6680.010

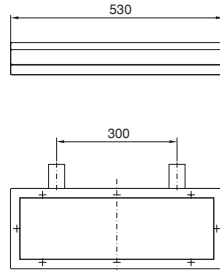
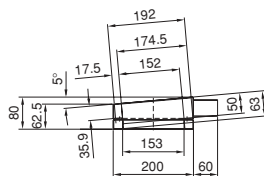


- ① = Support arm connection at top only with CP 6680.000, CP 6680.100
- ② = Support arm connection at bottom only with CP 6680.010 (see ③), CP 6680.110

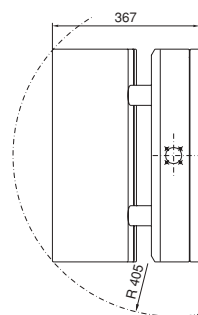
Adapting pieces included in the supply of CP 6680.010



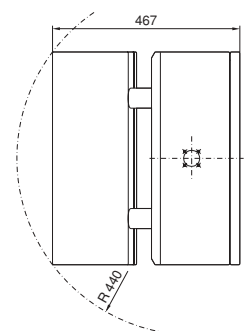
## Keyboard housing



Top view  
Depth 120 mm



Top view  
Depth 220 mm



		Packs of	Premium Panel				
			with keyboard housing			without keyboard housing	
Model No. CP		1	6680.000	6680.010	6680.100	6680.110	6681.000 6681.100
Width mm			530				
Height mm	Operating housing		460			360	
	Keyboard housing		200			-	
Depth mm	Operating housing		120		220	120	220
	Keyboard housing		63/80				
For installation plate W x H	Operating housing		482.6 mm (19") x 354.8 mm (8 U)			482.6 mm (19") x 310 mm (7 U)	
	Keyboard housing		482.6 mm (19") x 177 mm (4 U)			-	
Installation depth	Operating housing		115		215	115	215
	Keyboard housing		front 58 rear 63			-	
Support arm connection			top	bottom	top	bottom	top, bottom by turning the housing

## Accessories

Rear panel holder CP	2	6682.000
----------------------	---	----------

To order Premium Panel in 1.4404 (AISI 316L) please change the last four digits of Model No. CP 665X.XXX. Delivery times available on request.



Easy-to-clean exterior gasket.



Cable entry into the keyboard housing through the duct connectors to the operating housing.

**Material:**

Stainless steel 1.4301

**Surface finish:**

Brushed, grain 240

**Protection category:**

IP 69K to DIN 40 050-9/5.93



**A new layout, a new concept for seal and fastener**

- Safe for high-pressure cleaning (protection category IP 69K to DIN 40 050-9/5.93). Seal is between two surfaces and is compressed optimally through screw fastening (see detailed drawing).
- Screw fastening for high standards in the areas of food and hygiene. Internally with plastic bungs, external hex screw head.
- Best EMC conditions. Through the seal labyrinth, special EMC shielding is achieved in the housing.
- Internal rear panel holder. With regard to hygiene, this solution is clearly superior to external hinges.
- Two duct connectors between the enclosures.



The **rear panel holder** holds the rear panel in position when opened.

**Model No. CP 6682.000**



**Rittal service:**

Other dimensions or other housings with this sealing design available on request. Cutouts and holes to your specifications.



**Accessories:**

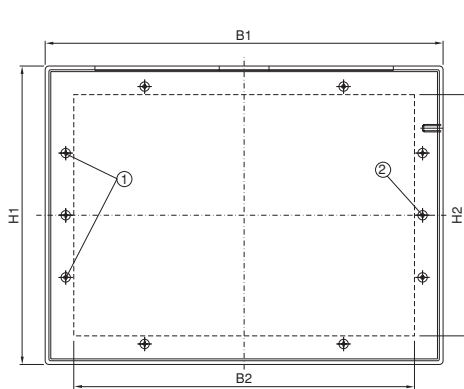
see page 70/71 or refer to index.



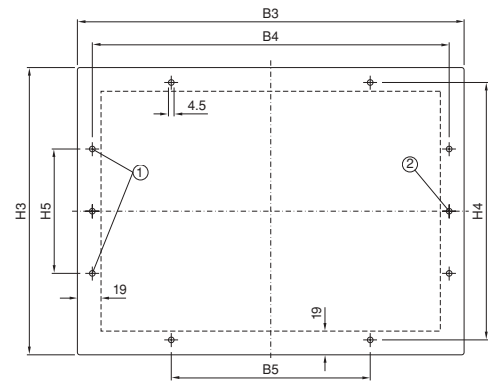
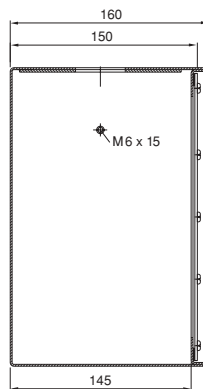
**Support arm system**  
See page 36.



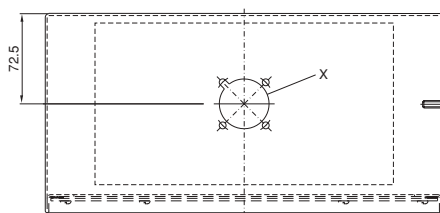
**Stainless steel keyboard**  
**482.6 mm (19")/4 U**  
IP 67, for use in the food industry, see Innovations 2003, page 50.



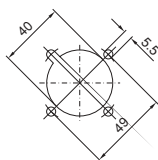
- ① = Does not apply to CP 6670.000  
② = Does not apply to CP 6672.000



- ① = Does not apply to CP 6670.000  
② = Does not apply to CP 6672.000



X = Mounting cutout



### Supply includes:

Enclosure with cutout and reinforcement for support arm system, front panel or rear panel with seal and assembly parts.

### Two configuration options:

- Front panel screw-fastened at the front
- Front panel as rear panel, additional handle strips made from food-safe plastic similar to RAL 5002 (ultramarine blue) available on request

Width (B1) in mm	Packs of	320	400	Page
Height (H1) in mm		240	320	
Depth in mm		160		
<b>Model No. CP</b>	<b>1</b>	<b>6670.000</b>	<b>6672.000</b>	
B2 = Clearance in width		275	355	
B3* = Width of front panel		313	393	
B4 = Hole pitch		288	368	
B5 = Hole pitch		180	220	
H2 = Clearance in height		195	275	
H3* = Height of front panel		233	313	
H4 = Hole pitch		208	288	
H5 = Hole pitch		–	180	
Weight (kg)		5	8	

### Accessories

Mounting plate KL	1	1563.700	1567.700	27
Support rails TS 35/7.5 SZ	10	2316.000		Cat. 30 983
Mounting plate	4	4532.000		Cat. 30 978
Mounting bracket	4	4597.000		Cat. 30 978

To order Command Panels in 1.4404 (AISI 316L), please change the last three digits of the Model No. to .500. Delivery times available on request.

\*Other sizes and front panel finishes available on request.





Multi-folded enclosure opening with captive nuts to secure the front panel.



Recessed front panel installation provides a high level of mechanical protection for mounted equipment.



## Accessories:

see page 70/71  
or refer to index.

### Material:

Stainless steel 1.4301  
Enclosure: 1.25 mm  
Front panel: 2.0 mm

### Surface finish:

Brushed, grain 240

### Protection category:

IP 65 to EN 60 529/10.91



### Handle strips

Made of plastic, available on request.



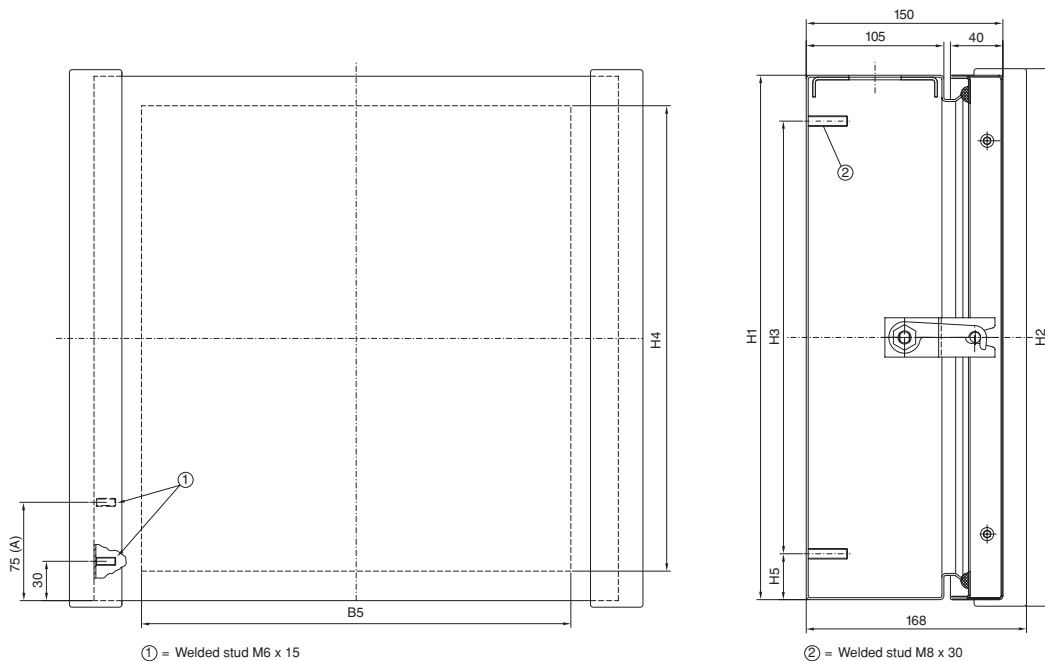
### Enclosure attachment

with pre-fitted screw for location purposes.  
See page 37.



### Connector gland

for 2 cables up to 8 mm diameter.  
Model No. SZ 2400.300.  
See Innovations 2002, page 35.



#### Supply includes:

All-round sealed enclosure, with cutout and reinforcement for support arm system, fastener with guide plate. Door with sealing frame and side handle strips.

Support arm connection	Door hinge
top	left
bottom	right

Width (B1) in mm	Packs of	300	400	400	600	Page
Height (H1) in mm		300	300	400	400	
Depth (T1) in mm		150	150	150	150	
<b>Model No. CP</b>	<b>1</b>	<b>6535.010</b>	<b>6536.010</b>	<b>6538.010</b>	<b>6539.010</b>	
B2 = Enclosure width with handle strips		340	440	440	640	
B3 = Clearance opening, front		260	360	360	560	
B4 = Spacing of mounting plate attachment		215	295	295	510	
B5 = Max. front cutout, width		225	325	325	525	
B6 = Hinged width for depth 100 mm		220	320	320	520	
B7 = Hinged width for depth 138 mm		212	317	317	519	
H2 = Enclosure height with handle strips		310	310	410	410	
H3 = Spacing of mounting plate attachment		250	250	330	330	
H4 = Max. front cutout, height		255	255	355	355	
H5 = Distance from base – mounting plate attachment		25	25	35	35	
Weight (kg)		6.3	7.5	8.8	12.1	

#### Accessories

Matching mounting plate from AE		1033.600	1030.600	1380.600	1039.600	Cat. 30 68
<b>ID No.</b>		271926	274131	271548	271351	
Support rails* SZ	<b>Model No. SZ</b>	10	2316.000	2317.000	2317.000	2319.000
						Cat. 30 983

#### Lock systems

Standard double-bit lock insert may be exchanged for 41 mm lock inserts, plastic handle and T handle, version C see Cat. 30, page 940 – 942.

**To order operating housings in 1.4404 (AISI 316L), please change the last three digits of the Model No. to .510. Delivery times available on request.**

\* = Only with vertical attachment of punched rail 23 x 23 mm see Cat. 30, page 976.



PE conductor connection point in the door.



Cam with guide piece.



Support arm cutout with additional reinforcement plate.



## Accessories:

see page 70/71  
or refer to index.

### Material:

Enclosure and door:  
Stainless steel 1.4301  
Handle strips: Plastic approved  
for use with foodstuffs,  
RAL 5002 (ultramarine blue)

### Surface finish:

Brushed, grain 240

### Protection category:

IP 66 to EN 60 529/10.91

### Modifications:

- Separate keyboard housing
- Other sizes
- Modified support arm cutout or door hinge
- Holes and cutouts for switches and operator panels on request.



### Semi-cylinder lock

For retro-fitting to stainless steel enclosures with cam lock. See page 24.



### Cable fastening

screw-fastened. See Cat. 30, page 1010.



**The alternative.** AE stainless steel, rear door, support arm connection and handle strips available on request. See page 18.

# Support arm system



## Support arm system

In conjunction with special command panels, terminal boxes 120 mm deep and compact enclosures AE made from stainless steel, the support arm system is particularly well-suited to situations where corrosion protection and hygiene are paramount.

A tilting adaptor and housing coupling may optionally be mounted at the top or bottom of the enclosure. **They are not suitable for use as the base point of a system.** For such purposes, we recommend wall and base mountings or, for larger heights, an additional pillar made from steel tubing or stainless steel, available on request.

## Load specifications

Jib length in mm (dimension B)	Permissible static load* (N)
500	800
1000	400
1500	250

\* For a maximum dimension A and C of 800 mm

## Material:

Stainless steel 1.4305

## Protection category:

IP 69K to DIN 40 050-9/5.93  
(Resistant to high-pressure cleaning)



## Support section

Seven standard items are available off the shelf, which can either be tailored to your individual requirements by sawing to length.

## Material:

Stainless steel 1.4301

## Surface finish:

Brushed, grain 240

## Dimensions:

External diameter: 48 mm  
Wall thickness: 3.6 mm

## Weight:

4.3 kg/m

**By special request, other sizes feasible per specification.**

## Order example:

U-bend = CP 6660.200

Dimension A = 300 mm

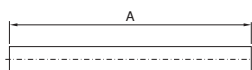
Dimension B = 800 mm

Dimension C = 240 mm

The minimum dimensions must be adhered to, because of the bending radius and immersion depth of the housing coupling or wall/base mounting.

## Straight

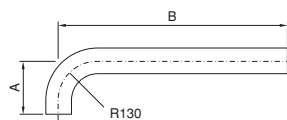
$A_{min.} = 100 \text{ mm}$ ,  
 $A_{max.} = 2000 \text{ mm}$



A mm	Model No. CP
500	<b>6660.050</b>
1000	<b>6660.010</b>
2000	<b>6660.020</b>
per specification A =	<b>6660.000*</b>

## L-bend

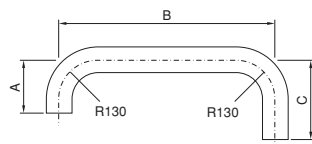
$A_{min.} = B_{min.} = 240 \text{ mm}$ ,  
 $B_{max.} = 1500 \text{ mm}$



A mm	B mm	Model No. CP
240	500	<b>6660.110</b>
500	1000	<b>6660.120</b>
per specification A =	per specification B =	<b>6660.100*</b>

## U-bend

$A_{min.} = C_{min.} = 240 \text{ mm}$ ,  
 $B_{min.} = 410 \text{ mm}$ ,  
 $B_{max.} = 1500 \text{ mm}$



A mm	B mm	C mm	Model No. CP
240	800	800	<b>6660.210</b>
240	500	500	<b>6660.220</b>
per specification A =	per specification B =	per specification C =	<b>6660.200*</b>

\* Extended delivery times



## Tilting adaptor, 10°

For mounting between operating housing and

- Enclosure attachment CP 6664.500 or
- Housing coupling CP 6664.000

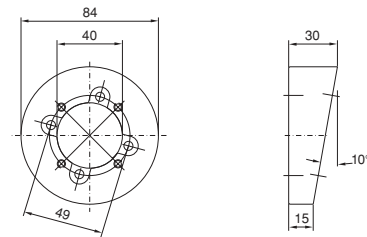
### Material:

Stainless steel 1.4305

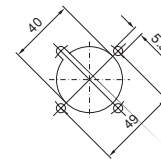
Weight	Model No. CP
0.7 kg	6664.100

### Supply includes:

1 set =  
1 tilting adaptor,  
4 assembly screws,  
1 seal.



Mounting cutout



## Enclosure attachment

For rigid fastening of the enclosure to the support section.

### Material:

Stainless steel 1.4305

### Note:

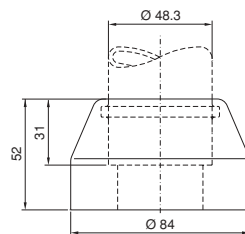
For assembly of a modular, stainless steel pedestal 2 packs are required.

Weight	Model No. CP
1.0 kg	6664.500

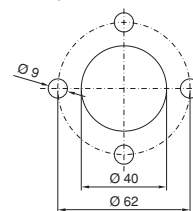


### Accessories:

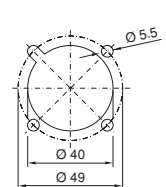
Enclosure reinforcement,  
see page 41.



