# Amazing Water

Purifying
Moving
Designing
Vitalising
Lighting
Installation

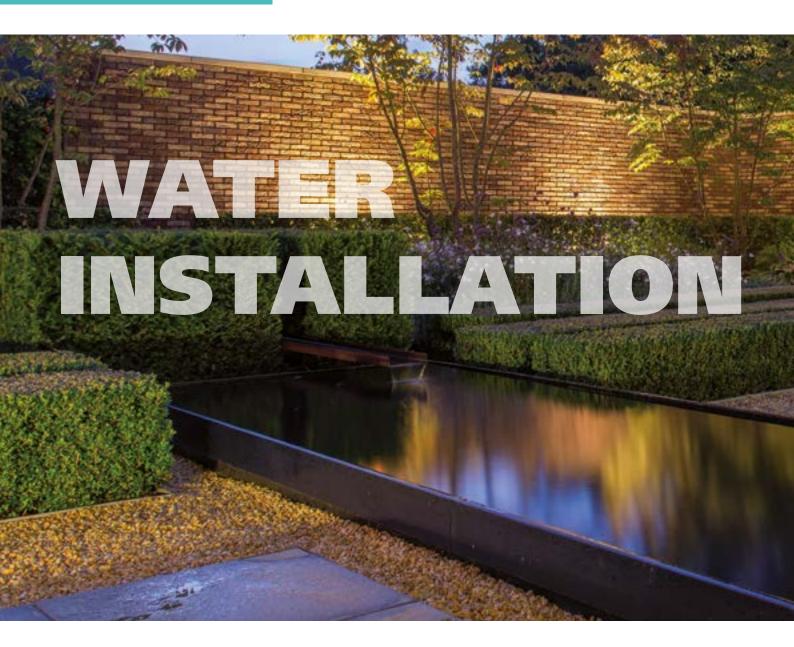


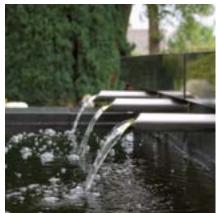
# Accessories, connection material, PVC fittings

Programme and technical specifications 2023





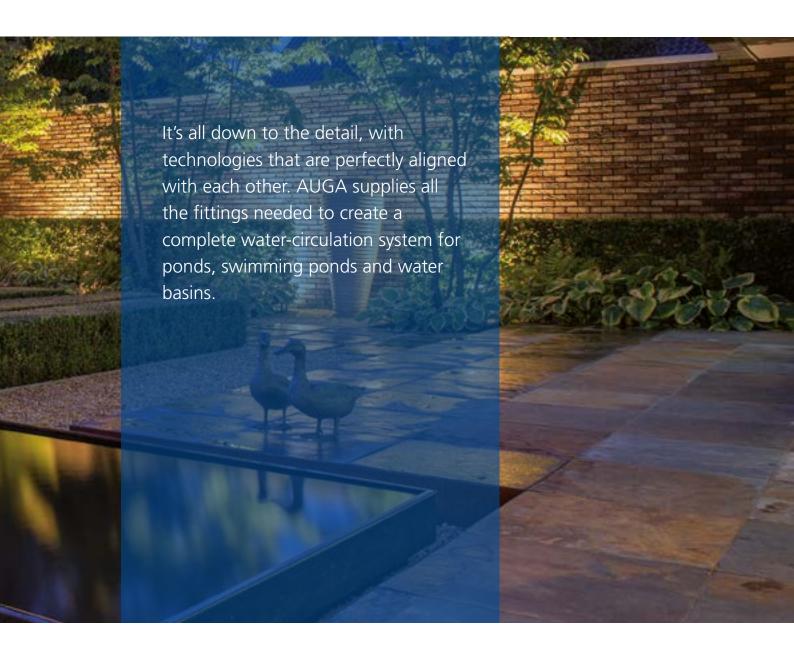






Water

Construction











#### Bottom/wall drains for liner ponds

Bottom drains are plastic 'bottom pits' that are connected to a PVC pipe or hose and transport water to a filter/pump system. These ducts promote water circulation.

