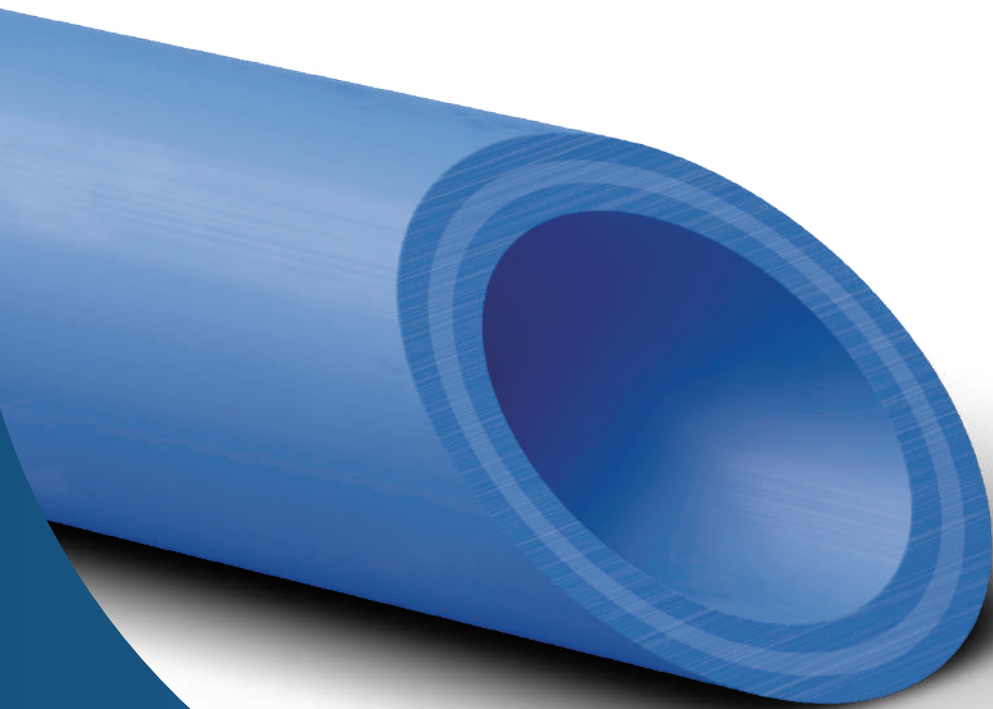


*Specialist for air conditioning, heating and
plant technology*

aquatherm **blue**



We are part of the solution!

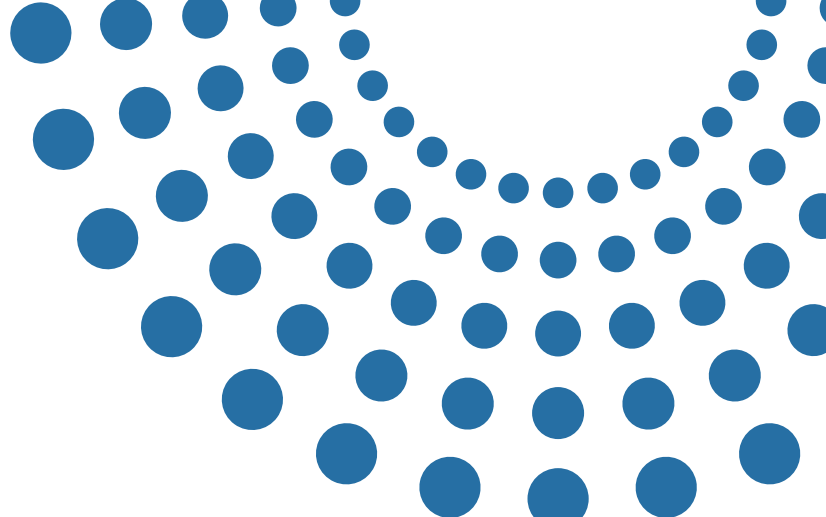


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History

- 1973 aquatherm founded by Gerhard Rosenberg
- 1981 development of the first pipe system made of polypropylene
- 1991 subsidiary Radeberg was founded
- 1996 first certification of the quality management system in accordance with ISO 9001
- 1997 foundation of the sales company in Italy
- 1999 development of fusiotherm® fibre composite pipe
- 2001 aquatherm operates in more than 50 export markets
- 2002 market launch of the aquatherm blue pipe
- 2005 market launch of the aquatherm red pipe and aquatherm black system
- 2010 system expansion of the pipe size to max. ø 630 mm
- 2010 Christof, Dirk and Maik Rosenberg assume company management
- 2012 first certification of the environment management system in accordance with ISO 14001
- 2012 market launch of the material fusiolen® PP-RP
- 2013 first certification of the energy management system in accordance with ISO 50001
- 2017 opening of the new pipe extrusion plant
- 2018 opening of the new injection moulding facility
- 2018 foundation of the sales company in England
- 2019 expansion of the industrial prefabrication operation
- 2021 participation in the distribution company aquatherm iberica s.l.
- 2022 opening of the aquatherm Campus
- 2023 aquatherm celebrates it's 50th anniversary
- 2024 Jan Kriedel takes over the management with Maik Rosenberg





Revolution since 1973

It all began with a vision. On 17 August 1973, Gerhard Rosenberg founded aquatherm GmbH - based in the garage and basement of his private home. The ambitious goal? To revolutionise the market as a pipe manufacturer. This vision gave rise to aquatherm, the world's leading manufacturer of plastic piping systems made of polypropylene for plant construction and building services. The numerous product lines provide superior solutions in potable water applications, heating systems, fire sprinkler systems, air conditioning and refrigeration technology, as well as in surface heating and cooling systems.

Due to their special material properties, the aquatherm pipe systems convince by their diverse application possibilities. The aquatherm pipe systems can be used in all areas of new installation, repair and renovation.

aquatherm employs around 550 people in Germany, Italy and England. Production takes place exclusively at the German sites in Atten-dorn (headquarters) and Ennest. However, to guarantee the worldwide availability of our aquatherm pipes at any time and to offer local, personal service, aquatherm works closely together with long-term partners and suppliers in about 70 countries around the globe.

The family business is now managed by Maik Rosenberg, son of aquatherm founder Gerhard Rosenberg, and Jan Kriedel.

Future-proof in all fields of application with individual solutions

aquatherm has the solution for your challenge
- benefit from the versatile application possibilities of aquatherm blue systems.

Here you get an exemplary overview of the fields of application where you can trust in aquatherm blue. Yesterday. Today. Tomorrow.



heating and cooling



Maritime applications



Swimming pool technology



Heating system construction



Industrial floor heating



Refrigeration



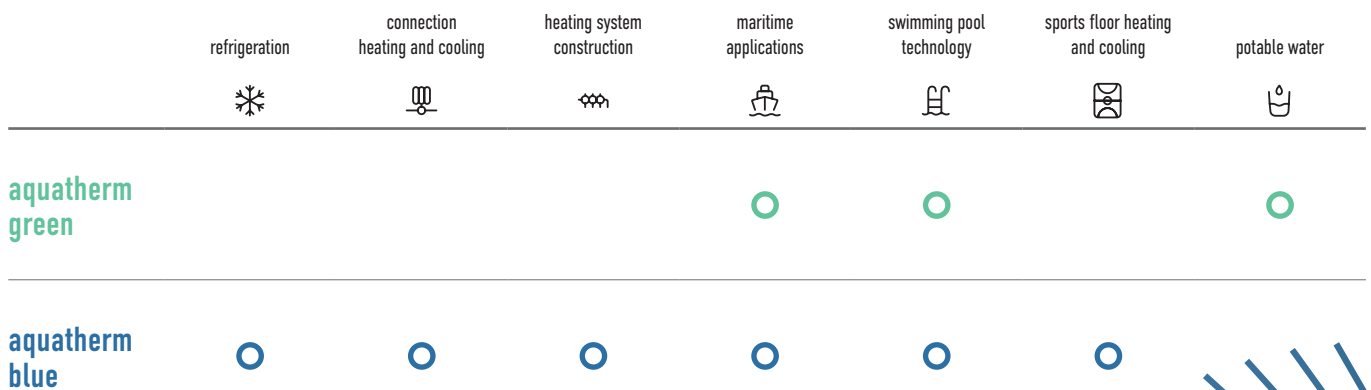
Sports floor heating
and cooling



Liquid cooling of data centres

Fields of applications

Areas of application include heating system construction as well as refrigeration and air conditioning technology - you can find all areas of application here:





Polypropylene pipe systems

The history of the aquatherm pipe systems began in 1973 when Gerhard Rosenberg founded a company for hot water underfloor heating systems. Initially, the owner's garage and basement served as the company's headquarters and production facility. A lot has happened since then.

In the past 50 years, aquatherm has proven to be the world's leading manufacturer of plastic pipe systems made of polypropylene for plant engineering and building services.

The numerous product lines provide superior solutions in potable water applications, heating systems, fire sprinkler systems, air conditioning and refrigeration technology, as well as in surface heating and cooling systems. The product range comprises almost 17,000 articles in six product lines.

Due to their special material properties, the aquatherm pipe systems convince by their diverse application possibilities. The aquatherm pipe systems can be used in all areas of new installation, repair and renovation.





Characteristics

aquatherm polypropylene pipe systems stop corrosion damages. All materials are corrosion-resistant and have reduced flow noise compared to metallic pipes. aquatherm pipes are opaque, therefore there is no risk of algae formation.

Installation

aquatherm pipes and fittings are connected by heat fusion, which creates a homogeneous, cohesive unit with no leak paths. Heat fusion connections are stronger than the pipe itself, providing lasting safety at these critical points of a piping system. A properly executed aquatherm fusion creates a permanent leak-proof connection. An aquatherm pipe with an outside diameter of 20 mm can be heat fused in only 5 seconds.

aquatherm pipe connections can be hydraulic pressure tested or put into operation directly after their fusion. There are no waiting times.

Quality

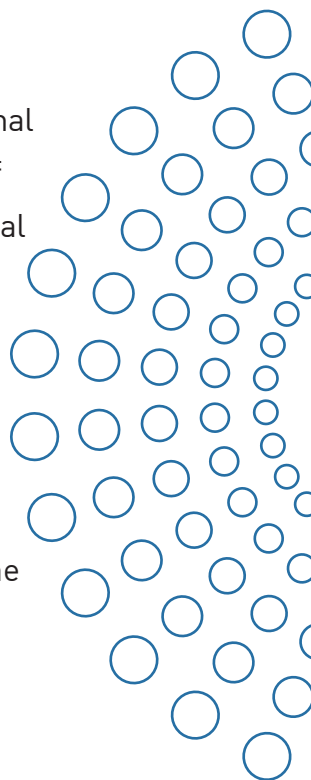
Quality is very important to aquatherm. This is not only reflected in the national and international certification marks, but also in the high satisfaction level of aquatherm customers, installers and engineers. You can find our international certificates here: [Certificates](#)

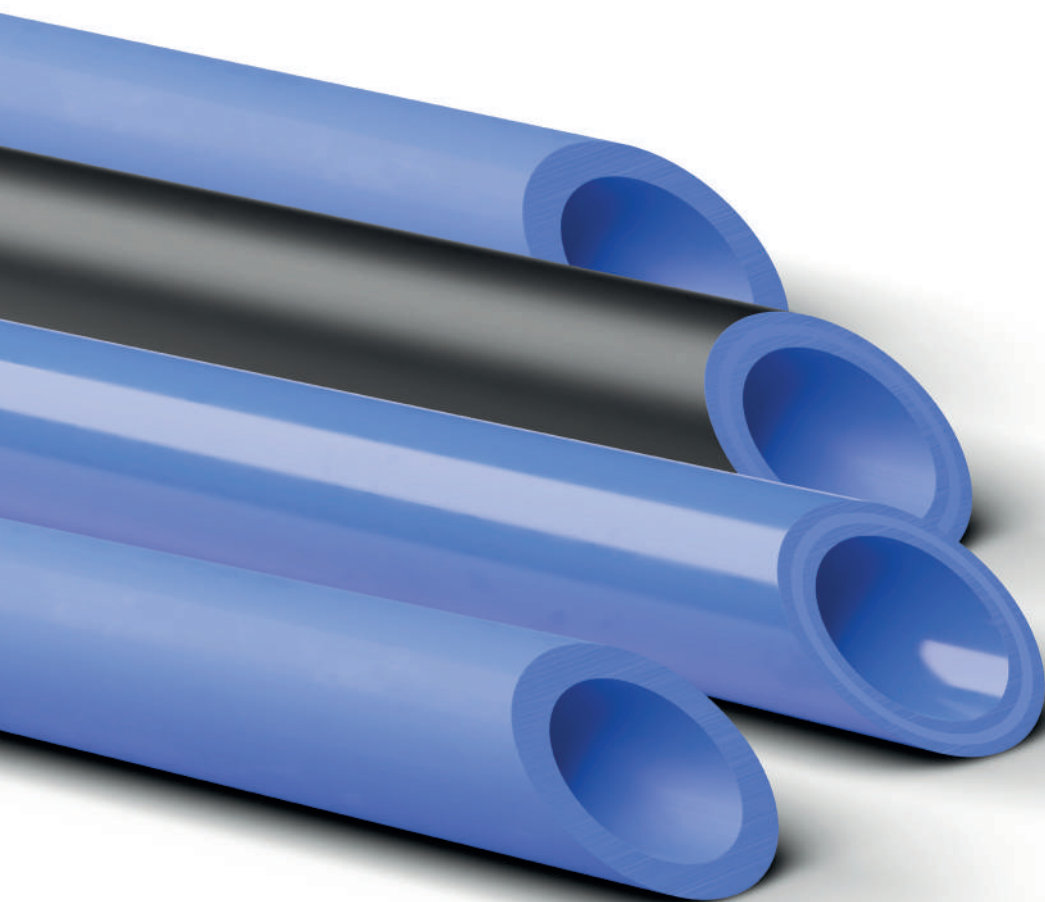
Warranty

Due to the high product quality, aquatherm offers a 10-year warranty on all pipes and fittings instead of the 2 years applicable under German law. The extended warranty period is covered by a comprehensive insurance policy from a leading insurance company in our industry. For details, see the Warranty section of this catalogue.

Price advantage

aquatherm offers you high quality, durable piping systems at an optimal price/performance ratio.





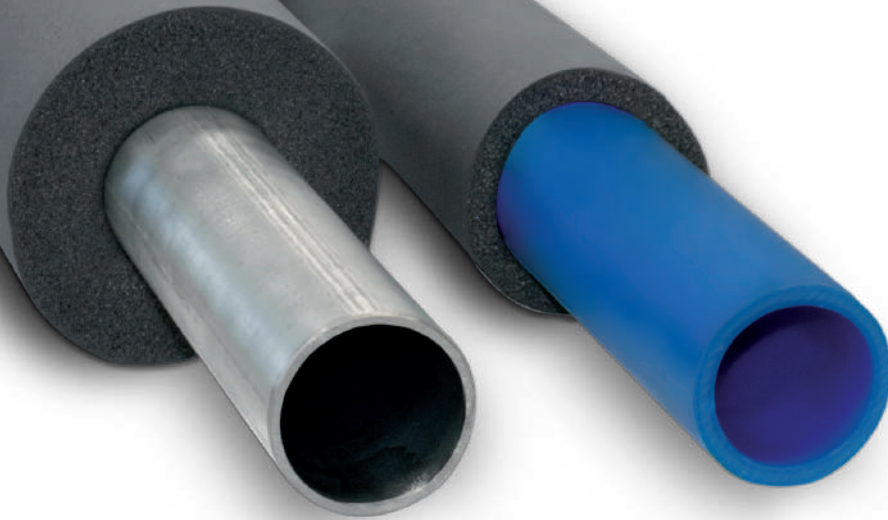
AQUATHERM BLUE

Made of corrosion-resistant polypropylene, aquatherm blue is ideal for the transport of cooling and heating media in closed systems. It is particularly well suited for a wide variety of industrial applications. The physical properties of the plastic, such as its high temperature capacity and pressure resistance, are tailored to the specific needs of the heating and cooling sector. aquatherm blue is joined via reliable heat fusion, which produces a virtually leak-free and cohesive unit with excellent safety and durability.

System components

In combination with the aquatherm green pipe fittings, the system provides all components required for the piping installation of air conditioning, refrigeration, heating systems, and industrial applications. The dimensions range from 20 mm to 630 mm outside diameter.

- Pipes in straight lengths and/or coils
- Fittings
- Flanged joints
- Water point connections and accessories
- Welding devices and machines
- Weld-in and weld-on saddles
- Manifolds
- Shut-off devices
- Installation guide and fastenings
- Transition joints from polypropylene to metal, or from metal to polypropylene



Insulation against energy loss

Due to their low thermal conductivity of 0.15 W/mK, aquatherm blue pipes require significantly less insulation against cold/heat loss or condensation formation when temperatures fall below the dew point compared to metal pipes.



AQUATHERM BLUE

stops corrosion damages

Steel pipes used in air conditioning systems can corrode on the inside if the corrosion protection is damaged. With aquatherm

polypropylene piping systems, there is no corrosion damage, as plastic is corrosion-resistant due to its material properties.

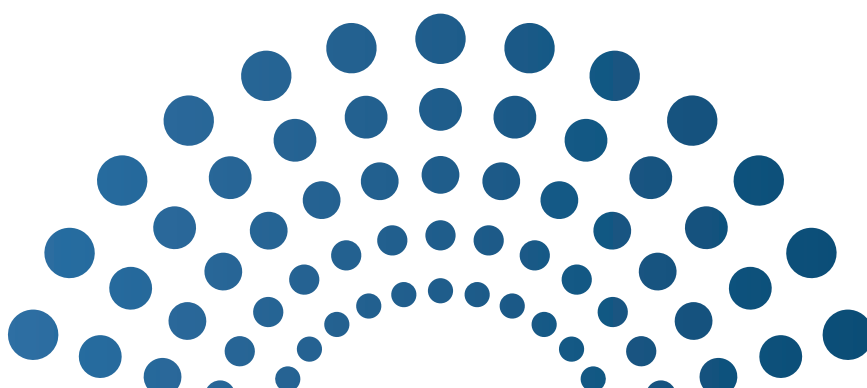
aquatherm blue
Product types



AQUATHERM BLUE – Overview

We offer aquatherm blue in different pipe constructions.

