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We connect and protect

Hygienic Design Range Floorstanding

Hygienic Design Range | Stainless Steel

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Product description

WARNING: When mounting on or over a combustible surface, a floor plate of at least 1.43 mm galvanized or 1.6 mm uncoated steel extended at least 150 mm beyond the equipment on all sides must be installed.

WARNING: In order to maintain the environmental integrity of the enclosure, devices with the same environmental ratings shall be used to close openings in customized enclosure.

The HD range is designed and constructed with special materials for highly sanitary operation and ease of thorough cleaning.

Body:

Folded and seam welded.
The body has a special design with a sloping roof at a 30° angle and 30 mm overhang designed to avoid liquids dripping on the door gasket. Stainless steel AISI 304, body thickness: 1.5 mm.

Door:

The doors have all edges bent at 82° angle to prevent accumulation of liquids.
Stainless steel AISI 304, door thickness: 2 mm.

Finish:

400 pre-grained stainless steel, polished to Ra<0.8 µm.

Gasket:

The silicone gasket, FDA 21 CFR 177.2600 compliant, can be easily mounted and removed to simplify scheduled cleaning, in accordance with the rules of hygiene in the food and beverage industry.

Internal hinge:

The door hinge has been especially designed to enable a change from the right side to the left side and to compress the gasket when the door is closing.

HD lock:

Designed to guarantee hygiene requirements and provide secure access. The lock complies with the standard DIN EN 1672-2:2009.

Mounting plate:

Double folded and slides into position. Adjustable in depth by steps of 25 mm, with the MPD02 accessory

Scope of delivery and important characteristics

The delivery package includes the following items:	
1 x HD enclosure	1 x HD enclosure key
1 x mounting plate	1 x instruction set

Item	WxH/H1xD
HDF18065	600x1801/2132x514
HDF18085	800x1801/2132x514

Protection level	Standard
IP 66/69	IEC 60529 / ISO 20653
NEMA 4X/12/13	UL 50
IK08	IEC 62262

Item	Loading capacity			Thermal Power Dissipation Capability	
	Body	Door	Side panel	Heat loss standing [W]	ΔT [°K]
HDF18065	6000N	900N	900N	410	30
HDF18085	6000N	900N	900N	493	30

Notes for this document

CE label

The HD enclosures have CE label according to IEC 62208.

Associated standards

DIN EN ISO 14159	Safety of machinery.
	Hygiene requirements for the design of machinery.
DIN EN 1672-2	Food processing machinery.
	Basic concepts.
	Part 2: Hygiene requirements.
EHEDG regulation, guideline 13	Hygienic design of components and apparatus for open processes.
98/37/EU (2006/42/EU)	Machine regulations.

Cleaning and disinfection notes

The enclosures used in the food & beverage and pharmaceutical industries have to be cleaned matching the corresponding industry requirements.

For further reading see Cleaning Procedure in this manual.

Prior to installation

Checking for absence of faults

After unpacking, make sure to check that the contents are complete and that there are no faults. If there is anything wrong or a part is missing, please contact us immediately. We are unable to accept late complaints.

The delivery package includes the following items:
6 x Nut M8
6 x Earthing washer
6 x Earthing labels
1 x Key SQ13
1 x Mounting Instruction Manual

Recommended accessories for Hygienic Design:

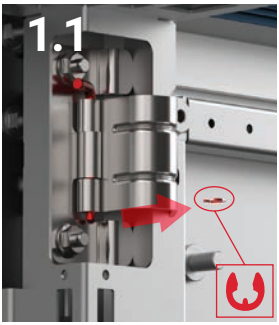
Description	Packs of	Item No.
Wall mounting brackets, AWHD		
AISI 304 Stainless steel		
Wall separation: 50 mm	1	AWHD050
Wall separation: 300 mm	1	AWHD300
Cable glands HD, CGHD		
AISI 303 stainless steel and sealing in silicone		
Variant:		
M12x1.5	5	CGHD12
M16x1.5	5	CGHD16
M20x1.5	5	CGHD20
M25x1.5	5	CGHD25
Side panels SPMHD		
AISI 304 Stainless steel		
Side panels HDF, 1800x500	2	SPMHD1805

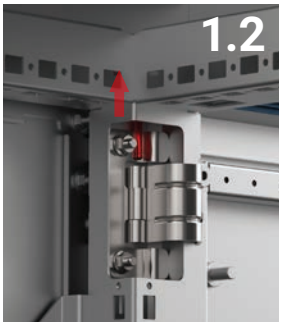
Do not remove, reposition, or perform any modification on the door profiles.

