

SIFONE

HL

ABLÄUFE

Ø 315

260 x 260

55-130

260

HL® Major drains

Terraces, patios,
car parks a.s.o.

PERFECT SERIES

DN110

HL® Major drains PERFECT SERIES

Basic information about design and installation

When designing big open spaces, car parkings or roof terraces, the drainage of rain water becomes more and more important due to the increasing rainfall. For this reason we would like to bring closer to you the different combination possibilities of our drain series „Perfect“.

▲ Calculation of the quantity of drains:

For the calculation of the quantity of the fitting drains we recommend to use as a basis the standard rain yield factor of 300 l / (s x ha), according EN12056. Please find examples in chapter „Flat roof drains“.

▲ Adjustment of the grate level to the level of the pavement:

When connecting the drain to the sewage pipe, one has often the problem, that the final height level is not yet fixed or known. That means, that in advance it is nearly impossible to reach the right final level of the pavement.

Therefore we recommend the usage of two-part drains: First you connect the drain body to the sewage pipe; in this phase the drain body works as a temporary drainage. When the further pavement (asphalt, concrete, cobblestone..) is known, the extension is set on the drain body and may be adjusted in height simply by cutting. That eases the creation of the slope to the drain.

▲ Load classifications

When selecting the drain please take care to use the right load classification according EN1253. With our „Perfect“-series you may reach load classifications A015, B125, H1,5, K3, L15 and M125, depending on the material of the grate or the frame. At the installation you have to care for a stable relining of the frame to reach a smooth force distribution to the subsoil.

▲ May plastic drains be used also for mastic asphalt?

The advantages of plastic drains, namely low weight and therefore easy handling, are wellknown. By using combinations of plastic drain bodies and massive cast iron frames and grates the direct setting into mastic asphalt with high temperatures is possible.

▲ Stench trap

In principle rainwater should be connected to a special rainwater duct or should be drained away (acc. DIN1986-100). Should this not be possible, one should avoid the rise of stench from the sewage system to the drain by using traps. For inside HL provides normal water traps, for outside we recommend the usage of frost-proof flaps.

Relevant standards/directives

ÖNorm B 2501 Drainage of buildings
 EN 124 Gratings and grates for public area
 DIN 1986-100..... Drainage systems for buildings and estates
 EN 1253 Drains for buildings

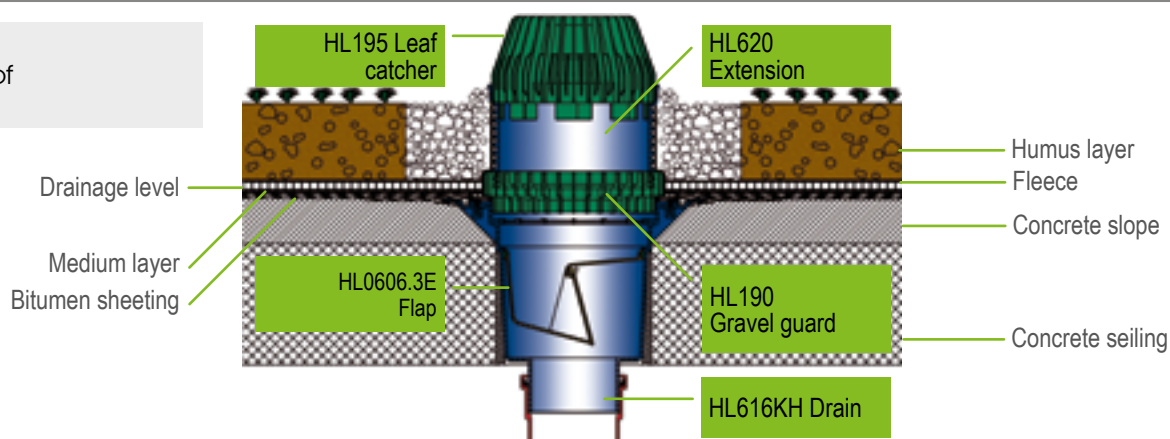
ÖNorm B2209 Waterproofing works
 ÖNorm B2220 Roof waterproofings with bitumen and plastic sheetings
 ÖNorm B7209 Waterproofings for buildings
 ÖNorm B7220 Roofs with waterproofings

Selection of the convenient drain

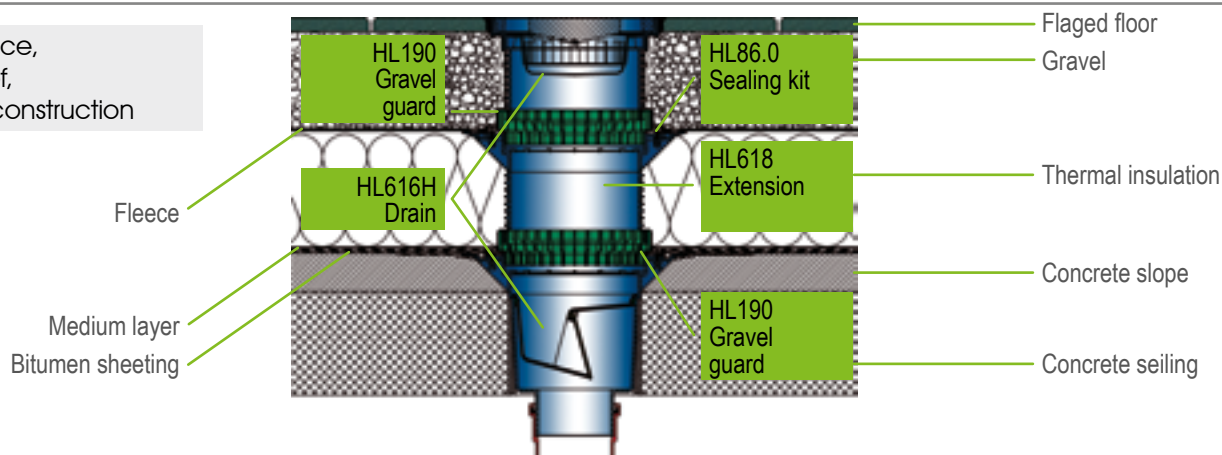
Selective criteria	Requirements	Product
Drainage surface	When you calculate the quantity of occurring rain water acc. ÖNORM B2501 and DIN 1986-100, you have to use at least the standard rain yield factor of 300 l/ (s x ha). Quantity of rain water = 0,030 l/s x Drainage surface Quantity of drains = $\frac{\text{Absolute quantity of rain water}}{\text{Capacity of the gully}}$	For calculating the right drain and the requested quantity of drains please note the capacity of the particular product.
Floor construction	To find out, what is the best composition of the drain, like extension (with or without flange), gravel guard or heating, a detailed plan of the different layers is necessary.	Extension (with or without flange) Sealing kit Gravel guard Eventually heating
Waterproofing	Please prefer drains with prefabricated bitumen flanges, when the floor is sheeted with bitumen. For all other waterproofing materials you can use the sealing set, which fits to the used waterproofing material. Bitumen waterproofings, liquid bitumen sheetings or compounds Polymer sheetings like PVC Liquid compounds	Drain vertical HL616(.1)H Drain horizontal HL615(.1)H Drain vertical HL616(.1) + Sealing kit HL86.0 Drain horizontal HL615(.1) + Sealing kit HL86.0 Drain vertical HL616(.1) + Sealing kit HL86.M Drain horizontal HL615(.1) + Sealing kit HL86.M
Load classifications	The load classifications of the different drains are depending on the material of the frame or the grate. Load classifications according EN 124: Classification A up to max. 1,5 t for cast iron, plastic(L) and stainless steel(S) frame Classification B up to max. 12,5 t for cast iron frame and grate	Drain horizontal: HL605(L)(S), HL615(L)(S) Drain vertical: HL606(L)(S), HL616(L)(S) Drain horizontal: HL605.1, HL615.1 Drain vertical: HL606.1, HL616.1