Mounting cutout  
for pedestal, bottom



Mounting cutout,  
for enclosure



## Housing coupling

For mounting on the vertical part of the support arm system, rotation range approximately 350°, lockable with knurled screw.

### Material:

Stainless steel 1.4305

### Supply includes:

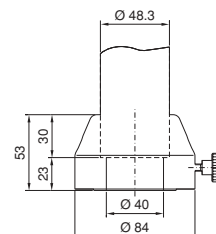
1 set =  
1 housing coupling,  
2 assembly screws for support sections,  
4 assembly screws for enclosure,  
1 seal for support sections,  
1 seal for enclosure.

Weight	Model No. CP
1.1 kg	6664.000

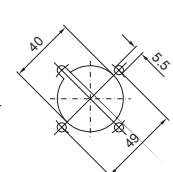


### Accessories:

Enclosure reinforcement,  
see page 41.



Mounting cutout  
Enclosure





# Support arm system



## Wall / base mounting, rigid

For attachment of the support arm system to vertical or horizontal surfaces.

### Material:

Stainless steel 1.4305

### Supply includes:

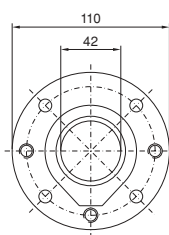
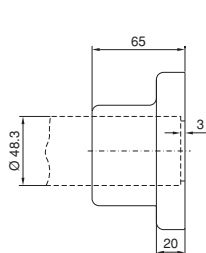
1 set =  
1 wall/base mounting,  
2 assembly screws for support section,  
3 adjusting screws,  
1 seal for support sections,  
1 seal for wall/base.

Weight	Model No. CP
1.6 kg	6663.000

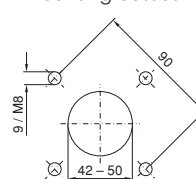


### Accessories:

Wall consoles,  
see page 40.



Mounting cutout





## Swivel base mount

For external mounting on

- Horizontal surfaces
- Wall consoles (only with CP 6663.500)

Rotation range approximately 350°, may be limited in 60° increments using the supplied plate and clamped with a knurled screw.

### Material:

Stainless steel 1.4305

### Supply includes:

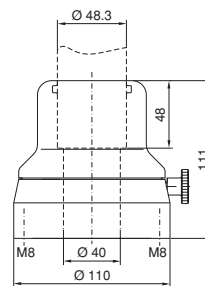
1 set =  
1 base mount,  
2 assembly screws for support section,  
1 seal for support section,  
1 seal for surface or wall bracket.

Attachment	Weight	Model No. CP
M8 thread at rear	1.9 kg	<b>6663.500</b>
Front hole Ø 9 mm	2.1 kg	<b>6663.400</b>

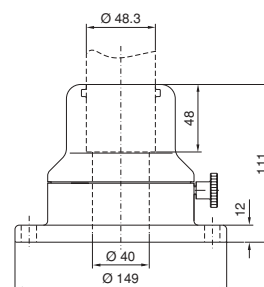
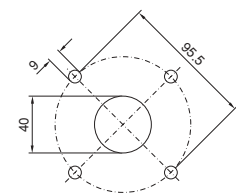


### Accessories:

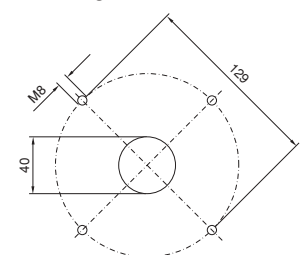
Wall brackets for base mounting  
CP 6663.500,  
see page 40.



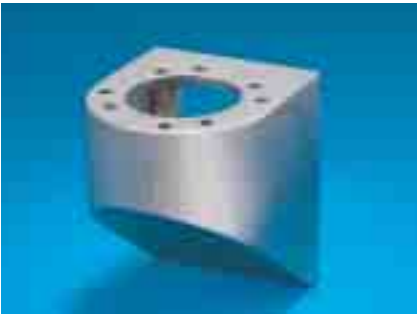
Mounting cutout



Mounting cutout



# Support arm system



## Wall bracket

- With holes for mounting
- Swivel base mount CP 6663.500 with 4 screws
  - Wall/base mounting, rigid, CP 6663.000 with 4 screws and nuts, including seal to the vertical surface and an additional seal for replacement when mounting CP 6663.000.

Attachment	Weight	Model No. CP
M8 thread at rear	1.5 kg	<b>6665.000</b>
Front hole Ø 9 mm	1.8 kg	<b>6665.500</b>

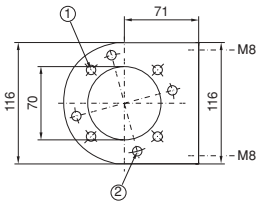
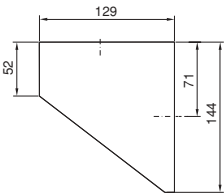
**Material:**  
Stainless steel 1.4301

**Surface finish:**  
Brushed, grain 240



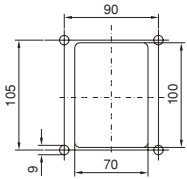
Example: CP 6665.000 + CP 6663.000

Rear fastening



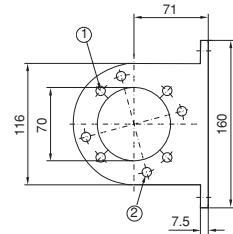
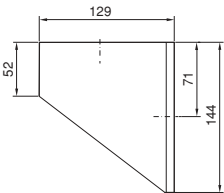
- ① = Hole for CP 6663.000
- ② = Hole for CP 6663.500

Mounting cutout



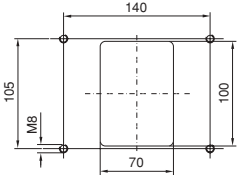
Example: CP 6665.500 + CP 6663.500

Front fastening



- ① = Hole for CP 6663.000
- ② = Hole for CP 6663.500

Mounting cutout

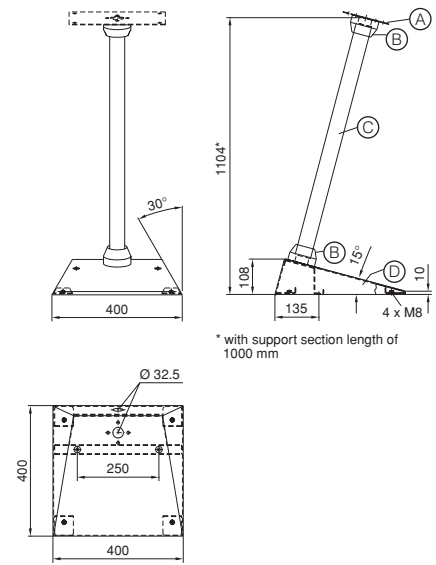




## Pedestal, modular, small

For configuring compact operator stations.

Can be assembled from the following modules:	Model No. CP	Page
(A) Enclosure reinforcement	6143.310	41
(B) Enclosure attachment top	6664.500	37
(C) Support section, straight (can be shortened by cutting off individual lengths)		
500 mm	6660.050	36
1000 mm	6660.010	36
2000 mm	6660.020	36
(B) Enclosure attachment bottom	6664.500	37
(D) Pedestal base plate, small	6143.300	41



\* with support section length of 1000 mm



## Enclosure reinforcement

For exterior or interior reinforcement of enclosures of the appropriate size. Smaller enclosures may also be installed directly without a flange.

For use with

- enclosure attachment CP 6664.500
- housing coupling CP 6664.000

### Material:

Stainless steel 1.4301

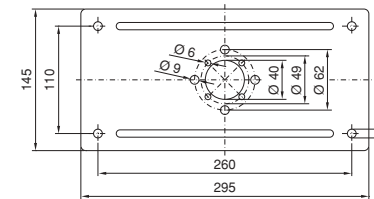
### Surface finish:

Brushed

### Supply includes:

Including assembly parts for the enclosure and support section plus 2 seals.

Packs of	Model No. CP
1	6143.310



### Accessories:

Enclosure attachment CP 6664.500, see page 37.

Housing coupling CP 6664.000, see page 37.



## Pedestal base plate, small

With reinforcement bracket for assembling a stainless steel support section via an enclosure attachment.

- With one hole at the rear for commercially available cable conduit gland M20.
- With two holes at the top (incl. sealing bungs) for lower base attachment cross member.
- Prepared on the inside for a cable clamp DK 7077.000 or DK 7078.000 for strain relief.

### Material:

Stainless steel 1.4301

### Surface finish:

Brushed

### Supply includes:

Assembly parts for enclosure attachment plus seal.

### Note:

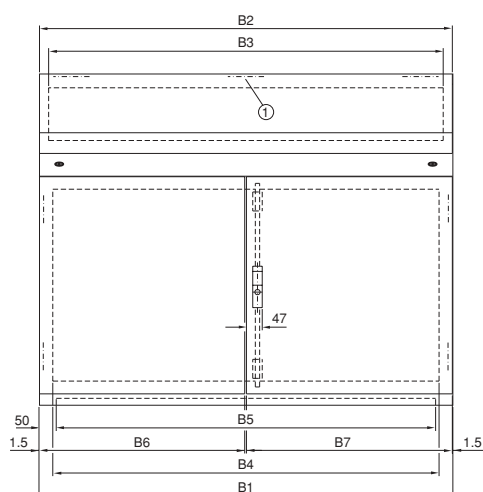
Commercially available screws up to M8 may be used for floor mounting.

Packs of	Model No. CP
1	6143.300

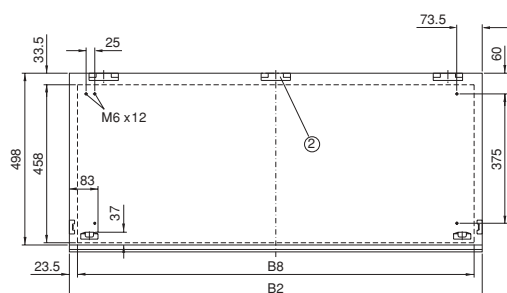
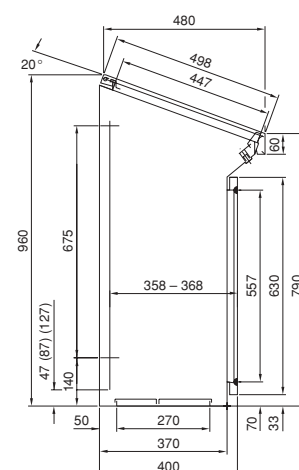
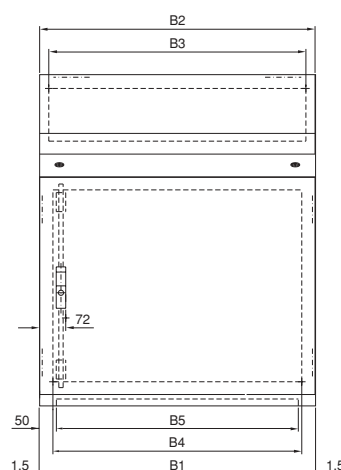


### Accessories:

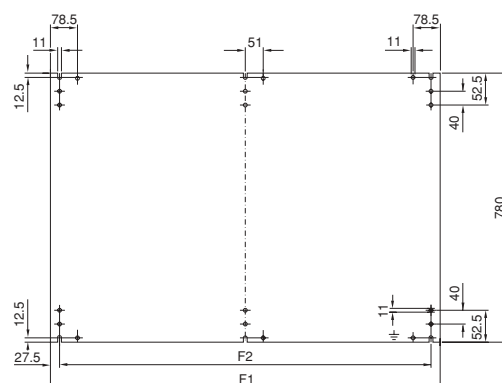
DK 7077.000 or DK 7078.000 cable clamp see Cat. 30, page 981.

**AP 2685.600 / AP 2686.600**


① = No hinge for AP 2685.600

**AP 2683.600 / AP 2684.600**


② = No hinge for AP 2683.600 / AP 2684.600


**Supply includes:**

Enclosure, closed back and sides,  
door or double door at the front, with rod  
type lock console lid with lid stay and  
stainless steel cam lock internally latched,  
two-part gland plate,  
zinc-plated mounting plate.

Width (B1) in mm	Packs of	600	800	1000	1200	Page
Height in mm		960	960	960	960	
Depth in mm		400/480	400/480	400/480	400/480	
<b>Model No. AP</b>	<b>1</b>	<b>2683.600</b>	<b>2684.600</b>	<b>2685.600</b>	<b>2686.600</b>	
B2 = Width		597	797	997	1197	
B3 = Clearance width, top		544	744	944	1144	
B4 = Clearance width, front		524	724	924	1124	
B5 = Clearance width, bottom		500	700	900	1100	
B6 = Width of door, left		–	–	495	595	
B7 = Width of door, right		–	–	497	597	
B8 = Section length of holes		500	700	900	1100	
F1 = Mounting plate width		530	730	930	1130	
F2 = Distance between mounting holes		475	675	875	1075	
Doors		1	1	2	2	
Weight (kg)		52.0	65.2	79.5	90.3	

**Accessories**

Base/plinth SO	Height 100 mm	1	2865.000	2869.000	2867.000	2870.000	63
	Height 200 mm	1	2875.000	2878.000	2885.000	2886.000	63

**Lock systems**

Standard double-bit lock insert of locking rod may be exchanged for 27 mm lock inserts, type A, see Cat. 30, page 942 and lock systems Ergoform-S, see Cat. 30, page 939.

**To order one-piece consoles in 1.4404 (AISI 316L), please change the last three digits of the Model No. to .500. Delivery times available on request.**





The lid support is secured to prevent accidental closure.



The mounting plate is height-adjustable by 2 x 40 mm, e.g. for deep equipment installed in the lid or cable entry from the rear.



## Accessories:

see page 63/64  
and page 70/71  
or refer to index.

### Material:

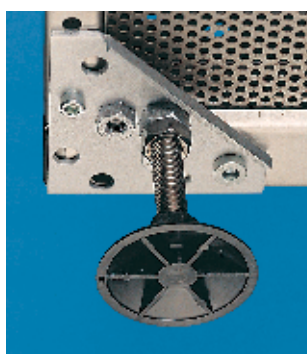
Stainless steel 1.4301  
Enclosure: 1.5 mm  
Door or double door and  
console lid: 2.0 mm  
Mounting plate:  
Sheet steel 3.0 mm

### Surface finish:

Enclosure, door and console  
lid: Brushed, grain 120  
Mounting plate: Zinc-plated

### Protection category:

IP 55 to EN 60 529/10.91  
Complies with NEMA 12



**Levelling feet**  
for base/plinth to compensate  
for floor irregularities.  
See page 64.

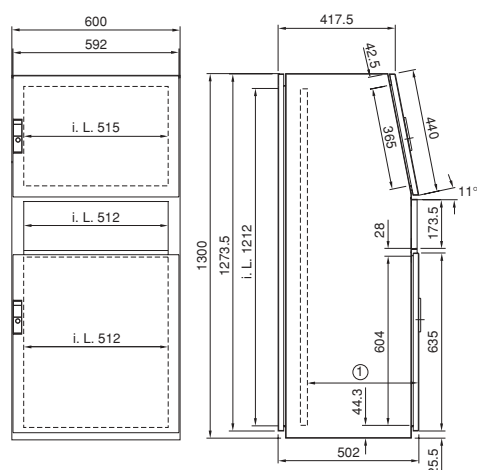


**P 67 mouse and mouse pad**  
See Cat. 30, page 1004.



**Wall bracket, stainless steel**  
mounted on the rear panel for  
additional command panel.  
See page 40.

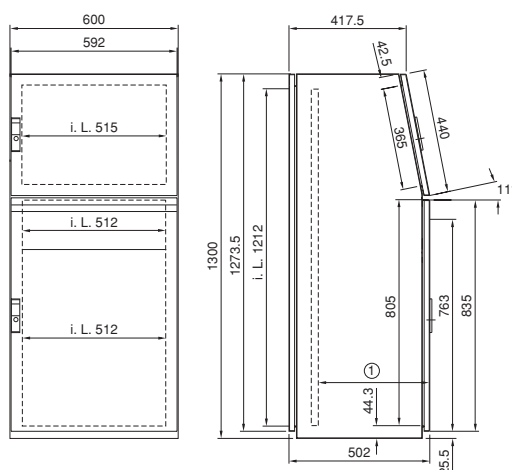
## AP 2688.600 front door, short



i. L. = Clearance width

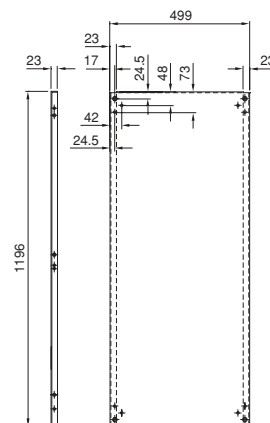
① = from 200 to 400 mm adjustable on a 25 mm pitch pattern

## AP 2689.600 front door, tall

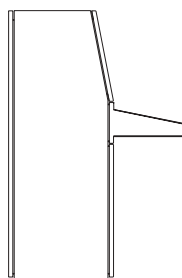


① = from 200 to 400 mm adjustable on a 25 mm pitch pattern

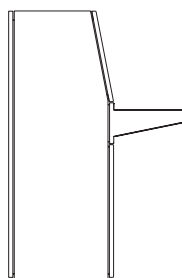
## Mounting plate



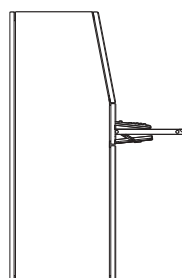
## Order examples



**AP 2688.600**  
Front door, short  
**AP 2690.000**  
Desk section



**AP 2688.600**  
Front door, short  
**AP 2690.000**  
Keyboard drawer



**AP 2688.600**  
Front door, short  
**AP 2691.000**  
Keyboard drawer



**AP 2689.600**  
Front door, tall

## Supply includes:

Enclosure closed top and sides,  
rear door,  
three-part gland plates,  
mounting plate.

