



For the design of production plant in open processes in the food and consumables industry where ease of cleaning is crucial.

When it comes to the exacting demands of food safety, stainless steel enclosures, including those with a protection category of IP 69K, and enclosures in hygienic design are “two different animals”.

Rittal Hygienic Design offers mechanical engineers and plant operators in the food sector decisive new building blocks for the hygiene demands of the future. This innovative sub-range is based on our world-renowned expertise in enclosure manufacturing and enclosure climate control.

The Rittal Hygienic Design for food safety is based on:

- Machinery Directive (Directive 98/37/EC)
Food machinery section, Appendix 1, point 2.1 (to be replaced by 2006/42/EC)
- DIN EN 1672-2:2005 Food machinery – General design principles – Part 2: Hygiene requirements
- DIN EN ISO 14 159 Machine safety – Hygiene requirements pertaining to the design of machinery
- Document 13 EHEDG-Guideline to the Hygienic Design of apparatus for open processes, prepared in collaboration with 3-A and NSF International

Hygienic Design



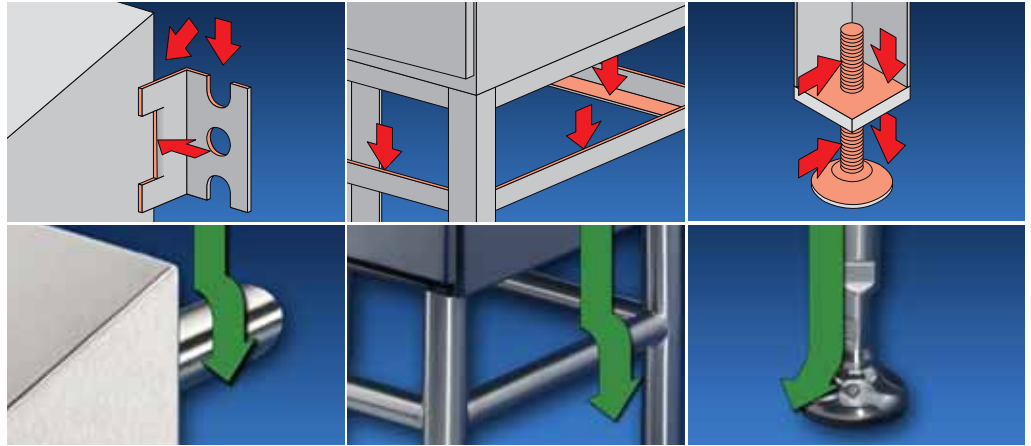
Become healthier, better and more productive – with Rittal Hygienic Design.

Benefits compared with conventional enclosures:

- **Higher productivity** through greater system availability.
- **Reducing the amount of cleaning required** (faster cleaning, reduced energy requirements, reduced use of chemicals).
- **Superior product quality** and greater durability by reducing the contamination risk, which in turn helps to avoid production losses.
- Improved **protection** for both consumers and employees.



Rittal
Hygienic Design

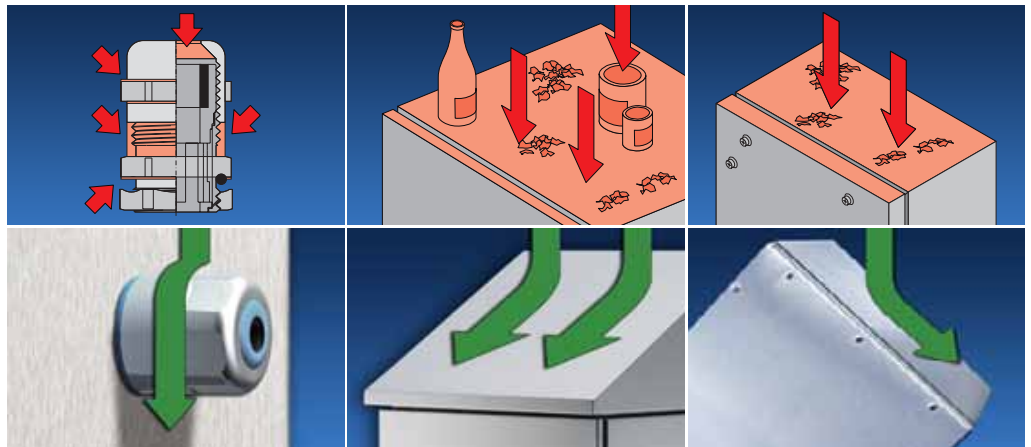


Make existing plant more hygienic. This saves time with cleaning and disinfection, i. e. downtime is reduced, and plant productivity is increased, provided . . .

