

**PRODUCT DATA SHEET (ver.02/03.2019)**

One flap non return valves (50-200 mm)



Double flaps non return valves (110-200 mm)



End non-return valve (110-160mm)

**1. Name**

Single, double and end non-return valves.

**2. Characteristics and intended use of the product**

Non-return valves intended for installation on horizontal sections of pipework in drainage catch pit both outside and inside buildings.

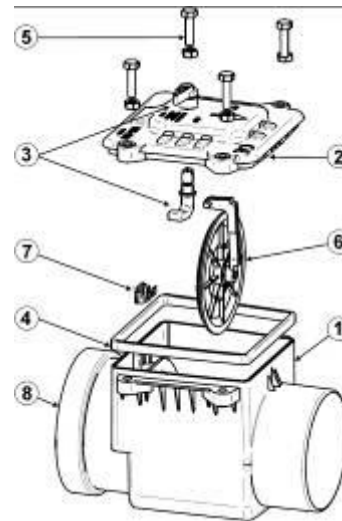
Non-return valves are backwater and flooding protection. The valves protect a building from backwater of drain system. The valves operate automatically allowing free drainage of rain water according to the slope of a drain system channel

Capricorn has the following types of non-return valves on its offer: rain water dedicated backwater valve Type I, II and IV.

### 3. Design

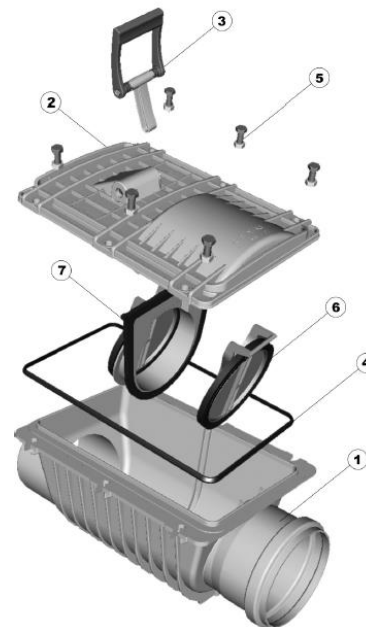
#### One flap non return valves

1. ABS body
2. ABS cover
3. Lever – manual closing
4. Cover seal
5. Cover fixing screws
6. Closing flap
7. Flap hinge
8. Connection socket with a seal



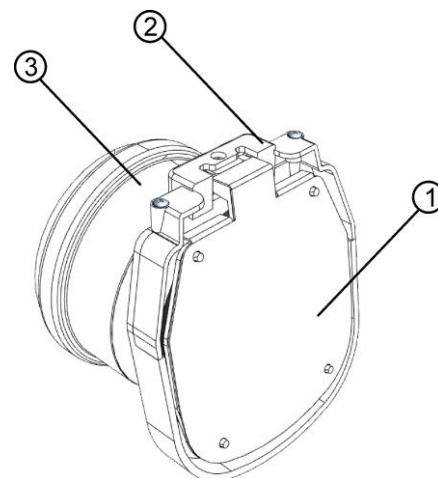
#### Double flaps non return valves

1. ABS body
2. ABS cover
3. Lever – manual closing
4. Cover seal
5. Cover fixing screws
6. Closing flap
7. Closing flap

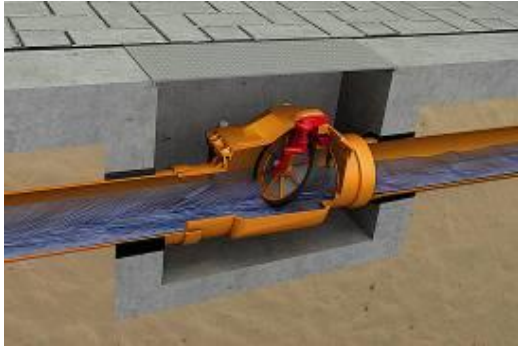


#### End non-return valve

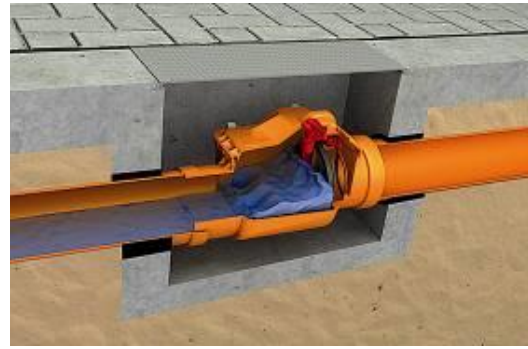
1. Closing flap/ stainless steel
2. Cover
3. ABS body



#### 4. Principle of operation and exemplary application



Natural flow of rain water.