Туре	Connection ø mm	Material	Colour	Art. no.
Bottom drain 50	50	ABS	Black	901052
Bottom drain 110	110	ABS	Black	901053
Wall drain 110/125	110 / 125	ABS	Black	901065
Flush grid for 901065	-	PE	Black	901066

- Can be glued to PVC pipes.
- Suitable for liner ponds.
- Drain 50 and 110 with height-adjustable dome.
- Stainless-steel screws.





A 110-mm drain connected to a  $\varnothing$  110 mm PVC pipe allows the passage of a max. capacity of approximately 11 m³/hour, in gravity drainage conditions. A 50-mm drain, connected to a PVC pipe  $\varnothing$  50 mm, allows the passage of a max. capacity of approximately 5 m³/hour in gravity drainage conditions.

#### **Application**

#### • Use as a bottom drain

Bottom drains are used to drain water containing any bottom contamination that may blow into the pond and sink to the bottom or is caused by the fish in the pond, especially koi carp. The circumference range for draining bottom contamination around the bottom drain is limited; depending on the size and design of the pond, it may be necessary to install several bottom The 'dome' serves as a convex cover and the height can be adjusted, depending on the fish population. The drain has a grid that can be walked over for use in swimming ponds.

#### • Use as a wall drain

The wall drain 110 with grid is suitable for installing in side walls.

#### Insertion grid and insertion dome for bottom drain 110

The flat insertion fittings have been especially designed for swimming ponds and can be walked on. The insertion dome can remove waste material such as leaves.

Туре	Suitable for	Material	Colour	Art. no.
Insertion grid	Bottom drain 110	PE	Black	901075
Insertion dome	Bottom drain 110	PE	Black	901076

- Easy to remove.
- Stainless-steel bolts/nuts for aligning/additional ballast weight.
- Can be walked on.











#### Wall ducts, standard, with flat flange

Wall ducts are used in connection with PVC pipes or hoses, to transport water to and from a filter/pump system.

Туре	Connection ø mm	Material	Colour	Art. no.
Wall duct 40	40	ABS	Black	901090
Wall duct 50	50	ABS	Black	901091
Wall duct 63	63	ABS	Black	901092
Wall duct 90	90	ABS	Black	901094
Wall duct 110	110	ABS	Black	901095

- Can be glued to PVC pipes.
- Suitable for liner, PE and polyester ponds.
- Stainless-steel screws.
- Grommet not included.

#### Wall ducts, thick-walled, with flat flange

Туре	Connection ø mm	Material	Colour	Art. no.
Wall duct 40	40	ABS	Black	901080
Wall duct 50	50	ABS	Black	901081
Wall duct 63	63	ABS	Black	901082
Wall duct 75	75	ABS	Black	901083
Wall duct 110	110	ABS	Black	901085

- Can be glued to PVC pipes.
- Suitable for liner, PE and polyester ponds.
- Stainless-steel screws.
- Grommet not included.







#### Wall duct WD 50, thick-walled, with curved flange

The WD 50 is fitted with a curved flange; the liner is clamped behind the counter flange so the entire duct lies flush to the wall. The wall duct has a bayonet connection on the inside, which can be connected to the adjustable water inlet of the WMD 50 system with a single click/twist.

Туре	Connection ø mm	Material	Colour	Art. no.
Wall duct WD 50	50	ABS	Black	901045



- Can be glued to PVC pipes.
- Suitable for liner ponds.
- Stainless-steel screws.
- Inc. grommet.
- Suitable for installation with adjustable water inlet 901046.
- Suitable for recessed LED spotlight WDX 8 (with inflow 901046).
- Suitable for recessed LED spotlight WDX 15 (inflow not required).

#### Wall duct system WDM 50-set

All-in 50 mm wall duct set, including 2 cable seals and adjustable water inlet for universal application.

Туре	Connection ø mm	Material	Colour	Art. no.
WDM 50 set	50	ABS / Stainless steel / EPDM	Black	901044

#### **Set includes**

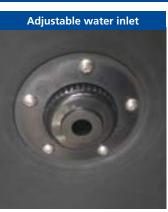
- 50-mm wall duct.
- Small 6 10 mm cable seal.
- Large 10 15 mm cable seal.
- Adjustable water inlet.