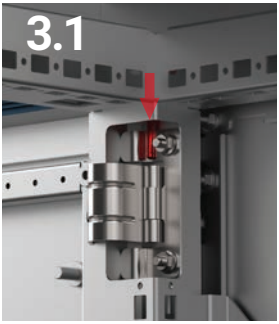
Removing the door/changing the door hinge

HYGIENE RISK!

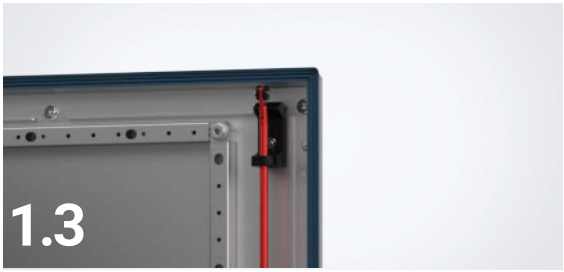
The housing surfaces have peak-to-valley height < 0.8 µm.
Damage to the surface can encourage growth of micro-organism deposits during operation. Consequently, adopt appropriate measures to protect the housing surfaces from damage during installation.







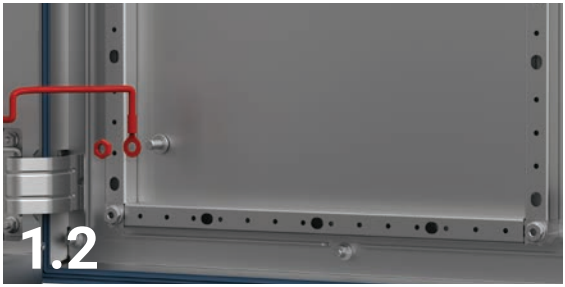
Changing the closing position



Installing / removing the mounting plate

Installing the mounting plate

Earthing and potential equalization



Note: The earthing cable is not included.

For earthing and potential compensation between enclosure parts please see general accessories page on website.

Servicing the door gasket

Note: Do not remove, reposition, or perform any modification on the door profiles.

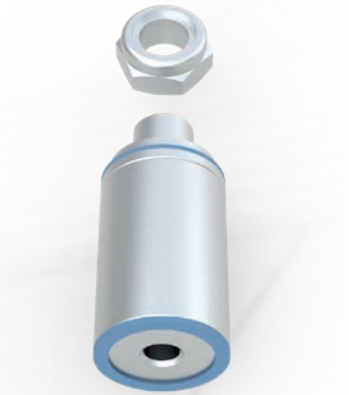
Instructions for HD wall mounting brackets

The HDW enclosures can be provided (on request), with wall mounting brackets AWHD050 (having 50 mm length) or AWHD300 (having 300 mm length).

To mount these brackets, the HDW has to be drilled according to AWHD050/300 mounting instruction.

The AWHD050/300 wall mounting brackets are made according to hygienic design requirements EN 1672-2:2009.

The material of blue silicone washers is FDA 21 CFR 177.2600 compliant.



Instructions for HDF base frame with leveling feet

The HDF enclosures can also be mounted a floor by using hygienic design base frame with leveling feet.

The HD levelling foot is certified according to the 3A hygienic standard: "88-00" and certified according to the EHEDG hygienic standard TYPE EL - CLASS 1.

The HD levelling foot admits slopes up to 10° of floors and equipment.
The HD levelling foot is marked with the 3A and EHEDG logo.

Protective Fan Cover HD, ECHD

Designed for the food & beverage industry with special materials for harsh sanitary operations, this cover helps protect filter fans in wash down environments against water ingress. With the shroud fitted in place, EF filter fans increase in rating from IP 54 to IP 56. The cover can be easily removed for maintenance operations and gasket replacement, and also can be opened to a 35º angle for easy filter cleaning. The sloped-top cover prevents liquids and other debris from pooling. Folded and seam welded (machining is required).

Description	Pack qty.	Item No.
Protective cover HD, 230x150x57	1	ECHD10
Protective cover HD, 260x176x57	1	ECHD20
Protective cover HD, 330x233x57	1	ECHD22
Protective cover HD, 390x282x95	1	ECHD30
Protective cover HD, 480x350x110	1	ECHD50
Protective cover HD, 480x350x160	1	ECHD70

Hygienic cleaning information

In general, a cleaning procedure for surfaces in a food plant will include at least a detergent application phase and a sanitization phase.

