

Pre-insulated pipe solutions for buildings, industrial applications, and heating and cooling networks.

aquatherm energy twin



We are part of the solution__



The twin-pipe system for 4th generation district heating __

Save time and energy with aquatherm energy twin

The aquatherm energy twin system simplifies installation and increases the efficiency of modern heating networks. By integrating the flow and return pipes within a single casing, it saves time, energy, and costs - making it ideal for urban environments and complex projects. aquatherm energy twin is the world's first PP twin-pipe system, available in dimensions from 32 to 125 mm.

Advantages

1. Space-saving installation

A narrow trench is sufficient to lay the supply and return pipes together, making it ideal for urban or confined projects.

2. Lower construction costs

Lower excavation volumes and minimised material requirements significantly reduce construction costs.

3. Faster project completion

Simultaneous installation of supply and return lines shortens construction time and minimises logistical challenges.

4. Reduced heat loss

The twin-pipe system minimises heat loss, improving energy efficiency.

5. Lower weight

Easy handling thanks to its lower weight compared with a steel tube.

6. CO₂ Reduction

Polypropylene pipes have a lower carbon footprint than comparable steel pipes because they are produced more energy-efficiently, are lighter to transport, and are made from recyclable material.*

7. Longevity

Resistant to corrosion and incrustation, both inside and out.

8. High-temperature resistance

Designed for continuous operation at temperatures up to 75 °C, withstanding short-term peaks of up to 100 °C — ideal for demanding applications.



* This is confirmed by our environmental product declarations

(EPDs; <https://www.aquatherm.de/aquatherm-knowhow/wissensdatenbank/epds-und-zertifikate/>).



Innovative materials for maximum efficiency __

○ Service pipes made of PP-RCT

Manufactured from durable polypropylene, these pipes offer exceptional temperature and pressure resistance, along with superior corrosion protection.

○ High-quality insulation

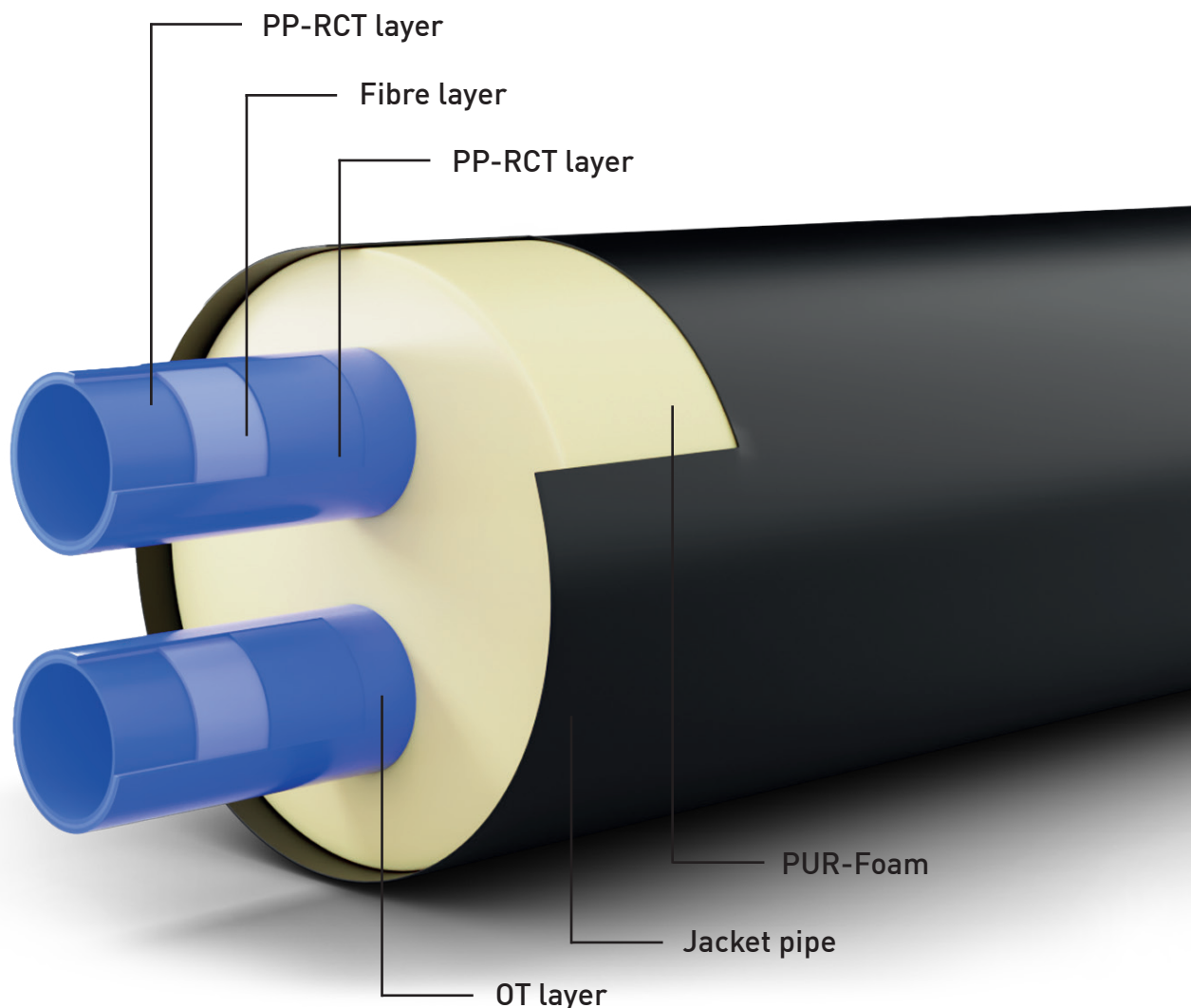
The premium PUR foam complies with DIN EN 253 standards and, when combined with the excellent insulating properties of PP-RCT, ensures minimal heat loss.