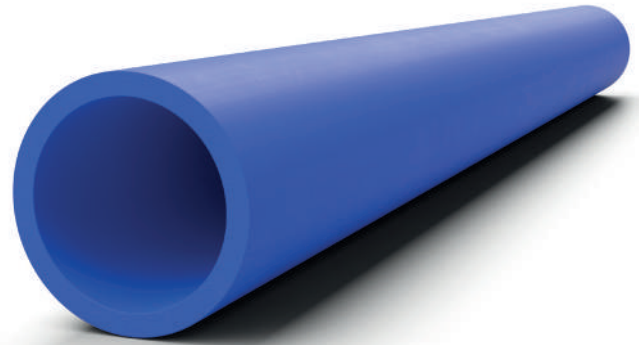
	SDR 7.4	SDR 9	SDR 11	SDR 17.6
aquatherm blue S			○	
S = single / single layer			ø: 20–32 mm	
aquatherm blue MF	○			
MF = multi-layer and fibre-reinforced composite pipe	ø: 20–25 mm			
aquatherm blue MF UV	○			
MF UV = multi-layer and fibre-reinforced composite pipe, UV-resistant	ø: 20–25 mm			
aquatherm blue MF OT	○			
MF OT = multi-layer and fibre-reinforced composite pipe with diffusion barrier - oxygen tight	ø: 20–25 mm			
aquatherm blue MF RP		○	○	○
MF RP = multi-layer and fibre-reinforced composite pipe, raised pressure resistant		ø: 32 mm	ø: 40–450 mm	ø: 125–630 mm
aquatherm blue MF RP UV		○	○	○
MF RP UV = multi-layer and fibre-reinforced composite pipe, UV-resistant, raised pressure resistance		ø: 32 mm	ø: 40–450 mm	ø: 160–630 mm
aquatherm blue MF RP OT		○	○	
MF RP OT = multi-layer and fibre-reinforced and composite pipe, oxygen tight, raised pressure resistance		ø: 32 mm	ø: 40–450 mm	





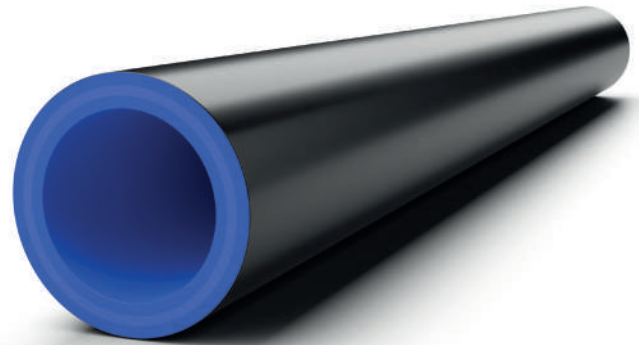
AQUATHERM BLUE S

Single-layer pipes are particularly suitable for use in cold water installations (medium temperature up to 45°C).



AQUATHERM BLUE UV

Pipes made of fusiolen® are normally not exposed to the effects of UV rays when installed. To bridge the transport and installation time, aquatherm polypropylene pipes and fittings are packed UV-protected. The maximum storage time outdoors is 6 months. For outdoor pipe installation, aquatherm offers polypropylene multilayer pipes with a UV-layer of polyethylene. This prevents the occurrence of damaging influences by sun rays.



UV-ADHESIVE TAPE

As an alternative to our polypropylene pipes with UV protection layer, wrapping with UV-resistant adhesive tape is possible, if moulded parts or short pipe sections are to be protected. For this purpose, the adhesive tape recommended by aquatherm (art. no. 9700010871) should be selected, which shows good resist-

ance to abrasion, moisture, oils, light acids and alkalis as well as weather influences outdoors. The tape should always be applied to a dry, clean and grease-free surface. The winding should be done with a slight pull and at least 50 % overlap.

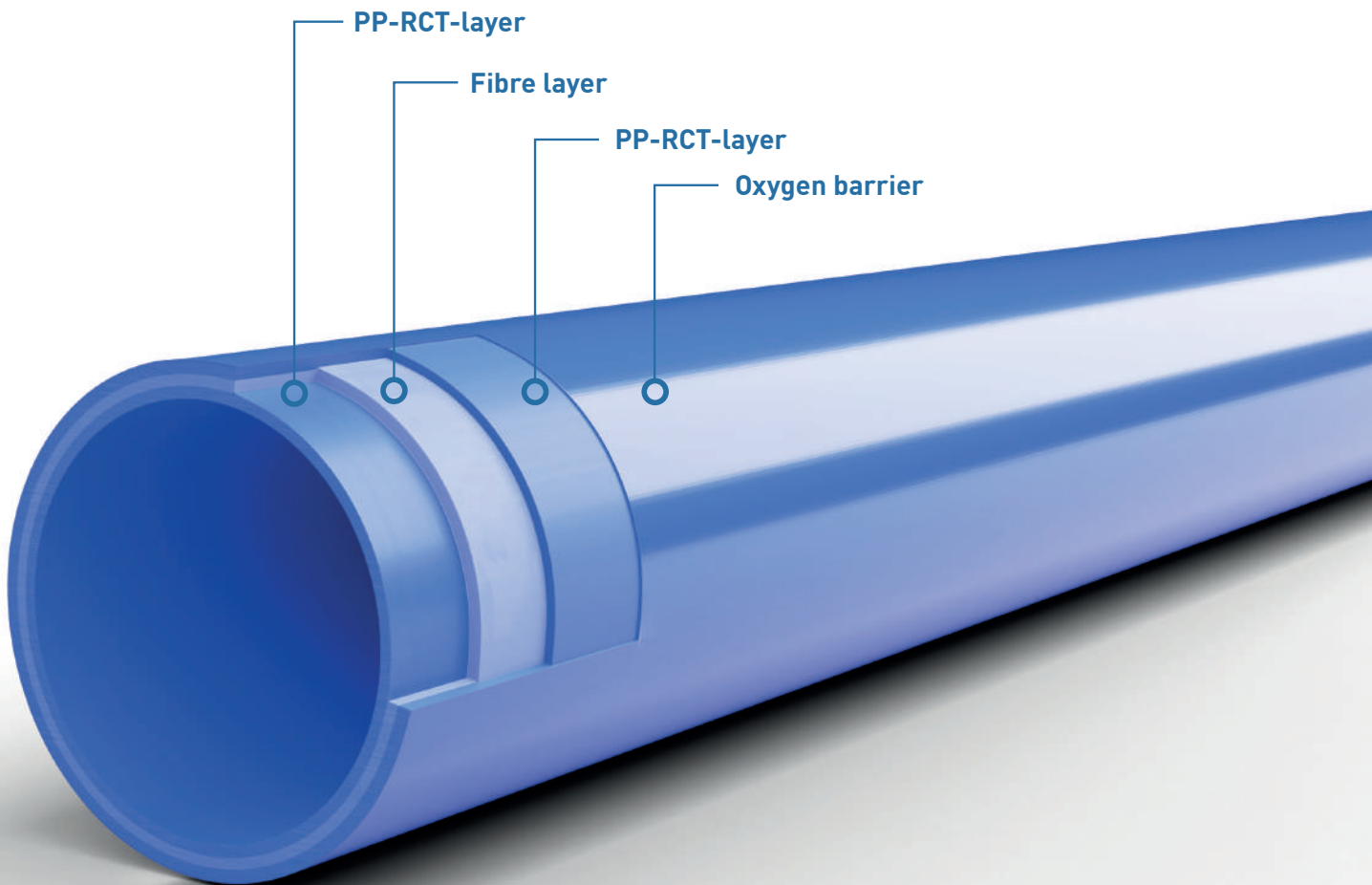
AQUATHERM BLUE OT

aquatherm blue OT is an fibre reinforced, oxygen-tight pipe that is equipped with an oxygen barrier and thus meets the requirements of DIN 4726.

Easy and quick installation technology

aquatherm blue OT also convinces by its easy but effective installation and connection technology. The pipe end and the connecting part are heated up. After joining, the two elements create a permanent bond. aquatherm blue OT has to be peeled with peeling tools (art. no. 9800050479–9800050488) before processing.

- Oxygen-tight by diffusion barrier
- Certified according to DIN 4726
- Absolutely corrosion resistant
- Less pipe friction
- High stability
- High heat-stability
- High environmental compatibility
- High impact rate
- Resistant against chemicals
- Heat and sound insulating characteristics
- Very good welding properties
- Considerably thinner insulation



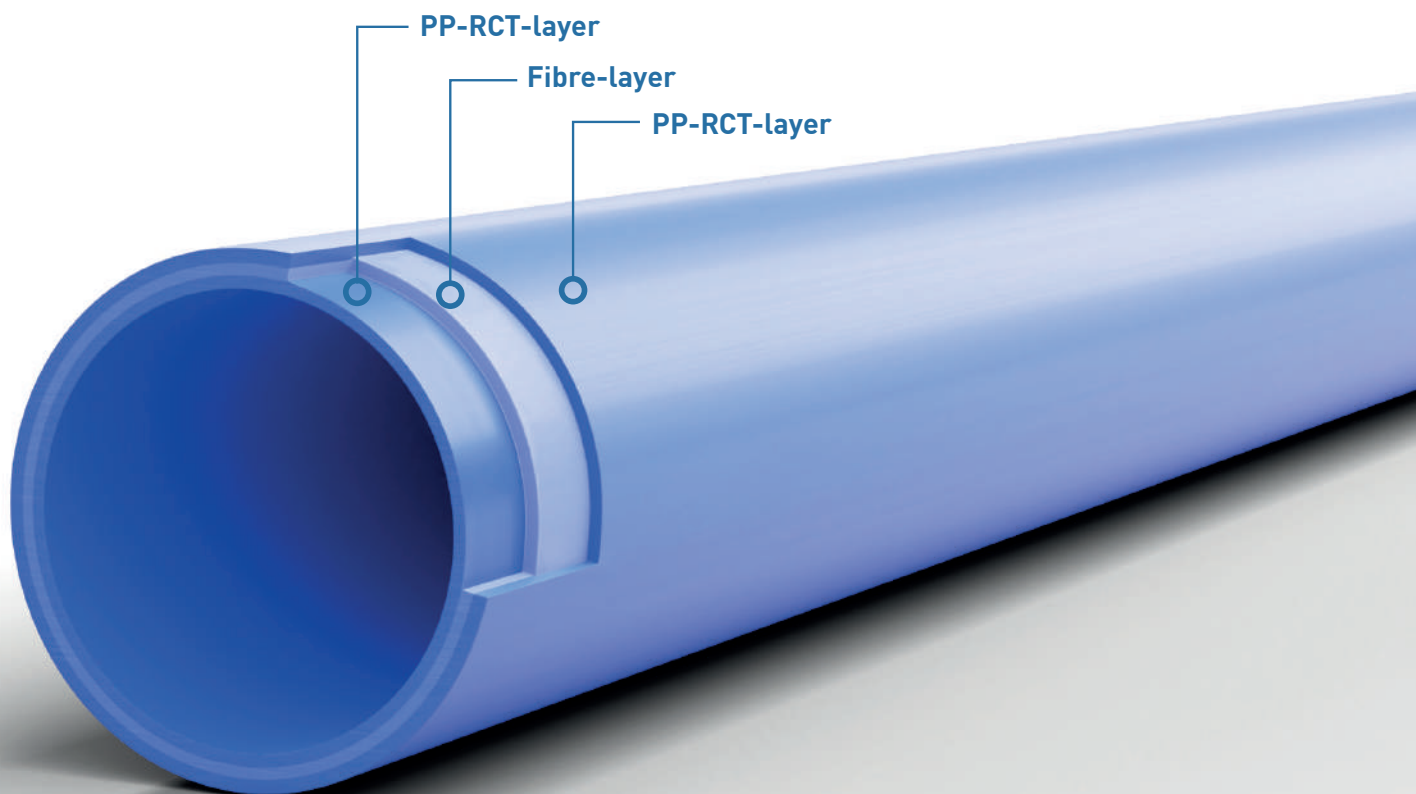


AQUATHERM BLUE MF

aquatherm blue MF is a multi-layer fibre-composite pipe. The pipe is made in a multi-layer extrusion process.

The manufacturing process developed by aquatherm enables the integration of glass fibres within the material polypropylene in the middle layer of the pipe. This reinforces the pipe and restricts expansion and contraction.

- The linear expansion is reduced by at least 75 % compared with standard PP pipes.
- The flow rate is increased by 20 % at the same pressure conditions due to smaller wall thicknesses.
- High stability
- The coefficient of linear expansion is nearly identical to that of metal pipes so that compared with usual plastic pipes the support intervals.
- Lower weight
- High impact rate
- Simply cut and weld





Permissible working pressure for general pressure pipe applications in permanent operation

Years of service	aquatherm blue SDR 17.6 MF RP	aquatherm blue SDR 11 MF RP	aquatherm blue SDR 11 S	aquatherm blue SDR 9 MF RP
at temperature up to 10 °C (50 °F)				
10	13.1 bar	25.3 bar	19.3 bar	27.5 bar
25	12.9 bar	24.7 bar	18.7 bar	27.1 bar
50	12.7 bar	24.1 bar	18.2 bar	26.7 bar
100	12.6 bar	23.5 bar	17.8 bar	26.3 bar
at temperature up to 15 °C (59 °F)				
10	12.3 bar	23.4 bar	17.8 bar	25.7 bar
25	12.1 bar	22.8 bar	17.2 bar	25.2 bar
50	11.9 bar	22.2 bar	16.8 bar	24.9 bar
100	11.7 bar	21.6 bar	16.3 bar	24.5 bar
at temperature up to 20 °C (68 °F)				
10	11.4 bar	21.4 bar	16.4 bar	23.9 bar
25	11.2 bar	21.0 bar	15.9 bar	23.5 bar
50	11.0 bar	20.4 bar	15.4 bar	23.1 bar
100	10.9 bar	19.9 bar	15.0 bar	22.8 bar
at temperature up to 30 °C (86 °F)				
10	9.8 bar	18.3 bar	13.9 bar	20.6 bar
25	9.6 bar	17.8 bar	13.4 bar	20.2 bar
50	9.5 bar	17.3 bar	13.0 bar	19.9 bar
100	9.4 bar	16.8 bar	12.7 bar	19.7 bar
at temperature up to 40 °C (104 °F)				
10	8.4 bar	15.5 bar	11.8 bar	17.7 bar
25	8.3 bar	15.0 bar	11.3 bar	17.3 bar
50	8.1 bar	14.6 bar	11.0 bar	17.1 bar
100	8.0 bar	14.1 bar	10.7 bar	16.8 bar
at temperature up to 50 °C (122 °F)				
10	7.2 bar	13.0 bar	9.9 bar	15.1 bar
25	7.0 bar	12.6 bar	9.5 bar	14.7 bar
50	6.9 bar	12.2 bar	9.2 bar	14.5 bar
100	6.8 bar	11.9 bar	9.0 bar	14.3 bar
at temperature up to 60 °C (140 °F)				
10	6.1 bar	10.9 bar	8.3 bar	12.7 bar
25	5.9 bar	10.6 bar	8.0 bar	12.4 bar
50	5.8 bar	10.3 bar	7.7 bar	12.2 bar
at temperature up to 70 °C (158 °F)				
10	5.1 bar	8.5 bar	7.0 bar	10.7 bar
25	5.0 bar	8.3 bar	6.0 bar	10.4 bar
50	4.9 bar	8.1 bar	5.1 bar	10.2 bar
at temperature up to 75 °C (167 °F)				
10	4.6 bar	7.7 bar	6.0 bar	9.7 bar
25	4.5 bar	7.6 bar	4.8 bar	9.5 bar
50	4.4 bar	7.3 bar	4.0 bar	9.3 bar
at temperature up to 80 °C (176 °F)				
5	4.3 bar	7.2 bar	5.7 bar	9.0 bar
10	4.2 bar	7.0 bar	4.8 bar	8.9 bar
25	4.1 bar	6.8 bar	3.9 bar	8.6 bar
at temperature up to 90 °C (194 °F)				
5	3.5 bar	5.9 bar	3.7 bar	7.4 bar
10	3.4 bar	5.8 bar	3.2 bar	7.3 bar

SDR = Standard Dimension Ratio
(diameter/wall thickness ratio)

S = single-layer

MF = multi-layer fibre

MF RP = multi-layer fibre – raised pressure
resistance

For fittings of butt-welded pipe segments a reduction factor of 0.75 (reduction of the table values by 25 %) is effective.



aquatherm blue
**Characteristics and
special features**



Material fusiolen®

aquatherm blue is made of corrosion-resistant material. This makes it particularly suitable for applications with high durability requirements, such as in air-conditioning systems.

Due to the exceptionally welding properties, the pipe and fitting merge into a homogeneous, cohesive unit. This is what has made the material fusiolen® famous worldwide.



The advantages of aquatherm pipes and fusiolen® polypropylene

- Corrosion resistant
- Resistant against many chemicals
- High environmental compatibility
- Heat and sound insulating characteristics
- Very good welding properties
- High heat-stabilised
- Designed for high thermal stability
- Lighter in weight than steel and copper
- Easy processing
- Up to 100% recyclable



Our material fusiolen® Polypropylene

Decades of experience in the manufacture and use of PP-R/PP-RCT piping systems and the simultaneous striving for continuous further development have led to numerous improvements in aquatherm system technology.

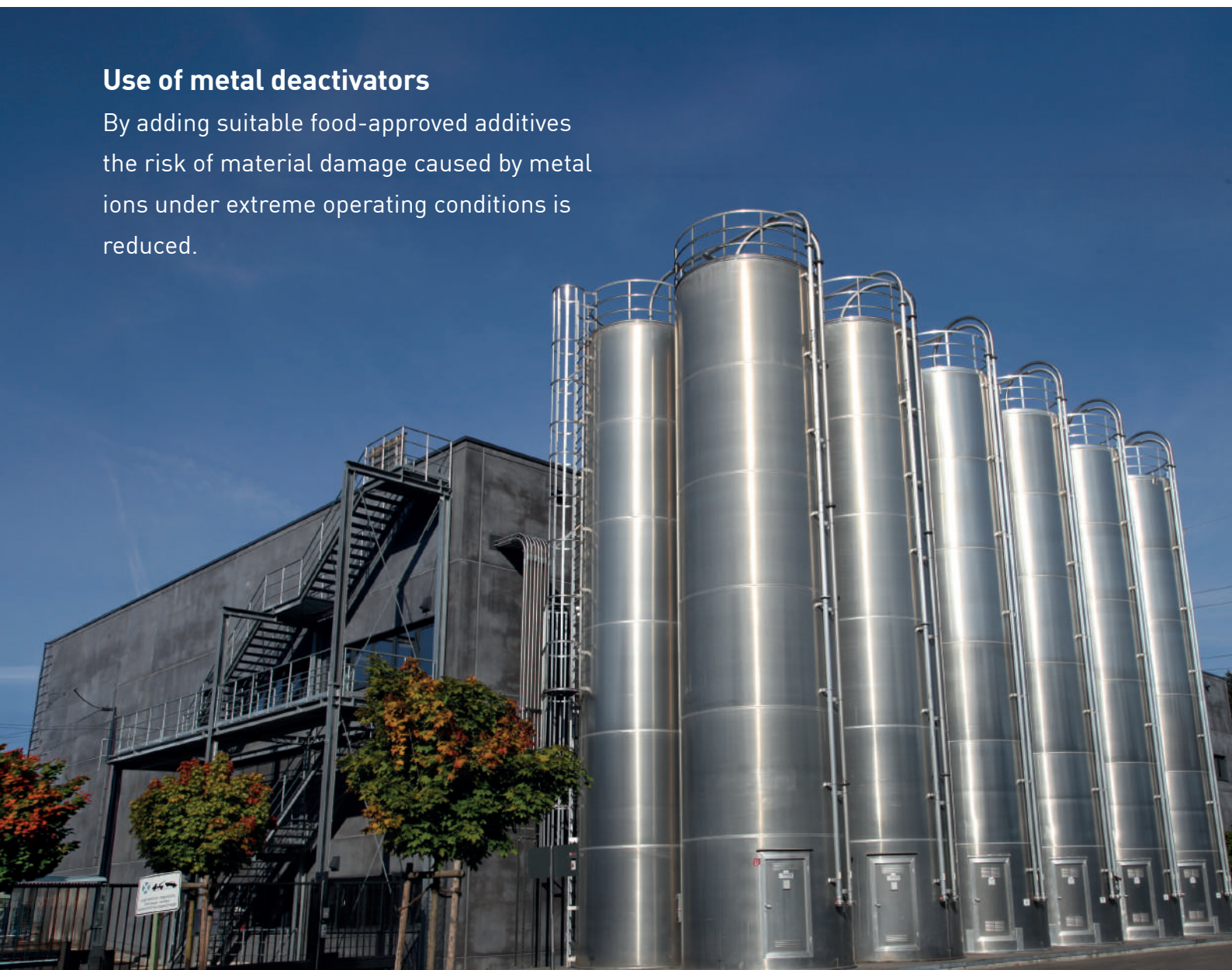
Newly opened markets place ever increasing demands on the pipe material. Versatile applications require the greatest possible independence of the processed materials. Raw materials with novel properties that could not be achieved until then are required.