DETERGENT APPLICATION

A detergent's function is to remove soils, which is unwanted matter on the surfaces to be cleaned. The main source of this matter is foodstuffs being processed at the plant.

SANITIZATION

Sanitization refers to the reduction of micro-organisms to levels considered safe from a public health viewpoint. General types of sanitization include the following:

Thermal sanitization

Hot water or steam at a specified temperature and contact time are used.

Using hot water

Hot-water sanitization is relatively inexpensive, easy to apply, and readily available, generally effective over a broad range of microorganisms, and relatively non-corrosive.

Steam

The use of steam as a sanitizing process has limited uses. It is generally expensive compared to the hot water alternative and it is difficult to regulate and monitor contact temperature and time. Further, the byproducts of steam condensation can make cleaning more complicated.

Chemical sanitization

Involves the use of an approved chemical sanitizer at a specified concentration and contact time. The ideal chemical sanitizer should:

- Be approved for food contact surface application;
- Be possible to use widely;
- Destroy microorganisms rapidly;
- Be stable in many conditions;
- Be tolerant to a broad range of environmental conditions;
- Be readily solubilized and should have detergent attributes;
- Be low in toxicity and corrosivity;
- Be inexpensive.

Examples of Typical Cleaning and Disinfecting Substances:

Acid Cleaning Agent	Neutral Cleaning Agent	Alkaline Cleaning Agent	Disinfecting Agent
Phosphoric acid	Phosphate	Surfactant	Peroxide
Acetic acid	Surfactant	Caustic soda / caustic potash	Quaternary A mmonium compounds (QAC)
Nitric acid	Peroxide	Sodium carbonate	
Solubilizer	Quaternary A mmonium compounds (QAC)	Peroxide	
Surfactant		Hypochlorite	
		Quaternary a mmonium compounds (QAC)	

CLEANING METHODS

The enclosures used in the food industry have to be cleaned matching the requirements of the food and beverage industries. Depending on the possibility to clean the element assembled or dissembled it can be distinguished between the following methods:

Mechanical Cleaning	Often reffered to as clean-in-place (CIP)
Clean-out-of-place (COP)	Can be partial disassembled and cleaned in specialized cop (for example the silicone gasket)
Manual Cleaning	Requires total disassembly for cleaning and inspection

Cleaning frequency must be clearly defined for each process line (i.e. daily, after production runs, or more often if necessary)

ENVIRONMENTAL CONSIDERATIONS

Detergents can be significant contributors to the waste discharge (effluent). Of primary concern is pH.

Many publicly owned treatment works limit effluent pH to the range of 5 to 8.5.

In applications where highly alkaline cleaners are used, it is recommended, that the effluent is mixed with rinse water (or some other method be used) to reduce the pH level.

Cleaning procedure

The HDF range is designed with carefully selected materials for highly sanitary operations and ease of thorough cleaning. The cleaning procedure for surfaces in a food plant is, in general: Gross clean, pre-rinse, detergent application, post-rinse, sanitization, and final rinse. The procedure has to be monitored for adequacy.

The HDF enclosures are certified for ingress protection IP 69 K, thus making it possible to use a high pressure hot water jet, at a flow rate of 15 l/min with a temperature of 80°C at 80 bar and a minimum distance of 100 mm.

The enclosure can be disinfected using a certified disinfectant agent permitted for use on machinery handling food.

The gasket can be cleaned and disinfected independently by removing it from the door edge. The door edge must be carefully cleaned outside and inside using a washcloth soaked in disinfectant. The siliconee gasket and door edge must be clean and dry before the gasket is mounted on the door edge. No gap is permitted between the silicone gasket and door.

Notes:

- If a gap does appear over time, the gasket will need to be replaced by a new one.
- If mechanical cleaning is necessary, it must be executed by a soft brush or soft plastic scraper. Metallic sharp tools are prohibited for cleaning, since the steel surfaces might be scratched or the siliconee sealings damaged. Necessary equipment for cleaning must be handled and stored in a clean, sanitary manner.

Transport instruction

The HDF enclosures have the surface roughness Ra<0.8 µm. Damaging these surfaces can cause micro-organism deposits.

The enclosures have to be handled carefully by using appropriate measures to protect surfaces during transport. Please use the original cardboard packaging.

Since the roof of the enclosure is sloped, one or more boxes should not be placed on top of each other.

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