HL® Major drains PERFECT SERIES – Sectional drawings

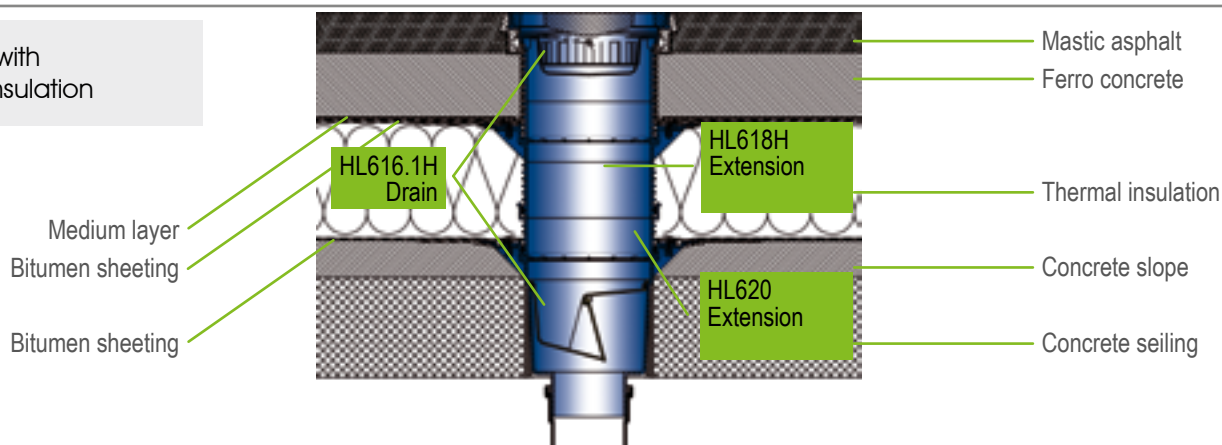
Green roof



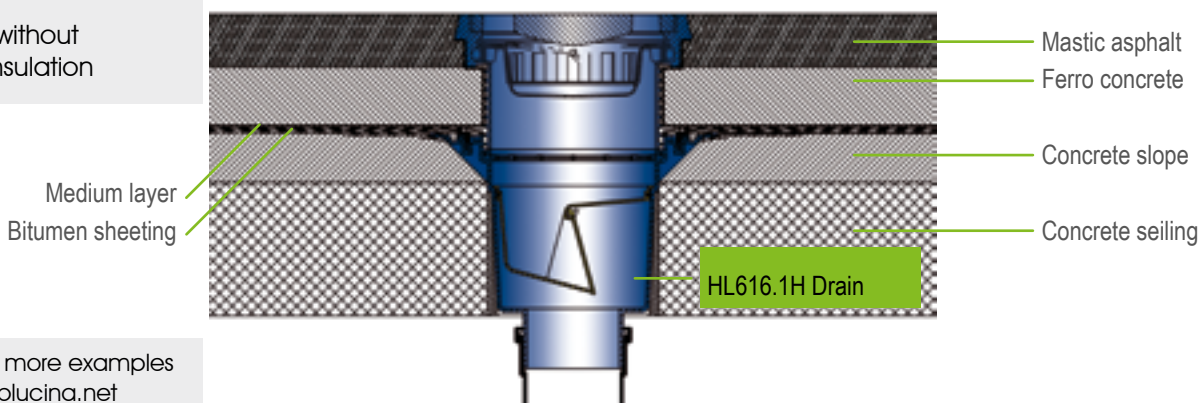
Roof terrace,
Warm roof,
Inverted construction



Car park with
thermal insulation



Car park without
thermal insulation



Please see more examples
at <http://hl.blucina.net>

HL[®] Major drains PERFECT SERIES – Installation

Installation example HL616H



1. Create taphole with Ø 300 mm,
apply prime coat, apply first bitumen layer



2. Insert major drain HL616H



3. Weld on the bitumen flange on the first bitumen layer



4. Connect second bitumen layer with the bitumen
flange



5. Ready connection of the drain to the two-layer
waterproofing



6. Remove lid cover, adjust the extension in height by
cutting



7. Cover the extension with the fleece, lay on the
construction steel



8. Pour out with concrete



9. Remove the grate and insert the gravel catcher



10. Ready

HL® Major drains PERFECT SERIES – Products – Overview

Drains



Product	HL605(L)(S)	HL605.1	HL615(L)(S)	HL615.1	HL615H(L)(S)	HL615.1H
Description	Major drain horizontal with plastic frame, one-piece	Major drain horizontal with cast iron frame, one-piece	Major drain horizontal with flange and plastic frame, two-piece	Major drain horizontal with flange and cast iron frame and grate, two-piece	Major drain horizontal with bitumen flange and plastic frame, two-piece	Major drain horizontal with bitumen flange and cast iron frame and grate, two-piece
Function	HL605 with cast iron grate, HL605L with plastic grate, HL605S with stainless steel grate	Load classification B – max. 12,5 t	HL615 with cast iron grate, HL615L with plastic grate, HL615S with stainless steel grate	Load classification B – max. 12,5 t	HL615H with cast iron grate, HL615HL with plastic grate, HL615HS with stainless steel grate	Load classification B – max. 12,5 t

Extensions

Product data see chapter „Sealing kits / Extensions“



Product	HL620	HL618	HL618H
Description	Standard extension	Extension with flange	Extension with bitumen flange
Function	Elongation of the extension	Adjustment of the drain in height to the sealing level	Adjustment of the drain in height to the bitumen waterproofing level

Extensions



Product	HL621	HL622	HL622/S	HL623	HL624 / HL624V
Description	Extension with plastic frame and cast iron grate	Extension with plastic frame and screwable stainless steel grate	Extension with plastic frame and screwable V4A stainless steel grate	Extension with plastic frame and screwable plastic grate	Extension with cast iron frame and cast iron grate, HL624V: screwable
Function	fits to all major drains	fits to all major drains	fits to all major drains	fits to all major drains	fits to all major drains

HL® Major drains PERFECT SERIES – Products – Overview

Drains



HL606(L)(S)	HL606.1	HL616(L)(S)	HL616.1	HL616H(L)(S)	HL616.1H
Major drain vertical with plastic frame, one-piece	Major drain vertical with cast iron frame and cast iron grate, one-piece	Major drain vertical with flange and plastic frame, two-piece	Major drain vertical with flange, cast iron frame and cast iron grate, two-piece	Major drain vertical with bitumen flange and plastic frame, two-piece	Major drain with bitumen flange, cast iron frame and cast iron grate, two-piece
HL606 with cast iron grate, HL606L with plastic grate, HL606S with stainless steel grate	Load classification B – max. 12,5 t	HL616 with cast iron grate, HL616L with plastic grate, HL616S with stainless steel grate	Load classification B – max. 12,5 t	HL616H with cast iron grate, HL616HL with plastic grate, HL616HS with stainless steel grate	Load classification B – max. 12,5 t