## AP 2688.600

Three-part front:  
Top door inclined at 11°, r/h hinge.  
Space for  
– desk section AP 2690.000  
– keyboard drawer AP 2691.000.  
Bottom door, r/h hinge.

## AP 2689.600

Two-part front:  
Top door inclined at 11°, r/h hinge.  
Bottom door, r/h hinge.

	Packs of	Universal console		Page
		with short front door	with tall front door	
Width in mm		600	600	
Height in mm		1300	1300	
Depth in mm		500	500	
<b>Model No. AP</b>	<b>1</b>	<b>2688.600</b>	<b>2689.600</b>	
Weight (kg)		83.3	84.5	

## Essential accessories

Desk section AP	1	2690.000	–	49
or Keyboard drawer AP	1	2691.000	–	49

## Accessories for external mounting

Base/plinth SO	Height 100 mm	1	2868.000	2868.000	63
	Height 200 mm	1	2876.000	2876.000	63
Base/plinth trims, modular SO		4	2908.000	2908.000	64

## Lock systems

Standard double-bit lock insert may be exchanged for 27 mm lock inserts, type A – see Cat. 30, page 942,  
and Ergoform-S lock system – see Cat. 30, page 939.

To order universal consoles in 1.4404 (AISI 316L), please change the last three digits of the Model No. to .500. Delivery times available on request.



All-round punchings on a 25 mm pitch pattern for fast, versatile installation.



Mounting plate with slide block and runner for convenient installation and depth-variable attachment.



## Accessories:

see page 48/49  
and page 70/71  
or refer to index.

### Material:

Stainless steel 1.4301  
Enclosure: 1.5 mm  
Door: 2.0 mm  
Mounting plate:  
Sheet steel 3.0 mm, zinc-plated

### Surface finish:

Brushed, grain 120

### Protection category:

IP 56 to EN 60 529/10.91  
Complies with NEMA12



**Connector gland**  
for 3 cables up to a diameter of  
6 mm.  
Model No. SZ 2400.500.  
See Innovations 2002, p. 35.

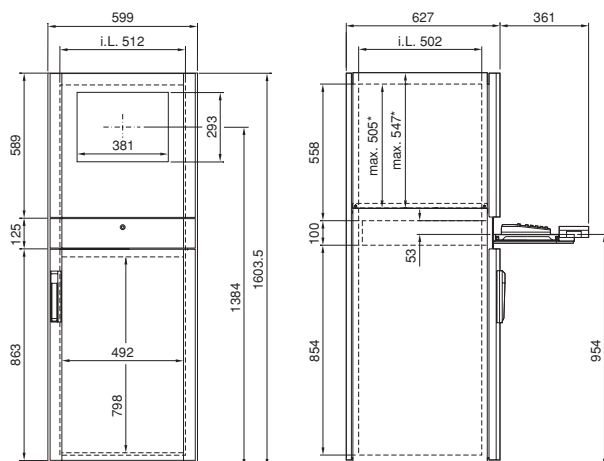


**Rail for EMC screening plate  
and strain relief**  
See Innovations 2002,  
page 74.

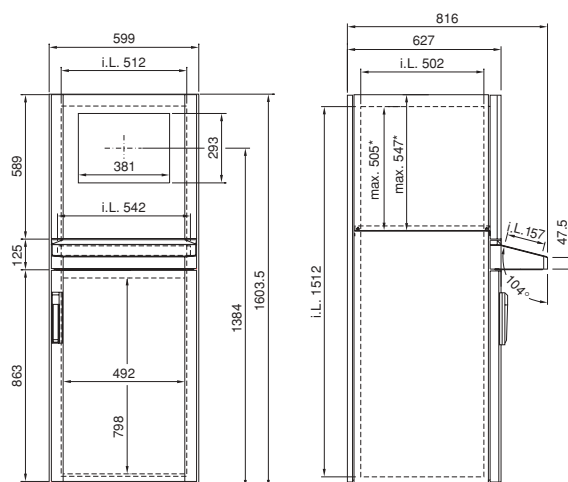


**Mouse pad support**  
For desk section, mouse and  
mouse pad IP 67.  
See Cat. 30, page 1004/1005.

**PC 4650.000**  
with keyboard drawer



**PC 4650.704**  
with desk section



\* adjustable in the 25 mm pitch

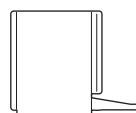
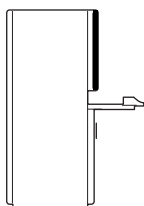
i. L. = Clearance width

**On request:**

**PC enclosure system**  
with mounting  
compartment, large  
and keyboard drawer

**PC enclosure**  
system  
with keyboard  
drawer

**PC enclosure system**  
with desk section



**Supply includes:**

Enclosure with closed sides, top and bottom  
Rear door with locking rod and double-bit insert  
Three-part gland plates  
Component shelf for monitor, see description opposite  
Bottom: Door, r/h hinge, with Ergoform-S lock system and double-bit insert.

**PC 4650.000**

Keyboard drawer

- Lock insert, lock no. 3524 E
- Front can be folded down for hand rest
- Mouse pad support (also suitable for IP 67 mouse), usable optionally l/h or r/h side
- Cable support, hinged

**PC 4650.704**

Desk section

- Blanking panel top and bottom
- Styling strip made of food-safe plastic

Width in mm	Packs of	600	600	Page
Height in mm		1600	1600	
Depth in mm		620	620/820	
<b>Model No. PC</b>	<b>1</b>	<b>4650.000</b>	<b>4650.704</b>	
Weight (kg)		115.0	123.0	

**Accessories for external mounting**

Base/plinth SO	Height 100 mm	1	2855.000	2855.000	63
	Height 200 mm	1	2877.000	2877.000	63
Levelling feet, 100 mm high SO		1 set	2859.000	2859.000	64
Base/plinth trims, modular SO		4	2913.000	2913.000	64

**Accessories for internal mounting**

Mounting angles for 482.6 mm (19°)	4	4632.000	4632.000	Cat. 30, 1026
Adaptor pieces, 482.6 mm (19°)	8	4547.000	4547.000	Cat. 30, 1026
Disk box SZ	1	2446.000	2446.000	Cat. 30, 951

**Lock systems**

Standard double-bit lock insert may be exchanged for 27 mm lock inserts, Design A, see Cat. 30, page 942.  
Rear door prepared for installation of Ergoform-S lock system, see Cat. 30, page 939.

**Order enclosures in 1.4404 (AISI 316L) with extension no. .50X. Delivery times available on request.**



Release mechanism in the keyboard drawer area for monitor door.



Mouse pad support pulled out from left or right side.



Cable support, hinged on the keyboard extension.



## Accessories:

see page 48/49  
and page 70/71  
or refer to index.

### Material:

Stainless steel 1.4301  
Enclosure:  
10-fold profiled, 1.8 mm  
Rear door: 2.0 mm  
Gland plates: 1.5 mm  
Monitor field with single-pane  
safety glass for 19" screen  
diagonal.

### Surface finish:

Brushed, grain 240

### Protection category:

IP 55 to EN 60 529/10.91  
Complies with NEMA 12



**Component shelves**  
installable in the height on a  
25 mm pitch pattern.  
See page 49.



**PC mobile workstation**  
Plenty of space for tower PCs,  
printers, and paper.  
See page 48.



**Connector grommet**  
dividable for keyboard, mouse,  
or scanner cables.  
See Innovations 2002,  
page 35.



# Accessories

## Human / machine interface



### Mobile PC workstation

for Tower PC, printer, USB, Server, etc.

Option of installing in 600 mm wide enclosures, 600 mm deep.

#### Load capacity:

75 kg

#### Material:

Sheet steel

#### Colour:

RAL 7035

#### Supply includes:

Mobile workstation consisting of:  
1 support frame,  
2 shelves, top/bottom,  
1 set of telescopic slides,  
1 handle,  
1 cable support, hinged,  
mounting accessories.

Packs of	Model No. PC
1	4641.000



#### Also required:

Punched sections with mounting flanges, punched sections without mounting flanges, see table.



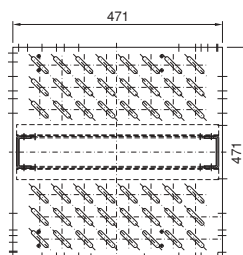
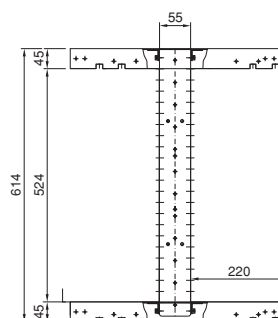
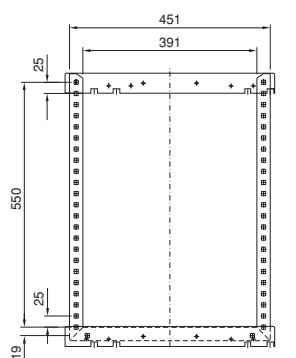
#### Accessories:

Fastening bolts DK 7115.000, see Cat. 30, page 993.

For enclosure depth mm	For installation in	
	TS 2 punched sections with mounting flanges, see Cat. 30, page 974	ES, PC 2 punched sections without mounting flanges*, see Cat. 30, page 977
600	TS 8612.060	PS 4376.000

\* plus

4 support brackets PS 4183.000, see Cat. 30, page 979,  
8 threaded blocks M6 PS 4162.000, see Cat. 30, page 982,  
8 screws M6 SZ 2504.500, see Cat. 30, page 981.



### Shelf

#### for PC workstation

To accommodate additional equipment such as modems, power packs etc. or simply as a paper tray.  
The shelf may be mounted to the workstation with height adjustment on a 25 mm pitch pattern.

#### Material:

Sheet steel

#### Colour:

RAL 7035

Packs of	Model No. PC
1	4642.000

#### Supply includes:

Shelf including assembly parts.



#### Accessories:

Fastening bolts DK 7115.000, see Cat. 30, page 993.



### Keyboard drawer

For a maximum keyboard width of 500 mm.  
Drawer with mouse pad at the front.  
Includes assembly material for attaching to universal console AP 2688.600.

**Material:**

Stainless steel 1.4301

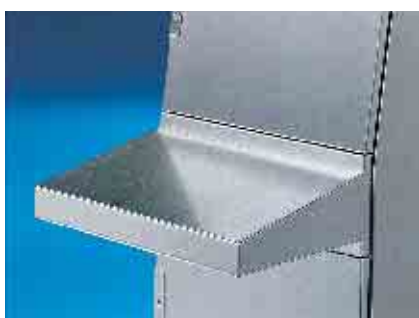
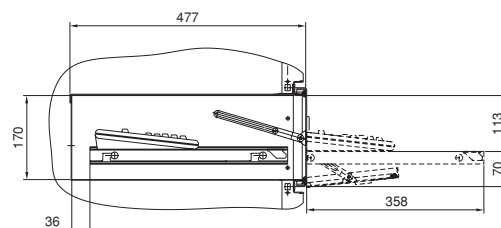
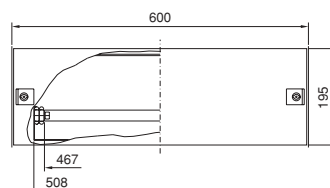
**Surface finish:**

Brushed

	Model No. AP
Keyboard drawer	2691.000

**Note:**

Order keyboard drawer in 1.4404 (AISI 316L), with extension no. .500.  
Delivery times available on request.



### Desk section

Solid sides and front, cover plates for top and bottom. May be attached with either the inclined or straight edge on top, by rotating through 180°.  
Includes assembly material for attaching to universal console AP 2688.600.

**Material:**

Stainless steel 1.4301

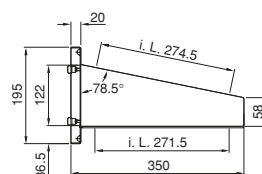
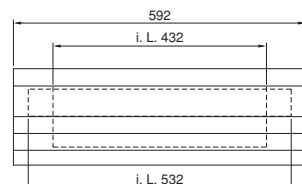
	Model No. AP
Desk section	2690.000

**Surface finish:**

Brushed

**Note:**

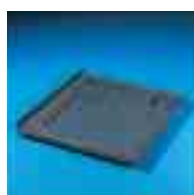
Order desk section in 1.4404 (AISI 316L), with extension no. .500.  
Delivery times available on request.



i.L. = Clearance width



For ES, PC



For TS

### Component shelf, static installation

To match the enclosure depth, for direct mounting in the vertical system punchings.  
Simply locate into 4 prefitted screws and secure.

**Load capacity:**

50 kg

**Material:**

Sheet steel 1.5 mm

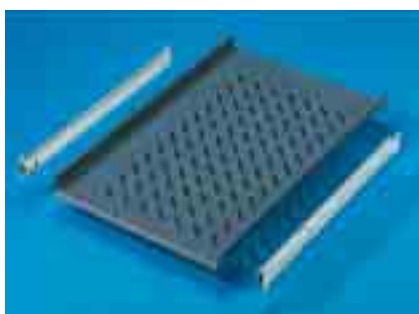
**For ES, PC, colour RAL 7035**

For enclosure depth*	Model No. PC
620 mm	4619.660

**For TS, colour RAL 7015**

For enclosure depth*	Model No. PC
600 mm	8800.900

\* Enclosures without mounting plate.



### Component shelf, pull-out

For direct attachment on the enclosure frame. Additional punched sections are not required.

**Material:**

Sheet steel

**Colour:**

RAL 7015 (slate grey)

**Load capacity:**

40 kg

For depth mm	Model No. IW
600	6902.960 <sup>1)</sup>

<sup>1)</sup> May also be mounted in 800 mm deep enclosures based on TS (without mounting plate) (rear attachment extendible).

**Supply includes:**

Component shelf with 2 telescopic slides (supplied loose).

# Large enclosures

Rittal has shaped and revolutionised the range of benefits afforded by large enclosures with constant innovations.

Whether used as a free-standing or a bayed enclosure, these systems offer the maximum in usable space. All this, plus excellent solution diversity with system accessories.

The integration e.g. of climate control components and system preparations for electronics make TS and ES enclosures ideally suited to demanding IE and IT applications.

Here too, system integration is based on the modular approach.

Standard modules, rather than customisation, offer infinite solution diversity, coupled with astonishing time and cost savings.



## TS 8 baying systems

- Frame structure made from solid sections with 25 mm system punchings
- Lockable door with four-point lock and four hinges (130°), adjacent door with separate latching top and bottom, four hinges (130°)
- Potential equalisation via the assembly components with:
  - Roof plate
  - Rear panel with 8/10-fold screw fastening
  - Three-piece gland plates
  - Depth-adjustable mounting plate



TS baying system (Protection category IP 55)				
W mm	H mm	D mm	Model No. TS	Page
800	1800	400	8454.600	54/55
1200	1800	400	8456.600	
600	1800	500	8457.600	
800	1800	500	8455.600	
1200	1800	500	8453.600	
600	2000	600	8452.600	
800	2000	600	8450.600	
1200	2000	600	8451.600	









### Free-standing enclosures ES 5000

- Enclosure sealed at the sides and top, with 25 mm system punchings
- Lockable door with three-point lock and three hinges (130°), adjacent door latched via lockable door, three hinges (130°)
- Rear panel with 6/8-fold screw fastening
- Three-piece gland plates
- Depth-adjustable mounting plate



ES free-standing enclosures (Protection category IP 56)				
W mm	H mm	D mm	Model No. ES	Page
600	1600	400	5450.600	58/59
600	1800	500	5451.600	
800	1800	500	5452.600	
800	2000	600	5453.600	
1000	1800	400	5454.600	
(Protection category IP 55)				
1200	2000	500	5455.600	

The enclosure Model Numbers listed here apply to the variant in 1.4301 (AISI 304).  
For the variant in 1.4404 (AISI 316L), the Model Number can be found on the respective product page.

