

# The biggest roof drain range in Europe



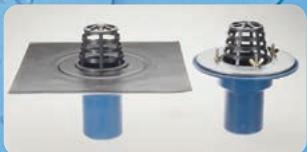
Ventilation



Universal drain



Eccentric drain



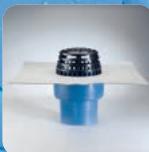
Garage/Balcony drain



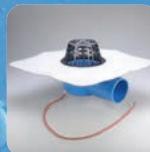
Alpha drain



Clamp flange drain



Collar drain



Compact collar drain



Attika Power drain



Pipe system made of stainless steel



Combi drain I



Attika Jumbo drain



Combi drain II



Redevelopment drain (redeveloping in the pot)



Stainless steel drain



Balcony drain



Redevelopment drain (pipe redeveloping)



Continuous balcony drain, lower-able



Attika Meso drain



Attika flat drain



Fastening bushings



Fire protection



Collar drain DN 200



Attika Meso 2 drain



Attika Plus drain



Reach-through element



Siphonic drainage



Attika balcony drain



Attika rectangular emergency overflow



Attika Super 2 drain



Attika Super Drain



Balcony complete overflow



Heatings



Green-roof safety drain



Accessories

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Made  
in Germany!  
Entwicklung und  
Herstellung  
in Deutsch-  
land

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## ■ Innovation, competence and experience



**Grumbach** – Today this name stands for innovation, competence and experience in the flat roof area. Our family company has been successfully developing, producing and selling problem solutions for practical requirements since 1974.

**Grumbach** offers the largest range of products for flat roofs, balconies, terraces, green roofs, parking decks, etc. In addition, we put new ideas and exclusive customer requests into practice at short notice by means of our own mould construction.

From the legendary Combi Drain to the »big mouth« Attika Jumbo Drain – with »The Blue Ones from Grumbach«, almost every problem with the drainage and ventilation of flat roofs



can be optimally solved.

**Discover our innovative products  
for your success!**



## ■ Universal drain Ideal for keeping in stock!

Pebble trap



Clamp flange with clamp  
45 mm wide – screws  
are out of clamping area

Clamp flange, now  
made of stainless  
steel

Absolutely secure comb-seal  
for flange pressing and back-  
flow protection



Drain made of PUR



### Universal drain made of PUR

CFC-free, with pebble trap, clamp flange and combi-seal. **Also heatable** via an integrated, self-regulating 230 V PTC heating element, performance up to max. 10 W. We recommend using the frost switch base set (Art.-N. 5922, see page 73) in connection with our heatable drains.

**Extension element** with clamp flange and combi-seal for flange pressing and backflow protection, suitable for all clamp flange drains.



Universal drain vertical



Universal drain horizontal

### The Universal drain DN 70/DN 100/DN 125 is the ideal drain to keep in stock:

A few parts are enough to fulfill 90% of all requirements.

### The Universal drain

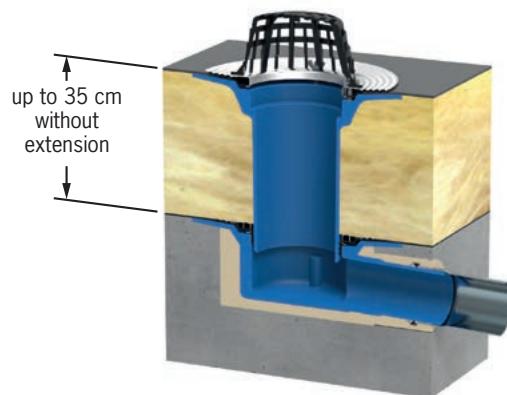
is suitable for any roof covering, with accessories for pebbled roofs, balconies, park decks, green roofs etc.

### The perfect combination of quality and technology!

- Fitting a flange keeps it leak-free with every roof surface
- Simply unravel the roof sheeting, cut the hole, fit the flange – finished
- Quality controlled in acc. with DIN EN 1253-2
- made of CFC-free, heat insulated PUR-integral-hardfoam



### Installation example Universal drain horizontal



Universal drain horizontal DN 70 with extension element (up to 35 cm without an extra extension) in an insulated roof

The universal drain DN 70/DN 100/DN 125 is **available as a heatable drain** both as **vertical** or **horizontal** version.

Heating is provided via a self-regulating PTC\* heating element 230 V. That keeps everything ice-free even at extreme temperatures.

**We recommend using the frost switch base set** (Art.-No. 5922, see page 73) in connection with our heatable drains.

## ■ Universal-Gully Ideal for keeping in stock!

Dimension | Art. No.



### Universal drain made of PUR

vertical:

DN 70	<b>2102</b>
DN 100	<b>2104</b>
DN 125	<b>2106</b>



horizontal:

DN 70	<b>2111</b>
DN 100	<b>2114</b>
DN 125	<b>2116</b>



### Universal drain made of PUR

vertical:

<b>heatable</b> (230V):	
DN 70	<b>2122.2</b>
DN 100	<b>2124.2</b>
DN 125	<b>2126.2</b>



horizontal:

<b>heatable</b> (230V):	
DN 70	<b>2132.2</b>
DN 100	<b>2134.2</b>
DN 125	<b>2136.2</b>



### Extension element

up to 16 cm	<b>2181</b>
up to 23 cm	<b>2183</b>
up to 35 cm	<b>2185</b>



### Insulation piece for extension elements

**2188**

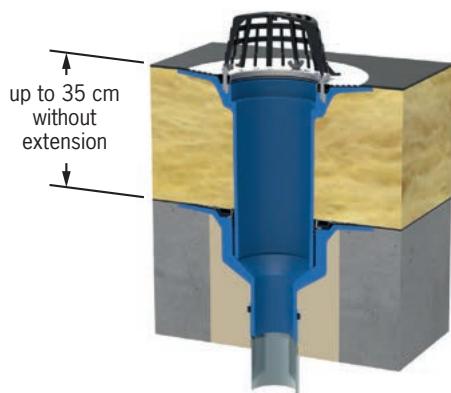


### Collar plate

**2189**

suitable for the Universal or compact collar range, shaped to integrate the drain even with the surface

### Installation example Universal drain

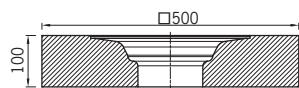
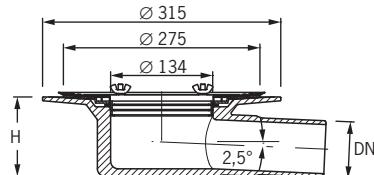
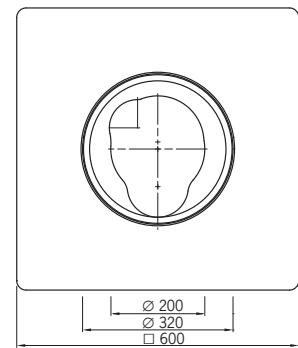
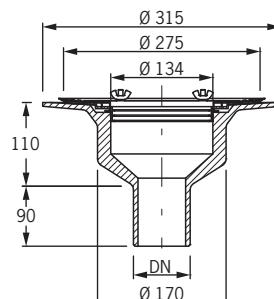


Universal drain vertical DN 70 with extension element (up to 35 cm without additional extension) in an insulated roof



Universal drain horizontal DN 70 in an insulated roof

### Technical data Universal drain



Art. No	Nominal-	Actual-	H	Drainage capacity*
<b>Universal drains, vertical</b>				
<b>2102, 2122.2</b>	DN 70	75		6,3 l/s (35 mm)
<b>2104, 2124.2</b>	DN 100	110		6,8 l/s (35 mm)
<b>2106, 2126.2</b>	DN 125	125		8,7 l/s (45 mm)
<b>Universal drains, horizontal</b>				
<b>2111, 2132.2</b>	DN 70	75	105	5,8 l/s (35 mm)
<b>2114, 2134.2</b>	DN 100	110	140	6,1 l/s (35 mm)
<b>2116, 2136.2</b>	DN 125	125	155	8,5 l/s (45 mm)

\*Drainage capacity acc. to DIN EN 1253-2 l/sec (accumulation height in millimeters)

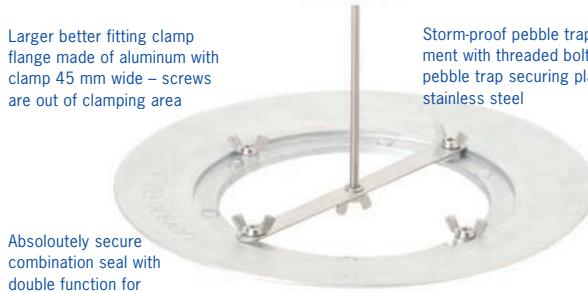
## ■ Clamp flange drain DN 150 The original one!

Very large pebble trap reduces the risk of a blockage to a minimum



Larger better fitting clamp flange made of aluminum with clamp 45 mm wide – screws are out of clamping area

Storm-proof pebble trap attachment with threaded bolt, nuts and pebble trap securing plate, all in stainless steel



Absolutely secure combination seal with double function for flange pressing and anti-flowback seal



Drain made of PUR

### The perfect combination of quality and technology!

- Unravel the roof sheeting, cut the hole, fit the flange - finished
- The new clamp flange-technology with the new rubber seals ensures an absolutely secure connection with any roof covering!
- Grumbach clamp flange drains fit into nearly any type of roof and roof covering. There are extra parts for insulated roofs, inverted roofs, porch roofs and green roofs, etc.

Dimension | Art. No.



#### Clamp flange drain (PUR)

vertical:

DN 150 **2008**

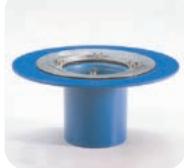


#### Clamp flange drain (PUR)

vertical

**heatable** (230V):

DN 150 **2028.2**



#### Extension element

up to 12 cm

**2080**

up to 16 cm

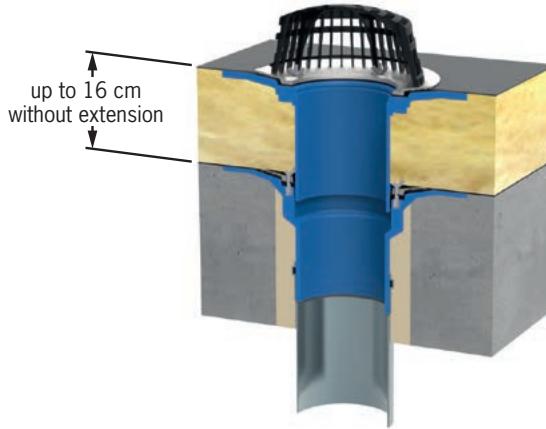
**2081**

### Clamp flange drain made of PUR

CFC-frei, with pebble trap, clamp flange and combi-seal. **Also heatable** via an integrated, self-regulating 230 V PTC heating element, performance up to max. 10 W. We recommend using the frost switch base set (Art. No. 5922, see page 73) in connection with our heatable drains.

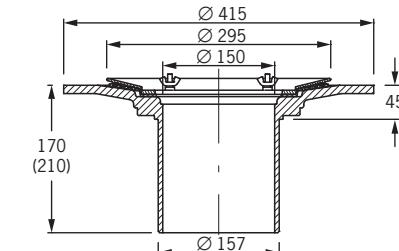
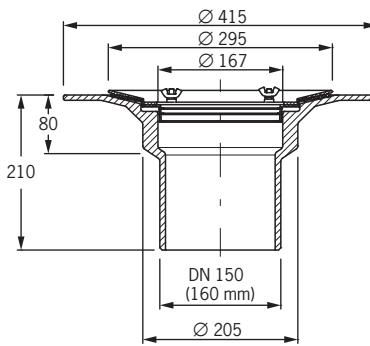
**Extension element** with clamp flange and flange pressing seal suitable for all clamp flange drains.

### Installation example



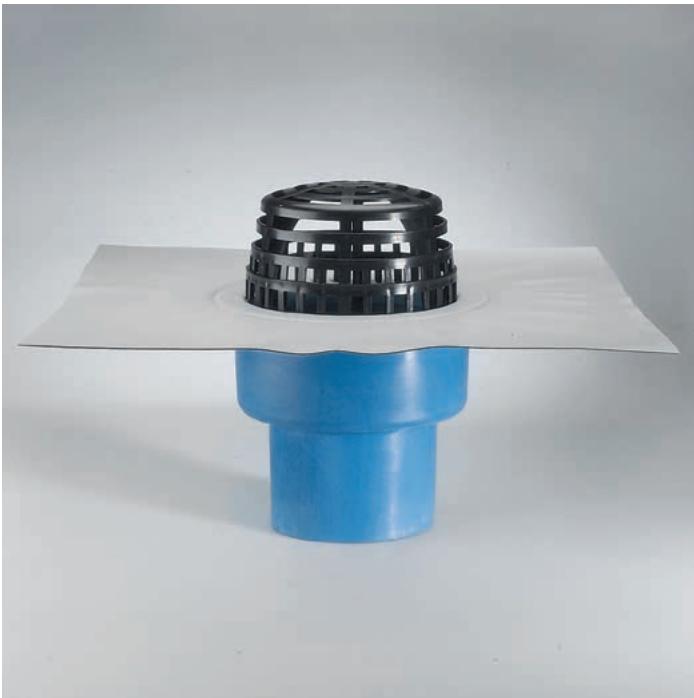
Clamp flange drain DN 150 with an extension element in an insulated roof

### Technical data



Art. No.	Drainage capacity*
2008, 2028.2	10,0 l/s (45 mm)

## ■ Collar drain DN 150 with adhesive collar



### Securing groove + pebble trap = secure pebble collection

The securing groove ensures that the connection between the body of the drain and the pebble trap is permanently secure

### Securing groove + Anti-backflow seal = Secure backflow prevention

If base elements and extensions are used, as in e.g. insulated roofs, then the securing groove of the base element would be connected with the anti-backflow seal. The anti-backflow seal, which was specially developed for the collar drain, can be securely fastened to the securing groove.

If the extension element is fitted into the base element, backflow prevention is provided.

The seal can not slip during this process as the seal always sits correctly.

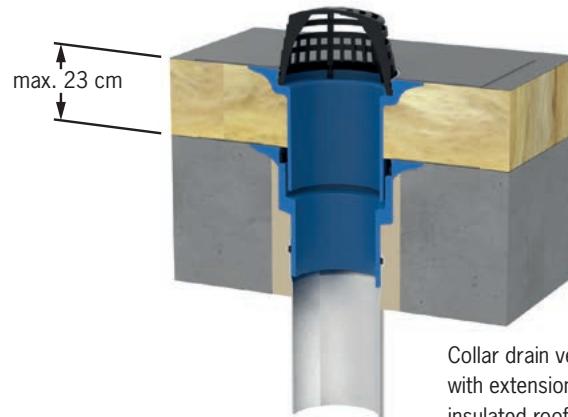
### Collar drain made of PUR

heat insulated, CFC-free, with pebble trap and foam-filled connection collar (Bitumen, ECB, PVC or special foil).

**Also heatable** via an integrated, self-regulating 230 V PTC heating element, performance up to max. 10 W. We recommend using the frost switch base set (Art.-No. 5922, see page 73) in connection with our heatable drains.

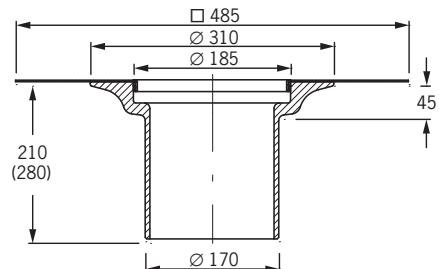
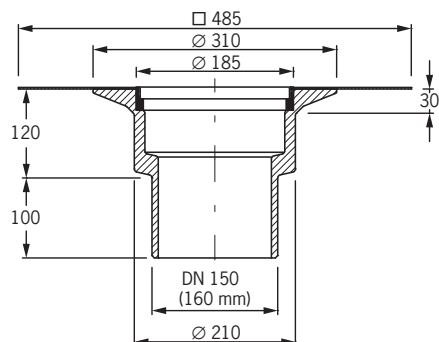
**Extension element** with connection collar and anti-back flow seal, suitable for all compact collar drains..

### Installation example Collar drain DN 150



Collar drain vertical DN 150  
with extension element in an  
insulated roof

### Technical data Collar drain DN 150



Art. No	Drainage capacity*
3008, 3028.2	9,5 l/s (45 mm)

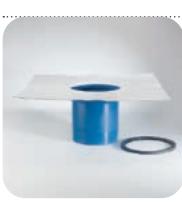


Dimension | Art. No.

**Collar drain made of PUR**  
vertical:  
DN 150    **3008**



**Collar drain made of PUR**  
vertical  
**heatable** (230V):  
DN 150    **3028.2**



**Extension element made of PUR**  
up to 16 cm    **3081**  
up to 23 cm    **3083**

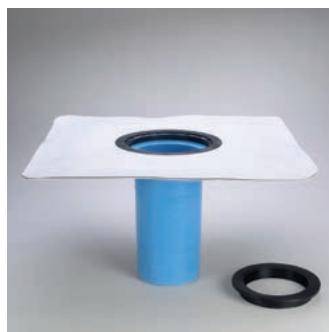
## ■ Compact collar drain The value for money solution



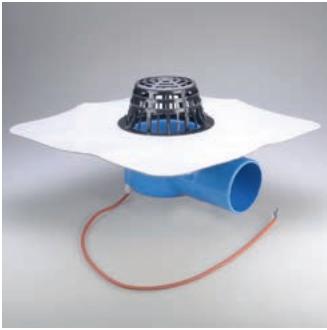
Compact collar drain vertical, shown here with Wolfin collar



Compact collar drain horizontal – particularly low construction height!



Extension element, available for insulating material up to a thickness of 35 cm.



The compact-collar drain DN 70/DN 100/DN 125 is available in both vertical and horizontal variations as a **heatable drain**.

Heating is provided via a self-regulating PTC\*heating element 230 V. That keeps everything ice-free even at extreme temperatures.

We recommend using the frost switch base set (Art.-No. 5922, see page 73) in connection with our **heatable drains**.

Drain with pebble trap in a flat roof



### Compact collar drain made of PUR

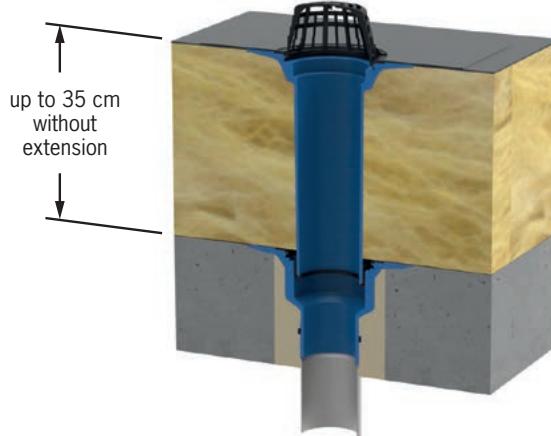
heat insulated, CFC-free, with pebble trap and foam-filled connection collar (Bitumen, ECB, PVC or special foil). **Also heatable** via an integrated, self-regulating 230 V PTC heating element, performance up to max. 10 W. We recommend using the frost switch base set (Art.-No. 5922, see page 73) in connection with our heatable drains.

**Extension element** with feeder line and anti-backflow seal, suitable for all compact collar drains and universal drains.

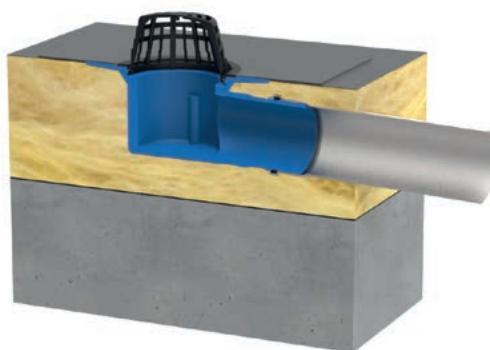
#### The compact collar drain:

- with large adhesive collar
- adhesive collar made of bitumen, PVC- or special foil
- fully heat insulated
- extensive accessory range, e.g. terrace construction sets, pebble ring with lid etc.
- made of CFC-free PUR-Integral hard foam
- quality controlled production process in acc. with DIN 1253

#### Installation example Compact collar drain



Compact collar drain vertical DN 100 with extension element in an insulated roof



Compact collar drain horizontal DN 100 in an insulated roof

## Compact collar drain

Dimension | Art. No.



### Compact collar drain (PUR)

vertical:

DN 70	<b>3102</b>
DN 100	<b>3104</b>
DN 125	<b>3106</b>

horizontal:

DN 70	<b>3112</b>
DN 100	<b>3114</b>
DN 125	<b>3115</b>



### Compact collar drain (PUR)

vertical, **heatable** (230V):

DN 70	<b>3122.2</b>
DN 100	<b>3124.2</b>
DN 125	<b>3126.2</b>



horizontal, **heatable** (230V):

DN 70	<b>3132.2</b>
DN 100	<b>3134.2</b>
DN 125	<b>3136.2</b>



### Extension element (PUR)

up to 16 cm	<b>3181</b>
up to 23 cm	<b>3183</b>
up to 35 cm	<b>3185</b>



### Insulation piece for extension elements

**2188**



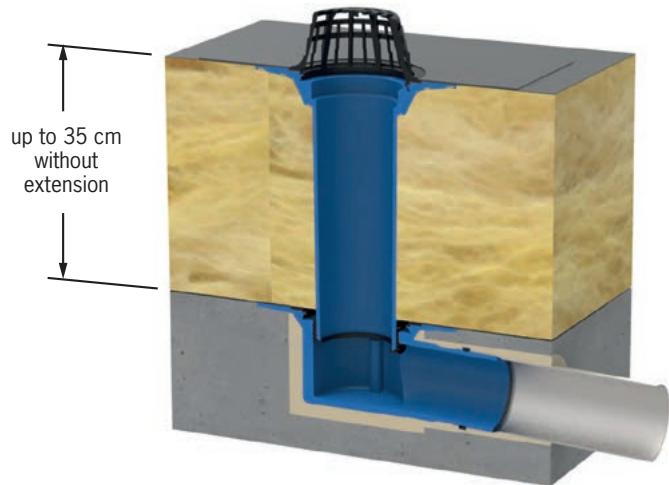
### Collar plate

**2189**

suitable for the Universal or compact collar range, shaped to integrate the drain even with the surface

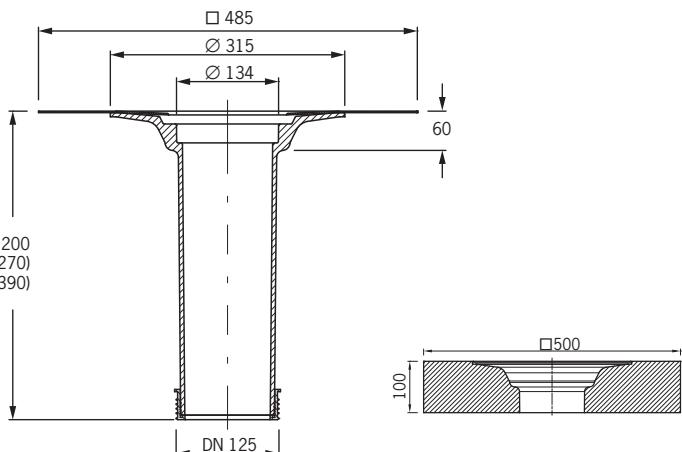
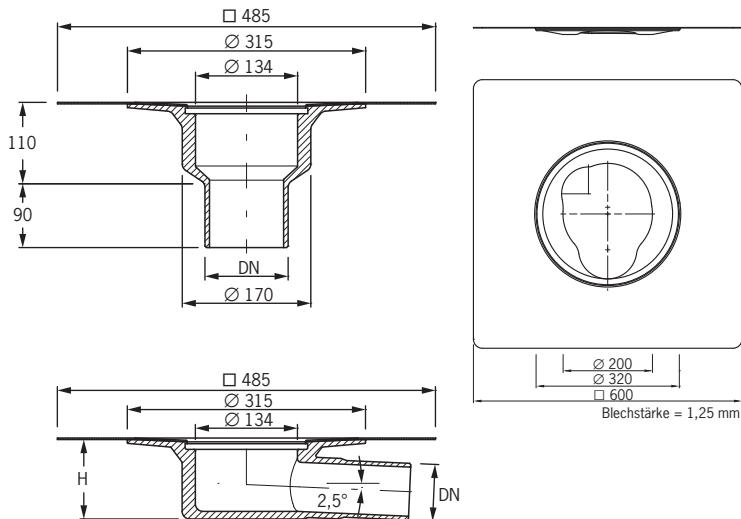


### Installation example Compact collar drains



Compact collar drain horizontal DN 100 with extension element in an insulated roof (up to 35 cm without extension)

### Technical data compact collar drains



Art.-No.	Nominal-	Actual-	H	Drainage capacity*
<b>Compact collar drains, vertical</b>				
3102, 3122.2	DN 70	75		6,3 l/s (35 mm)
3104, 3124.2	DN 100	110		6,8 l/s (35 mm)
3106, 3126.2	DN 125	125		8,7 l/s (45 mm)
<b>Compact collar drains, horizontal</b>				
3112, 3132.2	DN 70	75	105	5,8 l/s (35 mm)
3114, 3134.2	DN 100	110	140	6,1 l/s (35 mm)
3115, 3136.2	DN 125	125	160	8,5 l/s (45 mm)

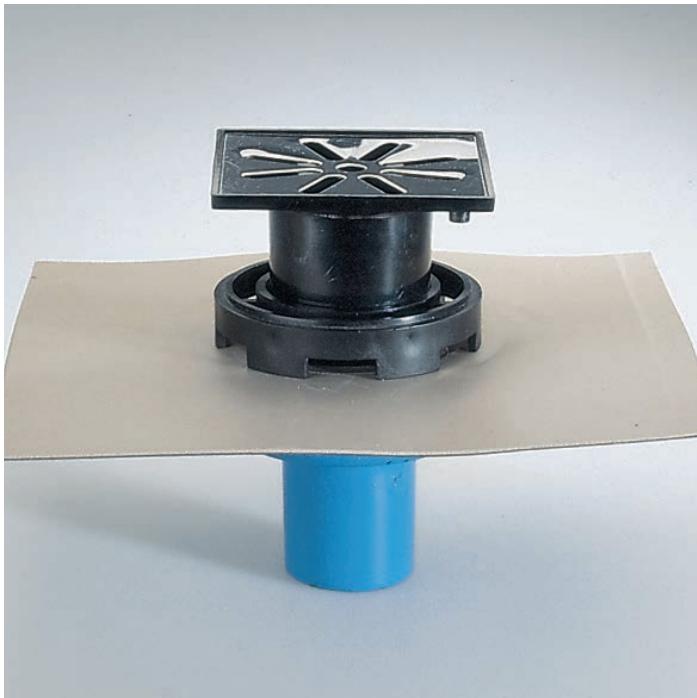
\*Drainage capacity acc. to DIN EN 12532 in l/sec (accumulation height in millimeters)

Height 75 mm only!



**Balcony drain horizontal DN 50 with clamp flange** and small pebble trap

Balcony drains are universally deployable, fit any type of balcony and any roof. With the security clamp, any feeder line can be fitted with a flange.



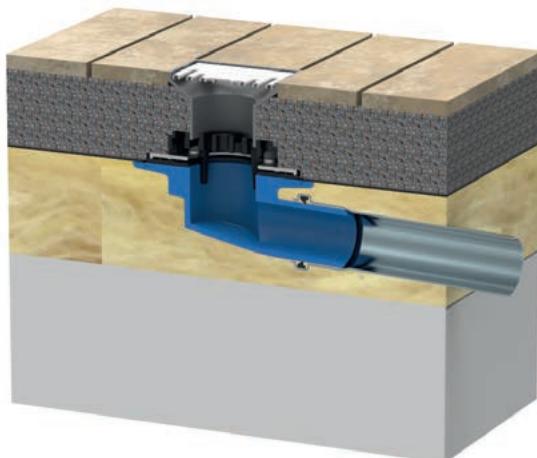
**Balcony drain, vertical DN 50, with adhesive collar**, pebble trap and inlet piece, which is able to be walked upon. For use on balconies, for example.

## ■ **Balcony drain DN 50 with clamp flange/ adhesive collar**

### **Balcony drain DN 50 made of PUR**

CFC-free, with pebble trap and clamp flange or adhesive collar (bitumen, PVC or special purpose foil). The models with a clamp flange are fitted with a seal for flange pressing or antibackflow seal.

### **Installation example Balcony drain DN 50**



Balcony drain horizontal DN 50 in the heat insulation with pebble trap and inlet piece in slabbed covering on the terrace.

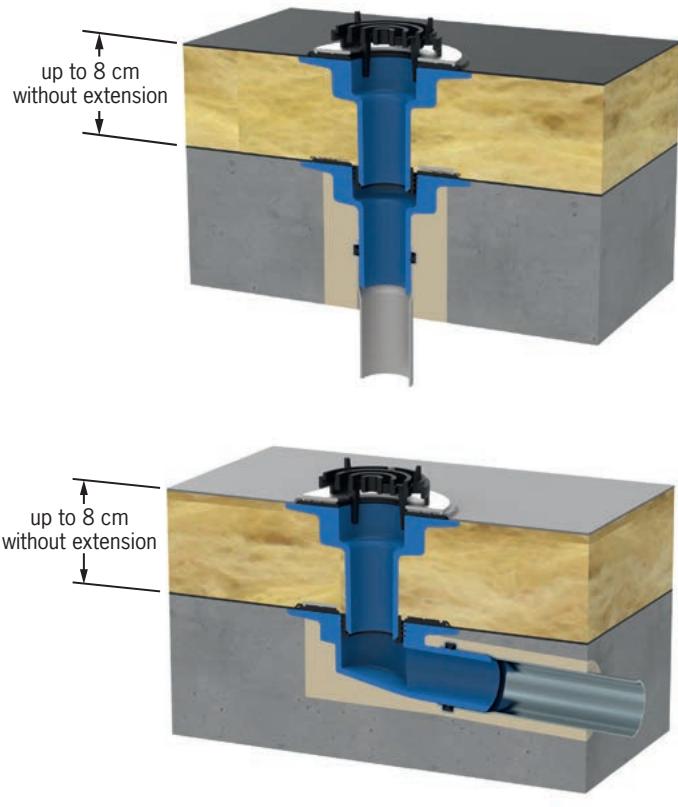


**Balcony drain, horizontal DN 50, with extension element with adhesive collar**, pebble trap and inlet piece, which is able to be walked upon. For use on balconies, for example.

## Balcony drain DN 50 with accessories

Typ	Art. No.
	<b>Balcony drain DN 50 PUR</b> vertical: Clamp flange <b>2500</b> Adhesive collar <b>3500</b>
	horizontal: Clamp flange <b>2511</b> Adhesive collar <b>3511</b>
	<b>Extension element made of PUR, for Balcony drains</b> Clamp flange <b>2580</b> Adhesive collar <b>3580</b>
	<b>Inlet piece, made of PC</b> with stainless steel grating, 4,5 cm high <b>2590</b> <b>staged inlet piece, made of PC</b> with stainless steel grating, 10 cm high. <b>2591</b>
	<b>Small pebble trap, made of PP</b> <b>2593</b>

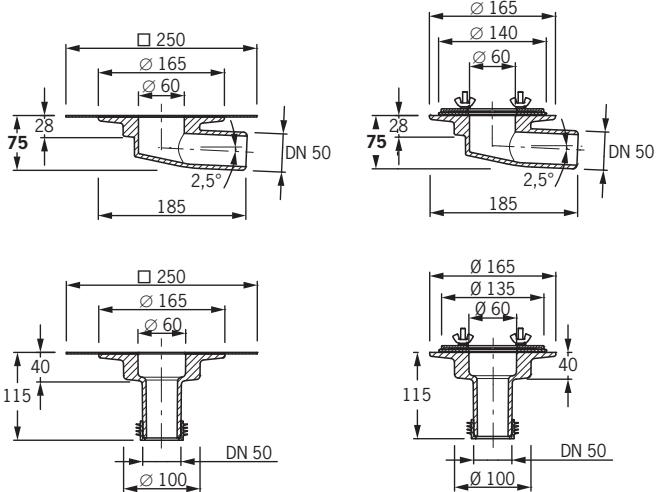
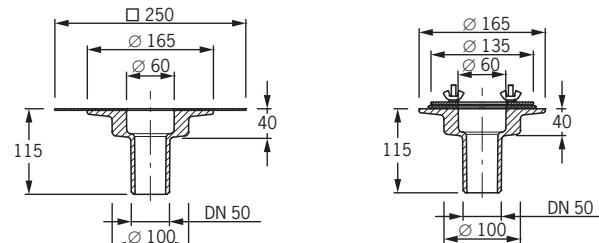
### Installation example Balkon drains



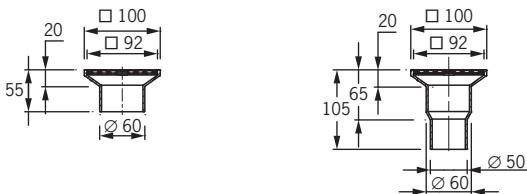
Balcony drain vertical resp. horizontal DN 50 with extension element in an insulated roof (up to 8 cm without extension)

### Technical data Balcony drains

Art. No	Drainage capacity*
<b>Balcony drains, vertical</b>	
<b>2500</b>	1,5 l/s (35 mm)
<b>3500</b>	1,7 l/s (35 mm)
<b>Balcony drains, horizontal</b>	
<b>2511</b>	1,5 l/s (35 mm)
<b>3511</b>	1,7 l/s (35 mm)



### Technical data inlet piece



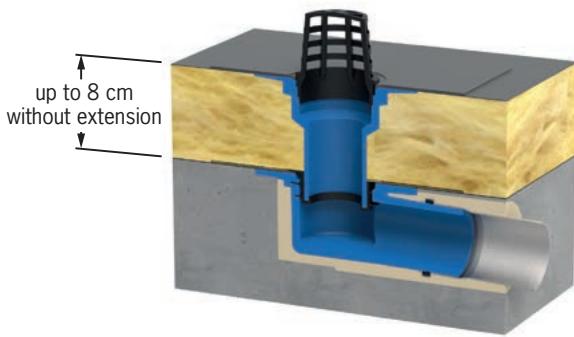
## ■ Garage/Balcony drain with accessories

**Height 90 mm only!**



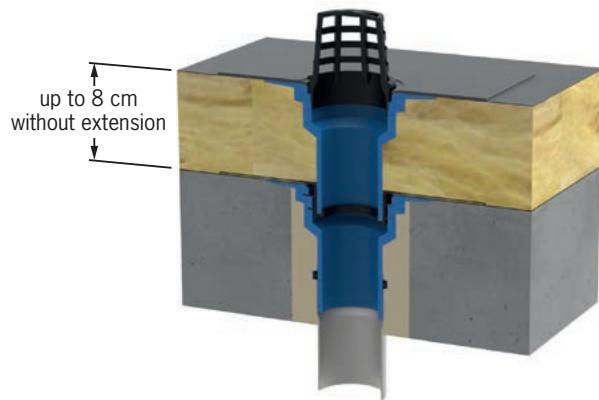
The **Garage/Balcony drains** distinguish themselves through their particularly small and compact appearance with a support diameter of DN 70; this is the case with the clamp flange and the adhesive collar version. The horizontal drain is especially suitable for many problematic situations on balconies, loggias and small roofs, due to its **particularly low construction height**.

### Installation example 1

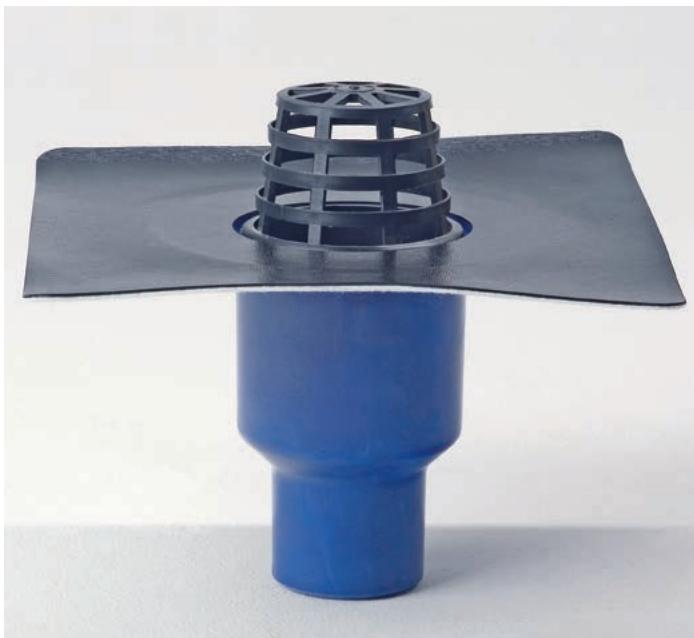


Garage/Balcony drain horizontal DN 70 with extension element in an insulated roof

### Installation example 2



Garage/Balcony drain vertical DN 70 with extension element in an insulated roof



### Garage/Balcony drain DN 50/70 and DN 70/100 made of PUR

- with dual function DN 50/70 resp. DN 70/100
- for getting DN 70, simply saw off the DN 50 support
- for getting DN 100, simply saw off the DN 70 support

## ■ Garage/Balcony drain with accessories

Dimension | Art. No.



