

aquatherm push-fit fitting

A simple and fast connection method







QUICK CONNECTIONS IN MINUTES, FOR LIFETIME SECURITY

Leak-free joints in just a few minutes: This is what the new aquatherm push-fit fittings offer. They provide a simple, fast and at the same time secure connection for aquatherm blue pipes in heating, cooling and industrial applications.

Thanks to the simple push-fit system, aquatherm piping systems can be connected up to 40% faster than with electrofusion socket welding. The tool requirement is also significantly lower. Joint assembly can be done in any weather conditions, in tight spaces such as shafts for risers or in trenches, and even under the ceiling.

Made from the high-quality and robust material fusiolen® PP-RCT, the aquatherm push-fit fitting is suitable for fluid temperatures between 0 °C and 95 °C (32-203°F). This is confirmed by the test institute IMA Dresden, Germany.

The product portfolio ranges from push-fit adapters and push-fit couplings to moulded and fabricated fittings in various configurations and sizes. aquatherm thus offers all components for piping installation in plant engineering. The piping system is not only corrosion-free but can be subjected to full pressure immediately after installation without any wait times.

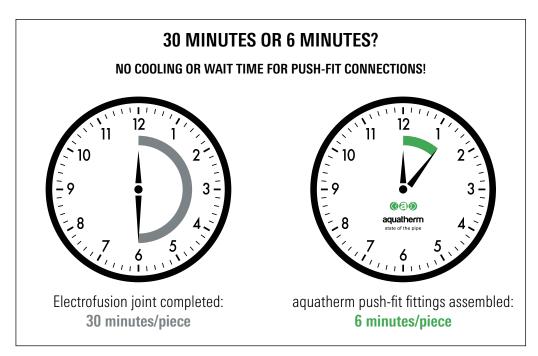
ADVANTAGES

- increased pressure and temperature resistance through fusiolen® PP-RCT
- secure connection
- profile sealing gasket protects the mechanics of the push-fit fittings from dirt, debris and contaminants
- corrosion-free
- long life span
- full bore flow, no reduction in diameter
- can be used with standard and UV aquatherm blue pipe products in SDR 11 and SDR 17.6, for sizes 90 mm (3-in) to 450 mm (18-in)



INSTALLATION ADVANTAGES

- fast installation times
- can be done in all weather conditions, even at temperatures below 0 °C or when raining or snowing
- assembly in confined spaces such as shafts for risers or trench laving
- no heavy or expensive tools necessary
- residual fluid in the pipes is not a problem when installing in existing systems
- · leakproof connection immediately, no wait time



Cooling times for electrofusion joint:

The operating pressure may only be applied after the following cooling times

Dimension [mm]	Cooling time [min]
75	46
90	53
110	70
125	56
160	79

Example on a 110 mm aquatherm blue pipe MF RP

PROVEN QUALITY

Piping systems can be subject to fluctuating fluid and ambient temperatures. Despite changing parameters, they should meet two criteria: They should be durable and safe.

That is why we've asked the test institute IMA Dresden (Germany) to test the aquatherm push-fit fittings with the aquatherm blue pipe under changing temperatures. The thermocycle tests were carried out at 0 °C / 20 °C (32 / 68°F) and 20 °C / 95 °C (68 / 203°F) based on DIN EN ISO 15874.

The result: the push-fit fitting assemblies passed, with no leaks or cracks.





- Body of socket extremely rugged and made of the durable fusiolen® PP-RCT material
- **2** Grip elements made of high-strength engineered thermoplastic for extra tensile strength
- **Profile gasket** prevents the penetration of dirt, debris and contaminants
- 4 Spring-loaded elements lead the grip elements and create the required radial forces
- Thrust protection unit can be easily replaced if necessary

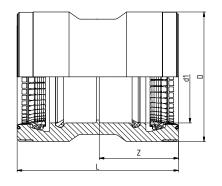
PUSH-FIT COUPLING

Systems: aquatherm blue pipe
Material: fusiolen® PP-RCT/EPDM

Pipe series:SDR 11/17.6Standard:DIN EN ISO 15874

Colour: green

Notice: do not use for aquatherm blue pipe MF RP OT





SDR	Art. no.	d1 [mm]	L [mm]	D [mm]	z [mm]	Weight [kg]	System	PU	Box unit	Price € pc
	17322	90	285,0	152,0	140,0	2,300	•	1		
	17324	110	345,0	175,0	170,0	3,700	•	1		
	17326	125	350,0	190,0	172,0	4,300	•	1		
	17330	160	372,0	234,0	183,0	6,600	•	1		
11	17334	200	470,0	285,0	231,0	11,000	•	1		
17.6	17338	250	496,0	375,0	243,0	24,200	•	1		
	17342	315	560,0	450,0	275,0	40,200	•	1		
	17344	355	576,0	492,0	283,0	45,700	•	1		
	17346	400	610,0	540,0	300,0	54,800	•	1		
	17348	450	646,0	600,0	318,0	69,600	•	1		

