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ATT Inox Drain® is the leading producer of stainless steel draining systems.

All our actions are based on the following principles: sustained high quality of products and services, constant improvement and expansion of our range products as well as reliability and timeliness.

We work for Customers in food, chemical, pharmaceutical and wide variety of construction and installation industries.

Through combining innovative projects with advanced technology, modern machine park and years of experience, we offer products and services which meet the highest standards.

Our solutions reflect needs of our Customers, such as on-site adaptation processes during product installation. Each phase of the order completion - from design, through workmanship to installation - is supervised and consulted with you by our specialists,

just to make sure you get your final product according to your plans.

ATT is a team of engineers who combine their know-how and passion with creativity and long-standing experience. The combination of these features brings about a certain, unique quality of projects. Their comprehensive technical knowledge of construction and industry realities makes it possible to adjust complex solutions to individual needs of our Customers.





WE OFFER

- point and linear drainage systems (floor drains, standard and slot channels, rodding eyes),
- furniture and fittings (tables, closets, cabinets, bathtubs, wash-basins),
- manhole covers, media boxes,
- architectural elements (roofs, finishing elements),
- protective elements (pillars and other protective profiles),
- tailor-made solutions.





STAINLESS STEEL CHARACTERISTICS

The term "stainless steel" is applied to the steel grades with enhanced corrosion resistance in comparison to normal alloy steels.

The stainless steels are iron alloys containing minimum 11% of chromium. Excellent anticorrosion properties are owed to surface layer of chromium oxides, which is very durable.

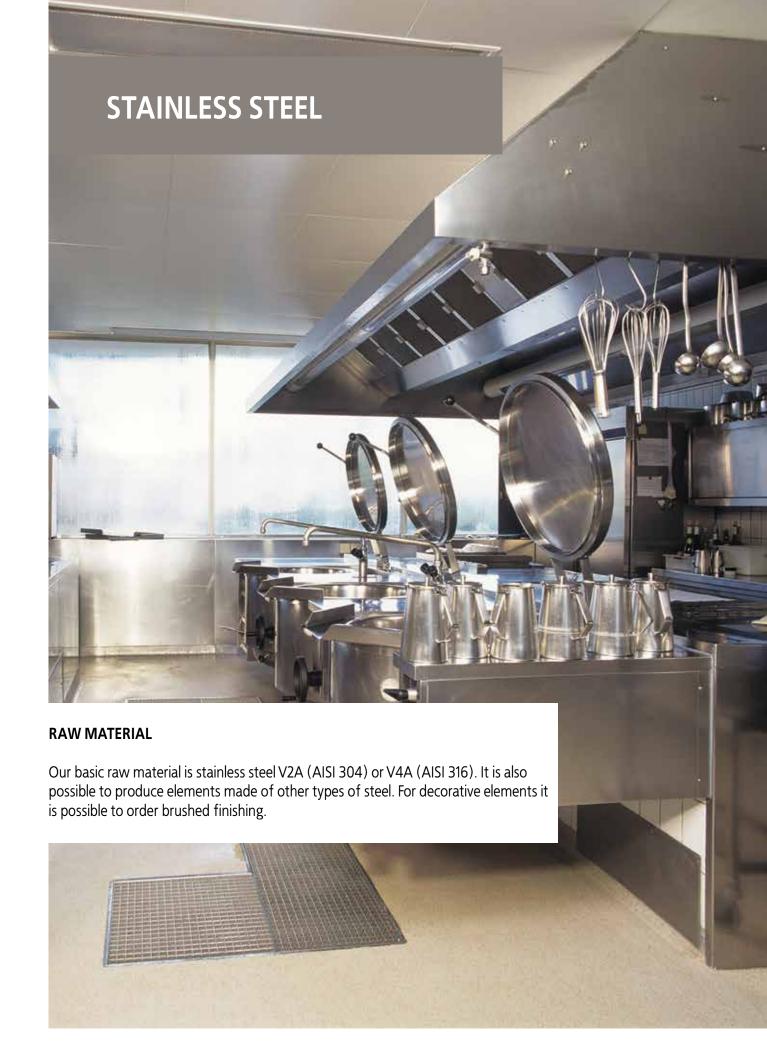
The anticorrosion properties are maintained in case of mechanical or chemical damage to the steel surface.

TYPES OF STAINLESS STEEL

Austenitic - it has very good anticorrosion properties with carbon content of approximately 0.02%. It is used in the food processing, chemical and pharmaceutical industries.

Martensitic - posses the highest mechanical strength of all steel types. It is heat treatable, it has magnetic properties and high carbon content (about 0.3%).

Austenitic-ferritic - this type of steel is melted in the duplex process. This type of steel has good anticorrosion properties and high crack resistance. It is however magnetic steel, not suitable for plumbing components.



STAINLESS STEEL

Below information is developed based on our knowledge and experience and it is indicative. We ensure this information is carefully prepared from technical point of view, however it cannot be treated as the valid standard.

In order to achieve the guarantee of material resistance to a particular factor, laboratory tests need to be held.

MATERIALS' CHEMICAL RESISTANCE

Chemical		Temp. Cº	STEEL 1.4301 304	STEEL 1.4404 316L
acetone		20	< 0,1	< 0,1
methyl alcohol		20	< 0,1	< 0,1
alcohol propyl		20	< 0,1	< 0,1
ammonia - gas (dry)		20	< 0,1	< 0,1
ammonia		boiling p.	< 0,1	< 0,1
aniline		20	< 0,1	< 0,1
ammonium nitrate		20	< 0,1	< 0,1
copper nitrate		20	< 0,1	< 0,1
silver nitrate		20	< 0,1	< 0,1
benzene		20	< 0,1	< 0,1
petroleum oils		20	< 0,1	< 0,1
tan liquor		20	< 0,1	< 0,1
butane		20	< 0,1	< 0,1
chlorine (wet)		20	>1	>1
chlorine (dry)	100%	70	< 0,1	< 0,1
ammonium chloride		20	0,1 - 1	0,1 - 1
ammonium chloride	20%	boiling p.	0,1 - 1 SP	< 0,1 SP
ammonium chloride	43%	boiling p.	< 0,1 SP	< 0,1 SP
amyl chloride		20	< 0,1	< 0,1
barium chloride		20	< 0,1	< 0,1
zinc chloride		20	0,1 - 1	0,1 - 1
tin chloride		20	>1	< 0,1
ethyl chloride (chloroethane)		20	< 0,1	< 0,1
aluminum chloride		20 20	0,1 - 1	0,1 - 1 > 1
magnesium chloride		20	>1 <0,1	< 0,1
methyl chloride		20	>1	>1
cupric chloride nickel chloride		20	>1	>1
potassium chloride		20	< 0,1	< 0,1
sodium chloride	3%	20-60	0,1 - 1 P	< 0,1 P
calcium chloride	370	20-00	>1	0,1 - 1
calcium chloride	20%	20	< 0.1 P	< 0,1 P
calcium chloride	20%	boiling p.	0,1 - 1 SP	< 0.1 P
chlorobenzene		20	< 0.1	< 0,1
chloroform		20	0,1 - 1	0,1 - 1
cupric cyanide		20	< 0,1	< 0,1
potassium cyanide		20	< 0,1	< 0,1
sodium cyanide		20	< 0,1	< 0,1
cyclohexane		20	< 0,1	< 0,1
cyclohexanone		20	< 0,1	< 0,1
carbon tetrachloride		20	< 0,1	< 0,1
diethylamine		20	< 0,1	< 0,1
dimethylaniline		20	< 0,1	< 0,1
bichloride of potassium		20	< 0,1	< 0,1
sodium disulphide		20	< 0,1	< 0,1
carbon disulphide		20	< 0,1	< 0,1
sulfur dioxide (dry)		20	>1	< 0,1
sulfur dioxide (wet)		20	Х	< 0,1
carbon dioxide		20	< 0,1	< 0,1
sodium bicarbonate	F0/	20	< 0,1	< 0,1
phenol	5%	20	< 0,1	< 0,1

Chemical		Temp. Cº	STEEL 1.4301 304	STEEL 1.4404 316L
formaldehyde	37%	20	< 0,1	< 0,1
ammonium phosphate		20	0,1 - 1	>1
disodium phosphate		20	Х	Х
trisodium phosphate		20	< 0,1	< 0,1
freon 12		20	< 0,1	< 0,1
furfural		20	< 0,1	< 0,1
fluorine gas (wet)		20	>1	>1
propane gas		20	< 0,1	< 0,1
glycerine		20	< 0,1	< 0,1
ethylene glycol		20 20	< 0,1 < 0,1	< 0,1 < 0,1
glucose		20	< 0,1	< 0,1
hydroquinone iodine		20	>1	>1
methyl ethyl ketone		20	< 0,1	< 0.1
xylene		20	< 0,1	< 0,1
nitric acid	30%	boiling p.	< 0.1	< 0,1
nitric acid	50%	boiling p.	0,1 - 1	0,1 - 1
nitric acid	65%	80	< 0,1	< 0.1
nitric acid	65%	boiling p.	0,1 - 1	0,1 - 1
benzoic acid		20	< 0,1	< 0,1
boric acid		20	< 0,1	< 0,1
hydrobromic acid	20%	20	>1	>1
bromic acid		20	0,1 - 1	0,1 - 1
chloroacetic acid		20	0,1 - 1	0,1 - 1
chromic acid	50%	20	>1	>1
chromic acid	10%	20	< 0,1	< 0,1
citric acid	25%	boiling p.	>1	< 0,1
citric acid	50%	20	< 0,1	< 0,1
phosphoric acid	20%	boiling p.	< 0,1	< 0,1
phosphoric acid	40%	boiling p.	< 0,1	0,1 - 1
phosphoric acid	85%	95	>1	< 0,1
maleic acid	100/	20	< 0,1	< 0,1
lactic acid	10% 25%	10-100 20	0,1 - 1 < 0,1	< 0,1
lactic acid	25% 50%	20-80	0,1 - 1	< 0,1 < 0,1
lactic acid	50%	boiling p.	>1	0,1 - 1
lactic acid formic acid	5-10%	20	< 0,1	< 0,1
formic acid	10%	80	>1	< 0,1
formic acid	50%	24-40	0,1 - 1	< 0,1
formic acid	50%	boiling p.	>1	0,1 - 1
formic acid	90%	20	>1	< 0,1
perchloric acid	10%	20	>1	>1
perchloric acid	70%	20	>1	>1
acetic acid	1%	boiling p.	< 0,1	< 0,1
acetic acid	10%	boiling p.	0,1 - 1	< 0,1
acetic acid	20%	boiling p.	>1	< 0,1
acetic acid	20%	20	< 0,1	< 0,1
acetic acid	80%	20	>1	< 0,1
acetic acid	100%	boiling p.	>1	< 0,1
oleic acid		20	< 0,1	< 0,1

MATERIALS' CHEMICAL RESISTANCE

Chemical		Temp. Cº	STEEL 1.4301 304	STEEL 1.4404 316L
hypochlorous acid (chlorine water)		20	>1	>1
palmitic acid	10%	20	< 0,1	< 0,1
picric acid		20	< 0,1	< 0,1
prussic acid		20	< 0,1	< 0,1
sulphurous acid		20	0,1 - 1	< 0,1
sulphuric acid	1%	100	>1	0,1 - 1
sulphuric acid	5%	20	0,1 - 1	< 0,1
sulphuric acid	5%	boiling p.	>1	>1
sulphuric acid	10%	20	>1 >1	< 0,1
sulphuric acid	10%	boiling p.	>1	>1 >1
sulphuric acid	50% 70%	20 20	>1	>1
sulphuric acid	20-90%	20-100	>1	>1
sulphuric acid	93%	20-100	>1	>1
sulphuric acid				
hydrochloric acid hydrochloric acid	0.5% 0.5%	20	0,1 - 1 P > 1	< 0,1 P > 1
hydrochloric acid	0.5% 1%	boiling p. 20	0,1 - 1 P	< 0,1 P
hydrochloric acid	40%	20	>1	>1
stearic acid	4076	20	< 0,1	< 0,1
oxalic acid		20	< 0,1	< 0,1
carbonic acid		20	< 0.1	< 0,1
tartaric acid		20	>1	0,1 - 1
fatty acids		20	< 0,1	< 0,1
cresol		20	< 0,1	< 0,1
milk		20	< 0,1	< 0,1
urine		20	< 0,1	< 0,1
urea (carbamide)		20	< 0,1	< 0,1
potassium permanganate		20	< 0,1	< 0,1
hydrogen peroxide	90%	20	< 0,1	< 0,1
oil		20	< 0,1	< 0,1
vinegar		20	< 0,1	< 0,1
ethyl acetate		20	< 0,1	< 0,1
cottonseed oil		20	< 0,1	< 0,1
linseed oil		20	< 0,1	< 0,1
oils and fats		20	< 0,1	< 0,1
mineral oils		20 20	X < 0.1	X < 0.1
petroleum oils		20	< 0,1 < 0,1	< 0,1 < 0,1
oleum		20	< 0,1	< 0,1
beer sodium hypochlorite		20	0,1 - 1	< 0,1
calcium hypochlorite		20	>1	0,1 - 1
caustic potash		20	< 0,1	< 0,1
photographic solutions		20	>1	>1
electroplating solutions		20	< 0,1	< 0,1
ammonium sulphate		20	0,1 - 1	< 0,1
barium sulphate		20	< 0,1	< 0,1
zinc sulphate		20	< 0,1	< 0,1
aluminum sulphate		20	< 0,1	< 0,1
magnesium sulphate		20	< 0,1	< 0,1
copper sulphate		20	< 0,1	< 0,1
nickel sulphate		20	< 0,1	< 0,1