Approvals			
		TS baying systems	ES free-standing enclosures
       	UL	•	•
	CSA	•	•
	TÜV	•	•
	Germanischer Lloyd	•	•
	Norske Veritas	—	•
	Russian Maritime Register of Shipping	•	•
	Lloyds Register of Shipping	•	•
	Bureau Veritas	•	•
	VDE	•	•

TS 8 – the Rittal Top enclosure system now available with more variation options with standardised components. This variability is the key to perfect, individual solutions and is outstanding value for money. This is why the TS 8 in stainless steel is technically and economically the answer for all industries that demand corrosion protection and hygiene.

### **The sum of these useful ideas is ri-volutionary.**

- The core of the TS 8 is the vertical section. It is the focal point of a new dimension of usability.
- Considerably more interior space, more effectively used with its two-level concept.
- More options with fewer parts with symmetry on all sides.
- Open on all sides: each of the four TS vertical sections can house the hinges for a door.
- Enclosures can be bayed to the left, right, front, back, around corners, and when needed top and bottom.

### **More space and infinite possibilities with the two-level concept!**

Outer level: up to 15% more space.

Inner level: more options with the classic enclosure mounting surface.

Ingenious: Installation is feasible on both levels simultaneously. The space gained offers a lot of room for creative ideas, e.g. separate cable entry or new options for climate control.

### **The TS 8 savings concept**

- Save time through simplification in installation.
- When installing, save through more options with fewer parts.
- Automatically save through standard, integral features.
- Save through versatile components.
- Save through symmetry. Symmetry makes many things easier, from planning to installing equipment.
- Save through security, because risk minimisation is an important factor in cost-effectiveness.





### Each detail, a clever solution!

The integral channel above the seal on the horizontal frame section prevents liquid from collecting on the seals and penetrating the door or side panel when opened. Between bayed enclosures, the cover provides additional protection.



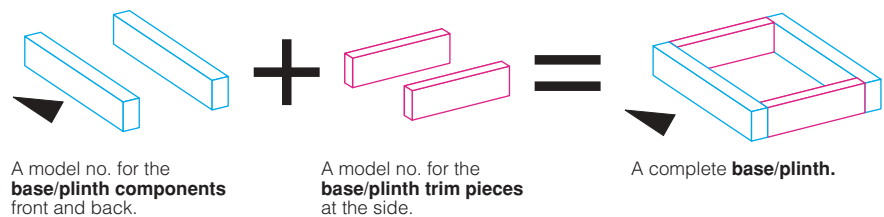
### Perfect locking!

Optimum closure of the door is achieved via four locking points. The self-locking mechanics of the comfort handles are protected against accidental opening, such as, from vibration.

The adjacent door of double-door enclosures is secured through additional bolts on top and at bottom with interconnecting rods and handle from the middle outward. Accidental opening of a heavily equipped adjacent door, such as with a cooling unit, is prevented. The lock system of the primary door is identical with single-door enclosures.

### Cable entry: fast and sealed!

For cables up to 47 mm diameter, the cable entry plates in conjunction with the cable entry grommets offer an ingeniously simple and especially well sealed cable entry.

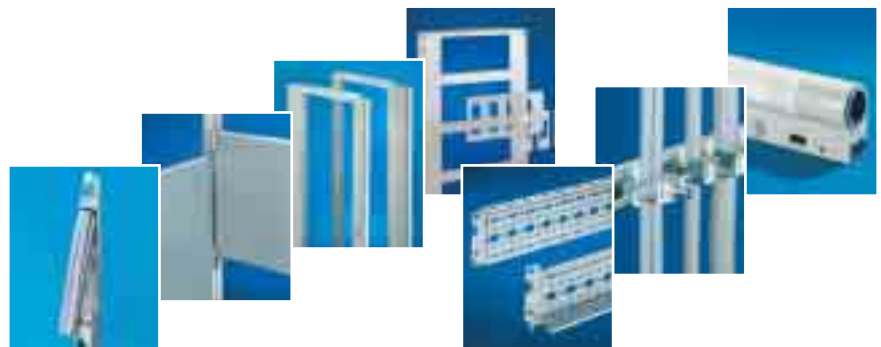


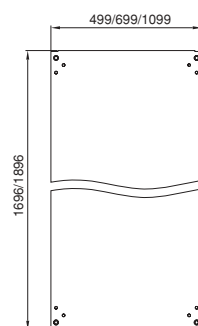
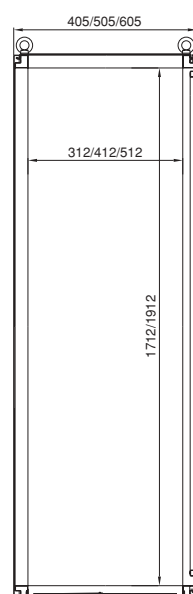
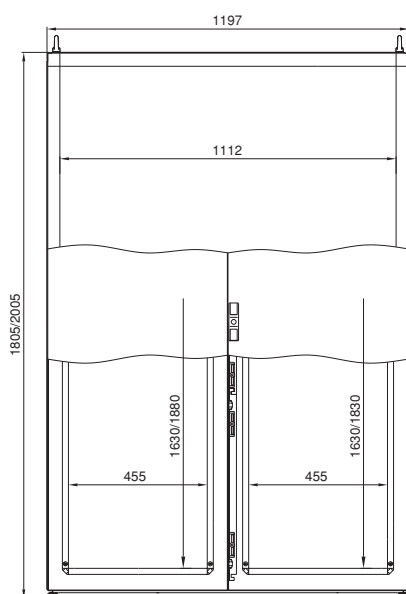
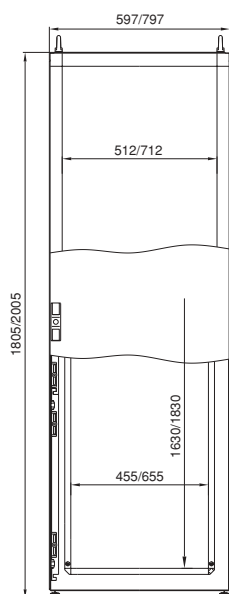
### The modular base/plinth design with added-value!

Fewer parts, more options, lower costs! The modular base/plinth design simply offers more: Cable entry variants for individual and bayed enclosures, cable clamping and routing as required.

### Unlimited possibilities

Rittal offers a unique "Modular System" for accessories. Mechanical installation as well as equipment with many useful components is especially cost-effective and can be implemented rapidly.





Mounting plate

Supply includes	Material	Surface finish
	Stainless steel 1.4301	
Enclosure frame	1.5 mm	Bare
Door(s)	2.0 mm	Exterior brushed, grain 240
Roof	1.5 mm	
Rear panel	1.5 mm	
Mounting plate	3.0 mm (sheet steel)	Zinc-plated
Gland plate, three-part	1.5 mm	Bare
2 depth stiffening supports (PS 4696.000, see Cat. 30, page 975) mounted in enclosure depth (only for 600 mm).		
Protection category IP 55 to EN 60 529/10.91, complies with NEMA 12.		

Detail drawing  
see page 56/57.

Width in mm	Packs of	800	1200	600	800	1200	600	800	1200	Page
Height in mm		1800	1800	1800	1800	1800	2000	2000	2000	
Depth in mm		400	400	500	500	500	600	600	600	
<b>Model No. TS</b>	<b>1</b>	<b>8454.600</b>	<b>8456.600</b>	<b>8457.600</b>	<b>8455.600</b>	<b>8453.600</b>	<b>8452.600</b>	<b>8450.600</b>	<b>8451.600</b>	
Doors		1	2	1	1	2	1	1	2	
Weight (kg)		112.9	170.4	92.5	116.3	174.9	104.4	129.7	194.7	
Side panels	2	8700.840	8700.840	8700.850	8700.850	8700.850	8700.060	8700.060	8700.060	66

#### Base/plinth

Components front and back	Height 100 mm	1 set	8701.800	8701.200	8701.600	8701.800	8701.200	8701.600	8701.800	8701.200	62
	Height 200 mm	1 set	8702.800	8702.200	8702.600	8702.800	8702.200	8702.600	8702.800	8702.200	62
Side trim pieces	Height 100 mm	1 set	8701.040	8701.040	8701.050	8701.050	8701.050	8701.060	8701.060	8701.060	62
	Height 200 mm	1 set	8702.040	8702.040	8702.050	8702.050	8702.050	8702.060	8702.060	8702.060	62
Trim panels, modular SO		4	2907.000	2907.000	2908.000	2908.000	2908.000	2913.000	2913.000	2913.000	64

#### Accessories

Divider panel	1	8609.840	8609.840	8609.850	8609.850	8609.850	8609.060	8609.060	8609.060	Cat. 30, p. 906
Divider panel for module plates	1	–	–	8609.100	8609.100	8609.100	8609.130	8609.130	8609.130	Cat. 30, p. 907
Cable clamp rails	2	4192.000	4196.000	4191.000	4192.000	4196.000	4191.000	4192.000	4196.000	Cat. 30, p. 898
Cable entry plates, TS	2	8700.800	8700.120*	8700.600	8700.800	8700.120*	8700.600	8700.800	8700.120*	65
System support rails	2	4362.000	4363.000	4361.000	4362.000	4363.000	4361.000	4362.000	4363.000	Cat. 30, p. 899
Support strips for door	20	4598.000	4596.000	4596.000	4598.000	4596.000	4596.000	4598.000	4596.000	Cat. 30, p. 950
Wiring plan pocket, sheet steel	1	4118.000	4116.000	4116.000	4118.000	4116.000	4116.000	4118.000	4116.000	Cat. 30, p. 952

#### Lock systems

Standard double-bit lock insert may be exchanged for other inserts and comfort handle, see page 68.

\* Packs of 4

To order enclosure in 1.4404 (AISI 316L) use extension no. .500. Delivery times available on request.



Mounting plate, zinc-plated, C fold at sides, depth-adjustable on the 25 mm pitch pattern.



Solid frame sections, punched on a 25 mm pitch pattern for universal interior installation. Vertical stays for two mounting levels.



For a reliable IP protection rating – adjacent door with top and bottom bolts as well as interconnecting rods with four bolts. Operated with the handle.



## Rittal service:

TS stainless steel (1.4301) with protection category NEMA 4x (extension no. .640) available on request.



## Accessories:

see page 62 – 69 and page 70/71 or refer to index.

## Note:

Because of the material hardness, for component installation we recommend using the Torx screw SZ 2486.300, see page 67.



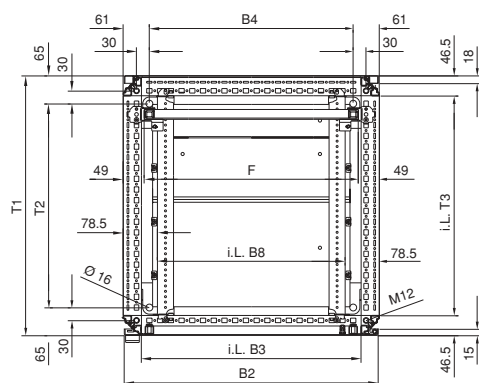
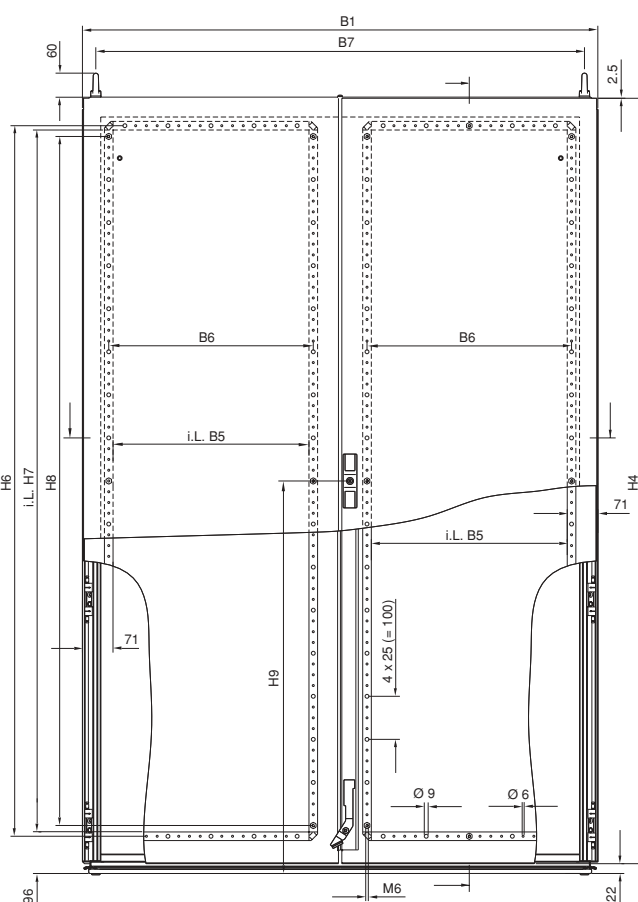
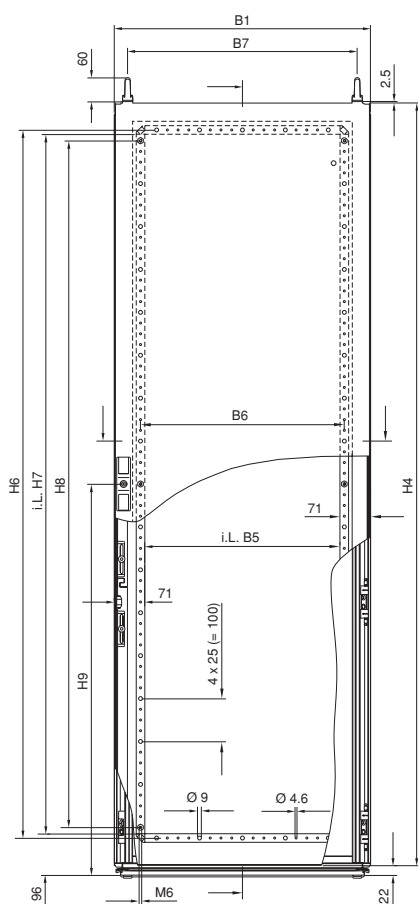
**Cable gland**  
of polyamide or brass.  
Protection category IP 68.  
See Innovations 2003, page 29.



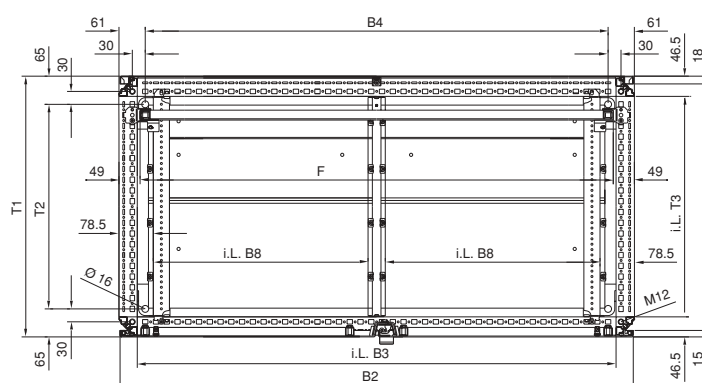
**Baying cover**  
Keeps the seal free from liquids and dirt.  
See page 67.



**TS punched section with mounting flange 23 x 73 mm**  
with punchings on all sides for captive nuts/threaded blocks.  
See Cat. 30, page 974.