○ Robust PE casing pipe

Designed to protect the insulation from external influences such as physical damage and moisture, ensuring long-term durability.

○ Effective oxygen tightness

The diffusion barrier in the OT layer effectively prevents oxygen ingress, providing long-term system protection.





Overview

A wide range of dimensions for every project

aquatherm energy twin is available in dimensions from 32 to 125 mm.
For larger requirements, aquatherm offers single pipe solutions up to 355 mm.

**SDR 9****SDR 11**

aquatherm energy twin **MF RP OT**

ø outer medium pipe: 32 mm
ø outer casing pipe: 180 mm

ø outer medium pipe: 40 - 125 mm
ø outer casing pipe: 200 - 500 mm

MF RP OT = fibre composite pipe, multilayer,
fibre-reinforced with increased compressive
strength and oxygen-tight.





Pipes/basic elements

fibre composite pipe, aquatherm energy twin MF RP OT

Fibre composite pipe, as twin pipe in 5.8 and 11.6 m lengths with PUR rigid foam insulation and PE jacket pipe

aquatherm energy blue MF RP OT

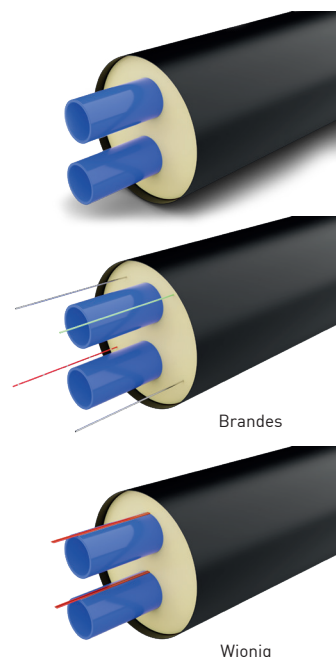
MF = Fibre composite pipe (multi-layered, fibre-reinforced)

RP = Increased compressive strength

OT = Oxygen-tight

Material = fusiolen® PP-RCT

Colour = Blue



SDR 9

without leakage detection	with leakage detection		outside diameter Ø		
Article no.	system Brandes article no.	system Wioniq article no.	d	D	LE (m)
Socket welding process					
2414032610	2414032612	2414032611	32	180	5.8
2414032710	2414032712	2414032711	32	180	11.6