#### **Application**

- Watertight power cable ducts with cable seal.
- Inflow for return water in the pond with adjustable water inlet.
- Connection of recessed LED wall floodlight WDX 8 and WDX 15.

# WD 50 passage with many application possibilities











#### WDM 50 wall duct system in individual components

The WDM 50 set (901044) is also available separately as components.

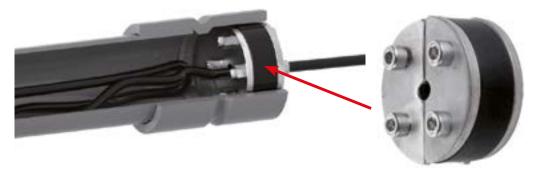
Туре	Diameter ø mm	Cable ø mm	Material	Art. no.
Cable seal 6	50	6 - 10	Rubber - stainless steel	901047
Cable seal 10	50	10 - 15	Rubber - stainless steel	901048
Adjustable water inlet	-	-	ABS	901046
Wall duct WD 50	-	-	ABS	901045







#### **Cable seal operation**



The seal can be used to close off power cables to make them watertight, suitable for installation in a 50-mm wall duct or PVC pipe. An Allen key is used to compress the stainless-steel plates together, which forces the rubber seal outwards and closes the 50 mm pipe, making it watertight.

Pump power cables no longer need to be laid over a pond edge, but can be inserted, including the moulded plug, through the pond wall, completely out of sight.

Built-in wall lighting power cables are also sealed in the same way, the PVC pipe between the seal and wall duct serves to store the lamp cable, so that the lamp can be taken out of the duct.

#### Flexible metric couplings

Elastic connections for pipes, filters, accessories and pumps. Industrial quality suitable for installing all kinds of pipes (PVC / PP / PE / CONCRETE / METAL) above and in the ground.

Туре	Connection mm	Art. no.
Flexible socket 50	50	905011
Flexible socket 63	63	905012
Flexible socket 75	75	905013
Flexible socket 110	110	905014

- Muffles vibrations in pipes.
- Easy to install without adhesive.
- Easy to disassemble and reuse.
- Relieves unequal connections.
- Operating pressure up to 0.3 Bar.
- Made from natural rubber.
- Stainless-steel clamps.
- Larger sizes available.









#### Flexible reduction sockets

Туре	Connection mm	Art. no.
Flexible reduction socket 50 x 40	50 x 40	905020
Flexible reduction socket 63 x 40	63 x 40	905021
Flexible reduction socket 63 x 50	63 x 50	905022
Flexible reduction socket 75 x 63	75 x 63	905026
Flexible reduction socket 110 x 50	110 x 50	905023
Flexible reduction socket 110 x 63	110 x 63	905024
Flexible reduction socket 110 x 90	110 x 90	905025





# Flexible end caps

Туре	Connection mm	Art. no.
Flexible end cap 50	50	905008
Flexible end cap 63	63	905009
Flexible end cap 110	110	905010





# WATER FITTING

# Flexible bends

Туре	Connection mm	Art. no.
Flexible bend 50	50	905015
Flexible bend 63	63	905016
Flexible bend 110	110	905018





# Flexible T-pieces

Туре	Connection mm	Art. no.
Flexible T-piece 50	50	905030
Flexible T-piece 63	63	905031
Flexible T-piece 110	110	905032







#### **PVC-U** slide valves

Extremely reliable sliding valves, for closing off pipework.

Туре	Connection ø mm	Max. pressure Bar	Art. no.
Slide valve 50	50	3.5	904104
Slide valve 63	63	3.5	904120
Slide valve 90	90	1.5	904121
Slide valve 110	110 / 125	1.5	904122

- Made from PVC-U.
- Can be glued or installed with a flexible connection.
- Slide valve 90 and 110, slide can be removed on the top side.
- Extremely solid valves with stainless-steel screws.
- Slide valve 110 to be connected externally to 125 mm PVC pipe.









#### Ball valves PVC-U single union

Application in pressure pipe systems for shutting off pumps, UV-C equipment and filters.