### Garagen/Balcony drain DN 50/70 made of PUR

vertical  
Adhesive collar **3740**



### Garagen/Balcony drain DN 70/100 made of PUR

vertical:  
Adhesive collar **3741**



### Garagen/Balcony drain DN 70 made of PUR

vertical:  
Adhesive collar **3702**  
Clamp flange **2702**

horizontal:  
Adhesive collar **3712**  
Clamp flange **2711**



### Extension element DN 70 made of PUR

Adhesive collar **3780**  
Clamp flange **2780**



### Inlay grating round

Stainless steel **2794**  
suitable for Art. No. 3740, 3741  
made of PP **2794.P**  
suitable for Art. 3702, 3712, 3780



### Terrace construction set (black), small, can be walked on

**2795**

suitable for Art. No. 3740, 3741



### Terrace construction set, can be driven upon

**2797**



### Balcony attachment made (PP)

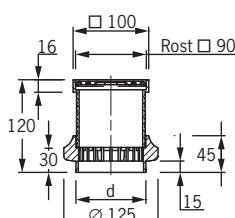
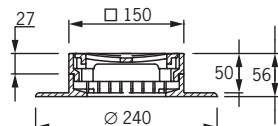
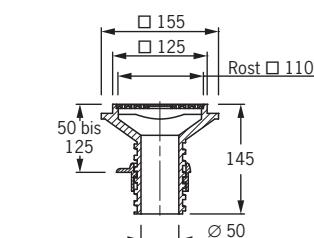
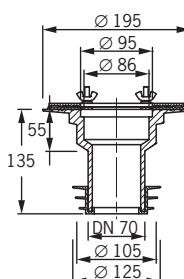
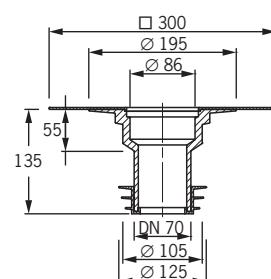
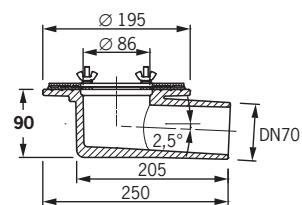
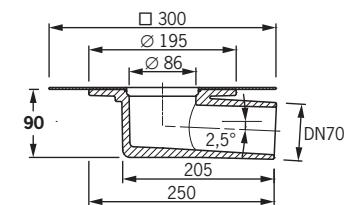
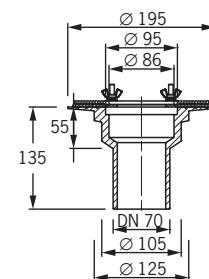
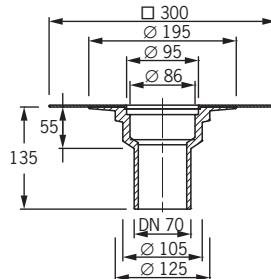
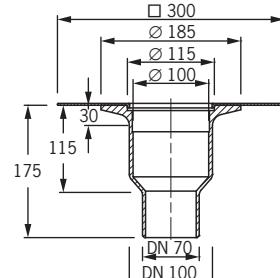
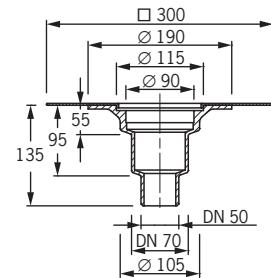
suitable for all Garage/Balcony drains, except for Art. No. 3741  
without odour trap **2790**  
with odour trap **2791**  
suitable for Art. No. 3741  
without odour trap **2798**  
with odour trap **2799**



### Geruchsperre

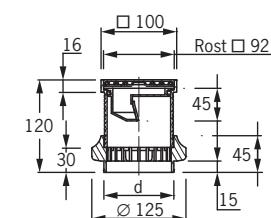
suitable for all Garage/Balcony drains, except for Art. No. 3741  
Type I **5952.1**  
Type II (for Art. 3741) **5952.2**

### Technical data Garage/Balcony drains



Art. No	Drainage capacity*
<b>3740</b>	2,2/2,3 l/s (35 mm)
<b>3741</b>	4,1/4,7 l/s (35 mm)
<b>3702</b>	2,3 l/s (35 mm)
<b>2702</b>	2,5 l/s (35 mm)
<b>3712</b>	2,5 l/s (35 mm)
<b>2711</b>	2,1 l/s (35 mm)

Art. No	d
<b>2790, 2791</b>	92
<b>2798, 2799</b>	110



\*Drainage capacity acc. to DIN EN 12532-1 in /sec (accumulation height in millimeters)

## ■ Redevelopment drains for redeveloping “in the pot”



### Redevelopment drain made of PUR 157 for redeveloping “in the pot”

CFC-free, with pebble trap and lip seal; with clamp flange and flange pressing seal and coated connection collar (bitumen, PVC, special foil).



Trapezoidal drain DN 100



Redevelopment drain DN 90 made of aluminum

**Grumbach offers a whole range of redevelopment drains suitable for every redevelopment case:**

#### For example the redevelopment drain made of PUR 157

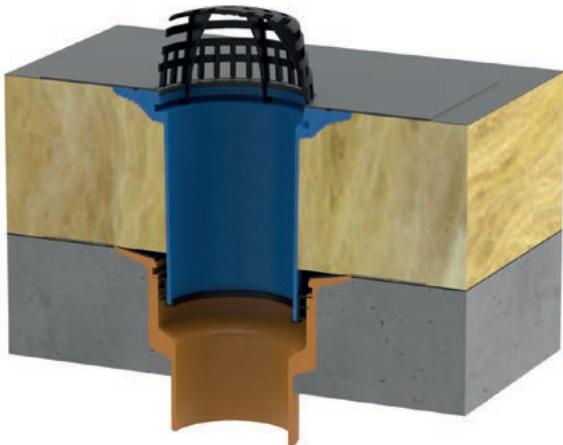
With this drain (with adhesive collar or clamp flange) it is possible to redevelop any kind of old drain with an internal diameter of 172 to 185 mm with anti-back flow protection. That covers most redevelopment cases.

Analogue statements are valid for the redevelopment drains made of PUR DN 125, 140, 170 and 200 (see p. 14).

#### Trapezoidal drain made of PUR

With the trapezoidal drain size DN 70/DN 100 it is possible to redevelop any kind of old drain with an internal diameter of 88 up to 105 mm or from 123 up to 135 mm with backflow protection – not just trapezoidal sheet roofs.

### Installation example redevelopment “in the pot”



Redevelopment drain with connection collar and backflow seal in drain pot supplied

#### Redevelopment “in the pot”

is the name of the “traditional” renovation method with the tried and tested basic range of redevelopment drains made of PUR in DN 200, 170, 157, 140 and 125.

The range also includes the trapezoidal drains made of PUR in DN 100 and 70 as well as the garage drains made of PUR in DN 70 und 50. The connection between the redevelopment drain and the old drain takes place here (via a special made lip seal) in the pot of the old drain.

The measuring of the internal diameter of the pot of the old drain is an important prerequisite to finding the suitable redevelopment drain.

## ■ Redevelopment drains for redeveloping "in the pot"\*\*

Dimension | Art. No.



### Redevelopment drain (PUR) DN 125

vertical, clamp flange:  
DN 125 **2306**  
pot inside-Ø: 140–150 mm



### Redevelopment drain made of PUR DN 125

vertical, adhesive collar:  
DN 125 **3306**  
pot inside-Ø: 140–150 mm



### Redevelopment drain made of PUR 140

vertical, clamp flange:  
140 **2307**  
pot inside-Ø: 155–165 mm



### Redevelopment drain made of PUR 140

vertical, adhesive collar:  
140 **3307**  
pot inside-Ø: 155–165 mm



### Redevelopment drain made of PUR DN 150

vertical, clamp flange:  
157 **2308**  
pot inside-Ø: 172–185 mm



### Redevelopment drain made of PUR DN 150

vertical, adhesive collar:  
157 **3308**  
pot inside-Ø: 172–185 mm



### Redevelopment drain made of PUR 170

vertical, adhesive collar:  
170 **3329**  
pot inside-Ø: 185–198 mm



### Redevelopment drain made of PUR DN 200

vertical, adhesive collar:  
200 **3309**  
pot inside-Ø: 215–230 mm



### Trapezoidal drain made of PUR

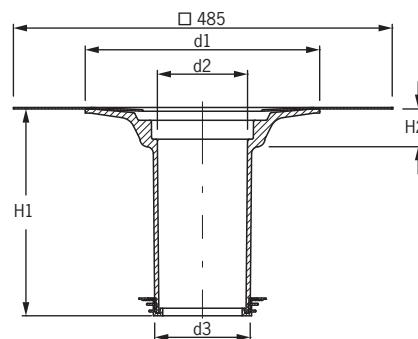
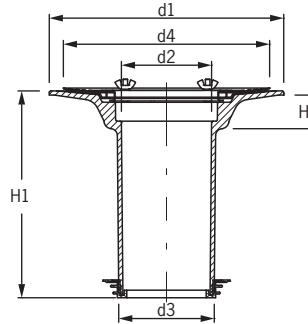
vertical:  
DN 70 **2302**  
pot inside-Ø: 88–105 mm  
  
DN 100 **2304**  
pot inside-Ø: 123–135 mm



### Redevelopment drain made of aluminum

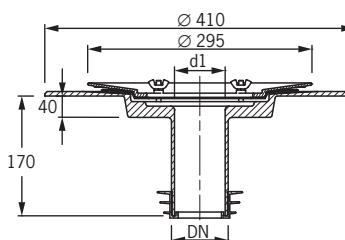
vertical:  
DN 90 **2303**  
pot inside-Ø: 100–115 mm  
and pipes DN 100

### Technical data redevelopment drains made of PUR



Art.	d1	d2	d3	d4	H1	H2
<b>2306</b>	310	—	125	273	390	60
<b>3306</b>	310	118	125	—	390	60
<b>2307</b>	310	136	140	273	280	70
<b>3307</b>	310	130	140	—	280	70
<b>2308</b>	285	154	157	275	400	60
<b>3308</b>	250	146	157	—	400	60
<b>3329</b>	310	160	170	—	260	40
<b>3309</b>	340	190	200	—	260	70

### Technical data Trapezoidal drain made of PUR



Art.	DN	d1	Drainage capacity*
<b>2302</b>	70	65	6,7 l/s (35 mm)
<b>2304</b>	100	100	5,9 l/s (35 mm)

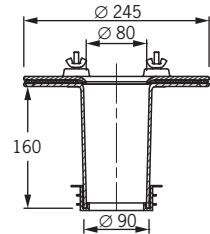
## ■ Redevelopment drains for redeveloping old pipes\*\*

Installation example redevelopment drain made of aluminum DN 90



Redevelopment drain made of aluminum DN 90 for the redevelopment of sleeveless pipes and roof drains DN 100 without applying extra insulation.

Technical data redevelopment drain made of aluminum DN 90



Art.	DN	Actual	Drainage capacity*
2303	90	90	3,9 l/s (35 mm)

“Pipe redevelopment” is the up-to-date redevelopment method

### The redevelopment drains made of PUR

**36/56/88/103/110** can be simply inserted into the old drains or pipes DN 50, 70, 100 or 125. **The extra-long supports** reach through the pot of the old drain into the downpipe or the support of the old drain – the internal diameter of the pot of the existing drain is not longer relevant. That is the decisive advantage in comparison with the “traditional” redevelopment drains (Pages 13 and 14)! **The DIN requirements are still fulfilled despite the reduction of the nominal width in most cases.**



Redevelopment drain  
made of PUR  
36/56/88/103/110

## ■ Accessories for all redevelopment drains

Lip seal for redevelopment

drain Art. No.	d1 (DN)	d2	d3	Range (pot-inside- )	Dimension   Art. No.
3311	36	45	52	42–45 mm	DN 36 <b>3311.D</b>
3313	56	76	85	65–80 mm	DN 56 <b>3313.D</b>
drain DN 70	70	83,5	95	84–90 mm	DN 70 <b>2380</b>
2302	70	95,5	116	88–105 mm	DN 70 <b>2382</b>
3315/2303	88/90	105	122	100–115 mm	DN 88/90 <b>3315.D</b>
drain DN 90	90	110	121	95–105 mm	DN 90 <b>2381</b>
3317	103	127	134	117–126 mm	DN 103 <b>3317.D</b>
2304, 3314	110	130	150	123–135 mm	DN 100 <b>2384</b>
2306, 3306	125	142	167	140–150 mm	DN 125 <b>2386</b>
2307, 3307	140	158	179	155–165 mm	DN 140 <b>2307.D</b>
2308, 3308	150	175	212	172–185 mm	DN 150 <b>2388</b>
3329	170	190	210	185–198 mm	DN 170 <b>3329.D</b>
3309	200	217	241	215–230 mm	DN 200 <b>2389</b>

HT-pipe with sleeve (length 0,5 m)

DN	d1	d2	L1	L2	Dimension   Art. No.
50	50	62	500	63	DN 50 <b>2390</b>
70	75	88	500	67	DN 70 <b>2391</b>
90	90	105	500	70	DN 90 <b>2393</b>
100	110	125	500	80	DN 100 <b>2392</b>
125	125	144	500	90	DN 125 <b>2394</b>
150	160	183	500	100	DN 150 <b>2395</b>

## ■ Redevelopment drains for redeveloping old pipes\*\*

Dimension | Art. No.



### Redevelopment drain made of PUR 36

vertical:

36 **3311**

Redeveloping old drains DN 50



### Redevelopment drain made of PUR 56

vertical:

56 **3313**

Redeveloping old drains DN 70



### Redevelopment drain made of PUR 88

vertical:

88 **3315**

Redeveloping old drains DN 100



### Redevelopment drain made of PUR 103

vertical:

103 **3317**

Redeveloping old drains DN 125



### Redevelopment drain made of PUR 110 (DN 100)

vertical:

110 **3314**

suitable fpr pipes DN 100 with sleeve, therefore without seal



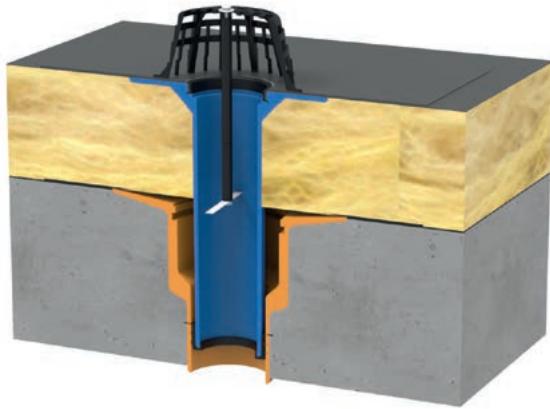
### Garage drain made of PUR

vertical:

50 **3300**

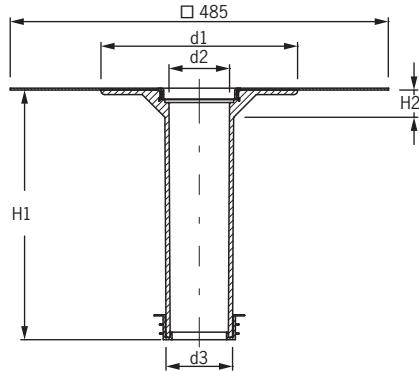
DN 70 **3302**

### Installation example pipe redevelopment



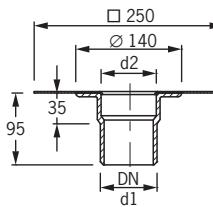
Redevelopment drain with connection collar and backflow seal in the maintained drain support

### Technical data Redevelopment drains made of PUR



Art.	d1	d2	d3	H1	H2	Drainage capacity*
<b>3311</b>	105	26	36	110	6	1,7 l/s (35 mm)
<b>3313</b>	260	51	56	325	25	3,2 l/s (35 mm)
<b>3315</b>	260	80	88	325	35	4,5 l/s (35 mm)
<b>3317</b>	260	97	103	325	40	3,3 l/s (35 mm)
<b>3314</b>	260	100	110	300	35	4,6 l/s (35 mm)

### Technical data Garage drain made of PUR



Art.	DN	d1	d2	Drainage capacity*
<b>3300</b>	50	50	48	1,9 l/s (35 mm)
<b>3302</b>	70	75	83	1,7 l/s (35 mm)

## Ventilation redevelopment, roof and small roof vents

**NEW!**



**Redevelopment vent made of PUR, including:**

Water deflector, made of PE

Ventilation pipe, made of PE

Redevelopment vent

Lip seal

### Grumbach redevelopment vent made of PUR

heat insulated, CFC-free, with lip seal; adhesive flange with foam-filled connection collar (bitumen, PVC or special foil), backflow seal, PVC pipe and water deflector.



### The Grumbach Redevelopment vent

is suitable for backflow-free connection of drain connections onto sleeveless pipes and into the sealing surface.

#### Installation example redevelopment vent

Ventilation inlet redevelopment insulated roof construction

Top part:  
New ventilation pipe  
with adhesive collar and  
water deflector inserted  
in redevelopment vent.



Bottom part:  
Redevelopment vent  
inserted into old sleeveless  
ventilation pipe

### Grumbach roof vent made of PUR

with broad adhesive collar and heavy rainproof cover. This ensures that the gap in the cold roof is well ventilated. See next page.



Roof vent DN 200



Roof vent with connection collar, on request.

**NEW!**

# Ventilation redevelopment, roof and small roof vents

Dimension | Art. No.



## Redevelopment vent 56/88/103 made of PUR

56 for DN 70	<b>5161</b>
88 for DN 100	<b>5163</b>
103 for DN 125	<b>5165</b>



## Roof vent DN 200 made of PUR

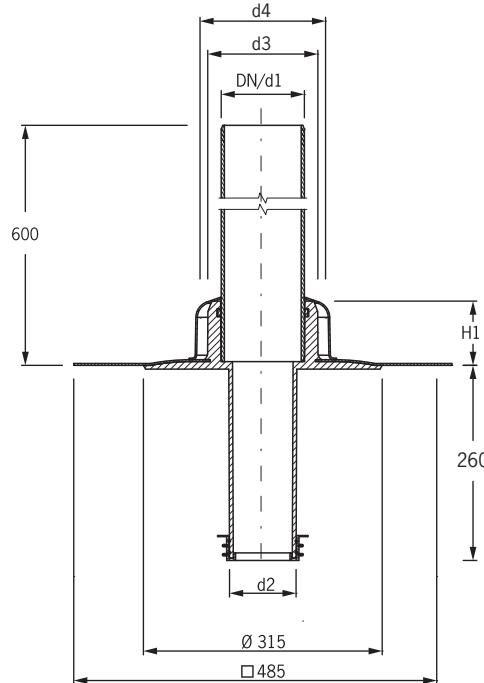
with rain cap	<b>5157</b>
without rain cap	<b>5159</b>

## Cold roof vent with connection collar

DN 70	<b>5151</b>
DN 100	<b>5152</b>
DN 125	<b>5153</b>
DN 150	<b>5156</b>

# Ventilation redevelopment, roof and small roof vents

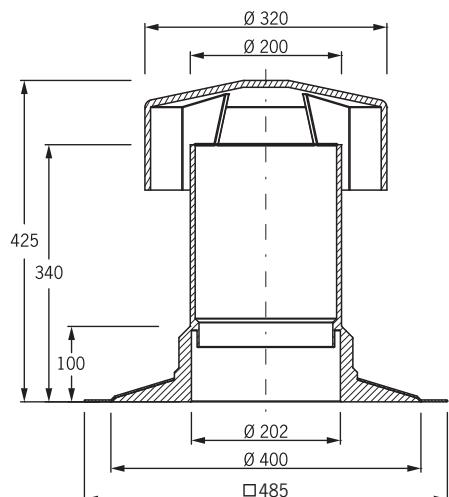
## Technical data redevelopment vent



NEW!

## Installation example und technical data roof vent DN 200

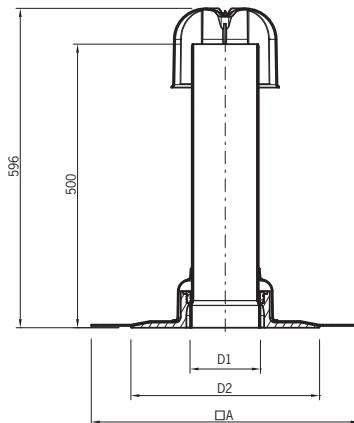
Roof vent DN 200 applied on a second, shortened roof vent DN 200, inserted into an insulated roof.



Art.	DN	d1	d2	d3	d4	H1
<b>5161</b>	70	75	56	112	131	75
<b>5163</b>	100	110	88	140	166	85
<b>5165</b>	100	110	103	140	166	85

## Installation example und technical data cold roof vent

Cold roof vent for ventilation in a roof seal of a ventilated roof construction.



Art.	DN	D1	D2	A
<b>5151</b>	70	75	310	485
<b>5152</b>	100	110	300	485
<b>5153</b>	125	125	350	485
<b>5156</b>	150	160	400	500

## ■ Ventilation for roofs with and without insulation

### Grumbach adhesive collars

with lip seal, fit onto all plastic pipes

Rain cap made of PE resp. PA

Water deflector  
made of PE,  
included in a scope  
of delivery of the  
ventilation pipe

Adhesive collar  
made of PUR with  
selectable connec-  
tion collar (two piec-  
es are requested  
for insulated roofs)



Ventilation pipe made of PE



### The adhesive collar

made of PUR, CFC-free with  
foamfilled connection collar, PVC or  
special foil).



### Water deflector

serves to protect the lip seal on the  
adhesive collar/flange from effects  
of the environment.

### The rain cap

is suitable for ventilation pipes. It is  
required for room ventilation.

### Ventilation pipes

Simply install the ventilation pipe  
up to the required height above  
the roof and dependent on the roof  
construction add an adhesive flange  
or adhesive collar.

Ventilation for insulated roof



### Installation example insulated roof vent

Two adhesive collars plus  
water deflector fitted  
onto a PE ventilation pipe  
including rain cap in the  
insulated roof



### Energy lead-in made of PE

For the implementation of all kinds  
of energy lines through the flat roof  
seal. Also suitable for ventilation of  
the whole pipe cross section. Flat  
roof seal. Suitable for the ventilation  
pipes made of PE.

### Protection cap made of EPDM

- for energy lead-ins  
DN 70–DN 150, easy to apply
- 6 sealing lip for secure attach-  
ment
- protects against the ingress of dirt  
and animals/insects
- prevents moisture and air ex-  
change, waterproof
- with prefabricated cutting aids for  
the implementation of different  
cable diameters

Dimension | Art. No.



#### Adhesive collar made of PUR

DN 70	<b>5102</b>
DN 100	<b>5104</b>
DN 125	<b>5106</b>
DN 150	<b>5108</b>



#### Ventilation pipe made of PE

DN 70	<b>5122</b>
DN 100	<b>5124</b>
DN 125	<b>5126</b>
DN 150	<b>5128</b>



#### Rain cap made of PE resp. PA

DN 70	<b>5131</b>
DN 100	<b>5133</b>
DN 125	<b>5135</b>
DN 150	<b>5137</b>



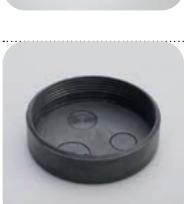
#### Protective basket made of PE

DN 70	<b>3492.S</b>
DN 100	<b>3493.S</b>
DN 125	<b>3498</b>



#### Extension piece made of (PE) for energy inlet

DN 70	<b>5142</b>
DN 100	<b>5144</b>
DN 125	<b>5146</b>
DN 150	<b>5148</b>



#### Protection cap made of EPDM

DN 70	<b>5342</b>
DN 100	<b>5344</b>
DN 125	<b>5346</b>
DN 150	<b>5348</b>

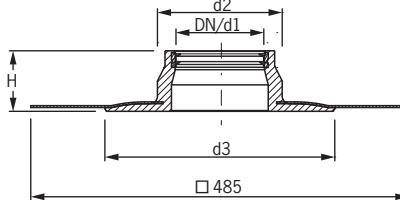


#### Condensation drain (Attachment)

DN 100	<b>5145</b>
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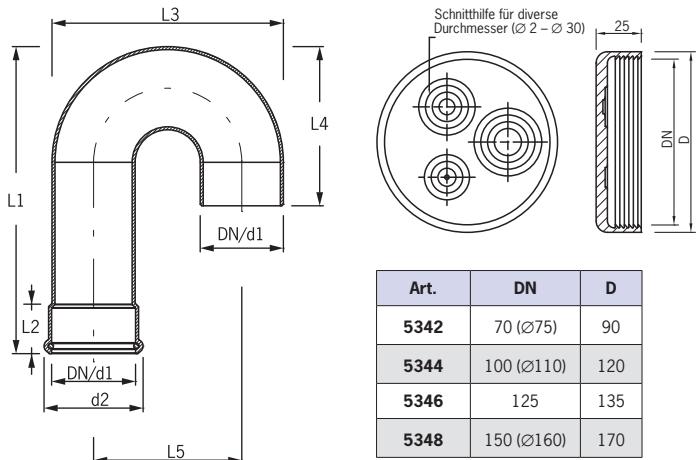
## ■ Ventilation for roofs with and without insulation

### Technical data adhesive collars/flanges



Art.	DN	d1	d2	d3	d4	H
<b>5102</b>	70	75	160	310	–	80
<b>5104</b>	100	110	165	300	–	85
<b>5106</b>	125	125	185	355	–	70
<b>5108</b>	150	160	200	395	–	75

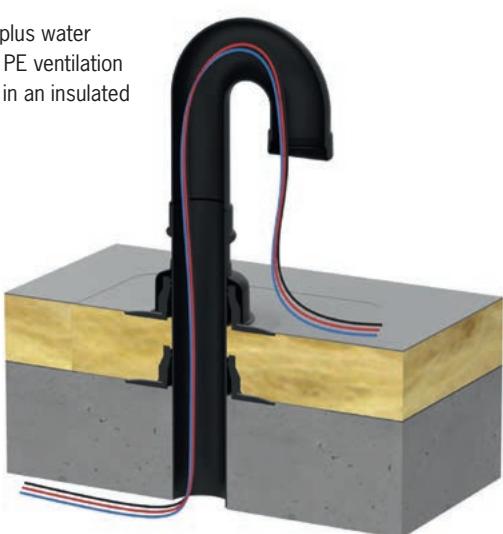
### Technical data energy inlet and protection cap



Art.	DN	d1	d2	L1	L2	L3	L4	L5
<b>5142</b>	70	75	95	340	65	215	165	140
<b>5144</b>	100	110	130	410	65	310	215	196
<b>5146</b>	125	125	150	345	65	345	210	220
<b>5148</b>	150	160	190	400	65	450	255	290

### Installation example energy inlet

Two adhesive collars plus water deflector placed on a PE ventilation pipe incl. energy inlet in an insulated roof.



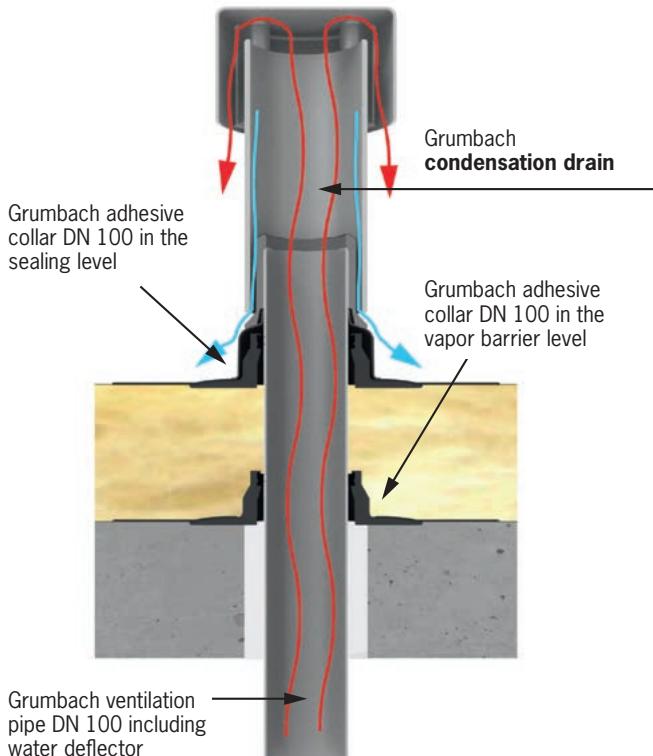
## ■ Ventilation for roofs with and without insulation



Grumbach condensation drain including: condensation drain ring, ventilation pipe DN 150 (400 mm long) and rain cap DN 150

### Installation example condensation drain

Ventilation pipe DN 100 in a flat roof in an insulated roof construction incl. fitted Grumbach condensation drain



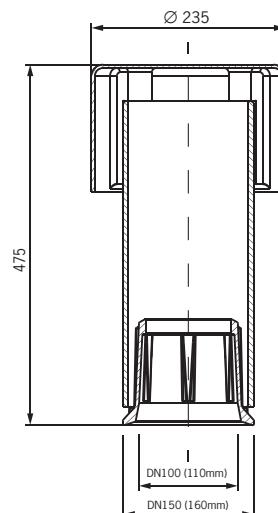
### Condensation drain

- simple vertical attachment, which can be slipped on, for ventilation pipe DN 100 on flat roofs to remove warm damp air
- for the ventilation of inside spaces, e.g. bathrooms or kitchens with extractor fans
- prevents condensation from flowing back into the ventilation pipes
- condensation from the inside of the attachment is safely drained onto the roof
- including condensation drain, ventilation pipe DN 150 (400 mm long) and rain cap DN 150



Practical example:  
Ventilation pipe DN 100 with  
two adhesive collars DN 100  
with Grumbach condensation  
drain attached

### Technical data condensation drain



## ■ Collar drain DN 200 It doesn't get any bigger!



### Securing groove + pebble trap = secure pebble collection

The securing groove ensures that the connection between the body of the drain and the pebble trap is permanently secure.

### Securing groove + anti-backflow seal = Secure backflow prevention

If base elements and extensions are used, as in e.g. insulated roofs, then the securing groove of the base element would be connected with the anti-backflow seal. The anti-backflow seal, which was specially developed for the collar drain, can be securely fastened to the securing groove.

If the extension element is fitted into the base element, then the required backflow prevention is provided.

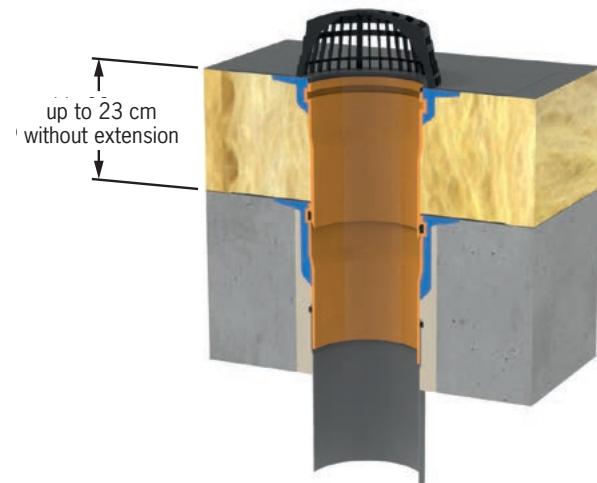
The seal cannot slip during this process as the seal always sits correctly.

### Collar drain DN 200 made of PUR

CFC-free, with pebble trap incl. fastening material and foam-filled connection collar (bitumen, PVC or special foil).

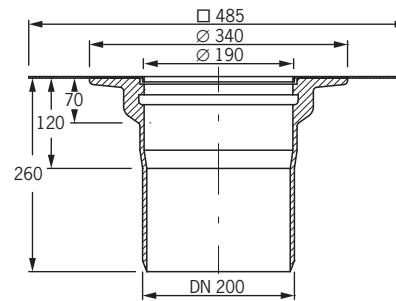
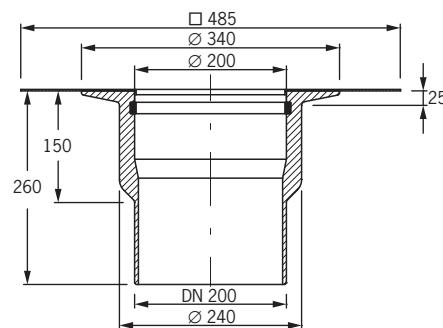
**Extension element** with connection collar (bitumen, PVC or special foil) and anti-back flow seal, suitable for the collar drain DN 200.

### Installation example collar drain DN 200



Collar drain vertical DN 200 with extension element in an insulated roof

### Technical data collar drain DN 200



Dimension   Art. No.	
<b>Collar drain made of PUR</b> vertical: DN 200	<b>3009</b>
<b>Extension element made of PUR</b> DN 200 up to 23 cm	<b>3084</b>

## ■ Combi drain Type I for ventilation and drainage

**2 in 1**

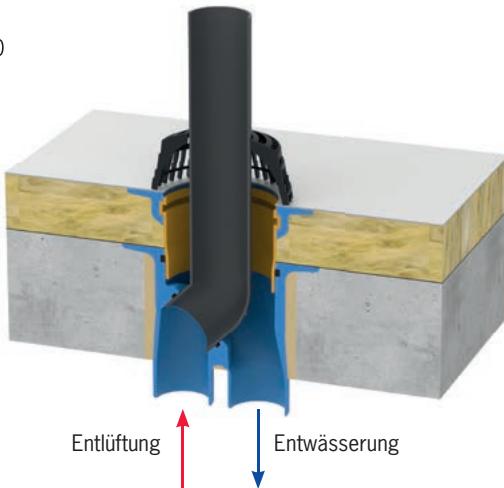


### One hole for drainage and ventilation

The lesser the holes, the better the roof. This is why the combination drain has been used in many roofs for over 30 years!

### Installation example: Ventilation and drainage

Combi drain DN 100  
with extension element  
in an insulated  
roof, for simultaneous  
ventilation and drainage in  
the warm roof.



### Combi drain made of PUR

allows down pipe ventilation and drainage through one roof lead-in; heat insulated, CFC-free, with pebble trap, combi seal for flange pressing/back flow prevention, clamp flange and ventilation pipe DN 100.

**Extension element** heat insulated, CFC-free, with clamp flange and flange press seal. Suitable for combi drain.

### Combi drain Type I: two become one

Rain and drain pipes are placed side by side up to the roof and require two holes to be made in the roof for drainage and ventilation.

To be able to save drilling through the roof a second time, Grumbach offers the **combi drain type I**. The rainwater flows through the drain as usual. The second pipe, which is fed through the drain pot, ventilates the sanitary drain pipe. The combi drain is kept ice free in winter by rising gases.

**Result:** there is no need to make and seal a second hole in the roof and no supplementary heating is required.



## ■ Combi drain Type I for ventilation and drainage

Dimension | Art. No.



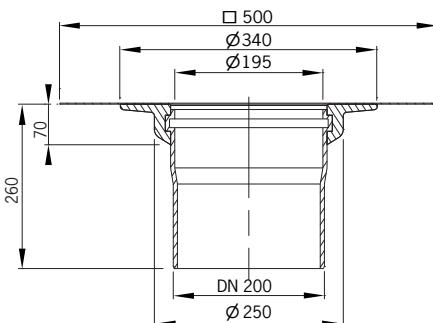
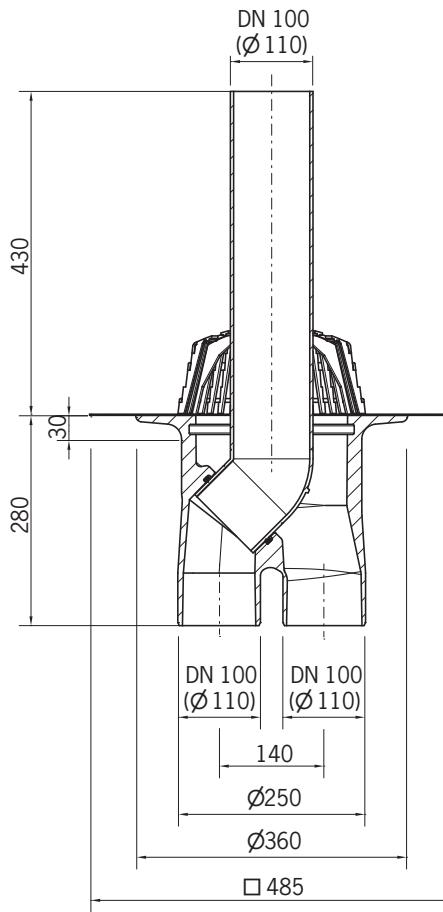
**Combi drain type I  
made of PUR**  
vertical:  
DN 100/100 **3220**

Drainage capacity\*:  
9,4 l/s (35 mm)



**Extension element  
made of PUR**  
DN 200 up to 23 cm  
**3084**

### Technical Data



Drainage capacity in l/s at accumulation height in millimeters						
Accumulation height	15 mm	25 mm	35 mm	45 mm	55 mm	65 mm
Drainage capacity	3,0	5,9	9,4	14,1	16,9	18,0

\* Drainage capacity acc. to DIN EN 12532 in l/sec (accumulation height in millimeters)

## ■ Combi drain II for main and emergency drainage

**2 in 1**



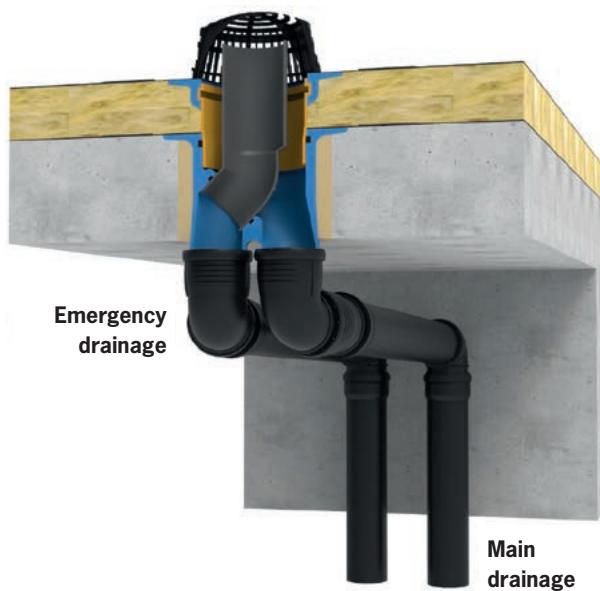
### Combi drain type II made of PUR

Efficient 2-in-1 system for combined main and emergency drainage through **one** ceiling opening; thermally insulated, CFC-free, with gravel trap, emergency drainage pipe and firmly cast-on sealing collar.

The proven principle of the Combi drain type I is now also used for main and emergency drainage through a ceiling opening.

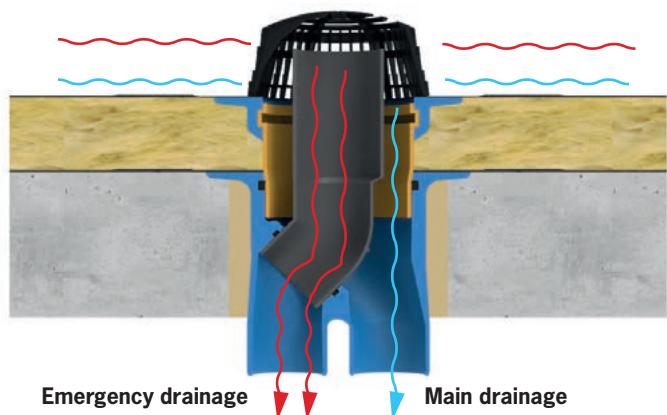
The emergency drainage pipe is simply inserted into the drain. The gravel trap protects both drains at the same time. Every hole less makes a roof better!

### Installation example combi drain type II



The emergency drainage pipe made of sturdy PE pipe fittings is simply inserted into the combi drain type II. When ordering, the pipe is manufactured in the required length depending on the existing extension or the desired accumulation height.

### Functional principle of combi drain II (main / emergency drainage)



Dimension | Art. No.



NEW!