For this reason, aquatherm has been developing and producing its own innovative polypropylene materials for several years, which meet the global challenges in sanitary and heating technology, air conditioning and refrigeration technology, industrial applications and agriculture, shipbuilding and fire protection.

Successful results of this research are fusiolen® PP-R, fusiolen® PP-RCT and fusiolen® PP-R FS.

Use of metal deactivators

By adding suitable food-approved additives the risk of material damage caused by metal ions under extreme operating conditions is reduced.





Environment

The polypropylene material fusiolen® PP-T/-RCT can be recycled up to 100 % if the appropriate technical infrastructure is in place.

A comparative life cycle analysis with steel and PVC pipes has shown that aquatherm blue pipes have a lower environmental impact: for example, lower greenhouse gas emissions, a lower acidification potential or a lower ozone depletion potential.

Higher long-term heat stabilisation

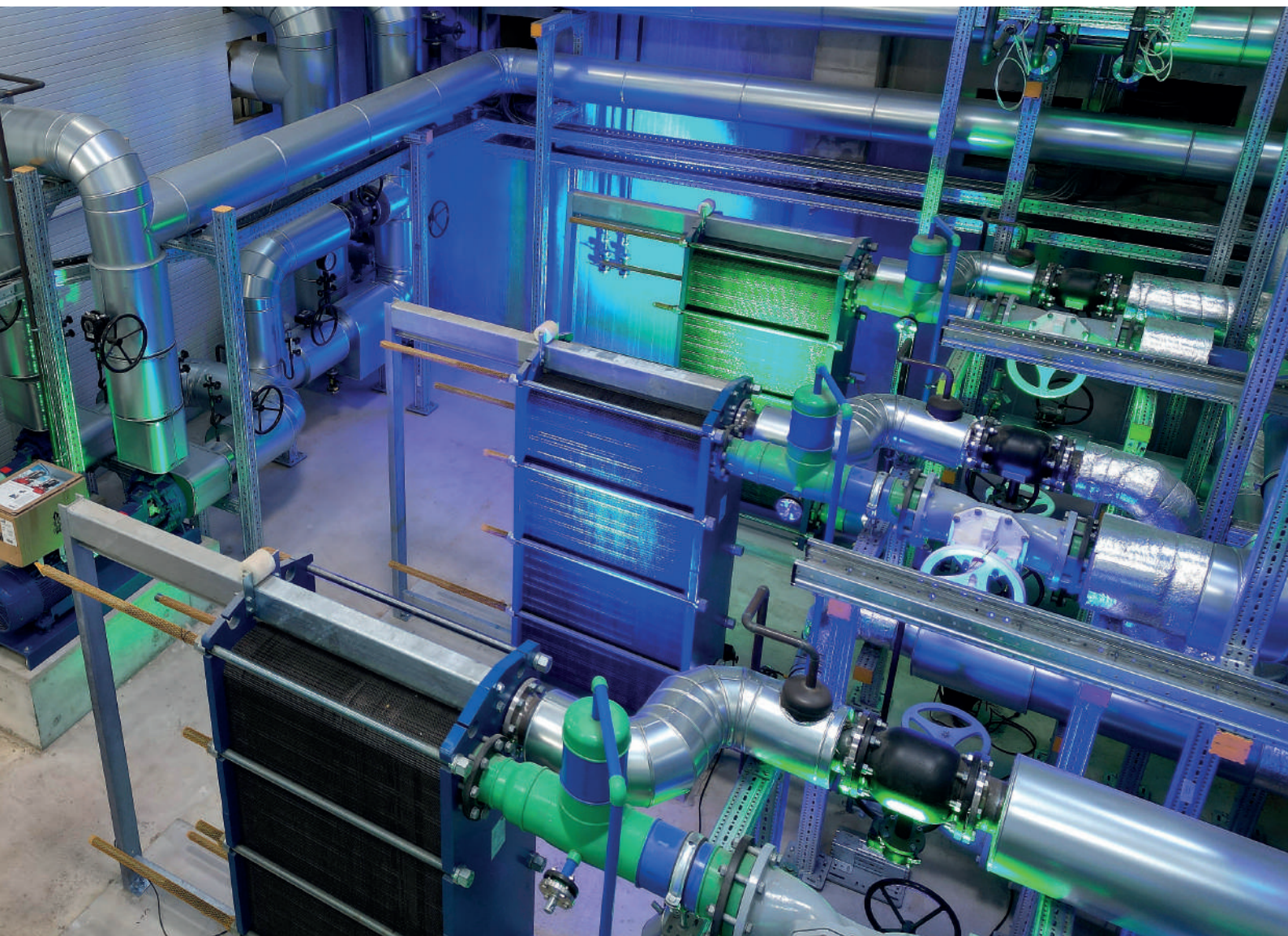
The long-term heat stabilisation was increased in order to be able to counteract possible influences of the peak temperatures occurring during operation.

Material properties

The extrapolated service life of aquatherm PP-RCT pipes is more than 50 years. Peak temperatures of 100 °C arising from short disruptions are unproblematic. Permanent temperatures from 70 °C up to 90 °C reduce the service life of the pipe.

(see table "Permissible Working Pressure")

 Permissible working pressure





Involvement in the DGNB

aquatherm is a member of the German Sustainable Building Council (DGNB e.V.). The DGNB is a non-profit organisation that develops certification systems and assessment criteria for buildings and neighbourhoods, with the aim of raising public awareness. Through its membership, aquatherm contributes to the professional exchange of ideas on criteria and solutions for future-oriented construction.

Polypropylene stands out

The European Plastic Pipe Association TEPPFA analysed the environmental impact of plastic pipe systems as part of its EPD project. The result: plastic pipe systems leave a smaller ecological footprint than pipe systems made of other materials.

Polypropylene pipe requires up to 60% less energy to manufacture than metal piping and weighs up to 85% less. Furthermore, polypropylene is fully recyclable (Source: Cradle-to-Grave Study – Competing Piping Systems).

Innovative fibre-reinforced pipes

As early as 1999, we developed the first fibre-reinforced composite pipe, thereby laying the foundations for a new and innovative generation of plastic piping systems. Today, our fibre-reinforced composite pipes are used in a wide range of applications within heating, cooling and drinking water systems.

Technical data sheet

Technical properties	fusiolen® PP-R	fusiolen® PP-R/ PP-RCT fibrepipe
Melt-flow index 190 °C/5 kg	0.5 g/10 min.	0.5 g/10 min.
Melt-flow index 230 °C/2.16 kg	0.3 g/10 min.	0.3 g/10 min.
Modulus of elasticity	800 N/mm ²	1200 N/mm ²
Yield stress	25 N/mm ²	30 N/mm ²
Density	0.9 g/cm ³	1.0 g/cm ³
Tensile strength	25 MPa	35 MPa
Inflammation temperature	430–450 °C	490–500 °C
Thermal expansion coefficient	1.5 *10 ⁻⁴ K ⁻¹	0.35 *10 ⁻⁴ K ⁻¹
Coefficient of thermal conduction	0.15 W/mK (measured against the pipe)	0.15 W/mK (measured against the pipe)
Coefficient of friction in pipes	0.007	0.007
Bending radius	6 x d	
Water absorption	< 0.02 %	< 0.02 %
Electrical properties	fusiolen® PP-R	fusiolen® PP-R/ PP-RCT fibrepipe
Relative permittivity	2.3 (in case of 1 MHz)	2.3 (in case of 1 MHz)
Puncture voltage	500 kV/cm	500 kV/cm
Specific resistance	> 10 ¹⁷ Ω cm	> 10 ¹⁷ Ω cm
Surface resistance	10 ¹⁴ Ω	10 ¹⁴ Ω
Dissipation coefficient	0.0002 (in case of 50 Hertz)	0.0002 (in case of 50 Hertz)

aquatherm Environmental Product Declaration

The key to a sustainable construction industry

Climate change is one of the greatest challenges of our time. The main problem is CO₂ emissions: they enter the atmosphere and intensify the greenhouse effect, causing the Earth's temperature to rise. Many organisations and companies have recognised that action is needed.

The concept of sustainability has also taken hold in the construction industry; after all, this sector is responsible for 36 % of global energy consumption and 39 % of energy- and process-related CO₂ emissions. But how can one determine how sustainable a product is? Environmental Product Declarations provide the answer.

What is an Environmental Product Declaration?

An Environmental Product Declaration (EPD) describes the environmental impact of a product or service on the environment. It records the consumption of resources and emissions over the entire life cycle of the product - from the extraction of raw materials to disposal- and quantifies and evaluates them.

Therefore, an Environmental Product Declaration offers the possibility to compare different products with each other.

In the Environmental Product Declaration, the characteristics of a product are identified neutrally using internationally recognised standards. A precise methodology according to ISO 14025 and EN 15804 is followed, and all values are checked by independent third parties regarding their completeness, plausibility, and conformity with standards.

However, the EPD is not a certificate, i.e. there are requirements placed on the quality and format of the data, but not on the quality of the product. For the building sector, it forms an important basis for the ecological assessment of buildings.



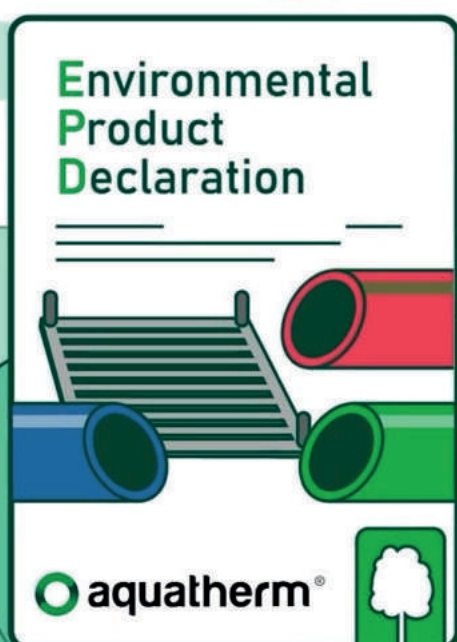


What are Product Category Rules?

To be able to evaluate functionally similar products in the same way and in the context of an Environmental Product Declaration, Product Category Rules (PCRs) are used. These are a set of specific rules, requirements or guidelines according to which products are classified into groups. Product Category Rules exist, for example, for thermal insulation materials, windows and doors, or building piping systems.

What is a Life Cycle Assessment?

The aim of a Life Cycle Assessment (LCA) is not only to provide environmentally relevant data on specific products, but also to estimate potential environmental issues which then can assist in making a decision for or against a particular product. The basis of the Life Cycle Assessment is the life cycle of a product. It consists of different phases: Raw material extraction, material production, use, waste treatment and final disposal. All environmental inputs and outputs are listed. In other words, everything that flows into and out of the product is measured. These can be raw materials or resources, different types of energy, water or emissions into the air, soil or water.

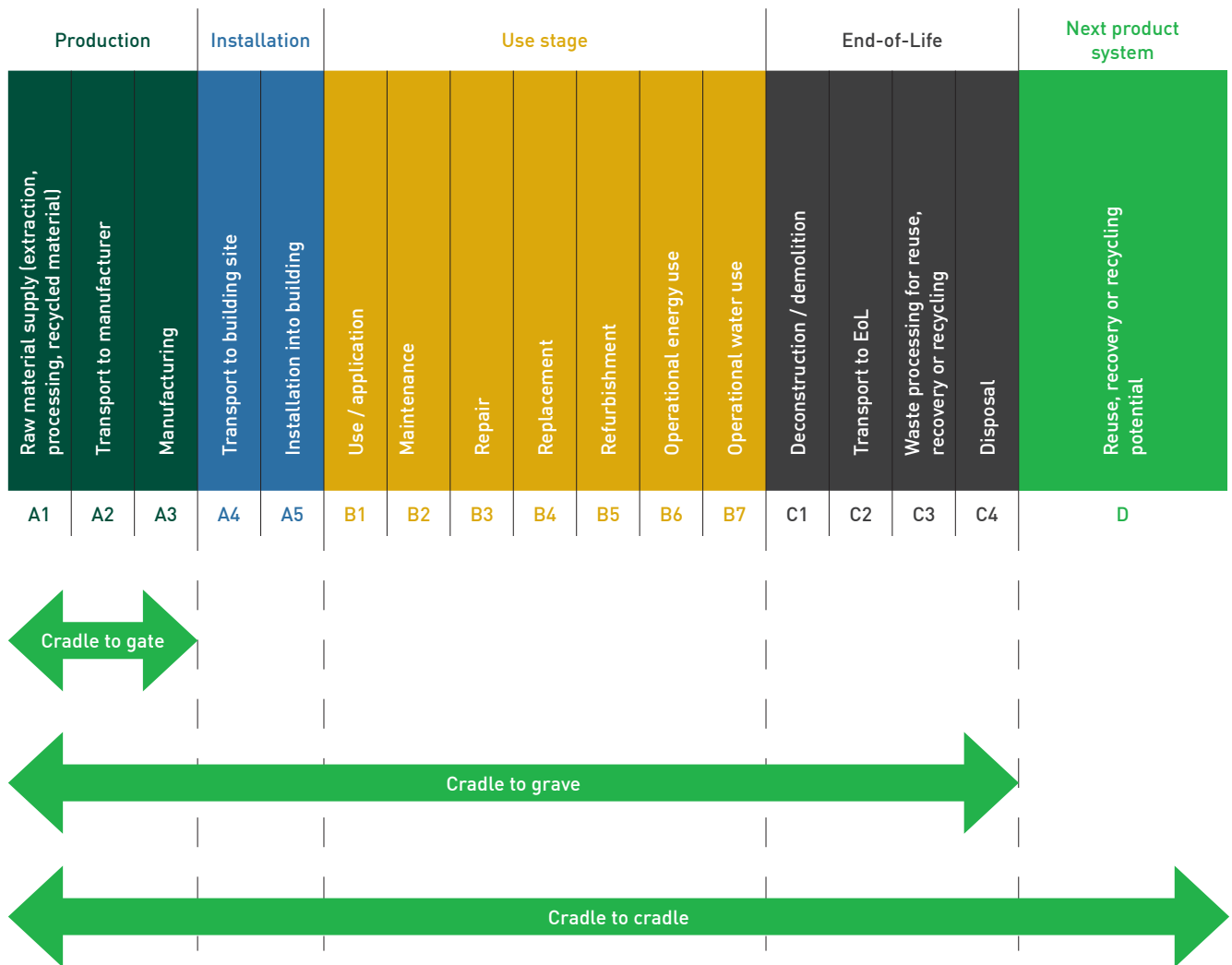




What does the product life cycle include?

A life cycle assessment considers either the entire life cycle of a product or parts of it.

Therefore, there are three different approaches to assessing the product life cycle:



- 1) Cradle to grave
- 2) Cradle to gate
- 3) Cradle to cradle



What are the environmental impact indicators?

Life Cycle Assessments provide information on the potential environmental impact of a product (or service). EN 15804+A2 defines 13 core Environmental Impact Indicators that must be reported in an Environmental Product Declaration, along with six additional optional indicators.

Core indicators according to EN 15804+A2:

Core indicator	Unit
GWP-total	kg CO ₂ -Äq.
GWP-fossil	kg CO ₂ -Äq.
GWP-biogenic	kg CO ₂ -Äq.
GWP-luluc	kg CO ₂ -Äq.
ODP	kg CFC11-Äq.
AP	mol H ⁺ -Äq.
EP-freshwater	kg PO ₄ -Äq.
EP-marine	kg N-Äq.
EP-terrestrial	mol N-Äq.
POCP	kg NMVOC-Äq.
ADPE	kg Sb-Äq.
ADPF	MJ
WDP	m ³ World-Äq. withdrawn

Additional impact categories according to EN 15804+A2-optional:

Indicator	Unit
PM	cases of illness
IR	kBq U235-Äq.
ETP-fw	CTUe
HTP-c	CTUh
HTP-nc	CTUh
SQP	-

How reliable is an Environmental Product Declaration?

Neutral and in accordance with internationally recognised standards: This is how the characteristics of a product are recorded in an Environmental Product Declaration. The exact methodology follows ISO 14025 and EN 15804, and all values are verified by independent third parties. The Environmental Product Declaration is valid for a period of five years. If there are changes in the manufacture of the product during this period, leading to major deviations from the previous values, a review must be carried out.

Legend

GWP = Global warming potential
 ODP = Stratospheric ozone depletion potential
 AP = Acidification potential of soil and water
 EP = Eutrophication potential
 POCP = Potential for formation of tropospheric ozone
 ADPE = Potential for depletion of abiotic resources - non-fossil resources (ADP - substances)
 ADPF = Potential for depletion of abiotic resources - fossil fuels (ADP - fossil fuels)
 WDP = Water depletion potential (users)

Legend

PM = Potential incidence of disease due to particulate matter emissions.
 IR = Potential effect from human exposure to U235
 ETP-fw = Potential toxicity comparison unit for ecosystem
 HTP-c = Potential toxicity comparison unit for humans (carcinogenic effect)
 HTP-nc = Potential toxicity comparison unit for humans (non-carcinogenic effect)
 SQP = Potential soil quality index



What advantages does the Environmental Product Declaration offer me?

Environmental Product Declarations enable companies, for example, to participate in public tenders or investors to have their building's sustainability systems, such as BREEAM, PUED or DGNB, in place. In addition, an Environmental Product Declaration forms the basis for the development and optimisation of sustainable products.

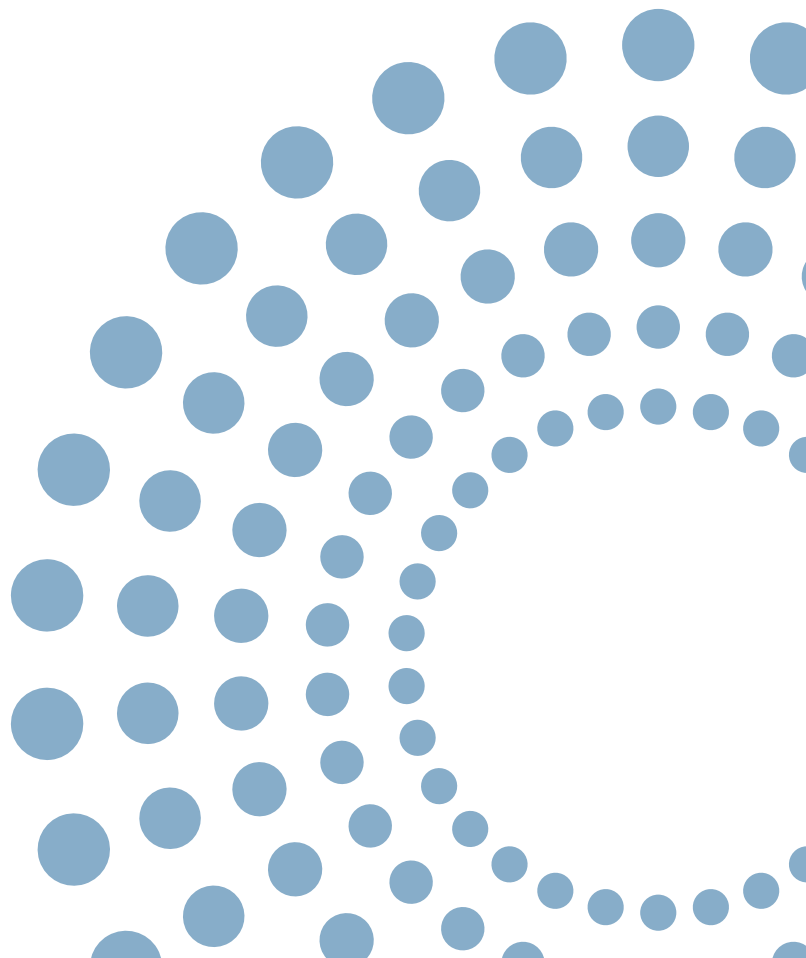
aquatherm Environmental Product Declaration

Environmental Product Declarations are important - for the construction industry, for us, and our customers. That is why we have had our products evaluated according to the „cradle to gate“ concept.