Accessories

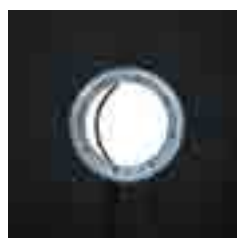


Product	HL190	HL195	HL191	HL609	HL619
Description	Gravel guard	Leaf catcher	Gravel trap	Heating kit	Fixing lugs
Function	Drainage of rainwater on the sealing level, e.g. with inverted constructions	For non-walkable surfaces like gravel, grass	For flaged floors, set into gravel embankment, below the slab	For the heating of the drain, to avoid ice	For fixing the drain and the extension

Sealing kits



Product data see chapter
„Sealing kits / Extensions“



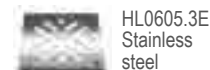
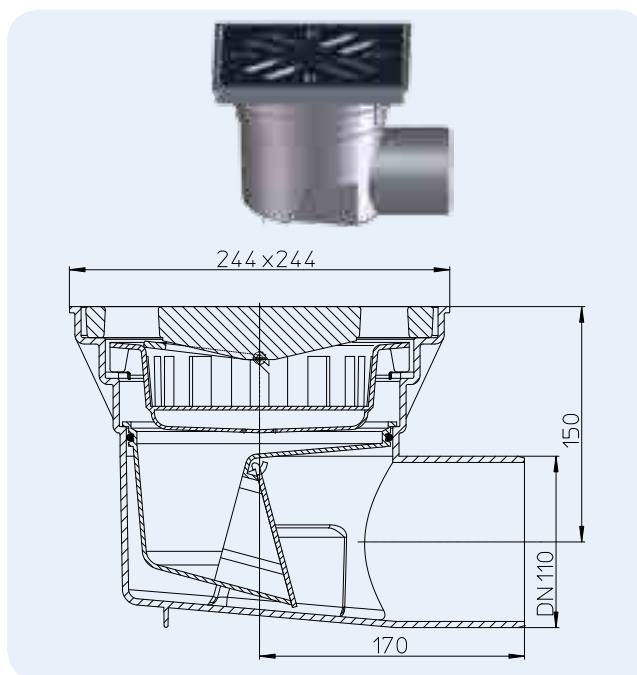
Product	HL86.0	HL86	HL86.M	HL86.H
Description	Sealing kit without foil	Sealing kit with EPDM-foil	Sealing kit with textile coated membrane	Sealing kit with bitumen membrane
Function	For clamping of local waterproofings	For bitumen coatings and EPDM-foils	For liquid sealing compounds	For bitumen waterproofings and liquid bitumen compounds

HL® Major drains PERFECT SERIES – Products – Data

HL605 Major drain PERFECT with plastic frame

Data

Capacity	HL605, HL605L, HL605S (with frost-proof flap): 4,20 l/s HL605W, HL605LW, HL605SW (with water trap): 2,50 l/s
Material	PP
Connection dimension	DN110
Outlet	horizontal
Grate	226 x 226 mm HL605, HL605W: Cast iron HL605L, HL605LW: Plastic HL605S, HL605SW: Stainless steel
Stench trap	HL605, HL605L, HL605S: Frost-proof flap HL605W, HL605LW, HL605SW: Water trap
Standard	EN 124
Load classification	A – max. 1,5 t
Additional information	Recess dimension min. 300 x 360 mm Heating set HL609 for heating of the drain body available

HL605.3E
Stainless steelHL605.1E
PlasticHL606.1E
Cast iron

HL606.2E



HL606.3E



HL606.2E



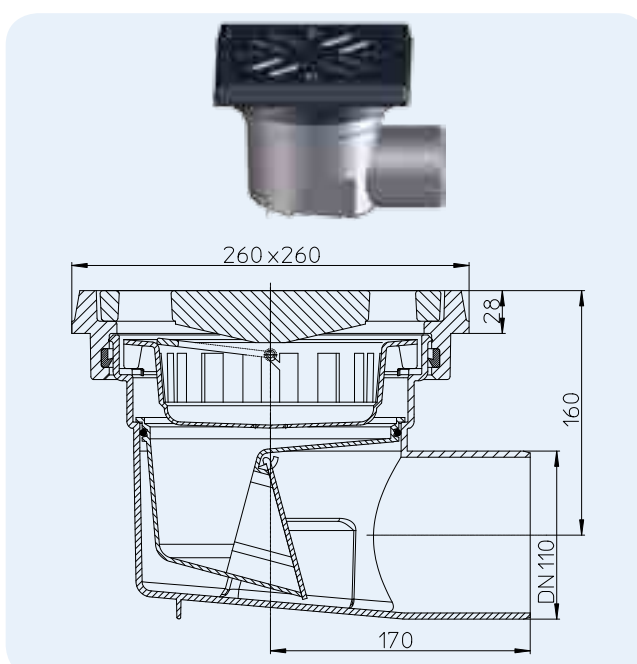
HL605K

HL-No.	Dimension	Weight	Stench trap	Grate	EAN	Piece/ package
605	DN110	7025 g	Frost-proof flap	Cast iron	+006687	1
605L	DN110	1495 g	Frost-proof flap	Plastic	+009336	1
605S	DN110	2790 g	Frost-proof flap	Stainless steel	+010882	1
605W	DN110	6980 g	Water trap	Cast iron	+011070	1
605LW	DN110	1495 g	Water trap	Plastic	+009350	1
605SW	DN110	2790 g	Water trap	Stainless steel	+011117	1

HL605.1 Major drain PERFECT with cast iron frame and cast iron grate

Data

Capacity	HL605.1 (with frost-proof flap): 4,20 l/s HL605.1W (with water trap): 2,50 l/s
Material	PP
Connection dimension	DN110
Outlet	horizontal
Grate	Cast iron 226 x 226 mm, Cast iron frame 260 x 260 mm
Stench trap	HL605.1: Frost-proof flap HL605.1W: Water trap
Standard	EN 124
Load classification	B – max. 12,5 t
Additional information	Recess dimension min. 300 x 360 mm Heating set HL609 for heating of the drain body available



HL606.1E



HL606.2E



HL606.3E



HL606.2E

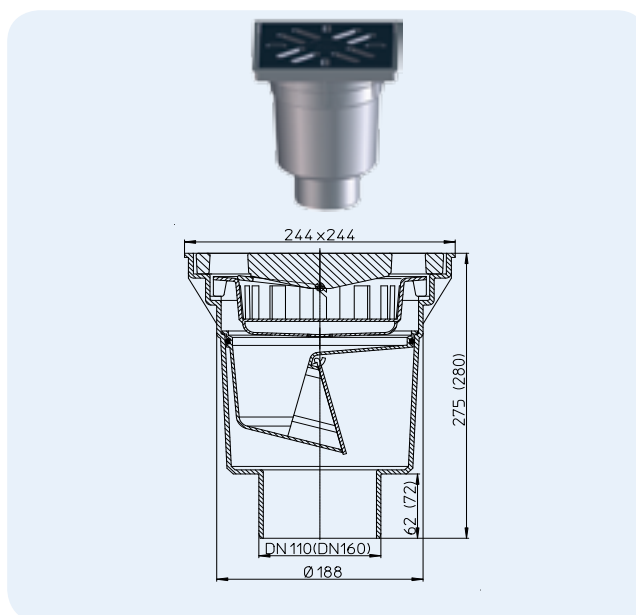


HL605.1K

HL-No.	Dimension	Weight	Stench trap	Grate	EAN	Piece/ package
605.1	DN110	11815 g	Frost-proof flap	Cast iron	+006700	1
605.1W	DN110	11810 g	Water trap	Cast iron	+011094	1