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
Ball valve 32	32	10	PVC-U	904087
Ball valve 40	40	10	PVC-U	904088
Ball valve 50	50	10	PVC-U	904089
Ball valve 63	63	10	PVC-U	904090

- Removable handle.
- Removable ball.

#### **Ball valves PVC-U double union**

Application in pressure pipe systems for shutting off pumps, UV-C equipment and filters.

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
Ball valve 25	25	10	PVC-U	904091
Ball valve 32	32	10	PVC-U	904092
Ball valve 40	40	10	PVC-U	904093
Ball valve 50	50	10	PVC-U	904094
Ball valve 63	63	10	PVC-U	904095

- Removable handle.
- Removable ball.





#### Ball valve female/male thread

Compact budget ball valve for general applications.

Туре	Connection inches	Max. pressure Bar	Material	Art. no.
Ball valve 1	1 "male / female	10	PVC-U	VA60024



## PVC-U three-way valve

Application in pressure pipe systems for shutting off and diverting the water flow in a system.

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
Three-way valve 50	50 - 63	6	PVC-U	904118

- One side shut off.
- Two sides open.



#### **PVC-U sight glass**

Built into a pipe system to control the flow.

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
63 sight glass	63	6	PVC-U/glass	904130

- 2 solvent connections.
- The glass can be removed.





## PVC-U Non-return valve

Built-in non-return valve with solvent unions.

Туре	Connection mm	Art. no.
Non-return valve 50	2 x 50	904140
Non-return valve 63	2 x 63	904141
Spring-loaded non-return valve 63	2 x 63	904150

- With PVC solvent unions.
- Minimum flow losses.



# PVC pressure pipe

PVC pressure pipe sawn to length for easy transport.

Туре	Diameter ø mm	Length of m	Max. pressure Bar	Art. no.
PVC pipe 32	32	2.2	10	904097
PVC pipe 50	50	2.2	10	904099
PVC pipe 63	63	2.2	10	904100
PVC pipe 75	75	2.2	10	904103
PVC pipe 90	90	2.2	10	904101
PVC pipe 110	110	2.2	10	904102

PVC pressure pipe, has many applications, such as in pump and filter systems.

- With smooth ends.
- Grey.
- Suitable as a pressure pipe.



#### **Triple union PVC-U solvent unions**

For expanding equipment that has been built into the pipe systems.

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
25 solvent union	25	10	PVC-U	904078
32 solvent union	32	10	PVC-U	904079
40 solvent union	40	10	PVC-U	904080
50 solvent union	50	10	PVC-U	904081
63 solvent union	63	10	PVC-U	904082
75 solvent union	75	10	PVC-U	904083
90 solvent union	90	10	PVC-U	904084
110 solvent union	110	10	PVC-U	904085



- 2 solvent connections.
- Coupler with O-ring seal.

#### Triple union PVC-U solvent/threaded female unions

For expanding equipment that has been built into the pipe systems.

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
32 solvent/threaded union	1" x 32	10	PVC-U	904108
40 solvent/threaded union	<sup>5</sup> / <sub>4</sub> " x 40	10	PVC-U	904109
50 solvent/threaded union	1½" x 50	10	PVC-U	904110
63 solvent/threaded union	2" x 63	10	PVC-U	904111
90 solvent/threaded union	3" x 90	10	PVC-U	904107

- Solvent/male union.
- Coupler with O-ring seal.



#### Triple union PVC-U solvent/threaded male unions

For expanding equipment that has been built into the pipe systems.

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
50 solvent/threaded union	1½″ x 50	10	PVC-U	904133
63 solvent/threaded union	2" x 63	10	PVC-U	904134

- Solvent/male union.
- Coupler with O-ring seal.





#### Solvent/hose fitting

Connecting the PVC fittings to the hose.

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
25 solvent fitting	25 x 25	10	PVC-U	904114
32 solvent fitting	32 x 32	10	PVC-U	904115
40 solvent fitting	40 x 40	10	PVC-U	904116
50 solvent fitting	50 x 50	10	PVC-U	904117

• Solvent/hose connection.