Our environmental product declarations are available in the downloads section for the following product groups:

 Sustainability

- aquatherm green/blue S/MF
- aquatherm red S/MF
- aquatherm black system
- aquatherm green/blue S/MF (OT)
- aquatherm green/blue S/MF (UV)
- aquatherm green/blue S/MF (ENERGY)





Fire protection

The aquatherm polypropylene pipe systems comply with the requirements of the fire classification B2 DIN 4102 (normal inflammable) DIN EN 13501 Klasse E. Compared to natural products like wood, cork or wool, aquatherm PP-R pipes do not produce any gas toxicity. In case of fire, there is no risk of dioxin emissions.

To avoid fire and smoke transmission, aquatherm advises the use of fire retardant seals. The fire resistance period is the minimum period in minutes.

The extent of the preventive measures depends on the type of installation. The determination of fire areas and fire classification has to be made in accordance with the law of the country. Information is given by the Planning Department and Building Control Office or the Fire Protection Representative.

Basically, fire walls and ceilings with pipe passages have to be installed to the same fire resistance classification. All fire protection systems with a corresponding classification are suitable for aquatherm polypropylene pipes.

The following companies offer suitable fire protection solutions:

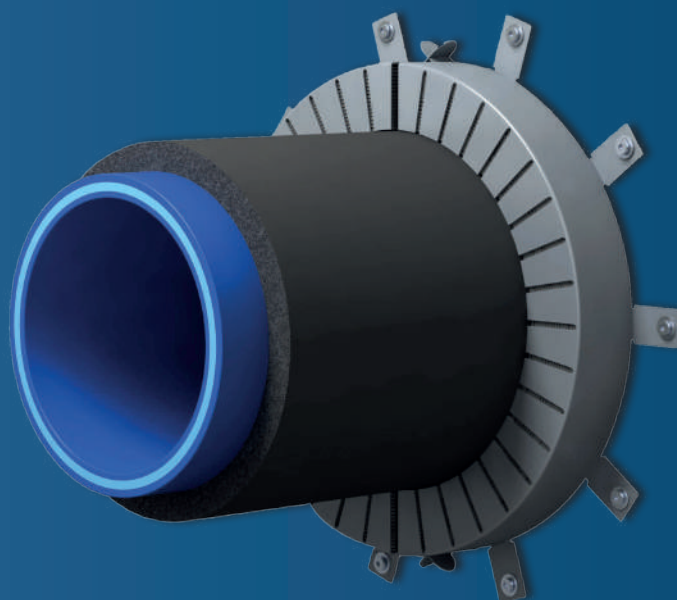
Fire protection pipe shell Conlit 150 U:

DEUTSCHE ROCKWOOL
GmbH & Co. KG
Rockwool Straße 37-41
45966 Gladbeck
Tel: +49 2043 408 0
www.rockwool.de

Hilti Deutschland AG
Hiltistrasse 2 · 86916 Kaufering
Tel: +49 800 888 · www.hilti.de

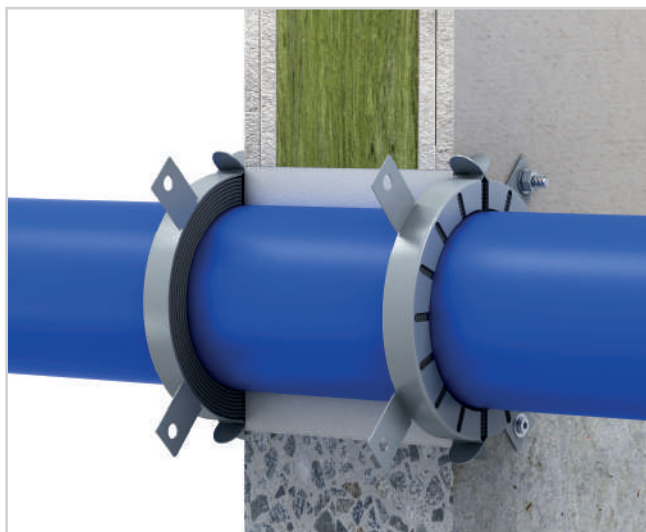
Fire protection sleeve AWM II:

Flamro Brandschutz
Vertriebs GmbH
Am Sportplatz 2
56291 Leiningen
Tel. +49 6746 9410-0
Mail: info@flamro.com
www.flamro.de

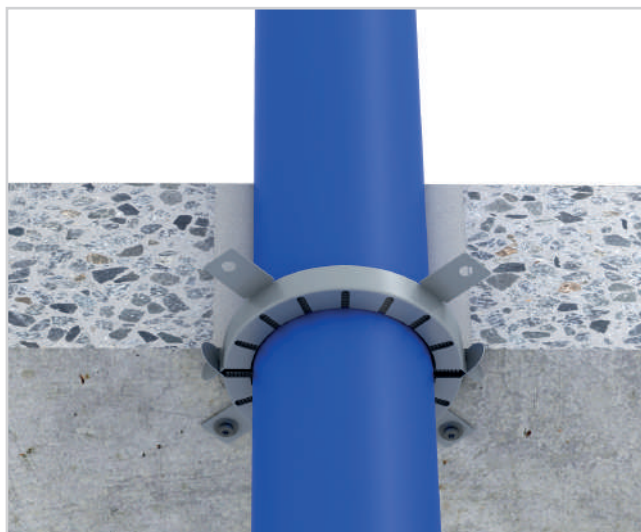




Roku System AWM II in the wall



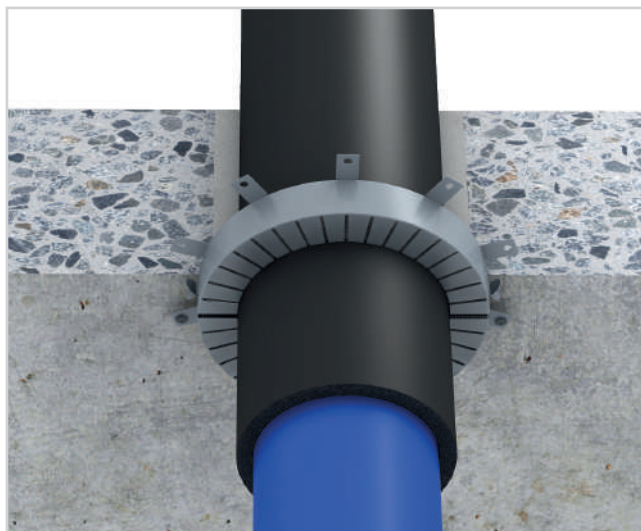
Roku System AWM II in the ceiling



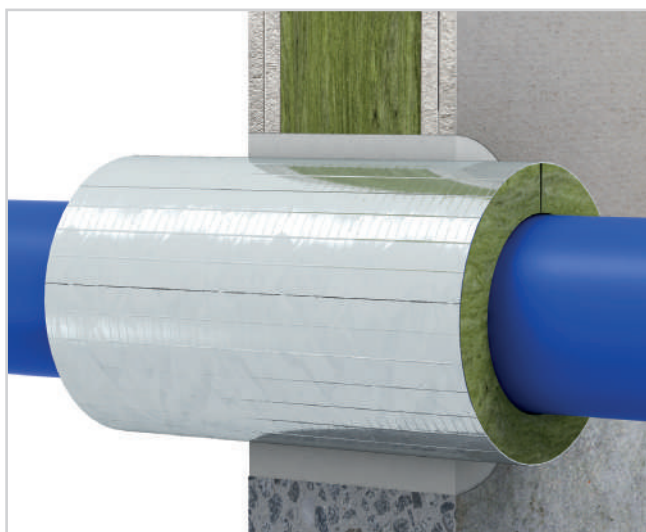
Roku System AWM II with synthesis rubber in the wall



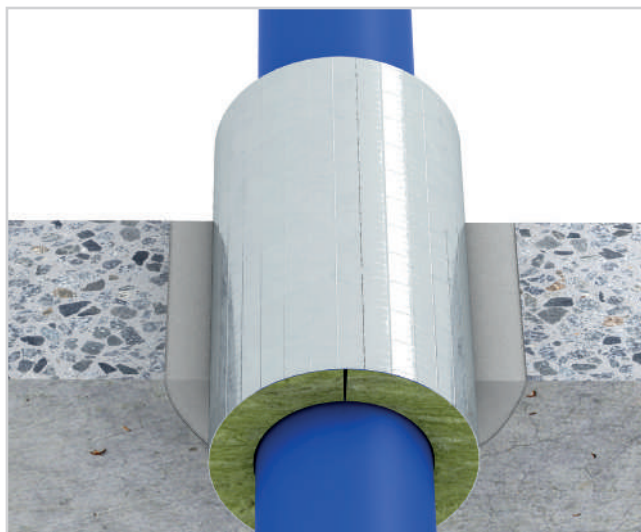
Roku System AWM II with synthesis rubber in the ceiling



Rockwool Conlit 150 U in the wall



Rockwool Conlit 150 U in the ceiling





Excerpt from the Rockwool planning and installation aid

R 30- to R 120-pipe penetrations for the aquatherm installation systems with non-combustible media, such as drinking water, heating and cooling.

Product name/
Material:

aqt. green PP-R

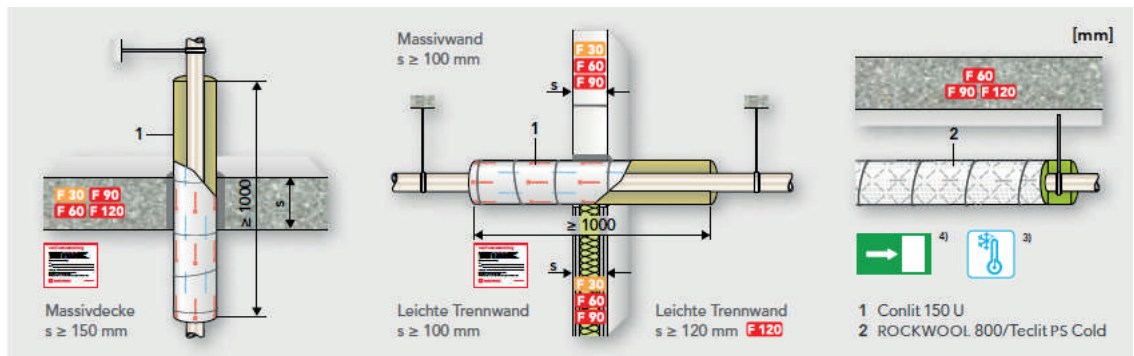
SDR 6 S,

SDR 7,4 S,

SDR 7,4 MF,

SDR 7,4 MF UV,

SDR 11 S



aqt. green PP-RCT

SDR 9 MF RP,

SDR 9 MF RP UV

System	Pipe dimension Outer diameter Da [mm]	Conlit 150 U				ROCKWOOL 800 Teclit PS Cold ³⁾		
		EnEV 50 % ¹⁾ di/d [mm]	Core drilling D _K [mm]	EnEV 100 % ¹⁾ di/d [mm]	Core drilling D _K [mm]	BSU ⁴⁾ d/d (mm)	EnEV 50 % ¹⁾ di/d [mm]	EnEV 100 % ¹⁾ di/d [mm]

aqt. blue PP-R

SDR 7,4 MF,

SDR 7,4 MF OT,

SDR 7,4 MF UV

SDR 11 S

pipes without OT
or UV layer

aquatherm green

aquatherm blue

aquatherm red

aquatherm black

aqt. blue PP-RCT

SDR 9 MF RP,

SDR 9 MF RP OT,

SDR 9 MF RP UV,

SDR 11 MF RP,

SDR 11 MF RP OT,

SDR 11 MF RP UV

pipes without OT
or UV layer

**aquatherm green
UV**

**aquatherm blue
OT + UV**

aqt. red PP-R (B1)

SDR 7,4, MF HI

Notes/special installation conditions

- 1) When used in combination with pipe firestop systems according to abP P P-3726/4140-MPA BS, the required minimum insulation thickness must be observed; in addition, requirements for thermal protection according to GEG are met.
- 3) For the correct sizing of insulation thickness for pipes with cold media, please refer to the instructions in our installation manual Teclit Cold Insulation - Pipelines.
- 4) In areas of escape routes, fire load encapsulation can be applied with ROCKWOOL 800 or Teclit PS Cold (insulation thickness ≥ 30 mm).

All boundary conditions of the specified general building inspection certificates (abP) or general type approvals (aBG) must be taken into account.

**aqt. black
grid connection pipe**



Fire load

The values required for determining the fire load within a fire section are calculated from the total of all flammable materials located within this area. The calculation for establishing the combustion heat V [kWh/m] for a fire section in the event of an outbreak is dependent on dimensions and materials. The basis used for the calculation of pipe systems made of polypropylene is the lower calorific value $H_u = 12.2$ kWh/kg (as per DIN V 18230 T1) in conjunction with the mass of material m_{pipe} [kg/m]. The integrated layers of fibres in the aquatherm fibre composite pipes are also considered.

Depending on the calculation procedure, the fire load is worked out with reference to the burn-up factor. This value is designated as m_{factor} and is taken as 0.8 for polypropylene.

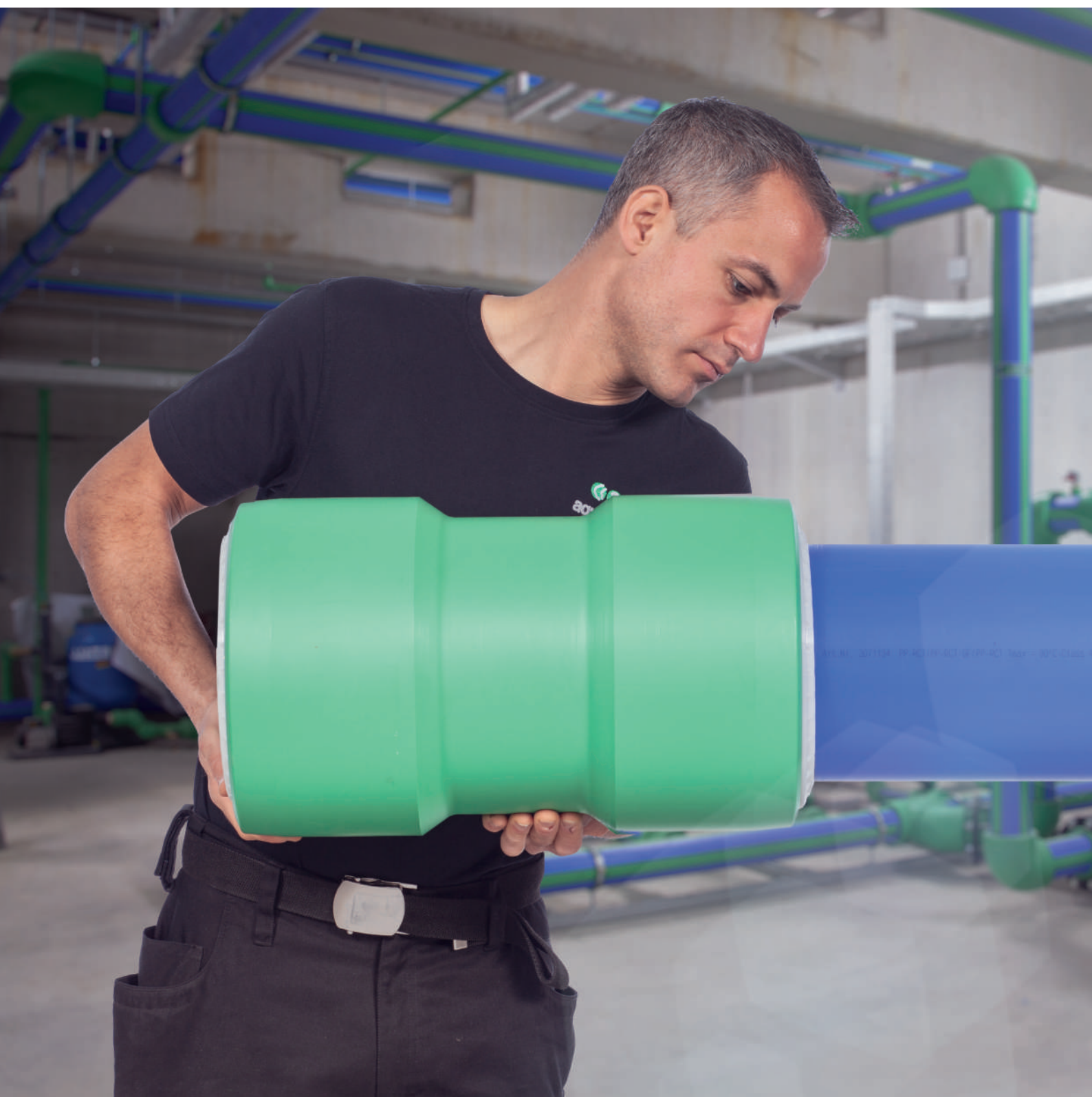
Combustion values V [kWh/m] for aquatherm blue piping systems

Dimension mm	aquatherm blue SDR 7.4 MF/OT	aquatherm blue SDR 9 MF/OT	aquatherm blue SDR 11 MF/OT	aquatherm blue SDR 17.6 MF
20	1.76	-	-	-
25	2.74	-	-	-
32	-	4.39	3.14	-
40	-	-	4.83	-
50	-	-	7.48	-
63	-	-	11.82	-
75	-	-	16.48	-
90	-	-	23.86	-
110	-	-	35.33	-
125	-	-	45.83	30.03
160	-	-	74.88	48.53
200	-	-	116.64	75.68
250	-	-	181.42	117.64
315	-	-	285.82	186.32
355	-	-	362.93	236.07
400	-	-	460.78	299.73
450	-	-	583.21	378.64
500	-	-	-	468.24
630	-	-	-	740.59



Processing

There are many possibilities for connecting aquatherm green piping systems. Whether welding or plugging, aquatherm's fusion techniques allow you to quickly create permanently tight connections.





Welding techniques

Due to their exceptionally good welding properties, the pipe and fitting fuse to form a homogeneous, materially bonded unit. For this purpose, the pipe and fitting are briefly heated with the aid of tools provided for this purpose and then simply joined together; that's it! Double material thickness at the joint - this means double safety at the otherwise critical point of a piping system.