HL606 Major drain PERFECT with plastic frame**Data**

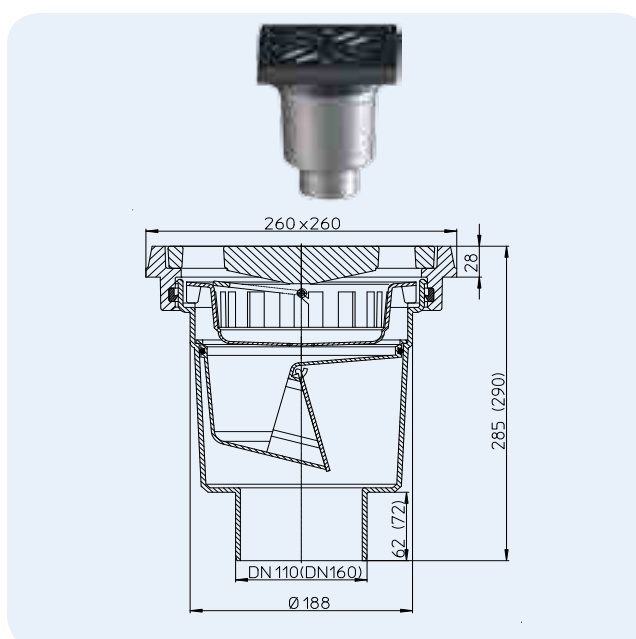
Capacity	HL606/1, HL606L/1, HL606S/1, HL606/5, HL606L/5, HL606S/5 (with frost-proof flap, DN110 or DN160): 4,30 l/s HL606W/1, HL606LW/1, HL606SW/1, HL606W/5, HL606LW/5, HL606SW/5 (with water trap, DN110 or DN160): 2,10 l/s PP
Material	
Connection dimension	DN110 or DN160
Outlet	vertical
Grate	226 x 226 mm HL606/1, HL606/5, HL606W/1, HL606W/5: Cast iron HL606L/1, HL606L/5, HL606LW/1, HL606LW/5: Plastic HL606S/1, HL606S/5, HL606SW/1, HL606SW/5: Stainless steel
Stench trap	HL606/1, HL606L/1, HL606S/1, HL606/5, HL606L/5, HL606S/5: Frost-proof flap HL606W/1, HL606LW/1, HL606SW/1, HL606W/5, HL606LW/5, HL606SW/5: Water trap
Standard	EN 124
Load classification	A – max. 1,5 t
Additional information	Heating set HL609 for heating of the drain body available



HL-No.	Dimension	Weight	Stench trap	Grate	EAN	Piece/package
606/1	DN110	7280 g	Frost-proof flap	Cast iron	+906062	1
606/5	DN160	7375 g	Frost-proof flap	Cast iron	+976065	1
606L/1	DN110	1460 g	Frost-proof flap	Plastic	+009374	1
606L/5	DN160	1465 g	Frost-proof flap	Plastic	+009398	1
606S/1	DN110	2755 g	Frost-proof flap	Stainless steel	+010905	1
606S/5	DN160	2760 g	Frost-proof flap	Stainless steel	+010929	1
606W/1	DN110	6980 g	Water trap	Cast iron	+011131	1
606W/5	DN160	6990 g	Water trap	Cast iron	+011155	1
606LW/1	DN110	1460 g	Water trap	Plastic	+009411	1
606LW/5	DN160	1465 g	Water trap	Plastic	+009435	1
606SW/1	DN110	2755 g	Water trap	Stainless steel	+011216	1
606SW/5	DN160	2760 g	Water trap	Stainless steel	+011230	1

HL606.1 Major drain PERFECT with cast iron frame and cast iron grate**Data**

Capacity	HL606.1/1, HL606.1/5 (frost-proof flap): 4,30 l/s HL606.1W/1, HL606.1W/5 (Water trap): 2,10 l/s PP
Material	
Connection dimension	DN110 or DN160
Outlet	vertical
Grate	Cast iron 226 x 226 mm, Cast iron frame 260 x 260 mm
Stench trap	HL606.1/1, HL606.1/5: Frost-proof flap HL606.1W/1, HL606.1W/5: Water trap
Standard	EN 124
Load classification	B – max. 12,5 t
Additional information	Heating set HL609 for heating of the drain body available

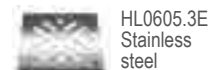
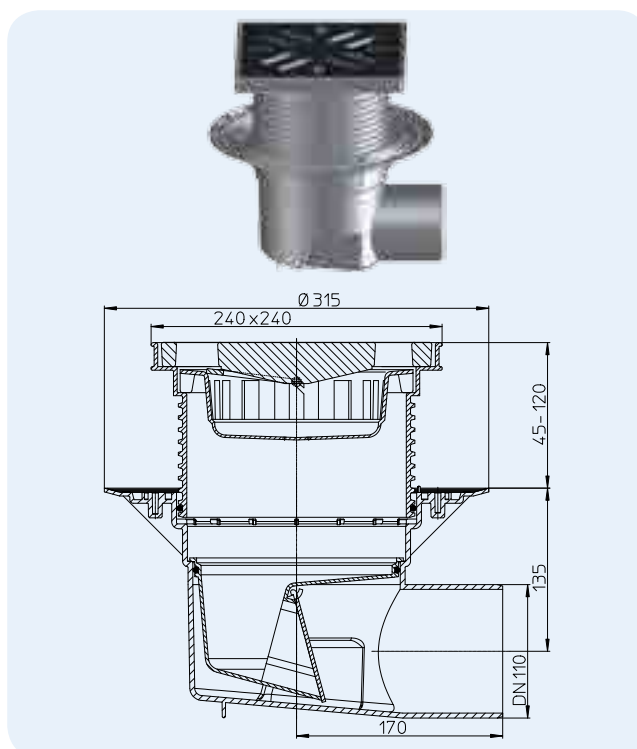
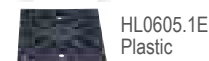


HL-No.	Dimension	Weight	Stench trap	Grate	EAN	Piece/package
606.1/1	DN110	12400 g	Frost-proof flap	Cast iron	+960613	1
606.1/5	DN160	12775 g	Frost-proof flap	Cast iron	+970612	1
606.1W/1	DN110	11860 g	Water trap	Cast iron	+011193	1
606.1W/5	DN160	11870 g	Water trap	Cast iron	+011179	1

HL615 Major drain PERFECT with flange and plastic frame, two piece

Data

Capacity	HL615, HL615L, HL615S (with frost-proof flap): 4,20 l/s HL615W, HL615LW, HL615SW (with water trap): 2,50 l/s
Material	PP
Connection dimension	DN110
Outlet	horizontal
Grate	226 x 226 mm HL615, HL615W: Cast iron HL615L, HL615LW: Plastic HL615S, HL615SW: Stainless steel
Stench trap	HL615, HL615L, HL615S: Frost-proof flap HL615W, HL615LW, HL615SW: Water trap
Standard	EN 124
Load classification	A – max. 1,5 t
Additional information	Recess dimension min. 290 x 380 mm Heating set HL609 for heating of the drain body available
Including	Lid cover