			STEEL	STEEL
Chemical		Temp. Cº	1.4301 304	1.4404 316L
sodium sulphate		20	< 0,1	< 0,1
silver sulphate		20	< 0,1	< 0,1
calcium sulphate		20	< 0,1	< 0,1
ferrous sulphate		20	< 0,1	< 0,1
ammonium sulphide		20	< 0,1	< 0,1
barium sulphide		20	Х	Х
sodium sulphide		20	0,1 - 1	>1
sodium sulphite		20	0,1 - 1	< 0,1
sulphur		20	0,1 - 1	< 0,1
caustic soda	20%	20	< 0,1	< 0,1
caustic soda	50%	20	< 0,1	< 0,1
caustic soda	80%	20	>1	< 0,1
fruit juices and pulp		20	0,1 - 1	< 0,1
tannin (tannic acid)		20	< 0,1	< 0,1
turpentine		20	< 0,1	< 0,1
sodium thiosulfate		20	< 0,1	< 0,1
carbon monoxide		20	< 0,1	< 0,1
toluene		20	< 0,1	< 0,1
triethylamine		20	< 0,1	< 0,1
phosphorous trichloride		20	< 0,1	< 0,1
trichlorethylene		20	< 0,1	< 0,1
sugar beet syrupe		20	< 0,1	< 0,1
sugarcane sap		20	Х	Х
potassium carbonate		20	< 0,1	< 0,1
sodium carbonate		20	< 0,1	< 0,1
calcium carbonate		20	< 0,1	< 0,1
whiskey		20	< 0,1	< 0,1
wine		20	< 0,1	< 0,1
bromine water		20	>1	>1
chlorinated water		20	>1	0,1 -1 P
chlorinated water	1g/l	20	0,1 -1 P	0,1 -1 P
chlorinated water	1 mg/l	20	< 0,1	< 0,1
distilled water		20	< 0,1	< 0,1
water ("acid mine")		20	< 0,1	< 0,1
sea water (natural)		20	0,1-1P	< 0,1 P
water (fresh)		20	< 0,1	< 0,1
water (salt)		20	< 0,1	< 0,1
ammonium hydroxide	10%	20	< 0,1	< 0,1
barium hydroxide	10%	20 20	x < 0.1	x < 0,1
potassium hydroxide			,	
sodium hydroxide		20 20	0,1 - 1 0,1 - 1	< 0,1 < 0,1
calcium hydroxide	12,5% Cl	20		
bleach			X < 0.1	X < 0.1
sodium base	20% 20%	50 100	< 0,1 < 0.1	< 0,1
sodium base	20% 40%	100	0,1 -1	< 0,1 < 0,1
sodium base	40 70	20	< 0,1	< 0,1
sodium ferrocyanide		20	\ 0,1	\ 0,1

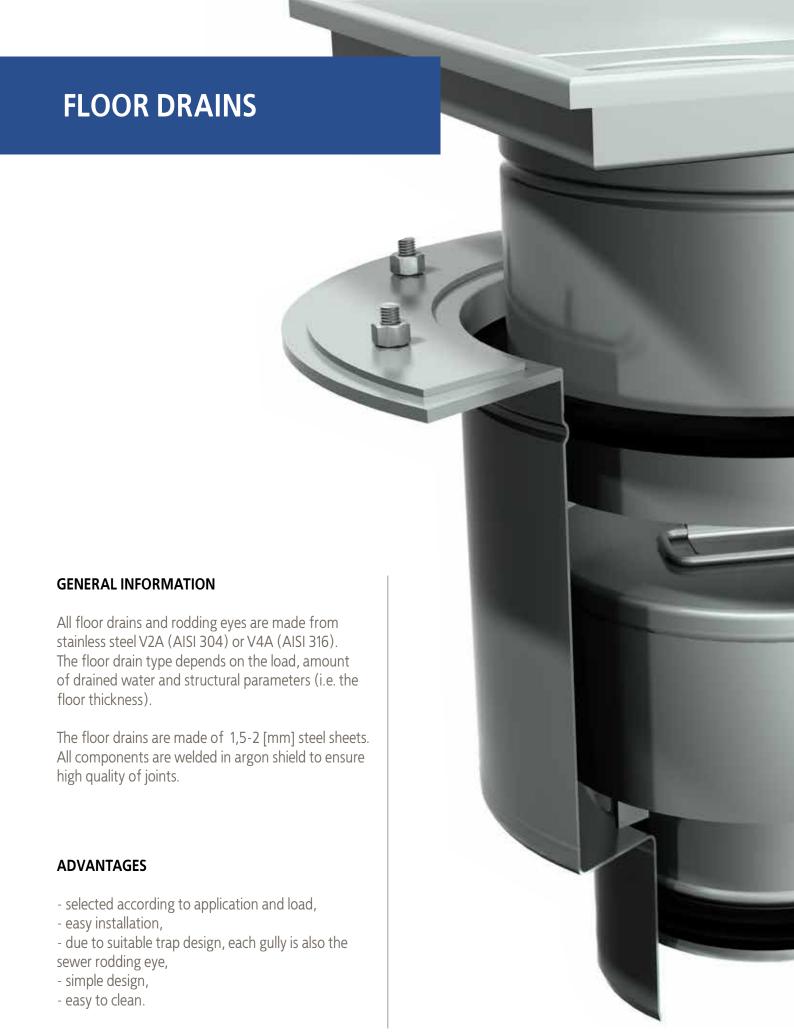
TABLE DESCRIPTION

corrosion coefficient (mm/year)

 <0,1
 complete
 partial
 p pitting corossion risk
 non resistant
 lack of data

FLOOR DRAINS





HOW TO READ CATALOGUE SYMBOLS

W	Wm	D	Dm	XXX	YYY	V	Н	В	D	K	P	S
						1	2					
W	heavy du			XXX up		H ho	orizontal	В	perfora	ted sheet	t grating	
Wm	with squ mini floc		•		art mension	1 siı	ngle part	D	ladder (grating		
VVIII	square u						0 1	K	anti-slip	grating		
D	heavy du					V ve	rtical	Р	plate gi	rating		
Dm	with rou mini floc round up	r drain w	vith		utlet ameter	2 tv	vo part	S	plate gr gasket (ating with so called	n circumfe 'tight cove	erence er')

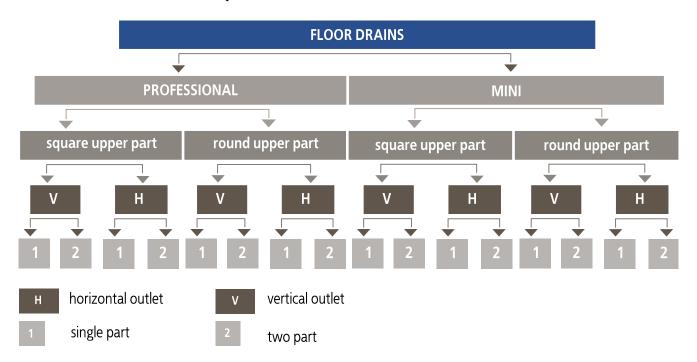
EXAMPLE 1

W300/110H2-B – it is heavy duty floor drain with square upper part 300x300 [mm], with DN 110 [mm] outlet, horizontal, two-part, with perforated sheet grating.

EXAMPLE 2

D255/110V1-S - it is heavy duty floor drain with round upper part 255 [mm], with DN 110 [mm] outlet, vertical, single-part, with tight cover (plate grating with circumference gasket).

FIND THE FLOOR DRAIN YOU REQUIRE



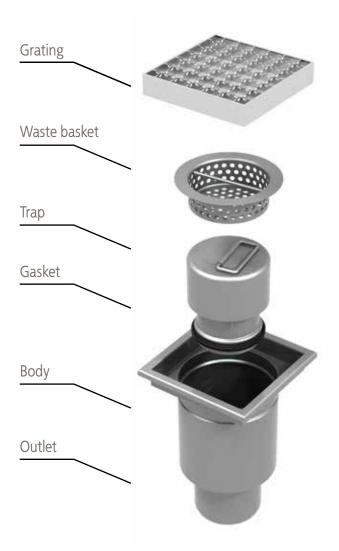
SELECTING THE FLOOR DRAINS

The appropriate floor drains are selected based on 2 main parameters:

- 1. Amount of drained wastewater (appropriate draining diameter and upper part dimension).
- 2. The load value, type and intensity (the load-bearing component is the grating, which can withstand a given load depending on its type and height).

FLOOR DRAINS

THE EXAMPLE OF SINGLE-PART FLOOR DRAIN

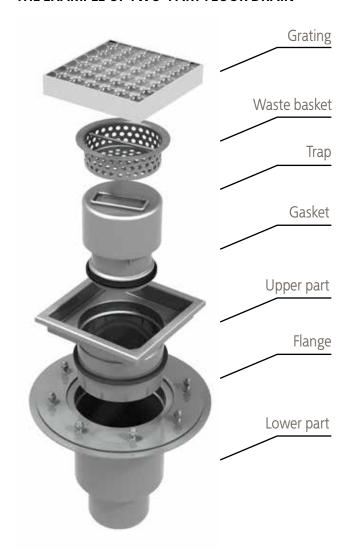


DESCRIPTION OF THE FLOOR DRAINS COMPONENTS

Bodies – round shape limits waste accumulation and enables easy waste removal. The welded joints are grinded to remove sharp edges and ensure safe installation or cleaning.

Gratings – available in various shapes, dimensions and finishing versions. The gratings are selected according to the loads and location of installation. We offer the following grating types: mesh anti-slip, ladder, plate and perforated sheet.

THE EXAMPLE OF TWO-PART FLOOR DRAIN



Waste baskets – recommended when the drained wastewater has a high content of solids.

Strainers – used when the amount of solids is small

Traps - very functional and easy to maintain. Ensures easy access to the sewer, quick cleaning and offers a possibility of checking for locks.

Flanges – used when it's necessary to drain water from horizontal systems installed under the floor.

LOAD CLASSES OF GRATINGS

INDOOR

ATT load classes of gratings installed indoor classified according to EN 1253.



H1,5 (1,5 kN)

flat roofs (which do not perform any other function like terrace)



K3 (3 kN)

places for pedestrian use (e.g. toilets, swimming pools built inside, balconies, basements, patios)



L15 (15 kN)

commercial premises where vehicular traffic intensity is low, excluding forklifts



M125 (125 kN)

areas with intensive vehicular traffic (e.g. halls, warehouses, garages)

Load classes are stated for standard grating height (hr=30mm). We provide other grating heights if requested, but the load classes may differ in each case.

Please note that the stated load classes are assumed for ideal load conditions (static). In reality the loads on gratings are much more complex (dynamic). Therefore, when selecting gratings, one should pay attention to several important details and ask such questions as:

- Will the grating be loaded (with a pallet of specific weight)?
- Will it be loaded with a forklift, if yes, what wheel

OUTDOOR

ATT load classes of gratings installed outdoor classified according to EN 1433.



A15 (15kN)

pedestrian and cyclists areas



B125 (125 kN)

footways, lateral drainage systems of car parks



C250 (250 kN)

light commercial vehicles, commercial areas, private car parks

type and size will the forklift be fitted with?

- Should this be a forklift truck (vehicle), then what will be the travel intensity. Several times a day, several dozen times a day or even several hundred times a day?

Only such information, together with the weight of forklift, pallet, will give us a full picture when selecting appropriate load class.

Bear in mind that with high intensity (repetitions) of even the smallest load, lower than the specified one, it is better to assume higher load class.



INSTALLATION OF SINGLE-PART FLOOR DRAINS

- 1. Make sure the drain pipe is at the correct height.
- 2. During concrete pouring, the upper part should be
- 1-1,5 [mm] below the floor level.
- 3. Next floor layers can be made when the upper part is stabilized.
- 4. During concrete pouring make sure, that the upper part clearance is not narrowed.
- 5. Make sure concrete gets to all places, even difficult of access ones.

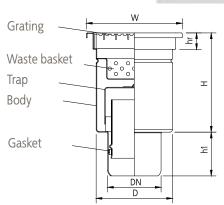
INSTALLATION OF TWO-PART FLOOR DRAINS

- 1. First, put the lower part of the floor drain in the structural part of the floor. The lower part should be placed in the hollow of 15-20 [mm] to ensure adequate draining of the condensate from the damp-proof course.
- 2. Make the damp-proof course and secure it with the clamping ring of the lower part.
- 3. Next, position the upper part on the required level. The upper part edge should be placed about 1-1,5 [mm] below the floor level.
- 4. Next floor layers can be made when the upper part is stabilized.
- 5. During concrete pouring make sure that the upper part clearance is not narrowed.
- 6. Make sure concrete gets to all places, even difficult of access ones.



heavy duty FLOOR DRAINS vertical with square upper part, single-part





* Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

Symbol		W200/75V1	W200/110V1	W250/110V1	W300/160V1	W400/200V1
Catalogue number mat. 304		00.005075 - *	00.005110 - *	00.001110 - *	00.001160 - *	00.001200 - *
	DN	75	110	110	160	200
	Н	194	194	234	244	354
Dimensions [mm]	h1	90	90	90	90	90
Dimensions [mm]	D	157	157	193	255	348
	W	200x200	200x200	250x250	300x300	400x400
	hr	30	30	30	30	30

GRATING SYMBOLS



perforated sheet - B





mesh anti-slip - K





ladder – D



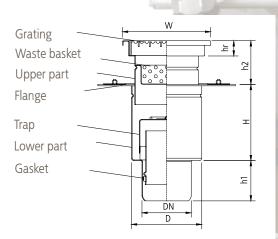


plate - P



heavy duty **FLOOR DRAINS** vertical with square upper part, two-part





* Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

Symbol		W200/75V2	W200/110V2	W250/110V2	W300/160V2	W400/200V2
Catalogue number mat. 304		00.006075 - *	00.006110 - *	00.002110 - *	00.002160 - *	00.002200 - *
	DN	75	110	110	160	200
Н	Н	160	160	200	210	320
Dimensions [mm]	h1	90	90	90	90	90
Sincisions (min)	h2	50-120	50-120	50-160	50-160	50-160
	D	157	157	193	255	348
	W	200x200	200x200	250x250	300x300	400x400
	hr	30	30	30	30	30

GRATING SYMBOLS



perforated sheet - B





mesh anti-slip - K





ladder – D



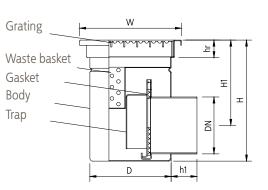


plate - P



heavy duty FLOOR DRAINS horizontal with square upper part, single-part





* Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

Symbol		W200/75H1	W200/110H1	W250/110H1	W300/160H1	W400/200H1
Catalogue number mat. 304		00.007075 - *	00.007110 - *	00.003110 - *	00.003160 - *	00.003200 - *
	DN	75	110	110	160	200
	Н	244	244	244	294	354
Dimensions [mm]	H1	190	170	170	194	232
Dimensions [mm]	h1	50	50	100	90	90
	D	157	157	193	255	348
	W	200x200	200x200	250x250	300x300	400x400
	hr	30	30	30	30	30