#### Solvent x PVC-U male connectors

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
25 connector/male	25 x ¾"	10	PVC-U	904053
32 connector/male	32 x 1"	10	PVC-U	904054
40 connector/male	40 x 1¼"	10	PVC-U	904055
50 connector/male	50 x 1½"	10	PVC-U	904056
63 connector/male	63 x 2"	10	PVC-U	904057
90 connector/male	90	10	PVC-U	904058

• Solvent x male union.



#### PVC-U socket solvent x female union

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
25 socket/female	25 x ¾"	10	PVC-U	904059
32 socket/female	32 x 1"	10	PVC-U	904060
40 socket/female	40 x 1¼"	10	PVC-U	904061
50 socket/female	50 x 1½"	10	PVC-U	904062
63 socket/female	63 x 2"	10	PVC-U	904063

• Solvent x female union.



# 90° PVC-U T-pieces

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
T-piece 25	25	10	PVC-U	904001
T-piece 32	32	10	PVC-U	904002
T-piece 40	40	10	PVC-U	904003
T-piece 50	50	10	PVC-U	904004
T-piece 63	63	10	PVC-U	904005
T-piece 75	75	10	PVC-U	904006
T-piece 90	90	10	PVC-U	904007
T-piece 110	110	10	PVC-U	904008



• 3 solvent connections.

# 90° PVC-U T-piece reduction bends

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
T-piece reduction bend	32 x 25	10	PVC-U	904009
T-piece reduction bend	40 x 25	10	PVC-U	904101
T-piece reduction bend	40 x 32	10	PVC-U	904011
T-piece reduction bend	50 x 32	10	PVC-U	904012
T-piece reduction bend	50 x 40	10	PVC-U	904013
T-piece reduction bend	63 x 40	10	PVC-U	904014
T-piece reduction bend	63 x 50	10	PVC-U	904015
T-piece reduction bend	90 x 63	10	PVC-U	904016
T-piece reduction bend	110 x 90	10	PVC-U	904017



• 3 solvent connections.

#### 90° PVC-U bends

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
90° bend 25	25	10	PVC-U	904037
90° bend 32	32	10	PVC-U	904038
90° bend 40	40	10	PVC-U	904039
90° bend 50	50	10	PVC-U	904040
90° bend 63	63	10	PVC-U	904041
90° bend 75	75	10	PVC-U	904042
90° bend 90	90	10	PVC-U	904043
90° bend 110	110	10	PVC-U	904044

• 2 solvent connections.





#### 45° PVC-U bends

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
45° bend 25	25	10	PVC-U	904045
45° bend 32	32	10	PVC-U	904046
45° bend 40	40	10	PVC-U	904047
45° bend 50	50	10	PVC-U	904048
45° bend 63	63	10	PVC-U	904049
45° bend 75	75	10	PVC-U	904050
45° bend 90	90	10	PVC-U	904051
45° bend 110	110	10	PVC-U	904052



• 2 solvent connections.

# 90° PVC-U long-bend T-pieces

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
Bend 50	50	10	PVC-U	904147
Bend 63	63	10	PVC-U	904148
Bend 75	75	10	PVC-U	904149
Bend 110	110	10	PVC-U	904153

• 2 solvent connections.



#### 45° PVC-U bend

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
Bend	63 x 63 x 50	10	PVC-U	904127

• 3 solvent connections.



#### **PVC-U** connector adhesive x female

Туре	Connection mm x inch	Max. pressure Bar	Material	Art. no.
Connector	63 x 50 x 2"	10	PVC-U	904163

- 2 solvent connections.
- 1x internal thread.



# Straight PVC-U socket

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
Socket 20	20	10	PVC-U	904136
Socket 25	25	10	PVC-U	904018
Socket 32	32	10	PVC-U	904019
Socket 40	40	10	PVC-U	904020
Socket 50	50	10	PVC-U	904021
Socket 63	63	10	PVC-U	904022
Socket 75	75	10	PVC-U	904023
Socket 90	90	10	PVC-U	904024
Socket 110	110	10	PVC-U	904025



• 2 solvent connections.