HL0605.3E
Stainless steelHL0605.1E
PlasticHL0606.1E
Cast iron

HL0606.2E



HL608



HL0606.3E



HL0605.2E



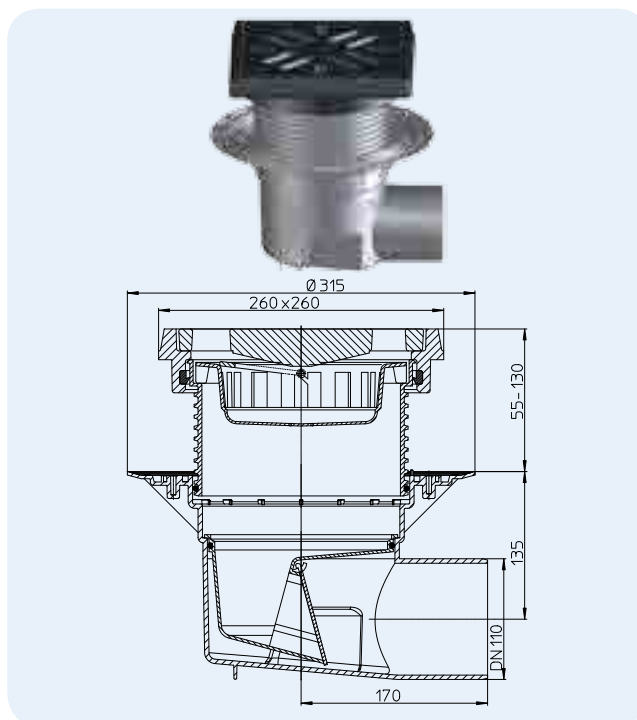
HL615K

HL-No.	Dimension	Weight	Stench trap	Grate	EAN	Piece/ package
615	DN110	7440 g	Frost-proof flap	Cast iron	+006748	1
615L	DN110	1920 g	Frost-proof flap	Plastic	+009459	1
615S	DN110	3215 g	Frost-proof flap	Stainless steel	+010943	1
615W	DN110	7440 g	Water trap	Cast iron	+011254	1
615LW	DN110	1920 g	Water trap	Plastic	+009473	1
615SW	DN110	3215 g	Water trap	Stainless steel	+011292	1

HL615.1 Major drain PERFECT with flange, cast iron frame and cast iron grate, two-piece

Data

Capacity	HL615.1 (with frost-proof flap): 4,20 l/s HL615.1W (with water trap): 2,50 l/s
Material	PP
Connection dimension	DN110
Outlet	horizontal
Grate	Cast iron 226 x 226 mm Cast iron frame 260 x 260 mm
Stench trap	HL615.1: Frost-proof flap HL615.1W: Water trap
Standard	EN 124
Load classification	B – max. 12,5 t
Additional information	Recess dimension min. 290 x 380 mm Heating set HL609 for heating of the drain body available
Including	Lid cover



HL0606.1E



HL0606.2E



HL0606.3E



HL0605.2E



HL608.1



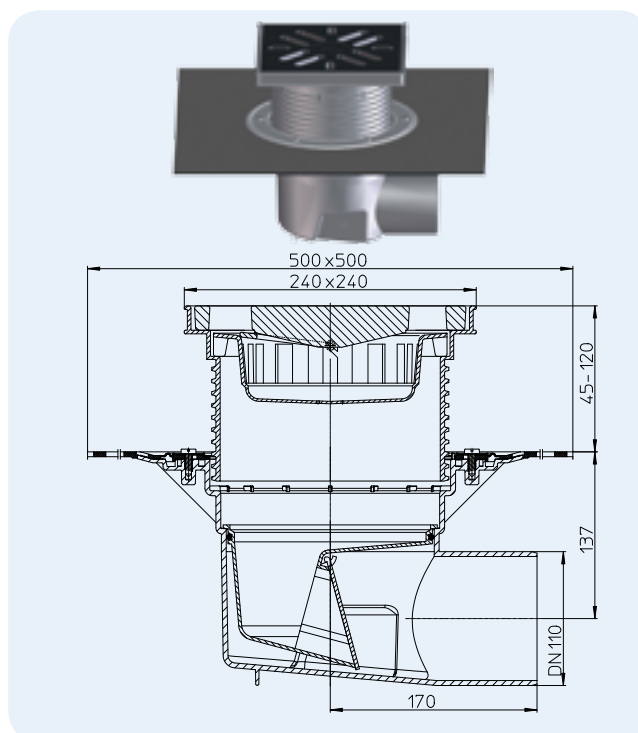
HL615K

HL-No.	Dimension	Weight	Stench trap	Grate	EAN	Piece/ package
615.1	DN110	8345 g	Frost-proof flap	Cast iron	+006762	1
615.1W	DN110	12330 g	Water trap	Cast iron	+011278	1

HL615H Major drain PERFECT with bitumen flange and plastic frame, two-piece

Data

Capacity	HL615H, HL615HL, HL615HS (with frost-proof flap): 4,20 l/s HL615HW, HL615HLW, HL615HSW (with water trap): 2,50 l/s
Material	PP
Connection dimension	DN110
Outlet	horizontal
Grate	226 x 226 mm HL615H, HL615HW: Cast iron HL615HL, HL615HLW: Plastic HL615HS, HL615HSW: Stainless steel
Stench trap	HL615H, HL615HL, HL615HS: Frost-proof flap HL615HW, HL615HLW, HL615HSW: Water trap
Standard	EN 124
Recommended for	Bitumen waterproofings
Load classification	A – max. 1,5 t
Additional information	Recess dimension min. 290 x 380 mm Heating set HL609 for heating of the drain body available
Including	Lid cover

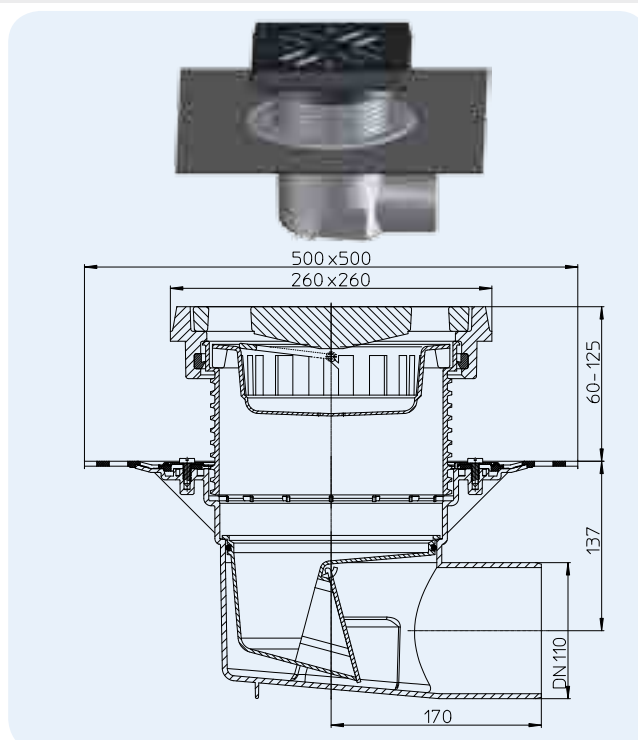


HL-No.	Dimension	Weight	Stench trap	Grate	EAN	Piece/ package
615H	DN110	8345 g	Frost-proof flap	Cast iron	+006786	1
615HL	DN110	3175 g	Frost-proof flap	Plastic	+009497	1
615HS	DN110	4470 g	Frost-proof flap	Stainless steel	+011018	1
615HW	DN110	8700 g	Water trap	Cast iron	+011445	1
615HLW	DN110	3175 g	Water trap	Plastic	+009510	1
615HSW	DN110	4470 g	Water trap	Stainless steel	+011490	1

HL615.1H Major drain PERFECT with bitumen flange, cast iron frame and cast iron grate, two-piece