Base/plinth attachment: B4 x T2



Base/plinth attachment: B4 x T2

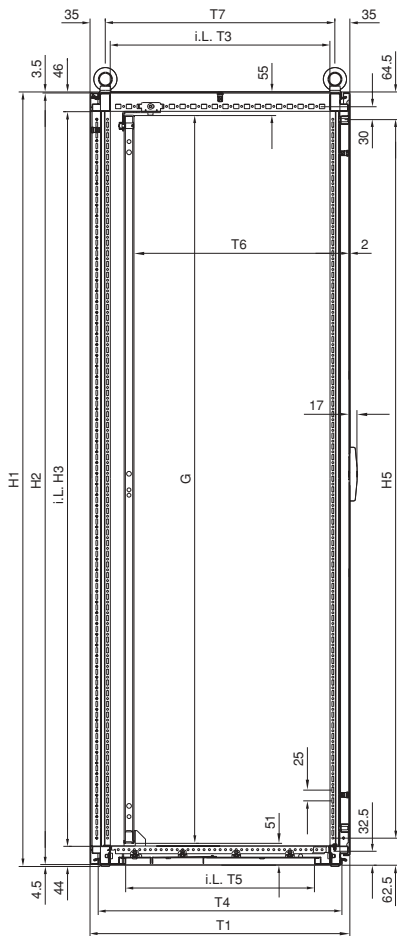
i.L. = Clearance width

**Note:**

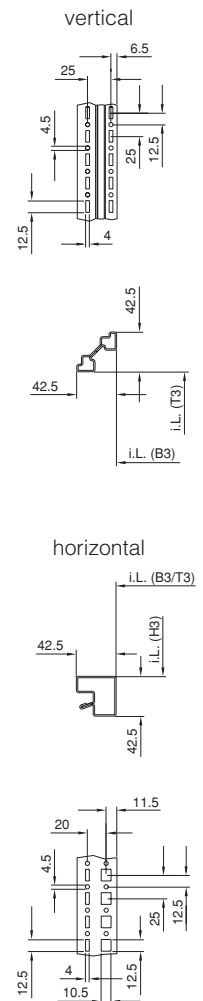
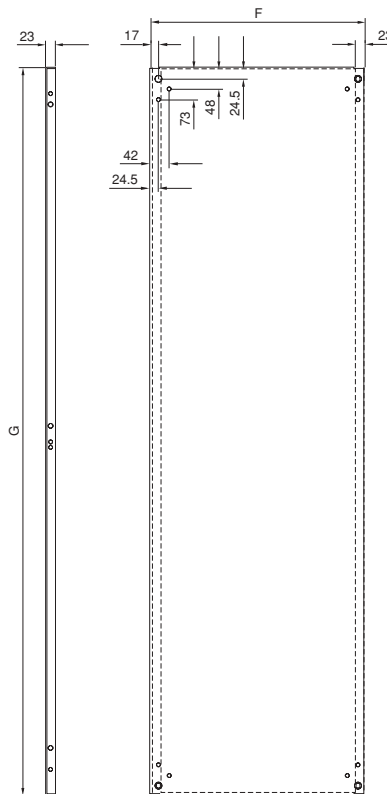
With fitted side panels, the overall width (B1) is increased by 9 mm.  
Between bayed enclosures, allow 3 mm for the seal.

### Dimensions in detail

### Profile cross sections



i.L. = Clearance width



Enclosures		Widths								Heights									Depths							Mount. pl.		
Single-door	Two-door	B1	B2	B3	B4	B5	B6	B7	B8	H1	H2	H3	H4	H5	H6	H7	H8	H9	T1	T2	T3	T4	T5	T6	T7	F	G	
8454.600		797	792	712	675	655	675	735	640	1805	1797	1712	1777.5	1675	1650	1630	1600	911	405	275	312	368	240	130 – 355	335	699	1696	
	8456.600	1197	1192	1112	1075	455	475	1135	500	1805	1797	1712	1777.5	1675	1650	1630	1600	911	405	275	312	368	240	130 – 355	335	1099	1696	
8457.600		597	592	512	475	455	475	535	440	1805	1797	1712	1777.5	1675	1650	1630	1600	911	505	375	412	468	340	130 – 455	435	499	1696	
8455.600		797	792	712	675	655	675	735	640	1805	1797	1712	1777.5	1675	1650	1630	1600	911	505	375	412	468	340	130 – 455	435	699	1696	
	8453.600	1197	1192	1112	1075	455	475	1135	500	1805	1805	1797	1712	1777.5	1675	1650	1630	1600	911	505	375	412	468	340	130 – 455	435	1099	1696
8452.600		597	592	512	475	455	475	535	440	2005	1997	1912	1977.5	1875	1850	1830	1800	1011	605	475	512	568	440	130 – 555	535	499	1896	
8450.600		797	792	712	675	655	675	735	640	2005	1997	1912	1977.5	1875	1850	1830	1800	1011	605	475	512	568	440	130 – 555	535	699	1896	
	8451.600	1197	1192	1112	1075	455	475	1135	500	2005	1997	1912	1977.5	1875	1850	1830	1800	1011	605	475	512	568	440	130 – 555	535	1099	1896	

**Enclosure**

B1 = overall width  
B2 = width of door  
B3 = clearance between enclosure frames  
B4 = section length of system holes/hole distance between base and plinth attachment  
B5 = clearance between the tubular door frame  
B6 = distance between axes of the rows of tubular door frame holes  
B7 = spacing between eyebolts  
B8 = clearance in base aperture

H1 = overall height  
H2 = height of rear panel  
H3 = clearance between the enclosure frame  
H4 = height of door  
H5 = section length of system holes  
H6 = distance between axes of the rows of tubular door frame holes  
H7 = clearance between the tubular door frame  
H8 = spacing of tubular door frame fastening bolts  
H9 = distance from base to centre of lock

T1 = overall depth  
T2 = section length of system holes/hole distance between base and plinth attachment  
T3 = clearance between the enclosure frames  
T4 = depth of base frame  
T5 = clearance in base aperture  
T6 = possible installation depth (mounting plate assembly), depth-adjustable on a 25 mm pitch pattern  
T7 = centre-to-centre distance between eyebolts

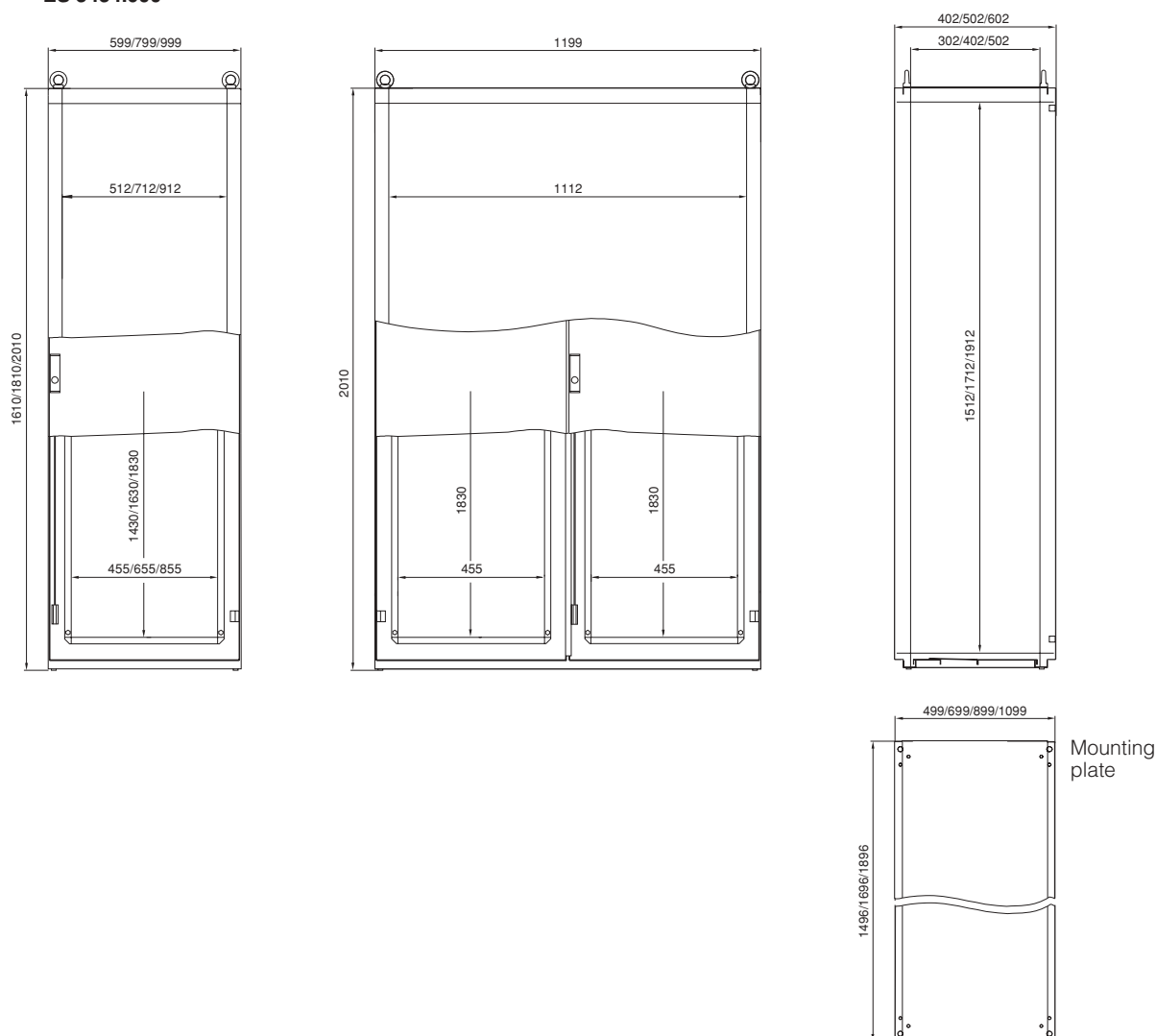
### Mounting plate

F = overall width  
G = overall height



ES 5450.600 / ES 5451.600 /  
ES 5452.600 / ES 5453.600 /  
ES 5454.600

ES 5455.600



#### Supply includes:

Enclosure, closed top and sides,  
removable rear wall,  
r/h door hinge, can be changed to  
opposite side, except for ES 5455.600;  
130° hinges, mounting plate,  
three-part gland plates.

#### Detailed drawings

see page 60/61.

Width in mm	Packs of	600	600	800	800	1000	1200	Page
Height in mm		1600	1800	1800	2000	1800	2000	
Depth in mm		400	500	500	600	400	500	
<b>Model No. ES</b>	<b>1</b>	<b>5450.600</b>	<b>5451.600</b>	<b>5452.600</b>	<b>5453.600</b>	<b>5454.600</b>	<b>5455.600</b>	
Doors		1	1	1	1	1	2	
Eyebolts		2	2	2	2	4	4	
Weight (kg)		92.5	169.6	131.8	154.0	146.9	205.4	

#### Accessories external mounting

Base/plinth SO	Height 100 mm	1	2865.000	2868.000	2866.000	2856.000	2867.000	2860.000	63
	Height 200 mm	1	2875.000	2876.000	2879.000	2880.000	2885.000	2887.000	63
Base/plinth plate, modular SO		1	2907.000	2908.000	2908.000	2913.000	2907.000	2908.000	64

#### Accessories internal mounting

System support rails PS	2	4361.000	4361.000	4362.000	4362.000	4347.000	4363.000	Cat. 30 899
Cable clamp rails PS	2	4191.000	4191.000	4192.000	4192.000	4336.000	4196.000	Cat. 30 898
Support strips PS	20	4596.000	4596.000	4598.000	4598.000	4599.000	4596.000	Cat. 30 975
Utility lectern PS	1	4638.600	4638.600	4638.800	4638.800	—	4638.600	Cat. 30 951
Wiring plan pockets PS	1	4116.000	4116.000	4118.000	4118.000	4124.000	4116.000	Cat. 30 952

#### Lock systems

Standard double-bit lock insert may be exchanged for 27 mm lock inserts, type A – see Cat. 30, page 942  
and Ergoform-S lock system – see Cat. 30, page 939

To order enclosures in 1.4404 (AISI 316L), please change the last three digits of the Model No. to .500. Delivery times available on request.



Door with rectangular frame, slotted.



Enclosure with twin rows of holes in all 3 dimensions.



Mounting plate with slide block to guide runner.



#### Rittal service:

ES stainless steel (1.4301) with protection category NEMA 4x (extension no. .640) available on request.



#### Accessories:

see page 62 – 69 and page 70/71 or refer to index.

#### Material:

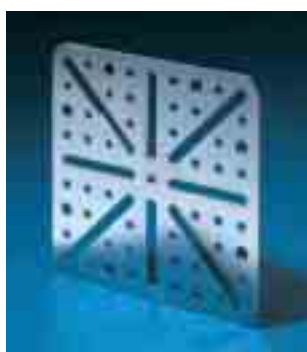
Stainless steel 1.4301  
Enclosure: 1.8 mm  
Door: 2.0 mm  
Rear panel: 1.5 mm  
Mounting plate:  
Sheet steel 3.0 mm

#### Surface finish:

Enclosure, rear panel and doors: Brushed, grain 240  
Mounting plate: Zinc-plated

#### Protection category:

IP 56 to EN 60 529/10.91 (for all single-door ES),  
IP 55 to EN 60 529/10.91 (for all double-door ES),  
Complies with NEMA 12



#### Mounting plate

Also suitable for components outside of the 25 mm pitch pattern of holes.  
See Cat. 30, page 978.



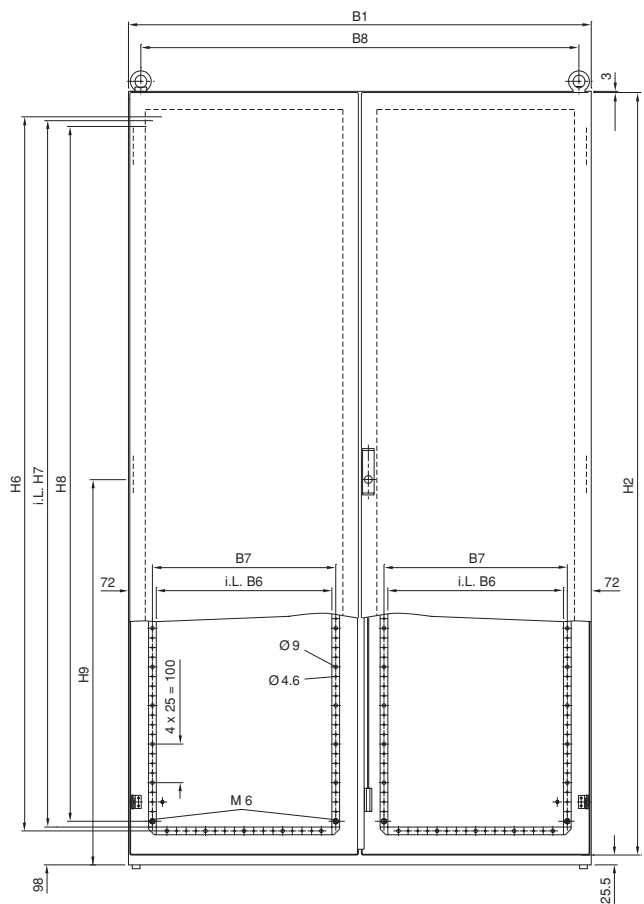
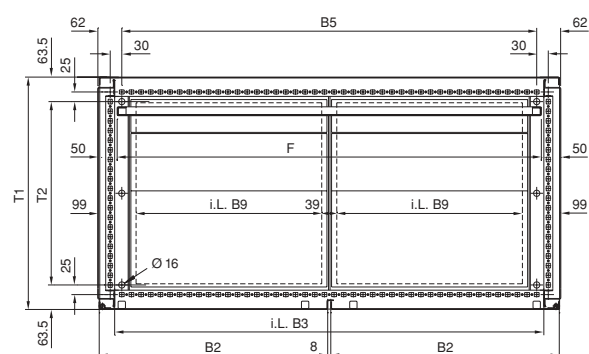
#### Signal pillars

Simple contact using bayonet connectors.  
See Cat. 30, page 1000.

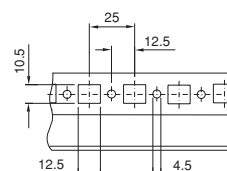
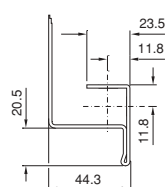


#### Stainless steel viewing window

Reliable protection for installed components in stainless steel enclosures.  
See page 69.