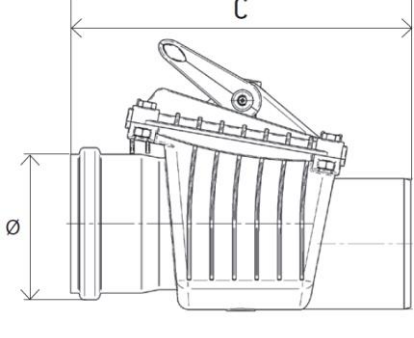
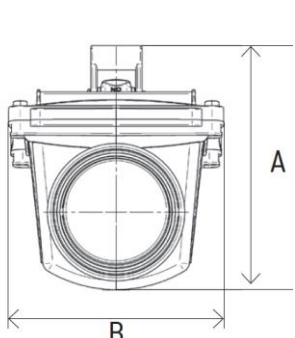
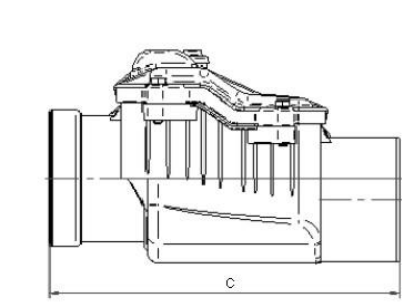
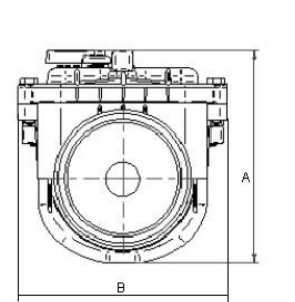
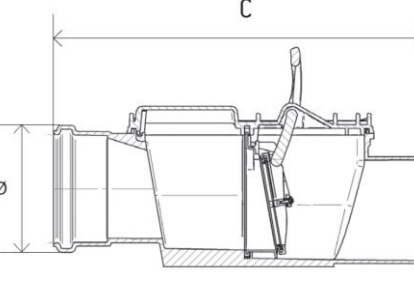
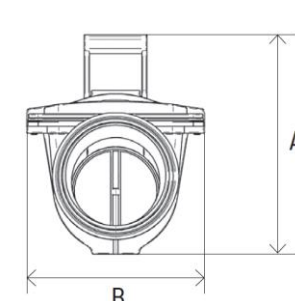
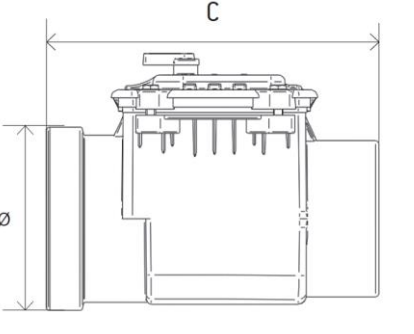
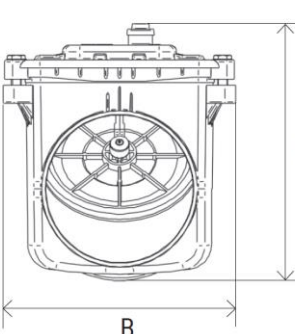
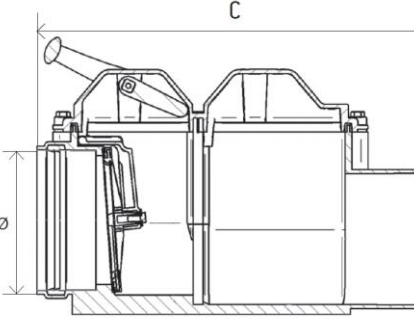
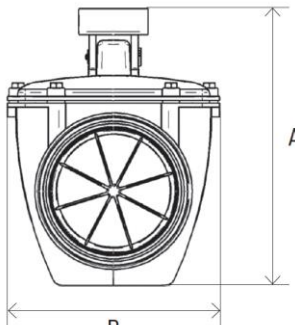
Rain backwater called „backflow“

Drain backwater valves are additionally equipped with a manually-operated flap closing lever. Such a lever is used during longer periods of absence of users or in cases when flaps are required to be closed.