GRATING SYMBOLS



perforated sheet - B





mesh anti-slip - K





ladder – D



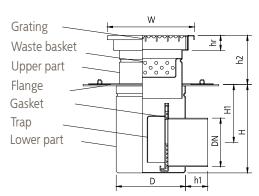


plate - P



heavy duty FLOOR DRAINS horizontal with square upper part, two-part





* Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

Symbol		W200/75H2	W200/110H2	W250/110H2	W300/160H2	W400/200H2
Catalogue number mat. 304		00.008075 - *	00.008110 - *	00.004110 - *	00.004160 - *	00.004200 - *
	DN	75	110	110	160	200
	Н	210	210	210	260	320
Dimensions [mm]	H1	155	140	140	160	200
Dimensions [mm]	h1	50	50	100	90	90
	h2	50-120	80-120	50-160	50-160	50-160
	D	157	157	193	255	348
	W	200x200	200x200	250x250	300x300	400x400
	hr	30	30	30	30	30

GRATING SYMBOLS



perforated sheet - B





mesh anti-slip - K





ladder – D



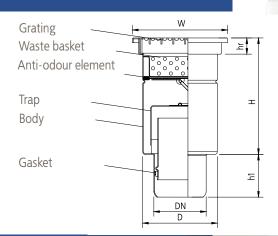


plate - P



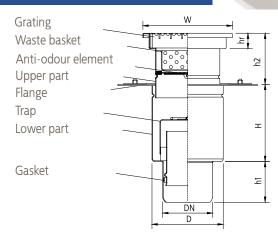
anti-scent FLOOR DRAINS vertical with square upper part, single-part





anti-scent FLOOR DRAINS vertical with square upper part, two-part





Symbol		Wa200/110V1	Wa200/110V2
Catalogue number mat. 304		00.021110 - *	00.022110 - *
	DN	110	110
	Н	245	160
Dimensions [mm]	h1	90	90
Dimensions [mm]	h2	-	50-120
	D	157	157
	W	200x200	200x200
	hr	30	30

* Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

GRATING SYMBOLS



perforated sheet - B





mesh anti-slip – K





ladder – D



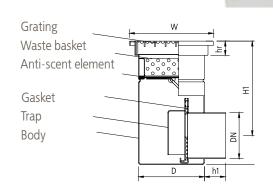


plate - P



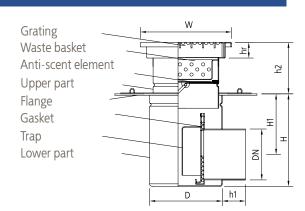
anti-scent FLOOR DRAINS horizontal with square upper part, single-part





anti-scent **FLOOR DRAINS** horizontal with square upper part, two-part





Symbol		Wa200/110H1	Wa200/110H2
Catalogue number mat. 304		00.023110 - *	00.024110 - *
	DN	110	110
	Н	294	210
Dimensions [mm]	H1	225	140
Differsions [mm]	h1	50	50
	h2	-	80-120
	D	157	157
	W	200x200	200x200
	hr	30	30

* Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

GRATING SYMBOLS



perforated sheet - B





mesh anti-slip - K





ladder - D





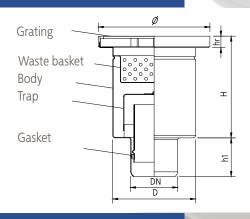
plate - P



heavy duty FLOOR DRAINS vertical with round upper part, single-part

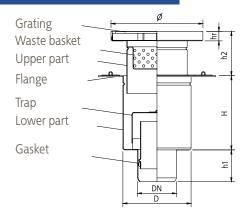
WITH OUTLET DN 110





heavy duty FLOOR DRAINS vertical with round upper part, two-part





* Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

Symbol		D200/110V1	D255/110V1	D200/110V2	D255/110V2
Catalogue number mat. 304		00.015110 - *	00.009110 - *	00.016110 - *	00.010110 - S
	DN	110	110	110	110
	Н	187	227	160	200
	h1	90	90	90	90
Dimensions [mm]	h2	-	-	45-110	45-160
	D	157	193	157	193
	Ø	200	255	200	255
	hr	25	25	25	25

Suction cup is used to remove floor drain's tight cover grating. Suction cup is an additional element - it is not sold as a part of floor drain.



In case of floor drains with tight cover grating we use 8mm thick plate grating with circumferential gasket.

GRATING SYMBOLS



mesh anti-slip - K





plate - P





ladder - D





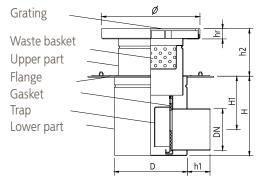


heavy duty FLOOR DRAINS horizontal with round upper part, single-part



heavy duty FLOOR DRAINS horizontal with round upper part, two-part





Suction cup is used to remove floor drain's tight cover grating. Suction cup is an additional element - it is not sold as a part of floor drain.

* Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

Sym	ıbol	D200/110H1	D255/110H1	D200/110H2	D255/110H2
Catalogue nu	mber mat. 304	00.017110 - *	00.011110 - *	00.018110 - *	00.012110 - *
	DN	110	110	110	110
	Н	237	237	190	210
	H1	165	165	120	140
Dimensions [mm]	h1	50	100	50	100
	h2	-	-	45-120	45-120
	D	157	193	157	193
	Ø	200	255	200	255
	Hr	25	25	25	25



In case of floor drains with tight cover grating we use 8mm thick plate grating with circumferential gasket.

GRATING SYMBOLS



mesh anti-slip - K





plate - P





ladder - D



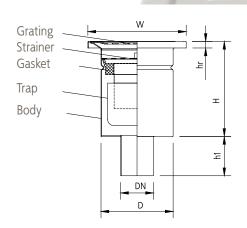


tight cover - S



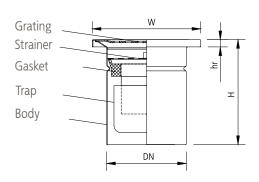
mini FLOOR DRAINS vertical with square upper part, single-part





WITH OUTLET DN 50





WITH OUTLET DN 110

Symbol		Wmk150/50V1	Wmk150/75V1	Wmk150/110V1
Catalogue number mat. 304		00.056050 - *	00.056075 - *	00.056110 - *
	DN	50	75	110
	Н	150	150	150
Dimensions [mm]	h1	60	60	-
Differsions [fillin]	D	110	110	110
	W	150x150	150x150	150x150
	Hr	2	2	2

Symbols and numbers can be used alternatively.

FOR MINI FLOOR DRAIN WMK150 THERE IS ONLY PERFORATED SHEET (B) GRATING AVAILABLE



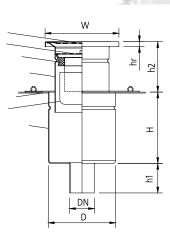
perforated sheet - B



mini FLOOR DRAINS vertical with square upper part, two-part



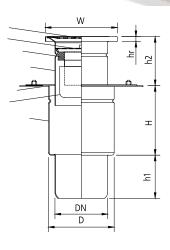
Grating Strainer Gasket Upper part Flange Trap Lower part



WITH OUTLET DN 50



Grating
Strainer
Gasket
Upper part
Flange
Trap
Lower part



WITH OUTLET DN 110

Symbol		Wmk150/50V2	Wmk150/75V2	Wmk150/110V2
Catalogue number mat. 304		00.057050 - *	00.057075 - *	00.057110 - *
	DN	50	75	110
	Н	140	140	140
Dimensions [mm]	h1	60	60	80
	h2	50-130	50-130	50-130
	D	137	137	137
	W	150x150	150x150	150x150
	Hr	2	2	2

Symbols and numbers can be used alternatively.

FOR MINI FLOOR DRAIN WMK150 THERE IS ONLY PERFORATED SHEET (B) GRATING AVAILABLE



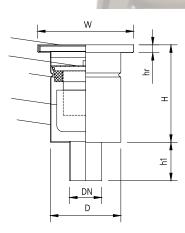
perforated sheet - B



mini FLOOR DRAINS vertical with square upper part, single-part



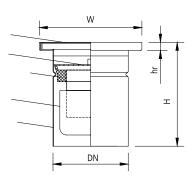
Grating Strainer Gasket Trap Body



WITH OUTLET DN 50



Grating Strainer Gasket Trap Body



WITH OUTLET DN 110

Symbol		Wm150/50V1	Wm150/75V1	Wm150/110V1
Catalogue number mat. 304		00.032050 - *	00.032075 - *	00.032110 - *
	DN	50	75	110
	Н	150	150	150
Dimensions [mm]	h1	60	60	-
Dimensions (min)	D	110	110	110
	W	150x150	150x150	150x150
	Hr	10	10	10

Symbols and numbers can be used alternatively.

FOR MINI FLOOR DRAIN $W_{M}150$ THERE IS ONLY LADDER (D) GRATING AVAILABLE



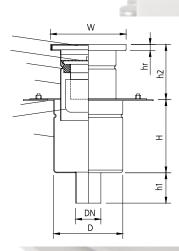
ladder - D



mini FLOOR DRAINS vertical with square upper part, two-part



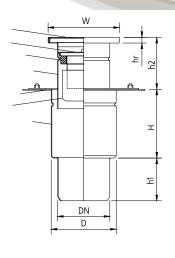
Grating Strainer Gasket Upper part Flange Trap Lower part



WITH OUTLET DN 50



Grating Strainer Gasket Upper part Flange Trap Lower part



WITH OUTLET DN 110

Symbol		Wm150/50V2	Wm150/75V2	Wm150/110V2
Catalogue number mat. 304		00.033050 - *	00.033075 - *	00.033110 - *
	DN	50	75	110
	Н	140	140	140
Dimensions [mm]	h1	60	60	80
	h2	50-130	50-130	50-130
	D	137	137	137
	W	150x150	150x150	150x150
	Hr	10	10	10

Symbols and numbers can be used alternatively.

FOR MINI FLOOR DRAIN WM150 THERE IS ONLY LADDER (D) GRATING AVAILABLE

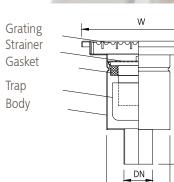


ladder - D



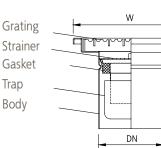
mini FLOOR DRAINS vertical with square upper part, single-part





WITH OUTLET DN 50





WITH OUTLET DN 110

Symbol		Wm200/50V1	Wm200/75V1	Wm200/110V1
Catalogue number mat. 304		00.030050 - *	00.030075 - *	00.030110 - *
	DN	50	75	110
	Н	154	154	154
Dimensions [mm]	h1	60	60	-
Difficusions [mm]	D	110	110	110
	W	200x200	200x200	200x200
	Hr	20	20	20

*Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

GRATING SYMBOLS



perforated sheet - B





mesh anti-slip - K





ladder – D





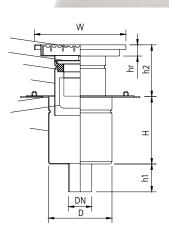
plate - P



mini FLOOR DRAINS vertical with square upper part, two-part



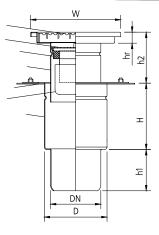
Grating Strainer Gasket Upper part Flange Trap Lower part



WITH OUTLET DN 50



Grating Strainer Gasket Upper part Flange Trap Lower part



WITH OUTLET DN 110

Symbol		Wm200/50V2	Wm200/75V2	Wm200/110V2
Catalogue number mat. 304		00.031050 - *	00.031075 - *	00.031110 - *
	DN	50	75	110
	Н	140	140	140
Dimensions [mm]	h1	60	60	80
Differsions [fillin]	h2	50-130	50-130	50-130
	D	137	137	137
	W	200x200	200x200	200x200
	Hr	20	20	20

* Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

GRATING SYMBOLS



perforated sheet - B





mesh anti-slip - K





ladder – D



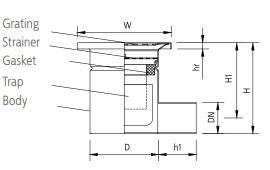


plate - P



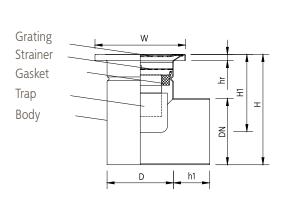
mini FLOOR DRAINS horizontal with square upper part, single-part





WITH OUTLET DN 50





WITH OUTLET DN 110

Symbol		Wmk150/50H1	Wmk150/75H1	Wmk150/110H1
Catalogue number mat. 304		00.058050 - *	00.058075 - *	00.058110 - *
	DN	50	75	110
	Н	150	150	185
Dimensions [mm]	H1	120	105	130
	h1	60	60	60
	D	110	110	110
	W	150x150	150x150	150x150
	Hr	2	2	2

* Symbols and numbers can be used alternatively.

FOR MINI FLOOR DRAIN WMK150 THERE IS ONLY PERFORATED SHEET (B) GRATING AVAILABLE

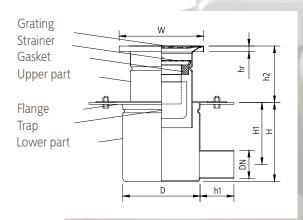


perforated sheet - B



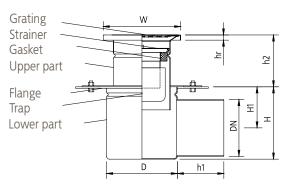
mini FLOOR DRAINS horizontal with square upper part, two-part





WITH OUTLET DN 50





WITH OUTLET DN 110

Symbol		Wmk150/50H2	Wmk150/75H2	Wmk150/110H2
Catalogue nui	Catalogue number mat. 304		00.059075 - *	00.059110 - *
	DN	50	75	110
	Н	140	140	140
Dimensions [mm]	H1	103	90	80
Dimensions [mm]	h1	60	60	90
	h2	50-130	50-130	50-130
	D	137	137	137
	W	150x150	150x150	150x150
	Hr	2	2	2

Symbols and numbers can be used alternatively.