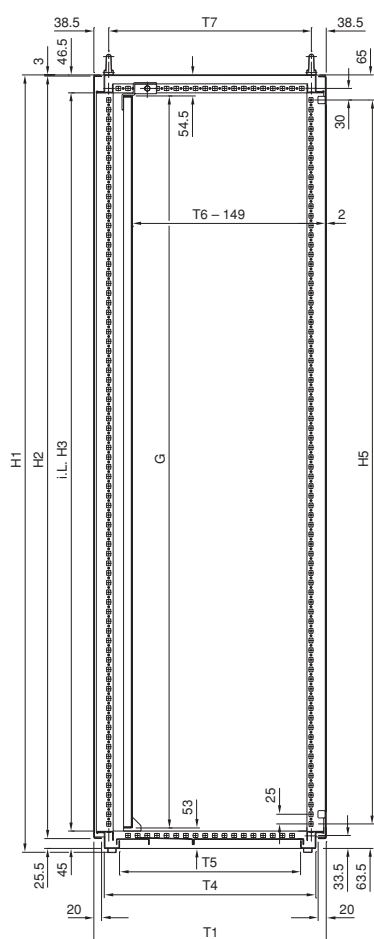
[illegible]

### Pitch pattern of holes

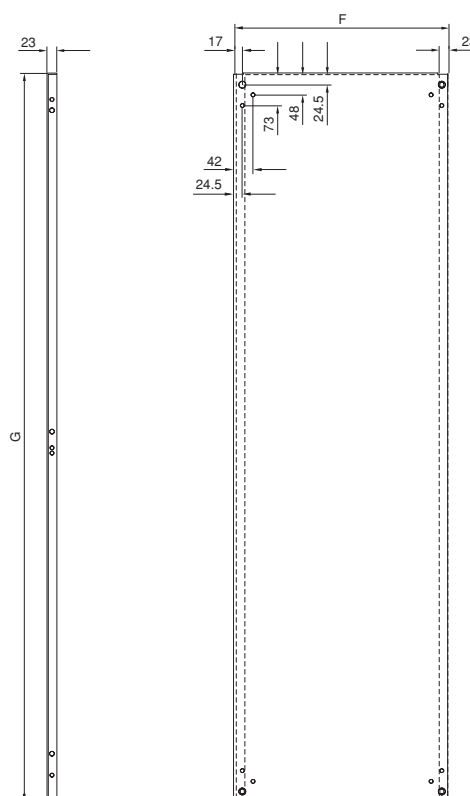


# Free-standing enclosures ES 5000

## Dimensions in detail



### Mounting plate



i.L. = Clearance width

Enclosures		Widths								Heights									Depths							Mount. pl.	
Single-door	Two-door	B1	B2	B3	B5	B6	B7	B8	B9	H1	H2	H3	H5	H6	H7	H8	H9	T1	T2	T4	T5	T6	T7	F	G		
ES 5450.600		599	592	512	475	455	475	535	401	1610	1575	1512	1475	1450	1430	1400	798	402	275	349	269	349	325	499	1496		
ES 5451.600		599	592	512	475	455	475	535	401	1810	1775	1712	1675	1650	1630	1600	898	502	375	449	369	449	425	499	1696		
ES 5454.600		999	992	912	875	855	875	935	801	1810	1775	1712	1675	1650	1630	1600	898	402	275	349	269	349	325	899	1696		
ES 5452.600		799	792	712	675	655	675	735	601	1810	1775	1712	1675	1650	1630	1600	898	502	375	449	369	449	425	699	1696		
ES 5453.600		799	792	712	675	655	675	735	601	2010	1975	1912	1875	1850	1830	1800	998	602	475	549	469	549	525	699	1896		
	ES 5455.600	1199	592	1112	1075	455	475	1135	481	2010	1975	1912	1875	1850	1830	1800	998	502	375	449	369	449	425	1099	1896		

### Enclosure

B1 = overall width

B2 = width of door

B3 = clearance between enclosure frames

B5 = section length of system punchings/hole distance of base and plinth attachment

B6 = clearance between the tubular door frame sections

B7 = distance between the rows of tubular door frame holes

B8 = spacing between eyebolts

B9 = clearance in base aperture

H1 = overall height

H2 = height of rear panel and door

H3 = clearance between enclosure frame sections

H5 = section length of system punchings

H6 = distance between the rows of tubular door frame holes

H7 = clearance between tubular door frame sections

H8 = spacing of tubular door frame fastening bolts

H9 = distance from base to centre of lock

T1 = overall depth

T2 = section length of system punchings/hole distance of base and plinth attachment

T4 = depth of base frame

T5 = clearance in base aperture

T6 = possible installation depth (mounting plate assembly) up to 149 mm, depth-adjustable on a 25 mm pitch pattern

T7 = centre-to-centre distance between eyebolts

### Mounting plate

F = overall width

G = overall height

## Large enclosures



### Base / plinth components front and rear for TS

**Material:**  
Stainless steel 1.4301

**Surface finish:**  
Brushed

Supply includes 1 set =	Height	
	100 mm	200 mm
Corner pieces	–	2*
Trim pieces front/rear	2	2
Mounting accessories including 4 screws and M12 nuts for fitting to the enclosure		

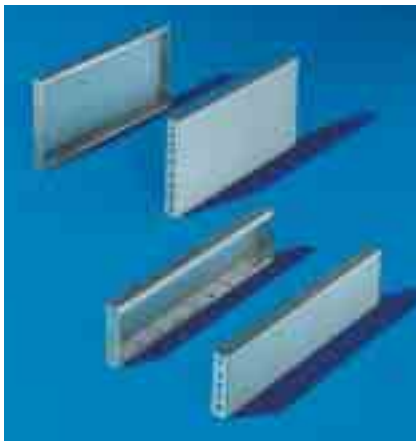
\* Corner piece with removable trim, for mounting optionally on the front or rear.

For enclosure width mm	Packs of	Model No. TS	
		100 mm high	200 mm high
600	1	8701.600	8702.600
800	1	8701.800	8702.800
1200	1	8701.200	8702.200

Order base/plinth components in 1.4404 (AISI 316L), with extension no. .X05.  
Delivery times available on request.

#### + Accessories:

Trim panels, modular (perforated plate), see page 64.



### Base / plinth trim, side for TS

Installation between the base/plinth components front and rear. For 200 mm height two 100 mm base/plinth trim pieces can be used.

Base/plinth trim pieces (100 mm high) can be installed rotated 90° to stabilise bayed base/plinth components.

**Material:**  
Stainless steel 1.4301

**Surface finish:**  
Brushed

**Supply includes:**  
1 set = 2 base/plinth trim panels including material for attaching the base/plinth components.

For enclosure depth mm	Packs of	Model No. TS	
		100 mm high	200 mm high
400	1	8701.040	8702.040
500	1	8701.050	8702.050
600	1	8701.060	8702.060

Order base/plinth trim panels in 1.4404 (AISI 316L), with extension no. .0X5.  
Delivery times available on request.

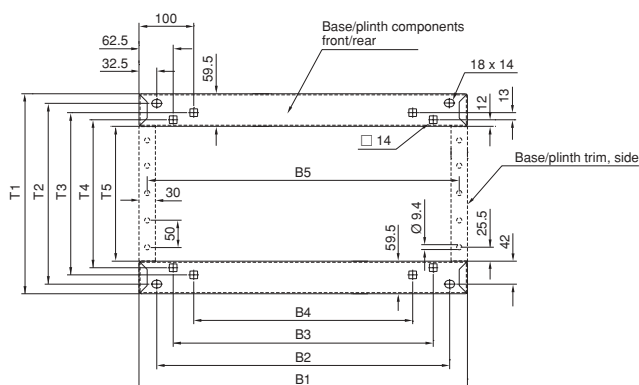
#### + Accessories:

Attachment bolts for base/plinth, see page 64.  
Leveling feet, see page 64.

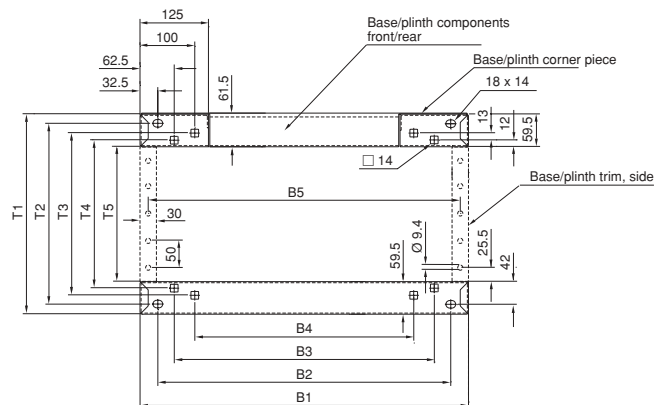
#### ! Also required:

Base/plinth baying brackets TS 8601.100, see Cat. 30, page 881, for installation of base/plinth trim components rotated by 90°.

### Base/plinth 100 mm high



### Base/plinth 200 mm high



Description of the hole pattern

B1/T1 = External dimensions

B2/T2 = For screw fastening in the thread of the enclosure corner piece from below

B3/T3 = For screw fastening via captive nut on the enclosure floor from below or above

All holes (B2 – B4/T2 – T4) can be used for screw fastening on the floor.

Base/plinth components front/rear						Base/plinth trim, side					
Width mm	B1	B2	B3	B4	B5	Depth mm	T1	T2	T3	T4	T5
600	600	535	475	400	570	400	369	335	300	275	250
800	800	735	675	600	770	500	469	435	400	375	350
1200	1200	1135	1075	1000	1170	600	569	535	500	475	450



### Complete base / plinth

Consisting of:  
Trim panels front and rear (for height 200 mm with corner pieces and removable trim panel on one side), and removable trim panels.

**Material:**  
Stainless steel 1.4301

**Surface finish:**  
Brushed

Supply includes	Height	
	100 mm	200 mm
Corner pieces	–	2*
Trim panels front/rear	2	2
Trim panels, side	2	4

Assembly parts including 4 screws and captive nuts M12 for mounting on the enclosure.

\* Corner pieces with removable trim panel, to be mounted optionally at the front or rear.



### Accessories:

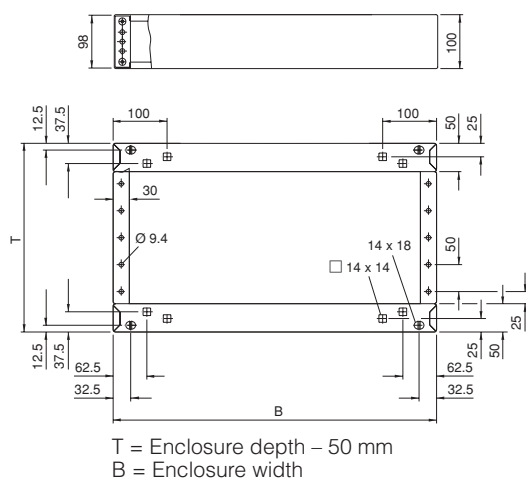
Levelling feet, see page 64.

Trim panels, modular, see page 64.

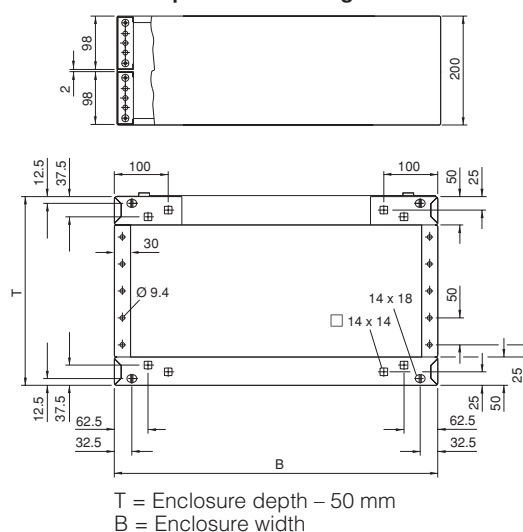
### Base/plinth for ES/PC/AP

For enclosures		Model No. SO	
Width mm	Depth mm	100 mm high	200 mm high
600	400	<b>2865.000</b>	<b>2875.000</b>
600	500	<b>2868.000</b>	<b>2876.000</b>
600	600	<b>2855.000</b>	<b>2877.000</b>
800	400	<b>2869.000</b>	<b>2878.000</b>
800	500	<b>2866.000</b>	<b>2879.000</b>
800	600	<b>2856.000</b>	<b>2880.000</b>
1000	400	<b>2867.000</b>	<b>2885.000</b>
1200	400	<b>2870.000</b>	<b>2886.000</b>
1200	500	<b>2860.000</b>	<b>2887.000</b>

### Base/plinth 100 mm high



### Base/plinth 200 mm high





# Accessories

## Large enclosures



### Levelling feet

For mounting underneath the base/plinth.  
For unhindered access e.g. when cleaning  
the floor and to compensate for floor  
irregularities.

Max. permissible static load:  
400 kg/foot

Adjustment range:  
M12: 55 mm – 125 mm  
M16: 45 mm – 120 mm

#### Material:

Stainless steel 1.4301

Thread	Packs of	Model No. SO
M12	1 set	<b>2889.000</b>
M16	1 set	<b>2890.000</b>

#### Supply includes:

1 set =  
4 levelling feet, 4 mounting plates,  
incl. assembly parts.

**German utility model no. G 94 06 468**



### Levelling feet, 100 mm high

For mounting on TS and ES enclosures,  
for easier floor cleaning and to compensate  
for floor irregularities of  $\pm 15$  mm.  
Height: 100 mm

Max. permissible static load:  
350 kg/foot

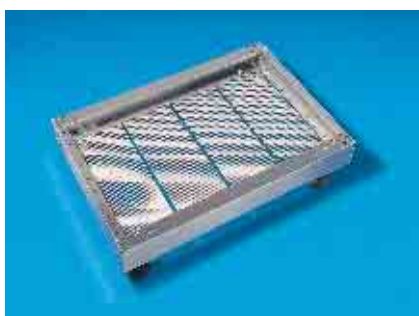
#### Material:

Feet: Brass, nickel-plated  
Threaded bolts and mounting plates:  
Stainless steel 1.4301

Packs of	Model No. SO
1 set	<b>2859.000</b>

#### Supply includes:

1 set =  
4 feet,  
4 threaded bolts,  
4 mounting plates,  
including assembly parts for the enclosure.



### Trim panels, modular

For cable routing in the base/plinth, made  
from stainless steel, e.g. when using level-  
ling feet (see above).  
One perforated plate segment is 175 mm  
wide. The system punchings are suitable  
for accommodating cable ties SZ 2597.000  
for tidy cable routing.

#### Material:

Stainless steel 1.4301

#### Supply includes:

4 perforated plates

For enclosure depth mm	Number of trim panels required for a given plinth width*				Model No. SO
	600 mm	800 mm	1000 mm	1200 mm	
400	3	4	5	6	<b>2907.000</b>
500	3	4	5	6	<b>2908.000</b>
600	3	4	5	6	<b>2913.000</b>

\* If the surface is to be completely  
closed



#### Accessories:

Cable ties,  
see Cat. 30, page 1010.



### Fastening bolt for base / plinth

Through the clampable fastening bolts,  
cable clamp rails and standard horizontal  
C rails can be fitted.

#### Material:

Hexagon section steel,  
19 mm across flats

#### Surface finish:

Zinc-plated, passivated

#### Supply includes:

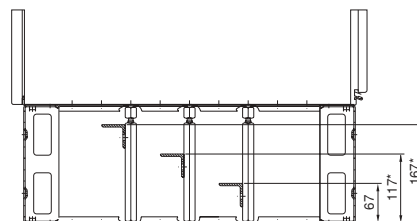
10 fastening bolts

For trim panel height mm	Model No. SZ
100	<b>2819.000</b>
200	<b>2819.200</b>



#### Accessories:

Cable clamp rail,  
see Cat. 30, page 898.



\* only for a height of 200 mm



### Cable entry plates

#### for TS

For simple and quick cable entry and sealing in combination with:

- Cable entry grommets
- Connector grommets.

These are used instead of segments of the standard divided gland plates.

#### Material:

Stainless steel 1.4301

#### Supply includes:

2 or 4 cable entry plates including assembly parts.

Enclosure width mm	Cutouts per plate	Packs of	Model No. TS
600	5	2	<b>8700.600</b>
800	8	2	<b>8700.800</b>
1200	6	4	<b>8700.120</b>

Order cable entry plates in 1.4404 (AISI 316L), with extension no. .XX5. Delivery times available on request.

**German patent no. 42 07 281**  
**European patent no. 0560119**  
**with validity for FR, GB, IT, NL**  
**Japanese patent no. 2533052**  
**US patent no. 5,422,436**



### Cable entry grommets

In conjunction with the cable entry plate, for simple, fast sealing of cables inserted into the base area of enclosures.

#### Material:

Outer cover: Polypropylene  
 Seal: Cellular rubber

#### Protection category:

IP 55 to EN 60 529/10.91

Cables per grommet	max. Ø mm	Model No. PS
8	13	<b>4316.000</b>
3	21	<b>4317.000</b>
1	47	<b>4318.000</b>

Packs of 25

**German patent no. 42 07 281**  
**European patent no. 0560119**  
**with validity for FR, GB, IT, NL**  
**Japanese patent no. 2533052**  
**US patent no. 5,422,436**



### Connector grommets

In conjunction with cable entry plates, for the entry of cables pre-assembled with connectors.

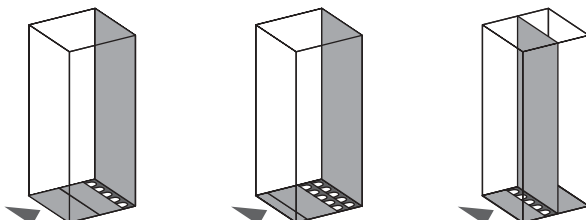
Suitable for cable diameters from 8 to 36 mm.