SDR 11

without leakage detection	with leakage detection		outside diameter Ø		
Article no.	system Brandes article no.	system Wioniq article no.	d	D	LE (m)
Socket welding process					
2414040612	2414040614	2414040613	40	200	5.8
2414040712	2414040714	2414040713	40	200	11.6
2414050614	2414050616	2414050615	50	200	5.8
2414050714	2414050716	2414050715	50	200	11.6
2414063616	2414063618	2414063617	63	250	5.8
2414063716	2414063718	2414063717	63	250	11.6
2414075618	2414075620	2414075619	75	280	5.8
2414075718	2414075720	2414075719	75	280	11.6
2414090620	2414090622	2414090621	90	315	5.8
2414090720	2414090722	2414090721	90	315	11.6
2414110622	2414110624	2414110623	110	400	5.8
2414125624	2414125626	2414125625	125	500	5.8

Legend Table abbreviations (units in mm unless otherwise specified)

d Diameter in mm
D Diameter in mm

SDR Standard Dimension Ratio
(diameter/wall thickness ratio)

LE Delivery unit in metres



The first simultaneous welding unit for aquatherm energy twin ____

Efficiency, precision, and innovation – with our new simultaneous welding device for the pre-insulated aquatherm energy twin piping system, we are setting new standards in plastic pipe processing.

In collaboration with Ritmo, a leading manufacturer of plastic welding technology, we have developed a tool that is specially optimised for the simultaneous welding process of both media pipes.

Maximum efficiency for your projects

○ Double speed

Simultaneous welding of supply and return lines for enhanced productivity.

○ Perfect synchronisation

Precision control ensures uniform weld seams on both pipes.

○ High process reliability

Automated parameter monitoring guarantees consistently high-quality results.

○ Reliability

Rugged design and user-friendly operation, ideal for construction sites.

○ Exclusive & innovative

The only machine of its kind worldwide, setting new standards in plastic pipe welding.





aquatherm energy twin welding machine

Take advantage of cutting-edge technology with a unique tool that transforms your workflow. Faster, more efficient, and more cost-effective — experience the future of plastic pipe joining!

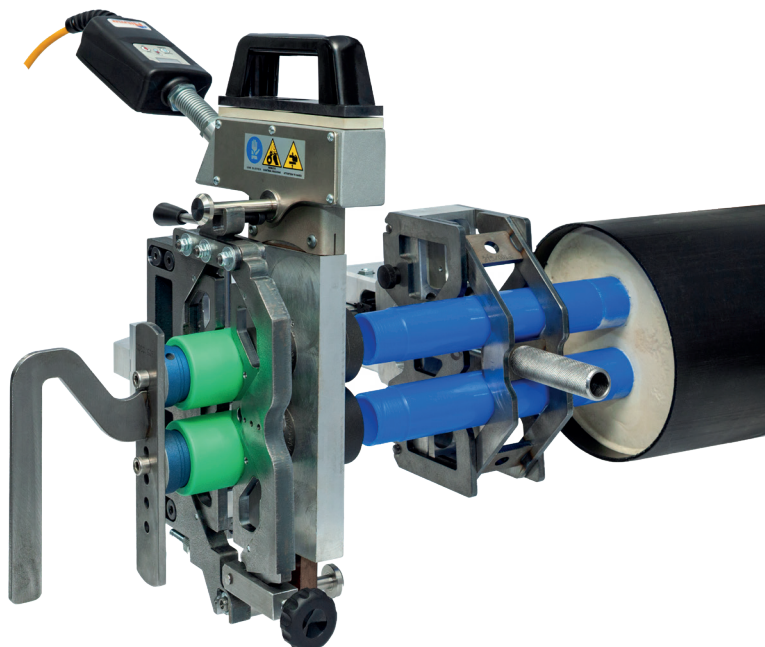
aquatherm energy twin socket fusion machines

Technical data	Dim. 32 - 75 mm	Dim. 90 - 125 mm
Material types	PP	PP
Material mould	Twin tube, round	Twin tube, round
Welding area - Ø	32 - 75 mm	90 - 125 mm
Welding temperature	260 °C	260 °C

The welding machines can be ordered under the following article numbers:

Article number: 9800050140
Twin socket fusion machine
for dimensions from 32 - 75 mm

Article number: 9800050141
Twin socket fusion machine
for dimensions from 90 - 125 mm





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