**Combi drain type II  
made of PUR**

vertical:

 DN 100/100 **3221**

Drain. capacity\*: 9,4 l/s (35 mm)


**Extension element made of  
PUR**

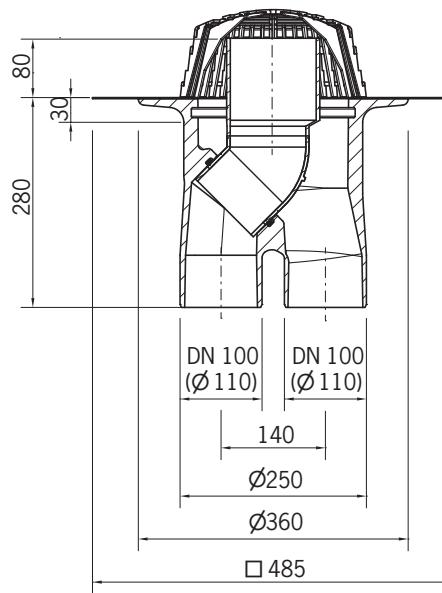
DN 200 up to 23 cm

**3084**
**Emergency drainage pipe**

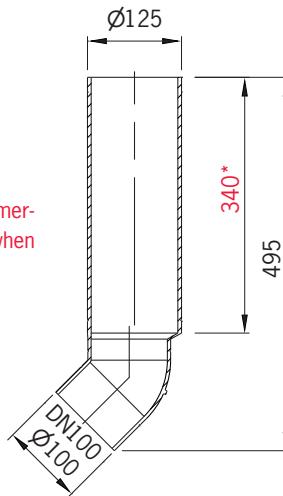
 made of sturdy PE pipe fittings  
(Included in delivery)

**Emergency drainage pipe**

 For use with extension element (in-  
cluded in delivery), please specify  
desired length when ordering.

**Technical Data**


\*please specify desired  
length/height of the emer-  
gency drainage pipe when  
ordering.



	Drainage capacity in l/s at accumulation height in millimeters					
	15 mm	25 mm	35 mm	45 mm	55 mm	65 mm
Main drainage	3,0	5,9	9,4	14,1	16,9	18,0
Emergency drainage	2,3	4,5	7,0	11,1	15,0	18,0

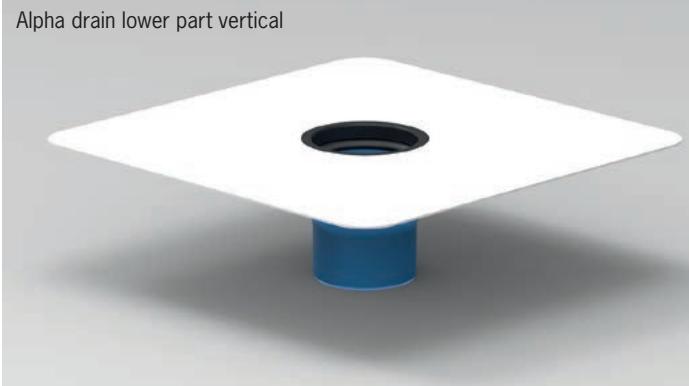
## ■ Alpha drain (formerly known as Eco drain) with new supplements and accessories

NEW!

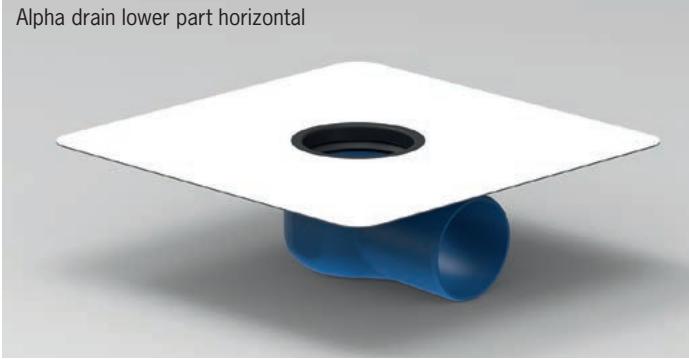
Alpha drain upper part



Alpha drain lower part vertical



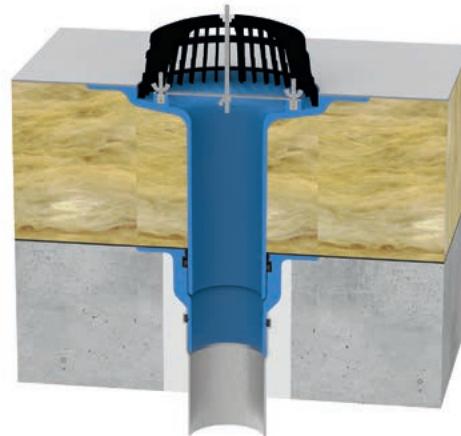
Alpha drain lower part horizontal



**The Alpha drain made of PUR – an awesome two-piece**  
made of high-quality, CFC-free polyurethane rigid integral foam (PUR). Maximum drainage with minimal ceiling openings.

- The lower part of the drain has only the maximum necessary diameter for every available nominal DN size and therefore only requires minimal ceiling openings.
- Each drain lower part has a push-in sleeve on the top with the same DN nominal width as its socket diameter.
- This gives the drain upper part a secure and firm hold as well as absolute backflow protection and allows many flexible uses.
- The upper part of the drain has both a long outlet connection in DN nominal width for high insulation thicknesses and a flat inlet plate for low insulation structures.
- The inlet area, which is uniformly large for all nominal widths, ensures a high drainage capacity.
- With an extra large and stable pebble trap to protect the rainwater down-pipes from clogging.
- The use of upper and lower parts of the drain independently of each other also allows a wide range of possible uses due to the consistent design in DN nominal widths.
- Available with all standard roofing membrane connection sleeves.

### Installation examples

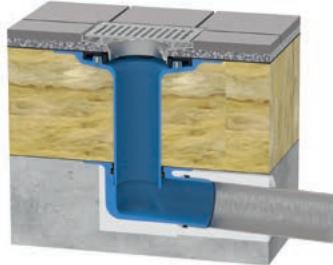


Alpha drain lower part vertical with inserted upper part in the warm roof.

### Accessories



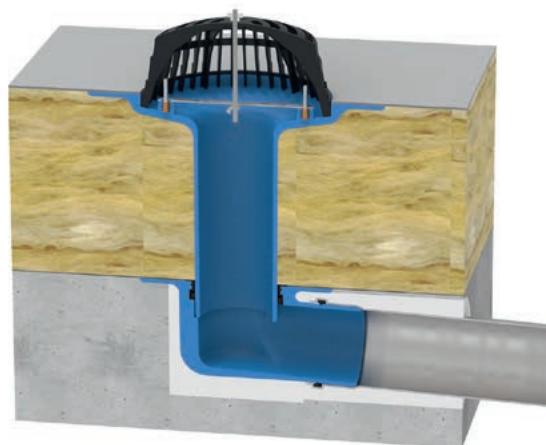
Alpha adapter ring made of PUR  
for the Alpha drain, upper part



- The Alpha adapter ring is inserted into the upper part of the Alpha drain and is used to accommodate either terrace construction kits or insert screens with a precise fit.

### Installation example

Alpha drain upper part in conjunction with drain adapter ring and walk-on terrace construction kit in the warm roof with terrace structure



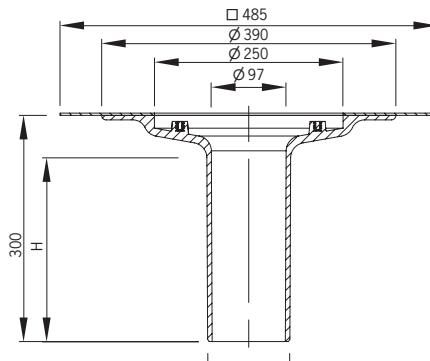
Alpha drain lower part horizontal with inserted upper part in the warm roof.

## ■ Alpha drain (formerly known as Eco drain) with new supplements and accessories

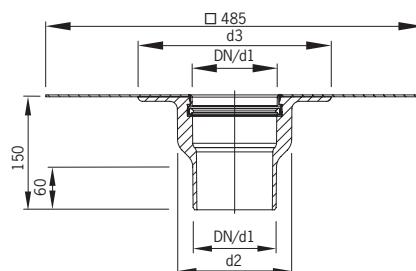
Dimension | Art. No.

	<b>Alpha drain made of PUR (upper part)</b> DN 70 <b>3282</b> DN 100 <b>3284</b> DN 125 <b>3286</b>
	<b>Alpha drain made of PUR (lower part), vertical</b> DN 70 <b>3202</b> DN 100 <b>3204</b> DN 125 <b>3206</b>
	<b>Alpha drain made of PUR (lower part), horizontal</b> DN 70 <b>3232</b> DN 100 <b>3234</b> DN 125 <b>3236</b>
	<b>Alpha adapter ring (PUR)</b> suitable for the Alpha drain top part to accommodate insert screens or terrace kits <b>3287</b>
	<b>Terrace construction kit can be walked on (black)</b> height adjustable 60–170 mm complete with end sieve, without odour trap <b>5902</b>
	<b>Terrace construction kit can be walked on</b> <b>5900</b>
	<b>Stainless steel insert sieve</b> Ø 160 mm <b>3449.S</b>

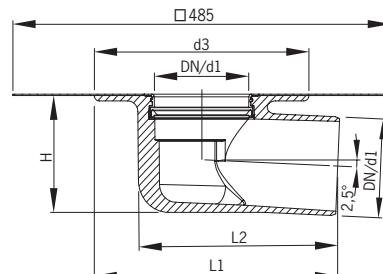
### Technical data Alpha drain



Alpha drain, upper part

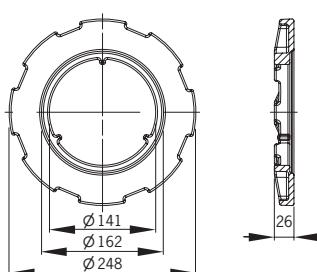


Alpha drain, lower part vertical



Alpha drain, lower part horizontal

Art.-No.	DN	d1	d2	d3	H	L1	L2	Drainage capacity*
<b>Alpha drain upper part</b>								
<b>3282</b>	70	75	62	—	245	—	—	8,0 l/s (35 mm)
<b>3284</b>	100	110	97	—	245	—	—	8,8 l/s (35 mm)
<b>3286</b>	125	125	114	—	250	—	—	10,4 l/s (45 mm)
<b>Alpha drain lower part, vertical</b>								
<b>3202</b>	70	75	115	220	—	—	—	3,9 l/s (35 mm)
<b>3204</b>	100	110	150	255	—	—	—	5,2 l/s (35 mm)
<b>3206</b>	125	125	165	270	—	—	—	7,8 l/s (45 mm)
<b>Alpha drain lower part, horizontal</b>								
<b>3232</b>	70	75	—	220	93	255	197	3,7 l/s (35 mm)
<b>3234</b>	100	110	—	255	130	290	238	6,0 l/s (35 mm)
<b>3236</b>	125	125	—	270	153	305	253	8,7 l/s (45 mm)



Alpha adapter ring

## ■ Eccentric drain for the downpipe sealing lead-through

### Eccentric drain

made of high quality, CFC-free polyurethane hard foam (PUR). Optimal for draining roof surfaces lying one above the other through one downpipe. With adjusted flange for direct installation against the building wall.

The incoming and outgoing pipe can be **adjusted eccentrically**, this allows the distance to the wall and misalignment of the downpipe to be easily compensated.

The eccentric drain is ideal for use on balconies on different storeys.

The connection collar is available in all common roof sealings. An eccentric disk is included in the scope of delivery; inlay sieve, sieve ring attachment and terrace construction kit are available as accessories.



Eccentric drain with terrace construction kit and sieve ring



Eccentric drain incl. eccentric disk

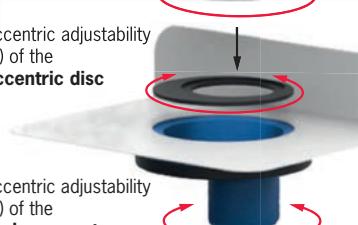


### Installation example eccentric drain with/without terrace construction kit

Eccentric adjustability (1) of the **sieve ring element**



Eccentric adjustability (2) of the **eccentric disc**



Eccentric adjustability (3) of the **drain support**



Eccentric drain with inlay sieve

**The maximum adjustment from the centre** between the inlet and outlet downpipe **is 96 mm!**

Thanks to its various components, the eccentric drain from Grumbach solves a lot of problems with downpipe ceiling lead-throughs.

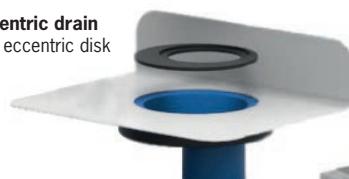
**Sieve ring element**  
with downpipe adaptor



**Terrace construction set**  
can be walked on



**Eccentric drain**  
with eccentric disk

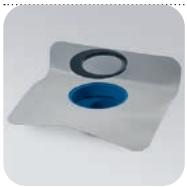


Eccentric drain  
with sieve ring attachment DN 100



Eccentric drain  
with sieve ring attachment DN 70

Dimension | Art. No.



#### Eccentric drain

incl. eccentric disk  
DN 100 **3722**



#### Inlay sieve, round made of aluminum

suitable for eccentric drain  
diameter 160 mm  
**3449.S**



#### Sieve ring attachment, eccentric

suitable for eccentric drain, for  
take-up of downpipes DN 70  
DN 70 **5903.E**



#### Sieve ring attachment, eccentric

suitable for eccentric drain, for  
take-up of downpipes DN 100  
DN 100 **5904.E**



#### Terrace construction kit, can be walked on (black)

complete with end grating  
without odour trap  
**5902**



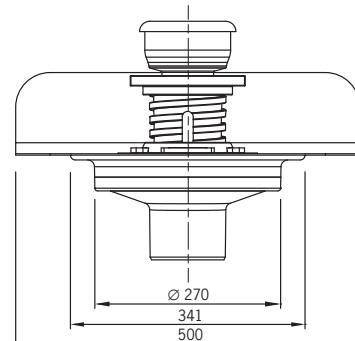
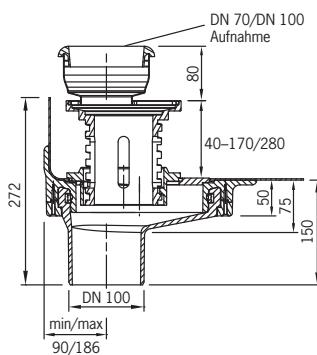
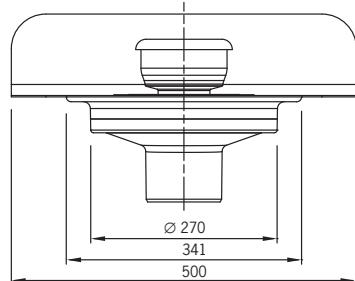
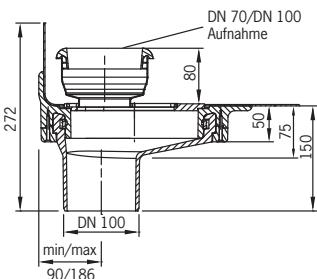
#### Terrace construction kit PLUS

as Art. No. 5902, but with top  
covering made of stainless steel  
**5902.E**

## ■ Eccentric drain for the downpipe sealing lead-through

### Technical data eccentric drain

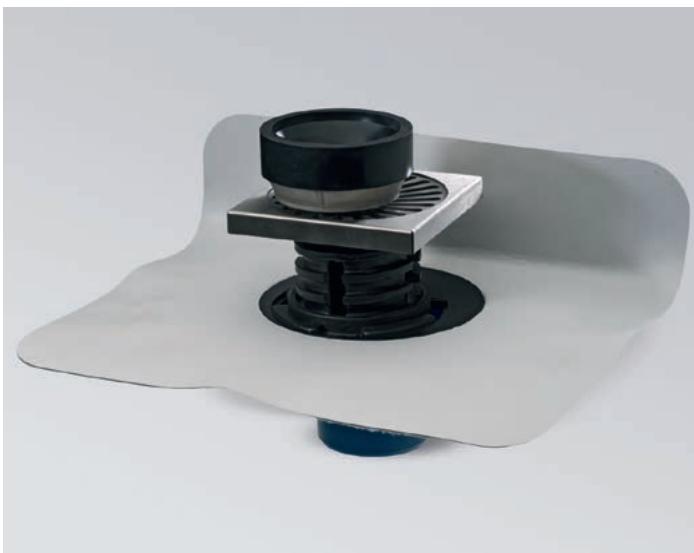
The maximum adjustment from the centre between the inlet and outlet downpipe is 96 mm!



### Installation example eccentric drain



Eccentric drain with terrace construction kit and sieve ring attachment DN 70



Eccentric drain with terrace construction kit and sieve ring attachment DN 100

## ■ Continuous balcony drain, lowerable



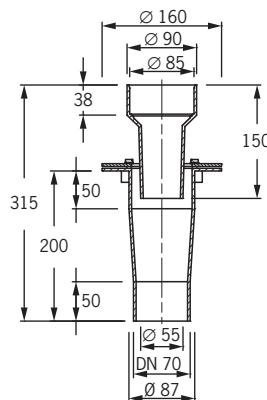
### Continuous balcony drain, lowerable

Made of aluminum, DN 70, with clamp flange and flange press seal, 40 mm flange width. The special solution for prefabricated buildings.

#### Continuous balcony drain with clamp flange made of aluminum

is particularly suited for balconies in blocks of flats or panel or prefabricated buildings. The down pipes can be subsequently installed or removed. The special solution: Flange with a diameter of 160 mm with clamp flange or simple for sealing with liquid plastic.

### Technical data



### Installation example

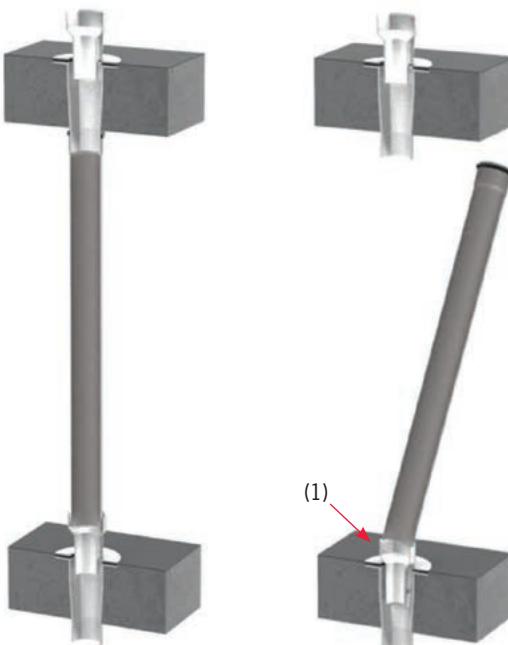
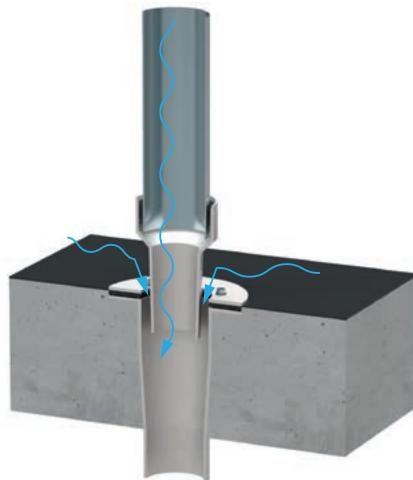


#### Dimension | Art. No.

**Continous balcony drain,  
lowerable**  
DN 70      **2701**

### Installation example

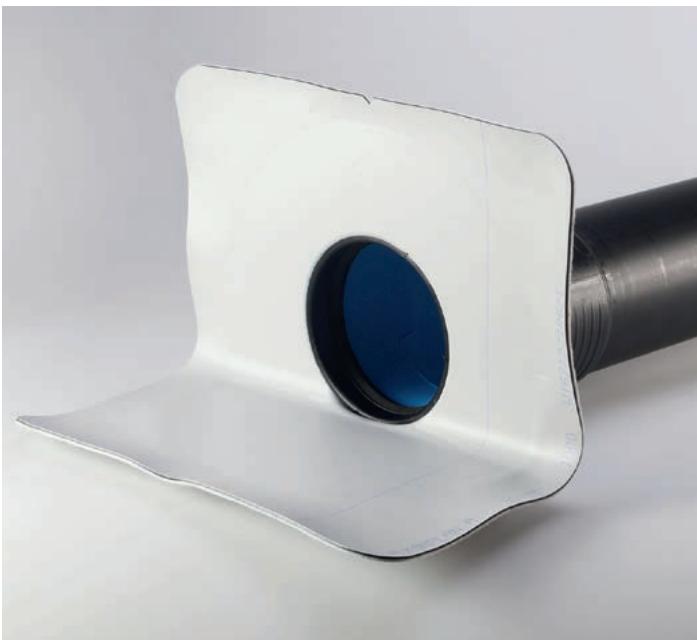
The continuous balcony drain can be installed in a stacked manner and not only drains the water from the installation area but also the water coming from the down pipe.



By lifting and locking the lower pipe inlet, the pipe sleeve is inserted onto the supports of the upper drain.

The sunken pipe inlet (1) allows the down pipe to be inserted or removed.

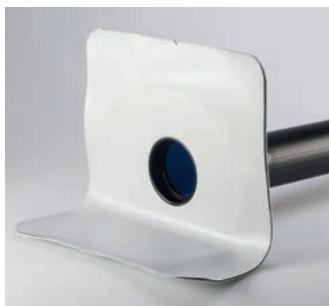
## ■ Attica balcony drain DN 50, 70, 100



Attica balcony drain made of PUR with slip-in socket



Detail Plug-in sleeve



Attica balcony drain made of PUR with plug-in sleeve as emergency overflow

### Attica balkony drain

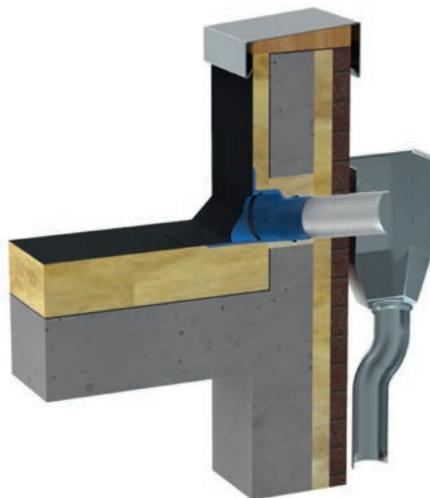
heat insulated, CFC-free, with PVC sleeve pipe (black) 50 cm long and cast on bitumen, PVC or special cuff.

### Attica balcony drains

With the attica balcony drains it is possible to solve many drainage problems on roofs, terraces, balconies leafy pathways etc. in a way that was not previously possible.

One has the possibility to drain water above heated rooms, without weakening the heat insulation and by doing so creating thermal bridges (see installation example).

### Installation example



Attica balcony drain (Art. No. 3444.BIT) with plug-in sleeve, built into the vapour barrier and water collector. **To avoid frost damage, we recommend using our trace heating systems (see page 74).**



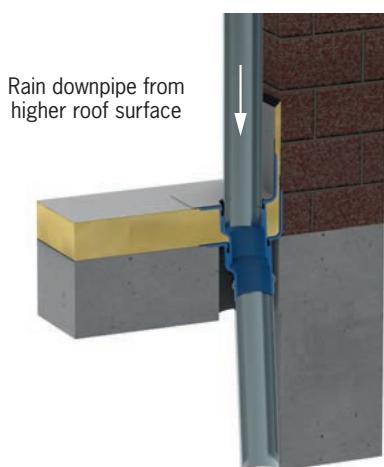
Attica balcony drain made of PUR



Attica balcony drain made of PUR with wedge 6x6 cm and emergency overflow element



Two attica balkony drains (Art. No. 3405) vertical attached close to the wall



Two attica balkony drains (Art. No. 3405) vertical attached close to the wall as rain water pipe

## ■ Attica balcony drain DN 50, 70, 100

Dimension | Art. No.



### Attica balcony drain made of PUR

DN 50	<b>3410</b>
DN 70	<b>3411</b>
DN 100	<b>3412</b>



### Attica balcony drain made of PUR with plug-in sleeve

DN 50	<b>3413</b>
DN 70	<b>3414</b>
DN 100	<b>3415</b>



### Attica balcony drain made of PUR with plug-in sleeve and wedge 6 x 6 cm

DN 50	<b>3440.BIT</b>
DN 70	<b>3442.BIT</b>
DN 100	<b>3444.BIT</b>



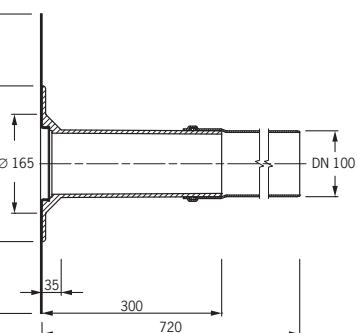
### Attica balcony drain made of PUR with plug-in sleeve as emergency overflow

DN 50	<b>3403</b>
DN 70	<b>3404</b>
DN 100	<b>3405</b>



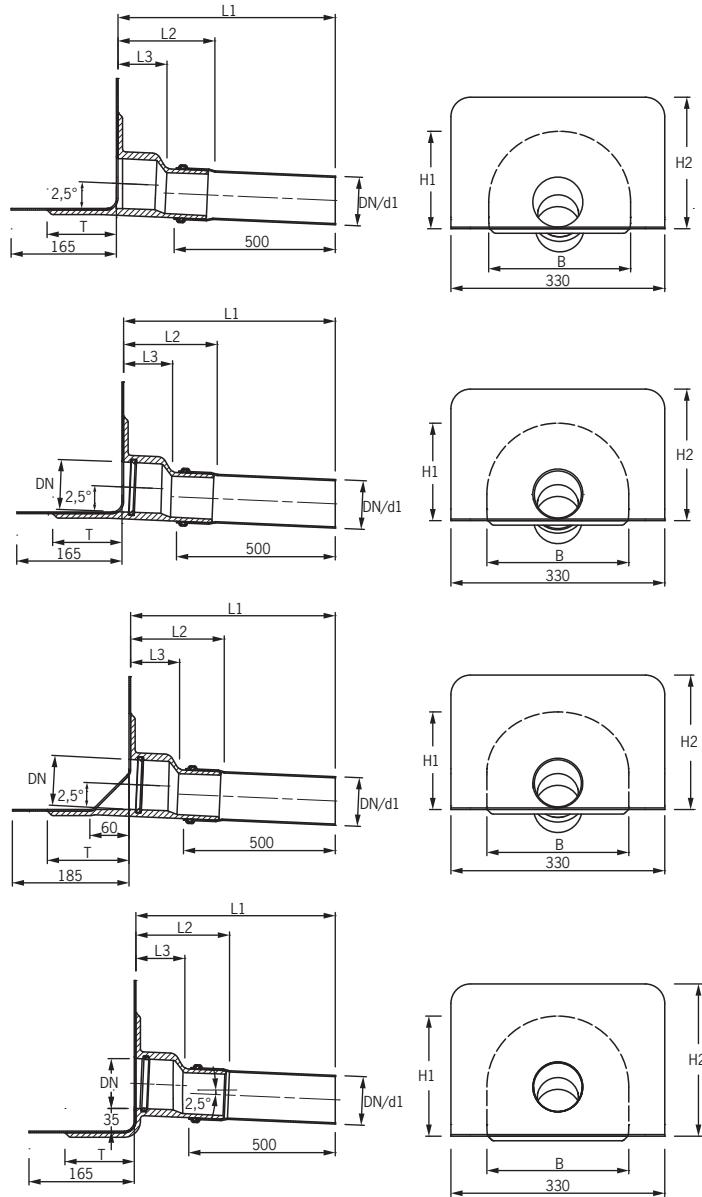
### Attica emergency overflow

DN 50	<b>3400</b>
DN 70	<b>3401</b>
DN 100	<b>3402</b>



Art.	DN	d1	Drainage capacity*
<b>3400</b>	50	50	0,4 l/s (35 mm)
<b>3401</b>	70	75	0,7 l/s (35 mm)
<b>3402</b>	100	110	0,9 l/s (35 mm)

### Technical data attica balcony drains



Art.	DN	d1	L1	L2	L3	T	B	H1	H2	Drainage capacity*
<b>3410, 3411, 3413, 3440.BIT</b>	50	50	630	130	65	95	190	95	200	0,6 l/s (35 mm)
<b>3411, 3414, 3442 BIT</b>	70	75	635	130	70	110	220	150	200	0,7 l/s (35 mm)
<b>3412, 3415, 3444 BIT</b>	100	110	640	160	80	125	255	185	200	1,0 l/s (35 mm)
<b>3403</b>	50	50	630	130	65	95	190	160	235	0,4 l/s (35 mm)
<b>3404</b>	70	75	635	130	70	110	220	185	235	0,7 l/s (35 mm)
<b>3405</b>	100	110	640	160	80	125	255	220	235	0,9 l/s (35 mm)

\* Drainage capacity acc. to DIN EN 1253-2 in l/sec (accumulation height in millimeters)

## ■ Attica balcony drain with accessories

Dimension | Art. No.



### Attica emergency overflow element made of PUR 170

DN 50	<b>2450</b>
DN 70	<b>2452</b>
DN 100	<b>2454</b>



### Attica emergency overflow element made of PUR 450

DN 50	<b>2450.45</b>
DN 70	<b>2452.45</b>
DN 100	<b>2454.45</b>



### Attica drain element made of PUR 170

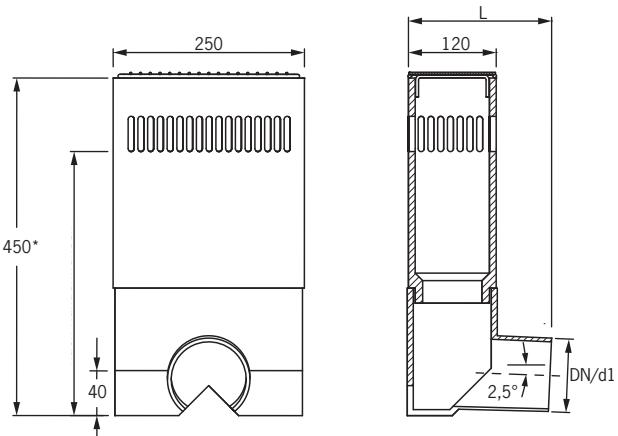
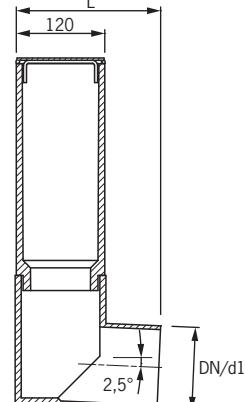
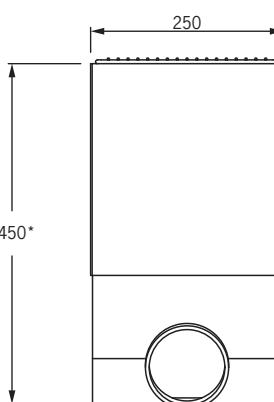
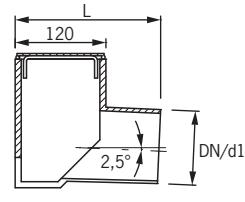
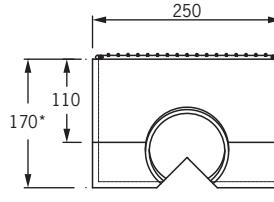
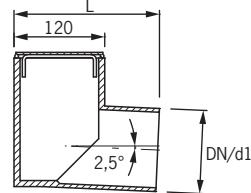
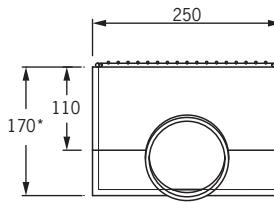
with slit for wedge	
DN 50	<b>2450.1</b>
DN 70	<b>2452.1</b>
DN 100	<b>2454.1</b>



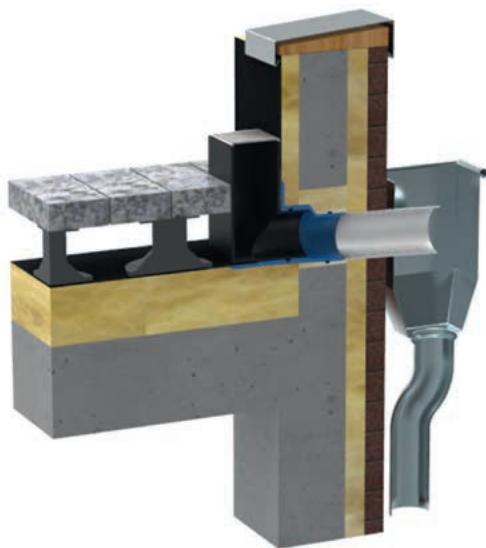
### Attica drain element made of PUR 450

with slit for wedge and optional lateral inlet opening	
DN 50	<b>2450.1.45</b>
DN 70	<b>2452.1.45</b>
DN 100	<b>2454.1.45</b>

### Technical data



\* can be shortened as required



### Installation example attica balcony drain with attica emergency overflow element

Attica balcony drain with inserted attica emergency overflow element in an insulated roof with tiled covering on stilts To prevent frost damage, we recommend using our trace heating systems (s. p. 74).

Art. No.	DN	d1	L
<b>2450, 2450.1, 2450.45, 2450.1.45</b>	50	50	140
<b>2452, 2452.1, 2452.45, 2452.1.45</b>	70	75	196
<b>2454, 2454.1, 2454.45, 2454.1.45</b>	100	110	220

## ■ Attica balcony drain with accessories

Dimension | Art. No.



### Attica emergency overflow made of stainless steel

Support length 30 cm:

DN 50 **2680**

DN 70 **2682**

DN 100 **2684**

Support length 55 cm:

DN 50 **2680.55**

DN 70 **2682.55**

DN 100 **2684.55**



### Pebble trap made of PE

with secure pebble trap holder  
made of stainless steel

Passend zu Art. No. 3410-3415.

DN 50 **3491.1**

DN 70/100 **3492.1**



### Pebble trap made of PP

suitable for Art. No. 3403-3415  
and 3440-3444.

DN 50 **3491**

DN 70 **3492**

DN 100 **3493**



### Stainless steel pipe with sleeve

suitable for all attica balcony  
drains, attica Meso drains and  
attica super drains.

#### **25 cm      50 cm**

DN 50 **2631      2631.55**

DN 70 **2632      2632.55**

DN 100 **2634      2634.55**



### Stainless steel bend

87,5° and with sleeve

DN 50 **2650**

DN 70 **2652**

DN 100 **2654**



### PP pipe with sleeve (black)

#### **50 cm      100 cm**

DN 50 **3460      3460.1**

DN 70 **3462      3462.1**

DN 100 **3464      3464.1**



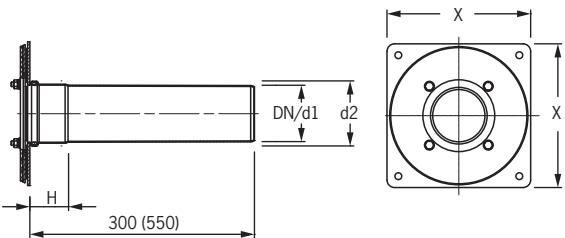
### Surface pipe cover made of stainless steel

DN 50 **2460.50**

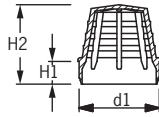
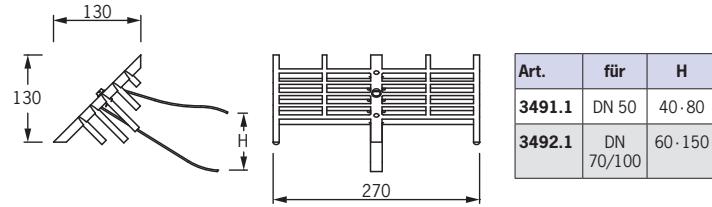
DN 70 **2460.70**

DN 100 **2460.100**

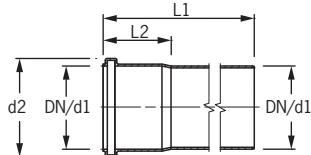
### Technical data



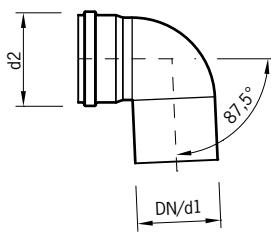
Art.	DN	d1	d2	H	X
<b>2680, 2680.55</b>	50	50	61	45	150
<b>2682, 2682.55</b>	70	75	87	55	190
<b>2684, 2684.55</b>	100	110	125	60	240



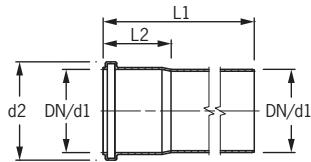
Art.	d1	H1	H2
<b>3491</b>	50	25	90
<b>3492</b>	75	25	100
<b>3493</b>	110	25	105



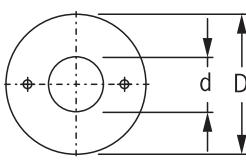
Art.	DN	d1	d2	L1	L2
<b>2631</b>	50	50	62	250	48
<b>2632</b>	70	75	88	250	55
<b>2634</b>	100	110	125	250	60
<b>2631.55</b>	50	50	62	500	48
<b>2632.55</b>	70	75	88	500	55
<b>2634.55</b>	100	110	125	500	60



Art.	DN	d1	d2	H
<b>2650</b>	50	50	62	48
<b>2652</b>	70	75	88	55
<b>2654</b>	100	110	125	60



Art.	DN	d1	d2	L1	L2
<b>3460</b>	50	50	62	500	48
<b>3462</b>	70	75	88	500	55
<b>3464</b>	100	110	125	500	60



Art.	DN	d	D
<b>2460.50</b>	50	51	130
<b>2460.70</b>	70	76	155
<b>2460.100</b>	100	111	190

## ■ Attica balcony drain with accessories

Dimension | Art. No.



### Socket pipe DN 90 made of PE (black), length 50 cm\*

suitable for all attica balcony drains DN 100 made of PUR

DN 90 3461



### T-piece made of titanium zinc\*

with seal, suitable for sleeve pipe DN 90 made of PE, for a connection with a vertical zinc downpipe i.d. 100 (6-piece)

DN 90/100 (6-teilig)

**2661**



### Bend made of titanium zinc\*

with seal, suitable for sleeve pipe DN 90 made of PE, for a connection with a vertical zinc downpipe i.d. 100 (6-piece)

DN 90/100 (6-piece)

**2651**

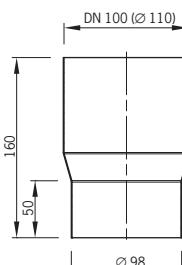
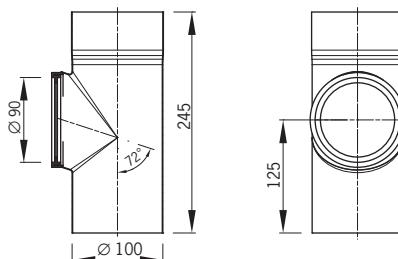
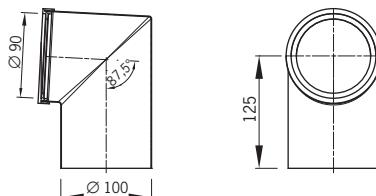
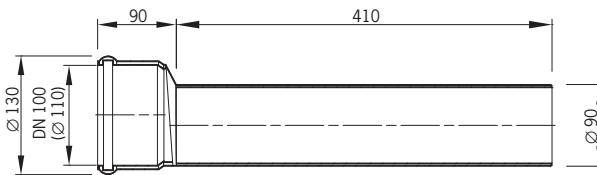


### Adaptor DN 100

made of titanium zinc, without seal, suitable for partial flow diversion, for a connection with a vertical zinc downpipe.