#### Material:

Outer cover: Polypropylene covered with thermoplastic elastomer  
 Seal: Cellular rubber

Packs of	Model No. PS
10	<b>4311.000</b>

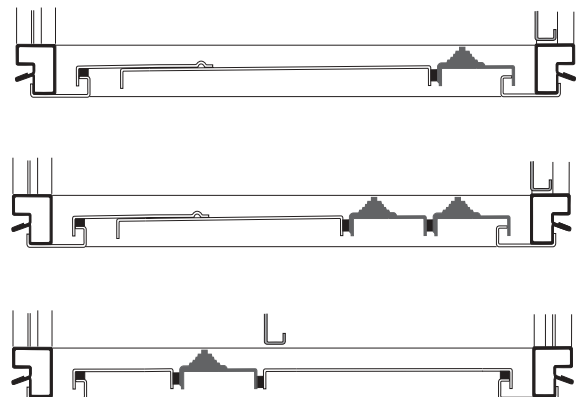
**German patent no. 40 28 570**



#### Three examples from a wide range of possibilities

The illustrations show three examples for the positioning of cable entry plates instead of segments of the standard three-part gland plates. In that way a positioning suitable for the mounting plate is possible.

Thanks to the enclosure symmetry, where dimensions permit, cable entry plates may also be inserted in the enclosure depth, right and left, analogous to the gland plates.



# Accessories

## Large enclosures



### Side panels, screw-fastened for TS

To finish a complete enclosure. Easy attachment on the inside vertical enclosure frame member.

Earthing inserts ensure automatic potential equalisation and a higher degree of EMC protection. Earth studs with contact surfaces already included.

#### Material:

Stainless steel 1.4301, 1.5 mm

#### Surface finish:

Brushed

#### Protection category:

IP 55 to EN 60 529/10.91

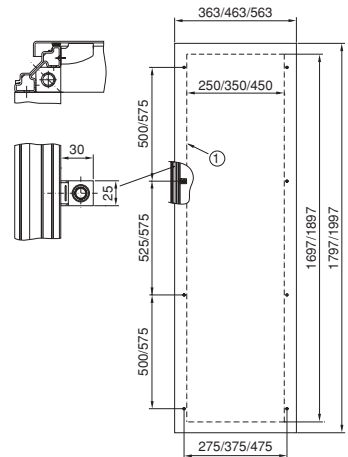
#### Supply includes:

2 side panels, 16 panel holders including assembly parts.

Height mm	Depth mm	Packs of	Model No. TS
1800	400	2	<b>8700.840</b>
1800	500	2	<b>8700.850</b>
2000	600	2	<b>8700.060</b>

To order side panels in 1.4404 (AISI 316L), use the Model No. 8705.XXX.

Delivery times available on request.



① = usable interior surface



### Hose-proof hoods

#### for fan-and-filter units

When the hose-proof hood is mounted above the fan-and-filter unit and outlet filter in conjunction with a fine filter mat, a protection category of IP 55 to EN 60529/10.91 is achieved. Particularly suitable for use in the food industry.

#### Material:

Stainless steel

For fan-and-filter unit	Dimensions in mm	Model No. SK
SK 3321. . . .	150 x 260 x 40	<b>3321.800*</b>
SK 3322. . . .	176 x 270 x 55	<b>3322.800</b>
SK 3323. . . .	233 x 410 x 55	<b>3323.800</b>
SK 3324. . . .	282 x 500 x 85	<b>3324.800</b>
SK 3325. . . .	350 x 560 x 110	<b>3325.800</b>
SK 3326. . . .		
SK 3327. . . .		

\* Delivery times available on request.



Conforms to NEMA 3R + 12 in conjunction with fan-and-filter units/outlet filters.





### Cover for baying (top)

#### for TS

A cover may additionally be clipped over the seal between two enclosures, simply with two end caps. This prevents dirt and liquid from collecting on the baying seal.

#### Material:

Stainless steel 1.4301  
End caps: ABS plastic, black

#### Surface finish:

Brushed

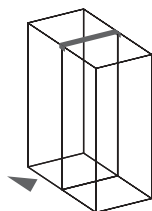
#### Supply includes:

Cover incl. 2 end caps.

#### Note:

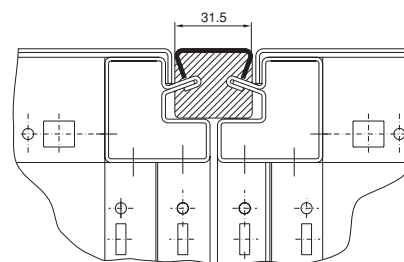
May also be fitted in the width with enclosures bayed back to back.

German patent no. 19737667



For enclosure depth mm	Packs of	Model No. TS
400	1	8700.140
500	1	8700.150
600	1	8700.160

Order cover in 14404 (AISI 316L), with extension no. .1X5.  
Delivery times available on request.



### Baying connector, external

#### for TS

For connecting bayed TS sections from the outside.

#### Installation:

Simply position on the outside and screw-fasten from either inside or outside.

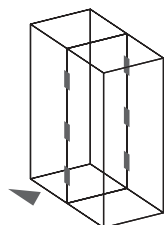
#### Material:

Stainless steel 1.4301

#### Supply includes:

Baying connector, including assembly parts.

German patent no. 19737668



Packs of	Model No. TS
6	8700.000



#### Possible alternative:

Baying technology for:

Robust baying connection when transporting bayed enclosures, see Cat. 30, page 912/913.

The installation on site or for provisional siting in the workshop, see Cat. 30, page 914/915.



### Torx screw

Special screw for the holes in the enclosure frame. Suited to high stainless steel strength. For use with all enclosure systems with round holes (TS, ES, PC, AP universal consoles).

#### Supply includes:

1 pack of 300

Packs of	Model No. SZ
300	2486.300

# Accessories

## Large enclosures



### Comfort handle for locking applications

#### for TS

Prepared for the installation of lock inserts, safety and push-button inserts.

Length: 295 mm

#### Material:

Die-cast zinc

#### Surface finish:

Matt nickel-plated

Packs of	Model No. TS
1	8611.330



#### Accessories:

Lock inserts, safety and push-button inserts, see below.



### Lock inserts

For comfort handles and the standard TS lock (in exchange for the standard double-bit lock insert).

#### Material:

Die-cast zinc

Design	Model No. TS
7 mm square	8611.100
8 mm square	8611.110
6.5 mm triangular	8611.220
7 mm triangular	8611.120
8 mm triangular	8611.130
Screwdriver	8611.140
Daimler	8611.150
Double-bit, 3 mm	8611.160
Fiat	8611.170



### Lock and push-button insert

For installation in the comfort handles for lock inserts.

Design	Model No. TS
Lock insert Lock no. 3524 E	8611.180*
Push-button insert	8611.190
Push-button and lock insert, lock no. 12321, no other lock is possible	8611.200*

\* with 2 keys



### Comfort handle for semi-cylinder

#### for TS

Prepared for the installation of standard semi-cylinders 40 or 45 mm in length to DIN 18254 and security and push-button inserts.

Length: 302 mm

#### Material:

Die-cast zinc

#### Surface finish:

Matt nickel-plated

Packs of	Model No. TS
1	8611.340



#### Accessories:

Lock and push-button insert, see above.



### Lock and push-button inserts

For installation in

- the comfort handle for semi-cylinder, see above,
- Ergoform-S standard, see Cat. 30, page 939.

Design	Model No. SZ
Lock insert Lock no. 3524 E	2467.000*
Push-button insert	2468.000
Lock and push-button insert, lock no. 2123; no other lock is possible	2469.000*

\* with 2 keys





### Hinge 180°

#### for TS

For retrospective conversion of standard doors with 130° hinges.

Single handed installation:

- Exchange frame-side hinged parts for 180° hinges (4 screws).
- Drill door at the pre-marked points.
- Screw on door-side hinge parts.
- Hang door.
- Push in captive hinge pins.

#### Material:

Die-cast zinc

Hinge pins: Stainless steel

#### Surface finish:

Matt nickel-plated

Packs of	Model No. TS
4	8701.180

#### Supply includes:

4 x 180° hinges, including assembly screws. For twin doors, 2 packs units are required.

#### Note:

Door configurations such as the comfort handle can restrict the door opening angle.

The hinge pins may only be actuated and the door removed with the door open. The hinge cannot be dismantled from the outside with the door closed (access protection).



### Hinge 180°

#### for ES/AP universal consoles

For retro-converting standard stainless steel doors with 130° hinges, including assembly material.

#### Material:

Stainless steel 1.4301

Packs of	Model No. PS
6	4156.000



### Viewing window

The perfect solution for display and control elements in all areas with high hygiene standards. Fitted as standard with internal 130° hinges and all-round seal.

The double-bit lock insert may be exchanged for 27 mm lock inserts, design A and Ergoform-S handle SZ 2452.000.

#### Material:

Stainless steel 1.4301

Single-pane safety glass

#### Protection category:

IP 54 to EN 60 529/10.91

#### Supply includes:

Viewing window with cam lock, including assembly parts.

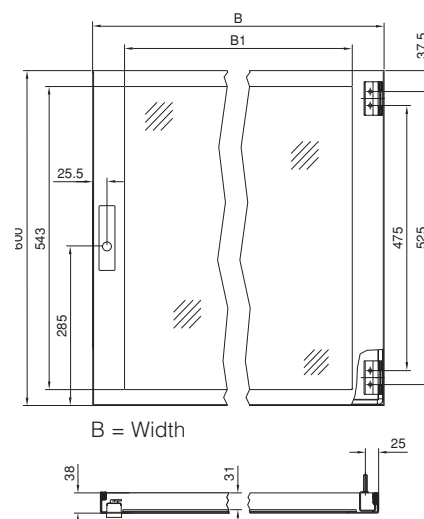
Width mm	Height mm	Depth mm	B1 mm	Model No. FT
522	600	38	408	2793.560
722	600	38	608	2793.760

Other widths and heights available on request.



#### Accessories:

Lock inserts 27 mm, design A, see Cat. 30, page 942.  
Ergoform-S handle SZ 2452.000, see Cat. 30, page 939.





More system accessories for perfect, cost-effective configuration of the various stainless steel cases and enclosures can be found in Rittal Catalogue 30.



Page in the  
catalogue 30



## Base / plinth

**878 – 890**

Levelling feet  
Base assembly plate

886/887  
886



## Base

**891 – 901**

Twin castors  
Gland plates  
Cable clamps  
Support rails

891  
896  
898  
899



## Walls

**902 – 909**

Divider panels  
Module plates for connectors

906 – 907  
908



## Baying system

**910 – 917**

for transport  
for baying at the installation site

912 – 913  
914 – 915

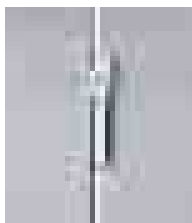


## Door

**928 – 935  
950 – 953**

Viewing window  
Operating panels  
Door, external  
Door, internal

928 – 932  
933  
934 – 935  
950 – 953



## Lock systems

**936 – 949**

Lock systems  
Hinges

936 – 947  
948 – 949

Page in the  
catalogue 30



### Roof / wall mounting

**954 – 963**

Roof	954 – 961
Wall mounting	962 – 963



### Interior installation

**964 – 996**

Cable ducts	964
Mounting plates	965 – 969
Rail systems	970 – 985
Component shelves	986 – 993
Mobile workstations	995
General accessories	996



### System lights

**997 – 999**

Connection accessories	999
------------------------	-----



### Signal pillar

**1000 – 1002**

Optical/acoustic components	1001
Mounting components	1002



### Mouse, mouse pad IP 67

**1004 – 1005**

Mouse, mouse pad IP 67	1004 – 1005
------------------------	-------------



### Cable attachment / earthing

**1010 – 1013**

Cable attachment	1010
Earthing/potential equalisation	1011 – 1013



### 482.6 mm (19") installation system

**1014 – 1037**

Swing frame	1014 – 1025
Mounting angles	1026 – 1031
Slide rails	1027 – 1033
Drawers	1034 – 1035
Blanking plates	1036

With the right climate control components, you can significantly reduce the risk of expensive system failures or machine downtime caused by overheating. Heat is still the number one enemy of sensitive microelectronics. Overheating and temperature fluctuations are the most common cause of malfunctions and failures.

With one of the world's leading project ranges and a comprehensive range of services, including thermal analysis, Rittal offers individual solution concepts to minimize risks and boost productivity.



#### **Air/water heat exchanger**

For enclosure cooling in extreme ambient conditions, a combination of recooling systems and air/water heat exchangers offers an effective way of dissipating very high heat loads.

If necessary, the enclosures and piping can be designed in stainless steel.

**Useful cooling output  
from 600 W – 5000 W**

### **High cooling output, central and cost-effective**

#### **Recooling systems**

Enclosure cooling, machine and process cooling as well as the cooling of liquids and emulsions can be achieved centrally from one recooling system. Several items of equipment are easily connected in parallel.

**Useful cooling output  
from 0.96 kW – 176 kW**



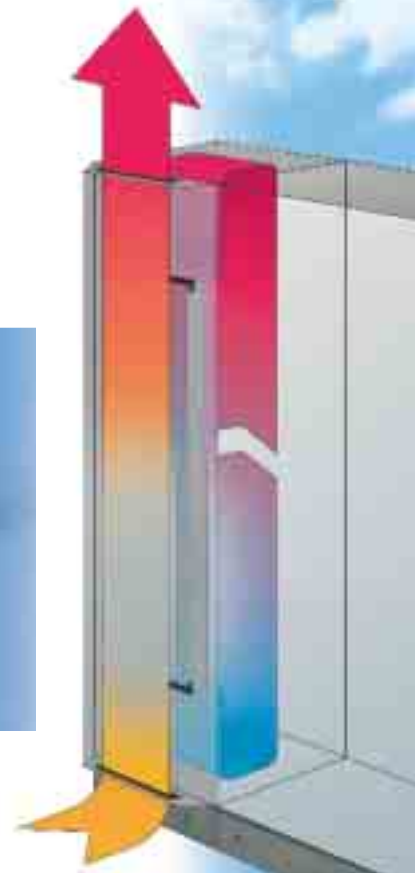
### **Integral cooling technology**

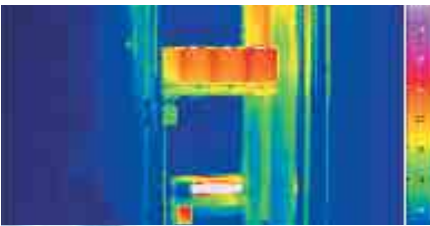
It sets standards for the modern unity between enclosure and cooling components, both now and in the future. The cooling unit built into the enclosure door or side panel keeps the enclosure internal temperature at the desired level, irrespective of the ambient temperature. Thanks to two mechanically separate, well-insulated air circuits, the ingress of dust from the environment into the enclosure via the cooling system is prevented.

The integral cooling system

- is sure to impress, with its particularly effective cooling
- helps to cut the time spent on assembly
- reduces investment costs for the complete unit

**Useful cooling output  
from 1100 W – 2500 W**





### Safety is our top priority

**SK customer service**  
Thermographic measurements on the populated enclosures.



### Enclosure surfaces are kept free

#### Roof-mounted cooling units

Roof mounting means that all enclosure surfaces are kept free for control and display devices. Transportation and escape routes are not obstructed. Depending on the siting conditions and interior installation of the enclosure, we offer flexible air routing for the outer and inner circuits. Control is achieved using a built-in Basic or Comfort controller.

**Useful cooling output  
from 500 W – 4000 W**

**Now also available  
in stainless steel**



### Effective in every performance category

#### Wall-mounted cooling units

Whether 225 W useful cooling output for effective heat dissipation of command panels, for example, or 4,000 W for the dissipation of extremely high heat loads, the refrigeration factor of Rittal cooling unit technology demonstrates exceptionally effective use of the power input.

The increased demands on network technology design are met to perfection by the styling, with the option of full installation, partial installation or external mounting. Like the roof-mounted cooling units, the wall-mounted cooling units are also equipped with either Basic or Comfort controllers.

**Useful cooling output  
from 225 W – 4000 W**



### Risk minimisation through central monitoring

This is achieved particularly effectively, thanks to a combination of Rittal climate control components with central monitoring and control via the CMC.

Temperature limits are perfectly maintained, any potential defects are identified to enable preventive action, and service requirements are notified promptly and organised from a central location.