FOR MINI FLOOR DRAIN WMK150 THERE IS ONLY PERFORATED SHEET (B) GRATING AVAILABLE

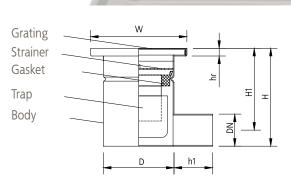


perforated sheet - B



mini FLOOR DRAINS horizontal with square upper part, single-part

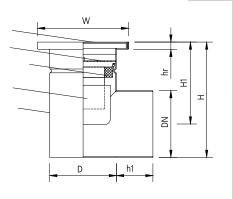




WITH OUTLET DN 50







WITH OUTLET DN 110

Symbol		Wm150/50H1	Wm150/75H1	Wm150/110H1
Catalogue number mat. 304		00.042050 - *	00.042075 - *	00.042110 - *
Dimensions [mm]	DN	50	75	110
	Н	150	150	190
	H1	120	110	135
	h1	60	60	60
	D	110	110	110
	W	150x150	150x150	150x150
	Hr	10	10	10

Symbols and numbers can be used alternatively.

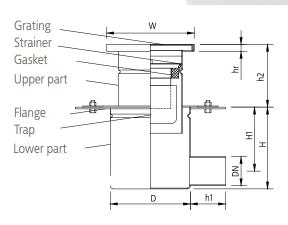
FOR MINI FLOOR DRAIN WM150 THERE IS ONLY LADDER (D) GRATING AVAILABLE





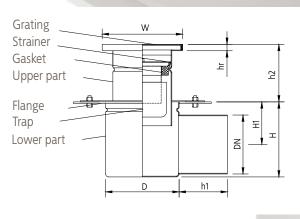
mini FLOOR DRAINS horizontal with square upper part, two-part





WITH OUTLET DN 50





WITH OUTLET DN 110

Symbol		Wm150/50H2	Wm150/75H2	Wm150/110H2
Catalogue number mat. 304		00.043050 - *	00.043075 - *	00.043110 - *
	DN	50	75	110
	Н	140	140	140
Dimensions [mm]	H1	103	90	80
Birrichsions [mm]	h1	60	60	90
	h2	50-130	50-130	50-130
	D	137	137	137
	W	150x150	150x150	150x150
	Hr	10	10	10

Symbols and numbers can be used alternatively.

FOR MINI FLOOR DRAIN WM150 THERE IS ONLY LADDER (D) GRATING AVAILABLE



ladder – D

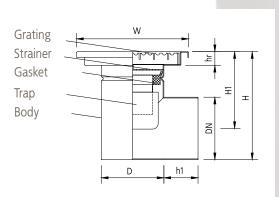
mini FLOOR DRAINS horizontal with square upper part, single-part



Grating
Strainer
Gasket
Trap
Body

WITH OUTLET DN 50





WITH OUTLET DN 110

Symbol		Wm200/50H1	Wm200/75H1	Wm200/110H1
Catalogue number mat. 304		00.040050 - *	00.040075 - *	00.040110 - *
	DN	50	75	110
	Н	154	154	194
Dimensions [mm]	H1	127	114	140
Dimensions [mm]	h1	60	60	90
	D	110	110	110
	W	200x200	200x200	200x200
	Hr	20	20	20

* Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

GRATING SYMBOLS



perforated sheet - B





mesh anti-slip - K





ladder – D



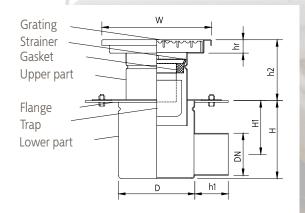


plate - P



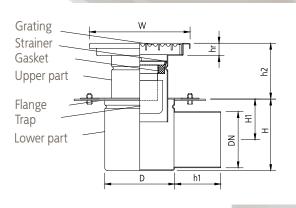
mini FLOOR DRAINS horizontal with square upper part, two-part





WITH OUTLET DN 50





WITH OUTLET DN 110

Symbol		Wm200/50H2	Wm200/75H2	Wm200/110H2
Catalogue nu	Catalogue number mat. 304		00.041075 - *	00.041110 - *
	DN	50	75	110
	Н	140	140	140
Dimensions [mm]	H1	103	90	80
Difficusions [mm]	h1	60	60	90
	h2	50-130	50-130	50-130
	D	137	137	137
	W	200x200	200x200	200x200
	Hr	20	20	20

* Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

GRATING SYMBOLS



perforated sheet - B





mesh anti-slip - K





ladder – D





plate - P

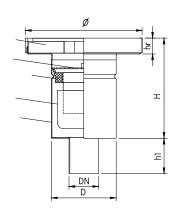


ATT INOX DRAIN

mini FLOOR DRAINS vertical with round upper part, single-part

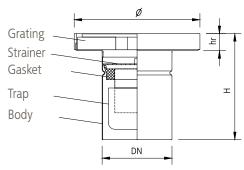


Grating Strainer Gasket Trap Body



WITH OUTLET DN 50





is an additional element - it is not sold as a part of floor

WITH OUTLET DN 110

* Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

Sym	nbol	Dm160/50V1	Dm200/50V1	Dm160/75V1	Dm200/75V1	Dm160/110V1	Dm200/110V1
Catalogue nun	nber mat. 304	00.036050 - *	00.034050 - *	00.036075 - *	00.034075 - *	00.036110 - *	00.034110 -*
	DN	50	50	75	75	110	110
	Н	165	165	165	165	165	165
Dimensions [mm]	h1	60	60	60	60	-	-
Dimensions [mm]	D	110	110	110	110	110	110
	Ø	160	200	160	200	160	200
	hr	25	25	25	25	25	25

cover grating. Suction cup drain.

Suction cup is used to

remove floor drain's tight



In case of floor drains with tight cover grating we use 8mm thick plate grating with circumferential gasket.

GRATING SYMBOLS



mesh anti-slip - K





plate - P





ladder - D



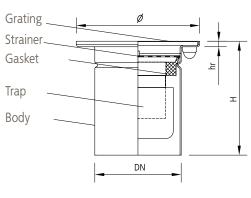


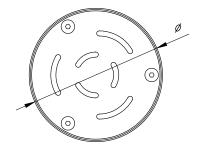
tight cover - S



mini FLOOR DRAINS vertical with round upper part, single-part







* Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

Symbol		Dms160/110 V1	
Catalogue number mat. 304		00.038110 - P	
	DN	110	
D	Н	145	
Dimensions [mm]	D	110	
	Ø	160	
	hr	5	

GRATING SYMBOL

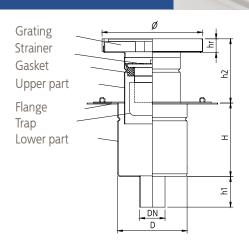


There is only 5mm thick plate perforated sheet (P) available for floor drain Dms160/110V1.



mini FLOOR DRAINS vertical with round upper part, two-part

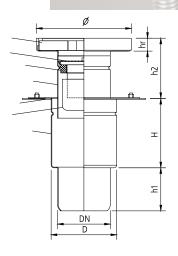




WITH OUTLET DN 50



Grating Strainer Gasket Upper part Flange Trap Lower part



Suction cup is used to remove floor drain's tight cover grating. Suction cup is an additional element – it is not sold as a part of floor drain.

WITH OUTLET DN 110

* Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

Sym	nbol	Dm160/50V2	Dm200/50V2	Dm160/75V2	Dm200/75V2	Dm160/110V2	Dm200/110V2
Catalogue nur	mber mat. 304	00.037050 - *	00.035050 - *	00.037075 - *	00.035075 - *	00.037110 - *	00.035110 - *
	DN	50	50	75	75	110	110
	Н	140	140	140	140	140	140
Dimensions [mm]	h1	60	60	60	60	90	90
Dimensions [mm]	h2	50-130	50-130	50-130	50-130	50-130	50-130
	D	137	137	137	137	137	137
	Ø	160	200	160	200	160	200
	hr	25	25	25	25	25	25



In case of floor drains with tight cover grating we use 8mm thick plate grating with circumferential gasket.

GRATING SYMBOLS









plate P





ladder – D



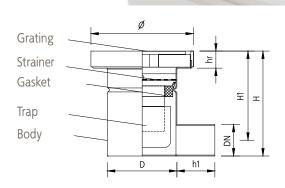


tight cover - S



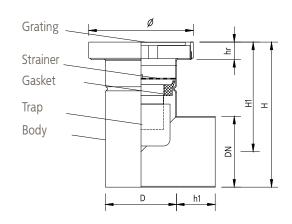
mini FLOOR DRAINS horizontal with round upper part, single-part





WITH OUTLET DN 50





Suction cup is used to remove floor drain's tight cover grating. Suction cup is an additional element – it is not sold as a part of floor drain

WITH OUTLET DN 110

* Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

Sym	nbol	Dm160/50H1	Dm200/50H1	Dm160/75H1	Dm200/75H1	Dm160/110H1	Dm200/110H1
Catalogue nur	nber mat. 304	00.046050 - *	00.044050 - *	00.046075 - *	00.044075 - *	00.046110 - *	00.044110 - *
	DN	50	50	75	75	110	110
	Н	165	165	165	165	207	207
Dimensions [mm]	H1	140	140	127	127	152	152
Dimensions [mm]	h1	60	60	60	60	60	60
	D	110	110	110	110	110	110
	Ø	160	200	160	200	160	200
	hr	25	25	25	25	25	25



In case of floor drains with tight cover grating we use 8mm thick plate grating with circumferential gasket.

GRATING SYMBOLS



mesh anti-slip - K





plate - P





ladder – D





tight cover - S

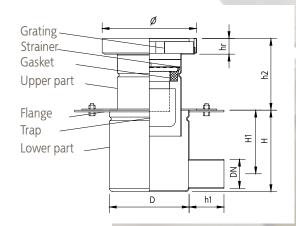


ATT INOX DRAIN

41

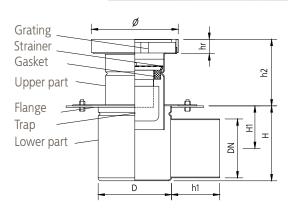
mini FLOOR DRAINS vertical with square upper part, two-part





WITH OUTLET DN 50





Suction cup is used to remove floor drain's tight cover grating. Suction cup is an additional element - it is not sold as a part of floor drain

WITH OUTLET DN 110

* Number or symbol of the floor drain needs to be completed with the proper grating symbol (symbols and numbers can be used alternatively).

Syn	nbol	Dm160/50H2	Dm200/50H2	Dm160/75H2	Dm200/75H2	Dm160/110H2	Dm200/110H2
Catalogue nur	mber mat. 304	00.047050 - *	00.045050 - *	00.047075 - *	00.045075 - *	00.047110 - *	00.045110 - *
	DN	50	50	75	75	110	110
	Н	140	140	140	140	140	140
	H1	103	103	90	90	80	80
Dimensions [mm]	h1	60	60	60	60	90	90
	h2	50-130	50-130	50-130	50-130	50-130	50-130
	D	137	137	137	137	137	137
	Ø	160	200	160	200	160	200
	hr	25	25	25	25	25	25



In case of floor drains with tight cover grating we use 8mm thick plate grating with circumferential gasket.

GRATING SYMBOLS



mesh anti-slip - K





plate - P



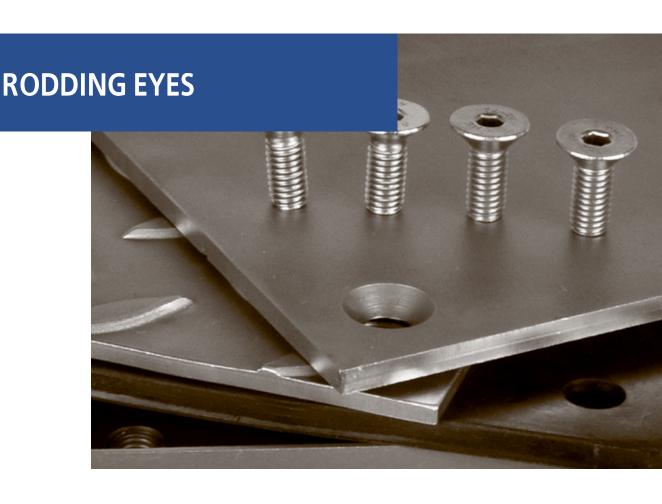


ladder - D









Our systems can be used to solve draining problems in different industrial areas (hospitals, hotels, restaurants, chemical and pharmaceutical plants). Rodding eyes are manufactured in austenitic stainless grades AISI304 or AISI316. Edge finishing allows installation in different types of floor.

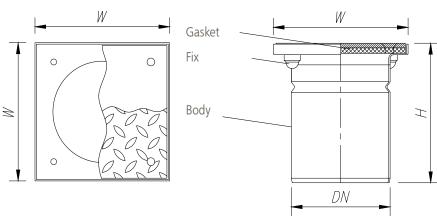
We offer rodding eyes for sewerage tubes from DN110.

* There are two available types of cover: anti-slip (R) and smooth (G).