Data

Capacity	HL615.1H (with frost-proof flap): 4,20 l/s HL615.1HW (with water trap): 2,50 l/s
Material	PP
Connection dimension	DN110
Outlet	horizontal
Grate	Cast iron 226 x 226 mm Cast iron frame 260 x 260 mm
Stench trap	HL615.1H: Frost-proof flap HL615.1HW: Water trap
Standard	EN 124
Recommended for	Bitumen waterproofings
Load classification	B – max. 12,5 t
Additional information	Recess dimension min. 290 x 380 mm Heating set HL609 for heating of the drain body available
Including	Lid cover

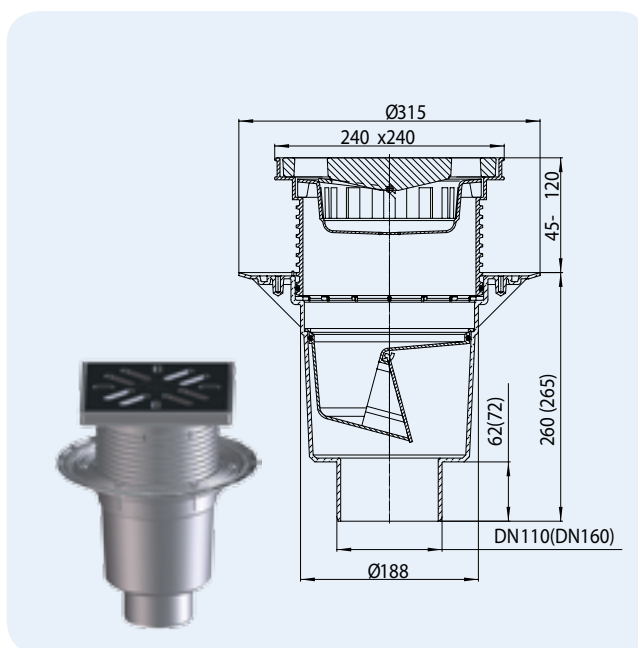


HL-No.	Dimension	Weight	Stench trap	Grate	EAN	Piece/ package
615.1H	DN110	8345 g	Frost-proof flap	Cast iron	+006809	1
615.1HW	DN110	13575 g	Water trap	Cast iron	+011476	1

HL616 Major drain PERFECT with flange and plastic frame, two piece

Data

Capacity	HL616/1, HL616L/1, HL616S/1 (with frost-proof flap, DN110): 5,50 l/s HL616/5, HL616L/5, HL616S/5 (with frost-proof flap, DN160): 4,80 l/s HL616W/1, HL616LW/1, HL616SW/1, HL616W/5, HL616LW/5, HL616SW/5 (with water trap, DN110 or DN160): 2,10 l/s
Material	PP
Connection dimension	DN110 or DN160
Outlet	vertical
Grate	226 x 226 mm HL616/1, HL616/5, HL616W/1, HL616W/5: Cast iron HL616L/1, HL616L/5, HL616LW/1, HL616LW/5: Plastic HL616S/1, HL616S/5, HL616SW/1, HL616SW/5: Stainless steel
Stench trap	HL616/1, HL616L/1, HL616S/1, HL616/5, HL616L/5, HL616S/5: Frost-proof flap HL616W/1, HL616LW/1, HL616SW/1, HL616W/5, HL616LW/5, HL616SW/5: Water trap
Standard	EN 124
Load classification	A – max. 1,5 t
Additional information	Recess dimension min. 290 x 290 mm. Tap hole diameter: 290 mm. Heating set HL609 for heating of the drain body available
Including	Lid cover

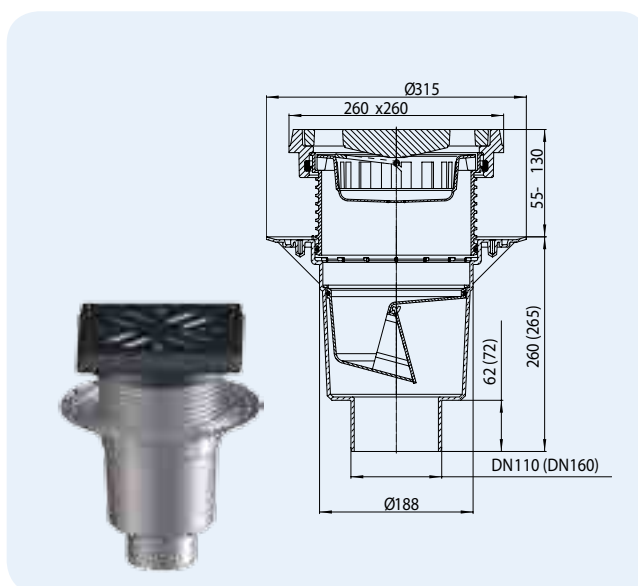


HL-No.	Dimension	Weight	Stench trap	Grate	EAN	Piece/ package
616/1	DN110	8345 g	Frost-proof flap	Cast iron	+906161	1
616/5	DN160	8400 g	Frost-proof flap	Cast iron	+976164	1
616L/1	DN110	1860 g	Frost-proof flap	Plastic	+009534	1
616L/5	DN160	1865 g	Frost-proof flap	Plastic	+009558	1
616S/1	DN110	3155 g	Frost-proof flap	Stainless steel	+010967	1
616S/5	DN160	3160 g	Frost-proof flap	Stainless steel	+010981	1
616W/1	DN110	7380 g	Water trap	Cast iron	+011315	1
616W/5	DN160	7390 g	Water trap	Cast iron	+011339	1
616LW/1	DN110	1860 g	Water trap	Plastic	+009596	1
616LW/5	DN160	1870 g	Water trap	Plastic	+009572	1
616SW/1	DN110	3155 g	Water trap	Stainless steel	+011407	1
616SW/5	DN160	3165 g	Water trap	Stainless steel	+011421	1

HL616.1 Major drain PERFECT with flange, cast iron frame and cast iron grate, two-piece

Data

Capacity	HL616.1/1 (Frost-proof flap, DN 110): 5,50 l/s HL616.1/5 (Frost-proof flap, DN160): 4,80 l/s HL616.1W/1, HL616.1W/5 (Water trap): 2,10 l/s
Material	PP
Connection dimension	DN110 or DN160
Outlet	vertical
Grate	Cast iron 226 x 226 mm Cast iron frame 260 x 260 mm
Stench trap	HL616.1/1, HL616.1/5: Frost-proof flap HL616.1W/1, HL616.1W/5: Water trap
Standard	EN 124
Load classification	B – max. 12,5 t
Additional information	Recess dimension min. 290 x 290 mm. Tap hole diameter: 290 mm. Heating set HL609 for heating of the drain body available
Including	Lid cover

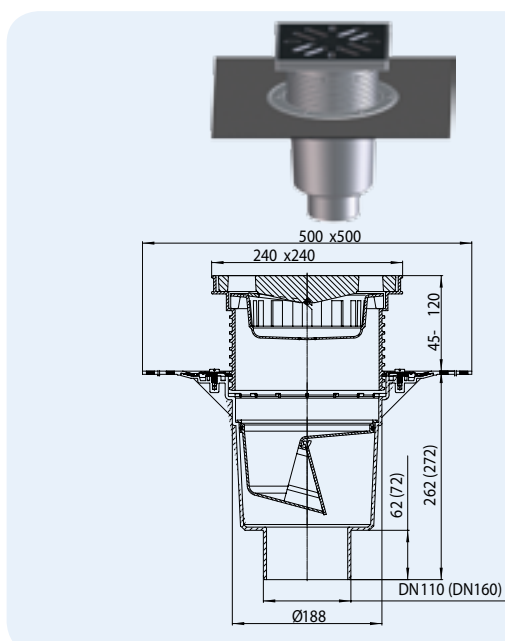


HL-No.	Dimension	Weight	Stench trap	Grate	EAN	Piece/ package
616.1/1	DN110	12910 g	Frost-proof flap	Cast iron	+961610	1
616.1/5	DN160	13190 g	Frost-proof flap	Cast iron	+971619	1
616.1W/1	DN110	13430 g	Water trap	Cast iron	+011360	1
616.1W/5	DN160	13440 g	Water trap	Cast iron	+011384	1