# Individual solutions to perfection

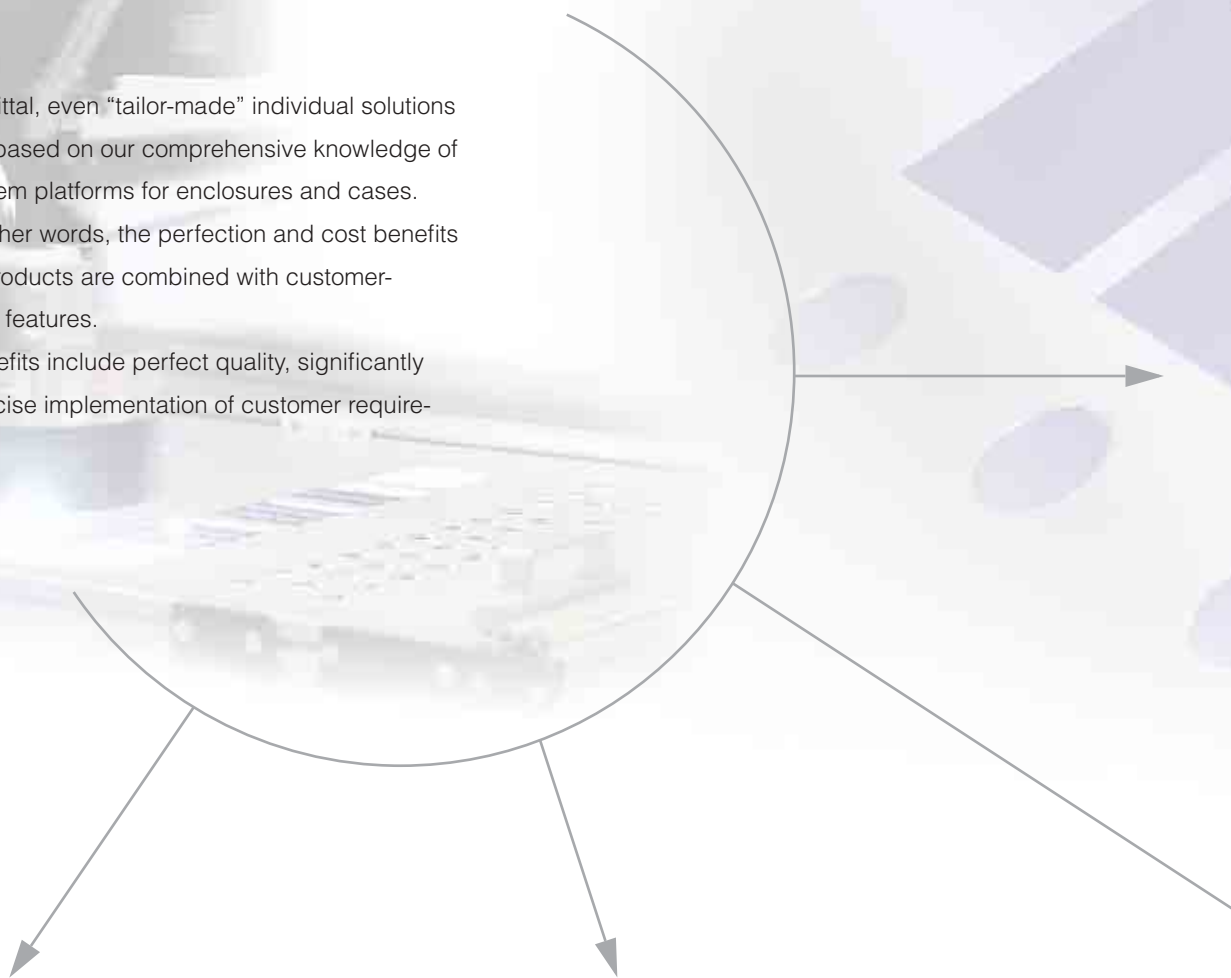
## System platforms offer cost benefits



At Rittal, even "tailor-made" individual solutions are based on our comprehensive knowledge of system platforms for enclosures and cases.

In other words, the perfection and cost benefits of mass-produced products are combined with customer-specific designs and features.

The outstanding benefits include perfect quality, significantly lower costs, and precise implementation of customer requirements.



### 1. Assembly of system accessories



Make use of the versatile opportunities offered by Rittal system accessories! With full internal mounting available ex works.

A service to save you time and money.

### 2. Modification of standard components



Ideas based on serial products are implemented to perfection ex works:

- Holes and cutouts
- Insertion of acrylic or safety glass windows
- Your logo, sand/bead blasted
- Other surface finishes

Example: Duct alarm box

- AE compact enclosure with rain canopy in spray-finished stainless steel
- Cutouts with opal plexiglass panels
- Interior case for fire extinguisher and telephone



## Material specifications

Germany		Europe	
	German material number	DIN designation	DIN EN designation
1	1.4301 (V2A)	X 5 CrNi 18 10	X 5 CrNi 18 10
2	1.4404	X 2 CrNiMo 17-12-2	X 2 CrNiMo 17-12-2
USA			
	SAE J 405	AISI	UNS
1	30304	304	S 30400
2	–	316L	–
UK		France	Italy
	British Standard	AFNOR NF	UNI
1	304 S 15/16/31	Z 5 CN 17-08	X 5 CrNi 18 10
2	316 S 11	Z 3 CND 17-11-02	X 2 CrNiMo 17-12-2
Sweden		Russia	Japan
	SS 14	GOST	JIS
1	2332/2333	08Ch 18 N 10	SUS 304
2	2348	–	SUS 316L
PR of China			
	GB		
1	0Cr18Ni9(N)		
2	00Cr17Ni14Mo2		

## Rittal material diversity

Apart from stainless steel, we also offer enclosures in the following materials to suit all applications:



Cast aluminium



Sheet steel, electrophoretic dipcoat primed and powder coated



Sheet aluminium



Polycarbonate



Sheet steel with an aluminium zinc surface finish



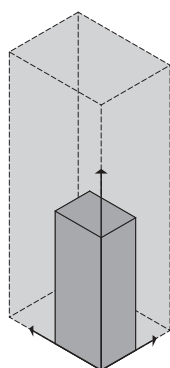
Polyester, fibreglass-reinforced

## 3. Modified dimensions



Size variants are possible for all stainless steel enclosures on request:

- Enclosure systems TS/ES on a 25 mm pitch pattern
- Enclosure systems without pitch pattern



## 4. Individual solutions



Project-specific solutions, fully fitted and delivered on time – all part of the Rittal service!





# Table of order numbers

Model No.	Page	Model No.	Page	Model No.	Page	Model No.	Page
1002.600	18	2474.000	25	6535.010	34	8701.060	62
1004.600	18	2475.000	25	6536.010	34	8701.180	69
1005.600	18	2486.300	67	6538.010	34	8701.200	62
1006.600	18	2493.000	24	6539.010	34	8701.600	62
1007.600	18	2534.500	24	6660.000	36	8701.800	62
1008.600	18	2583.000	26	6660.010	36	8702.040	62
1009.600	18	2584.000	25	6660.020	36	8702.050	62
1010.600	18	2683.600	42	6660.050	36	8702.060	62
1012.600	18	2684.600	42	6660.100	36	8702.200	62
1013.600	18	2685.600	42	6660.110	36	8702.600	62
1014.600	18	2686.600	42	6660.120	36	8702.800	62
1016.600	18	2688.600	44	6660.200	36	8800.900	49
1017.600	18	2689.600	44	6660.210	36		
1018.600	18	2690.000	49	6660.220	36		
1019.600	18	2691.000	49	6663.000	38		
1024.010	22	2793.560	69	6663.400	39		
1024.020	22	2793.760	69	6663.500	39		
1024.030	22	2819.000	64	6664.000	37		
1024.040	22	2819.200	64	6664.100	37		
1024.810	22	2855.000	63	6664.500	37		
1024.820	22	2856.000	63	6665.000	40		
1024.830	22	2859.000	64	6665.500	40		
1024.910	22	2860.000	63	6670.000	32		
1024.920	22	2865.000	63	6672.000	32		
1024.930	22	2866.000	63	6680.000	30		
1521.010	14	2867.000	63	6680.010	30		
1522.010	14	2868.000	63	6680.100	30		
1523.010	14	2869.000	63	6680.110	30		
1524.010	14	2870.000	63	6681.000	30		
1525.010	14	2875.000	63	6681.100	30		
1526.010	14	2876.000	63	6682.000	31		
1558.010	16	2877.000	63	6902.960	49		
1559.010	16	2878.000	63	8450.600	54		
1560.700	27	2879.000	63	8451.600	54		
1561.700	27	2880.000	63	8452.600	54		
1562.700	27	2885.000	63	8453.600	54		
1563.700	27	2886.000	63	8454.600	54		
1564.700	27	2887.000	63	8455.600	54		
1565.700	27	2889.000	64	8456.600	54		
1566.700	27	2890.000	64	8457.600	54		
1567.700	27	2907.000	64	8611.100	68		
1568.700	27	2908.000	64	8611.110	68		
1569.700	27	2913.000	64	8611.120	68		
1570.700	27	3321.800	66	8611.130	68		
1571.700	27	3322.800	66	8611.140	68		
1572.700	27	3323.800	66	8611.150	68		
1573.700	27	3324.800	66	8611.160	68		
1574.700	27	3326.800	66	8611.170	68		
1575.700	27	4156.000	69	8611.180	68		
1576.700	27	4311.000	65	8611.190	68		
1583.010	16	4316.000	65	8611.200	68		
1584.010	16	4317.000	65	8611.220	68		
1585.010	16	4318.000	65	8611.330	68		
1594.000	26	4619.660	49	8611.340	68		
2304.000	24	4641.000	48	8700.000	67		
2361.000	25	4642.000	48	8700.060	66		
2362.000	25	4650.000	46	8700.120	65		
2363.000	25	4650.704	46	8700.140	67		
2433.000	26	5450.600	58	8700.150	67		
2467.000	68	5451.600	58	8700.160	67		
2468.000	68	5452.600	58	8700.600	65		
2469.000	68	5453.600	58	8700.800	65		
2470.000	25	5454.600	58	8700.840	66		
2471.000	25	5455.600	58	8700.850	66		
2472.000	25	6143.300	41	8701.040	62		
2473.000	25	6143.310	41	8701.050	62		

## A

Accessories	
– Compact enclosures	24 – 27
– Human/machine interface	48 – 49
– Large enclosures	62 – 69
AE Compact enclosures	18
Assembly parts for support arm	37

## B

Base plate for pedestal	41
Base/plinth	62 – 63
Baying connector, external	67
Baying system, internal	70
Baying systems	54
Baying systems TS 8	
– Detailed drawings	56
Bus enclosures BG	16

## C

Cable entry grommets	65
Cable entry plates	65
Cam lock	24
Clip-down handle	
– Comfort handle	68
Comfort handle	
– for locking applications	68
– for semi-cylinder	68
Command panels	32
Compact enclosures	12 – 23
– Accessories	24 – 27
Compact enclosures AE	18
– Dimensions in detail	20
Compact enclosures ES, single	58
Component shelf, pull-out	49
Component shelf, static installation	49
Connector grommets	65
Consoles	42 – 45
Cover for baying (top)	67
Cover for fan-and-filter units	66

## D

Desk section	49
Detailed drawings	
– Baying systems TS 8	56
– Compact enclosures AE	20
– Free-standing enclosures ES 5000	60
Door handles	68
Drawer	
– Component shelf, pull-out	49
– Keyboard drawer	49

## E

Enclosure attachment	37
Enclosure connector	
– Baying connector, external	67
Enclosure reinforcement	41
Enclosure systems	
– ES	58
– PC	46
– TS	54

## F

Fastening bolt for base/plinth	64
Free-standing enclosures ES 5000	58
– Detailed drawings	60

## G

Gland plates	
– Cable entry plates	65

## H

Handles	68
Hinge 180°	69
Hood for fan-and-filter units	66
Hose-proof hoods	66
Housing coupling	37
Human/machine interface	28 – 47
– Accessories	48 – 49

## K

Keyboard drawer	49
Keyboard housing	30

## L

Large enclosures	50 – 61
– Accessories	62 – 69
Levelling feet	64
Lock	
– for semi-cylinder	24
Lock and push-button insert	68
Lock cover	24
Lock inserts	68

## M

Mobile PC workstation	48
Mounting bracket	22
Mounting for support arm	37 – 38
Mounting plate	22
Mounting plates for KL	27

## O

One-piece consoles AP	42
Operating and keyboard housing	30
Operating housing	34

## P

PC	
– Enclosure systems	46
Pedestal base plate, small	41
Pedestal, modular, small	41
Pole clamp	25
Premium Line KL	22
Premium Panel	30

## R

Rain canopies for AE	25
Rear panel holder for Premium Panel	31
Reinforcement for enclosures	
– Enclosure reinforcement	41
Roof	
– Rain canopies for AE	25

## S

Screw, Torx	67
Semi-cylinder lock	24
Shelf	
– Component shelf, pull-out	49
– Component shelf, static installation	49
– for PC workstation	48
Side panels, screw-fastened	66
Support arm system	36 – 40
Support section	36
Swivel base mount	39

## T

Terminal boxes KL	14
Terminal boxes Premium Line KL	22
Tilting adaptor, 10°	37
Torx screw	67
Trim panel	
– Trim panels, modular	64
TS 8 baying systems	54
TS baying systems	
– Detailed drawings	56
TS enclosures, bayable	54
TS hinge 180°	69
Tube	36
– Support section	36

## U

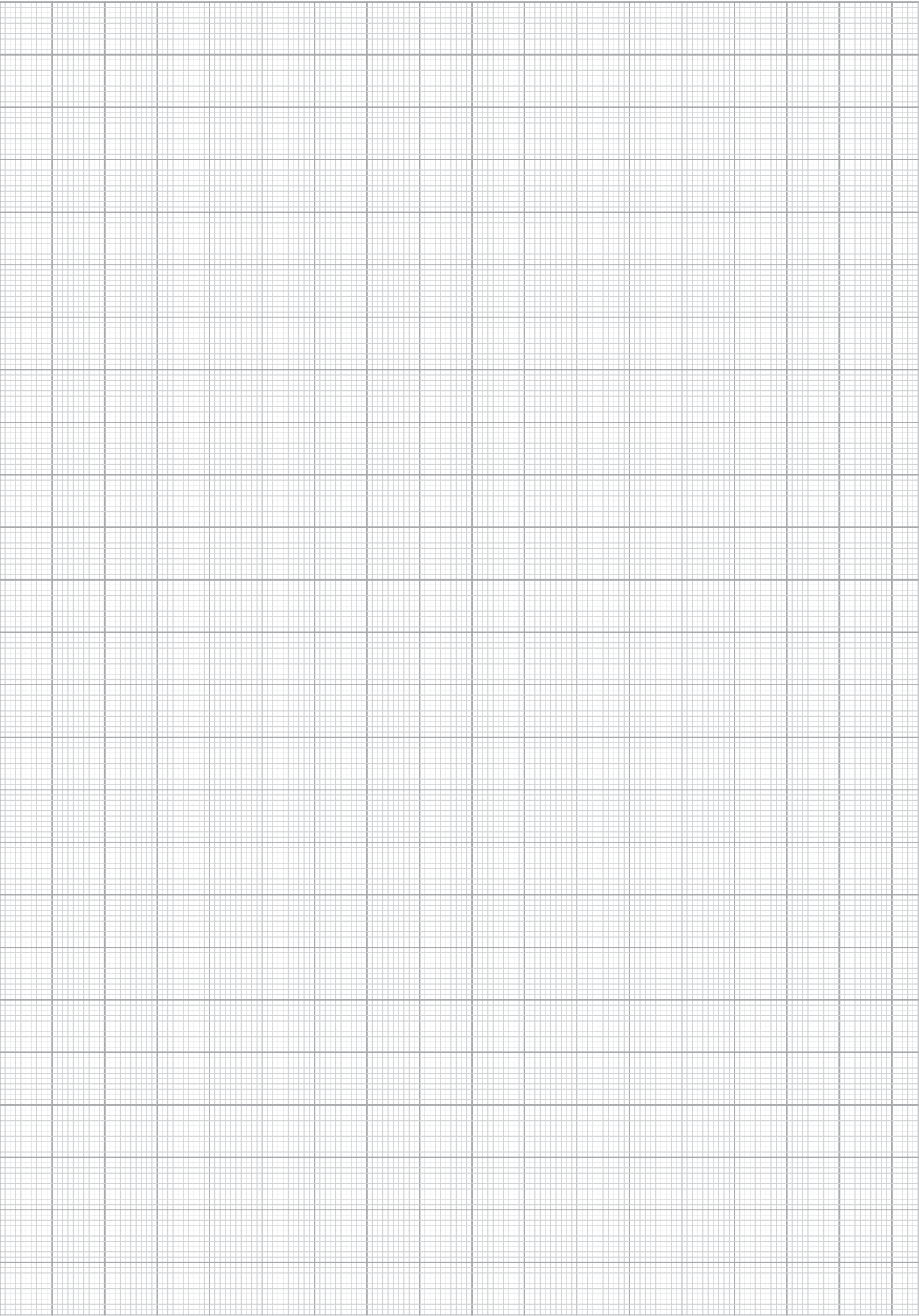
Universal consoles AP	44
-----------------------	----

## V

Viewing window	69
----------------	----

## W

Wall angle	26
Wall bracket	40
Wall mounting bracket	26
Wall/base mounting, rigid	38
Wall-mounted enclosures	
– with cover screwed	14
Wall-mounting	
– with door	16 – 19
Walls	
– Side panels, screw-fastened	66
Windows	
– Viewing window	69
Wiring lecterns	42 – 45



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