Symbol	Catalogue number	Dimensions [mm]		
		DN	110	
Rw 150/110	00.050110 - *	W	150	
		Н	150	
		DN	110	
Rw 200/110	00.05110 - *	W	200	
		Н	150	
		DN	160	
Rw 200/160	00.051160 - *	W	200	
		Н	140	
	00.052160 - *	DN	160	
Rw 250/160		W	250	
		Н	140	
		DN	200	
Rw 250/200	00.052200 - *	W	250	
		Н	140	
		DN	160	
Rw 300/160	00.053160 - *	W	300	
		Н	140	
		DN	200	
Rw 300/200	00.053200 - *	W	300	
		Н	140	



RODDING EYES



COVER TYPES

Anti-slip cover

Smooth cover



ANTI-SLIP COVER

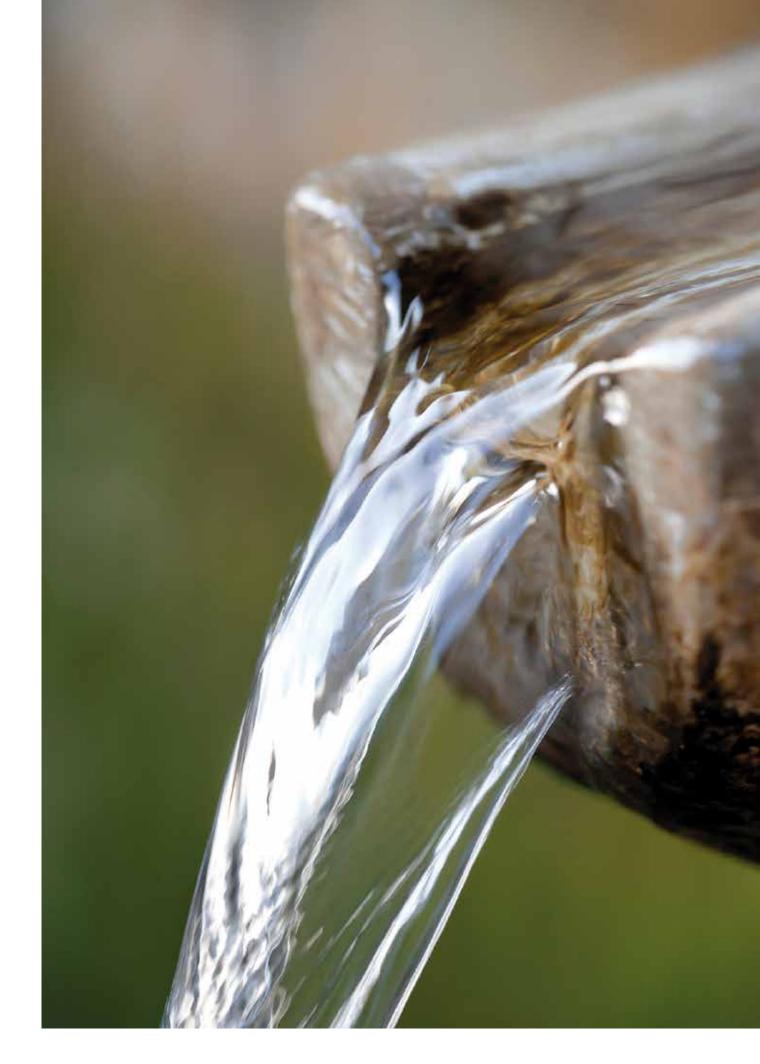
SMOOTH COVER



RODDING EYES COMPONENTS

- body,
- screw lock cover,
- gasket.

LINEAR DRAINAGE





Standard channels are made of stainless steel and they are used to drain water from the floor and discharge it to the sewerage. This type of drainage finds application in food processing plants (breweries, dairy plants, slaughterhouses), chemical plants, restaurants, hospitals etc. Standard channels are also used in the facilities, where the sanitary regulations and technological process require using stainless steel drainage systems.

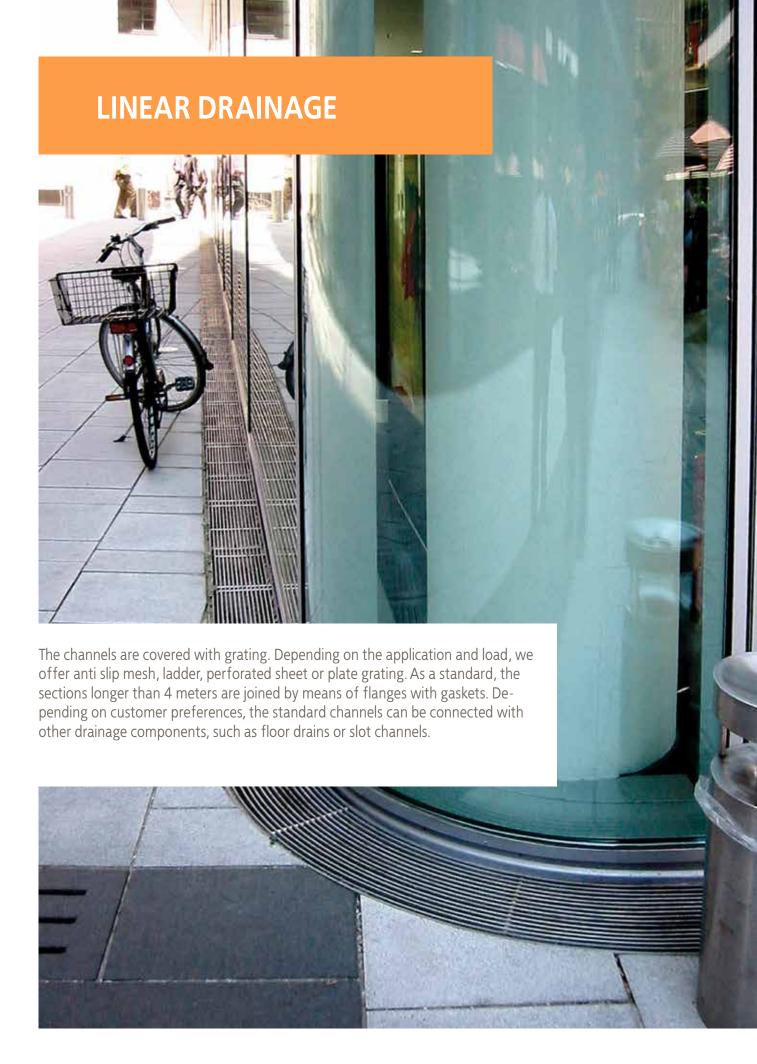
MANUFACTURING TECHNOLOGY

The standard drainage channels are manufactured in a wide range of sizes and shapes. They are made "to order"; the custom-made drawing is prepared as a result of cooperation between the client, its design or process engineer and the ATT staff. As a standard, the channels are made of 2 [mm] AISI 304 or AISI 316 sheets. The channels have in-built

inclination.

To facilitate installation, each channel is equipped with levelling bolts and anchoring elements for correct height adjustment and placement in concrete.







ADVANTAGES

- draining a large amount of water,
- are easily configurable and can be joined at a required angle with other standard or slot channels,
- can be covered with a variety of gratings,
- easy access in cleaning purposes (rounded internal edges, replaceable gratings, trapped waste basket),
- the channel edges can be adapted to floor type (additional tile flanging, angle for expansion joints),
- the rodding eye to the sewer is located in the outlet.

DESIGN SYMBOLS

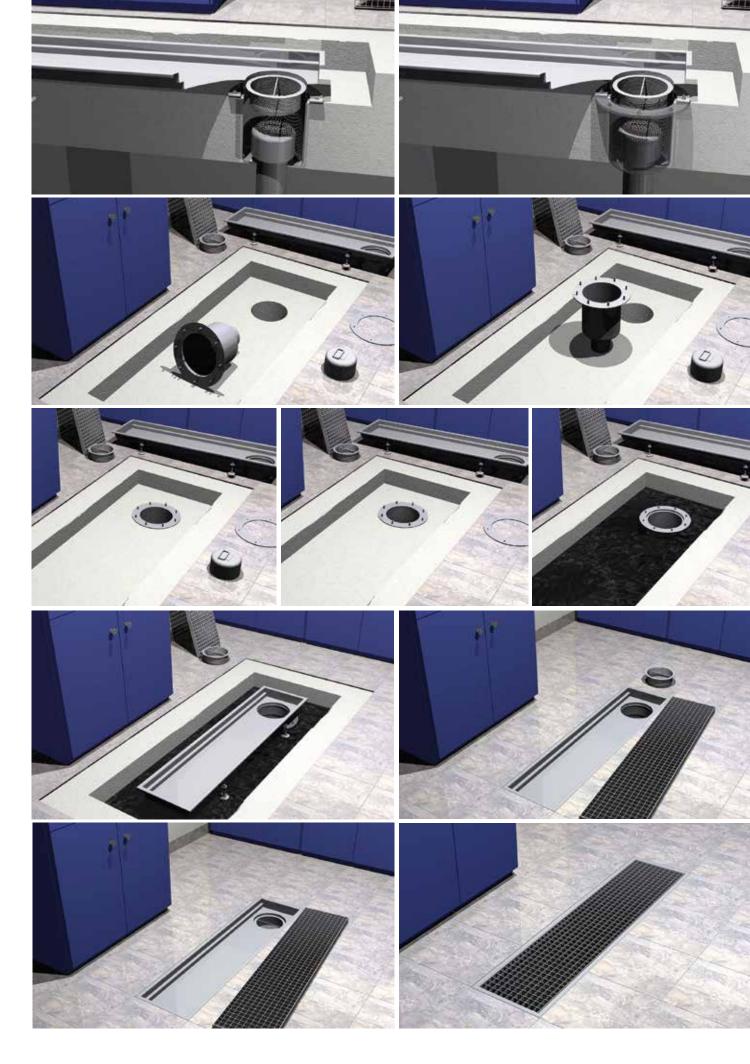
The standard channels are designated by their external width (S150, S200, S220......S600...... etc.).

EXAMPLE

S150 - it is a channel with 150 [mm] external width.

For the S150 channel, the grating width will be 110 [mm], and the clearance 80[mm].

In addition to the width, the channel parameters should also include type and degree of fall and the drawing of the channel route in the plan.

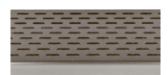


GRATINGS

The most typical grating to cover the standard channels is the anti-slip mesh grating with 23 x 23 [mm] mesh size and the load-bearing angle 25 x 2 or 30 x 2[mm]. Our product range also includes the ladder, plate or perforated sheet gratings, all in different sizes and dimensions.

The grating type is selected according to the channel location, load and functionality requirements. In the areas where forklift trucks traffic is intense, we recommend the plate grating, whereas mesh type is preferable, if the amount of the water to be drained is significant.

Below load classes are stated for the channels S150/200, made of standard material thickness.



perforated sheet grating



ladder hygienic grating

plate grating



anti-slip mesh grating



ladder grating

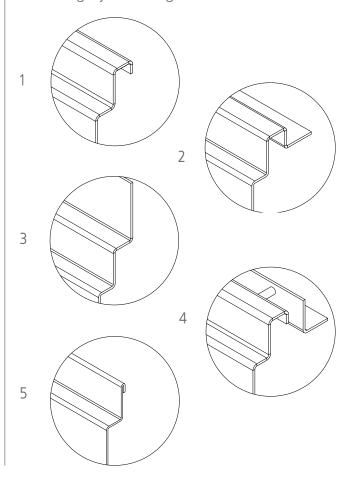


CHANNEL EDGE FINISHING

The edge finishing should depend on the flooring and wastewater temperature.

We can offer the following options:

- 1 with downward flange (standard)
- 2 with flange
- 3 with raised back edge
- 4 with edge angle section for expansion joint in the floor
- 5 with tightly folded edges

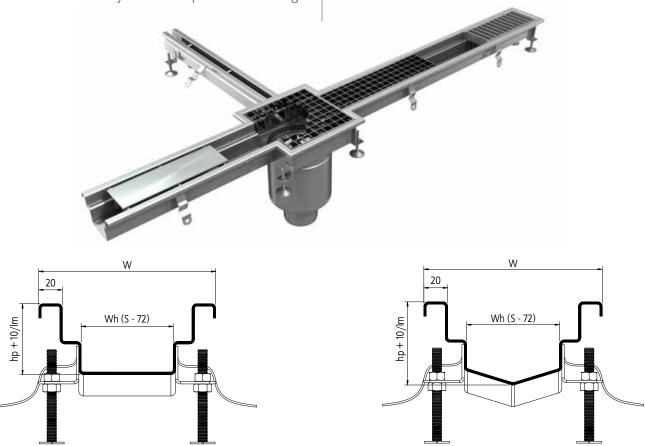


Typical layout of the channel is shown in the figure below. The placement of floor drains and the channel route depends on the needs and the amount of water to be drained from the floor. The two systems we offer, standard and slot channels, can be combined.

The channel route should be decided by the design engineer in cooperation with the process engineer. In case of any technical questions relating

to the drainage system, please do not hesitate to contact our consultants.

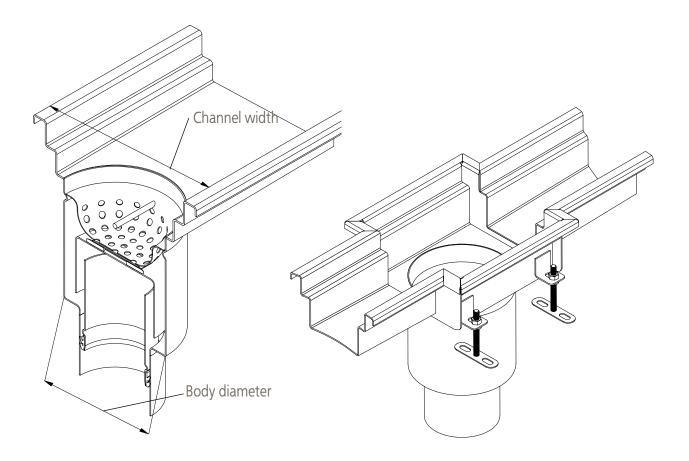
The channel outlet is fitted with trap and waste basket, securing the sewage system from solid impurities. We can insert horizontal water-proof insulation into the flange of the floor drain. This solution assures leak tightness in the area of outflow passage through the floor.



hp - initial height, channel's bottom slope depends on needs and installation abilities

W - channel width

Wh - hydraulic width



The table below shows standard dimensions of channel extension depending on type of used outlet. The extension is always 10 mm deeper than the channel it is connected to.

Due to the fact that the grating has bearing elements of one direction only, the extension is asymmetrical, which prevents incorrect installation.

	Outlet	Body	Extension size	Channel with	out extension	Flow
Outlet type	diameter [mm]	diameter [mm]	diameter (length x width)	Min. channel's width [mm]	Min. Hydraulic width [mm]	rate (l/s)
Wm150,200/110V1/2,H1/2	110	110	205x200	S190	120	0,5
W200/110V1p,H1p	110	157	245x240	S240	170	2,2
W200/110V2p,H2p	110	142	245x240	S220	150	2,2
W250/110V1,H1	110	193	275x270	S270	200	3
W250/110V2,H2	110	172	275x270	S250	180	3
W300/160V1,H1	160	255	340x335	S330	260	9
W300/160V2,H2	160	234	340x335	S310	240	9
W400/200V1,H1	200	348	435x430	S430	350	12
W400/200V2,H2	200	308	435x430	S390	320	12

V1

vertical floor drain single part

V2

vertical floor drain two - part

H1

H2

horizontal floor drain single part

hori

horizontal floor drain two part





ADVANTAGES

- good match to the interior design,
- cheaper option in comparison to standard drainage channels,
- possible connection to other channel types,
- grating is not required,
- easy installation.

A cheap and simple method for draining the surfaces where high flow capacity is not required. A perfect solution for rooms with condensate dripping from machinery or A/C systems: bakeries, dairies and swimming pools, as a separation of wet and dry areas.