HL616H Major drain PERFECT with bitumen flange and plastic frame, two-piece

Data

Capacity	HL616H/1, HL616HL/1, HL616HS/1 (with frost-proof flap, DN110): 5,50 l/s HL616H/5, HL616HL/5, HL616HS/5 (with frost-proof flap, DN160): 4,80 l/s HL616HW/1, HL616HLW/1, HL616HSW/1, HL616HW/5, HL616HLW/5, HL616HSW/5 (with water trap, DN110 or DN160): 2,10 l/s
Material	PP
Connection dims.	DN110 or DN160
Outlet	vertical
Grate	226 x 226 mm HL616H/1, HL616H/5, HL616HW/1, HL616HW/5: Cast iron HL616HL/1, HL616HL/5, HL616HLW/1, HL616HLW/5: Plastic HL616HS/1, HL616HS/5, HL616HSW/1, HL616HSW/5: Stainless steel
Stench trap	HL616H/1, HL616HL/1, HL616HS/1, HL616H/5, HL616HL/5, HL616HS/5: Frost-proof flap HL616HW/1, HL616HLW/1, HL616HSW/1, HL616HW/5, HL616HLW/5, HL616HSW/5: Water trap
Standard	EN 124
Load classification	A – max. 1,5 t
Additional information	Recommended for Bitumen waterproofings; Recess dimension min. 290 x 290 mm. Tap hole diameter: 290 mm. Heating set HL609 for heating of the drain body available
Including	Lid cover

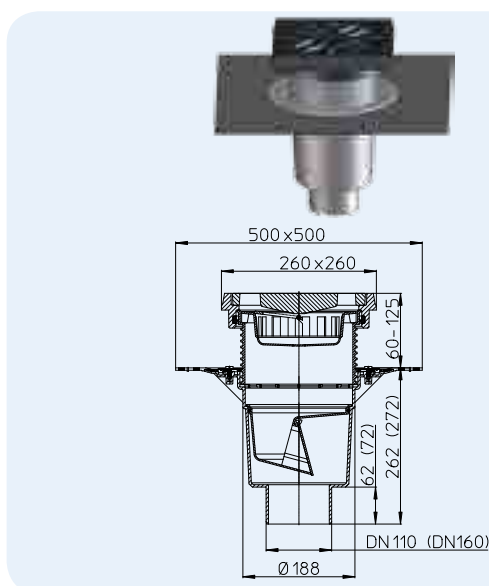


HL-No.	Dimension	Weight	Stench trap	Grate	EAN	Piece/ package
616H/1	DN110	8900 g	Frost-proof flap	Cast iron	+916160	1
616H/5	DN160	9635 g	Frost-proof flap	Cast iron	+917167	1
616HL/1	DN110	3115 g	Frost-proof flap	Plastic	+009619	1
616HL/5	DN160	3120 g	Frost-proof flap	Plastic	+009633	1
616HS/1	DN110	4410 g	Frost-proof flap	Stainless steel	+011032	1
616HS/5	DN160	4415 g	Frost-proof flap	Stainless steel	+011056	1
616HW/1	DN110	8635 g	Water trap	Cast iron	+011513	1
616HW/5	DN160	8645 g	Water trap	Cast iron	+011537	1
616HLW/1	DN110	3115 g	Water trap	Plastic	+009671	1
616HLW/5	DN160	3125 g	Water trap	Plastic	+009657	1
616HSW/1	DN110	4410 g	Water trap	Stainless steel	+011599	1
616HSW/5	DN160	4420 g	Water trap	Stainless steel	+011629	1

HL616.1H Major drain PERFECT with bitumen flange and plastic frame, two-piece

Data

Capacity	HL616.1H/1 (Frost-proof flap, DN 110): 5,50 l/s HL616.1H/5 (Frost-proof flap, DN160): 4,80 l/s HL616.1HW/1, HL616.1HW/5 (Water trap): 2,10 l/s
Material	PP
Connection dims.	DN110 or DN160
Outlet	vertical
Grate	Cast iron 226 x 226 mm Cast iron frame 260 x 260 mm
Stench trap	HL616.1H/1, HL616.1H/5: Frost-proof flap HL616.1HW/1, HL616.1HW/5: Water trap
Standard	EN 124
Load classification	B – max. 12,5 t
Recommended for	Bitumen waterproofings
Additional information	Recess dimension min. 290 x 290 mm. Tap hole diameter: 290 mm. Heating set HL609 for heating of the drain body available
Including	Lid cover



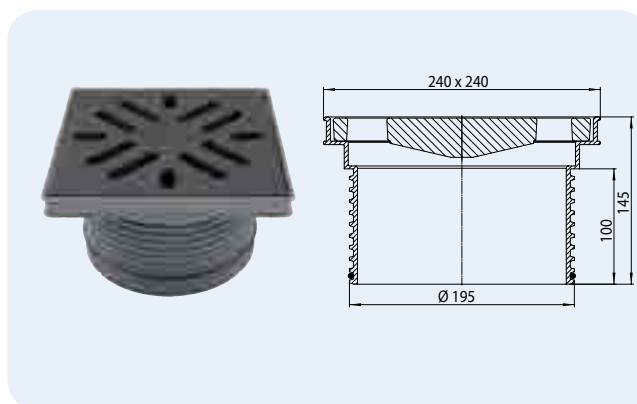
HL-No.	Dimension	Weight	Stench trap	Grate	EAN	Piece/ package
616.1H/1	DN110	14240 g	Frost-proof flap	Cast iron	+962617	1
616.1H/5	DN160	14630 g	Frost-proof flap	Cast iron	+951611	1
616.1HW/1	DN110	13520 g	Water trap	Cast iron	+011551	1
616.1HW/5	DN160	13530 g	Water trap	Cast iron	+011575	1

HL® Major drains – Accessories – Data

HL621 Extension with plastic frame and cast iron grate

Data

Material	PP
Frame	Plastic 240 x 240 mm
Grate	Cast iron 226 x 226 mm
Load classification	A – max. 1,5 t
Additional information	fits to all major drains



Cast iron

HL0606.1E

HL608



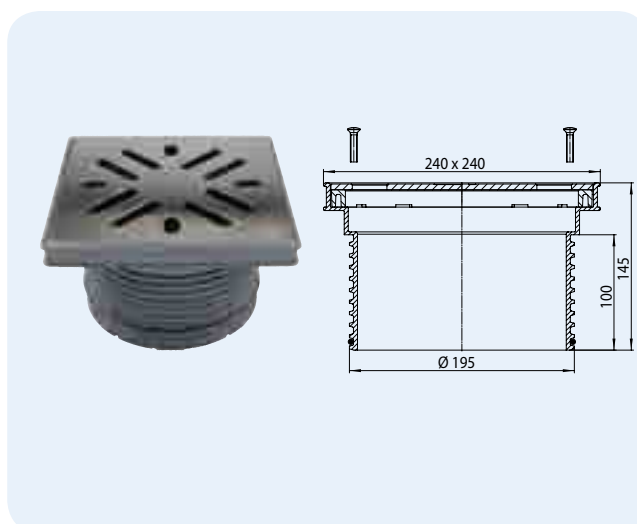
HL01056D

HL-No.	Weight	EAN	Piece/package
621	6510 g	+014644	1

HL622, (HL622/S) Extension with plastic frame and screwable stainless steel grate (V4A)