Socket welding

A safe and fast connection in the socket welding process is possible with our manual welder for pipes with dimensions of 20 to 63 mm.

[▶ View video](#)

Socket welding with welding machine

With pipe dimensions from 50 to 125 mm, our aquatherm welding machines ensure a safe and durable connection.

[▶ View video](#)

Butt welding

Large pipe dimensions from 160 to 630 mm are welded with special butt welding machines.

[▶ View video](#)

Electric welding jig

The aquatherm electrical welding jig facilitates the fusion of pipes with diameters of 63 to 125 mm.

[▶ View video](#)

Electric socket welding

Electric socket welding (heating coil welding) is suitable in hard-to-reach areas for pipes with dimensions of 20 to 250 mm. In this welding process, special sleeves with integrated heating wires are electrically heated and fused to the pipe.

[▶ View video](#)

Weld-in saddle OT

Branches in aquatherm blue OT can be easily produced with welding calipers, even subsequently. The use of shrink-wrapping calipers also reduces the amount of material and time.

[▶ View video](#)

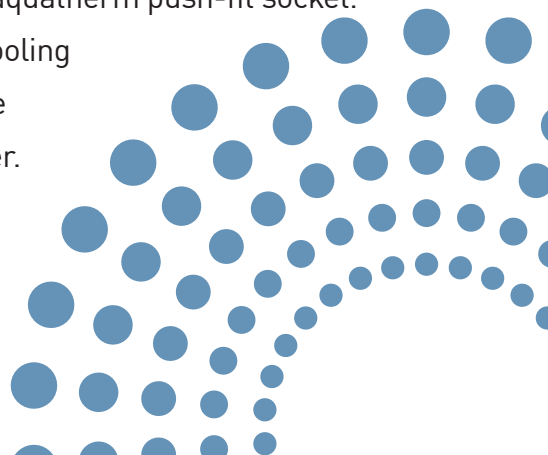
Socket welding OT

A secure and quick connection for the oxygen-tight aquatherm blue pipe OT pipes in the dimensions 20 to 125 mm is possible using the socket welding method.

[▶ View video](#)

Push-fit fittings

Highest safety in just a few minutes: this is what the new aquatherm push-fit fittings offer. Compared to the electro socket welding process, pipe connections can be made up to 40% faster using the aquatherm push-fit socket. In addition, the tooling requirements are significantly lower.

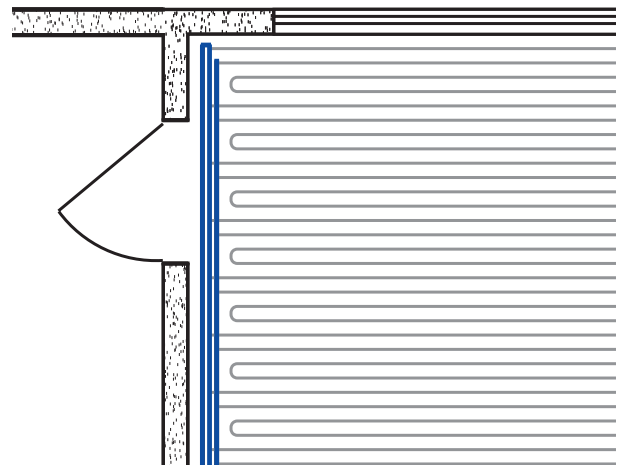
[▶ View video](#)

Connection

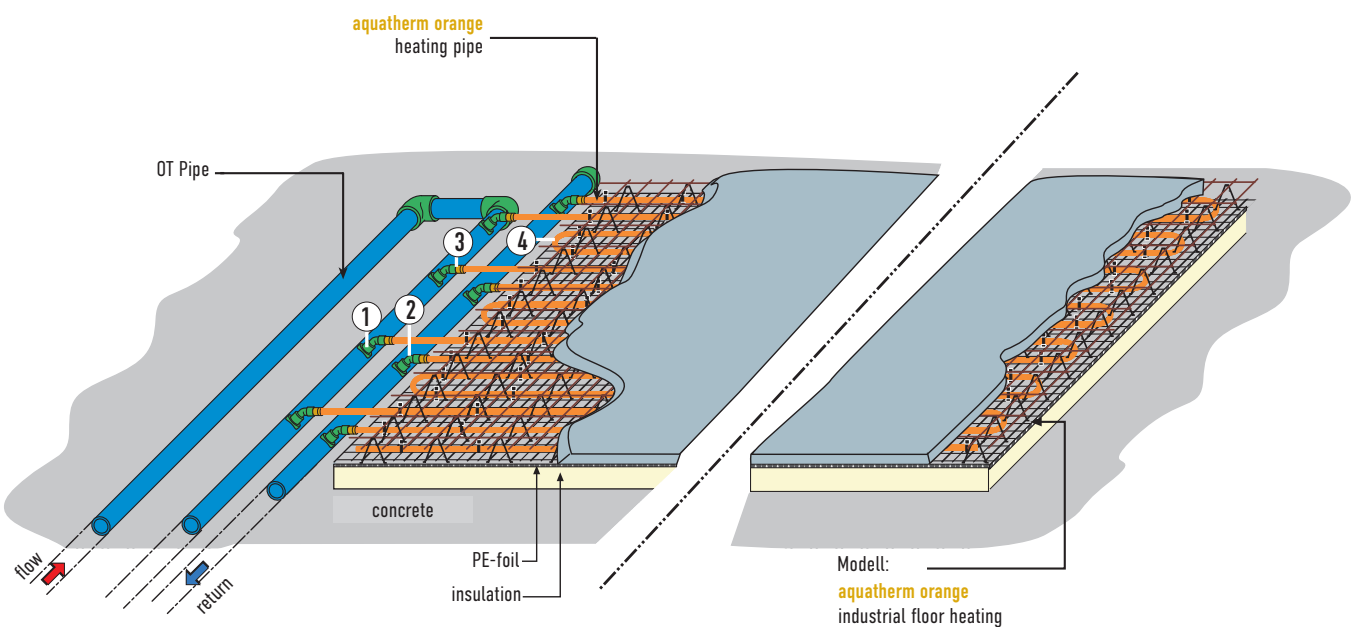
Tichelmann-principle

The weld-in saddle technique, developed by aquatherm orange provides the connection of the heating pipes to a continuous manifold pipe according to reverse return. This technique is applied for the double swing floor design a+b and industrial floor heating.

On applying the reverse return technique, all heating circuits have the same length. Therefore the pipe layout ensures the same pressure loss for all heating circuits. A hydraulic balancing of the heating circuits is not required.



Pipe routing plan with welded saddle



1. aquatherm weld-in saddle

2. aquatherm elbow 45°

3. aquatherm Übergangsadapter

4. heating pipe



Integration of other systems or components with aquatherm piping for pressure pipe applications

When integrating aquatherm piping systems with other systems or components not made of polypropylene (e.g. valves, pumps, other piping, check valves, strainers, etc), care must be taken to ensure the operating parameters for polypropylene won't damage the other materials or vice versa. Be aware that even if the aquatherm pipe is compatible with the fluid being transported, other materials in the system may not be. All parts of the

system must be verified as compatible with the medium being carried before installing them. And, while the aquatherm pipe does not require treatment to protect it from corrosion, metals (ferrous and non-ferrous) in the system may be susceptible to corrosion. Do not mix the aquatherm pipe with other piping systems in conditions that will cause the other system or components to fail.



A circular inset image showing a network of blue and green pipes, likely part of a geothermal system. The pipes are connected with green elbow fittings and blue couplings. The background of the inset shows a concrete structure with rebar.

aquatherm blue
Fields of application



Fields of application

aquatherm has the solution for your challenge - benefit from the versatile application possibilities of our products. The range of applications for aquatherm products is extensive. Here you get an overview of the fields of application in which you can rely on our products. Yesterday. Today. Tomorrow.



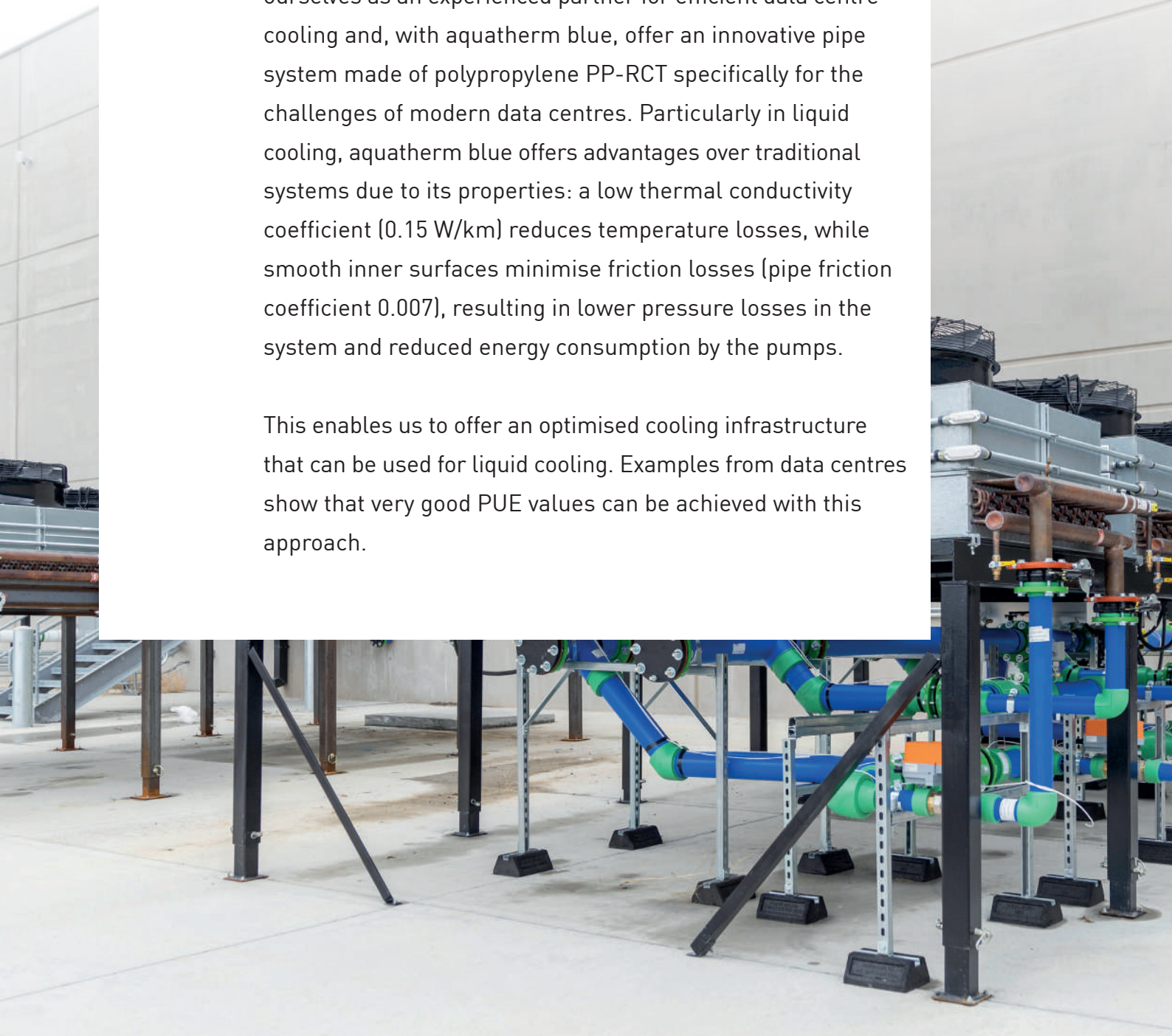


Liquid cooling of data centres

Data centres form the backbone of the digital world and are experiencing enormous growth due to cloud computing and artificial intelligence. Data centre air conditioning is a critical success factor here. Because:

Data centres generate considerable amounts of heat, which must be dissipated effectively in order to ensure the operational reliability and functionality of the systems. We have established ourselves as an experienced partner for efficient data centre cooling and, with aquatherm blue, offer an innovative pipe system made of polypropylene PP-RCT specifically for the challenges of modern data centres. Particularly in liquid cooling, aquatherm blue offers advantages over traditional systems due to its properties: a low thermal conductivity coefficient (0.15 W/km) reduces temperature losses, while smooth inner surfaces minimise friction losses (pipe friction coefficient 0.007), resulting in lower pressure losses in the system and reduced energy consumption by the pumps.

This enables us to offer an optimised cooling infrastructure that can be used for liquid cooling. Examples from data centres show that very good PUE values can be achieved with this approach.





Heating system construction

Smooth operation over many decades: this is a simply formulated, although not always easy to realise, wish in the field of heating, ventilation and air conditioning technology. Steel pipes used in air conditioning systems, for example, are particularly susceptible to corrosion on the outside of the pipe. Condensation that forms between the insulation and the pipe attacks the pipe surface and breaks it down. In heating systems, corrosion inside the pipe is a big problem: it leads to pressure losses as well as increased energy consumption for the pumps used.

With aquatherm blue, corrosion damage is a thing of the past, because it consists of the 100 % corrosion-resistant material polypropylene. This considerably extends the service life of the air-conditioning or heating system.

Due to its heat and sound insulating properties, aquatherm blue requires significantly less insulation against heat and cold loss or condensation when the temperature falls below the dew point compared to metallic pipes, making it ideal for heating and cooling systems from commercial buildings to single-family homes. Its light weight also facilitates installation and brings significant time benefits.





Swimming pool technology

aquatherm blue ensures, among other things, that perfectly cleaned water remains perfectly clean during transport - thanks to the material polypropylene, which is not only self-insulating and corrosion-resistant, but also particularly temperature and pressure-resistant. The system is rounded off by its exceptionally good welding properties, which ensure strong connections, a long service life and maximum safety.

And as a swimming pool operator, you can also rely on us above water: aquatherm not only offers you piping systems for water management and transport, but also for all needs in the area of heating, ventilation and cooling - for example as surface heating.





Refrigeration

The product for piping refrigerant circuits in refrigeration systems

Regardless of whether you want to bring a server room to a specific temperature, or to cool food, drinks, or medicines, we will work with you to find an outstanding solution for your refrigeration system's pipework. aquatherm blue, made of corrosion-resistant and diffusion-proof polypropylene, is ideal for the transport of cooling media in closed systems and is therefore particularly well-suited for a wide variety of refrigeration applications.

Industry	Industrial refrigeration	Comfort refrigeration
Type of cooling	gree cooling, cooling towers	Compression chillers
Temperature range	> 20 °C	-40 °C to +10 °C
Circuit types and cold carrier means	open and closed water circuits, including those contaminated with chemicals	refrigerant circuits (all known waterglycol mixtures, water-alcohol mixtures, brine) Re-cooling circuits of condenser cooling and oil cooling (water-glycol mixtures)

Comfort refrigeration

Compression chillers

6 °C to 20 °C

Circuit types and cold carrier means

open and closed water circuits, including those contaminated with chemicals

refrigerant circuits (all known waterglycol mixtures, water-alcohol mixtures, brine) Re-cooling circuits of condenser cooling and oil cooling (water-glycol mixtures)

refrigerant circuits in air conditioning systems (water) Re-cooling circuits of condenser cooling (water-glycol mixtures)



Free cooling

Common problem with open recooling circuits:

- strong corrosion due to strong oxygen enrichment in the cooling water
- severe corrosion due to chemical additives in the cooling water

Compression chillers for industrial refrigeration

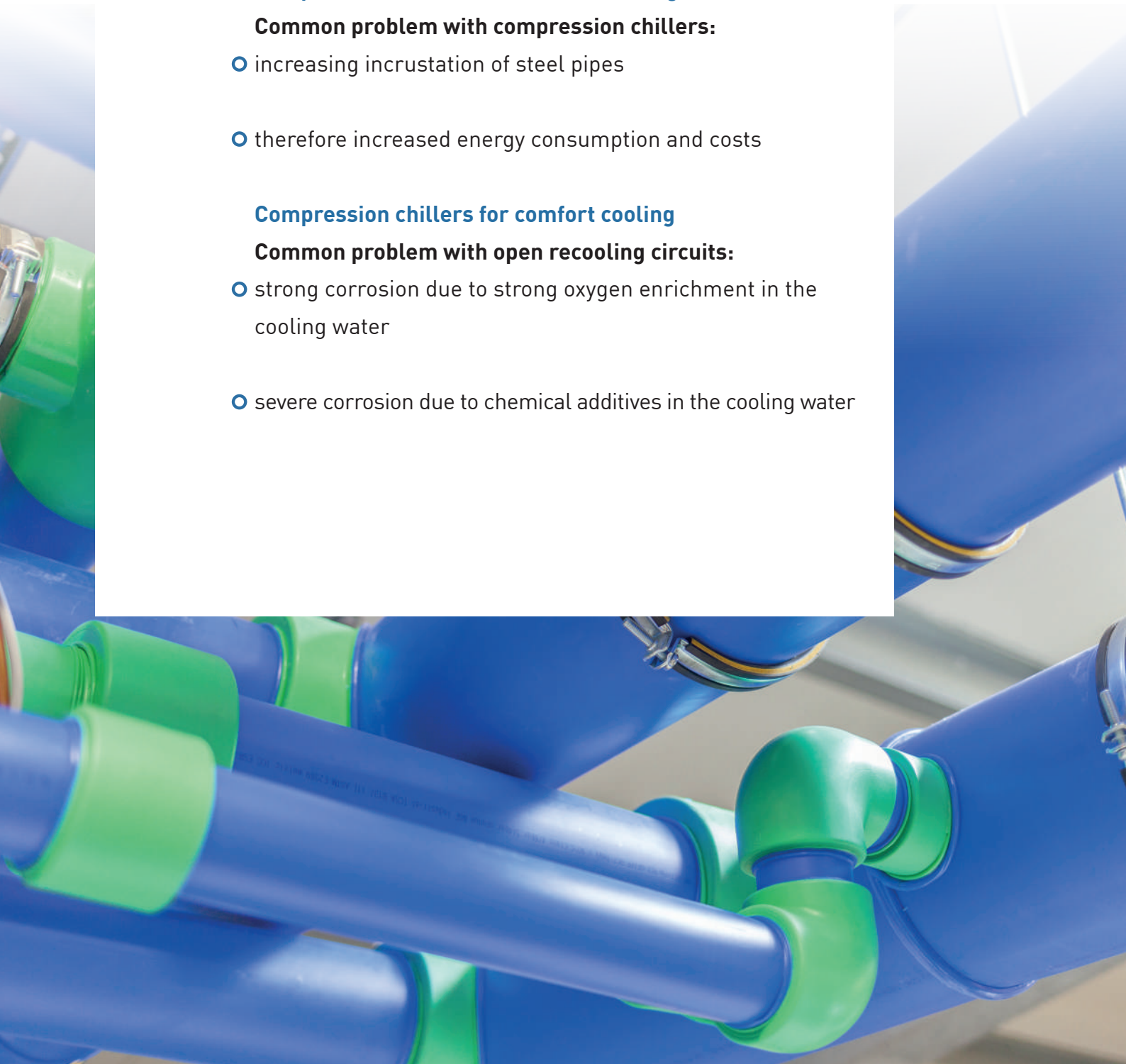
Common problem with compression chillers:

- increasing incrustation of steel pipes
- therefore increased energy consumption and costs

Compression chillers for comfort cooling

Common problem with open recooling circuits:

- strong corrosion due to strong oxygen enrichment in the cooling water
- severe corrosion due to chemical additives in the cooling water



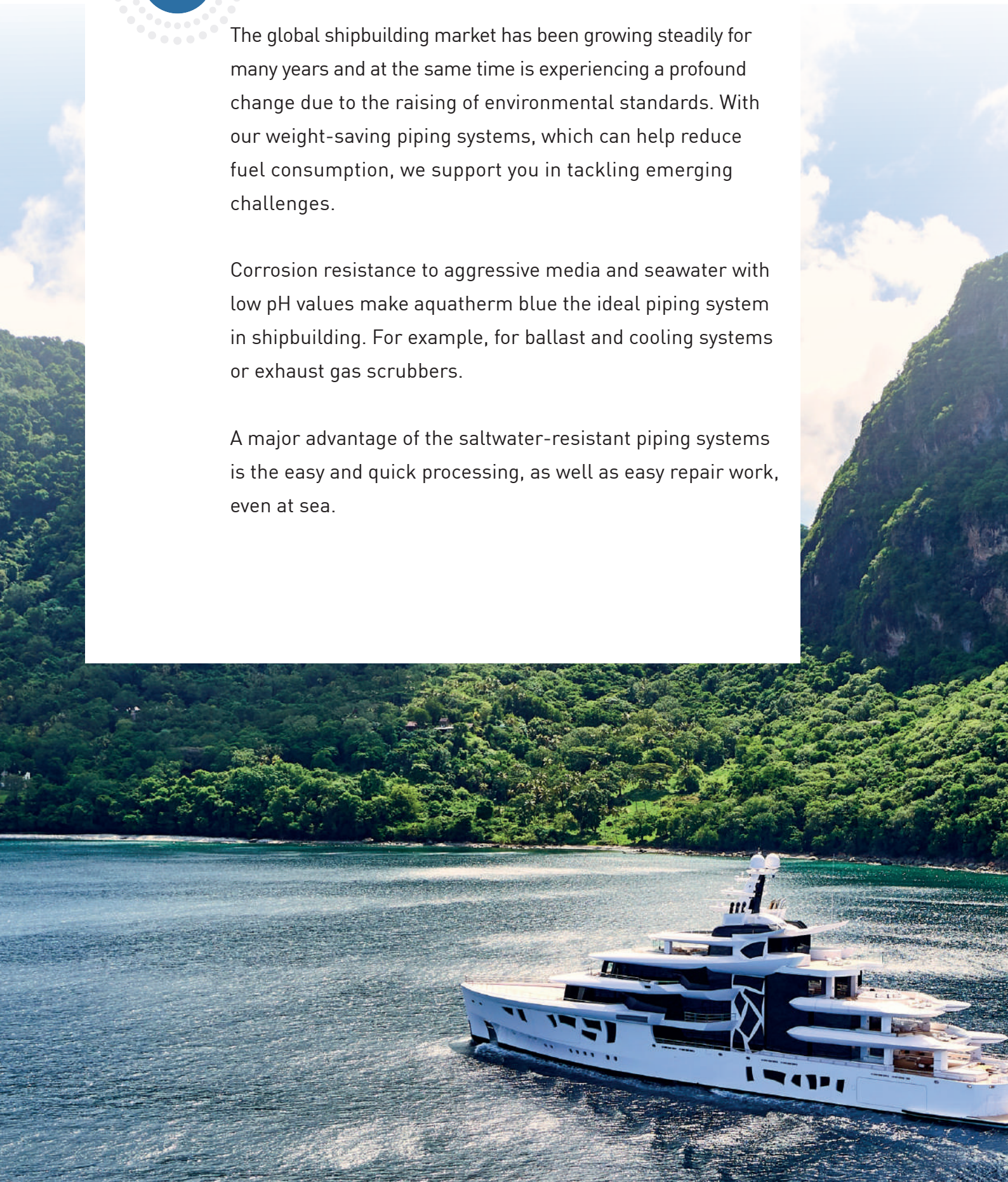


Maritime applications

The global shipbuilding market has been growing steadily for many years and at the same time is experiencing a profound change due to the raising of environmental standards. With our weight-saving piping systems, which can help reduce fuel consumption, we support you in tackling emerging challenges.

Corrosion resistance to aggressive media and seawater with low pH values make aquatherm blue the ideal piping system in shipbuilding. For example, for ballast and cooling systems or exhaust gas scrubbers.

A major advantage of the saltwater-resistant piping systems is the easy and quick processing, as well as easy repair work, even at sea.



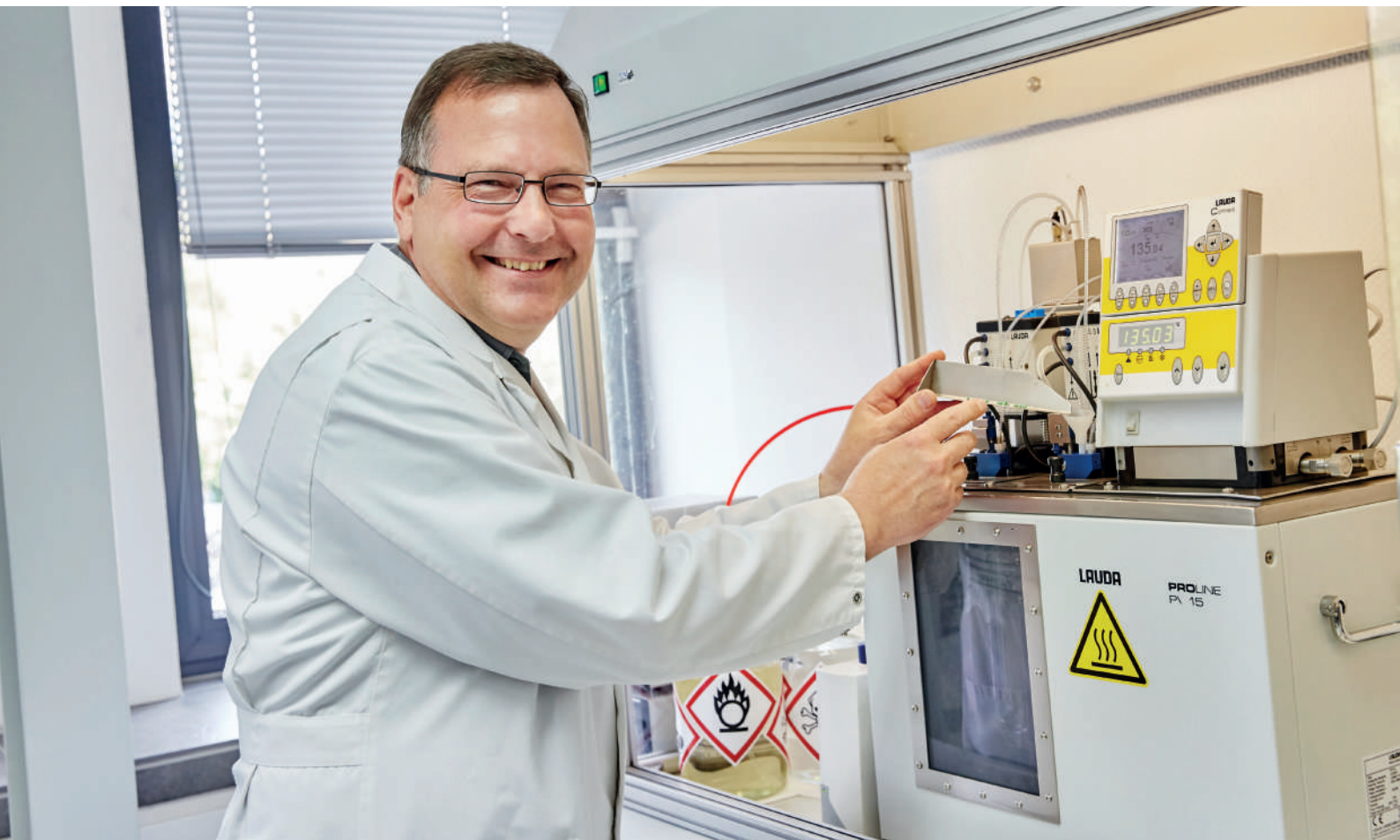


aquatherm blue
Quality assurance

Quality „100 % Made in Germany“

To produce safe and innovative piping systems - that is the lived promise of aquatherm. This already starts with the raw material: We develop and refine our polypropylene granulate under the fusiolen® brand. This way we can always perfectly adjust the properties of our products to the requirements of the different fields of application. No matter whether its pipes or fittings: „100 % Made in Germany“ applies to all of them. We produce exclusively and with the latest manufacturing technology at our German sites in Attendorn (headquarters), Ennest and Radeberg.

Only tested products then start their journey to our customers worldwide. In addition to the permanent in-house quality assurance, which includes the monitoring of testing equipment, process, production and incoming goods inspections as well as the final inspection, external monitoring is carried out by e.g. the Süddeutsche Kunststoffzentrum (SKZ), NSF (National Sanitation Foundation, USA), IIP (Istituto Italiano di Plastici, Italy), CSTB (Centre Scientifique et Technique du Bâtiment, France), TGM (Technologisches Gewerbemuseum, Austria) and the Hygieneinstitut des Ruhrgebiets. Numerous national and international neutral authorities and institutions confirm the high aquatherm quality standard.





Numerous national and international quality seals and approval certificates, along with the satisfaction of our customers, consistently confirm the high quality of our products.

Since 1996, aquatherm has met the requirements of the DIN ISO 9001 quality management system. This achievement further strengthens our competitive position and demonstrates our commitment to meeting the high standards and responsibilities we have towards our customers and partners.

See for yourself!

Compliance with the system standard

Various national and international independent authorities and institutions confirm aquatherm's quality standard. You can see our certificates on our website.

The product certificates are provided for reference purposes only. The certificates have been issued in accordance with the laws, regulations and product standards applicable in the respective country. The certificates can therefore not be used outside the respective jurisdiction. They do not constitute any express or implied warranties by aquatherm GmbH or its affiliates.

You can find the overview of our international certificates here:

 [Certificate](#)





aquatherm blue
Planning services



What planning services does aquatherm offer?

„Time is money“ - a wisdom that proves true every day, especially in the construction industry. The sanitary, heating, and air-conditioning installations of any building project are always a time challenge, not only for architects and planners. The implementation on site often presents the executing site managers and installers with inconsiderable problems. If you choose aquatherm, you have a strong partner at your side who supports you before, during and after the completion of your project.

[Digital planning tools on our website](#)



Optimise the efficiency of your entire project workflow

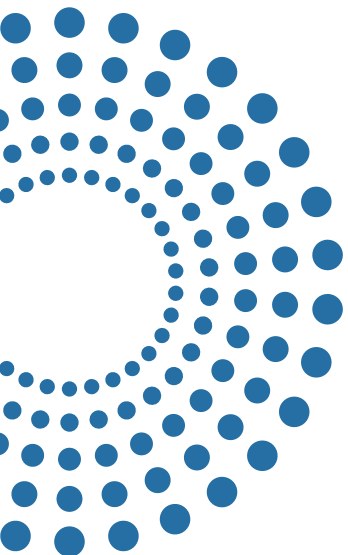
[📞 Contact - Our experts for your request](#)

Our team has many years of experience in the field of building services and is very familiar with the aquatherm product portfolio. Regular training ensures that our project planning is always up to date and that all legal regulations are implemented. This saves you the planning work and gives you significantly more time to concentrate on your core business.



Pressure loss

For hydraulic pipeline calculations for the mathematical determination in pipe fittings, pressure loss coefficients are required. These result from friction, deflection and detachment losses. Losses often account for an inconsiderable proportion of the total pipe system. The following table shows the calculated pressure loss coefficients or resistance coefficients for aquatherm fittings.

[📄 PDF Planning and design](#)



aquatherm blue
References



Data centre liquid cooling

Project

Novva Data Center

Location

Salt Lake City, Utah (USA)

Completion

2021, extension follows

Application

Liquid cooling

The challenge

For the piping of the cooling system in the Novva data centre, a piping system was required that was not only corrosion-resistant but could also be easily integrated into the underfloor structure.

The solution

aquatherm blue met the high demands of the client. Furthermore, aquatherm aided with the scan-to-fab service.





Refrigeration systems

Project

AFAS Clubhouse

Location

Leusden, Netherlands

Completion

2021

Application

Refrigeration systems

The challenge

For the new headquarters of software company AFAS, the clients were looking for a chilled water system that would fit into the building's sustainability concept.

The solution

aquatherm blue made of the corrosion resistant plastic polypropylene (PP-R) was installed over 6,532 metres. Its significantly lower CO² emissions compared to steel pipes and its very good recyclability were decisive for the choice of the system.



Refrigeration systems

Project

Kunst-Depot Boijmans Van Beuningen

Location

Rotterdam, Netherlands

Completion

2021

Application

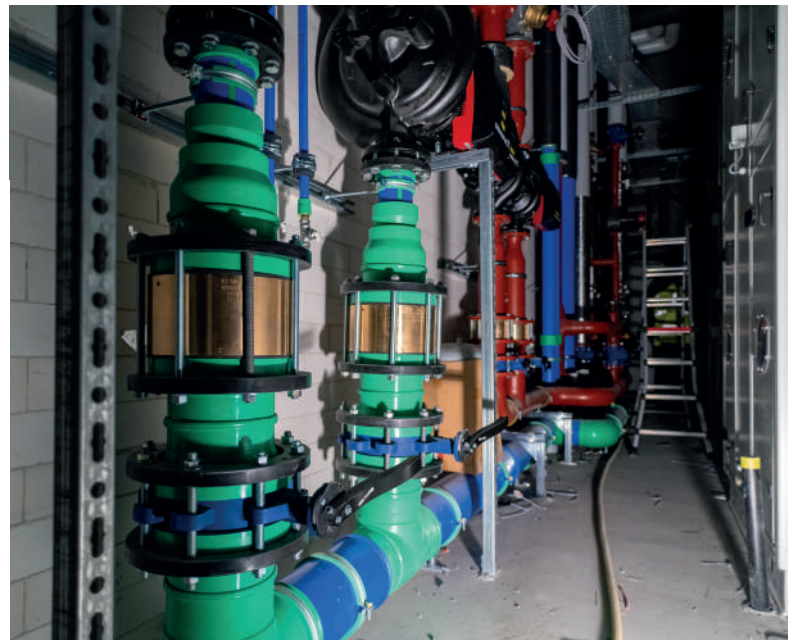
Refrigeration systems

The challenge

The Kunst-Depot focuses on sustainability in numerous areas. Accordingly, the cooling water system also had to fit into the building's sustainability concept.

The solution

aquatherm blue made of the plastic polypropylene (PP-RP) convinced the designers with its significantly lower CO₂ emissions compared to steel pipes. Due to its technical properties, the piping system is also optimally suited for refrigeration installation.





aquatherm blue
**Chemical
resistance**

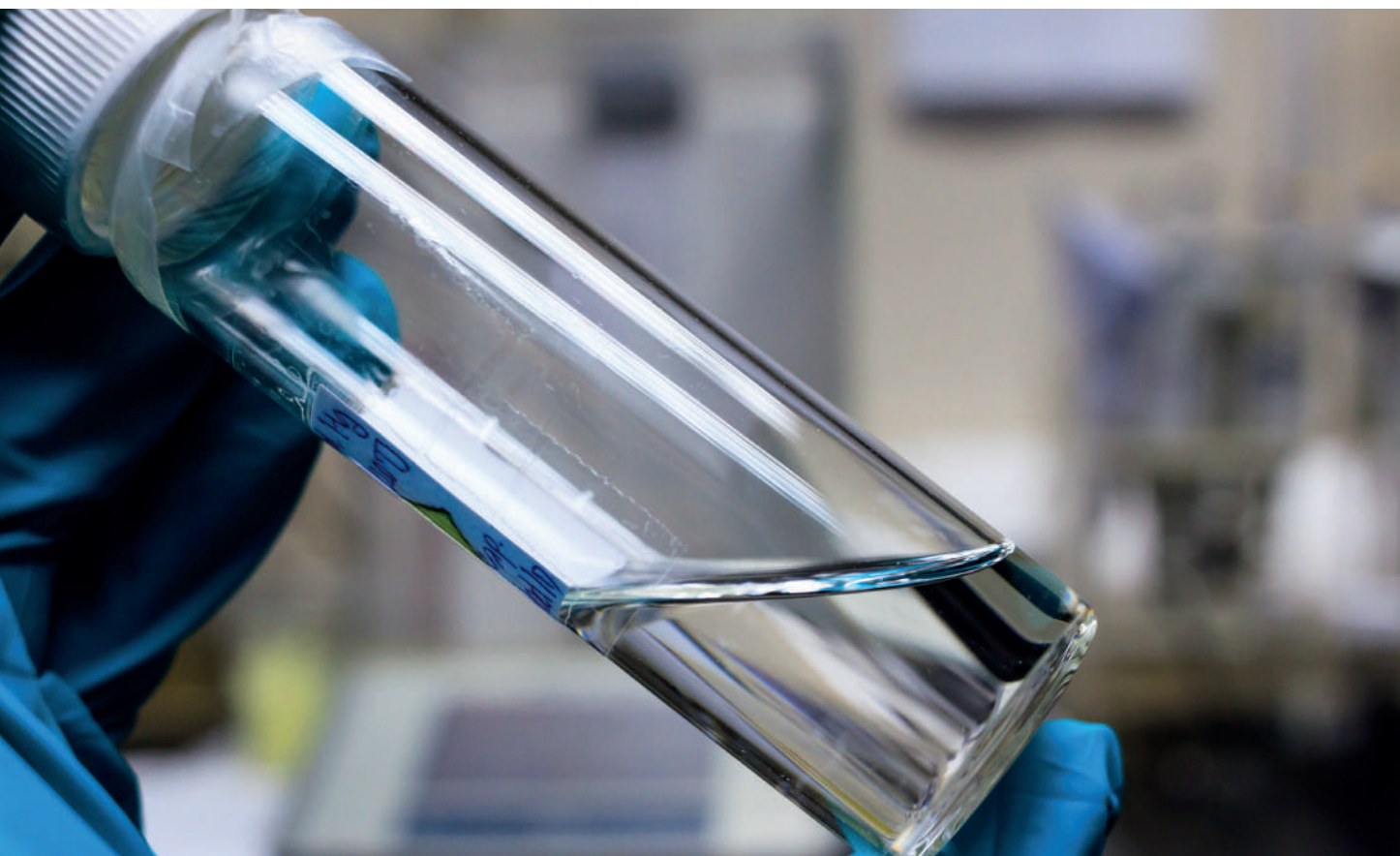


Resistance

Our corrosion-resistant material polypropylene is resistant to many acids and alkalis. However, each individual case must always be examined with special care. Chemical resistance must always be considered in conjunction with other factors such as operating temperature, operating pressure or external stresses. Detailed information is available from our competent team of experts, who will be happy to deal with individual enquiries.

 [Table Chemical resistance](#)

 [Enquiry chemical resistance"](#)



aquatherm blue
Warranty



Explanatory comments on the aquatherm GmbH warranty

1. Foreword

Thank you very much for making the decision to use a product from aquatherm GmbH, Germany (herein referred to as "aquatherm"). With over 50 years of experience in the international plastic pipes market, and our trendsetting innovations, we have the expertise needed to offer you engineered piping solutions made in Germany.