DN 100 **2633**

i.d. 100, 6-piece



\* Can only be used in conjunction with the attica balcony drain made of PUR.

### Application examples



**Example, left figure:** Partial flow diversion with adaptor DN 100 onto a zinc down pipe i.d. 100, suitable for the attica super-2 drain.

**Example, right figure:** Attica balcony drain made of PUR with wedge in conjunction with a socket pipe DN 90 made of PE and a T-piece made of titanium zinc.



## ■ Attica plug-in overflow The clever two-in-one solution!

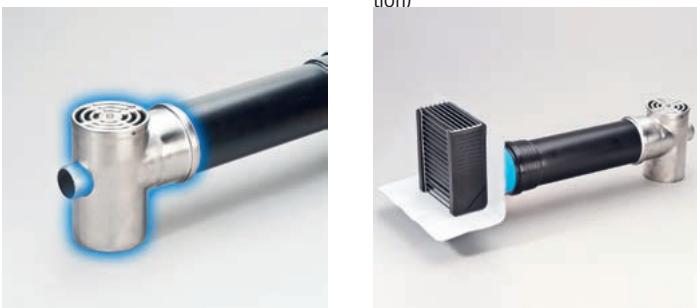
2 in 1



Attica plug-in overflow



Example: Attica plug-in overflow in the attica balcony drain with partial flow diversion made of stainless steel (for direct downpipe connection)



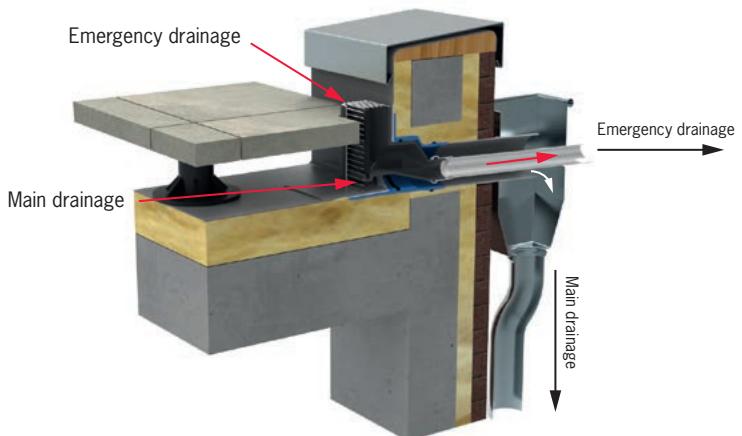
### Attica plug-in overflow

Ideally suitable for the Grumbach attica balcony drain made of PUR DN 100 with plug-in sleeve (Art.-No. 3415 or 3444.BIT). The plug-in overflow allows main and emergency drainage with only one attica borehole.

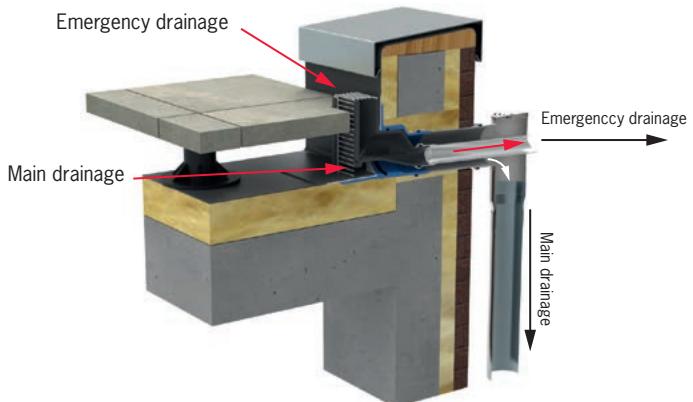
The emergency overflow can simply be adapted. The slip-in overflow is suitable for Attikas up to 350 mm and can be shortened and extended without any problems.

### Best for small balconies and terraces!

#### Installation example



Attica plug-in overflow in a attica balcony drain in conjunction with a water collecting box



Attica plug-in overflow in a attica balcony drain with partial flow diversion made of stainless steel (for direct downpipe connection).



Example: Attica plug-in overflow applied to a attica balcony drain

## ■ Attica plug-in overflow The clever two-in-one solution!

Dimension | Art. No.



**Attica plug-in overflow with  
PP sleeve pipe 50 cm (black)**

DN 50      **3420**

**Application examples:**  
Attica plug-in overflow made of  
PUR with attica balcony drain  
DN 100 (Art. No. 3415)

Attica plug-in overflow made of  
PUR with attica balcony drain DN  
100 with wedge  
(Art. No. 3444.BIT)

**Partial flow diversion**  
suitable for attica balcony drain  
made of PUR, no water collecting  
box required

**3420.AB**

Assembly example

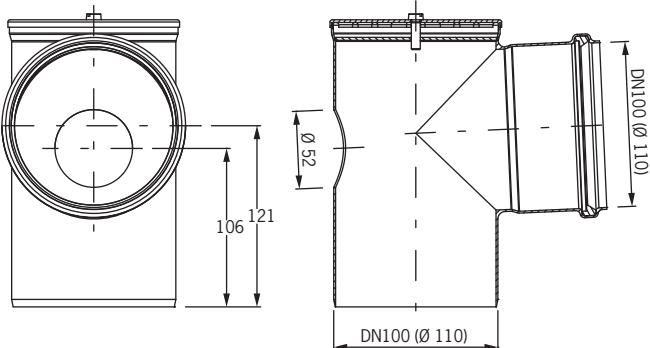
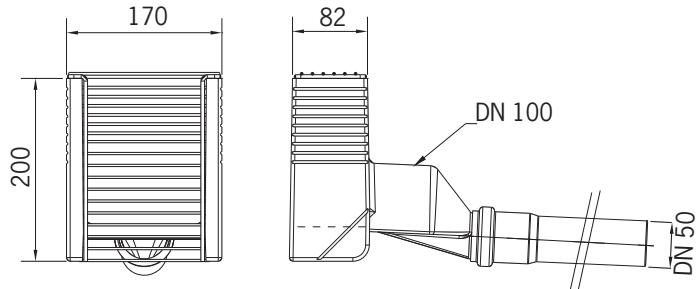
2 in 1



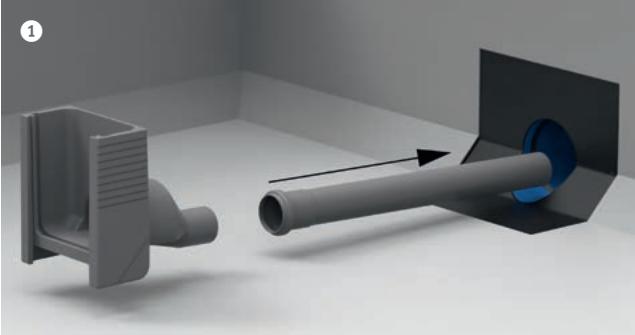
2 in 1



### Technical data attica plug-in overflow



### Assembly of a plug-in overflow



### Quick and simple mounting of the plug-in overflow

1. Push the plug-in overflow into the attica balcony drain
2. Shorten overflow shutter to the required overflow height and push it into the guiding rail
3. Add pebble trap grate
4. Completely assembled plug-in overflow
5. The PP sleeve pipe or stainless steel pipe protrudes from the water collection box.

## ■ Attica downpipe connection for Attica drains



### Attica downpipe connection made of titanium zinc

- elegant adaptor onto the vertical downpipe in DN sizes through the attica lead roof drainage pipes
- for round drainpipes made of titanium zinc
- plug-in connection to roof drainpipe outside of the wall
- incl. plug-in sealing ring and cover grate
- also available for use with the attika plug-in drain
- removes the need for a water collecting container



Attica downpipe connection made of titanium zinc DN 70 in combination with a reducer from Ø 87 mm to Ø 80 mm.



Assembly example:  
Attica downpipe connection DN 100  
in combination with the attica  
balcony drain and the attica plug-in  
overflow.



The emergency overflow is inserted.  
A water collection container is no  
longer required.

## ■ Attica downpipe connection round

Dimension | Art. No.



### Downpipe connection for attica drains, round, made of titanium zinc

DN 70 **2471**

DN 100 **2472**

incl. plug-in seal and cover grate, for round rain downpipes made of titanium zinc sheeting, suitable for all attica drains.

The scope of delivery of **Art. No.**

**2471** includes an **adaptor** of Ø 87 mm to 80 mm.

**2 in 1**

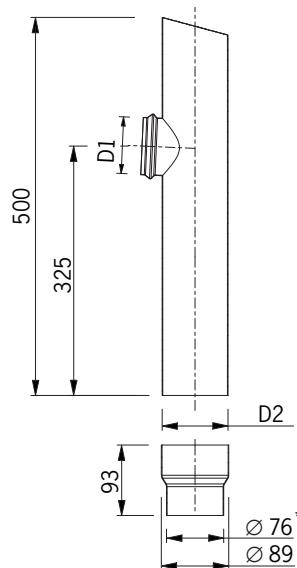


### Downpipe connection, round, made of titanium zinc

DN 100 **2472.L**

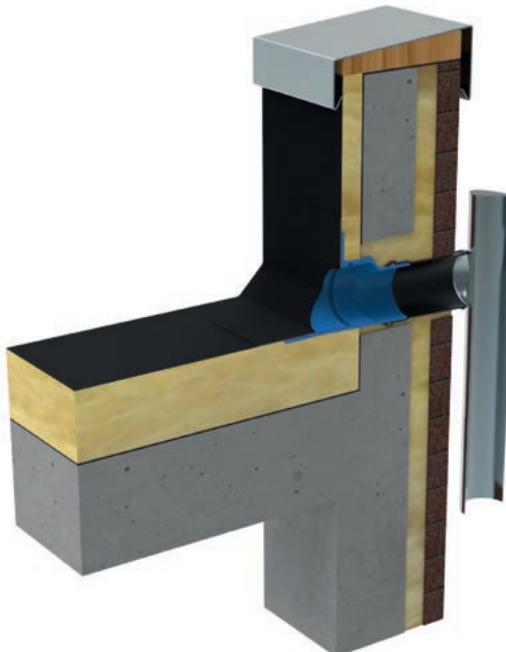
as Art. No. 2472, but suitable to attica plug-in drain.

### Technical data attica downpipe connection made of titanium zinc



Art.	DN	D1	D2	a	b
<b>2471</b>	70	75	87	-	-
<b>2472</b>	100	110	100	-	-

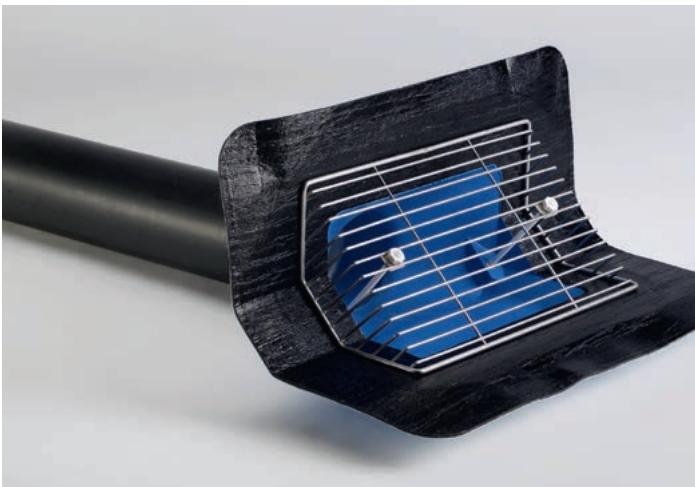
### Assembly example attica downpipe connection made of titanium zinc



## ■ Attica Meso drain for medium drainage capacities



Attica Meso drain DN 70 made of PUR without wedge (with leaf trap grate 3494.S1 as accessory)



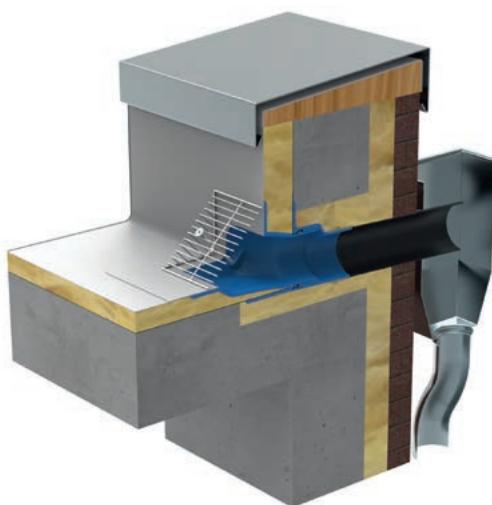
Attica Meso drain DN 100 made of PUR with wedge 6x6 cm (with leaf trap grate 3494.S as accessory)

### Attica Meso drain DN 70/100 made of PUR

The new Grumbach attica Meso drain has a relatively **high drainage capacity with only very little insert in the thermal insulation.**

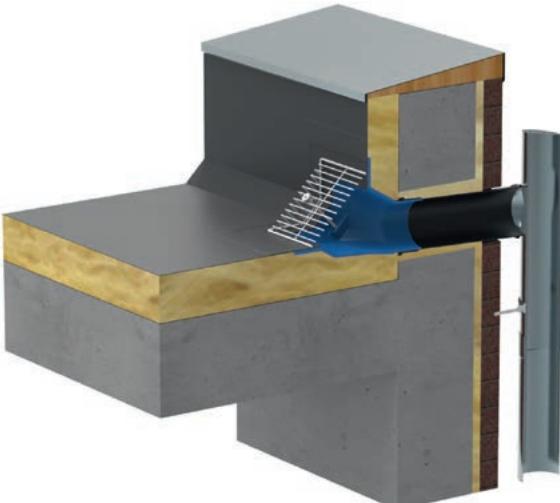
- With permanently cast connecting sheet.
- Available with all common roof seals  
(Please mention type of required connection collar when ordering).
- Made of high-quality polyurethane-hard-foam (PUR).
- with 50 cm long PP sleeve pipe (black).
- Now available with wedge 6x6 cm!

### Installation example attica Meso drain made of PUR without wedge



Attica balcony drain with slip-in socket, built into the vapor barrier, with inserted attica Meso drain without wedge; with water collector. **To avoid frost damage, we recommend using our trace heating systems (see page 74).**

### Installation example attica Meso drain made of PUR with wedge



Attica Meso drain with wedge mounted in an insulated roof. On the outer side with round downpipe connection. **To avoid frost damage, we recommend using our trace heating systems (see page 74).**



## ■ Attica Meso drain for medium drainage capacities

Dimension | Art. No.



**Attica Meso drain made of PUR without wedge with PP sleeve pipe (55 cm)**

DN 70 **3212**

DN 100 **3214**



**Attica Meso drain made of PUR with wedge with PP sleeve pipe (55 cm)**

DN 70 **3211.BIT**

DN 100 **3213.BIT**



**Attica leaf trap grate made of stainless steel**

for Attica Meso drain made of PUR without wedge **3494.S1**  
with wedge **3494.S**



**Pull-out protection made of EPDM**

suitable for all common pipes

DN 70/DN 100

DN 70 **5341**

DN 100 **5343**



**Pebble trap made of PE**

suitable for the attica Meso drain made of PUR

without wedge **3495.S1**

with wedge **3495.S**

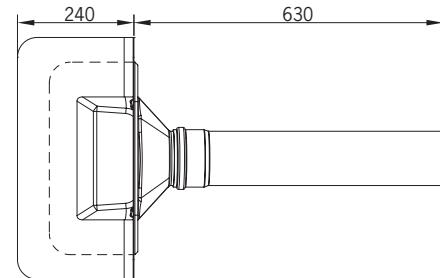
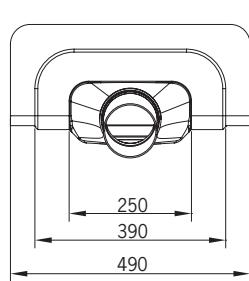
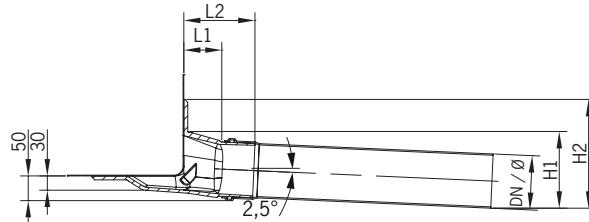


**Water collector**

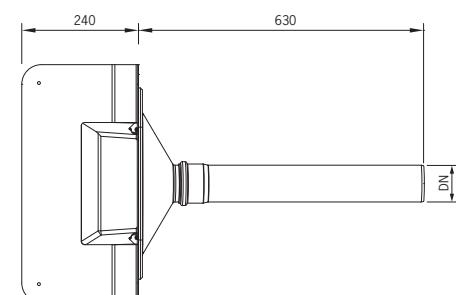
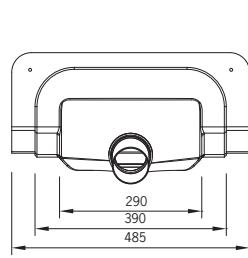
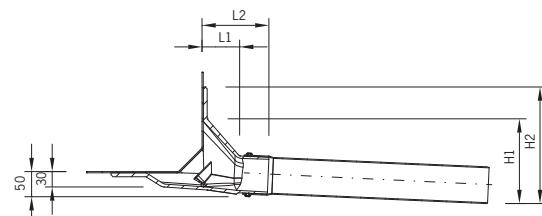
made of titanium zinc, 0,80 mm thick, drain support 100 mm resp. 6-piece.

**3450.I**

### Technical data attica Meso drain made of PUR without wedge



### Technical data attica Meso drain made of PUR with wedge



### Pull-out protection made of EPDM (assembly example)

- including EPDM pull-out protection, hose clamp and locking ring made of stainless steel
- restrained connection between drain and socket pipe
- suitable for all common pipes DN 70 and DN 100



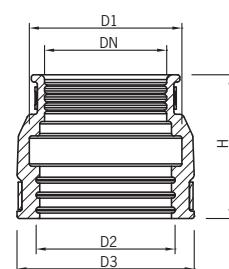
Attica Meso drain with applied  
PP sleeve pipe and pull-out  
protection

Art.	DN	$\varnothing$	H1	H2	L1	L2	Drainage capacities*
<b>3212</b>	70	75	150	215	70	135	2,8 l/s (35 mm)
<b>3214</b>	100	110	155	220	75	145	3,0 l/s (35 mm)
<b>3211.BIT</b>	70	75	170	240	75	135	2,5 l/s (35 mm)
<b>3213.BIT</b>	100	110	175	240	75	145	3,3 l/s (35 mm)

\*Drainage capacity acc. to DIN EN 1253-2 in l/sec (accumulation height in millimeters)

### Technical data pull-out protection made of EPDM

Art.	<b>5341</b>	<b>5343</b>
<b>DN</b>	70	100
<b>D1</b>	90	130
<b>D2</b>	80	120
<b>D3</b>	100	140
<b>H</b>	65	75



## ■ Attica Meso-2 drain for use with a water collector

2 in 1



Assembly example: Attica Meso-2 drain with wedge (lange Version) mit Wasserfangkasten



Attica Meso-2 drain without wedge (short version)

**Attica Meso-2 drain  
DN 100 made of PUR/  
stainless steel**

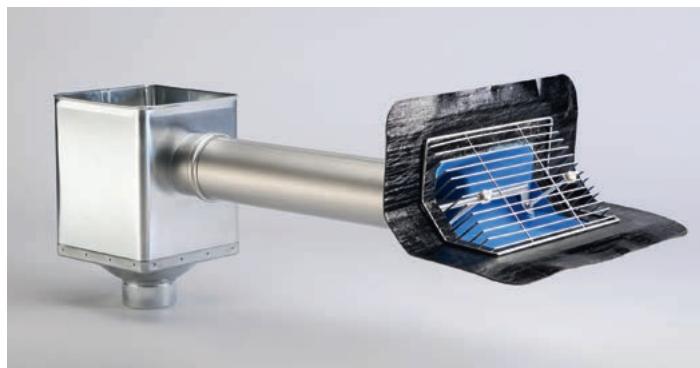
the comprehensive solution  
for **main and emergency  
drainage through only  
one attica passage**. The  
drain is available in a long  
or short version, with/without  
wedge and with various  
connection collars.

The **scope of delivery** of the **attica Meso-2 drain** includes:

- ① **Attica Meso drain DN 100**  
with/without wedge (without PP pipe)
- ② **Stainless steel pipe** with sleeve DN 100, 54 cm long
- ③ **Stainless steel pipe** with sleeve DN 100, 30 cm long, with cutaway for main and emergency drainage and baffle plate
- ④ **Water guiding plate** (back and front) for emergency drainage
- ⑤ **Leaf trap grate** made of stainless steel (Art. No. 3494.S)

**optional extra:**

- ⑥ **Water collector** made of zinc sheet (drain support 100 mm/6-piece, Art. No. 3450)
- ⑦ **Locking ring DN 100** (Art. No. 2695)



Attica Meso-2 drain (short version) with wedge and water collector



Attica Meso-2 drain (long version) without wedge and with water collector

## ■ Attica Meso-2 drain for use with a water collector

Dimension | Art. No.



2 in 1

**Attica Meso-2 drain made of PUR with wedge (short version)**  
for attica thickness **up to 60 cm**  
DN 100 **3213.BIT.S2**  
with wedge



2 in 1

**Attica Meso-2 drain made of PUR without wedge (short version)**  
for attica thickness **up to 60 cm**  
DN 100 **3214.S2**  
without wedge



2 in 1

**Attica Meso-2 drain made of PUR DN 100 with wedge (long version)**  
for attica thickness **up to 110 cm**  
DN 100 **3213.BIT.S2.L**  
with wedge



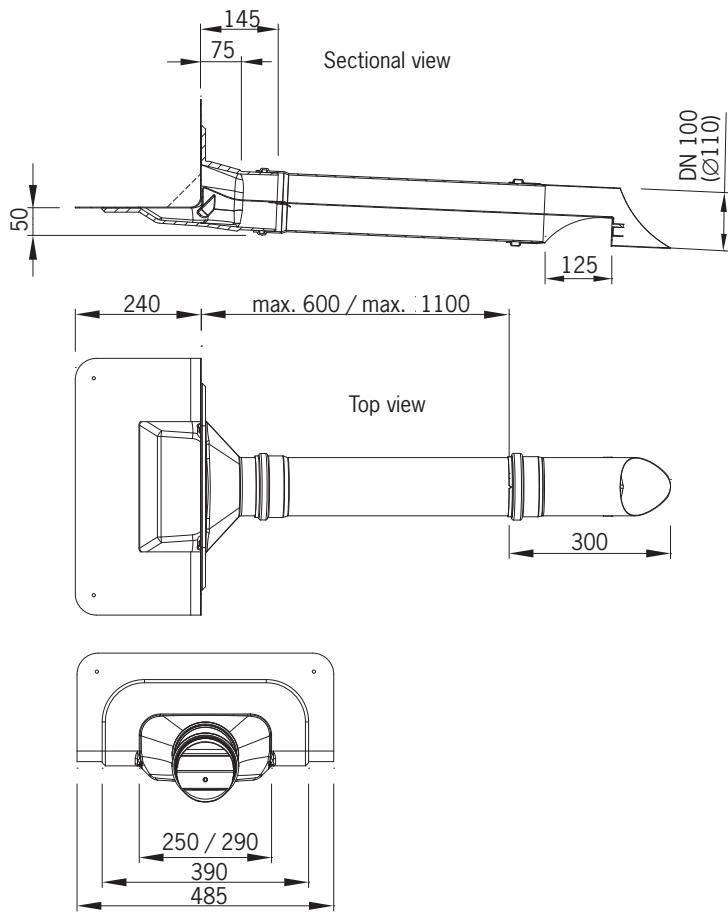
2 in 1

**Attica Meso-2 drain made of PUR without wedge (long version)**  
for attica thickness **up to 110 cm**  
DN 100 **3214.S2.L**



**Water collector**  
**3450**

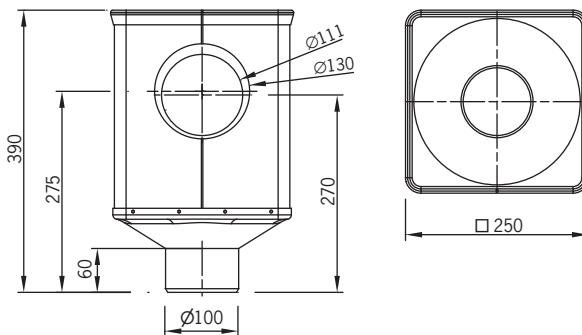
### Technical data Attica Meso-2 drain



### Installation example Attica Meso-2 drain



Attica Meso-2 drain with water collector, mounted in an insulated roof.  
To avoid frost damage, we recommend using our trace heating systems (see page 74).



Art.	Drainage capacity*
Attica Meso-2 drain with/without wedge	Main drainage: 2,8 l/s (at 35 mm) Emergency overflow: 2,3 l/s (at 35 mm)

The use of the stainless steel leaf trap grate does not lower the drainage capacity!

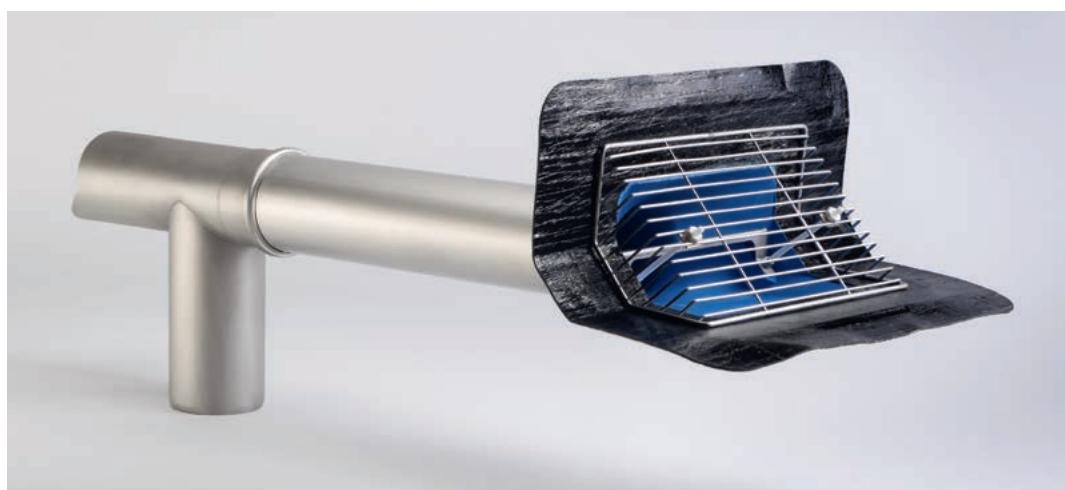
\*Drainage capacity acc. to DIN EN 1253-2 in l/sec (accumulation height in millimeters)

## ■ Attica Meso-2 drain with partial flow diversion

2 in 1



Attica Meso-2 drain (long version) without wedge and with partial flow diversion



Attica Meso-2 drain (short version) with wedge and with partial flow diversion

**Attica Meso-2 drain  
DN 100 made of PUR/  
stainless steel with partial  
flow diversion**

the comprehensive solution  
for **main and emergency  
drainage through only  
one attica passage**. The  
drain is available in a long  
or short version, with/without  
wedge and with various  
connection collars.

The **scope of delivery** of the  
**attica Meso-2 drain with partial  
flow diversion** includes:

- ① **Attica Meso drain DN 100**  
with/without wedge (without PP  
pipe)
- ② **Stainless steel pipe** with  
sleeve DN 100, 54 cm long
- ③ **Partial flow diversion** made of  
stainless steel
- ④ **Water guiding plate** (back and  
front) for emergency drainage
- ⑤ **Leaf trap grate** made of stain-  
less steel (Art. No. 3494.S)

- optional extra:**
- ⑥ **Locking ring DN 100**  
(Art. No. 2695)
  - ⑦ **Adaptor DN 100**  
(Art. No. 2633)



Attica Meso-2 drain (short version) without wedge and with partial flow diversion



Attica Meso-2 drain (long version) with wedge and with partial flow diversion

## ■ Attica Meso-2 drain with partial flow diversion

Dimension | Art. No.

2 in 1



**Attica Meso-2 drain made of PUR with partial flow diversion with wedge (short version)**  
for attica thickness **up to 60 cm**  
DN 100 **3215.BIT**

2 in 1



**Attica Meso-2 drain made of PUR with partial flow diversion without wedge (short version)**  
for attica thickness **up to 60 cm**  
DN 100 **3216**

2 in 1



**Attica Meso-2 drain made of PUR with partial flow diversion with wedge (long version)**  
for attica thickness **up to 110 cm**  
DN 100 **3215.BIT.L**

2 in 1



**Attica Meso-2 drain made of PUR with partial flow diversion without wedge (long version)**  
for attica thickness **up to 110 cm**  
DN 100 **3216.L**

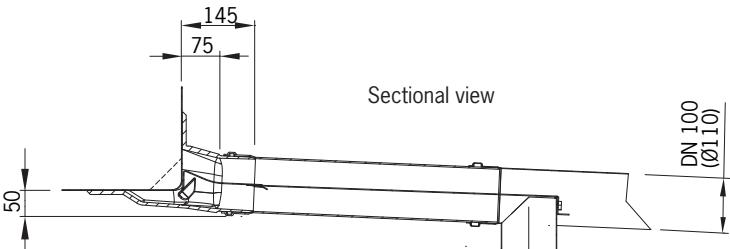
**Adaptor DN 100**  
DN 100 **2633**



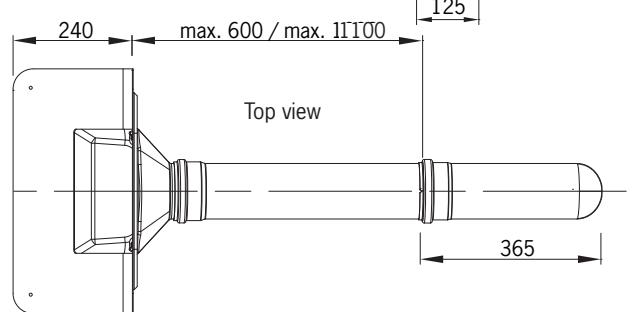
**Safety clamp**  
DN 100 **2695**



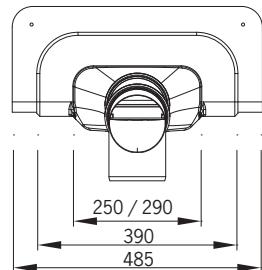
### Technical data Attica Meso-2 drain with partial flow diversion



Sectional view



Top view



Rear view

Art.	Drainage capacity*
Attica Meso-2 drain with partial flow diversion, long/short version	Main drainage: 3,0 l/s (at 35 mm) Emergency overflow: 2,4 l/s (at 35 mm)

The use of the stainless steel leaf trap grate does not lower the drainage capacity!

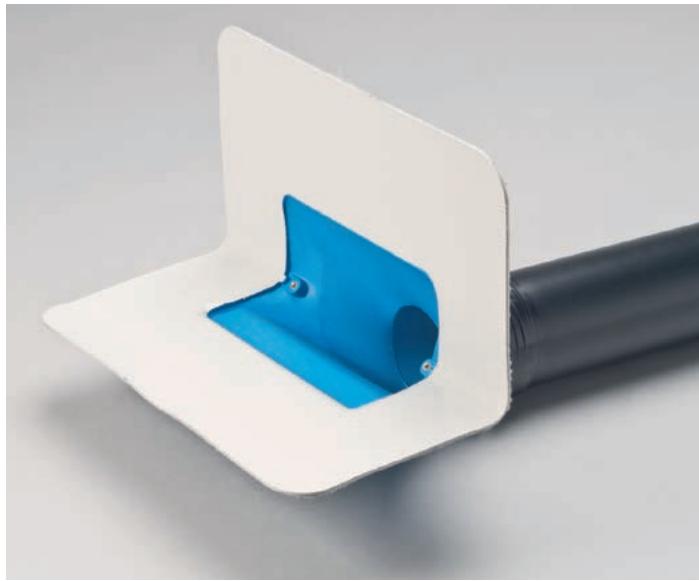
\*Drainage capacity acc. to DIN EN 1253-2 in l/sec (accumulation height in millimeters)

## ■ Attica Super drain for high drainage capacities

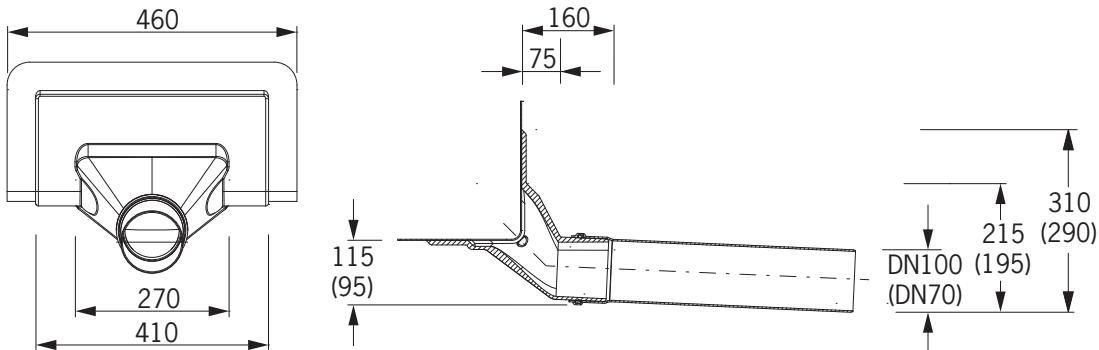
### Attica Super drain DN 70/100 made of PUR or stainless steel

When it needs to be more effective: the drainage capacity needs to be higher, Grumbach developed the Attika super drain.

The Attika super drain DN 70 has a capacity of 3.8l/sec at 35 mm accumulation height (the attica Super drain DN 100 has a drainage capacity of 4.9 l/s).



### Technical data attica Super drain made of PUR without wedge



### Attica Super drain DN 70/100 made of PUR

The proven attica Super drain made of PUR is now also available without wedge section in the corner for corresponding attica versions. Of course with the same high drainage capacities and large choice of connection collars.

### Installation example Attica Super drain made of PUR

Attica balcony drain with slip-in socket built into the vapour barrier, with slipped-in attica Super drain.

To prevent frost damage, we recommend using our trace heating systems (see page 74).



### Installation example Attica Super drain made of PUR without wedge

Attica balcony drain with slip-in socket built into the vapour barrier, with slipped-in attica Super drain without wedge section in the corner.

To prevent frost damage, we recommend using our trace heating systems (see page 74).



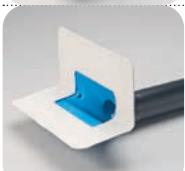
## ■ Attica Super drain with accessories

Dimension | Art. No.



### Attica Super drain with wedge made of PUR

with PP pipe (55 cm lang)  
 DN 70 **3431.BIT**  
 DN 100 **3433.BIT**



### Attica Super drain without wedge made of PUR

with PP pipe (55 cm lang)  
 DN 70 **3470**  
 DN 100 **3471**



### Attica Super drain made of stainless steel

with welded stainless steel pipe  
 DN 70 **2432**  
 DN 100 **2434**



### Attica leaf trap grate made of stainless steel

for attica Super drain made of PUR with wedge **3494.S**  
 for attica Super drain made of PUR without wedge **3494.S1**  
 for attica Super drain made of stainless steel **3494.SE**



### Pebble trap made of PE

for attica Super drain made of PUR with wedge **3495.S**  
 for attica Super drain made of PUR without wedge **3495.S1**



### Connecting piece for vapour traps fastening cuff

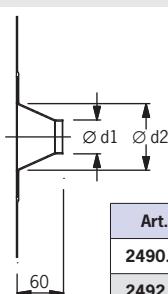
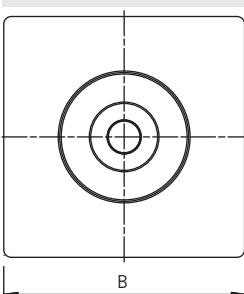
DN 50 **2490.M**  
 DN 70 **2492.M**  
 DN 100 **2494.M**  
 DN 125 **2497.M**  
 DN 150 **2498.M**



### Safety clamp

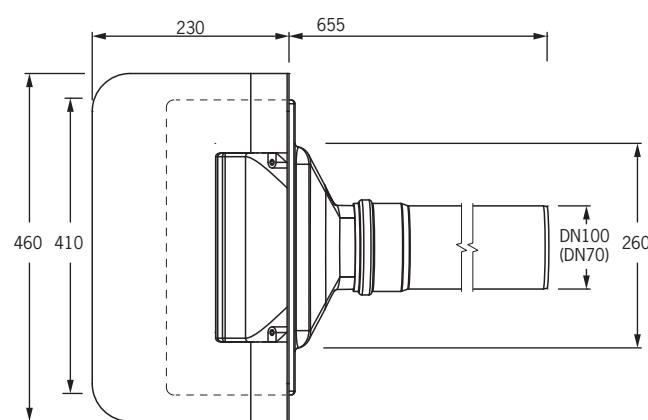
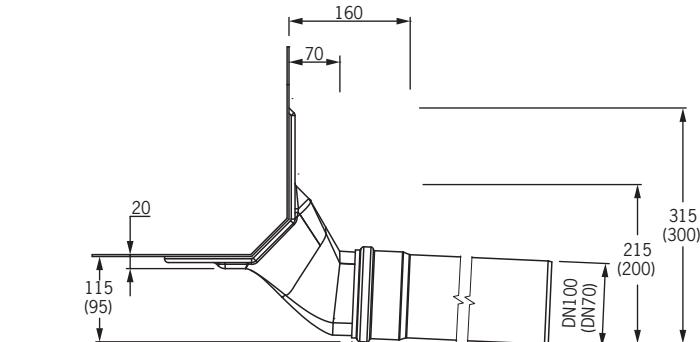
DN 50 **2691**  
 DN 70 **2693**  
 DN 100 **2695**

### Technical data connecting piece for vapour traps fastening cuff

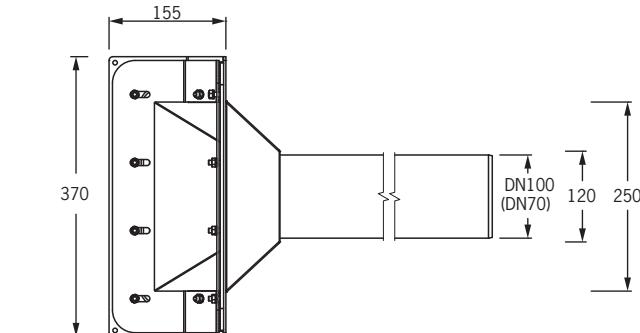
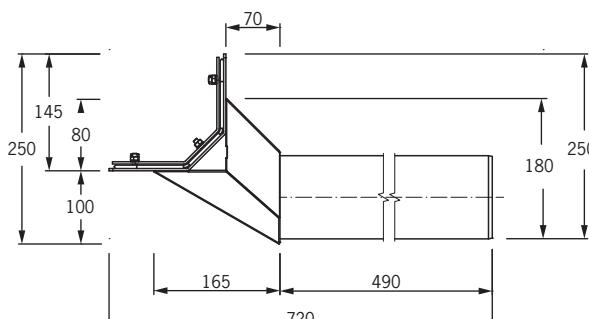


Art.	DN	d1	d2	B
<b>2490.M</b>	50	45	90	230
<b>2492.M</b>	70	65	105	230
<b>2494.M</b>	100	97	120	320
<b>2497.M</b>	125	113	160	320
<b>2498.M</b>	150	139	180	320

### Technical data attica Super drain made of PUR



### Technical data Attica Super drain made of stainless steel



Art.	Drainage capacity*
<b>3431.BIT, 3470, 2432</b>	3,8 l/s (35 mm) at downpipe
<b>3433.BIT, 3471, 2434</b>	4,9 l/s (35 mm) at downpipe

The use of the stainless steel leaf trap grate does not reduce the drainage capacity!