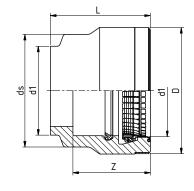
PUSH-FIT ADAPTER

Systems: aquatherm blue pipe
Material: fusiolen® PP-RCT/EPDM

Pipe series:SDR 11/17.6Standard:DIN EN ISO 15874

Colour: green

Notice: do not use for aquatherm blue pipe MF RP OT





SDR	Art. no.	d1 [mm]	L [mm]	D [mm]	ds [mm]	z [mm]	Weight [kg]	System	PU	Box unit	Price € pc
	17422	90	170,0	152,0	112,0	140,0	1,200	•	1		
	17424	110	205,0	175,0	140,0	170,0	2,000	•	1		
	17426	125	210,0	190,0	161,0	172,0	2,300	•	1		
	17430	160	227,0	234,0	202,0	183,0	3,800	•	1		
	17434	200	285,0	285,0	250,0	231,0	6,500	•	1		
11	17438	250	315,0	375,0	317,0	243,0	15,000	•	1		
	17442	315	355,0	450,0	400,0	275,0	24,000	•	1		
	17444	355	370,0	492,0	450,0	283,0	28,000	•	1		
	17446	400	390,0	540,0	500,0	300,0	34,000	•	1		
	17448	450	415,0	600,0	560,0	318,0	44,000	•	1		
	17526	125	210,0	190,0	161,0	172,0	2,300	•	1		
	17530	160	227,0	234,0	202,0	183,0	3,800	•	1		
	17534	200	285,0	285,0	250,0	231,0	6,500	•	1		
17.6	17538	250	315,0	355,0	295,0	243,0	11,500	•	1		
17.6	17542	315	345,0	425,0	370,0	275,0	16,300	•	1		
	17544	355	360,0	470,0	415,0	283,0	20,000	•	1		
	17546	400	390,0	510,0	465,0	300,0	23,800	•	1		
	17548	450	400.0	565.0	520.0	318.0	27.800	•	1		

Fittings and connecting parts e.g. elbows (45°/90°), T-pieces, red-T-pieces, etc. on request

ASSEMBLY INSTRUCTIONS SUMMARY

Note: The following steps are a summary of the assembly procedure. Please consult the full assembly instructions provided with the fittings for proper installation. Or send an email to infoservice@aquatherm.de to receive the PDF.



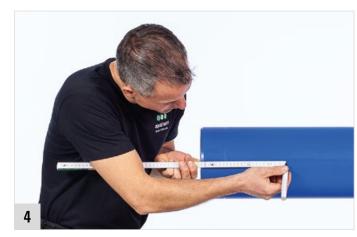
Cut the pipe ends to length at a right angle.



Chamfer the pipe end with the aquatherm chamfering tool (see table minimum chamfer length).



Read insertion depth on the push-fit fitting ...



... and mark the insertion depth on the pipe.



Apply lubricant evenly on the pipe (5 cm or 2-1/2 in.).



Apply lubricant also on the rubber gaskets of the push-fit fitting.

WARNING: SHARP EDGES!

The grip ring on the interior of the fitting contains sharp components. Hand protection and proper tools must be used when applying lubricant to the interior of the fitting or reaching inside the fitting for any other purpose.

Note: When processing pipe dimensions ≤ 160 mm, no pulling/alignment device is required. However, proper alignment must be maintained in all sizes when assembling.



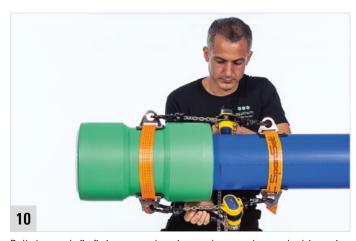
Place the push-fit fitting on the pipe end and press it over the first rubber seal.



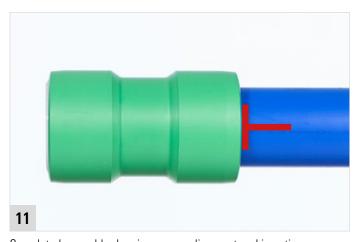
Final insertion of the pipe into the fitting must be done with an alignment tool.



Attach the alignment tool securely to the pipe and the push-fit fitting.



Pull the push-fit fitting onto the pipe end up to the marked insertion depth.



 $\label{lem:completed} \mbox{Completed assembly showing proper alignment and insertion.}$

TOOLS				
Artno.	Description			
50530	ratchet puller (come-along)			
50531	drawbar pulling lugs (padeyes)			
50532	chamfering tool Widos 250 – 500 mm			
50510	chamfering tool 32 – 250 mm			
50533	tension belt width 50 mm			
50534	brush			
50535	lubricant			

MINIMUM CHAMFER LENGTH					
Outer diameter [mm]	Chamfer length [mm]				
90					
110	10				
125	10				
160					
200	15				
250					
315					
355	20				
400					
450					

MINIMUM CHAMFER LENGTH						
Nominal size [inch]	Chamfer length [inch]					
3						
3-1/2	3/8					
4	3/0					
6						
8	5/8					
10						
12						
14	7/8					
16						
18						





aquatherm GmbH