The trust placed in the quality of our products has motivated us to offer all pipes and molded, fabricated, machined, and/or assembled parts with a 10-year warranty instead of the standard 2-year warranty required by German law. This extended time covered by warranty is backed by a comprehensive insurance policy from a leading insurance company for our line of business. The warranty period will begin with the date of delivery by aquatherm GmbH, but only comes valid with the successful pressure test, which must be carried out and documented in accordance with the aquatherm specification.

2. Scope of warranty

The aquatherm warranty protects you from financial loss proven to be caused by material defects, manufacturing defects and/or aquatherm's consulting/engineering services. The warranty coverage shall apply for the following product groups:

- aquatherm green (aquatherm green, aquatherm green pipe)
- aquatherm blue (aquatherm blue pipe)
- aquatherm red (aquatherm red pipe)
- aquatherm black (aquatherm black system)
- aquatherm lilac
- aquatherm orange (aquatherm orange system)
- aquatherm grey (aquatherm grey pipe, aquatherm SHT-system)
- assemblies fabricated by aquatherm from these product groups

2.1 What is covered by the aquatherm warranty?

The aquatherm warranty covers three aspects of damages: property damage, financial loss and personal injury.

2.1.1 What is property damage?

The damage to or destruction of a tangible item as a result of a defective product (e.g. classic water damages as a result of a leak). As a result of this, the suitability of the tangible item to fulfill its actual purpose is impaired. The term property damage is used if tangible items are damaged or destroyed. Considerable costs can be incurred as a result of property damage, such as renovation costs, repair costs or replacement costs.

2.1.2 What is meant by financial loss?

Financial loss may either be out-of-pocket loss or loss of business. Out-of-pocket financial loss is for example the costs of removing products and installing replacements after damage. Loss of business is the financial disadvantage suffered by an injured party as a result of a damaging event (e.g. lost income as a result of renovations following property damage).

2.1.3 What is meant by personal injury?

If a person suffers physical injury, this is known as personal injury. For the purposes of this document, the coverage of personal injury means the direct medical costs incurred as a result of the injury.

3. What is not covered?

Costs related to the damages incurred such as a result of:

- Non-compliance with the operating parameters defined and specified by aquatherm as found in aquatherm's technical documents. In cases of doubt, contact your local aquatherm manufacturer's rep. Exceptions must be provided for, in writing, by a member of aquatherm's engineering team.
- Non-compliance with the installation guidelines as set out in the aquatherm Catalogue, with emphasis to the required installation of aquatherm propriety clipping or other compatible with aquatherm piping.
- Non-compliance with respective National Plumbing Standards and Regulations.
- Joints which were not made in accordance with the aquatherm guidelines, including but not limited to: improper fusion technique, use of contaminated materials or tools, use of faulty or unsuitable tools, use of damaged materials or tools, or any connection made by an installer without sound knowledge of the aquatherm connection techniques and their processes.
- Improperly assembled connections to other pipeline systems and/or components (threads, flanges, stubs, mechanical joints not intended for use with aquatherm PP piping etc.).
- All sealing elements used in the product lines manufactured by aquatherm.
- Tools and accessories sold by aquatherm GmbH are covered for the warranty period by law under the statutory warranty provisions.
- Systems with defective pipeline sections or fittings that were not subjected to the aquatherm pressure test or alternative testing approved by aquatherm prior to start-up.
- Damage to our products caused by incorrect handling after the material has left aquatherm's possession.
- Damage caused or exacerbated by copper in the water resulting from erosion/corrosion or other degradation of copper components in a domestic hot water recirculating system.
- Time delay, caused by incorrect planning, delivery problems and/or incorrect orders.
- Damage caused by entrained air, cavitation and pressure fluctuations.

Note: This list only includes the most prominent examples. Other circumstances, which compromise the integrity of the products, may also jeopardize the coverage.



4. How is the amount of compensation under the aquatherm warranty determined?

In the event of a material failure, samples of the damaged/faulty product are collected by the national aquatherm partner to forward them to aquatherm GmbH for examination and analysis. Working in collaboration with the injured party, aquatherm will identify the cause of the damage, and call in external bodies (test institutes, laboratories, assessors, etc.) as needed. If the damage has been caused by a material and/or manufacturing defect or by aquatherm's consulting/engineering services, the underwriter shall quantify the compensation claim for damages. All expenditures associated with the damages for this claim must be verified/recorded in detail and in a verifiable format as a required measure.

5. How much is the maximum coverage?

For the first 5 years of the warranty period, property damage, personal injury and financial loss is covered for the sum of €20 million per insurance claim. Total coverage for all claims made in a year is a maximum of €40 million. For years 6-10 of the warranty period, these coverage amounts are €8.5 and €17 million respectively. Submit for losses on designed projects (Professional Indemnity) €2 million and €6 million for all losses in the annual aggregate.

6. Why is the coverage stated in Euro?

The insured manufacturer, aquatherm, as well as the insurer, are both based in the EU, so that their agreements are issued in Euros (€). Since exchange rates fluctuate, the exchange rate current on the date of compensation shall apply.

7. What is the channel of communication for notifying claims under warranty and making inquiries about them?

Warranty claims have to be made to aquatherm via the national aquatherm GmbH partners. Information about the progress of the claim will only be released by the aquatherm partner or aquatherm GmbH.

8. Legal note

If a discrepancy or conflict arises between this document and the underlying insurance policy, the latter shall in all cases prevail.

9. Information about avoiding damage

- I) Manufacture under certified quality level**
As a trusted manufacturer, aquatherm works to a certified quality standard (ISO 9001); constant internal quality controls are part of the daily routine. In addition to this, all employees are integrated into a quality assurance program. As a result of this, products failing to comply with our high standards are quickly identified and removed from our product range.
- II) Preventing damage caused by incorrect handling**
Our products must be handled conscientiously and carefully when they are delivered from our production plants. Experience shows that most damage is caused in transit, storage and/or when working on site. At this point we would draw close attention to the fact that correct handling contributes to maintaining the product quality.
- III) Work is to be carried out by qualified installers**
Installation defects are easy to avoid. Our training courses teach the correct techniques in detail for working with our products. In doing so, particular importance is attached to work being carried out attentively and with care. The work of installers trained by us or our aquatherm partners is much more reliable and carried out much more efficiently.

For a safe connection, we recommend using only aquatherm PP products in a piping system. Mixing with other PP piping systems should be avoided.

February 2026
aquatherm GmbH,
Biggen 5, 57439 Attendorn, Germany

A circular inset image showing a busy port scene at sunset. In the background, there are large blue gantry cranes and stacks of colorful shipping containers. In the foreground, a white semi-truck is on the left and a yellow and blue locomotive is on the right, both on a road or track. The sky is filled with dramatic, orange and purple clouds. A solid blue circle is overlaid in the center of the image, containing the text.

aquatherm blue
Transport & storage



Careful storage

aquatherm polypropylene pipes may be stored outdoors at any temperature. However, a stable, solid base is important to prevent deformation during transport and storage.

At temperatures below 0 °C, the pipes may be damaged by strong impacts. The material must therefore be handled with care at low temperatures.

Despite their high durability, aquatherm pipes should always be handled with care. UV radiation can impair the properties of polypropylene and other high-molecular-weight plastics.

Therefore, aquatherm pipework systems should not be stored outdoors without adequate protection for prolonged periods. Outdoor storage is permitted only in the original, undamaged packaging and for a maximum period of 6 months from the date of delivery.



aquatherm blue
Article list



Pipe diameter

The diameter of the PP pipe determines its location and intended use. In order to be able to install a pipeline from the connection to the outlet, the pipe diameter of the individual pipes and fittings must be compatible with each other.

aquatherm green

Diameter in mm	20	25	32	40	50	63	75	90	110	125	160	200	250	315	355	400	450	500	630
SDR 6 S	○	○	○	○	○	○	○	○	○	-	-	-	-	-	-	-	-	-	-
SDR 7.4 S	○	○	○	○	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-
SDR 7.4 MF	○	○	○	○	○	○	○	○	○	○	○	○	○	-	-	-	-	-	-
SDR 7.4 MF UV	○	○	○	○	○	○	○	○	○	○	○	○	○	-	-	-	-	-	-
SDR 9 MF RP	-	-	○	○	○	○	○	○	○	○	○	○	○	○	-	-	-	-	-
SDR 9 MF RP UV	-	-	○	○	○	○	○	○	○	○	○	○	○	○	-	-	-	-	-
SDR 11 S	○	○	○	○	○	○	○	○	○	○	○	○	○	○	-	-	-	-	-

aquatherm blue

Diameter in mm	20	25	32	40	50	63	75	90	110	125	160	200	250	315	355	400	450	500	630
SDR 7.4 MF	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDR 7.4 MF UV	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDR 7.4 MF OT	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDR 9 MF RP	-	-	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDR 9 MF RP UV	-	-	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDR 9 MF RP OT	-	-	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDR 11 S	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDR 11 MF RP	-	-	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	-	-
SDR 11 MF RP UV	-	-	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	-	-
SDR 11 MF RP OT	-	-	-	○	○	○	○	○	○	○	○	○	○	-	-	-	-	-	-
SDR 17.6 MF RP	-	-	-	-	-	-	-	-	-	○	○	○	○	○	○	○	○	○	○
SDR 17.6 MF RP UV	-	-	-	-	-	-	-	-	-	○	○	○	○	○	○	○	○	○	○

aquatherm energy green & blue

Diameter in mm	20	25	32	40	50	63	75	90	110	125	160	200	250	315	355	400	450	500	630
SDR 9 MF RP	-	-	○	○	○	○	○	○	○	○	○	○	○	○	-	-	-	-	-
SDR 9 MF RP	-	-	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDR 9 MFRP OT	-	-	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SDR 11 MF RP	-	-	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	-	-
SDR 11 MFRP OT	-	-	-	○	○	○	○	○	○	○	○	○	○	-	-	-	-	-	-
SDR 17.6 MF RP	-	-	-	-	-	-	-	-	-	○	○	○	○	○	○	○	○	-	-

Abbreviations pipe structure:

S	single-layer	UV	UV-resistant
M	multi-layer	OT	oxygen-tight
MF	multi-layer, fibre-reinforced	TI	thermally insulated
RP	raised pressure resistance	HI	hardly inflammable

Abbreviations material:

PP	polypropylene
PP-R	polypropylene random copolymer
PP-RCT	polypropylene random copolymer with raised pressure resistance
PE-RT	polyethylene with raised temperature resistance

Lengths units in mm unless otherwise specified

Weight weight data in kg/m

Radius all data in inches

Volume water content in litre/metre

SDR standard dimension ratio

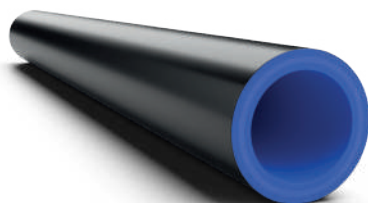
PU packing unit

**aquatherm blue SDR 7.4 MF**

MF = multi-layer, fibre-reinforced

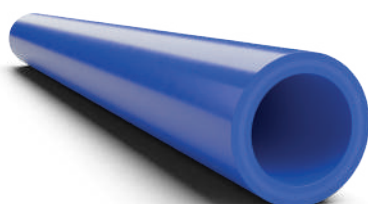
Material: fusiolen® PP-R / PP-RCT
 Pipe series: SDR 7.4 / S 3.2
 Standards: SKZ HR 3.28, ASTM F 2389, CSA B 137.11, ISO 21003
 Colour: blue
 Packing unit: 4 m straight lengths

Article no.	d	s	di	l/m	kg/m	DN	PU
socket welding							
2012020006	20	2.8	14.4	0.163	0.157	15	100
2012025008	25	3.5	18.0	0.254	0.244	20	100

**aquatherm blue SDR 7.4 MF UV**MF = multi-layer, fibre-reinforced
UV = UV-resistant

Material: fusiolen® PP-R
 Pipe series: SDR 7.4 / S 3.2
 Standards: SKZ HR 3.28, ASTM F 2389, CSA B 137.11, ISO 21003
 Colour: outside: black / inside: blue
 Packing unit: 4 m straight lengths

Article no.	d	s	di	l/m	kg/m	DN	PU
socket welding							
2212020006	20	2.8	14.4	0.163	0.210	15	100
2212025008	25	3.5	18.0	0.254	0.314	20	100

**aquatherm blue SDR 7.4 MF OT**MF = multi-layer, fibre-reinforced
OT = oxygen-tight

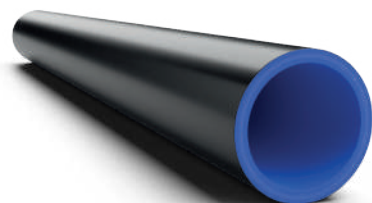
Material: fusiolen® PP-R
 Pipe series: SDR 7.4 / S 3.2
 Standards: DIN 8077 / 78, DIN EN ISO 15874, ASTM F 2389, CSA B 137.11, ISO 21003
 Colour: blue
 Packing unit: 4 m straight lengths

Article no.	d	s	di	l/m	kg/m	DN	PU
socket welding							
2112020006	20	2.8	14.4	0.163	0.211	15	100
2112025008	25	3.5	18.0	0.254	0.316	20	100

**aquatherm blue SDR 9 MF RP**MF = multi-layer, fibre-reinforced
RP = raised pressure resistance

Material: fusiolen® PP-RCT
 Pipe series: SDR 9 / S 4
 Standards: SKZ HR 3.28, ASTM F 2389, CSA B 137.11, ISO 21003
 Colour: blue
 Packing unit: 4 m straight lengths

Article no.	d	s	di	l/m	kg/m	DN	PU
socket welding							
2013032010	32	3.6	24.8	0.539	0.334	25	40

**aquatherm blue SDR 9 MF RP UV**MF = multi-layer, fibre-reinforced
RP = raised pressure resistance
UV = UV-resistant

Material: fusiolen® PP-RCT
 Pipe series: SDR 9 / S 4
 Standards: SKZ HR 3.28, ASTM F 2389, CSA B 137.11, ISO 21003
 Colour: outside: black / inside: blue
 Packing unit: 4 m straight lengths

Article no.	d	s	di	l/m	kg/m	DN	PU
socket welding							
2213032010	32	3.6	24.8	0.483	0.328	25	40

**aquatherm blue SDR 9 MF RP OT**

MF = multi-layer, fibre-reinforced
 RP = raised pressure resistance
 OT = oxygen-tight

Material: fusiolen® PP-RCT
 Pipe series: SDR 9 / S 4
 Standards: DIN 8077 / 78, DIN EN ISO 15874,
 ASTM F 2389, CSA B 137.11, ISO 21003
 Colour: blue
 Packing unit: 4 m straight lengths

Article no.	d	s	di	l/m	kg/m	DN	PU
socket welding							
2113032010	32	3.6	24.8	0.483	0.328	25	0.328

aquatherm blue SDR 11 S

S = single-layer

Material: fusiolen® PP-R
 Pipe series: SDR 11 / S 5
 Standards: DIN 8077 / 78, DIN EN ISO 15874,
 ASTM F 2389, CSA B 137.11, NSF 14
 Colour: blue
 Packing unit: 4 m straight lengths

Article no.	d	s	di	l/m	kg/m	DN	PU
socket welding							
2014020006	20	1.9	16.2	0.206	0.108	15	100
2014025008	25	2.3	20.4	0.327	0.165	20	100
2014020306 *	20	1.9	16.2	0.206	0.108	15	100
2014025308 *	25	2.3	20.4	0.327	0.165	20	100
2014032310 *	32	2.9	26.2	0.539	0.261	25	50

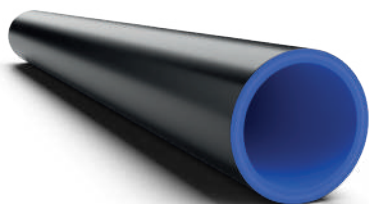
*Packing unit: in coils

aquatherm blue SDR 11 MF RP

MF = multi-layer, fibre-reinforced
 RP = raised pressure resistance

Material: fusiolen® PP-RCT
 Pipe series: SDR 11 / S 5
 Standards: SKZ HR 3.28, ASTM F 2389,
 CSA B 137.11, ISO 21003
 Colour: blue
 Packing unit: ø 20 – 125 mm straight lengths 4 m
 ø 160 – 630 mm straight lengths 5.8 m

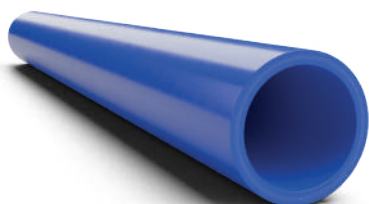
Article no.	d	s	di	l/m	kg/m	DN	PU
socket welding							
2014040012	40	3.7	32.6	0.834	0.430	32	40
2014050014	50	4.6	40.8	1.307	0.651	40	20
2014063016	63	5.8	51.4	2.074	1.062	50	20
2014075018	75	6.8	61.4	2.959	1.494	65	20
2014090020	90	8.2	73.6	4.252	2.141	80	12
2014110022	110	10.0	90.0	6.359	3.239	-	8
2014125024	125	11.4	102.2	8.199	4.092	100	4
butt welding							
2014160026	160	14.6	130.8	13.430	6.710	125	5.8
2014200028	200	18.2	163.6	21.010	10.442	150	5.8
2014250030	250	22.7	204.6	32.861	16.579	200	5.8
2014315032	315	28.6	257.8	52.172	26.223	250	5.8
2014355034	355	32.2	290.6	66.290	33.276	300	5.8
2014400036	400	36.3	327.6	84.290	42.266	300	5.8
2014450038	450	40.9	368.2	106.470	53.566	400	5.8

**aquatherm blue SDR 11 MF RP UV**

MF = multi-layer, fibre-reinforced
 RP = raised pressure resistance
 OT = oxygen-tight

Material: fusiole® PP-RCT
 Pipe series: SDR 11
 Standards: SKZ HR 3.28, ASTM F 2389,
 CSA B 137.11, ISO 21003
 Colour: outside: black / inside: blue
 Packing unit: ø 20 – 125 mm straight lengths 4 m
 ø 160 – 630 mm straight lengths 5.8 m

Article no.	d	s	di	l/m	kg/m	DN	PU
socket welding							
2214040012	40	3.7	32.6	0.834	0.555	32	40
2214050014	50	4.6	40.8	1.307	0.827	40	20
2214063016	63	5.8	51.4	2.074	1.260	50	20
2214075018	75	6.8	61.4	2.959	1.712	65	20
2214090020	90	8.2	73.6	4.252	2.480	80	12
2214110022	110	10.0	90.0	6.359	3.693	-	8
2214125024	125	11.4	102.2	8.199	4.774	100	4
butt welding							
2214160026	160	14.6	130.8	13.430	7.181	125	5.8
2214200028	200	18.2	163.6	21.010	11.029	150	5.8
2214250030	250	22.7	204.6	32.861	17.312	200	5.8
2214315032	315	28.6	257.8	52.172	26.223	250	5.8
2214355034	355	32.2	290.6	66.292	34.315	300	5.8
2214400036	400	36.3	327.4	84.145	43.437	300	5.8
2214450038	450	40.9	368.2	106.423	54.883	400	5.8

**aquatherm blue SDR 11 MF RP OT**

MF = multi-layer, fibre-reinforced
 RP = raised pressure resistance
 OT = oxygen-tight