\*Drainage capacity acc. to DIN EN 1253-2 in l/sec (accumulation height in millimeters)

## ■ Attica Super-2 drain for use with water collector

2 in 1



Assembly example: Attica Super-2 drain with wedge (long version) with water collector



Attica Super-2 drain without wedge (short version)

### Attica Super-2 drain DN 100 made of PUR/ stainless steel

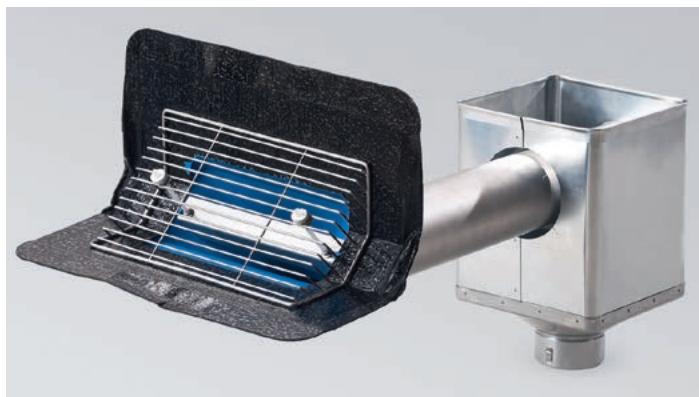
the comprehensive solution  
for **main and emergency**  
**drainage through only**  
**one attica passage.** The  
drain is available in a long  
or short version, with/without  
wedge and with various  
connection collars.

The **scope of delivery** of the **attica Super-2 drain** includes:

- ① **Attica Super drain DN 100** with/without wedge (without PP pipe)
- ② **Stainless steel pipe** with sleeve DN 100, 54 cm long
- ③ **Stainless steel pipe** with sleeve DN 100, 30 cm long, with cutaway for main and emergency drainage and baffle plate
- ④ **Water guiding plate** (back and front) for emergency drainage
- ⑤ **Leaf trap grate** made of stainless steel (Art. No. 3494.S)

#### optional extra:

- ⑥ **Water collector** made of zinc sheet (drain support 100 mm/ 6-piece, Art. No. 3450)
- ⑦ **Locking ring DN 100** (Art. No. 2695)



Attica Super-2 drain with wedge (short version) with water collector



Attica Super-2 drain without wedge (long version) with water collector

## ■ Attica Super-2 drain for use with a water collector

Dimension | Art. No.



**Attica Super-2 drain made of PUR with wedge (short version)**  
for attica thickness **up to 60 cm**  
DN 100 **3433.BIT.S2**

**Attica Super-2 drain made of PUR without wedge (short version)**  
for attica thickness **up to 60 cm**  
DN 100 **3471.S2**

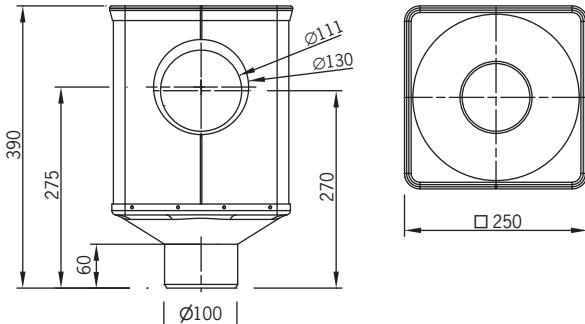
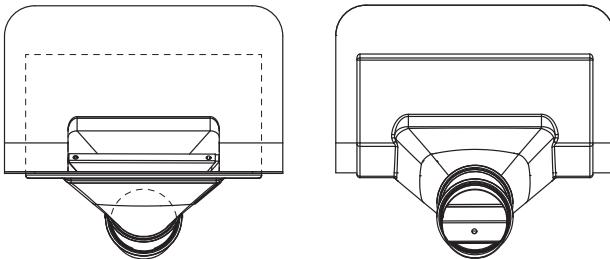
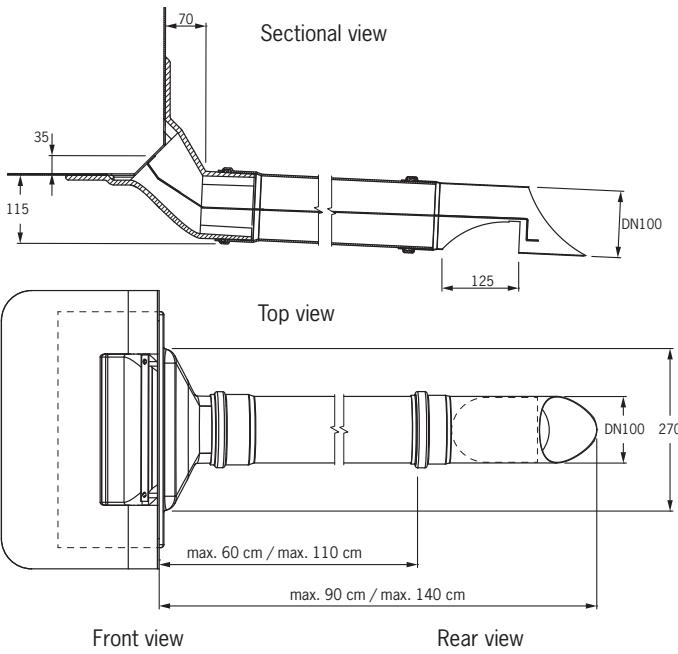
**Attica Super-2 drain made of PUR DN 100 with wedge (long version)**  
for attica thickness **up to 110 cm**  
DN 100 **3433.BIT.S2.L**

**Attica Super-2 drain made of PUR without wedge (long version)**  
for attica thickness **up to 110 cm**  
DN 100 **3471.S2.L**

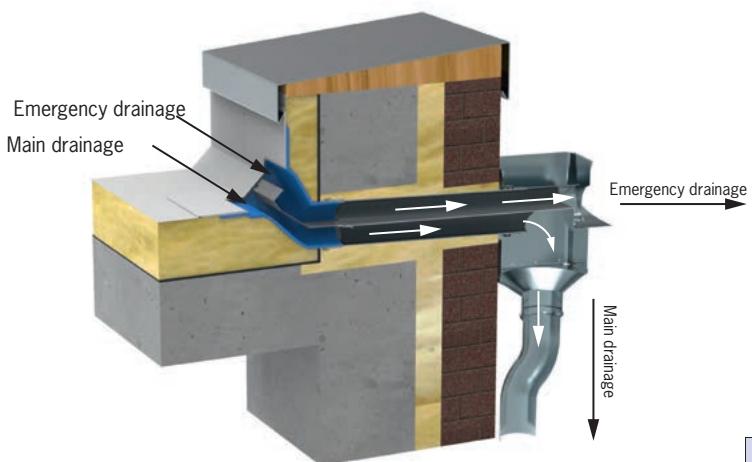
**Water collector**  
**3450**

**Safety clamp**  
**2695**

### Technical data Attica Super-2 drain



### Installation example Attica Super-2 drain



Attica Super-2 drain with water collector in an insulated roof.

To prevent frost damage, we recommend using our trace heating systems  
(see page 74).

Art.	Drainage capacity*
all attica Super-2 drains	Main drainage: 3,6 l/s, Emergency overflow: 3,0 l/s (35 mm)
The use of the stainless steel leaf trap grate does not reduce the drainage capacity!	

\*Drainage capacity acc. to DIN EN 1253-2 in l/sec (accumulation height in millimeters)

## ■ Attica Super-2 drain with partial flow diversion

**2 in 1**



Attica Super-2 drain with wedge with partial flow diversion (short version).  
The version with a wedge always comes with a bitumen collar.



Attica Super-2 drain without wedge with partial flow diversion (long version).  
The version without a wedge is available with various connection collars.

**Attica Super-2 drain DN 100 made of PUR/stainless steel with partial flow diversion** – the solution for **main and emergency drainage through only one attica passage**.

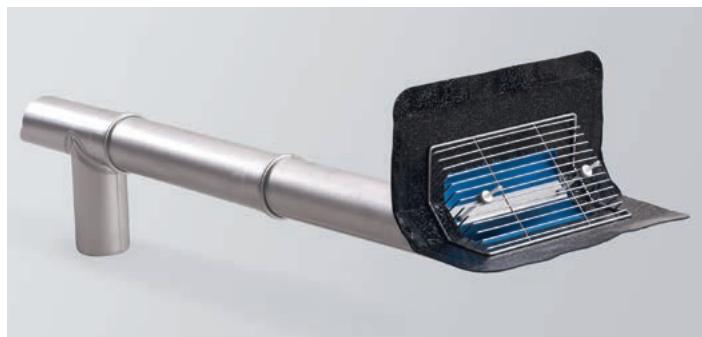
The drain is available in a long or short version, with/without wedge and with various connection collars. The **partial flow diversion** enables a direct connection to the downpipe – a water collection box is no longer required here!

The **scope of delivery** of the **attica Super-2 drain with partial flow diversion** includes:

- ① **Attica Super drain DN 100** with/without wedge (without PP pipe)
- ② **Stainless steel pipe** with sleeve DN 100, 54 cm long
- ③ **Partial flow diversion** made of stainless steel
- ④ **Water guiding plate** (back and front) for emergency drainage
- ⑤ **Leaf trap grate** made of stainless steel (Art. No. 3494.S)



Attica Super-2 drain without wedge with partial flow diversion (short version).  
The version without a wedge is available with various connection collars.



Attica Super-2 drain with wedge with partial flow diversion (long version).  
The version with a wedge always comes with a bitumen collar.

## ■ Attica Super-2 drain with partial flow diversion

Dimension | Art. No.

2 in 1



**Attica Super-2 drain made of PUR with partial flow diversion made of stainless steel with wedge (short version)**  
for attica thickness **up to 60 cm**  
DN 100 **3434.BIT.S2**

2 in 1



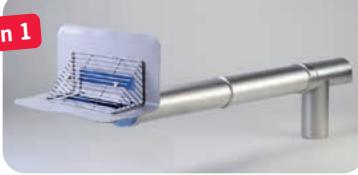
**Attica Super-2 drain made of PUR with partial flow diversion made of stainless steel without wedge (short version)**  
for attica thickness **up to 60 cm**  
DN 100 **3472.S2**

2 in 1



**Attica Super-2 drain made of PUR with partial flow diversion made of stainless steel with wedge (long version)**  
for attica thickness **up to 110 cm**  
DN 100 **3434.BIT.S2.L**

2 in 1



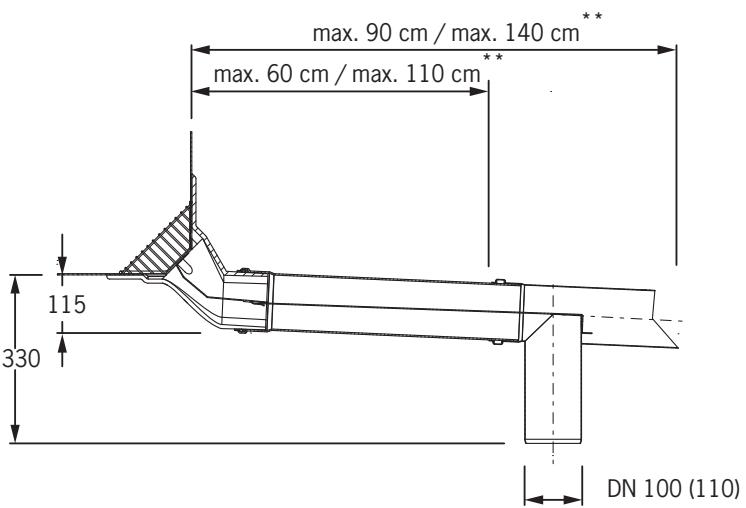
**Attica Super-2 drain made of PUR with partial flow diversion made of stainless steel without wedge (long version)**  
for attica thickness **up to 110 cm**  
DN 100 **3472.S2.L**

### Adaptor DN 100

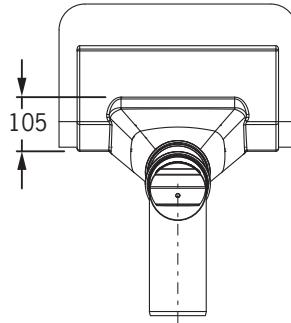
made of titanium zinc, without seal  
DN 100 **2633**  
i.d. 100, 6-piece  
For a connection with a vertical zinc pipe.  
**Warning! Not backflow-secure!**



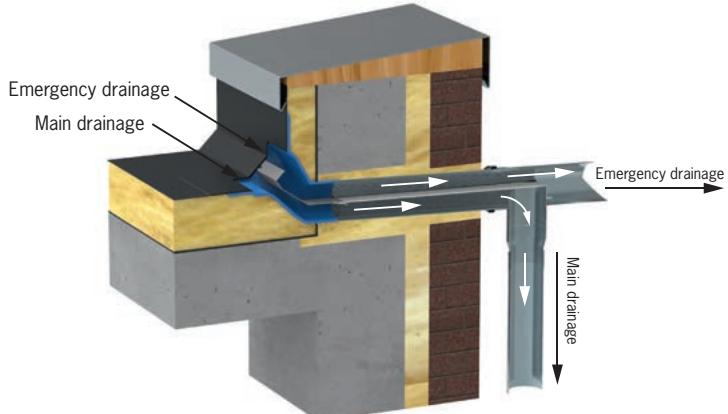
### Technical data Attica Super-2 drain with partial flow diversion



\*\* Long version with 2nd stainless steel pipe and with extended guide plate



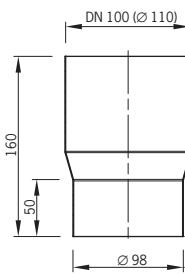
### Installation example Attica Super-2 drain with partial flow diversion



Attica Super-2 drain with partial flow diversion in an insulated roof.

To prevent frost damage, we recommend using our trace heating systems (see page 74).

### Technical data adaptor



Art.	Drainage capacity*
all Attica Super-2 drains	Main drainage: 3,6 l/s, Emergency overflow: 3,0 l/s (35 mm)
The use of the stainless steel leaf trap grate does not reduce the drainage capacity!	

\*Drainage capacity acc. to DIN EN 1253-2 in l/sec (accumulation height in millimeters)

## ■ Attica Jumbo drain The “big mouth”

Improved version!



### Attica Jumbo drain made of PUR (the “big mouth”)

The attica Jumbo drain is suited for larger roofs with higher drainage capacities. Its oval pipe swallows 12l/sec at a accumulation height of 55mm. A really “big mouth”!

There is a suitable adapter to DN 150 and it has a compatible cistern made of zinc sheeting to be able to redirect the water.

**Now in a new, improved version: 200 mm longer!**



Leaf trap grate

The use of this stainless steel leaf trap grate does not reduce the drainage capacity!



Adaptor for attica Jumbo drain made of PUR with connection supports for a sleeve pipe DN 150.

For on-site connection to an attica Jumbo drain. Sandpaper and adhesive are included in the scope of delivery.



Reducing piece made of PUR, internal rubber seal (like sleeve), suitable for the attica Jumbo drain with adapter for the reduction of the nominal width from DN 150 to DN 125 or 100.

### Installation example Attica Jumbo drain made of PUR



Attica Jumbo drain with adaptor and connecting piece for vapour traps fastening cuff in the insulated roof.

To prevent frost damage, we recommend using our trace heating systems (see page 74).

## ■ Attica Jumbo drain with accessories

Dimension | Art. No.

**Attica Jumbo drain made of PUR (the "big mouth") without adaptor**  
**3436.N**

**Adaptor for attica Jumbo drain made of PUR**  
**3439.N**

**Reducing element made of PUR DN 150-125/100**  
**3437**

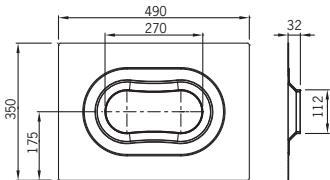
**Cistern**  
Drain support ca. 120 mm  
5-piece **3438**  
Drain support ca. 150 mm  
4-piece **2438**

**Attica stainless steel leaf trap grate**  
**3494.J**  
Drainage capacity is not reduced!

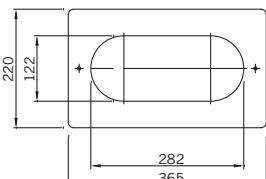
**Vapour barrier connection cuff**  
**2499**

**Pipe cover plate made of stainless steel**  
suitable for attica Jumbo drain  
**2462.N**

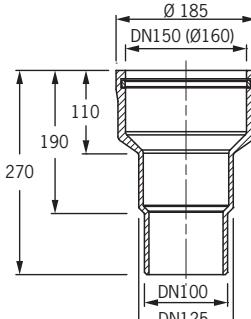
**Technical data connecting piece for vapour traps fastening cuff**



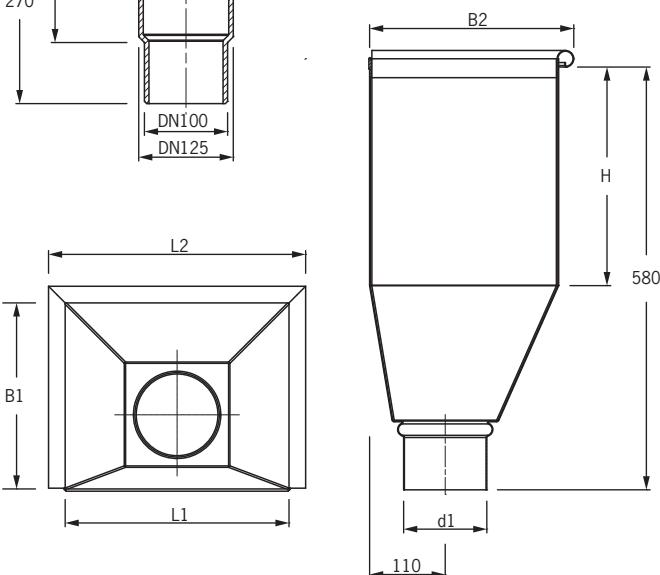
**Technical data pipe cover plate**



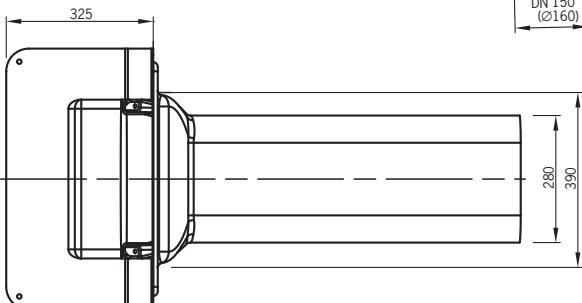
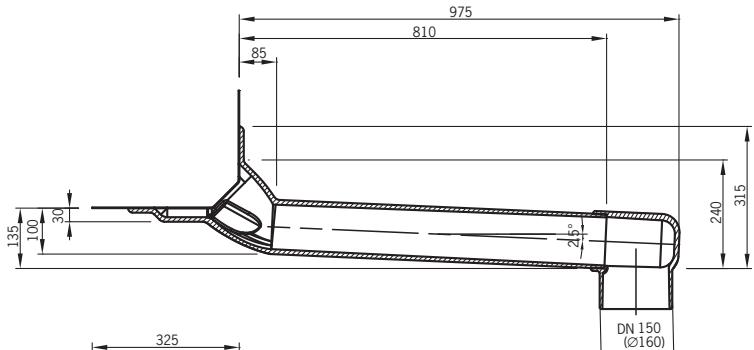
**Technical data reducing element and cistern**



Art.	d1	L1	L2	B1	B2	H
3438	120	300	340	250	270	310
2438	150	345	385	300	320	335



**Technical data attica Jumbo drain**



Art. No	Drainage capacity*
3436.N	9,2 l/s (45 mm)
	12,2 l/s (55 mm)
	15,7 l/s (65 mm)

\*Drainage capacity acc. to DIN EN 12532 in l/sec (accumulation height in millimeters)

## ■ Attica flat drain short or long version

### Attica flat drain made of PUR

The drain is suitable for main and emergency drainage and built for high drainage capacities. It also displays a very flat design and is available in two lengths.



### Installation example attica flat drain

Attica flat drain DN 100, placed in the heat insulation, inserted into the sleeve of the attica balcony drain in the vapour barrier and connected to the roof seal. **To prevent frost damage, we recommend using our trace heating systems (see page 74).**



### Installation example attica flat drain with adhesive collar

Attica flat drain DN 100 with adhesive collar, placed in the heat insulation, inserted into the sleeve of the attica balcony drain in the vapour barrier and connected to the roof seal.

**To prevent frost damage, we recommend using our trace heating systems (see page 74).**



## ■ Attica flat drain short or long version

Dimension | Art. No.



### Attica flat drain made of PUR short version:

610 mm  
DN 70 **2442**  
DN 100 **2444**

### long version:

1200 mm  
DN 70 **2442.L**  
DN 100 **2444.L**



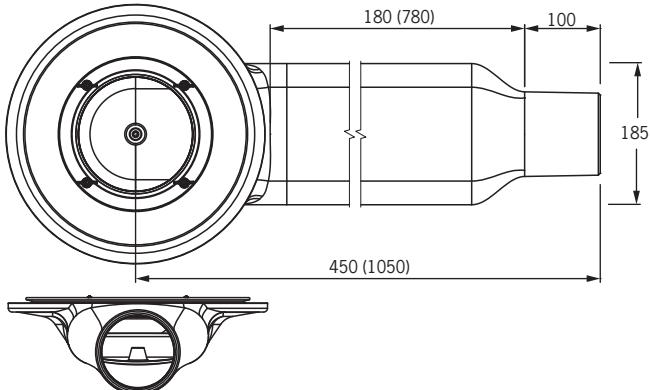
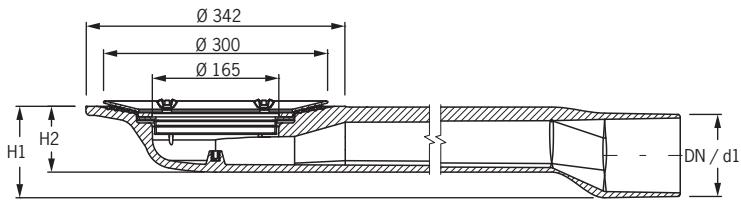
### Attica flat drain made of PUR with adhesive collar

short version: 610 mm  
DN 70 **3441**  
DN 100 **3443**

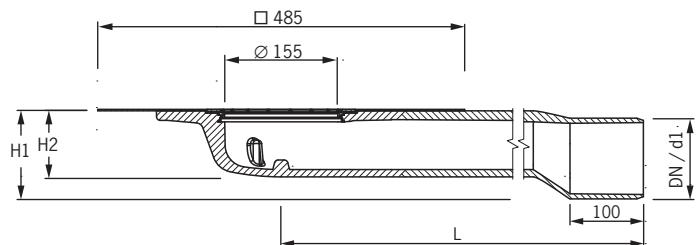


long version: 1200 mm  
DN 70 **3441.L**  
DN 100 **3443.L**

### Technical data attica flat drain



Art. No.	DN	d1	H1	H2	Drainage capacities*
<b>2442</b>	70	75	85	70	3,8 l/s (35 mm)
<b>2444</b>	100	110	120	90	5,8 l/s (35 mm)
<b>2442.L</b>	70	75	85	70	6,3 l/s (35 mm)
<b>2444.L</b>	100	110	120	90	6,4 l/s (35 mm)



Art. No.	DN	d1	H1	H2	L	Drainage capacities*
<b>3441</b>	70	75	85	70	450	3,8 l/s (35 mm)
<b>3443</b>	100	110	120	90	450	5,8 l/s (35 mm)
<b>3441.L</b>	70	75	85	70	1050	6,3 l/s (35 mm)
<b>3443.L</b>	100	110	120	90	1050	6,4 l/s (35 mm)

## ■ Attica flat drain with accessories

Dimension | Art. No.



### Adaptor ring/accumulating element made of PUR

Connection between an attica flat drain and an extension element

**3449.A**



### Inlay sieve made of stainless steel

suitable for attica flat drain with adhesive collar

**3449.S**



### Extension for emergency drainage

suitable for attica flat drain with adhesive collar

**3449.N**



### Vapor barrier connection cuff DN 70/100 **2491.M**



### Insulating element made of EPS

**only** suitable for attica flat drain  
**with adhesive collar!**

short version

DN 70 **5911.70**

DN100 **5911.100**

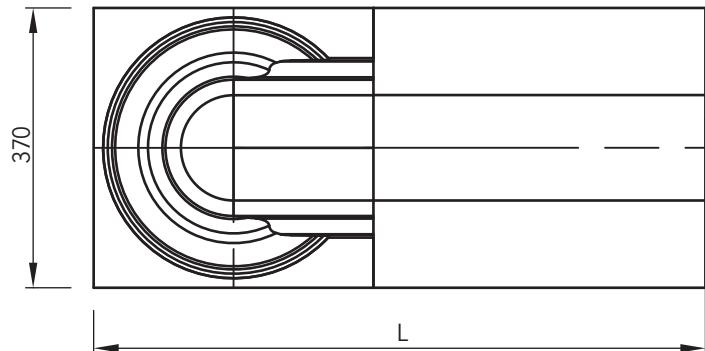


long version

DN 70 **5910.70**

DN100 **5910.100**

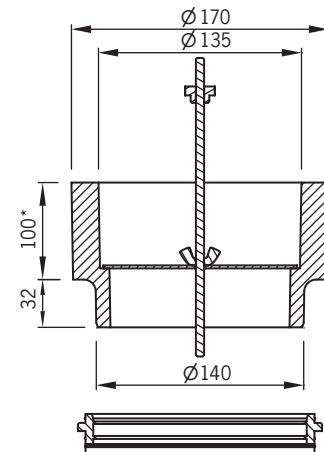
### Technical data insulating elements



Art. No.	L	H
<b>5911.70</b>	370	80
<b>5911.100</b>	370	100

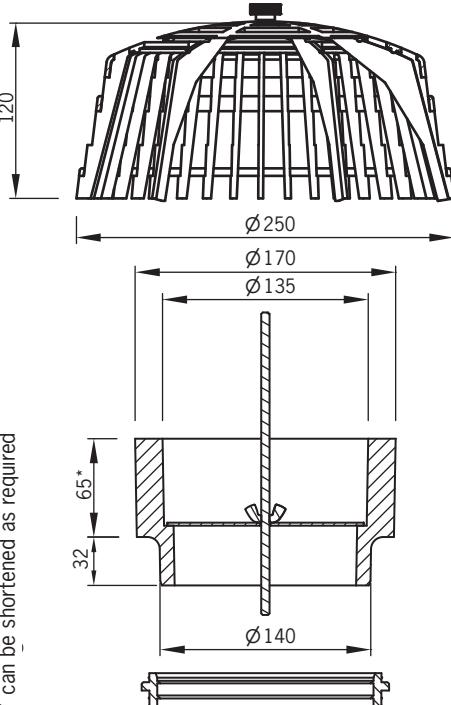
Art. No.	L	H
<b>5910.70</b>	810	80
<b>5910.100</b>	810	100

### Technical data adaptor ring/accumulating element



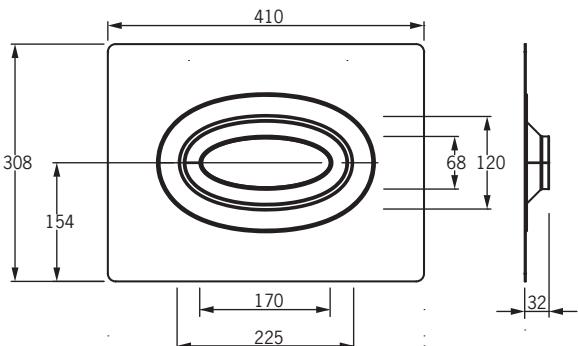
\* can be shortened as required

### Technical data extension for emergency drainage



\* can be shortened as required

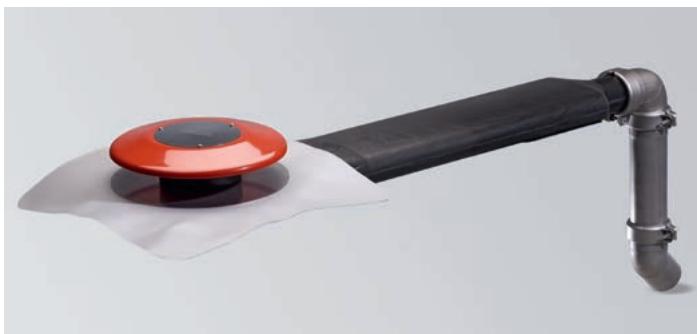
### Technical data vapor barrier connection cuff



## ■ Attica power drain negative pressure – more power



Attica power drain with pressure flowthrough element for main drainage



Attica power drain with pressure flowthrough element for emergency drainage



Insulating element made of extra stable EPS

### Attica power drain

drains via negative pressure and attains very high drainage capacities.

The **Grumbach attica power drain** consists of the Grumbach **attica flat drain DN 70**, a special **pressure flowthrough element** and the corresponding **pressure flowthrough downpipe** made of stainless steel with a defined length incl. a sufficient number of **pressure pipe connection clamps**.

Planning of the **attica power drain** is so easy (as with free level drainage) due to the fixed provision of all drainage capacity parameters by the manufacturer.

Due to the low construction height of the attica flat drain (only 70 mm), the attica power drain fits perfectly into the heat insulation!

### Installation example attica power drain

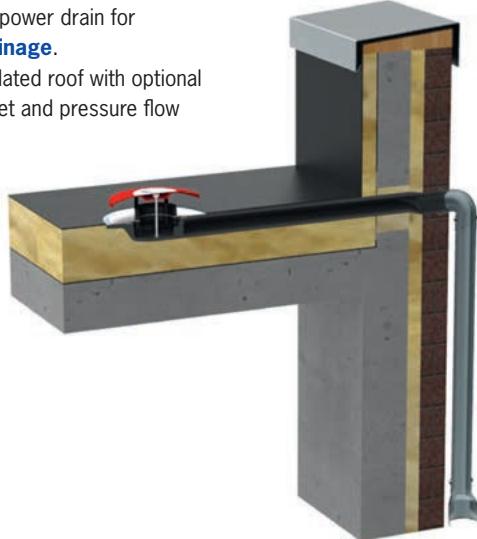
#### Grumbach attica power drain for **main drainage**.

Installed in a insulated roof with optional vapour barrier inlet and pressure flow downpipe.



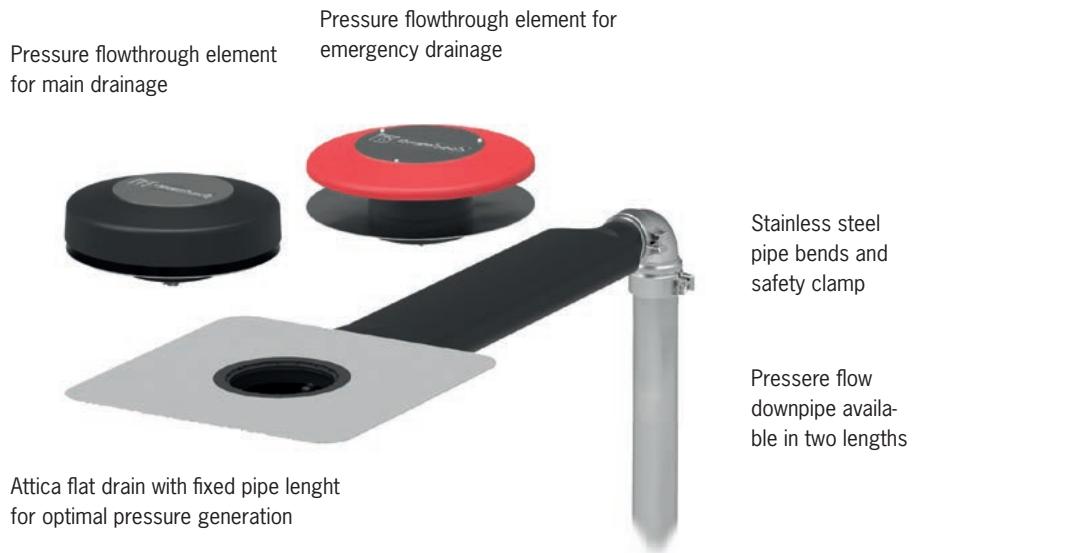
#### Grumbach attica power drain for **emergency drainage**.

Installed in a insulated roof with optional vapour barrier inlet and pressure flow downpipe.



## ■ Attica power drain negative pressure – more power

### Construction of a attica power drain



#### **Attica power drain for main drainage** including:

- Attica flat drain with adhesive collar DN 70, long version
- Pressure flowthrough element for main drainage (black)
- stainless steel pipe bend DN 70, 87,5°
- 2 safety clamps
- stainless steel pipe DN 70 2 m resp. 3m

#### **Attica power drain for emergency drainage** including:

- Attica flat drain with adhesive collar DN 70, long version
- Pressure flowthrough element for emergency drainage (red)
- stainless steel pipe bend DN 70, 87,5°
- stainless steel pipe bend DN 70, 45°
- 3 safety clamps
- stainless steel pipe DN 70 2 m resp. 3m

## ■ Attica power drain negative pressure – more power

Dimension | Art. No.



### Attica power drain for main drainage

consisting of:

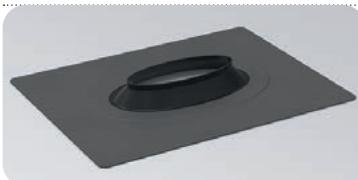
- Attica flat drain with adhesive collar DN 70, long version
- pressure flowthrough element for main drainage
- stainless steel pipe bend DN 70, 87,5°
- 2 safety clamps
- stainless steel pipe DN 70, available in 2 downpipe lengths:  
2 m      **3623.2**  
3 m      **3623.3**



### Attica power drain für die Notentwässerung

bestehend aus:

- Attica flat drain with adhesive collar DN 70, long version
- pressure flowthrough element for emergency drainage
- stainless steel pipe bend DN 70, 87,5°
- stainless steel pipe bend DN 70, 45°
- 3 safety clamps
- stainless steel pipe DN 70, available in 2 downpipe lengths:  
2 m      **3624.2**  
3 m      **3624.3**



### Vapor barrier connection cuff DN 70/100 **2491.1M**

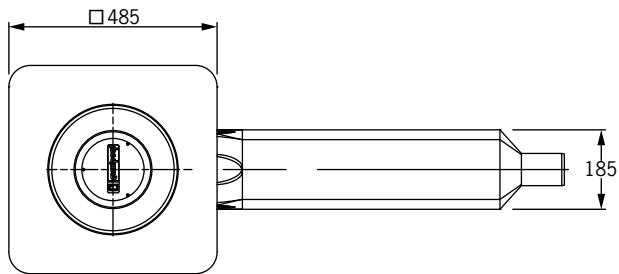
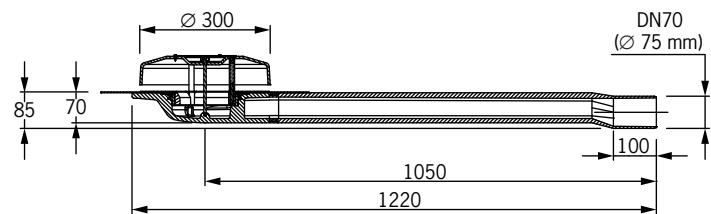


### Insulating element made of EPS

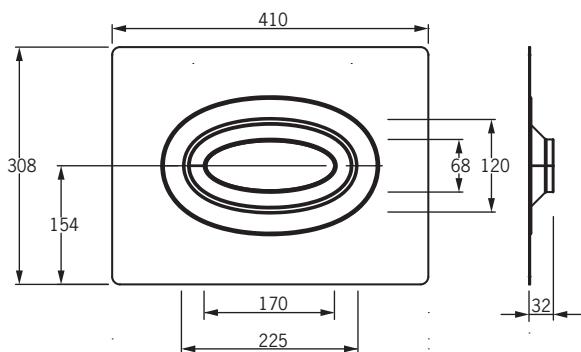
long version

DN 70      **5910.70**

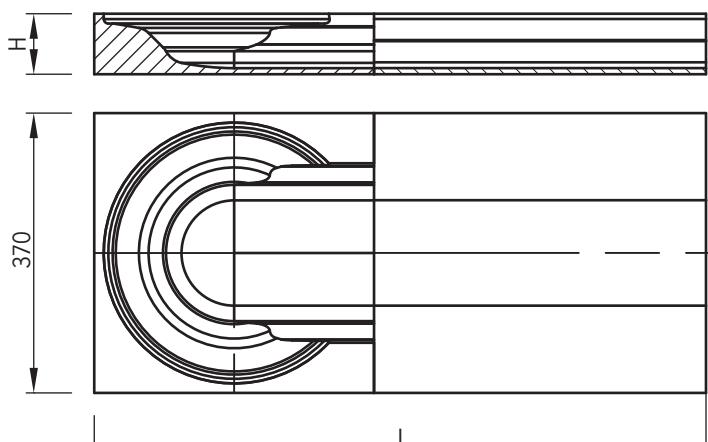
### Technical data attica power drain



### Technical data vapor barrier connection cuff



### Technical data insulating elements



Art. No.	L	H
<b>5910.70</b>	810	80
<b>5910.100</b>	810	100

Art. No.	Downpipe length	Accumulation height in mm					
		15	25	35	45	55	65
Drainage capacities in l/s*							
<b>3623.2</b>	2 m	2,2	6,0	13,0	13,5	13,6	13,7
<b>3623.3</b>	3 m	2,2	6,0	13,5	14,5	14,6	14,7
<b>3624.2</b>	2 m	10,5	14,0	14,2	14,3	14,3	14,3
<b>3624.3</b>	3 m	10,8	15,0	15,2	15,3	15,3	15,3

\*Drainage capacity acc. to DIN EN 1253-2 l/sec (accumulation height in millimeters)

## ■ Attica Plus drain with stainless steel sewer system



Dimension | Art. No.