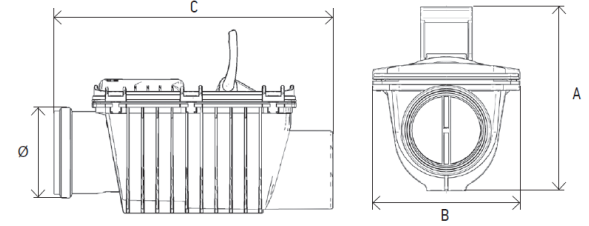
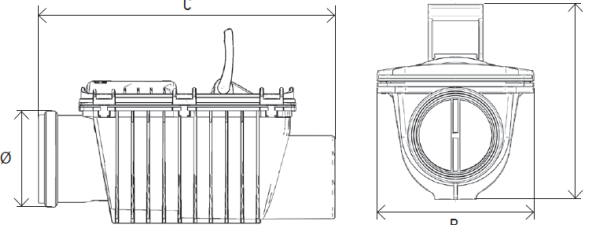
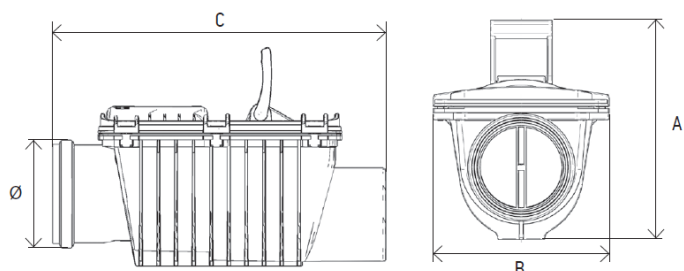
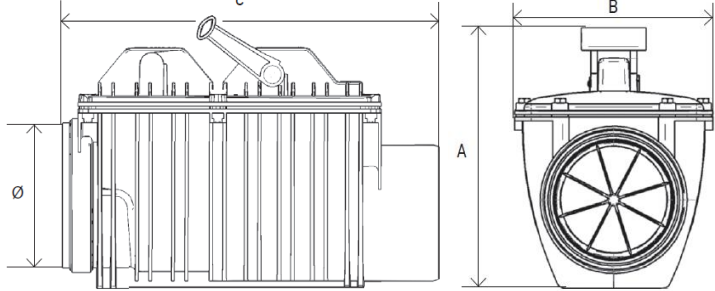
#### 5. Dimensions

##### One flap non return valves:

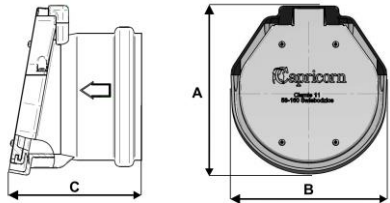
Product code	Dimensions [mm]			Figure
	A	B	C	
<b>9-5010-050-00-03-03</b> ø 50	132	92	140	
<b>9-5000-050-00-03-03</b> ø 50	87	92	169	

<p><b>9-5000-100-00-03-11</b>  <b>∅ 100</b></p>	<p>220</p>	<p>200</p>	<p>285</p>		
<p><b>9-5000-110-00-03-11</b>  <b>∅ 110</b></p>	<p>200</p>	<p>190</p>	<p>310</p>		
<p><b>9-5000-125-00-03-11</b>  <b>∅ 125</b></p>	<p>270</p>	<p>200</p>	<p>400</p>		
<p><b>9-5000-160-00-03-11</b>  <b>∅ 160</b></p>	<p>260</p>	<p>235</p>	<p>340</p>		
<p><b>9-5000-200-00-03-00</b>  <b>∅ 200</b></p>	<p>353</p>	<p>304</p>	<p>560</p>		

### Double flaps non return valves

Product code	Dimensions [mm]			Figure
	A	B	C	
9-5020-110-00-03-11 Ø 110	195	205	395	
9-5020-125-00-03-11 Ø 125	188	209	440	
9-5020-160-00-03-11 Ø 160	273	304	577	
9-5020-200-00-03-11 Ø 200	353	304	560	

### End non-return valve

Product code	Dimensions [mm]			Figure
	A	B	C	
9-5030-110-00-03-11 Ø 110	156	145	122	
9-5030-160-00-03-11 Ø 160	200	195	145	

## 6. Technical parameters and materials used

	Type of Material	Technical Parameter
<b>Body</b>	ABS	-
<b>Cover</b>	ABS	-
<b>Seal</b>	Gum	-
<b>Flap</b>	ABS or PP/Stainless steal	-
<b>Fixing screws</b>	Stainless steal	-
<b>Maximum Pressure</b>	-	0,5 bar
<b>Maximum Temperature</b>	-	75°C
<b>Type of wastewater</b>	-	Run-off water/wastewater