# PVC-U reduction sockets

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
Reduction socket	32 x 25	10	PVC-U	904026
Reduction socket	40 x 25	10	PVC-U	904027
Reduction socket	50 x 32	10	PVC-U	904028
Reduction socket	50 x 40	10	PVC-U	904029
Reduction socket	63 x 40	10	PVC-U	904030
Reduction socket	63 x 50	10	PVC-U	904031
Reduction socket	75 x 50	10	PVC-U	904032
Reduction socket	90 x 50	10	PVC-U	904033
Reduction socket	90 x 63	10	PVC-U	904034
Reduction socket	110 x 63	10	PVC-U	904035
Reduction socket	110 x 90	10	PVC-U	904036



• 2 solvent connections.



# PVC-U reduction rings

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
Reduction ring	32 x 25	10	PVC-U	904072
Reduction ring	40 x 32	10	PVC-U	904073
Reduction ring	50 x 20	10	PVC-U	904138
Reduction ring	50 x 40	10	PVC-U	904074
Reduction ring	63 x 50	10	PVC-U	904075
Reduction ring	75 x 63	10	PVC-U	904124
Reduction ring	90 x 63	10	PVC-U	904076
Reduction ring	110 x 63	10	PVC-U	904077



2 solvent connections.

#### **Solvent PVC-U end caps**

Туре	Connection mm	Max. pressure Bar	Material	Art. no.
End cap 25	25	10	PVC-U	904064
End cap 32	32	10	PVC-U	904065
End cap 40	40	10	PVC-U	904066
End cap 50	50	10	PVC-U	904067
End cap 63	63	10	PVC-U	904068
End cap 75	75	10	PVC-U	904069
End cap 90	90	10	PVC-U	904070
End cap 110	110	10	PVC-U	904071



• Solvent union.

#### Stainless-steel worm gear clamps

Worm gear clamps, suitable for sealing hoses.

Туре	Hose size mm	Material	Art. no.
Worm gear hose clamp	8 - 12	Stainless steel 304	VA 34440
Worm gear hose clamp	10 - 16	Stainless steel 304	VA 34441
Worm gear hose clamp	12 - 20	Stainless steel 304	VA 34442
Worm gear hose clamp	20 - 32	Stainless steel 304	VA 34444
Worm gear hose clamp	25 - 40	Stainless steel 304	VA 34445
Worm gear hose clamp	32 - 50	Stainless steel 304	VA 34446
Worm gear hose clamp	40 - 60	Stainless steel 304	VA 34447

- Stainless-steel 304 model.
- Suitable for smooth hoses.



#### Pond hoses, standard quality

Very elastic spiral hose for connecting pond pumps, filters, ornaments, etc.

Туре	Hose diameter mm	Roll m	Max. pressure Bar	Colour	Art. no.
Hose 13	13	30	1	Black	611001
Hose 20	20	30	1	Black	611003
Hose 25	25	30	1	Black	611004
Hose 32	32	25	1	Black	611005
Hose 40	40	20	1	Black	611006
Hose 50	50	20	1	Black	611007

- Reinforced with spiral.
- Not suitable for burying.
- Very flexible.
- Smooth inner wall.
- Thick-walled.

#### Pond hoses, thick-walled

Very elastic spiral hose for connecting pond pumps, filters, ornaments, etc. where the hose is suitable for burying.

Туре	Hose diameter mm	Roll m	Max. pressure Bar	Colour	Art. no.
Hose 20	20	25	5	Black	612001
Hose 25	25	25	5	Black	612002
Hose 32	32	25	5	Black	612003
Hose 40	40	25	5	Black	612004
Hose 50	50	25	5	Black	612005

- Reinforced with spiral.
- Suitable for burying.
- Very flexible.
- Smooth internal and external wall.







#### Polyester pits with cover

Equipment pits for integrated pumps, filters and UV-C equipment, including cover. The pits are reinforced, however, building regulations must be observed to prevent the pit from being raised or depressed due to high groundwater. The pits have a curved lid so rainwater does not collect on top and can flow inside.