**Attica Plus drain made of PUR  
(black)**

**3435**



**Attica leaf grate made of stain-  
less steel**

**Type I 3494.P**

**Type II 3494.P2**

(when using the flat sewer system)



**Vapor barrier connection cuff**

**2496.M**



**Cover plate made of stain-  
less steel**

suitable for attica Plus drain

**2461**

### Attica Plus drain made of PUR

heat insulated, CFC-free, with foam filled connection collar (made of bitumen, PVC or special foil)\*, **please indicate when ordering!**. This drain achieves a high drainage capacity (5 l/s at 35 mm accumulation level) with a **construction height of only 84 mm!**

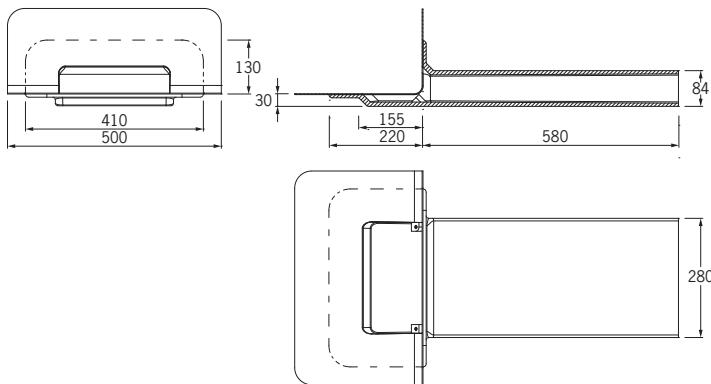
### Installation example attica Plus drain



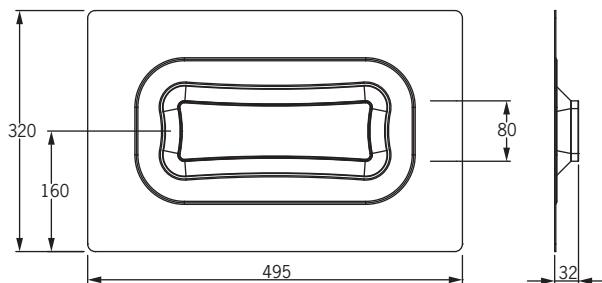
Attica Plus drain with leaf trap grate made of stainless steel and cistern in a insulated roof.

To prevent frost damage, we recommend using our trace heating systems (see page 74).

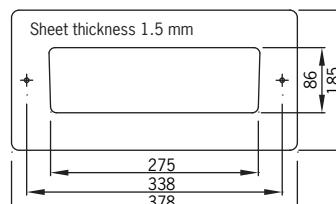
### Technical data Attica Plus drain



### Technical data vapor barrier connection cuff



### Technical data cover plate made of stainless steel



Art. No.	Drain capacities attica Plus drain and stainless steel flat sewer system
<b>3435</b>	5,0 l/s (35 mm accumulation level, free outlet) The drainage capacity is not reduced by using the leaf trap grate!
	2,0 l/s (35 mm accumulation level, with inserted flat sewer system, free outlet)

The drainage capacity of the the flat sewer system corresponds with the drainage capacity of the drain pipe used at the particular level of the pipe.

## ■ Attica Plus drain with stainless steel sewer system for cascade resp. staggered storey drainage



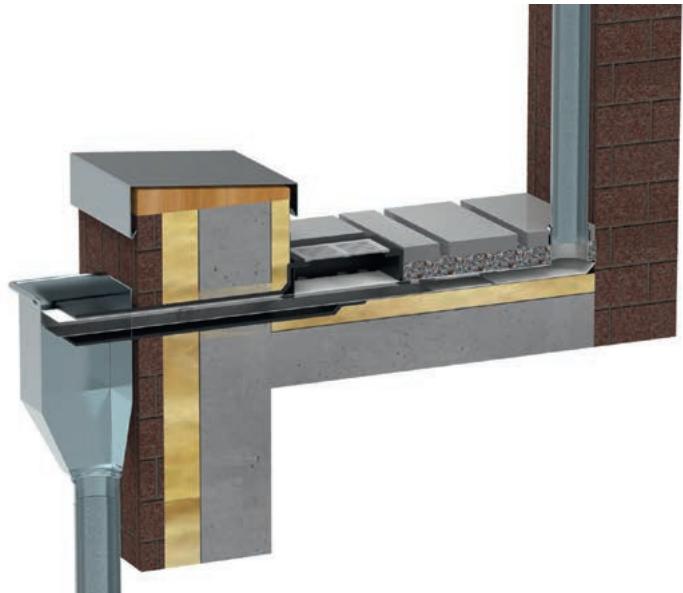
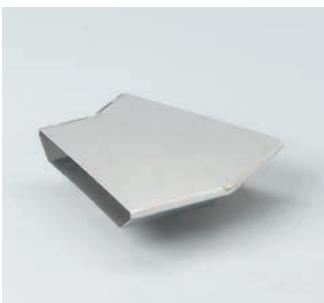
### Attica Plus drain made of PUR and stainless steel sewer system

Especially high quality and durable **stainless steel flat sewer system** for the collection and targeted direction of rainwater over e.g. terraces, balconies or flat roofs with especially low construction heights. Simply lay it between the damp proof layer and the surface layer.

The water is then guided over the edge of the building without straining the surface.

In the case of closed sided attica, the flat sewer can be guided through the attica Plus drain to the outside.

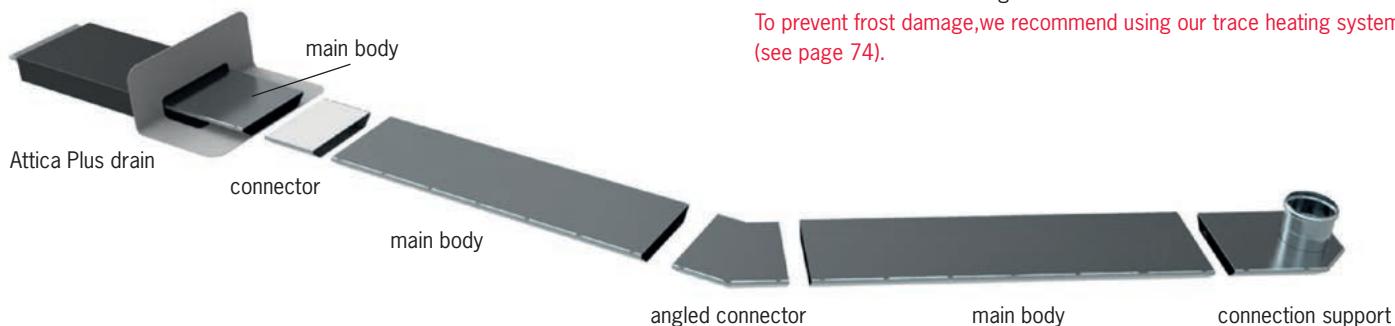
The flat attica plus drain has a particularly high drainage capacity and not only serves the flat sewer, but also the water from the sealing layer.



### Cascade and staggered storey drainage

Stainless steel flat sewer for the drainage of rainwater of a higher roof surface **below the terrace covering through the attica to the outside**. Here, combined with the attica plus drain and the corresponding inlet shaft for the simultaneous drainage of the terrace surface.

To prevent frost damage, we recommend using our trace heating systems (see page 74).



## ■ Attica Plus drain with stainless steel flat sewer system

Dimension | Art. No.



**stainless steel flat sewer system**

**1. Connection supports**  
2670



**2. Main body**  
2672

length 950 mm  
height 40 mm



**3. Connector**  
2674

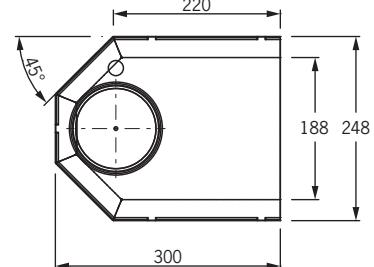
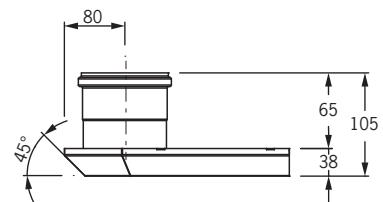
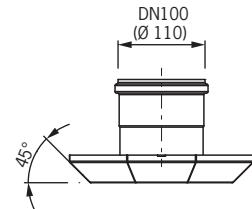


**4. Angled connector 45°**  
2676

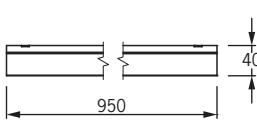
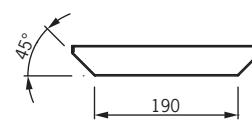
**5. Drain supports**  
2678

### Technical data stainless steel flat sewer system

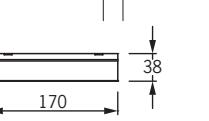
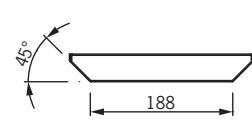
**1. Flat sewer connection supports**



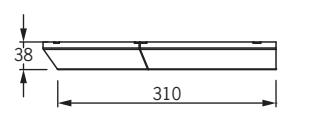
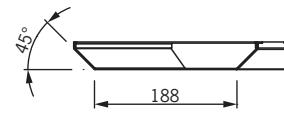
**2. Flat sewer main body**



**3. Flat sewer connector**

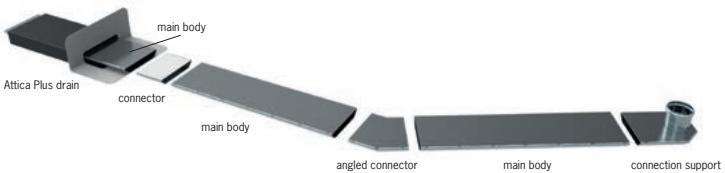


**4. Flat sewer angled connector 45°**

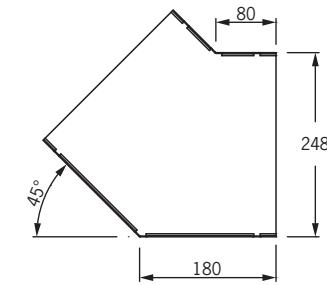
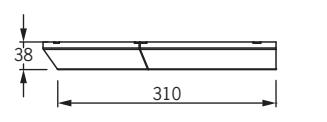
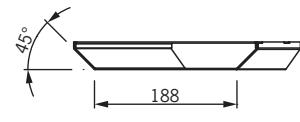
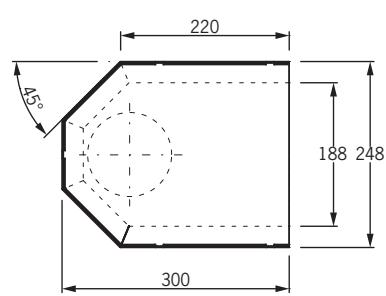
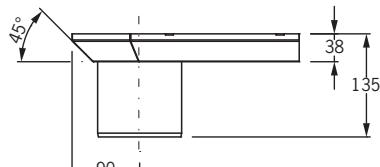
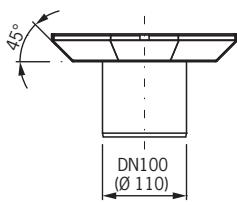


The flat sewer system consists of a maximum of 5 different components:

1. flat sewer **connection supports**
2. flat sewer **main body**
3. flat sewer **connector**
4. flat sewer **angled connector 45°**
5. flat sewer **drain supports**



**5. Flat sewer drain supports**



## ■ Attica rectangular emergency overflow for large hall roofs



Dimension | Art. No.



### Attica rectangular emergency overflow 400 made of PUR

open width 400 mm, length  
400 mm **3424**  
585 mm **3424.6**  
775 mm **3424.8**



### Attica rectangular emergency overflow 600 made of PUR

open width 600 mm, length  
400 mm **3426**  
585 mm **3426.6**  
775 mm **3426.8**



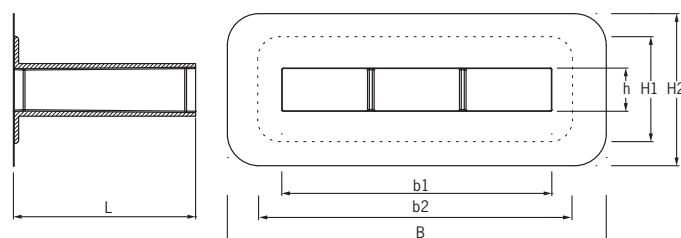
### Cover plate made of stainless steel

suitable for attica rectangular emergency overflow 400  
**2463.400**  
suitable for attica rectangular emergency overflow 600  
**2463.600**

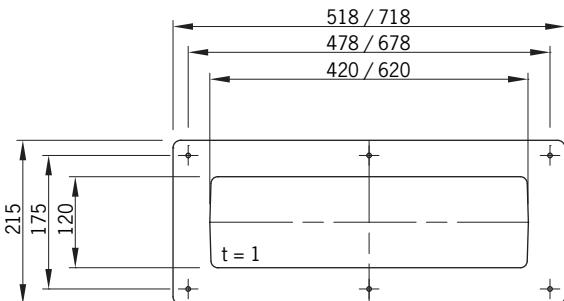
### Installation example attica rectangular emergency overflow



### Technical data Attica rectangular emergency overflow 400/600



### Technical data pipe cover plate made of stainless steel



Art. No.	B	b1	b2	h	H1	H2	L	Drainage capacities*
3424	635	400	540	100	235	335	400	3,4 l/s (35 mm)
3426	835	600	740	100	235	335	400	5,2 l/s (35 mm)
3424.6	635	400	540	100	235	335	585	3,4 l/s (35 mm)
3426.6	835	600	740	100	235	335	585	5,2 l/s (35 mm)
3424.8	635	400	540	100	235	335	775	3,4 l/s (35 mm)
3426.8	835	600	740	100	235	335	775	5,2 l/s (35 mm)

all sizes in mm

## ■ Attica rectangular emergency overflow with fixed accumulation height



Dimension | Art. No.



**Attica rectangular emergency overflow 400.35 made of PUR**  
open width 400 mm, length  
400 mm **3425**  
585 mm **3425.6**  
775 mm **3425.8**

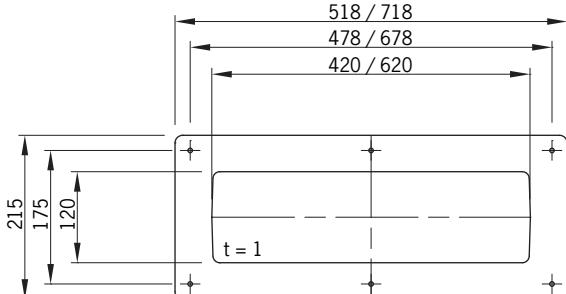


**Attica rectangular emergency overflow 600.35 made of PUR**  
open width 600 mm, length  
400 mm **3427**  
585 mm **3427.6**  
775 mm **3427.8**



**Cover plate made of stainless steel**  
suitable for attica rectangular emergency overflow 400.35  
**2463.400**  
suitable for attica rectangular emergency overflow 600.35  
**2463.600**

### Technical data cover plate made of stainless steel



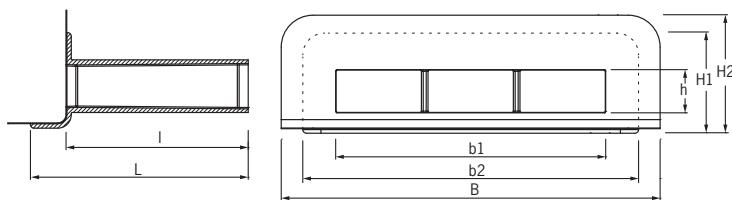
### Attica rectangular emergency overflow 400.35/600.35 made of PUR

- Large overflow opening for high drainage capacity
- made of high-quality, CFC-free polyurethane hard foam (PUR) with permanent cast connection collar
- heat-insulated version
- for attica thickness up to 700 mm (can be shortened to suit the attica)
- simple assembly on **fixed accumulation height of 35 mm**
- Available with all common roof sealings (please mention type of connection collar when ordering).

### Installation example attica rectangular emergency overflow



### Technical data Attica rectangular emergency overflow 400.35/600.35



Art. No.	B	b1	b2	h	H1	H2	L	I	Drainage capacities*
3425	635	400	540	100	210	260	480	400	3,4 l/s (35 mm)
3427	835	600	740	100	210	260	480	400	5,2 l/s (35 mm)
3425.6	635	400	540	100	210	260	665	585	3,4 l/s (35 mm)
3427.6	835	600	740	100	210	260	665	585	5,2 l/s (35 mm)
3425.8	635	400	540	100	210	260	855	775	3,4 l/s (35 mm)
3427.8	835	600	740	100	210	260	855	775	5,2 l/s (35 mm)

alle Maße in mm

## ■ Balcony complete drain with frostproof odour trap

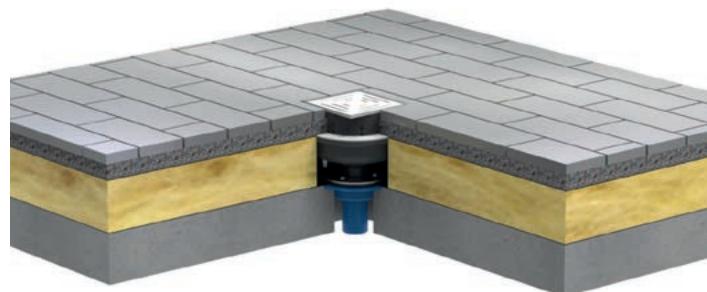


### The balcony complete drain DN 50/DN 40 vertical or horizontal

suited perfectly for balcony and terrace:

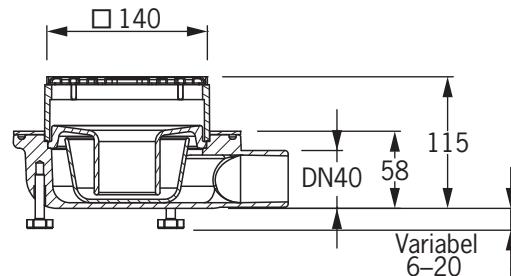
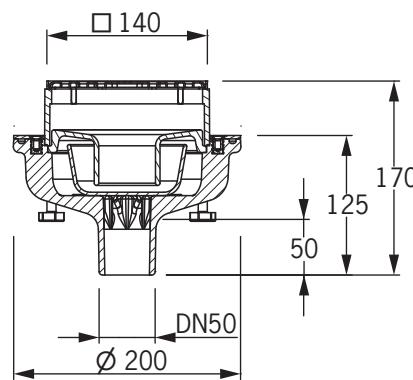
- frostproof odour trap made of EPDM
- height-adjustable inlet grate made of stainless steel
- Clamp flange made of stainless steel for the secure clamping of roofing surfaces of all kinds
- Feet for simple positioning, e. g. for screed construction
- Inlet opportunity at drainage level
- Vertical or horizontal drain

### Installation example balcony complete drain



Built-in balcony drain DN 50 as basic element and slip on balcony complete drain DN 50 as extension element installed in a insulated roof. The hight-adjustable inlay grate serves as an edge to the tiled surface.

### Technical data balcony complete drain



Dimension | Art. No.

**Balcony complete drain  
vertical**

DN 50      2501



**Balcony complete drain  
horizontal**

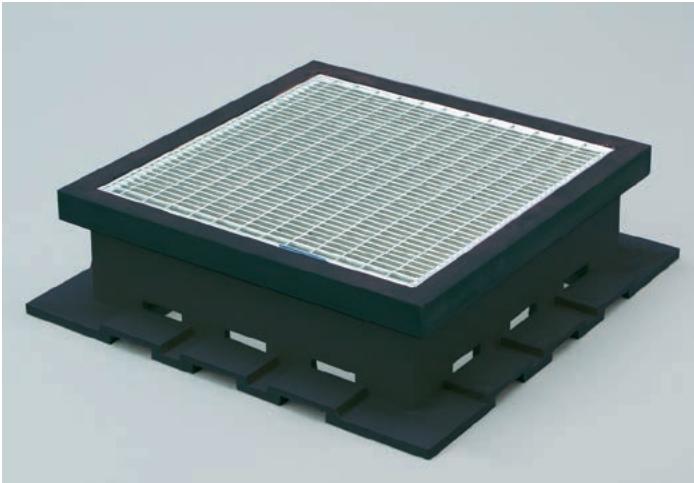
DN 40      2502



**Extension ring made of PUR**  
for the heightening up to 10 cm,  
can be stacked

2509

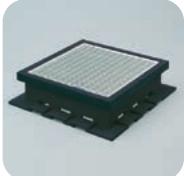
## ■ Green roof drainage



Green roof safety drain made of PUR, 500 x 500 mm, consists of bottom part, top part and galvanised inlet grate, max. Load 0.5 t, height-adjustable: 160–220 mm

Dimension | Art. No.

**Green roof safety drain made of PUR**  
500 mm **5000**



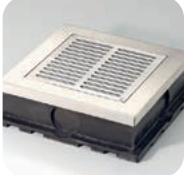
**Extension element made of PUR for 80 mm extension**  
suitable for Art. No. 5000  
**5001**



**Green roof safety drain small made of PUR**  
365 mm **5010**  
without sieve panel, as extension element up to 93 mm extension  
**5011**



**Green roof safety drain small made of PUR PLUS**  
as Art. 5010, although with cladding from above made of stainless steel  
**5010.E**



### The green roof safety drain small made of PUR

- especially suited for extensively vegetated green roofs



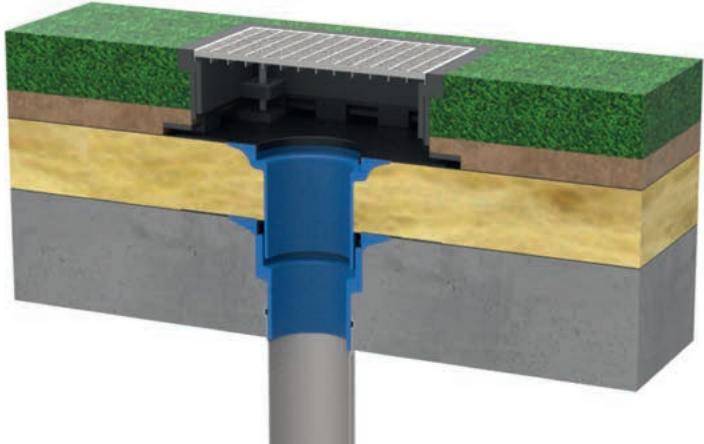
Green roof safety drain made of PUR, 365 x 365 mm, with pre-formed connections for drainpipe Ø 70 mm and sieve panel made of aluminum. Height 100 mm  
**Especially suited for extensively vegetated flat roofs!**

### The green roof safety drain

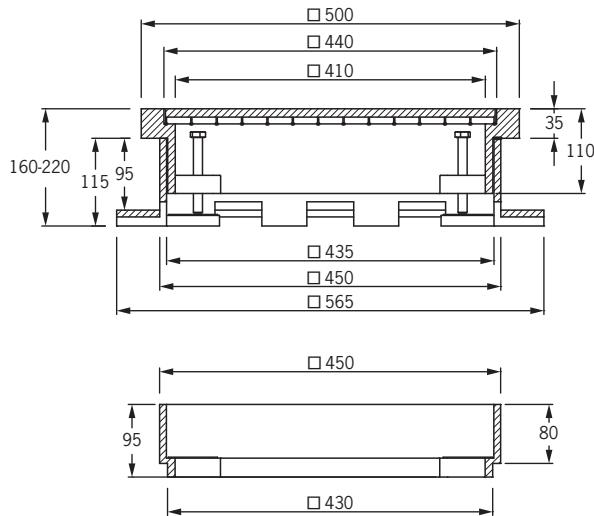
is the secure, robust drain for green roofs etc.

- made of PUR, resilient up to 0,5 t
- with lid made of steel, hot dipped galvanised
- secure drainage on two levels
- accessible drain, even for back-up
- for every construction height from 16 cm

### Installation example green roof safety drain



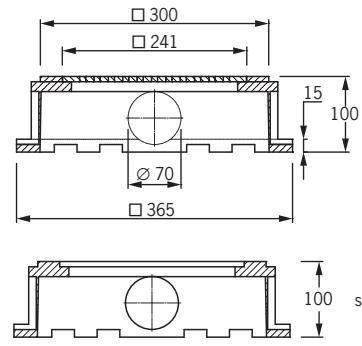
### Technical data green roof safety drain



### Installation example and technical data green roof safety drain small



The green roof safety drain small can be stacked as required.



## ■ Retention attachment less can be more



### Reducing of drainage capacity made easy

The Grumbach retention attachment enables the adjustable, throttled drainage of rainwater in connection with various drains from the flat roof range.

#### All retention attachments

- are made of CFC-free PUR
- with rotatable overflow element to regulate the opening size
- Throttling possible by four adjustable inlet openings

#### Retention element without seal

- suitable for all Universal drains (except for extension elements)

#### Retention element with seal Type I

- incl. suitable backflow seal made of EPDM Art. No. 5990
- suitable for extension elements of the Universal drains

#### Retention element with seal Type II

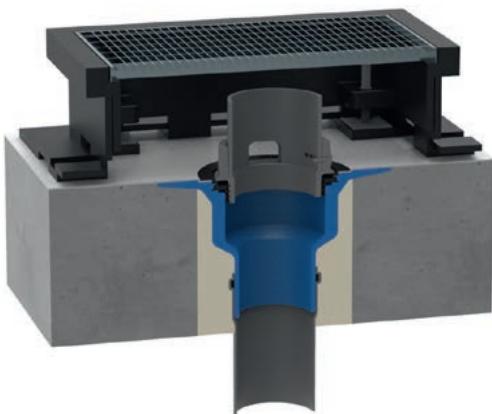
- incl. suitable backflow seal made of EPDM Art. No. 5990.N
- suitable for the compact collar drains
- suitable for extension elements of the compact collar drains
- suitable for attica flat drains with adhesive collar

Dimension | Art. No.

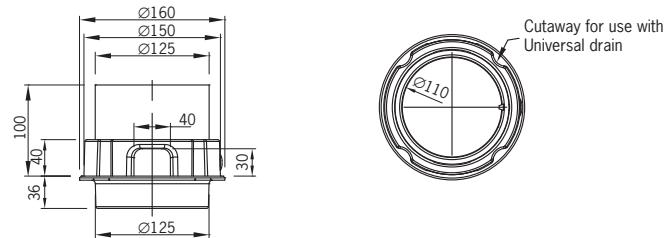
<b>Retention element</b> without seal	<b>2150</b>
<b>Retention element Type I</b> with seal Art. No. 5990	<b>2150.I</b>
<b>Retention element Type II</b> with seal Art. No. 5990.N	<b>2150.II</b>

#### Installation example retention element Type II

Retention element Type II inserted in a compact collar drain with applied backflow seal for a throttled drainage of the accumulating rainwater. Delimitation to the greenery is done with a green roof safety drain e.g.(Art. No. 5000)



#### Technical data retention element



Art.	Description	Opening size	Drainage capacity*
2150	Retention element	100%	1,25 l/s (35 mm)
2150.I	Retention element with seal Type I resp. II	75%	1,05 l/s (35 mm)
2150.II		50%	0,75 l/s (35 mm)
		25%	0,40 l/s (35 mm)

\*Drainage capacity acc. to DIN EN 1253-2 in l/sec (accumulation height in millimeters)

## ■ Stainless steel drain The indestructible one



Dimension   Art. No.	
	<b>Stainless steel drain</b> vertical DN 50 <b>2600</b>
	DN 70 <b>2602</b>
	DN 100 <b>2604</b>
	<b>Stainless steel drain</b> horizontal: DN 50 <b>2611</b>
	DN 70 <b>2612</b>
	DN 100 <b>2614</b>
	<b>Extension element made of stainless steel</b> DN 50 <b>2680</b>
	DN 70 <b>2682</b>
	DN 100 <b>2684</b>

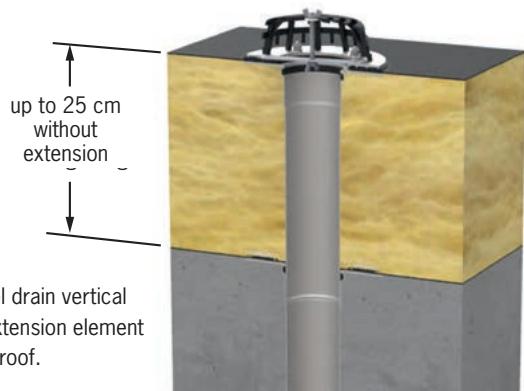
Art.	DN	d1	d2	H	H1	H2	X	T	Drainage capacities*
<b>2600, 2680</b>	50	50	65	45	—	—	150	—	1,5 l/s (35 mm)
<b>2602, 2682</b>	70	75	90	55	—	—	190	—	3,5 l/s (35 mm)
<b>2604, 2684</b>	100	110	125	65	—	—	240	—	5,1 l/s (35 mm)
<b>2611</b>	50	50	—	38	81	106	150	170	2,0 l/s (35 mm)
<b>2612</b>	70	75	—	50	112	150	190	210	4,1 l/s (35 mm)
<b>2614</b>	100	110	—	55	133	188	240	260	5,2 l/s (35 mm)

The stainless steel drains are non-flammable acc. to DIN 4102  
(Fire protection class A1).

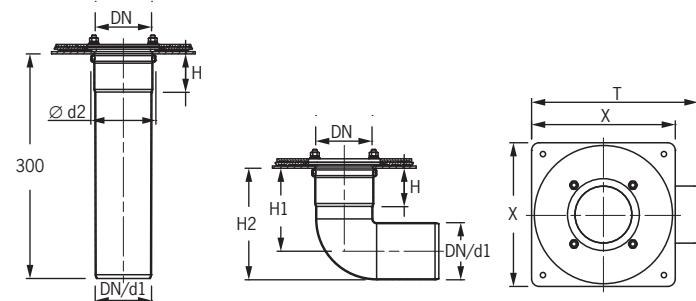
### The Grumbach stainless steel drain

- the robust, non-flammable drain series made of rust free stainless steel
- available in three nominal widths DN 50, 70 or 100
- with fastening holes in the fixed flange for secure fastening to the surface
- absolutely back-flow secure due to a sleeve connection
- due to the flange press seal and clamp, any extendable roof seal can be connected securely
- high stability and drainage capacity
- due to its attractive appearance it can also be used as an Attika emergency overflow
- due to its special construction (without pot, long supports) it is easy to assemble and also a good choice as a redevelopment drain, among other things.

### Installation example und technical data stainless steel drain



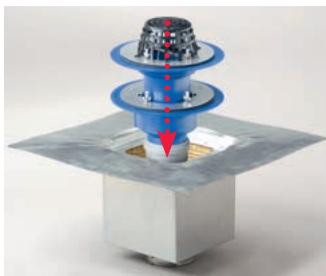
### Technical data stainless steel drain



## ■ Fire protection



Grumbach fire protection element for roof drains – **optimally adapted for the universal and compact collar drain series** from Grumbach. The fire protection cladding is shaped with a quadruple impression/recess on top, thus allowing an optimal positioning of the drain, water can then drain completely, without backing-up at the drain flange.



**The Grumbach fire protection element** prevents, in accordance with DIN 18234 Part 3-4, the spreading of an underside fire onto the roof surface not only through the roof section openings, but also through the rain downpipe opening.

**The Grumbach fire protection drain made of stainless steel** is particularly compact and requires only a **minimal break in the roof surface**. Alternatively, the drain can be used as a roof ventilator or power supply insert.

The fire protection drain is compatible with extension elements made of PUR or stainless steel.

**Fire protection cladding and fire protection drain are suitable for use in trapezoid sheet roofs.**

### Installation example fire protection cladding and fire protection drain



Fire protection cladding with universal drain and extension element in trapezoid sheet roofs with insulated roof construction.



Compact fire protection drain DN 100 with inserted Eco drain top part in the trapezoid sheet roof with insulated roof construction.

#### Dimension | Art. No.



Only tested for use in trapezoidal sheet metal roofs!

#### Fire protection cladding

DN 70	<b>5943</b>
DN 100	<b>5945</b>
DN 125	<b>5946</b>
DN 150	<b>5948</b>



Only tested for use in trapezoidal sheet metal roofs!

#### Compact fire protection drain made of stainless steel

DN 50	<b>2640</b>
DN 70	<b>2642</b>
DN 100	<b>2644</b>
DN 125	<b>2646</b>

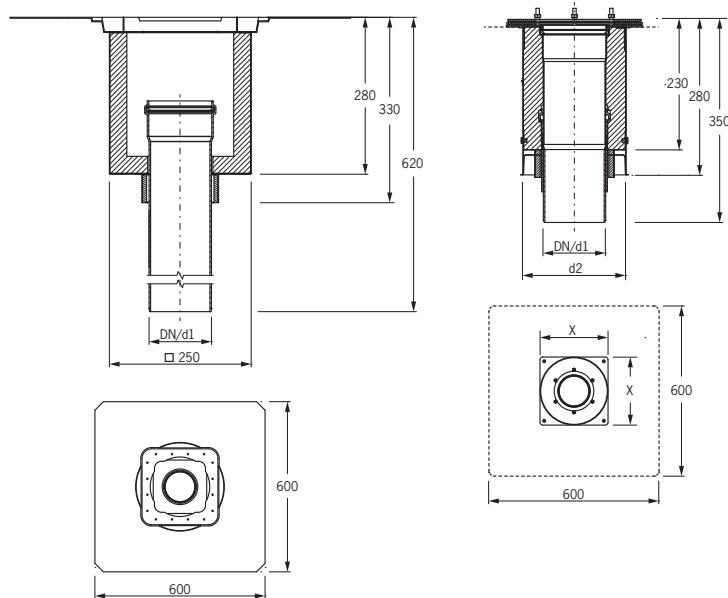


Suitable for use in concrete roofs in combination with a thermoplastic pipe connector and piping with stainless steel pipes to the next fire protection section

#### Fire protection cladding for thermoplastic pipes

DN 50	<b>2641</b>
DN 70	<b>2643</b>
DN 100	<b>2645</b>
DN 125	<b>2647</b>
DN 150	<b>2648</b>
DN 200	<b>2649</b>

#### Technical data fire protection cladding and fire protection drain



Art.	DN	d1	d2	X
<b>5943</b>	70	75	–	–
<b>5945</b>	100	110	–	–
<b>5946</b>	125	125	–	–
<b>5948</b>	150	160	–	–

Art.	DN	d1	d2	X
<b>2640</b>	50	50	160	180
<b>2642</b>	70	75	160	180
<b>2644</b>	100	110	180	240
<b>2646</b>	125	125	200	240

## ■ Fastening bushing for water-tight passages



Fastening bushing made of PUR (black)  
Heat insulated, CFC-free, with integrated rubber seal and foamed connection collar (Bitumen, PVC or special foil)



Dimension | Art. No.



**Fastening bushing 12 made of PUR (black)**  
for threaded rods M10–M12  
**5140**



**Fastening bushing 30 made of PUR (black)**  
for threaded rods, round rods or pipes 12–30 mm  
**5141**

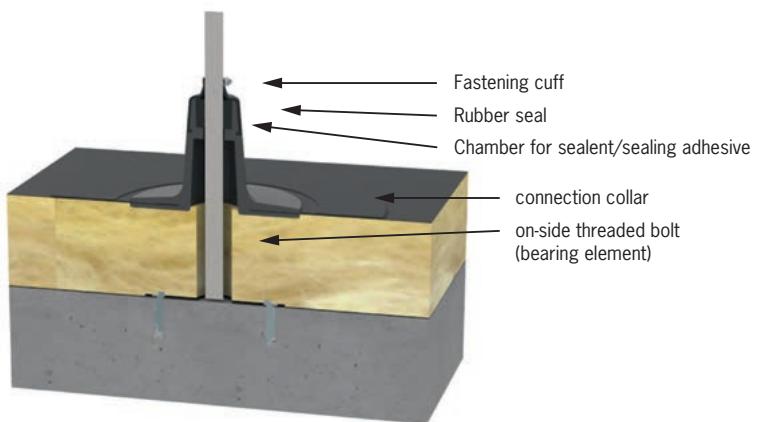


**Fastening bushings 50 made of PUR (black)**  
for threaded rods, round rods or pipes 30–50 mm  
**5143**

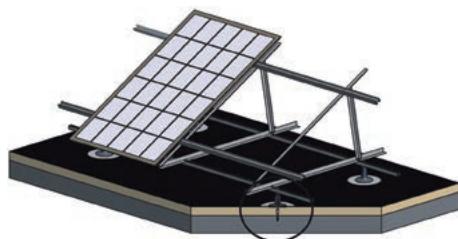
### Fastening bushing made of PUR

- For support rail or point fastenings with threaded bolts on flat roofs.
- Optimal for fastening bushing for photovoltaic units, air-conditioning units, ventilation etc.
- Made of extra stable PUR integral hard foam and integrated rubber seal
- Seal level in accordance with flat roof guidelines
- With pourable weldable collar for every roof surface
- The water-tight bushing of threaded bolts (M10 – M12) or similar or threaded bolts, rods or pipes ( $\varnothing$  12–50 mm) through roofs with seal.
- Available with connection collar (Bitumen, PVC or special foil, please mention when ordering).
- Incl. sealant and stainless steel sealing cuff (Art.-No. 5141 and 5143)

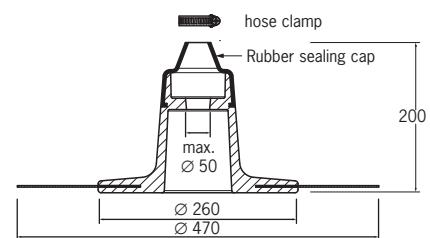
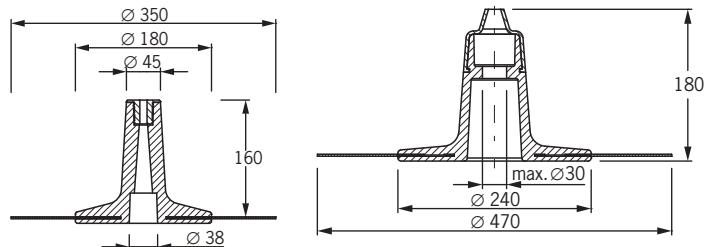
### Installation example fastening bushing



Fastening bushing with dowel plug screwed into insulated roof. With mounted bearing rail for e.g. PV-unit or other technical roof constructions.



### Technical data fastening bushing



## ■ Reach-through element Keeping an eye on the insulation



Reach-through element DN 125 with rubber cap and clamp



Matching element made of EPS  
for filling revision openings in the  
insulation



Rain cap DN 125

### Reach-through element made of PUR

This allows you to keep access to your insulation.