Data

Material	PP / Stainless steel
Frame	Plastic 240 x 240 mm
Grate	HL622: Stainless steel 226 x 226 mm HL622/S: Stainless steel 226 x 226 mm V4A
Load classification	A – max. 1,5 t
Additional information	fits to all major drains



HL0605.3E



HL0605.5E

HL608



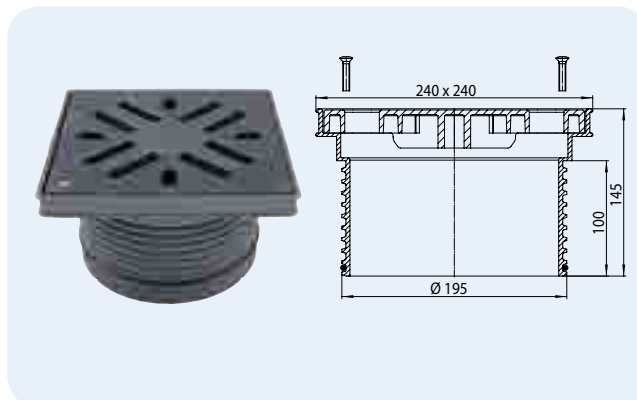
HL01056D

HL-No.	Weight	EAN	Piece/package
622	2220 g	+014705	1
622/S	2220 g	+014729	1

HL623 Extension with plastic frame and screwable plastic grate

Data

Material	PP
Frame	Plastic 240 x 240 mm
Grate	Plastic 226 x 226 mm
Load classification	A – max. 1,5 t
Additional information	fits to all major drains



HL0605.1E



HL0605.5E

HL608

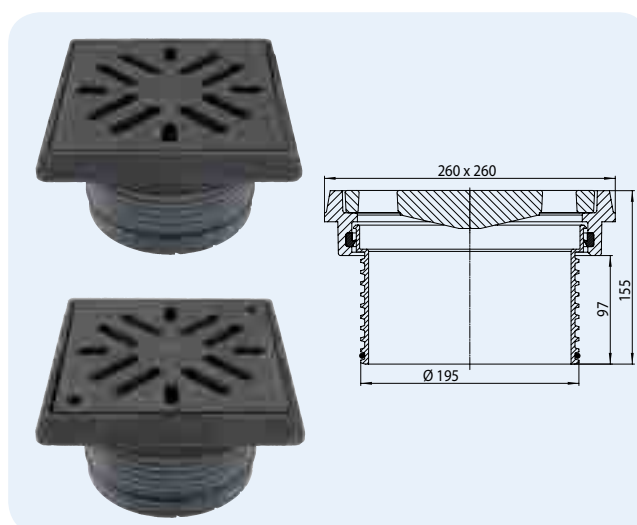


HL01056D

HL-No.	Weight	EAN	Piece/package
623	954 g	+014743	1

HL624, (HL624V) Extension with cast iron frame and cast iron grate (screwable)**Data**

Material	Plastic / Cast iron
Frame	Cast iron 260 x 260 mm
Grate	HL624: Cast iron 226 x 226 mm HL624V: Cast iron 226 x 226 mm screwable
Load classification	B – max. 12,5t
Additional information	fits to all major drains



HL624

HL624V

HL0606V.1E



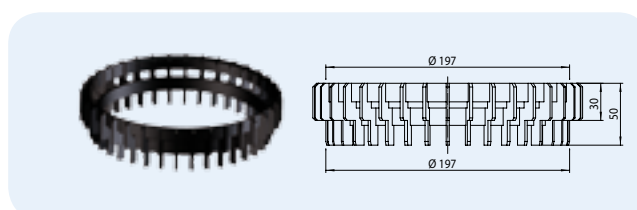
HL608.1



HL-No.	Weight	EAN	Piece/package
624	11370 g	+014767	1
624/V	11370 g	+028597	1

HL190 Gravel guard**Data**

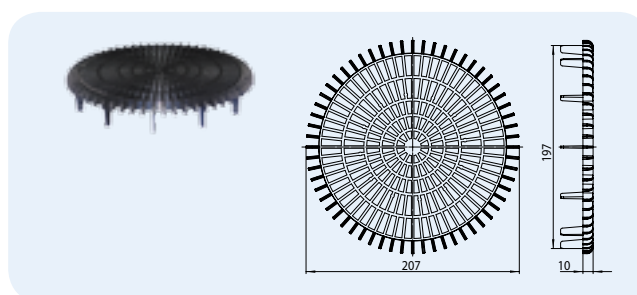
Material	PP
Additional information	for the installation between flange of the body and extension, to guarantee enough drainage on the sealing level, e.g. with inverted constructions, fits to all major drains



HL-No.	Dimension	Weight	EAN	Piece/package
190	Ø 195 mm	95 g	+011858	1

HL191 Gravel trap**Data**

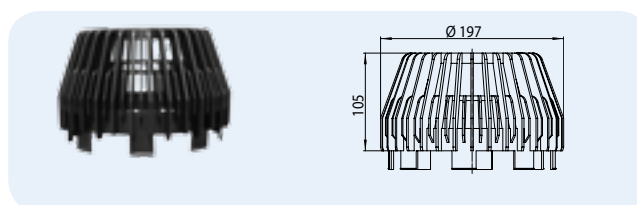
Material	PP
Additional information	flat gravel trap for usage below flaged floors or duckboards



HL-No.	Dimension	Weight	EAN	Piece/package
191	Ø 195 mm	120 g	+029006	1

HL195 Leaf catcher**Data**

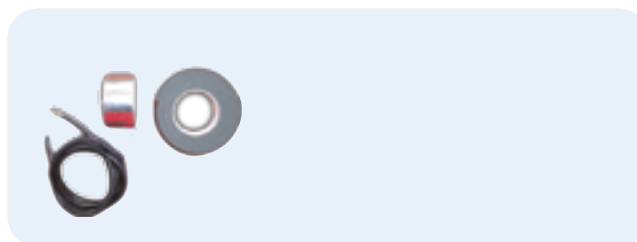
Material	PP
Additional information	for non-walkable surfaces, fits to all major drains



HL-No.	Dimension	Weight	EAN	Piece/package
195	Ø 195 mm	250 g	+018093	1

HL609 Heating Set**Data**

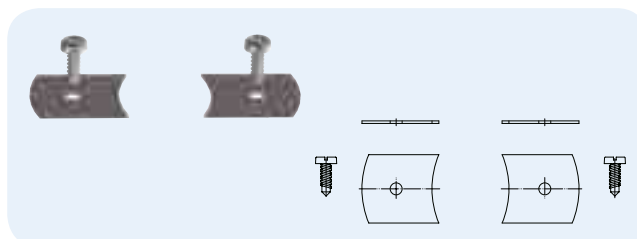
Additional information self-regulating heating tape 36W/m, 230V. Including a 3-pole cable (length 1,5m), self-adhesive thermal conducting tape and insulation tape. Overheating is, due to the self-regulating construction, impossible. Fits to all major drains.



HL-No.	Weight	EAN	Piece/package
609	704 g	+006090	1

HL619 Fixing brackets „FixIt“**Data**

Material Stainless steel
 Additional information For a tensile-safe connection between drain body and extension



HL-No.	Weight	EAN	Piece/package
619	54 g	+013197	1