MANUFACTURING TECHNOLOGY

The slot drainage channels are made of 1.5-2 [mm] sheets. They feature inclination and can be adapted to the floor thickness. Water drainage from the slot channel can be via a stub pipe or the trapped floor drain with a waste basket. Standard length of a channel with a single outlet should not exceed 10 [m]. The channel sections exceeding 4 [m] in length are joined by means of flanges with gaskets.

SLOT CHANNELS

MINI SLOT CHANNEL

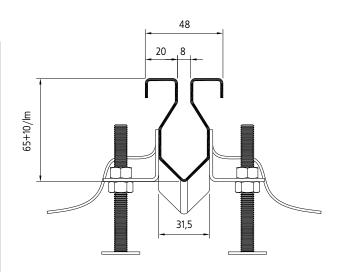
The mini slot channels are made of the 2 [mm] sheet. The channel is not covered with any grating. It has smaller inlet opening and clearance. It is used in the places where smaller amount of water need to be drained

MAXI SLOT CHANNELS

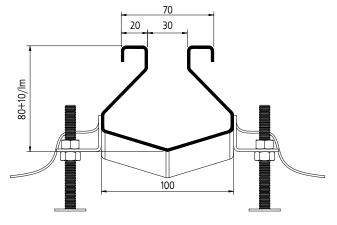
The maxi slot channels are made of the 2 [mm] sheet. This channel does not require grating and features higher flow capacity than standard channels. One of its characteristic features is larger inlet opening and clearance. Used wherever the amount of wastewater to be drained is substantial and standard channel does not need to be used due to the production process requirements (absence of large solids).

STANDARD MINI CHANNEL

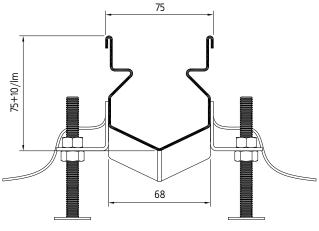
The standard mini channel combines the advantages of the standard and slot channels. It has small dimensions and features gratings. These channel types are used wherever the amount of water to be drained is small, but the rodding eye is necessary. As a standard, such channels are made of 1.5-2 [mm] V2A or V4A sheets.



Mini slot channel



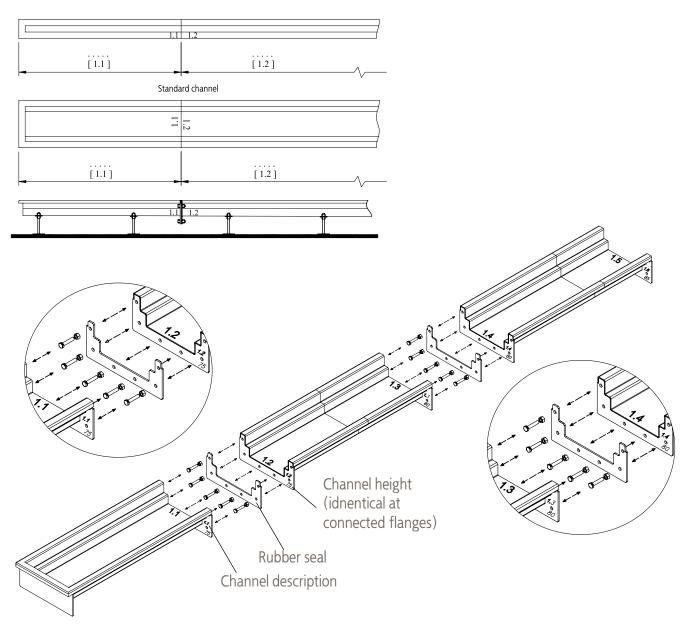
Maxi slot channel



Standard mini channel

LINEAR DRAINAGE

CHANNEL CONNECTION DRAWING



Channels are divided into sections appropriate for transport, as a standard their length does not exceed 4 or 6 meters.

Length of the sections also depends on manufacturing technology.

At the connection point the channel is approximately 25 mm lower, due to the presence of the rim. It is also possible to weld the channel directly at the construction site.

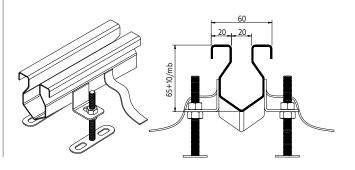


CHANNEL INSTALLATION

- 1. Before installing the channel, bolt all its parts according to the "installation guide" to ensure tightness of all flange connections (flange-gasket-flange).
- 2. Install the channel prepared as above in the sewer service pipe's spigot.
- 3. The next step involves placing the channel on the required level. The channel edge should be
- 1-1.5 [mm] below the floor level.
- 4. When the channel is stabilized, we recommend to secure it against displacement during concrete pouring.
- 5. Pour concrete on the leveling legs and anchoring elements.
- 6. In hard to access areas subjected to highest loads, insert the concrete with a spatula.
- 7. Make sure the elements are clean, free of dirt. Remove gratings, waste baskets and traps.

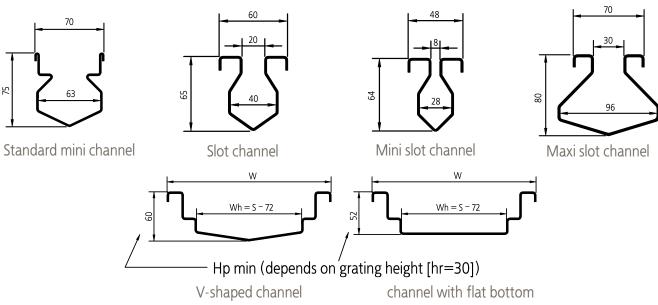
CHANNEL DEPTH

Regarding channels made with the bottom fall, the depth of the channels increases with its length. The channel depth at the outlet depends on the initial height, length and the channel fall (slope). Standard initial depth of the slot channel is 65 [mm], bottom fall equals 1% and the opening width is 20 [mm]. These parameters can be customized to meet the client's requirements.



LINEAR DRAINAGE

MINIMUM INITIAL HEIGHTS FOR STANDARD AND SLOT CHANNELS



EDGES FILLING

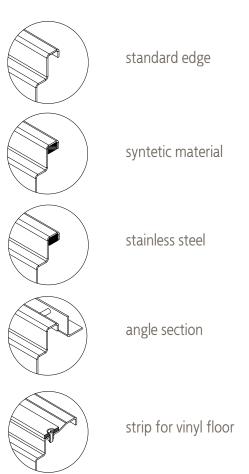
Standard edge (without backfilling).

Edge backfilled with syntetic material. It facilitates installation and prevents formation of a void between the concrete and the edge, protecting the channel perimeter against deformation in case of large loads.

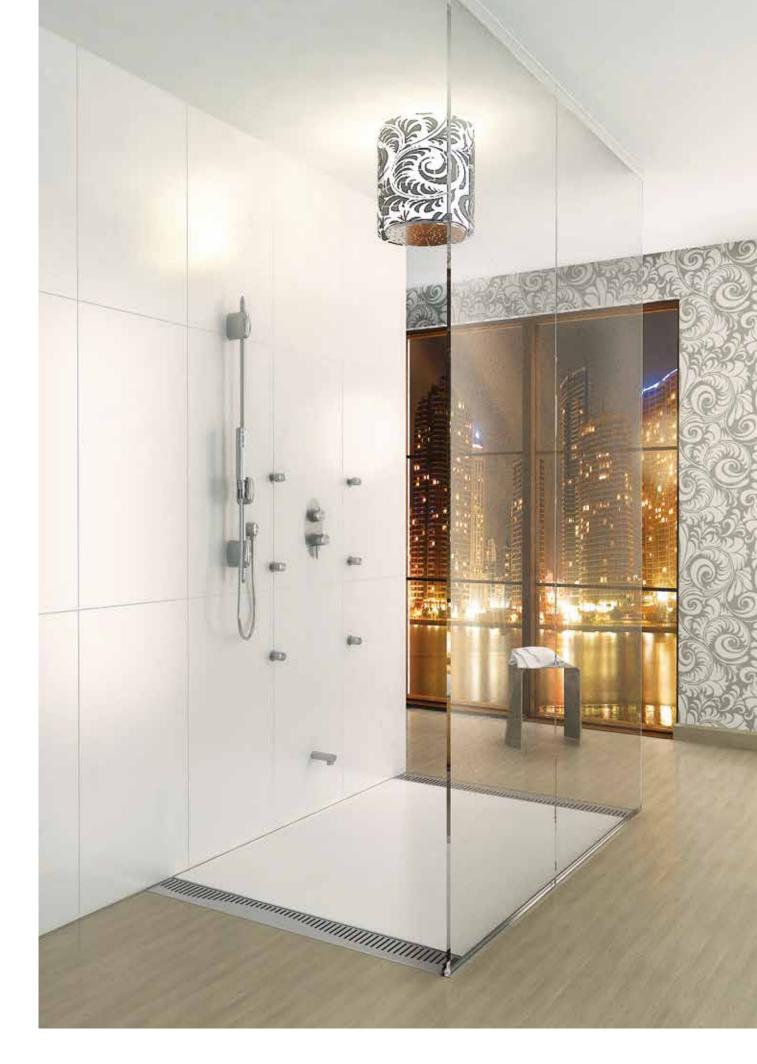
Edge backfilled with stainless steel. The edge backfilled with a steel profile should be used in the areas with intensive traffic and high loads.

Edge with a border angle section. The angle is connected with the channel edge by means of a bar. This edge type is used to make expansion joints along the channel, i.e. when the drained wastewater is hot.

Edge with a strip for vinyl flooring. The strip is installed on the channel edge to ensure tight joint between the channel and the vinyl flooring.

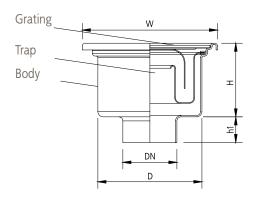


BATHROOM SOLUTIONS



BATHROOM FLOOR DRAINS

BATHROOM FLOOR DRAINS WL100/40 WITH VERTICAL OUTLET



Syn	WI100/40V1	
Catalogue nui	00.063040.02 - *	
	DN	40
	Н	54
Dimensions [mm]	H1	-
Dimensions [mm]	h1	20
	D	77
	W	100x100
	hr	2

Number or symbol of the floor drain needs to be completed with the proper grating symbol.



Cerchio - grating symbol C



Fiore - grating symbol F

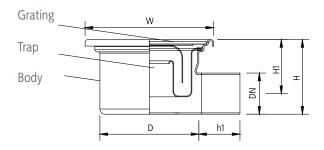


Goccia - grating symbol G

BATHROOM FLOOR DRAINS

(1)

BATHROOM FLOOR DRAINS WL100/32 WITH HORIZONTAL OUTLET



Syn	Wl100/32H1	
Catalogue nur	00.064040.02 - *	
	DN	32
	Н	58
Dimensions [mm]	H1	42
Dimensions [mm]	h1	30
	D	77
	W	100x100
	hr	2

Number or symbol of the floor drain needs to be completed with the proper grating symbol.



Cerchio - grating symbol C

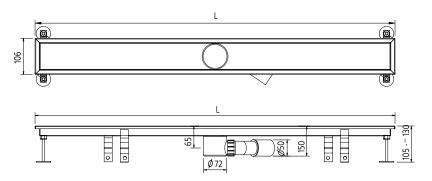


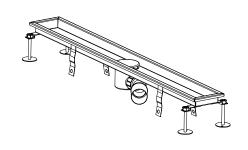
Fiore - grating symbol F



Goccia - grating symbol G







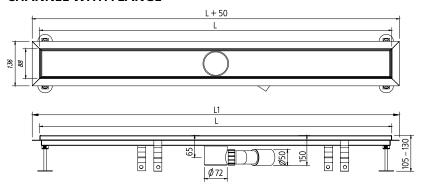
length	polished	sand-blasted
	catalogue no.	catalogue no.
700 mm	00.106007.01-*	00.106007.02-*
800 mm	00.106008.01-*	00.106008.02-*
900 mm	00.106009.01-*	00.106009.02-*
1000 mm	00.106010.01-*	00.106010.02-*
1200 mm	00.106012.01-*	00.106012.02-*

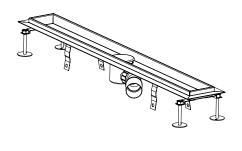
Catalogue number needs to be completed with the grating symbol given below:



SPA CHANNELS

CHANNEL WITH FLANGE





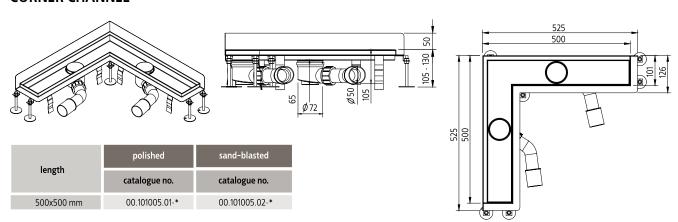
length	polished	sand-blasted
	catalogue no.	catalogue no.
700 mm	00.088007.01-*	00.088007.02-*
800 mm	00.088008.01-*	00.088008.02-*
900 mm	00.088009.01-*	00.088009.02-*
1000 mm	00.088010.01-*	00.088010.02-*
1200 mm	00.088012.01-*	00.088012.02-*

Catalogue number needs to be completed with the grating symbol given below:

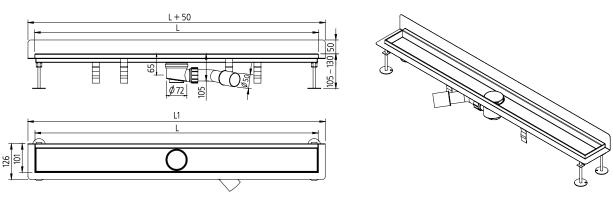


SPA CHANNELS

CORNER CHANNEL



CHANNEL WITH RISED BACK EDGE



length	polished	sand-blasted
	catalogue no.	catalogue no.
700 mm	00.100007.01-*	00.100007.02-*
800 mm	00.100008.01-*	00.100008.02-*
900 mm	00.100009.01-*	00.100009.02-*
1000 mm	00.100010.01-*	00.100010.02-*
1200 mm	00.100012.01-*	00.100012.02-*

Catalogue number needs to be completed with the grating symbol given below:



SHOWER BASE

Shower base is made of stainless steel AISI 304. We use 1.25 [mm] thick decorative metal panel as a production material.