- Easily accessible revision opening for checking insulation – **now with larger diameter!**
- Made of high-quality, CFC-free PUR integral hard foam
- With firmly cast-on connection sleeve, available to fit all common roofing membranes (please specify roofing membrane type when ordering).
- With removable rubber cap and clamp
- Long design for bridging e.g. green roof structures
- Can be shortened as required
- Ideal for checking the thermal insulation
- Suitable filling-/insulation element made of EPS available

### Installation example reach-through element

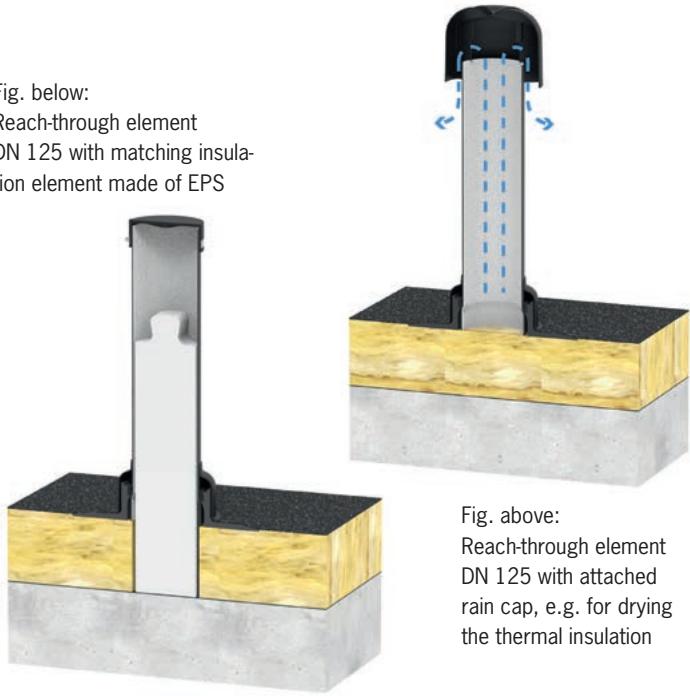


Fig. below:  
Reach-through element  
DN 125 with matching insula-  
tion element made of EPS



Fig. above:  
Reach-through element  
DN 125 with attached  
rain cap, e.g. for drying  
the thermal insulation

### Dimension | Artikel-Nr.



#### Reach-through element made of PUR (black)

DN 125 **5150**

#### Filling/Insulation element made of EPS

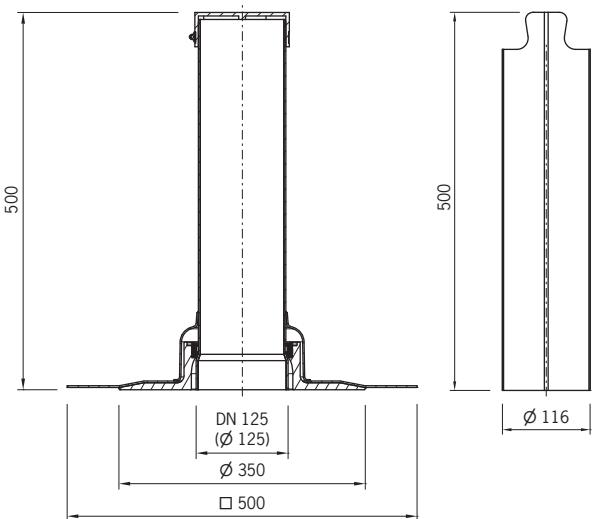
suitable for the reach-through  
element DN 125

**5150.FD**

#### Rain cap DN 125

DN 125 **5149.SK**

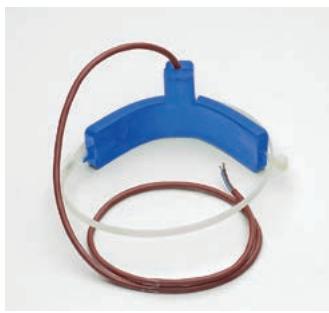
### Technical data reach-through element / filling/insulation element





Dimension | Art. No.

**Heating cuff 230 V, 10 W**  
self-regulating  
**5931**



### Heating cuffs

The universal heating option for drains made of PUR with a nominal width of DN 70 or more. Also ideal for retrofitting. With self-regulating PTC\* heating element 230 V. We recommend using the temperature switch set basic (Art. No. 5922) for switching.



Dimension | Art. No.

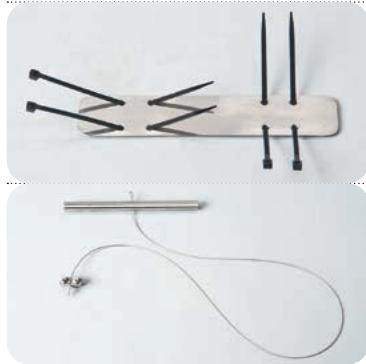
**Heating clamp set**  
**5932**  
suitable for bitumen  
**5932.BIT**

plug-ready, produced in acc. with customer wishes (see planning example)



**Temperature switch set basic**  
**5922**

including:  
1 temperature switch  
2 cold cable bushings  
1 cold cable (1 m)



**Edge covers for auxiliary heating**

to prevent damage of heating cables

**5925**



**Strain relief**

for hanging the heating cable in downpipes

**5926**

### Technical data auxiliary heating

<b>Heatband type</b>	FT 18/36
<b>Nominal capacity</b>	18W/m at 0°C air temperature 36W/m in ice water
<b>Max. heating circuit length</b>	► <b>60 m</b> at 16 A (in combination with mechanical temperature switch set) ► <b>80 m</b> at 20 A (without mechanical temperature switch)
<b>Minimal bending radius</b>	25 mm (Do not bend heating line!)
<b>Nominal voltage</b>	230 V
<b>Max. permitted ambient temperature</b>	65° C (switched on)
<b>Max. permitted ambient temperature</b>	85° C (switched off)
<b>Minimal installation temperature</b>	5° C
<b>Max. protective resistance</b>	10Ω/km
<b>Dimensions</b>	13,7x6,2 mm
<b>Protective coverage</b>	mind. 70 %

- Protection with FI circuit breaker and C-characteristic.
- For channel widths above 20 cm or roof surfaces, multiple laying every 15 cm is recommended.
- Heating band hanging up to 25 cm, self-supporting.

### Technical data temperature switch set basic

<b>Type of controller</b>	DTR-E 3102 (mechanical)
<b>Temperature range</b>	-20° C bis +25° C
<b>Operating voltage</b>	AC 230 V
<b>Alternating current at AC 250 V</b>	16(4) A
<b>Contact rating</b>	3,6 kW
<b>Contact</b>	1 Öffner 1 Schließer (Springkontakt)
<b>Permitted temperature</b>	-25° C ... +55° C
<b>Switching temperature difference</b>	1-3K
<b>Protection class casing</b>	IP65
<b>Permitted relative room humidity</b>	max. 95%, non-condensing

- Install on the northern side of the building (weatherproof). Alternatively, fit a protection cover!

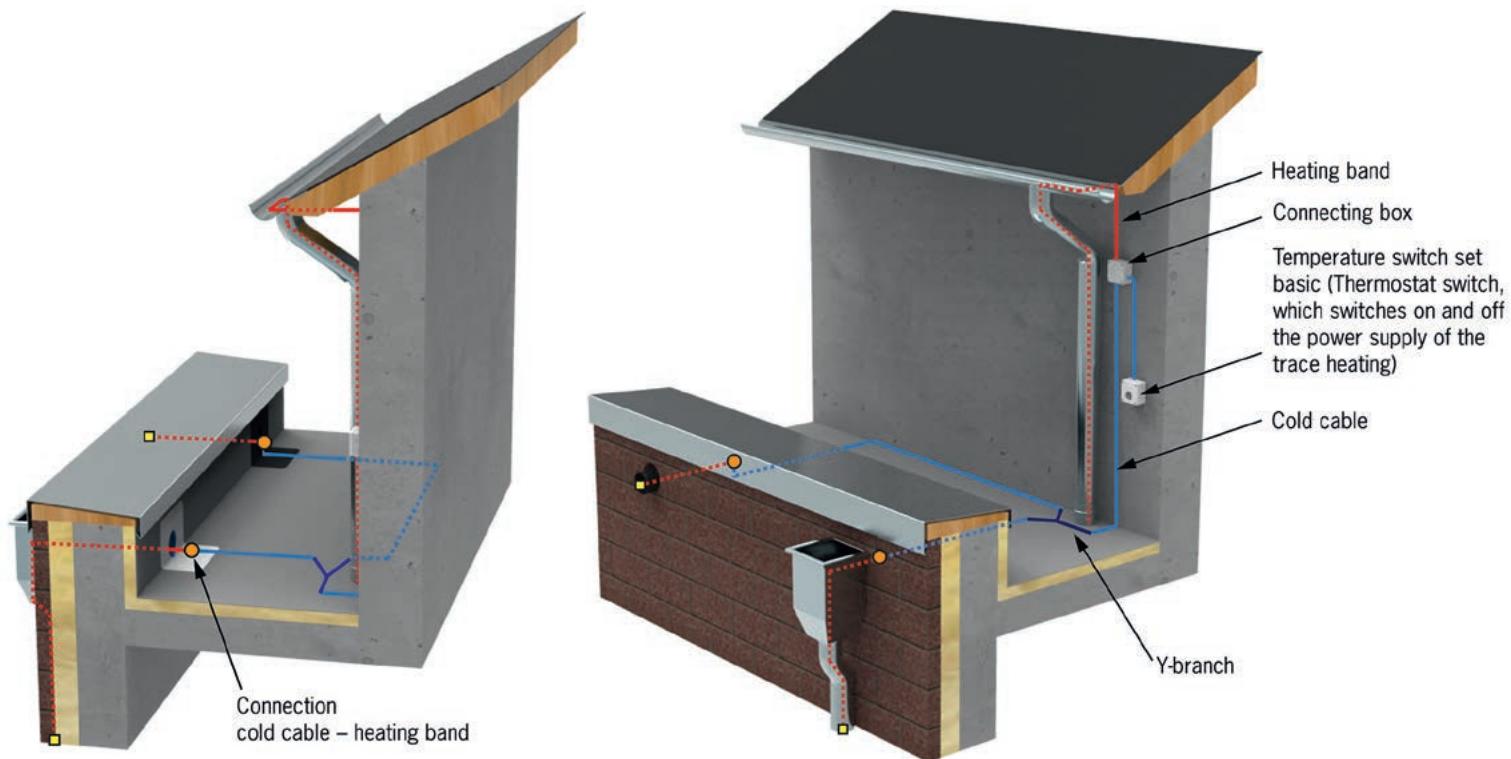
## ■ Trace heating system planning and calculation

### Trace heating for roof drains, pipes, roof channels and flat sewer systems

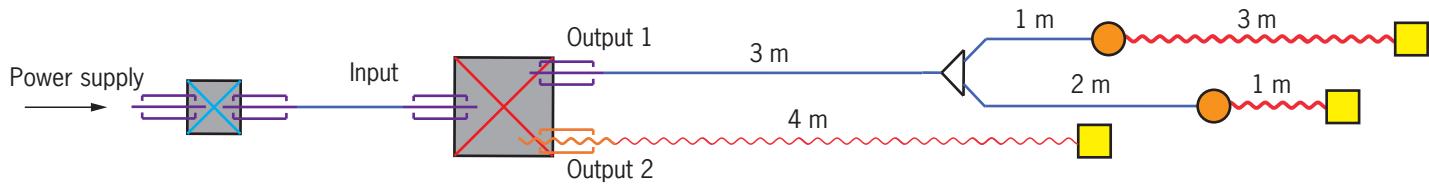
- Prevention of frost and water damage in buildings and facades due to flooding caused by frozen water channels
- Prevention of accidents and damage due to e.g. falling icicles
- Maintenace- and trouble-free operation (self-regulating)

- Largely pre-mounted sets (heating band and temperature switch set basic), each extendable
- Light, even subsequent assembly
- Minimal acquisition and operating costs

#### Installation example trace heating



#### Planning example: Trace heating, diagram of the Installation examples above



Symbol	Description
	Connection box
	Heat band inlet
	Cold cable inlet

Symbol	Description
	Y-branch
	Connection point cold cable – heating band
	End connection

Symbol	Description
	Heating band
	Heating band (bitumen compatible)
	Cold cable

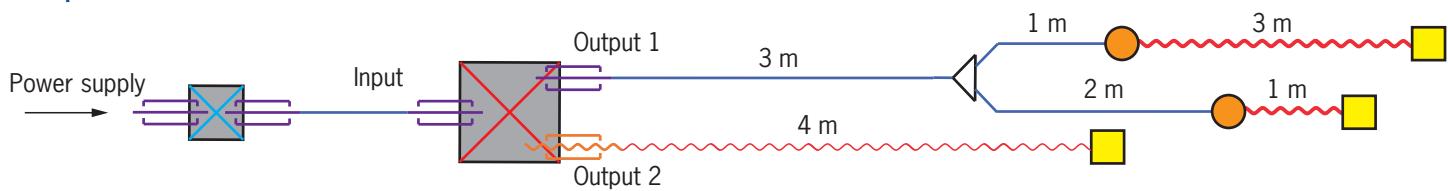
Symbol	Description
	Temperature switch set basic

## ■ Trace heating system planning and calculation

### Planning example: Trace heating, diagram

If requested, we will quote you base on your own individual "trace heating diagram".

#### Example:



### Komponenten

Symbol	Description	Art.	Illustration
	Connecting box	5923	
	Heating band inlet	5923.H	
	Cold cable inlet	5923.K	
	Y-branch (only cold cable)	5925.Y	
	Connection point cold cable – heating band	5925.KH	

Symbol	Description	Art.	Illustration
	End connection	5925.E	
	Heating band (bring it up to 1 m into the earth with the downpipe)	5935	
	Heating band, bitumen compatible (bring it up to 1 m into the earth with the downpipe)	5935.BIT	
	Cold cable	5936	
	Temperature switch set basic (install it on the north side of the building)	5922	

### Example parts list

Number	Length	Art. No.	Description
1		5923	Connection box
3		5923.K	Cold cable inlet
1		5923.H	Heating band inlet
2		5925.KH	Connection point (cold cable – heating band)
1	6 m	5936	Cold cable
1	4 m	5935.BIT	Heating band (bitumen compatible)
1	4 m	5935	Heating band (not bitumen compatible)
1		5925.Y	Y-branch
3		5925.E	End connection
1		5922	Temperature switch set basic

Dimension | Art. No.

	<b>Stainless steel pipe with a sleeve</b>		see table on left			
		Length				
		25 cm	50 cm	100 cm	200 cm	300 cm
	DN 50	<b>2631</b>	<b>2631.55</b>	<b>2631.1</b>	<b>2631.2</b>	<b>2631.3</b>
	DN 70	<b>2632</b>	<b>2632.55</b>	<b>2632.1</b>	<b>2632.2</b>	<b>2632.3</b>
	DN 100	<b>2634</b>	<b>2634.55</b>	<b>2634.1</b>	<b>2634.2</b>	<b>2634.3</b>
	<b>Stainless steel pipe bend with a sleeve</b>		see table on left			
		Angle				
		87,5°	45°	30°	15°	
	DN 50	<b>2650</b>	<b>2650.45</b>	<b>2650.30</b>	<b>2650.15</b>	
	DN 70	<b>2652</b>	<b>2652.45</b>	<b>2652.30</b>	<b>2652.15</b>	
	DN 100	<b>2654</b>	<b>2654.45</b>	<b>2654.30</b>	<b>2654.15</b>	
	<b>Stainless steel pipe branch</b>		see table on left			
		Angle				
		87,5°	45°	30°	15°	
	DN 50/50	<b>2660</b>		<b>2660.45</b>		
	DN 70/70	<b>2662</b>		<b>2662.45</b>		
	DN 100/100	<b>2664</b>		<b>2664.45</b>		
	<b>Stainless steel pipe with revision opening DN 100</b>	DN 100	<b>2635</b>			
	<b>Pipe clamp made of galvanized sheet steel with rubber seal</b> for a secure connection of a stainless steel pipe to the construction; with decoupling rubber	DN 50	<b>2690</b>			
		DN 70	<b>2692</b>			
		DN 100	<b>2694</b>			

## Siphonic drainage

### The modern method of flat roof drainage



Siphonic drain made of stainless steel (top part) with bitumen collar, vacuum plate and pebble trap.

Dimension | Art. No.



#### Siphonic drain made of stainless steel with bitumen collar (top)

DN 50      **3620**  
DN 70      **3622**



#### Siphonic drain made of stainless steel with clamp flange (top)

DN 50      **2620**  
DN 70      **2622**



#### Stainless steel drain (bottom)

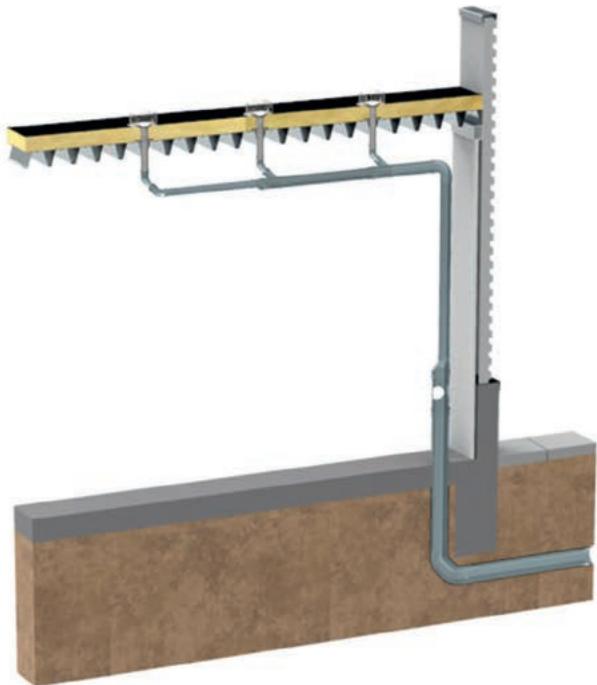
DN 50      **2680**  
DN 70      **2682**

Art.	DN	D1	D2
<b>3620</b>	50	50	65
<b>3622</b>	70	75	90
<b>2620</b>	50	50	65
<b>2622</b>	70	75	90

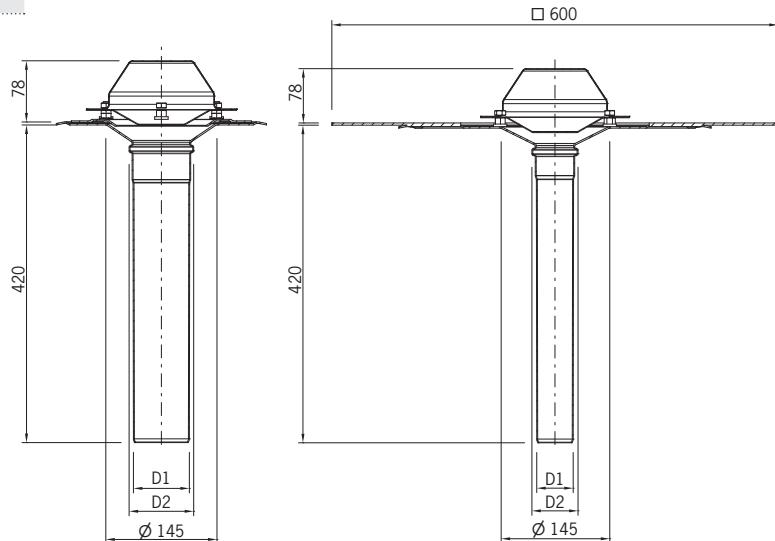
#### Siphonic drainage

We will gladly support you with the calculation of rain drainage systems with siphonic drainage. You will receive a suggestion from us for the realisation of your drainage system with a list of the required drains, pipes and fastening pieces.

#### Installation example siphonic drainage



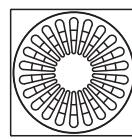
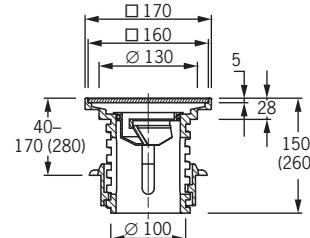
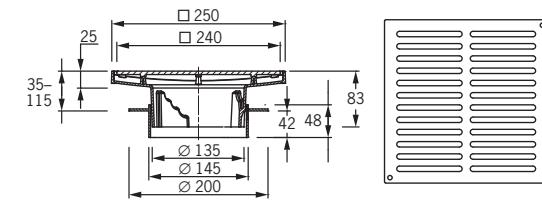
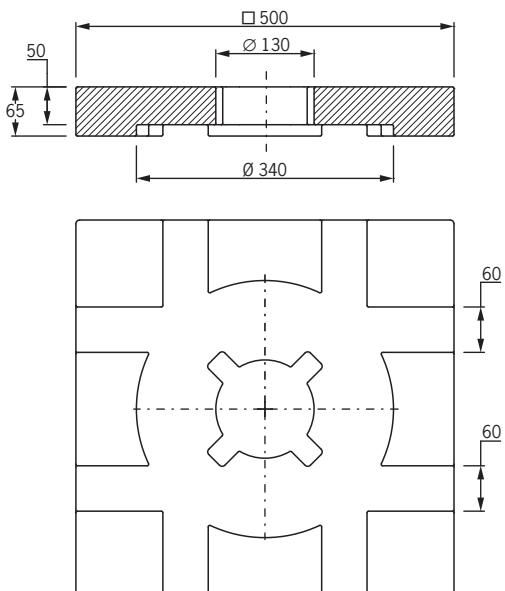
#### Technical data siphonic drain made of stainless steel



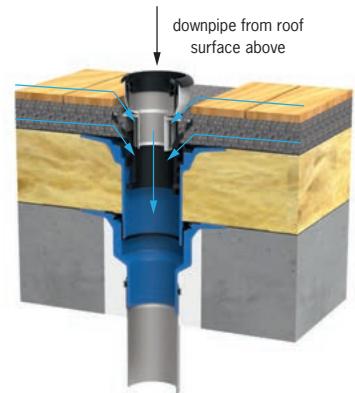
## ■ Accessories

Dimension	Art. No.
	<b>Terrace construction set, can be walked upon</b> <b>5900</b>
	<b>Terrace construction set (black), can be walked upon without odour trap</b> <b>5902</b>
	<b>with odour trap</b> <b>5902.G</b>
	<b>Terrace construction set PLUS without odour trap</b> <b>5902.E</b>
	<b>with odour trap</b> <b>5902.G.E</b>
	<b>Terrace construction set PLUS long version without odour trap</b> <b>5902.E.L</b>
	<b>with odour trap</b> <b>5902.G.E.L</b>
	<b>Sieve ring extension, made of stainless steel</b> <b>DN 70</b> <b>5903</b>
	<b>DN 100</b> <b>5904</b>
	<b>Terrace construction set, can be driven upon</b> <b>5905</b>
	<b>Extension frame 25 mm</b> <b>5906</b>
	<b>Load bearing panel</b> <b>5907</b>

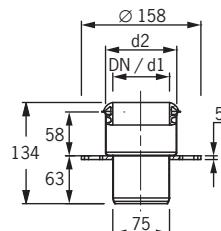
### Technical data load bearing panel



**Installation example terrace construction set and sieve ring extension element**



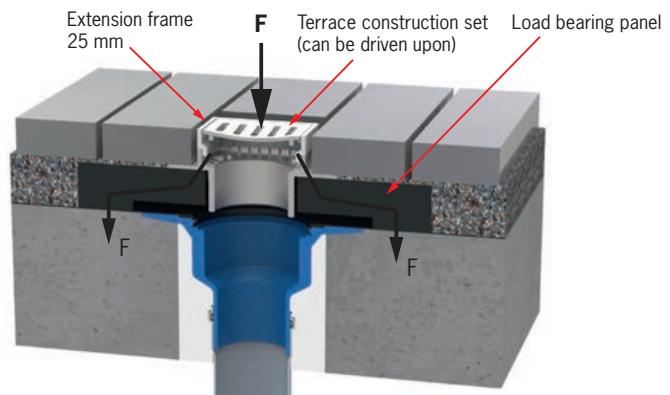
Dimensions in brackets for terrace construction set PLUS long



Compact collar drain with extension and terrace construction set with sieve ring extension piece built into terrace

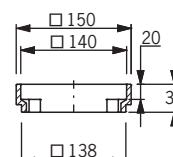
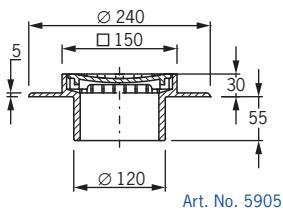
Art.	DN	d1	d2
<b>5903</b>	70	75	98
<b>5904</b>	100	110	126

### Installation example terrace construction set (can be driven upon) with load bearing panel



Compact collar drain with load-bearing panel and terrace construction set (can be driven upon) with slab covering installed in the crushed stone bedding. The load-bearing panel channels the force past the terrace construction set into the concrete slab.

### Technical data terrace construction set and extension frame



Dimension | Art. No.

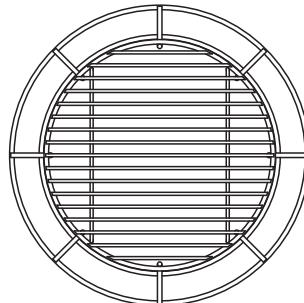
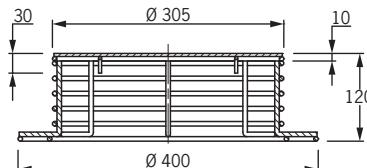


**Stainless steel pebble collar**  
**5908**

can be fitted, even subsequently, onto any common drain.  
The long-term protection against pebble blockage in pipes.

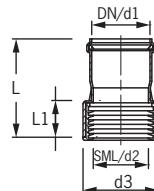
**Lid made of stainless steel**  
**5909**

suitable for the pebble collar made of stainless steel



**Drain/SML pipe adaptor**

DN 50/50	<b>5940</b>
DN 70/80	<b>5942</b>
DN 100/100	<b>5944</b>
Ideal to connect Grumbach drains DN 50, 70 or 100 with a SML pipe of the same DN width.	

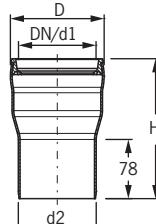


Art.	DN	d1	SML	d2	d3	L	L1
<b>5940</b>	50	50	50	58	80	85	32
<b>5942</b>	70	75	80	83	100	130	48
<b>5944</b>	100	110	100	110	132	150	53



**Drain/Loro connection piece**

DN 70	<b>5953*</b>
DN 100	<b>5954*</b>
For a connection between a Grumbach drain DN 70 or 100 and a Loro-X socket pipe of the same DN nominal width.	

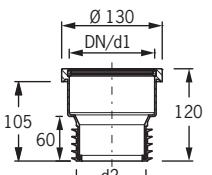


Art.	DN	d1	d2	H	D
<b>5953</b>	70	75	73	150	87
<b>5954</b>	100	110	103	180	124



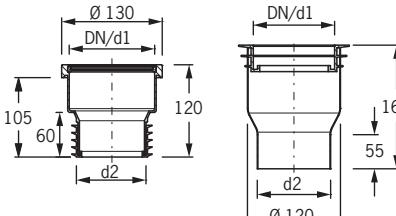
**Adaptor DN 100**

made of titanium zinc, without seal, for connection with a vertical zinc pipe  
DN 100 **2633\***  
i.d. 100, 6-piece



**Adaptor DN 100**

for connection with a zinc pipe  
**made of titanium zinc**  
DN 100 **5955\***  
**made of PP**  
DN 100 **5955.PP**



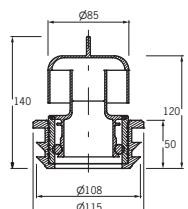
Art.	DN	d1	d2
<b>5955</b>	100	110	95
<b>5955.PP</b>	100	110	95



**Bell odour trap**

**5950**

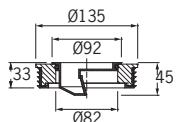
incl. seal, suitable for  
Art. No. 2104/2124/3104/3124



**Odour trap**

**5952**

suitable for all Universal drains and compact collar drains



Note for all types: reduces drainage capacity to approx. 0,9 l/s!

Dimension | Art. No.



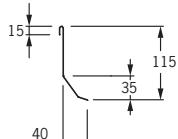
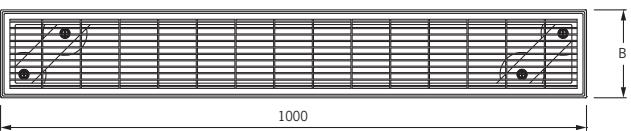
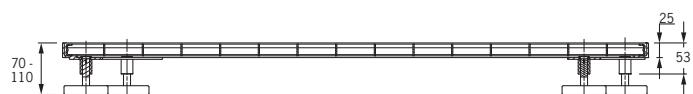
### Drainage grate

100x1000 mm **5960**  
150x1000 mm **5962**  
250x1000 mm **5964**

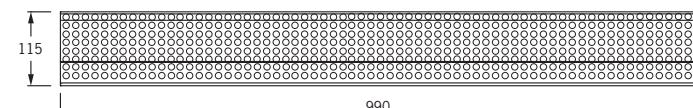


### Pebble trap strip

**5961**



Art.	B
<b>5960</b>	100
<b>5962</b>	150
<b>5964</b>	250



**NEW!**

### Pebble trap

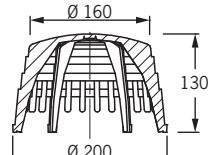
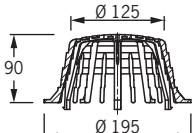
black **5970**  
red **5970.R**



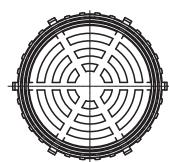
**NEW!**

### Pebble trap

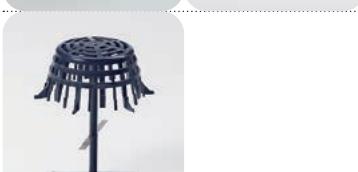
black **5971**  
red **5971.R**



Art. No. 5970/5970.R

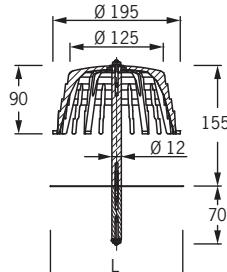


Art. No. 5971/5971.R

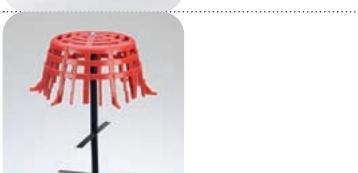


### Universal pebble trap, black, with attachment

internal diameter  
80-120 **5973**  
120-140 **5973.3**

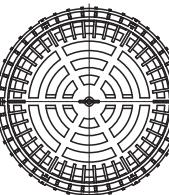
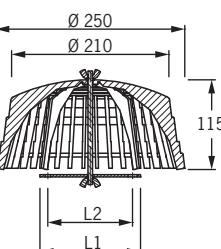


Art.	Internal diameter	L
<b>5973</b>	80-120	125
<b>5973.3</b>	120-140	140



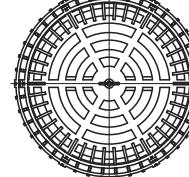
### Universal pebble trap, red, with attachment

internal diameter  
80-120 **5973.R**  
120-140 **5973.3.R**



### Pebble trap

black **5972**  
red **5972.R**



Drain type	L1	L2
Clamp flange drain / attica flat drain / trapezoidal drain / Collar drain DN200 / redevelopment drain DN200 / Eco drain	203	183
redevelopment drain DN150 / redevelopment drain made of aluminum	170	150
redevelopment drain 56	160	140



### Pull-off protection made of EPDM

suitable for all common  
DN 70 resp. DN 100 pipes  
DN 70 **5341**  
DN 100 **5343**

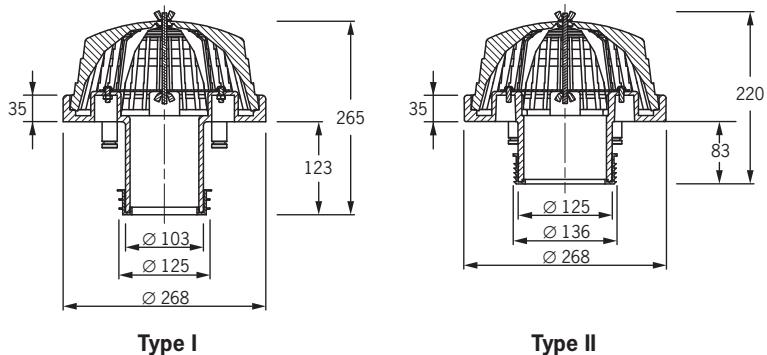
Dimension   Art. No.

<b>Backflow seal for extension elements</b> <b>5990.N</b> suitable for all compact collar drains and Universal drains

<b>Plug-in attachment made of PUR for emergency drainage</b> Type I <b>2091</b> for the <b>extension elements</b> of the Universal drains and compact collar drains Type II <b>2091.I</b> for all Universal drains and compact collar drains

<b>Inverted roof attachment</b> <b>5918</b>

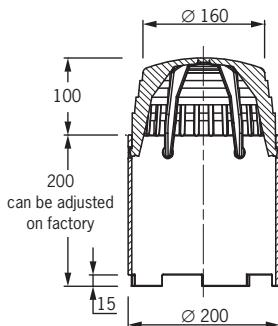
### Technical data plug-in attachment



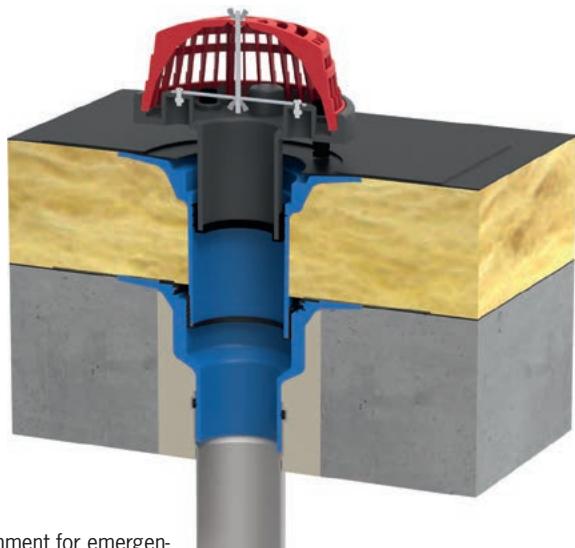
Type I

Type II

### Technical data inverted roof attachment

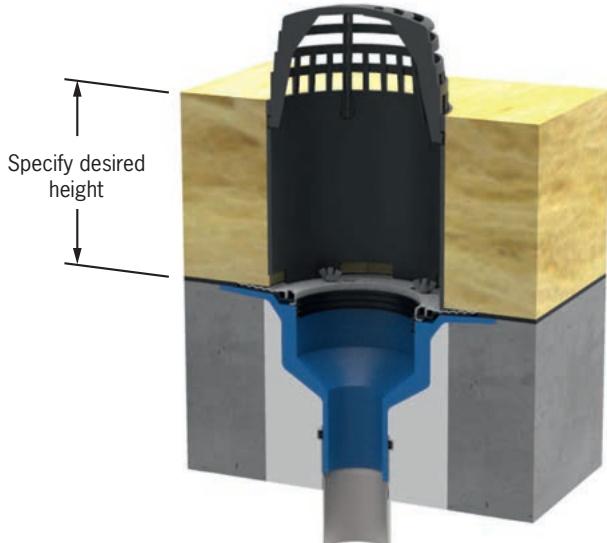


### Installation example plug-in attachment



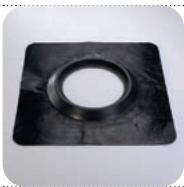
Plug-in attachment for emergency drainage inserted in a compact collar drain with extension element in an insulated roof.

### Installation example inverted roof attachment



Height-adjusted inverted roof attachment incl. pebble trap in an inverted roof with pebble covering

Dimension | Art. No.



**Accumulation ring made of PUR height 35 mm**

**5915**



**Half accumulation ring made of PUR height 45 mm**

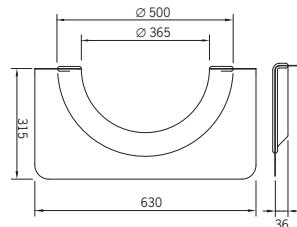
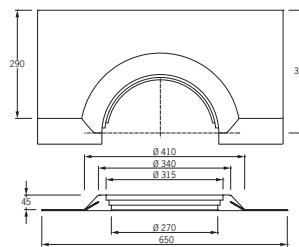
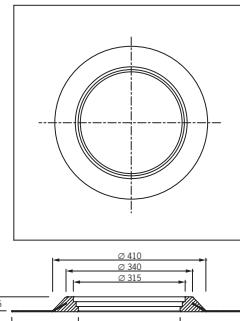
can be shortened as required  
with wedge **5916**  
without wedge **5916.0**



**Accumulation frame made of PUR height 65 mm**

can be shortened as required  
with wedge **5917**  
without wedge **5917.0**

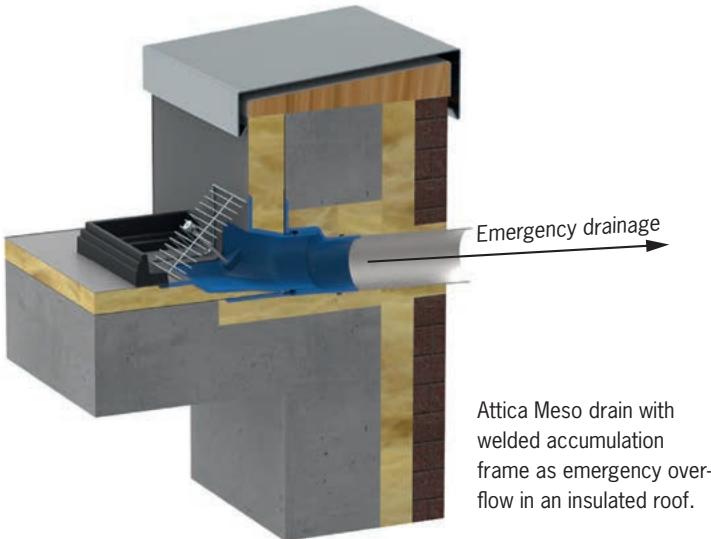
### Technical data accumulation ring made of PUR



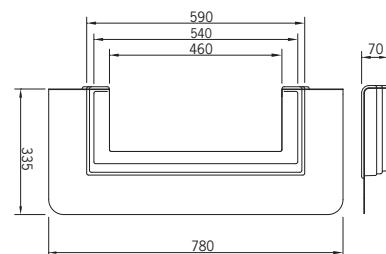
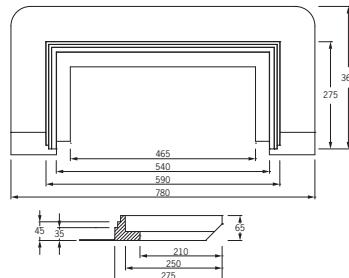
### Installation example accumulation ring



Horizontal drain with accumulation ring as emergency drainage, mounted in an insulated roof



### Technical data Anstaurahmen made of PUR



Town	$r_{(5,5)}$	$r_{(5,100)}$
Aachen	267	463
Aschaffenburg	293	530
Augsburg	350	683
Aurich	277	507
Bad Kissingen	393	790
Bad Salzuflen	340	630
Bad Tölz	443	767
Bamberg	303	527
Bayreuth	317	587
Berlin	327	582
Bielefeld	287	533
Bocholt	257	433
Bonn	287	533
Braunschweig	330	633
Bremen	247	433
Bremerhaven	313	580
Chemnitz	330	583
Cottbus	347	687
Cuxhaven	290	533
Dessau	300	530
Dortmund	340	630
Dresden	333	630
Duisburg	300	530
Düsseldorf	287	533
Eisenach	280	493
Emden	270	507
Erfurt	277	463
Erlangen	330	633
Essen	313	527
Frankfurt/Main	340	630
Garmisch-Partenkirchen	303	520
Gera	337	627
Göppingen	283	490
Görlitz	340	630
Göttingen	260	430
Halle/Saale	300	530
Hamburg	267	463
Hamm	293	530
Hanau	347	687
Hannover	267	463
Heidelberg	327	587
Heilbronn	283	490
Helmstedt	333	630
Hildesheim	280	493
Ingolstadt	303	527
Kaiserslautern	343	627
Karlsruhe	340	630
Kassel	310	577
Kiel	243	437

Town	$r_{(5,5)}$	$r_{(5,100)}$
Koblenz	333	630
Köln	340	693
Konstanz	343	623
Leipzig	363	680
Lindau	357	643
Lingen	357	680
Lübeck	267	477
Lüdenscheid	333	630
Magdeburg	307	580
Mainz	320	637
Mannheim	327	587
Minden	350	533
Mönchengladbach	267	463
München	357	643
Münster	293	530
Neubrandenburg	363	680
Neustadt/ Weinstr.	343	627
Nürnberg	340	630
Oberstdorf	380	727
Osnabrück	340	650
Paderborn	333	630
Passau	343	623
Pforzheim	333	630
Pirmasens	333	630
Regensburg	347	687
Rosenheim	440	777
Rostock	253	433
Rüsselsheim	330	633
Saarbrücken	280	493
Schweinfurt	333	630
Schwerin	280	493
Siegen	327	633
Solingen	390	793
Speyer	317	587
Stuttgart	403	783
Trier	352	683
Ulm	293	530
Villingen-Schwenningen	390	730
Wetzlar*	300	530
Willingen/Upland	390	793
Wittenberge	253	433
Wuppertal	350	683
Würzburg	387	797
Zwickau	330	583
<b>Average</b>	<b>320</b>	<b>590</b>
<b>Maximum</b>	<b>443</b>	<b>797</b>
<b>Minimum</b>	<b>243</b>	<b>430</b>

\*Source: Deutscher Wetterdienst (KOSTRA-DWD-2010)

# ■ Calculation of the number of drains required Example

updated!