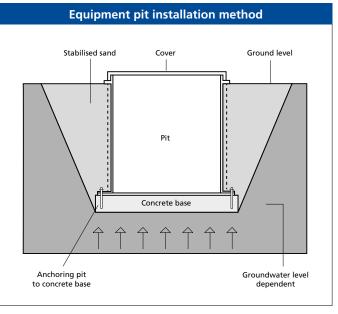
Туре	Outer diameter L x W x H cm	Bottom dimensions L x W cm	Material	Art. no.
Equipment pit 800	81 x 62.5 x 76	57 x 38	Polyester	201017
Equipment pit 1200	119 x 79 x 80	104 x 64	Polyester	201020
Equipment pit 1500	165 x 91 x 100	130 x 59	Polyester	201021

- Fibreglass-reinforced polyester, black.
- Including cover.
- Reinforced walls.
- Take structural facilities into account.
- For composite engineering pits, see pages 44 to 50.









#### VarioLat border and pond edge finish

Flexible edge finishing for perfectly bordered ponds, gardens, paths and borders.

Type	Dimensions cm		Roll length	Colour	
Туре	Height Thickness	m	Coloui	Art. no.	
VarioLat 14	14	0.70	25	Grey	602001
VarioLat 19	19	0.70	25	Grey	602002

- Border edge with very smooth finish.
- Made from TETRA-PAK® recycling plastic.
- Easy to process, can be installed in practically any shape.
- Sustainable and environmentally friendly.

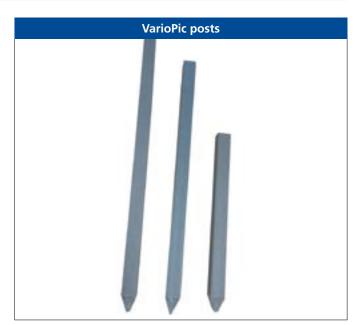


#### VarioPic posts for VarioLat assembly

VarioPic posts are required for the installation of VarioLat. The length of the posts is determined by the type of soil and the application. We recommend installing a post every 50 cm.

Туре	Dimensions cm	Colour	Order unit	Art. no.
VarioPic 38	3.1 x 3.1 x 38	Grey	10	602003
VarioPic 58	3.1 x 3.1 x 58	Grey	10	602004
VarioPic 76	3.1 x 3.1 x 76	Grey	10	602005

- Solid posts.
- Made from TETRA-PAK® recycling plastic.
- Sustainable and environmentally friendly.
- Pack contains 10 items.





#### **Aluminium-coated waterfalls**

With reservoir for stabilising the water flow.

Туре	Dimensions mm	Run mm	Connecting hose mm	Material	Colour	Art. no.
Waterfall 30	304 x 195 x 134	107	³/ <sub>4</sub> " x 25	Aluminium	Grey	409030
Waterfall 60	604 x 195 x 134	107	11/4" x 40	Aluminium	Grey	409031
Waterfall 90	904 x 195 x 134	107	2" x 50	Aluminium	Grey	409032

- Coated aluminium.
- Uniform water film.
- Openings for anchoring.
- Inc. hose connection.





Waterfall table						
Height		Capacity in I/h				
mm	30	60	90			
250	2200	4300	6500			
500	3250	6500	9700			
750	4300	8650	13000			
1000	5400	10800	16200			
1250	6500	13000	19500			
1500	7500	15000	22500			

When deciding what pump to choose, in addition to the capacity, it is important to take the pressure – including hose/pipe resistance – into account.



#### Stainless-steel waterfall elements

Overflow waterfall suitable for wall installation.

Туре	Water course dimensions mm	Total dimensions mm	Material	Art. no.
Waterfall element 30	300 x 250 x 80	460 x 250 x 160	Blasted stainless steel	409040
Waterfall element 60	600 x 250 x 80	760 x 250 x 160	Blasted stainless steel	409041
Waterfall element 90	900 x 300 x 80	1060 x 300 x 160	Blasted stainless steel	409042

- Sand-blasted stainless steel.
- Uniform water film.
- Easy installation.