Circle-style pressing finishing ensures the required rigidity of the construction and it also gives the steel anti-slippery attribute.

Runoff to the sewage system is possible through regular bathroom outlets available on the market.

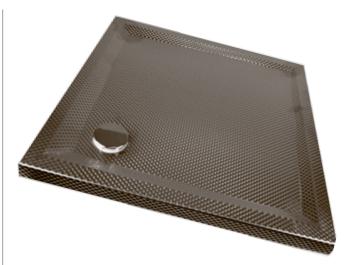
APPLICATION

- all places for disabled people such as health centers, hospitals, rehabilitation facilities,
- bathroom furnishing for premises, sport centers, production halls.

ADVANTAGES

- easy to clean,
- possiblity of using all sorts of disinfectants,
- antibacterial feature of stainless steel,
- comfortable wheelchair entry to shower enclosure without meeting any obstacles on the way,
- easy installation,
- aesthetic look.

catalogue number	dimensions [mm]	height [mm]
00.208008.07	800 x 800	40
00.209009.07	900 x 900	40



STAINLESS STEEL SHOWER BASE



MANHOLE COVERS





Manhole covers come in different shapes and sizes. They are used in industrial and public buildings, i.e. shops, exhibition halls, restaurants, warehouses etc., where it is necessary to have access to the systems installed under the floor. The manhole cover can be finished with floor tiles, terra cotta etc.

The manhole covers are made of the V2A steel and are 3 [mm] thick, which allows for installing them in the areas where sanitary requirements are very strict.

TYPES OF MANHOLE COVERS

Standard manhole covers – consist of upper and lower parts, bolting for safe and stable closing and the 'black steel' reinforcement.

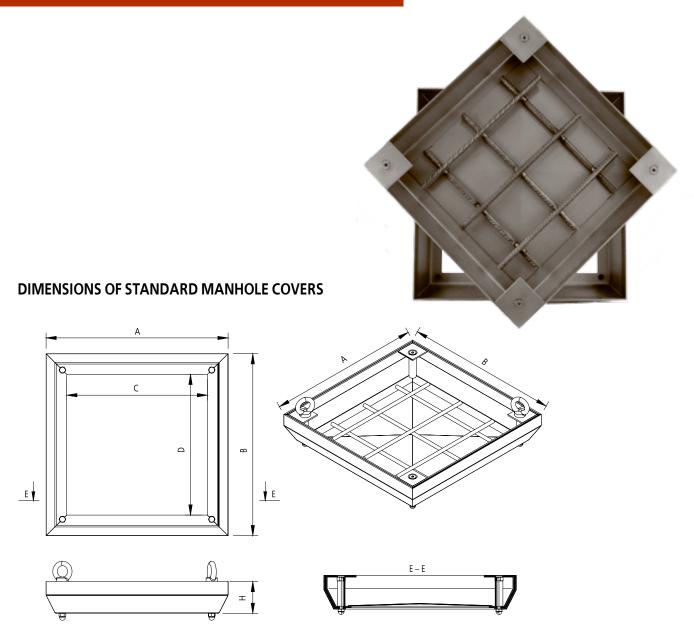
Gas-tight manhole covers - additionally feature an O-ring between the lower and upper part.

ADVANTAGES

- easy access to the systems installed under the floor,
- isolating from outside odours,
- water tightness,
- easy opening,
- high durability,
- aesthetics.



MANHOLE COVERS



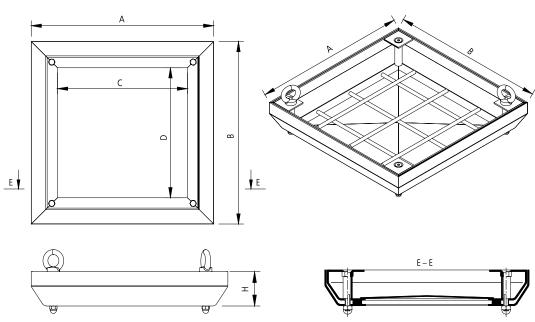
cover type	standard manhole cover	outside dimension A x B [mm]	inside dimensions C x D [mm]	height H [mm]
K 3x3	00.071033.00	300x300	160x160	70
K 4x4	00.071044.00	400x400	260x260	70
K 5x5	00.071055.00	500x500	360x360	70
K 5x7	00.071057.00	500x700	340x540	85
K 6x6	00.071066.00	600x600	440x440	85
K 6x8	00.071068.00	600x800	440x640	85
K 7x7	00.071077.00	700x700	540x540	85
K 8x8	00.071088.00	800x800	620x620	100
K 9x9	00.071099.00	900x900	720x720	100
K 10x10	00.071010.00	1000x1000	820x820	100

Ø10 bar is used for all types of manhole covers made of carbon steel.

MANHOLE COVERS



DIMENSIONS OF GAS-TIGHT MANHOLE COVERS



cover type	gas-tight manhole cover	outside dimension A x B [mm]	inside dimensions C x D [mm]	height H [mm]
K 3x3	00.070033.00	300x300	160x160	70
K 4x4	00.070044.00	400x400	260x260	70
K 5x5	00.070055.00	500x500	360x360	70
K 5x7	00.070057.00	500x700	340x540	85
K 6x6	00.070066.00	600x600	440x440	85
K 6x8	00.070068.00	600x800	440x640	85
K 7x7	00.070077.00	700x700	540x540	85
K 8x8	00.070088.00	800x800	620x620	100
K 9x9	00.070099.00	900x900	720x720	100
K 10x10	00.070010.00	1000x1000	820x820	100

Ø10 bar is used for all types of manhole covers made of carbon steel.

MANHOLE COVERS

Aluminum manhole covers are available in different shapes and sizes. They are used in industrial objects and public buildings, i.e. shops, exhibition halls, restaurants, warehouses etc., where it is necessary to have access to the systems installed under the floor. The manhole cover can be finished with floor tiles, terra cotta etc.





cover type	gas-tight aluminium manhole cover	outside dimension A x B [mm]	inside dimensions C x D [mm]	height H [mm]
K 3x3	00.080033.00	320x320	200x200	77
K 4x4	00.080044.00	420x420	300x300	77
K 5x5	00.080055.00	520x520	400x400	77
K 6x6	00.080066.00	620x620	500x500	77
K 7x5	00.080075.00	720x520	600x400	77
K 7x7	00.080077.00	720x720	600x600	77
K 8x8	00.880088.00	820x820	700x700	77
K 9x7	00.080097.00	920x720	800x600	77
K 9x9	00.080099.00	920x920	800x800	77
K 11x7	00.080017.00	1120x720	1000x600	77
K 11x9	00.080019.00	1120x920	1000x800	77
K 11x11	00.080011.00	1120x1120	1000x1000	77

The following installation requirements must be met for the manhole to be used successfully:

- 1. During installation, the lower and upper part must be joined.
- 2. To avoid frame distortion (which can seriously damage the products and make it unable to use) place the distance pieces between the edges of upper and lower part.
- 3. Level and place the cover on previously made manhole.

- 4. The cover is stabilized with concrete with plastic consistency.
- 5. The upper part with reinforcement should be filled with the B30 or higher concrete class, depending on the dimensions and load.
- 6. The concrete should be poured to the height that enebles future installation of the floor.

MEDIA BOXES

Used in the areas where it is necessary to have access to telephone or electrical cables installed in the floor. The junction boxes can be used in public buildings, supermarkets, shopfloor, warehouses and other places, where a periodic need to connect a device or open a sales stand. The boxes are made of V2A or V4A steels. The body has the thickness of 2 [mm] and the cover with 5 [mm] lid.

All components are welded in the argon shield, subsequently etched and anti-corrosion protected. The box features glazed cover with a bolted gasket and swinging lid. Lid closing secures the box against unauthorised entry.



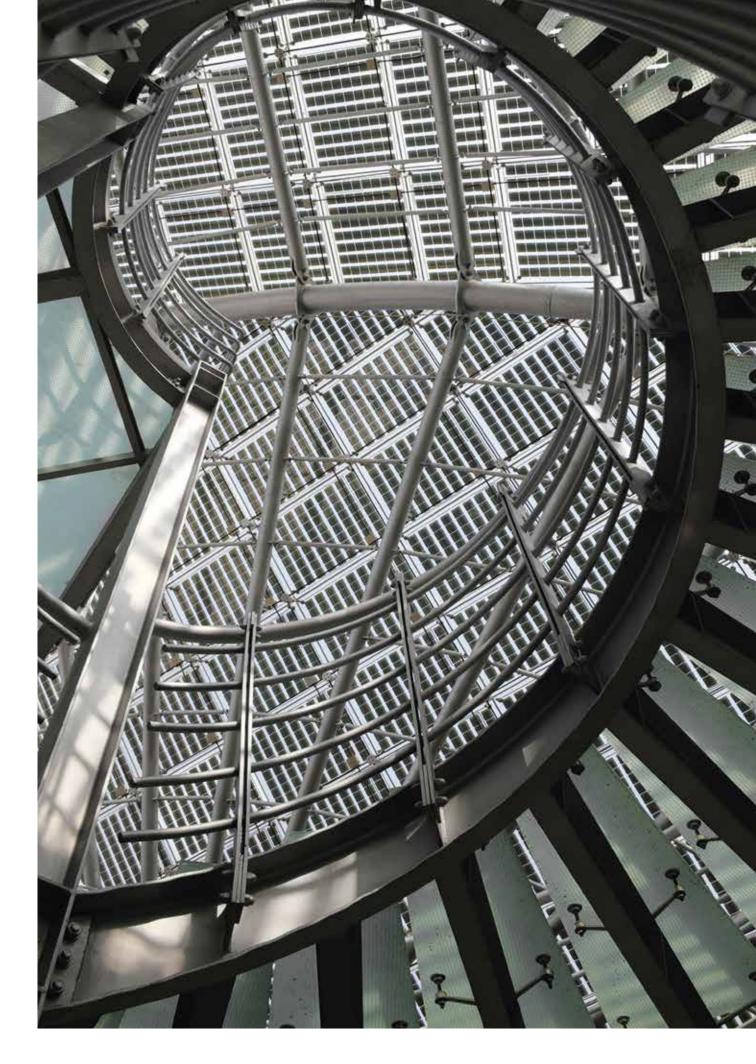
We manufacture single-chamber boxes SK1, double-chamber SK2 and bespoke multi-chamber on request.

Note!

The dimensions shown in the table below are for guidance purpose only and can be modified on Customer's request.

type	catalogue number	outside dimension A x B [mm]	inside dimension C x D [mm]	height H [mm]
SK-1	90001	168x300	114x242	70
SK-2	90002	300x300	242x242	70

SMALL ARCHITECTURE ELEMENTS



LAWN EDGING



Lawn edgings are made of stainless steel AISI 304. They are used as a flexible separation of green areas in parks and gardens.

CHARACTERISTIC

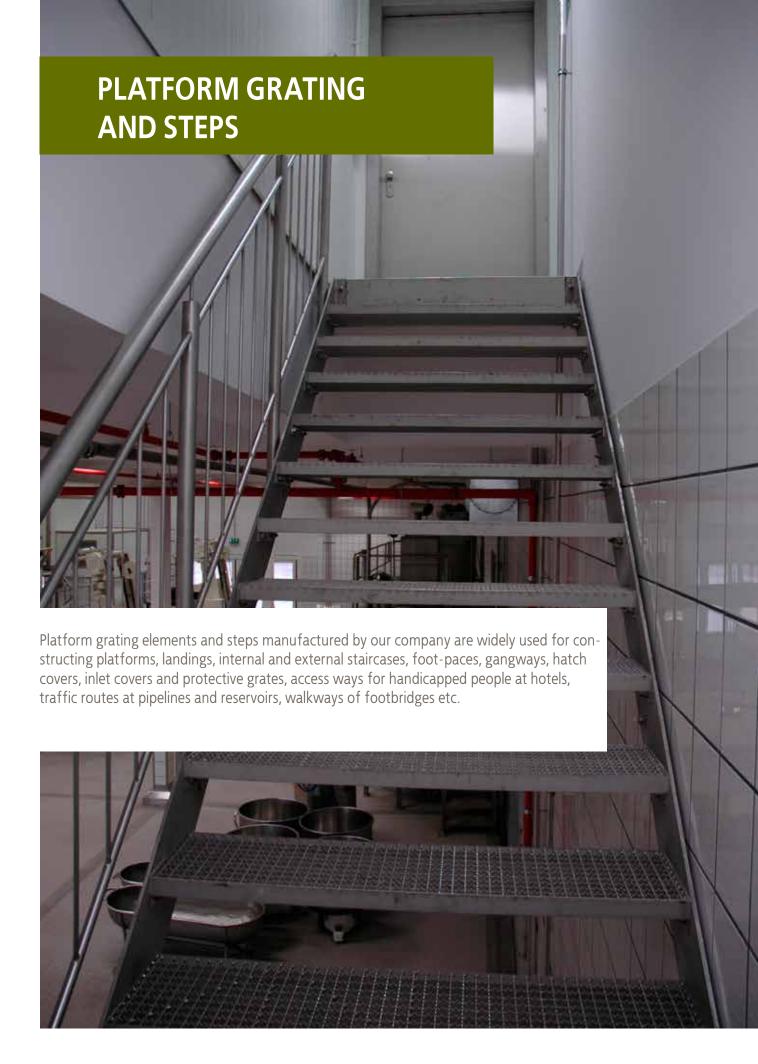
- flexibility,
- durability and resistance to fertilizers,
- sharp or tightly folded edges,
- simple installation using stainless steel special profile pins,
- standard height, wide scope of length.