. . . the wall-mounted devices and enclosures are installed at a distance for cleaning purposes. With the **wall spacer bracket HD**.

. . . enclosures with cable entry from below are mounted on the new **HD base** rather than on a base/plinth or a mounting angle frame.

. . . the new **HD levelling feet** eliminate the need for adjustment with external threads.

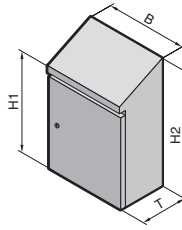


. . . the polyamide or brass cable entry with external thread is replaced by the new **HD stainless steel cable gland**.

. . . the standard flat roofs in TS 8 enclosures are replaced by a **sloped attachment**.

. . . terminal boxes (Premium-KL IP 69K), used e.g. as socket outlets, **are mounted on the wall at 45°** instead of horizontally.

Compact enclosures HD, single-door



B
1.5

Hygienic Design

Benefits in detail:

- Roof angled forwards by 30°.
- Horizontal drainage edge to protect the seal.
- Chamfered door fold.
- Silicone seal on the outside, no gap.
- Seal may be swapped over.
- Seal dyed blue to clearly distinguish it from foodstuffs.
- Hinge inside the enclosure.
- External fastener made from stainless steel.
- Fastener insert easy to clean.
- Enclosure of all-round solid construction. This means that after machining, only essential openings remain.
- No new project planning input required, since the same mounting plate dimensions are used as in AE enclosures.

Material:

Enclosure and door:
Stainless steel 1.4301 (AISI 304)
Mounting plate: Sheet steel
Lock inserts HD:
Stainless steel 1.4404 (AISI 316L)

Surface finish:

Peak-to-valley height of enclosure surfaces < 0.8 µm
Mounting plate zinc-plated

Protection category:

IP 66 to EN 60 529/09.2000

Supply includes:

Enclosure of all-round solid construction, single door, interchangeable door hinge

Width (B) mm	Packs of	220	390	390	510	610	610	810	810	Page
Height	front (H1) mm	350	430	650	550	430	650	1050	1250	
	rear (H2) mm	437	549	769	669	601	769	1221	1421	
Depth (T) mm		155	210	210	210	300	210	300	300	
Model No. HD	1	1302.600	1306.600	1308.600	1307.600	1320.600	1310.600	1316.600	1317.600	

Accessories

Wall spacer bracket	50 mm	1	4000.100	4000.100	4000.100	4000.100	4000.100	4000.100	4000.100	301	
	150 mm	1	4000.110	4000.110	4000.110	4000.110	4000.110	4000.110	4000.110	301	
	300 mm	1	4000.120	4000.120	4000.120	4000.120	4000.120	4000.120	4000.120	301	
Supporting structure HD with 2 feet	Height 300 mm	1	-	-	-	-	-	4000.360	4000.362	4000.362	300

Supporting structure HD with 2 or 4 feet according to design code number, see page 300.

Delivery times available on request.

To order enclosures in 1.4404 (AISI 316L) please add the extension .500 to the Model No. Delivery times available on request.



Cable gland HD,
without external thread,
Model No. see page 1056.

Supporting structure HD with levelling

Material:
Stainless steel tube 1.4301 (AISI 304)

Supply includes:
Assembly parts and seals.



Accessories:

Wall spacer bracket for secure mounting, see page 301.

Benefits in detail:

Solid cross-sections and continuously welded seams ensure complete water-tightness. The round profile helps to avoid the common problem of collecting dirt, particularly with horizontal surfaces.

The guaranteed floor clearance of the enclosures facilitates easy wet or dry cleaning.

Horizontal cross struts and support strips ensure a high level of stability.

The width supports the installation of individual supporting structures underneath bayed TS 8 enclosure systems.

with 4 feet for TS 8

- Design
- including levelling 0 – 55 mm
 - without base mount
 - with horizontal grille for cable routing between the support strips, rear



with 2 feet for compact enclosures HD

- Design
- including levelling 0 – 55 mm
 - without base mount
 - with horizontal grille for cable routing



Note:
Additional wall spacer brackets are essential for secure mounting.