## Recommended minimal dimensions of backwater valve wells

Backwater valve diameter	Dimensions	Armstrong Junction* [mm]	Manhole** [mm]
<b>One flap non return valves</b>			
<b>100</b>	A-220, B-200, C-285	450	1000
<b>110</b>	A-200, B-190, C-310	450	1000
<b>125</b>	A-270, B-200, C-400	600	1000
<b>160</b>	A-260, B-235, C-340	450	1000
<b>200</b>	A-353, B-304, C-560	800	1000
<b>Double Flap Backwater Valve</b>			
<b>110</b>	A-195, B-205, C-395	600	1000
<b>125</b>	A-188, B-209, C-440	600	1000
<b>160</b>	A-273, B-304, C-577	800	1000
<b>200</b>	A-353, B-304, C-560	800	1000

\*Recommended at the installation depth of ≤0,80m

\*\* Recommended at the installation depth >0,80m

## 7. Codes

Code	Name	Material
<b>One flap non return valves</b>		
<b>9-5010-050-00-03-03</b>	One flap non return valve ø 50	ABS
<b>9-5000-050-00-03-03</b>	One flap non return valve ø 50 with vertical outflow	ABS
<b>9-5000-100-00-03-11</b>	One flap non return valve ø 100	ABS
<b>9-5000-110-01-03-11</b>	One flap non return valve ø 110	ABS
<b>9-5000-110-01-01-11</b>	One flap non return valve ø 110 PP	PP
<b>9-5000-125-00-03-11</b>	One flap non return valve ø 125	ABS
<b>9-5000-160-00-03-11</b>	One flap non return valve ø 160	ABS
<b>9-5000-160-00-01-11</b>	One flap non return valve ø 160 PP	PP
<b>9-5000-200-00-03-00</b>	One flap non return valve ø 200	ABS
<b>Double flaps non return valves</b>		
<b>9-5020-110-00-03-11</b>	Double flaps non return valve ø 110	ABS
<b>9-5020-125-00-03-11</b>	Double flaps non return valve ø 125	ABS
<b>9-5020-160-00-03-11</b>	Double flaps non return valve ø 160	ABS
<b>9-5020-200-00-03-11</b>	Double flaps non return valve ø 200	ABS

End non return valve		
9-5030-110-00-03-11	End non return valve ø 110	ABS
9-5030-160-00-03-11	End non return valve ø 160	ABS

## 8. Logistic data

Product code	Unit packages		Pallet 2,0m		
	Quantity (pieces/packages)	Weight	Quantity of unit packages	Quantity of collective packages	Weight
		[kg]	[pcs.]	[pcs.]	[kg]
9-5010-050-00-03-03	1	0,25	500	20	158
9-5000-050-00-03-03	1	0,26	500	20	161
9-5000-100-00-03-11	1	1,3	104	-	155
9-5000-110-01-03-11	1	1,4	104	-	155
9-5000-125-00-03-11	1	2,23	56	-	152
9-5000-160-00-03-11	1	2,3	70	-	181
9-5000-200-00-03-00	1	7,4	16	-	119
9-5020-110-00-03-11	1	2,05	80	-	180
9-5020-125-00-03-11	1	2,49	56	-	160
9-5020-160-00-03-11	1	5,75	24	-	153
9-5020-200-00-03-11	1	8,35	16	-	141
9-5030-110-00-03-11	1	0,46	-	-	-
9-5030-160-00-03-11	1	0,6	-	-	-

## 9. Packaging



## 10. Norms

- PN-EN 13564
- PN-EN 1455



## **11. Advantages**

- non-return valves effectively protect buildings from backwater (backflow) of rain water of drain system,
- reliable and maintenance-free,
- non-return valves are equipped with automatic closing system that starts to operate when backwater appears,
- non-return valves are equipped with emergency manually-operated closing system,
- non-return valves effectively protect a building from unpleasant odors getting inside a building when drain and sewerage systems are not used for longer periods,
- non-return valves reduce the risk of rodents getting inside a building through drain and sewerage systems,
- non-return valves are made of materials of high resistance to aggressive substances,
- non-return valves provide easy method of cover removing for performance of periodic maintenance of flaps,
- non-return valve body design reduces the risk of solid waste formation blocking, in this way, the flap inside the body.

## **12. Warranty and extent of liability**

During the installation it is required to observe OHS rules included in building regulations and norms. Capricorn S.A. More information about warranty and extent of liability on [www.capricorn.pl/en](http://www.capricorn.pl/en)

## **13. Manufacturer**

### **Capricorn S.A.**

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