## How you determine the number of drains required per roof area:

Copy the form on the next page if required.

① Determine roof area (A)

② Determine type of roof ( $C_s$ )

The peak drainage coefficient  $C_s$  is a measure for the delay of the rainwater drainage. E.g. on intensive green roofs there is the longest delay ( $C_s=0,2$ ).

③ Choose location from the rainfall statistics list and insert the values for  $r_{(5,5)}$  and  $r_{(5,100)}$ .

④ Determine desired size of drains. Use only drains, which fulfill the requirements of the DIN for drainage capacity!

The following Grumbach drains fulfil the requirements (self-tested):

Universal drain\*, Clamp flange drain, compact collar drain\*, collar drain, redevelopment drain, combi drain, balcony drain, garage/balcony drain, stainless steel drain, attica Super drain\*, attica Jumbo drain, attica flat drain

⑤ The "Other amount" field can be used, if none of the informations of ④ is relevant, e.g. if, according to the manufacturer's information, the drainage capacity is below the minimum requirement of the DIN 1986-100:2016-12.

⑥ Now you have all the required data and you may use the formula.

⑦ The result is rounded up to the next full unit and you can see the number of drains required.

\* the drain capacities for these drains have also been tested by TÜV Rheinland LGA Products GmbH!

## Flat roof drainage according to DIN 1986-100

The flat roof drainage according to DIN 1986-100 is important as it also takes extreme rainfall into account. We have the opinion that by conforming to the relatively new standard (valid since March 2002), our drains are fit for the future. According to DIN 1986-100 the roof should be able to withstand a "Once every hundred years rainfall". This refers to the statistical rainfall which occurs every hundred years for five minutes.

## Form: Main and emergency drainage (free level drainage)

for the calculation of the number of drains required for a particular roof area according to DIN 1986-100: 2016-12

The following data are required for the calculation:

1	<b>Roof area (A)</b>	Please insert size of the roof area in [m <sup>2</sup> ].				<b>A = 550</b>		m <sup>2</sup>
2	<b>Roof type (<math>C_s</math>)</b>	<b>Sealing membrane (e.g. bitumen)</b>		<b>Pebble roof</b>		<b>Tiled surface</b>		
		Roof pitch ≤ 3°~ 5%		Roof pitch ≤ 3°~ 5%		in pebbled area		on stilts
Please mark	X	$C_s=1,0$		$C_s=0,8$		$C_s=0,7$		$C_s=1,0$
2	<b>Roof type (<math>C_s</math>)</b>	<b>Green roof extensive</b>		<b>Green roof extensive</b> surface thickness < 10 cm	<b>Green roof extensive</b> surface thickness ≥ 10 cm	<b>Green roof intensive</b> surface thickness ≥ 30 cm		
		Roof pitch > 5°		Roof pitch ≤ 5°	Roof pitch ≤ 5°	Roof pitch ≤ 5°		
Please mark		$C_s=0,7$		$C_s=0,5$	$C_s=0,4$			$C_s=0,2$
3	<b>Location [<math>r_{(5,5)}, r_{(5,100)}</math>]</b>	<b>Town:</b> see rainfall statistics for Germany				<b><math>r_{(5,5)}</math></b> see rainfall statistics for Germany	<b><math>r_{(5,100)}</math></b> see rainfall statistics for Germany	
Please mark		<b>FRANKFURT AM MAIN</b>				<b>339</b>	<b>630</b>	
4	<b>Drain size (<math>Q_d</math>)</b>	DN 50 $Q_d=0,9$ l/s	DN 70 $Q_d=1,7$ l/s	DN 100 $Q_d=4,5$ l/s	DN 125 $Q_d=7,0$ l/s	DN 150 $Q_d=8,1$ l/s	Other amount l/s	<b>5</b>
Please mark				X				
6	<b>Formula</b>	$n_d = (r_{(5,5)} \times C_s \times A) : (Q_d \times 10000)$				<b>Emergency drainage</b> – from 35 mm accumulation height at DN 50/70/100 – from 45 mm accumulation height at DN 125/150		
7	<b>Result: Number and type of drains</b>	<b>4,15 = 5 DRAINS UNIVERSAL DRAIN VERTICAL DN 100</b>				<b>3,54 = 4 DRAINS UNIVERSAL DRAIN VERTICAL DN 100</b>		
Key (Explanations)		<p><math>n_d</math> The minimum number of drains, rounded up to full pieces [pc]  <math>C_s</math> Peak drainage coefficient, depends on type of roof surface and varies between 0,2 und 1,0.  <math>A</math> size of the roof area [m<sup>2</sup>]  <math>Q_d</math> The minimum drainage capacity of the drain acc. to DIN in litres per second [l/s], depends, among other things, on the nominal width of the drain.  <math>r_{(D,T)}</math> The rainfall <math>r_{(D,T)}</math> is defined as rainfall duration (D in minutes) and annuality (T in years) in litres per second and hectare [l/(s,ha)]. Only <math>r_{(5,5)}</math> and <math>r_{(5,100)}</math> are required here.</p>						

### Note

The data sheet developed by us, and all our information, have been processed to the best of our knowledge. For further or more complete information, please refer to the relevant DIN standards, which we also used as our main source. Possible errors will not constitute or result in an implied warranty of any kind.

Pages 82 to 85 are to be regarded as non-binding information and should be checked by the user.

## Form: Main and emergency drainage (free level drainage)

for the calculation of the number of drains required for a particular roof area according to DIN 1986-100: 2016-12

The following data are required for the calculation:

Roof area (A)	Please insert size of the roof area in [m <sup>2</sup> ].				A =	m <sup>2</sup>	
Roof type (C <sub>s</sub> )		Sealing membrane (e.g. bitumen)		Pebbled roof		Tiled surface	
		Roof pitch ≤ 3°≈ 5%		Roof pitch ≤ 3°≈ 5%		in pebbled area      on stilts	
Please mark		C <sub>s</sub> =1,0		C <sub>s</sub> =0,8		C <sub>s</sub> =0,7	C <sub>s</sub> =1,0
Roof type (C <sub>s</sub> )		Green roof extensive		Green roof extensive surface thickness < 10 cm		Green roof extensive surface thickness ≥ 10 cm	
		Roof pitch > 5°		Roof pitch ≤ 5°		Roof pitch ≤ 5°	
Please mark		C <sub>s</sub> =0,7		C <sub>s</sub> =0,5		C <sub>s</sub> =0,4	C <sub>s</sub> =0,2
Location [r <sub>(5,5)</sub> , r <sub>(5, 100)</sub> ]		Town: see rainfall statistics for Germany				r <sub>(5,5)</sub> see rainfall statistics for Germany	r <sub>(5,100)</sub> see rainfall statistics for Germany
Please mark							
Drain size (Q <sub>G</sub> )		DN 50 Q <sub>G</sub> =0,9 l/s	DN 70 Q <sub>G</sub> =1,7 l/s	DN 100 Q <sub>G</sub> =4,5 l/s	DN 125 Q <sub>G</sub> =7,0 l/s	DN 150 Q <sub>G</sub> =8,1 l/s	other amount l/s
Please mark							
		Main drainage (basic drainage)				Emergency drainage – from 35 mm accumulation height at DN 50/70/100 – from 45 mm accumulation height at DN 125/150	
formula		$n_G = (r_{(5,5)} \times C_s \times A) : (Q_G \times 10000)$				$n_G = \{[r_{(5,100)} - (r_{(5,5)} \times C_s)] \times A\} : (Q_G \times 10000)$	
Result: Number and type of drains							

Key (Explanations)	n <sub>G</sub>	The minimum number of drains, rounded up to full pieces [pc]
	C <sub>s</sub>	Peak drainage coefficient, depends on type of roof surface and varies between 0,2 und 1,0.
	A	size of the roof area [m <sup>2</sup> ]
	Q <sub>G</sub>	The minimum drainage capacity of the drain acc. to DIN in litres per second [ l/s ], depends, among other things, on the nominal width of the drain.
	r <sub>(D,T)</sub>	The rainfall r <sub>(D,T)</sub> is defined as rainfall duration (D in minutes) and annuity (T in years) in litres per second and hectare [l/(s,ha)]. Only r <sub>(5,5)</sub> and r <sub>(5, 100)</sub> are required here

Art. No.	Product name	Name suffix	Nom. width suffix	No- min- al width	Drainage capacities [l/s]			
					at downpipe			
					35 mm	45 mm	55 mm	65 mm
2102/2122.2	Universal drain	vertical/vertical heatable	DN	70	6,3	8,1	9,7	11,1
2104/2124.2	Universal drain	vertical/vertical heatable	DN	100	6,8	9,1	11,0	12,7
2106/2126.2	Universal drain	vertical/vertical heatable	DN	125	6,5	8,7	10,4	12,3
2111/2132.2	Universal drain	horizontal/horiz. heatable	DN	70	5,8	8,0	9,9	11,6
2114/2134.2	Universal drain	horizontal/horiz. heatable	DN	100	6,1	8,2	10,0	12,0
2116/2136.2	Universal drain	horizontal/horiz. heatable	DN	125	6,4	8,5	10,6	12,5
2008/2028.2	Clamp flange drain	vertical/vertical heatable	DN	150	7,6	10,0	13,8	17,0
3102/3122.2	Compact collar drain	vertical/vertical heatable	DN	70	6,3	8,1	9,7	11,1
3104/3124.2	Compact collar drain	vertical/vertical heatable	DN	100	6,8	9,1	11,0	12,7
3106/3126.2	Compact collar drain	vertical/vertical heatable	DN	125	6,5	8,7	10,4	12,3
3112/3132.2	Compact collar drain	horizontal/horiz. heatable	DN	70	5,8	8,0	9,9	11,6
3114/3134.2	Compact collar drain	horizontal/horiz. heatable	DN	100	6,1	8,2	10,0	12,0
3115/3136.2	Compact collar drain	horizontal/horiz. heatable	DN	125	6,4	8,5	10,6	12,5
3008/3028	Collar drain	vertical/vertical heatable	DN	150	6,6	9,5	13,2	17,5
3009	Collar drain	vertical	DN	200	7,5	10,8	13,5	18,3
2306	Redevelopment drain	with clamp flange	DN	125	5,8	7,9	10,0	12,8
3306	Redevelopment drain	with adhesive collar	DN	125	6,4	8,1	11,2	13,7
2307	Redevelopment drain	with clamp flange	DN	140	5,5	7,5	9,9	11,1
3307	Redevelopment drain	with adhesive collar	DN	140	6,6	8,3	10,1	11,8
2308	Redevelopment drain	with clamp flange	DN	150	5,3	8,1	9,9	12,1
3308	Redevelopment drain	with adhesive collar	DN	150	4,6	8,3	9,1	10,4
3329	Redevelopment drain	with adhesive collar		170	5,6	8,3	9,8	12,6
3309	Redevelopment drain	with adhesive collar	DN	200	7,5	9,9	13,5	18,3
2302	Trapezoidal drain	with clamp flange	DN	70	6,7	9,1	12,0	14,8
2304	Trapezoidal drain	with clamp flange	DN	100	5,9	8,3	11,0	15,0
2303	Redevelopment drain	made of aluminum	DN	90	3,9	5,7	7,3	9,0
3311	Redevelopment drain	with adhesive collar		36	1,7	3,0	3,6	4,6
3313	Redevelopment drain	with adhesive collar		56	3,2	4,9	6,0	8,6
3315	Redevelopment drain	with adhesive collar		88	4,5	5,9	7,7	10,5
3317	Redevelopment drain	with adhesive collar		103	3,3	4,9	6,5	8,9
3314	Redevelopment drain	with adhesive collar	DN	100	4,6	6,7	8,8	10,6
3300	Garage drain	with adhesive collar	DN	50	1,9	4,5	6,3	7,0
3302	Garage drain	with adhesive collar	DN	70	1,7	2,5	3,3	5,5
2500	Balcony drain	with clamp flange	DN	50	1,5	3,0	5,7	6,7
3500	Balcony drain	with adhesive collar	DN	50	1,7	3,5	5,6	6,7
2511	Balcony drain	with clamp flange	DN	50	1,5	3,0	5,7	6,7
3511	Balcony drain	with adhesive collar	DN	50	1,7	3,5	5,6	6,7
2501	Balcony complete overflow	vertical with odour trap	DN	50	1,3	-	-	-
2502	Balcony complete overflow	horizontal with odour trap	DN	40	0,7	-	-	-
3740	Garage/Balcony drain	with adhesive collar	DN	70	2,2	3,7	4,5	6,4
3741	Garage/Balcony drain	with adhesive collar	DN	100	4,1	5,1	7,0	10,5
2702	Garage/Balcony drain	with clamp flange	DN	70	2,5	3,4	5,3	6,7
3702	Garage/Balcony drain	with adhesive collar	DN	70	2,3	3,7	4,7	6,3
2711	Garage/Balcony drain	horizontal	DN	70	2,1	3,1	4,5	5,9
3712	Garage/Balcony drain	horizontal	DN	70	2,5	3,8	5,1	6,7
2600	Stainless steel drain	vertical	DN	50	1,5	4,2	6,3	6,8
2602	Stainless steel drain	vertical	DN	70	3,5	5,2	6,5	8,4
2604	Stainless steel drain	vertical	DN	100	5,1	7,5	9,0	11,5
2611	Stainless steel drain	horizontal	DN	50	2,0	3,3	5,0	5,3
2612	Stainless steel drain	horizontal	DN	70	4,1	5,8	7,2	8,6
2614	Stainless steel drain	horizontal	DN	100	5,2	7,1	8,6	10,1
3722	Eccentric drain	with pebble trap	DN	100	4,9	6,6	8,1	10,5
3722	Eccentric drain	with sieve ring extension	DN	100	3,8	4,1	4,7	5,0
3722	Eccentric drain	with inlay sieve	DN	100	4,9	5,5	6,3	6,8

\*Drainage capacity acc. to DIN EN 1253-2 in l/sec (accumulation height in millimeters)

Art. No.	Product name	Name suffix	Nom. width suffix	No- min- al width	Drainage capacities [l/s]			
					at downpipe			
					35 mm	45 mm	55 mm	65 mm
2701	Continuous balcony drain	without lowerable part	DN	70	4,7	7,0	9,5	12,5
2701	Continuous balcony drain	with lowerable part	DN	70	1,5	1,6	1,7	1,8
3202	Alpha drain	Unterteil, senkrecht	DN	70	3,9	5,4	6,7	8,6
3204	Alpha drain	Unterteil, senkrecht	DN	100	5,2	7,7	8,9	11,3
3206	Alpha drain	Unterteil, senkrecht	DN	125	5,7	7,8	9,1	11,5
3232	Alpha drain	Unterteil, waagerecht	DN	70	3,7	6,0	6,1	6,2
3234	Alpha drain	Unterteil, waagerecht	DN	100	6,0	8,2	11,3	13,1
3236	Alpha drain	Unterteil, waagerecht	DN	125	6,0	8,7	11,8	14,5
3283	Alpha drain	Oberteil	DN	70	8,0	11,0	13,3	15,2
3284	Alpha drain	Oberteil	DN	100	8,8	11,0	12,8	14,0
3286	Alpha drain	Oberteil	DN	125	8,2	10,2	14,2	18,0
2640	Fire protection drain	made of stainless steel	DN	50	1,5	4,2	6,3	6,8
2642	Fire protection drain	made of stainless steel	DN	70	3,5	5,2	6,5	8,4
2644	Fire protection drain	made of stainless steel	DN	100	5,1	7,5	9,0	11,5
2646	Fire protection drain	made of stainless steel	DN	125	7,4	7,8	9,3	12,3

Art. No.	Product name	Name suffix	Nom. width suffix	No- min- al width	Drainage capacities [l/s]				Drainage capacities [l/s]			
					at downpipe				at free outlet			
					35 mm	45 mm	55 mm	65 mm	35 mm	45 mm	55 mm	65 mm
3410	Attica balcony drain	made of PUR	DN	50	0,6	1,4	2,5	2,5	0,4	0,6	0,8	1,1
3411	Attica balcony drain	made of PUR	DN	70	0,7	0,9	1,3	1,9	0,7	0,9	1,3	1,7
3412	Attica balcony drain	made of PUR	DN	100	1,0	1,3	2,0	2,4	0,9	1,2	1,7	2,2
3413	Attica balcony drain	with plug-in sleeve	DN	50	0,6	1,4	2,5	2,5	0,4	0,6	0,8	1,1
3414	Attica balcony drain	with plug-in sleeve	DN	70	0,7	0,9	1,3	1,9	0,7	0,9	1,3	1,7
3415	Attica balcony drain	with plug-in sleeve	DN	100	1,0	1,3	2,0	2,4	0,9	1,2	1,7	2,2
3440	Attica balcony drain	with wedge	DN	50	0,6	1,4	2,5	2,5	0,4	0,6	0,8	1,1
3442	Attica balcony drain	with wedge	DN	70	0,7	0,9	1,3	1,9	0,7	0,9	1,3	1,7
3444	Attica balcony drain	with wedge	DN	100	1,0	1,3	2,0	2,4	0,9	1,2	1,7	2,2
3403	Attica balcony drain	as emergency overflow	DN	50	—	—	—	—	0,4	0,6	0,8	1,1
3404	Attica balcony drain	as emergency overflow	DN	70	—	—	—	—	0,7	0,9	1,3	1,7
3405	Attica balcony drain	as emergency overflow	DN	100	—	—	—	—	0,9	1,2	1,7	2,2
3420	Attica plug-in overflow	made of PUR	DN	50	—	—	—	—	2,0**	2,0**	2,0**	2,0**
2450	Attica emergency overflow	at attica balcony drain	DN	50	—	—	—	—	1,2*	1,2*	1,2*	1,3*
2452	Attica emergency overflow	at attica balcony drain	DN	70	—	—	—	—	3,2*	3,4*	3,5*	3,7*
2454	Attica emergency overflow	at attica balcony drain	DN	100	—	—	—	—	6,4*	7,1*	7,3*	7,6*
2450.45	Attica emergency overflow	at attica balcony drain	DN	50	—	—	—	—	1,2*	1,2*	1,2*	1,3*
2452.45	Attica emergency overflow	at attica balcony drain	DN	70	—	—	—	—	3,2*	3,4*	3,5*	3,7*
2452.45	Attica emergency overflow	at attica balcony drain	DN	100	—	—	—	—	6,4*	7,1*	7,3*	7,6*
2450.1	Attica drain element	at attica balcony drain	DN	50	5,4*	5,4*	5,4*	5,4*	—	—	—	—
2452.1	Attica drain element	at attica balcony drain	DN	70	9,7*	13,2*	14,2*	15,2*	—	—	—	—
2454.1	Attica drain element	at attica balcony drain	DN	100	10,1*	13,8*	17,0*	20,4*	—	—	—	—
2450.1.45	Attica drain element	at attica balcony drain	DN	50	5,4*	5,4*	5,4*	5,4*	—	—	—	—
2452.1.45	Attica drain element	at attica balcony drain	DN	70	9,7*	13,2*	14,2*	15,2*	—	—	—	—
2454.1.45	Attica drain element	at attica balcony drain	DN	100	10,1*	13,8*	17,0*	20,4*	—	—	—	—
3400 (Not)	Attica emergency overflow	made of PUR	DN	50	—	—	—	—	0,4	0,6	0,8	1,1
3401 (Not)	Attica emergency overflow	made of PUR	DN	70	—	—	—	—	0,7	0,9	1,3	1,7
3402 (Not)	Attica emergency overflow	made of PUR	DN	100	—	—	—	—	0,9	1,2	1,7	2,2
2680 (Not)	Attica emergency overflow	made of stainless steel	DN	50	—	—	—	—	0,4	0,6	0,8	1,1
2682 (Not)	Attica emergency overflow	made of stainless steel	DN	70	—	—	—	—	0,7	0,9	1,3	1,7
2684 (Not)	Attica emergency overflow	made of stainless steel	DN	100	—	—	—	—	0,9	1,2	1,7	2,2
2680.55 (Not)	Attica emergency overflow	made of stainless steel	DN	50	—	—	—	—	0,4	0,6	0,8	1,1
2682.55 (Not)	Attica emergency overflow	made of stainless steel	DN	70	—	—	—	—	0,7	0,9	1,3	1,7
2684.55 (Not)	Attica emergency overflow	made of stainless steel	DN	100	—	—	—	—	0,9	1,2	1,7	2,2

\* Ablaufleistung bei min. 170 mm Bauhöhe, bei geringerer Bauhöhe ändert sich die Ablaufleistung; geprüft mit passendem Attica Balkonablauf  
 \*\* Ablaufleistung bei 200 mm Bauhöhe, bei geringerer Bauhöhe ändert sich die Ablaufleistung

Art. No.	Product name	Name suffix	Nom. width suffix	No- minal width	Drainage capacities [l/s]				Drainage capacities [l/s]			
					at downpipe				at free outlet			
3212	Attica Meso drain	without wedge	DN	70	2,8	3,9	5,5	7,1	2,8	3,0	3,3	3,7
3214	Attica Meso drain	without wedge	DN	100	3,0	3,7	4,5	5,2	2,6	3,4	4,1	4,8
3211.BIT	Attica Meso drain	with wedge	DN	70	2,5	3,9	5,5	7,1	2,1	2,6	2,9	3,4
3213.BIT	Attica Meso drain	with wedge	DN	100	3,3	3,9	4,7	5,6	3,3	3,9	4,6	5,5
3213.BIT.S2	Attica Meso-2 drain	with wedge	DN	100	2,8	—	—	—	2,3	3	3,4	3,8
3213.BIT.S2.L	Attica Meso-2 drain	with wedge (long version)	DN	100	2,8	—	—	—	2,3	3	3,4	3,8
3215.BIT	Attica Meso-2 drain	with wedge w. partial flow diversion	DN	100	3,0	—	—	—	2,4	2,9	3,4	3,6
3215.BIT.L	Attica Meso-2 drain	with wedge w. partial flow diversion (long version)	DN	100	3,0	—	—	—	2,4	2,9	3,4	3,6
3214.S2	Attica Meso-2 drain	without wedge	DN	100	2,8	—	—	—	2,3	3	3,4	3,8
3214.S2.L	Attica Meso-2 drain	without wedge (long version)	DN	100	2,8	—	—	—	2,3	3	3,4	3,8
3216	Attica Meso-2 drain	without wedge w. partial flow diversion	DN	100	3,0	—	—	—	2,4	2,9	3,4	3,6
3216.L	Attica Meso-2 drain	without wedge w. partial flow diversion (long version)	DN	100	3,0	—	—	—	2,4	2,9	3,4	3,6
2442	Attica flat drain	short	DN	70	3,8	9,5	11,2	11,4	2,7	3,0	3,1	3,2
2444	Attica flat drain	short	DN	100	5,8	7,8	8,9	9,6	5,6	6,0	6,5	6,8
2442.L	Attica flat drain	long	DN	70	6,3	9,6	11,7	12,1	2,6	2,7	2,8	3,2
2444.L	Attica flat drain	long	DN	100	6,4	7,4	8,9	9,6	5,8	6,3	6,9	7,0
3441	Attica flat drain	w. adhesive collar short	DN	70	3,8	9,5	11,2	11,4	2,7	3,0	3,1	3,2
3443	Attica flat drain	w. adhesive collar short	DN	100	5,8	7,8	8,9	9,6	5,6	6,0	6,5	6,8
3441.L	Attica flat drain	w. adhesive collar long	DN	70	6,3	9,6	11,7	12,1	2,6	2,7	2,8	3,2
3443.L	Attica flat drain	w. adhesive collar long	DN	100	6,4	7,4	8,9	9,6	5,8	6,3	6,9	7,0
3623.2	Attica power drain	f. main drainage	DN	70	13,0	13,5	13,6	13,7	—	—	—	—
3623.3	Attica power drain	f. main drainage	DN	70	13,5	14,5	14,6	14,7	—	—	—	—
3624.2	Attica power drain	f. emergency drainage	DN	70	14,2	14,3	14,3	14,3	—	—	—	—
3624.3	Attica power drain	f. emergency drainage	DN	70	15,2	15,3	15,3	15,3	—	—	—	—
3433.S2	Attica Super-2 drain	with wedge	DN	100	3,6	3,6	3,6	3,6	3,0	3,3	3,5	3,7
3471.S2	Attica Super-2 drain	without wedge	DN	100	3,6	3,6	3,6	3,6	3,0	3,3	3,5	3,7
3433.S2.L	Attica Super-2 drain	with wedge (long version)	DN	100	3,6	3,6	3,6	3,6	3,0	3,3	3,5	3,7
3471.S2.L	Attica Super-2 drain	without wedge (long version)	DN	100	3,6	3,6	3,6	3,6	3,0	3,3	3,5	3,7
3434.S2	Attica Super-2 drain	with wedge w. partial flow diversion	DN	100	3,6	3,6	3,6	3,6	3,0	4,7	5,3	5,5
3472.S2	Attica Super-2 drain	without wedge w. partial flow diversion	DN	100	3,6	3,6	3,6	3,6	3,0	4,7	5,3	5,5
3434.S2.L	Attica Super-2 drain	with wedge w. partial flow diversion (long version)	DN	100	3,6	3,6	3,6	3,6	3,0	4,7	5,3	5,5
3472.S2.L	Attica Super-2 drain	without wedge w. partial flow diversion (long version)	DN	100	3,6	3,6	3,6	3,6	3,0	4,7	5,3	5,5
3431	Attica Super drain	made of PUR	DN	70	3,8	5,4	7,2	9,4	2,4	2,6	2,7	2,8
3433	Attica Super drain	made of PUR	DN	100	4,9	6,9	8,8	9,9	4,6	5,4	5,9	6,2
3470	Attica Super drain	made of PUR	DN	70	3,8	5,4	7,2	9,4	2,4	2,6	2,7	2,8
3471	Attica Super drain	made of PUR	DN	100	4,9	6,9	8,8	9,9	4,6	5,4	5,9	6,2
2432	Attica Super drain	made of stainless steel	DN	70	3,8	5,4	7,2	9,4	2,4	2,6	2,7	2,8
2434	Attica Super drain	made of stainless steel	DN	100	4,9	6,9	8,8	9,9	4,6	5,4	5,9	6,2
3436	Attica Jumbo drain	made of PUR	260	x120	—	—	—	—	6,2	9,0	12,0	15,5
3436 + 3439	Attica Jumbo drain	+ adaptor	260	x120	6,1	9,2	12,2	15,7				

Art. No.	Product name	Name suffix	Nom. width suffix	No- minal width	Drainage capacities [l/s]				Drainage capacities [l/s]			
					at downpipe				at free outlet			
					35 mm	45 mm	55 mm	65 mm	35 mm	45 mm	55 mm	65 mm
3435	Attica Plus drain	made of PUR	280	x85	–	–	–	–	5,0	6,5	8,0	9,6
3435 + FKS	Attica Plus drain	+ flat sewer system	280	x85	–	–	–	–	2,0	2,6	3,6	4,4
3424	Attica rectangular-emergency overflow	400 mm long	400	100	–	–	–	–	3,4	5,0	6,8	8,7
3424.6	Attica rectangular-emergency overflow	600 mm long	400	100	–	–	–	–	3,4	5,0	6,8	8,7
3424.8	Attica rectangular-emergency overflow	800 mm long	400	100	–	–	–	–	3,4	5,0	6,8	8,7
3426	Attica rectangular-emergency overflow	400 mm long	600	100	–	–	–	–	5,2	7,5	10,2	13,1
3426.6	Attica rectangular-emergency overflow	600 mm long	600	100	–	–	–	–	5,2	7,5	10,2	13,1
3426.8	Attica rectangular-emergency overflow	800 mm long	600	100	–	–	–	–	5,2	7,5	10,2	13,1
3425	Attica rectangular-emergency overflow	raised by 35 mm 400 mm long	400	100	–	–	–	–	3,4	5,0	6,8	8,7
3425.6	Attica rectangular-emergency overflow	raised by 35 mm 600 mm long	400	100	–	–	–	–	3,4	5,0	6,8	8,7
3425.8	Attica rectangular-emergency overflow	raised by 35 mm 800 mm long	400	100	–	–	–	–	3,4	5,0	6,8	8,7
3427	Attica rectangular-emergency overflow	raised by 35 mm 400 mm long	600	100	–	–	–	–	5,2	7,5	10,2	13,1
3427.6	Attica rectangular-emergency overflow	raised by 35 mm 600 mm long	600	100	–	–	–	–	5,2	7,5	10,2	13,1
3427.8	Attica rectangular-emergency overflow	raised by 35 mm 800 mm long	600	100	–	–	–	–	5,2	7,5	10,2	13,1
2091	Plug-in attachment f. emergency drainage	for extension element	103		–	–	–	–	6,8	9,1	11,0	12,7
2091.1	Plug-in attachment f. emergency drainage	for basic element	125		–	–	–	–	6,8	9,1	11,0	12,7
3220	Combi drain I	with ventilation	DN	100	9,4	14,1	16,9	18,0	–	–	–	–
3221	Combi drain II	with emergency drainage	DN	100	9,4	14,1	16,9	18,0	7,0	11,1	15,0	18,0

Abbrev.	Brand/Product	Type of collar	Producer
AEG	Evalon V hellgrau	EVA	Alwitra GmbH
AES	Evalon V schiefergrau	EVA	Alwitra GmbH
AEV	Evalastic V hellgrau	EPDM	Alwitra GmbH
AVG	Evalastic V schiefergrau	EPDM	Alwitra GmbH
AEW	Evalon V weiß	EVA	Alwitra GmbH
AGR	Austroplan FH+V	FPO	Agru Kunststofftechnik GmbH
ALP	Alkorplan A 35179010	PVC	Renolit AG
BIT	Baruplan GV E 27 / MAT Fix S3R	Bitumen	Büsscher & Hoffmann / Axter
EXT	Extrupol F hellgrau	FPO	Schedetal Folien GmbH
FLA	Flagon EP/PV200*	FPO	Soprema GmbH
NOV	Novoproof DA-S	EPDM	COVERIT Abdichtungssysteme GmbH
OFO	without foil (ohne Folie)		
POL	Polyfin 4230 hellgrau	FPO	Polyfin AG
PVB	PP fleece on top and bottom side on TPE sealing membrane		Jäger GmbH
PVC	Silkaplan SGK	PVC	Sika Deutschland GmbH
REP	Rhepanol Hg*	PIB	FDT GmbH & Co. KG
RES	Resitrix CL *	EPDM/BIT	Carlisle CM GmbH
SON	Sondermarke		
STG	Sarnafil TG 66-20*	FPO	Sika Deutschland GmbH
TEC.G	Tectofin RV grau	PVC	Wolfin Bautechnik GmbH
TEC.T	Tectofin RV titangrau	PVC	Wolfin Bautechnik GmbH
TER.S	Thermoplan-T 20 silbergrau*	FPO	Paul Bauder GmbH & Co. KG
TER	Thermoplan-T 20 perlweiß*	FPO	Paul Bauder GmbH & Co. KG
TPO	TPO 2.0 F hellgrau	FPO	Köster Bauchemie AG
VAE	VAEPLAN Typ VB1040/D12	EVA	Derbigum Deutschland GmbH
WOL	Wolfin IB	PVC/P BV	Wolfin Bautechnik GmbH

\*without fleece lamination on under-side

**When ordering articles with adhesive collar, please specify the required connection surface!**

In the table, the connecting surfaces and foils are labelled as follows::

■ **Blue: standard foil: without supplement bitumen and PVC**

■ **Red: special foil/special cuff**

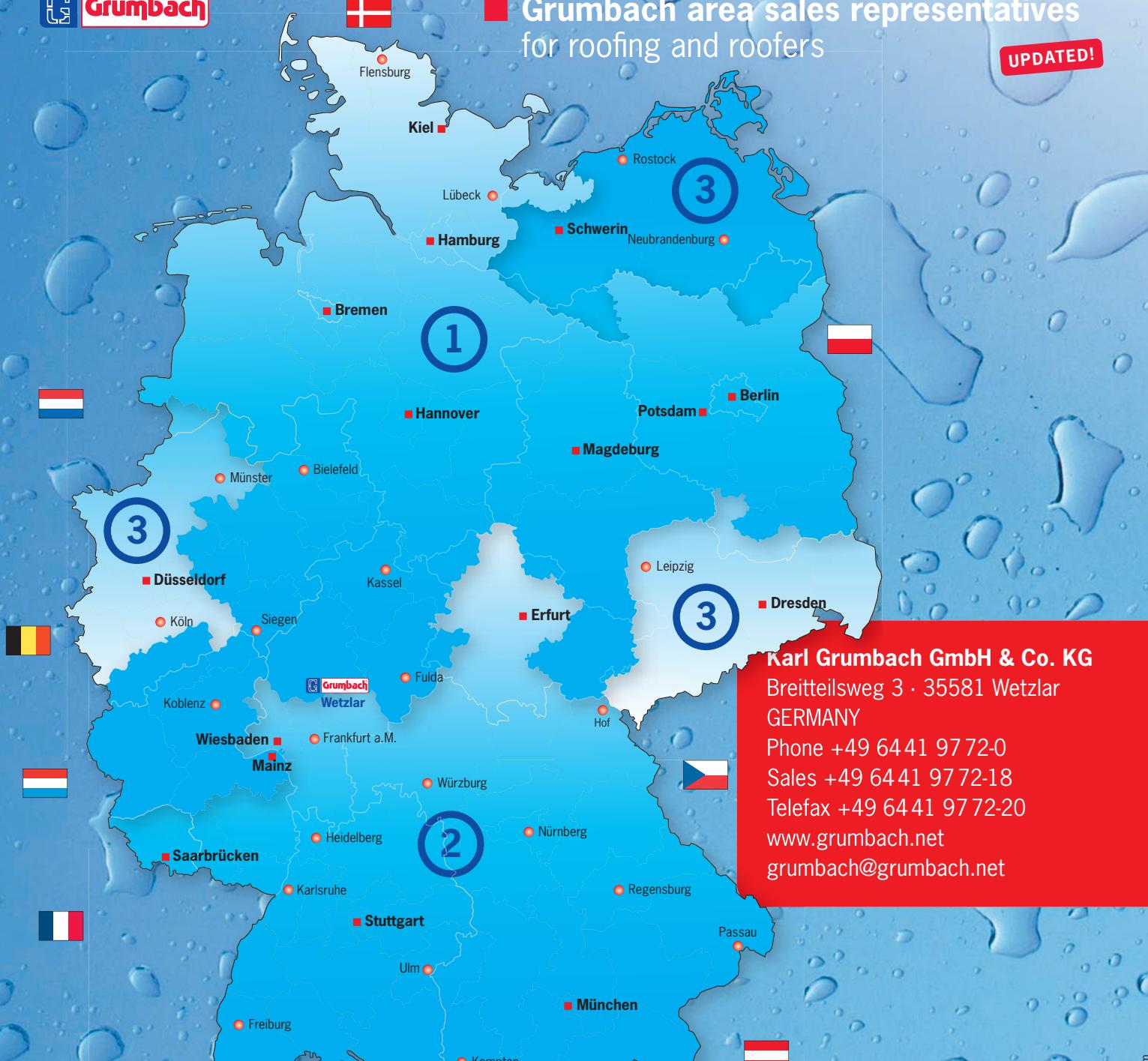
**Attention: Products with special foils/special cuffs, all sales are final, no returns accepted!**

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<b>23</b>	<b>Combi drain type II for main and emergency drainage</b>
<b>7</b>	<b>Compact collar drain</b>
<b>90</b>	<b>Connecting surfaces and special foils/cuffs</b>
<b>31</b>	<b>Continuos balcony drain, lowerable</b>
<b>86</b>	<b>Drainage capacities acc. to DIN EN 1253-2</b>
<b>29</b>	<b>Eccentric drain</b>
<b>71</b>	<b>Fastening bushings</b>
<b>70</b>	<b>Fire protection</b>
<b>84</b>	<b>Form: Main and emergency drainage</b>
<b>11</b>	<b>Garage/Balkony drain with accessories</b>
<b>67</b>	<b>Green roof drainage</b>
<b>92</b>	<b>Grumbach area sales representatives</b>
<b>73</b>	<b>Heating with accessoires</b>
<b>83</b>	<b>Rainfall statistics Germany</b>
<b>72</b>	<b>Reach-through elements</b>
<b>13</b>	<b>Redevelopment drains for redev. "in the pot"</b>
<b>15</b>	<b>Redevelopment drains for redev. of old pipes</b>
<b>68</b>	<b>Retention attachment</b>
<b>77</b>	<b>Siphonic drainage</b>
<b>69</b>	<b>Stainless steel drain</b>
<b>76</b>	<b>Stainless steel pipe system</b>
<b>74</b>	<b>Trace heating system calculation and planning</b>
<b>3</b>	<b>Universal drain</b>

**»Grumbach – the large range for  
flat roofs, balconies, terraces, green roofs  
and parking deck.«**



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