For TS 8 W x D mm	Height mm	Model No. HD
800 x 500	300	4000.310
800 x 600	300	4000.311
1200 x 500	300	4000.312
1200 x 600	300	4000.313

Delivery times available on request.
To order in stainless steel 1.4404 (AISI 316L), please add extension .4XX to the Model No.

For compact enclosures HD W x D mm	Height mm	Model No. HD
610 x 210	300	4000.360
810 x 300	300	4000.362

Delivery times available on request.
To order in stainless steel 1.4404 (AISI 316L), please add extension .4XX to the Model No.

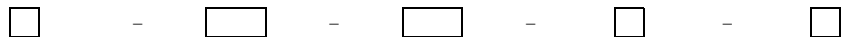
Supporting structure HD according to specifications

with 4 feet, height 300 mm

Material	Model No. HD
1.4301 (AISI 304)	4000.309¹⁾
1.4404 (AISI 316L)	4000.409¹⁾

¹⁾Please additionally give the design code. Other heights available on request. Delivery times available on request.

Design code number



- For enclosure**
1 – Compact enclosure HD
2 – TS 8 (stainless steel/sheet steel)
- Enclosure width mm**
- Enclosure depth mm**
- Levelling**
(0 – 55 mm)
1 – with
(for all 4 feet)
2 – without
- Base mount**
1 – with
2 – without

Example:

Supporting structure for TS 8, width 1000 mm, depth 800 mm, without levelling, with base mount.

2 - **1000** - **800** - **2** - **1**

with 2 feet, height 300 mm

Material	Model No. HD
1.4301 (AISI 304)	4000.359¹⁾
1.4404 (AISI 316L)	4000.459¹⁾

¹⁾Please additionally give the design code. Other heights available on request. Delivery times available on request.

Design code number



- For enclosure**
1 – Compact enclosure HD
- Enclosure width mm**
- Enclosure depth mm**
- Levelling**
(0 – 55 mm)
1 – with
(for both feet)
2 – without
- Base mount**
1 – with
2 – without

Example:

Supporting structure for compact enclosure HD, width 390 mm, depth 210 mm, without levelling, without base mount.

1 - **390** - **210** - **1** - **2**



Levelling feet HD

Material:
Stainless steel 1.4301 (AISI 304)

Supply includes:
Assembly parts and seals.

Benefits in detail:
The threaded spindle for levelling is completely concealed by a cover, and permanently sealed, thereby eliminating the time-consuming work of cleaning and disinfecting the thread.

- Option of securing to the
- Enclosure
 - Base/plinth



For enclosures	Levelling range mm	Base mount	Packs of	Model No. HD
TS 8 (M12)	120 – 175	without	4	4000.200
		with	4	4000.210
Compact enclosures HD	120 – 175	without	2	4000.220
		with	2	4000.230

Delivery times available on request.
To order in stainless steel 1.4404 (AISI 316L) please add the extension .XX1 to the Model No.



Wall spacer bracket HD

Material:
Stainless steel tube 1.4301 (AISI 304)

Supply includes:
Assembly parts and seals.

Benefits in detail:
Finding a way to permanently and securely seal the enclosure against the wall remains a problem. With this in mind, we recommend that you leave sufficient space to clean behind the enclosure.

Depending on the weight and dimensions, one, two, three or four supports may be fitted for attachment purposes.

Wall spacer brackets may also be used in customised designs or with an adaptor plate for mounting other components such as switches and sockets, as well as wire-mesh cable trays.



Distance from wall mm	Packs of	Model No. HD
50	1	4000.100
150	1	4000.110
300	1	4000.120

Delivery times available on request.
To order in stainless steel 1.4404 (AISI 316L) please add the extension .XX1 to the Model No.



Enclosure key HD

For lock insert HD

Bit HD

for universal key SZ 2549.500
See page 959.

Packs of	Model No. HD
1	2549.600

Delivery times available on request.

Packs of	Model No. HD
1	2549.510

Delivery times available on request.



Sloped attachment

for TS 8

For retro-fitting individual or bayed TS 8 enclosures of sheet steel, spray-finished, or stainless steel.

On request.