STANDARD DIMENSIONS

- production length: 500, 1000, 1500, 2000, 3000 mm,
- width 175 mm,
- metal sheet thickness: 1; 1.5 mm.
- * There is possible to modify dimensions and the thickness of metal sheet according to individual Clients' requirements.

length	height	sheet	catalogue	e number
[mm]	[mm]	thickness [mm]	sharp edges	tightly folded edges
500	175	1	00.175005.01	01.175005.01
1000	175	1	00.175010.01	01.175010.01
1500	175	1	00.175015.01	01.175015.01
2000	175	1	00.175020.01	01.175020.01
3000	175	1	00.175030.01	01.175030.01
500	175	1,5	00.175005.02	01.175005.02
1000	175	1,5	00.175010.02	01.175010.02
1500	175	1,5	00.175015.02	01.175015.02
2000	175	1,5	00.175020.02	01.175020.02
3000	175	1,5	00.175030.02	01.175030.02





PLATFORM GRATING AND STEPS

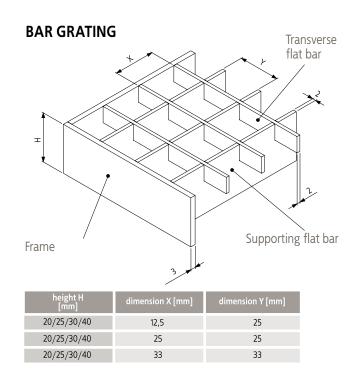
These products are used in all kinds of construction projects, irrespective of the industry branch, improving work safety and comfort and also easily blending into the surroundings.

Our products, manufactured of stainless steel, meet high strength standards, are resistant to unfavorable environmental conditions, are maintenance-free, guarantee work safety and stability. The feeling of stability is also important from psychological viewpoint, especially for users of platforms and gangways constructed in high locations.

WE OFFER TWO KINDS OF PLATFORM GRATINGS

Stainless steel bar grating - transverse bars are titghtly fit in supporting bars and welded in a 3 [mm] thick frame afterwards.

Serrated grating – thanks to cuts applied on supporting bars, serrated gratings are characterized by increased friction coefficient - it improves their antislip properties. Serrated grating are used in a places threatened by the presence of snow, ice, humidity or lubricants.





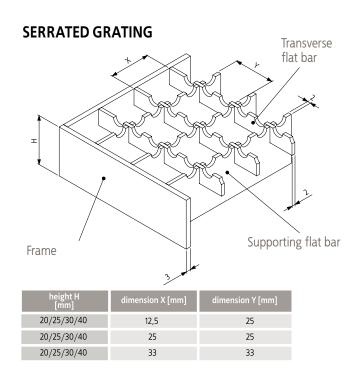


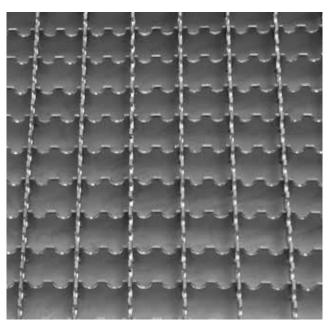
DESCRIPTION

Supporting flat bars – flat bars that carry the load of grating and are placed vertically at equal distances from each other.

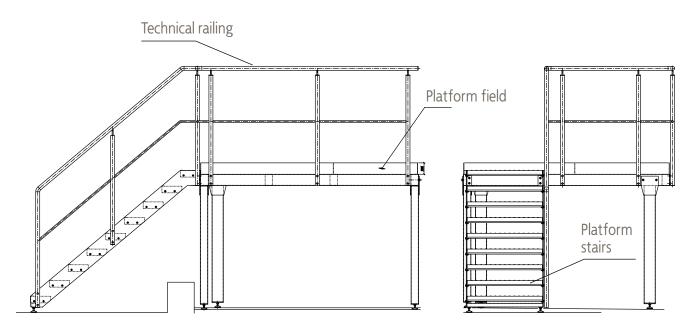
Transverse flat bars – link all supporting bars by their tight fitting in slots and by welding.

Mesh size – distance between axes of adjacent supporting and transverse bars.





PLATFORM GRATING AND STEPS



DIMENSIONS OF STEPS [mm]

L		600			800			900			1000			1200	
В	240	270	305	240	270	305	240	270	305	240	270	305	240	270	305
h						su	pporting flat	t bars dimer	nsions						
n	120	150	180	120	150	180	120	150	180	120	150	180	120	150	180



STAINLESS STEEL STEPS

Steps can be constructed using platform grating, however the step is fitted with special side framing that enables fast and easy assembly to the supporting structure.

It is also fitted with anti-slip front panel with special perforation on the upper surface. Appropriate profile

of the strip also stiffens the structure of the step itself. Steps can be manufactured in any dimensions.

- L carrying lenght
- B step's width
- h step's height
- n -holes spacing

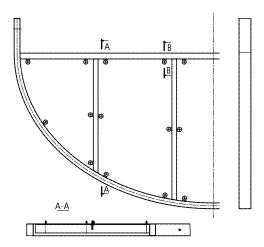


ROOFS



half-round roof

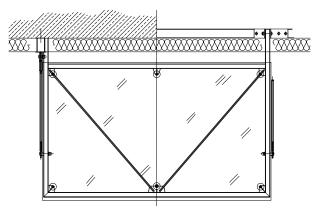
CONSTRUCTION OF HALF-ROUND ROOF



ATT roofs combine practical and aesthetic function of entrances to any building.

The roofs solutions offered by us, including bracing elements, are made of stainless steel. These products are characterized by exceptional quality and durability, which guarantee long lifetime. They are available upon special order.

CONSTRUCTION OF RECTANGULAR ROOF



Rectangular roof





ATT steel plates are made of 2 [mm] thick stainless steel. They are resistant to any damages and breakages that occur in any industry or transport. Having considered the highest quality and aesthetics standards that need to be kept by our products, as well as hygienic and ecological requirements imposed by e.g. food industry, we introduced anti-corrosion, aesthetic and durable stainless steel products.

APPLICATION

- heavy industry plants,
- food industry plants,
- production halls,
- warehouses, storage yards,
- printing houses,
- loading ramps,
- foundries, steel plants.

ADVANTAGES

- high durability,
- safety,
- lack of work connected to floor renovation,
- technical advice during the whole order processing time,
- installation on Customer's request.



FOOD PROCESSING



TRANSPORT TROLLEYS

We offer wide range of tranport carts for food processing industry: transport trolleys, smokehouse trolleys "Z" and "H" types, treolleys for cutting-ups, for stuffing, meat processing tubs, containers for cooling meat, ice defrosting carts, transport baths, platform trolleys,

tray trolleys, gastronorm trolleys etc.
Below we offer selected products, full range of food processing elemets you will find in our on-line catalogue at www.att.eu.

TRANSPORT TROLLEY FOR EURO CONTAINERS

catalogue number	type of wheels [mm]	dimensions [mm]
3270100	plastic	410 x 655
3271100	plastic	410 x 655
3280100	plastic	610 x 870
3281100	plastic	610 x 870

We also offer tranport trolley with holder, trolley for transport carts, grip for transport trolley etc.



TROLLEY FOR STUFFING

catalogue number	description	dimensions [mm]
3270100	capacity 120 l	410 x 655
3271100	capacity 200 l	410 x 655
3280100	capacity 300 l	610 x 870
3281100	capacity 200 perforated	610 x 870
3280100	capacity 200 l with dripping lip	610 x 870
3281100	capacity 300 l with dripping lip	610 x 870

We offer trolley for stuffing with dripping lip, with flat edge with different capacity: 1201, 2001 and 3001.



H-TYPE SMOKEHOUSE TROLLEY

catalogue number	description	dimensions [mm]
6521900	6 shelves, for stick 1000 mm long	1021 x 985 x 1970
6521901	6 shelves, for stick 1000 mm long and trays 920 x 948	1021 x 985 x 1970

Trolleys are available in "Z" and "H" structure type, for smoking stics and trays. We also offer smoking sticks "Star".





HYGIENE

Our range of hygiene products constists of footwear, apron, shoe sole washer, pass-through high footwear washer, hand disinfecting station, integrated hygiene station, sterilizer for saws and axes, central sterilizer for knives, drier for footwear, footwear stand, apron

hanger, dispenser for disinfectants and cleansers, handwipe dispensers., washbasins etc.
Below we present selected offer, for more information please visit our web site and www.att.eu.

HYGIENE STATION

catalogue number	dimensions [mm]
9950416 + version options	2400 x 1000 x 1663

Options:

- "L" turnstile on the left side, or
- "P" turnstile on the right side,
- "NO" turnstile activated in case of power suply failure,
- 1 turnstile rotates in one direction when there is no power supply, or
- 2 turnstile rotates in both directions when there is no power supply.



STERILIZER FOR KNIVES

catalogue number	type	dimensions [mm]	dimensions [mm]
5200100-002	for knives 1000W	150 x 110 x 270	200 x 160 x 385
5200200	for knives and axes, 2000 W	325 x 175 x 500	375 x 225 x 575
5200100-023	for 10 knives, 2 x 1000 W	300 x 110 x 270	350 x 160 x 385

We offer sterilizers for knives, saws and axes. We also provide sterilizer inserts, shelves for sterilizer insersts, UV sterilizer.



HYGIENE

SANITARY WALL UNIT

catalogue number	dimensions [mm]	options
5310500-012	950 x 950	photocell-type
5310100-019	950 x 950	knee-type
5310500-015	950 x 950	with sterilizer (photocell washbasin)

Sanitary wall unit consists of the following elements:

- washbasin with a switch knee or sensor type,
- soap and disinfectant dispenser,
- paper dispenser,
- waste paper bin,
- wall protective screen.



WASHBASIN TROUGH WITH A KNEE SWITCH

catalogue number	no. of stands	dimensions [mm]
51002WH-003	2	1300 x 500 x 710
51003WH-004	3	1900 x 500 x 710
51004WH-005	4	2500 x 500 x 710

Optionally we offer soap, washing liquid and towel dispensers, as well as paper bins to our multistand washbasin troughs.



MANUAL FOOTWEAR WASHER

catalogue number	dimensions [mm]
6871400	400 x 510 x 420

We offer wide range of shoe sole and footwear washers; manual, with sensor switch, with adjusted feet's height etc. according to the specific requirements.



FURNITURE

All furniture is made of stainless steel and meets the most rigorous sanitary requirements. As such, it is perfect choice for food processing, pharmaceutical and chemical industries, restaurants etc.

The basic range is as follows:

- tables (for carcass partitioning, auxiliary, for packing, with edge and drainage, with drawers),
- tables-cum-cabinets (with swinging doors, drawers),
- cabinets (ordinary, material),
- small tables (standing, on castors).

Extended range includes also:

- pallets,
- pallet boxes,
- **ORDINARY CABINETS**

catalogue number	width [mm]	depth [mm]	height [mm]
Sz80/180	800	600	1800
Sz80/210	800	600	2100
Sz100/180	1000	600	1800
Sz100/210	1000	600	2100

MATERIAL CABINETS

catalogue number	width [mm]	depth [mm]	height [mm]
SzM80/180	800	600	1800
SzM80/210	800	600	2100
SzM100/180	1000	600	1800
SzM00/210	1000	600	2100

NOTE! the dimensions can be modified on Customers' request.

- transporting counters,
- abattoir bathtubs.
- containers.
- bespoke, customized elements according to Clients' design and specification.

We can also offer you the professional consulting services to help you choose the best solution. On top of that, the non-standard components can be modified (in terms of dimensions, finishing or structural reinforcement).





FURNITURE

TABLES CARCASS PARTITIONING

catalogue number	width [mm]	depth [mm]	height [mm]
SJ50/85	600	500	850
SJ60/85	700	600	850
SJ70/85	800	600	850
SJ80/85	900	600	850



TABLES WITH SINKS

catalogue number	width [mm]	depth [mm]	height [mm]
SS140/70	1400	700	850
SS160/70	1600	700	850
SS180/70	1800	700	850
SS200/70	2000	700	850
SS220/70	2200	700	850



TABLES CUM-CABINETS WITH SWINGING DOORS

catalogue number	width [mm]	depth [mm]	height [mm]
SzSD120/70	1200	700	850
SzSD140/70	1400	700	850
SzSD160/70	1600	700	850
SzSD180/70	1800	700	850
SzSD200/70	2000	700	850



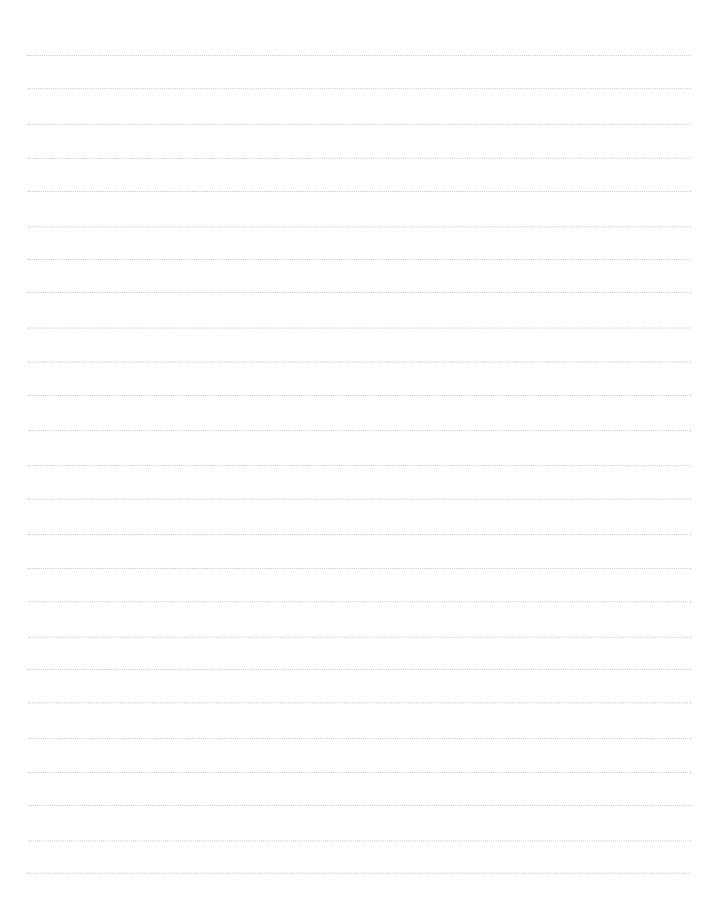
TABLES- CUM-CABINETS WITH DRAWERS

catalogue number	width [mm]	depth [mm]	height [mm]
SzSS120/60	1200	600	850
SzSS160/60	1600	600	850
SzSS200/60	2000	600	850
SzSS120/70	1200	700	850
SzSS160/70	1600	700	850
SzSS200/70	2000	700	850

NOTE! The dimensions can be modified on Customers' request.



NOTES



NOTES

We reserve the right to make modification in this catalogue, including changes in price, content, description at any time without previous notice.

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