#### Calculation of the pipe or friction losses.

When water flows through a pipe system pressure losses occur as a result of friction in the pipe system. To keep these losses at a minimum, the correct pipe diameter must be determined with regard to the capacity that will flow through the pipe. If the pipe diameter used is too small, this will lead to increased friction and the pump capacity will reduce considerably due to the resistance. When selecting the correct diameter, the most efficient pump can be selected with the lowest possible power consumption.

To easily calculate the losses, use the pressure loss table below as a tool. The loss is expressed in terms of pressure (H in m) per 100 metres of PVC pipe.

Pressure loss (H in m) per 100 metres of pipe							
ø of the pipe			Max. m³/	h capacity			
mm	5	10	15	20	30	40	
32	17	50	80	-	-	-	
40	4.5	13	26	40	-	-	
50	1.3	5	9	14	30	50	
63	0.5	1.7	4.2	6	15	17	
75	0	0.7	1.5	2.5	4.5	8.5	
90	0	0	0.7	1.3	2	3.5	
110	0	0	0.4	0.7	1.3	2.5	
125	0	0	0.1	0.2	0.4	0.8	

To be able to calculate the total friction in a pipe system, the friction of the bends, T-pieces and valves must also be calculated. The following conversion table shows the friction in metres of straight pipe.

Friction (m)						
ø of the pipe	Ве	nd	T-piece	Valve		
mm	90°	45°	90°	Ball	Slide	
32	0.7	0.4	1.8	0.9	0.20	
40	0.8	0.5	2.3	11.0	0.25	
50	1.0	0.6	2.9	15.0	0.30	
63	1.4	0.7	3.5	17.0	0.40	
75	1.7	0.8	4.0	20.0	0.45	
90	1.9	1.1	5.0	25.0	0.55	
110	2.1	1.3	6.0	29.0	0.60	
125	2.6	1.6	7.0	35.0	0.80	



#### **EASY-FILL** water replenishment system

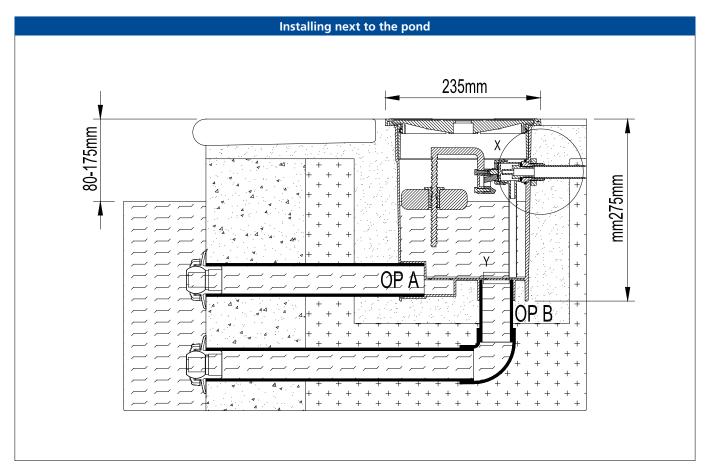
The EASY-FILL is an inexpensive and easy to install water replenishment system, with built-in float for automatic filling with mains water.

Туре	Water replenishment connection	Connection to basin mm	Art. no.
EASY-FILL	3/4 "	ø 50	901901

The Easy-Fill is installed in the vicinity of the basin/pond, as shown in the diagram, and connected to the basin with a 50-mm pipe with a wall duct, and a choice of 2 connections (A and B).

- Maintains the water level in ponds and basins.
- Measurement by means of a float.
- Simple, straightforward system.
- Removable cover for inspection.
- Material white ABS.







#### Pond steps

Plastic pond steps for swimming ponds.

Туре	Dimensions L x W (cm)	Material	Colour	Art. no.
Pond steps 100	100 x 75	HDPE	Black	209510
Pond steps 120	120 x 75	HDPE	Black	209511

Get in and out of the swimming pond with ease. The plastic steps need to be finished with tiles or similar. This improves their appearance and provides anti-slip protection.







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Winkelskamp 13 7255 PZ Hengelo (Gelderland) The Netherlands

Tel.: +31 575 46 80 20

info@auga.nl www.auga.nl