Material: fusiole® PP-RCT
 Pipe series: SDR 11/ S 5
 Standards: DIN 8077 / 78, DIN EN ISO 15874,
 ASTM F 2389, CSA B 137.11, ISO 21003
 Colour: blue
 Packing unit: ø 20 – 125 mm straight lengths 4 m
 ø 160 – 250 mm straight lengths 5.8 m

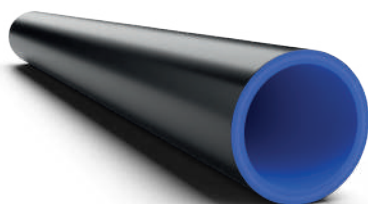
Article no.	d	s	di	l/m	kg/m	DN	PU
socket welding							
2114040012	40	3.7	32.6	0.834	0.562	32	40
2114050014	50	4.6	40.8	1.307	0.695	40	20
2114063016	63	5.8	51.4	2.074	1.279	50	20
2114075018	75	6.8	61.4	2.959	1.739	65	20
2114090020	90	8.2	73.6	4.252	2.533	80	12
2114110022	110	10.0	90.0	6.359	3.752	-	8
2114125024	125	11.4	102.2	8.199	4.201	100	4
butt welding							
2114160026	160	14.6	130.8	13.430	6.847	125	5.8
2114200028	200	18.2	163.6	21.010	10.520	150	5.8
2114250030	250	22.7	204.6	32.861	16.226	200	5.8

**aquaTherm blue SDR 17.6 MF RP**

MF = multi-layer, fibre-reinforced
RP = raised pressure resistance

Material: fusioTen® PP-R / PP-RCT
Pipe series: SDR 17.6 / S5
Standards: SKZ HR 3.28, ASTM F 2389,
CSA B 137.11, ISO 21003
Colour: blue
Packing unit: 5.8 m straight lengths

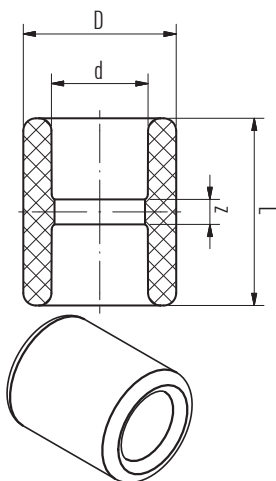
Article no.	d	s	di	l/m	kg/m	DN	PU
socket welding							
2017125224	125	7.1	110.8	9.637	2.666		4
butt welding							
2017160026	160	9.1	141.8	15.792	4.390		5.8
2017200028	200	11.4	177.2	24.661	6.927		5.8
2017250030	250	14.2	221.6	38.568	10.636		5.8
2017315032	315	17.9	279.2	61.223	16.606		5.8
2017355034	355	20.1	314.8	77.832	21.589		5.8
2017400036	400	22.7	354.6	98.756	27.468		5.8
2017450038	450	25.5	399.0	125.036	34.716		5.8
2017500040	500	28.4	443.2	154.272	42.955		5.8
2017630042	630	35.7	558.6	245.070	68.044		5.8

**aquaTherm blue SDR 17.6 MF RP UV**

MF = multi-layer, fibre-reinforced
RP = raised pressure resistance
UV = UV-resistant

Material: fusioTen® PP-RCT
Pipe series: SDR 17.6 / 8.3
Standards: SKZ HR 3.28, ASTM F 2389,
CSA B 137.11, ISO 21003
Colour: outside: black / inside: blue
Packing unit: 5.8 m straight lengths

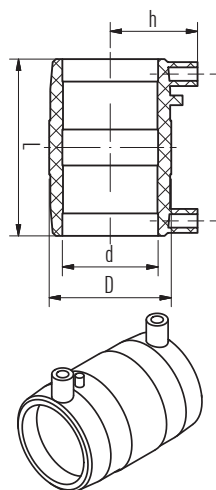
Article no.	d	s	di	l/m	kg/m	DN	PU
butt welding							
2217160026	160	9.1	141.8	15.784	4.860	150	5.8
2217200028	200	11.4	177.2	24.649	7.514	200	5.8
2217250030	250	14.2	221.6	38.549	11.369	250	5.8
2217315032	315	17.9	279.2	61.193	17.529	300	5.8
2217355034	355	20.1	314.8	77.793	22.628	350	5.8
2217400036	400	22.7	354.6	98.707	28.639	350	5.8
2217450038	450	25.5	399.0	124.973	36.033	400	5.8
2217500040	500	28.4	443.2	154.195	44.418	450	5.8
2217630042	630	35.7	558.6	245.947	69.887	500	5.8

**Socket**

SDR 6 / 7.4 / 9 / 11 / 17.6

Material:
Standards:
Colour:fusiolen® PP-R
DIN 16962, DIN EN ISO 15874
green

Article no.	d	D	L	z	kg	PU
socket welding						
1040020002	20	27.0	32.0	3.0	0.008	10
1040025003	25	34.0	35.0	3.0	0.013	10
1040032004	32	43.0	40.5	4.5	0.026	5
1040040005	40	52.0	47.5	6.5	0.044	5
1040050006	50	68.0	53.0	6.0	0.084	5
1040063007	63	84.0	60.5	5.5	0.139	1
1040075008	75	100.0	66.5	6.5	0.226	1
1040090009	90	120.0	72.5	6.5	0.343	1
1040110010	110	147.0	82.0	8.0	0.581	1
1040125011	125	167.0	92.0	12.0	0.845	1

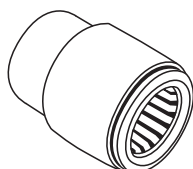
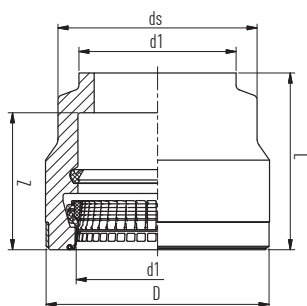
**Electrofusion socket**

SDR 6 / 7.4 / 9 / 11 / 17.6

Material:
Standards:
Colour:fusiolen® PP-R
DIN 16962, DIN EN ISO 15874
green

Article no.	d	D	L	h	kg	PU
socket welding						
1040020094	20	31.5	70.0	36.0	0.049	1
1040025100	25	36.5	78.0	38.5	0.057	1
1040032101	32	45.0	80.0	42.5	0.077	1
1040040102	40	54.0	92.0	47.0	0.103	1
1040050103	50	65.0	103.0	52.0	0.142	1
1040063104	63	81.5	118.0	58.0	0.239	1
1040075105	75	96.0	130.0	64.5	0.347	1
1040090106	90	113.5	145.0	72.0	0.501	1
1040110107	110	139.0	160.0	82.5	0.821	1
1040125108	125	156.0	172.0	90.0	1.097	1
1040160109 *	160	197.0	186.0	109.5	1.754	1
1040200110 *	200	243.0	210.0	134.0	3.625	1
1040250111 *	250	315.0	250.0	170.0	7.142	1

*Electrofusion sockets cannot be used with 160 mm to 250 mm fittings (not for aquatherm blue pipe MF OT)



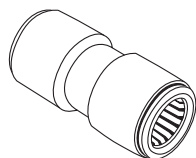
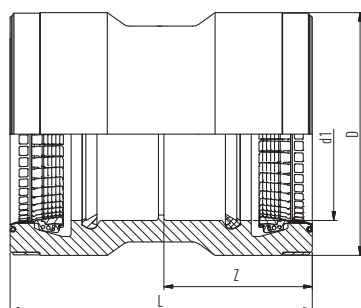
Push-fit adapter

Material:
Standards:
Colour:

fusiolen® PP-RP / EPDM
DIN EN ISO 15874
green

Article no.	d1	ds	D	L	z	kg	PU
SDR 11							
2054090000	90	112	152.0	170.0	140.0	1.200	1
2054110001	110	140	175.0	205.0	170.0	2.000	1
2054125002	125	161	190.0	210.0	172.0	2.300	1
2054160004	160	202	234.0	227.0	183.0	3.800	1
2054200006	200	250	285.0	285.0	231.0	6.500	1
2054250008	250	317	375.0	315.0	243.0	15.000	1
2054315010	315	400	450.0	355.0	275.0	24.000	1
2054355012	355	450	492.0	370.0	283.0	28.000	1
2054400014	400	500	540.0	390.0	300.0	34.000	1
2054450016	450	560	600.0	415.0	318.0	44.000	1
SDR 17.6							
2057125003	125	161	190.0	210.0	172.0	2.300	1
2057160005	160	202	234.0	227.0	183.0	3.800	1
2057200007	200	250	285.0	285.0	231.0	6.500	1
2057250009	250	295	355.0	315.0	243.0	11.500	1
2057315011	315	370	425.0	345.0	275.0	16.300	1
2057355013	355	415	470.0	360.0	283.0	20.000	1
2057400015	400	465	510.0	390.0	300.0	23.800	1
2057450017	450	520	565.0	400.0	318.0	27.800	1

Do not use for aquatherm blue MF RP OT



Push-fit coupling

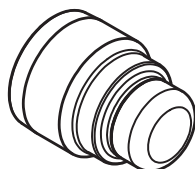
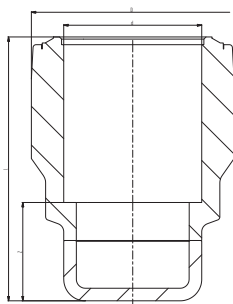
SDR 11 / 17.6

Material:
Standards:
Colour:

fusiolen® PP-RP / EPDM
DIN EN ISO 15874
green

Article no.	d1	D	L	z	kg	PU
2054090020	90	152.0	285.0	140.0	2.300	1
2054110021	110	175.0	345.0	170.0	3.700	1
2054125022	125	190.0	350.0	172.0	4.300	1
2054160023	160	234.0	372.0	183.0	6.600	1
2054200024	200	285.0	470.0	231.0	11.000	1
2054250025	250	375.0	496.0	243.0	20.420	1
2054315026	315	450.0	560.0	275.0	40.200	1
2054355027	355	492.0	576.0	283.0	45.700	1
2054400028	400	540.0	610.0	300.0	54.800	1
2054450029	450	600.0	646.0	318.0	69.600	1

Do not use for aquatherm blue MF RP OT



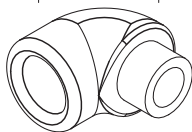
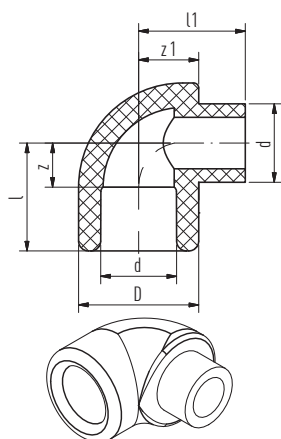
End cap with push-fit adapter

Material:
Standards:
Colour:

fusiolen® PP-RP / EPDM
DIN EN ISO 15874
green

Article no.	d	l	D	z	kg	PU
SDR 11						
2054090030	90	236.5	152.0	87.5	1.647	1
2054110031	110	269	175.0	90.0	2.771	1
2054125032	125	291	190.0	110.0	3.368	1
2054160033	160	306	235.0	114.0	4.431	1
2054200034	200	374	285.0	134.0	7.570	1
2054250035	250	405	375.0	162.0	16.989	1
2054315036	315	425	450.0	150.0	28.200	1
2054355037	355	450	492.0	167.0	34.410	1
2054400038	400	460	540.0	160.0	41.190	1
2054450039	450	495	600.0	177.0	54.500	1
SDR 17.6						
2057160040	160	306	235.0	114.0	4.479	1
2057200041	200	374	285.0	134.0	7.425	1
2057250042	250	405	355.0	162.0	12.805	1
2057315043	315	415	425.0	140.0	20.800	1
2057355044	355	430	470.0	147.0	25.540	1
2057400045	400	465	510.0	165.0	29.800	1
2057450046	450	470	565.0	152.0	36.320	1

Do not use for aquatherm blue MF RP OT



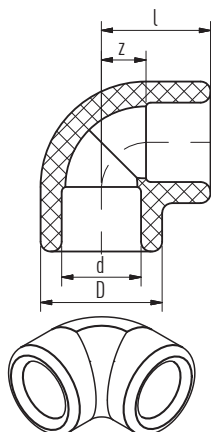
Elbow 90° female/male

SDR 6 / 7.4 / 9 / 11

Material:
Standards:
Colour:

fusiolen® PP-R
DIN 16962, DIN EN ISO 15874
green

Article no.	d	l	l1	D	z	z1	kg	PU
socket welding								
1080020061	20	25.5	25.5	27.0	11.0	13.5	0.032	10
1080025062	25	29.5	29.5	34.0	13.5	17.0	0.023	10
1080032063	32	35.0	39.0	43.0	17.0	21.5	0.048	5
1080040064	40	41.5	45.5	52.0	21.0	26.0	0.080	5



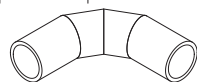
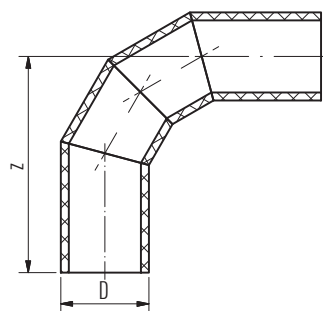
Elbow 90° socket welding

SDR 6 / 7.4 / 9 / 11 / 17.6

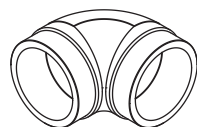
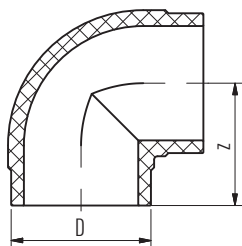
Material:
Standards:
Colour:

fusiolen® PP-R
DIN 16962, DIN EN ISO 15874
green

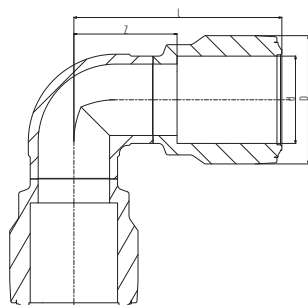
Article no.	d	l	D	z	kg	PU
socket welding						
1080020041	20	25.5	27.0	11.0	0.013	10
1080025042	25	29.5	34.0	13.5	0.023	10
1080032043	32	35.0	43.0	17.0	0.043	5
1080040044	40	41.5	52.0	21.0	0.077	5
1080050045	50	49.5	68.0	26.0	0.162	5
1080063046	63	60.0	84.0	32.5	0.293	1
1080075047	75	68.5	100.0	38.5	0.445	1
1080090048	90	79.0	120.0	46.0	0.729	1
1080110049	110	93.0	147.0	56.0	1.292	1
1080125050	125	116.5	167.0	76.5	2.004	1



pipe segmenter Artikel



Injection moulded fitting



Elbow 90° butt welding

pipe segments

Material: fusiolen® PP-R / PP-RCT
Standards: DIN 16962, DIN EN ISO 15874
Colour: blue / green

Article no.	D	z	kg	PU
butt welding				
SDR 11				
1084160052 *	160.0	145.0	1.956	1
1084200054 *	200.0	209.0	4.575	1
1084250056 *	250.0	240.0	7.180	1
2084315028	315.0	773.0	37.300	1
2084355032	355.0	833.0	57.074	1
2084400036	400.0	900.0	74.500	1
2084450040	450.0	975.0	89.080	1
SDR 17.6				
2087160021 *	160.0	145.0	1.512	1
2087200023 *	200.0	209.0	3.640	1
2087250025 *	250.0	240.0	6.011	1
2087315029	315.0	773.0	24.000	1
2087355033	355.0	833.0	32.000	1
2087400037	400.0	900.0	42.549	1
2087450041	450.0	975.0	62.200	1
2087500043	500.0	1.100.0	91.000	1
2087630045	630.0	1.295.0	164.600	1

*Injection moulded fitting

Please note! Electrofusion sockets can not be processed directly with injection moulded fittings. When using electrofusion sockets either segment welded special fittings must be used or pipe pieces must be welded to the injection moulded fittings.

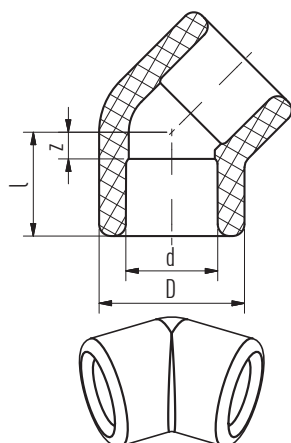
Elbow 90° with push-fit adapter

Material: fusiolen® PP-RP / EPDM
Standards: DIN EN ISO 15874
Colour: green

Article no.	d	l	D	z	kg	PU
SDR 11						
2054090100	90	248	152.0	99.0	3.290	1
2054110101	110	297	175.0	118.0	4.907	1
2054125102	125	324.5	190.0	143.5	6.996	1
2054160103	160	381	235.0	189.0	9.556	1
2054200104	200	503	285.0	263.0	17.575	1
2054250105	250	555	375.0	312.0	37.180	1
2054315106 *	315	875	450.0	600.0	85.850	1
2054355107 *	355	940	492.0	658.0	105.000	1
2054400018 *	400	1020	540.0	720.0	130.800	1
2054450109 *	450	1104	600.0	786.0	177.500	1
SDR 17.6						
2057160090	160	381	235.0	189.0	9.111	1
2057200091	200	503	285.0	263.0	16.640	1
2057250092	250	555	355.0	312.0	29.011	1
2057315093 *	315	875	425.0	600.0	56.600	1
2057355094 *	355	940	470.0	658.0	72.000	1
2057400095 *	400	1020	510.0	720.0	90.150	1
2057450096 *	450	1104	565.0	786.0	117.800	1

* pipe segments

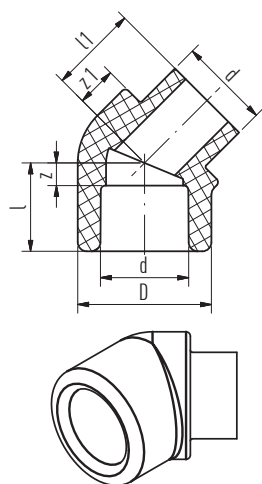
Do not use for aquatherm blue MF RP OT

**Elbow 45° socket welding**

SDR 6 / 7.4 / 9 / 11 / 17.6

Material:
Standards:
Colour:fusiolen® PP-R
DIN 16962, DIN EN ISO 15874
green

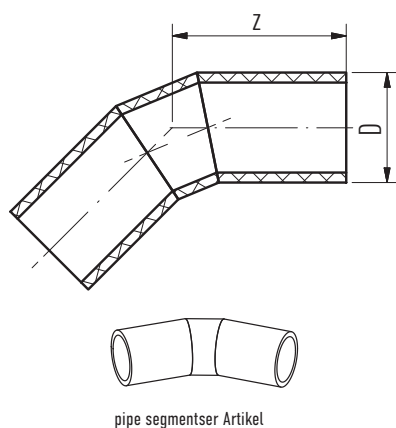
Article no.	d	l	D	z	kg	PU
socket welding						
1080020002	20	19.5	29.5	5.0	0.014	10
1080025003	25	22	34.0	6.0	0.018	10
1080032004	32	25	43.0	7.5	0.035	5
1080040005	40	30	52.0	9.5	0.053	5
1080050006	50	35	68.0	11.5	0.112	5
1080063007	63	41.5	84.0	14.0	0.227	1
1080075008	75	46.5	100.0	16.5	0.350	1
1080090009	90	52.5	120.0	19.5	0.568	1
1080110010	110	60.5	147.0	23.5	1.025	1
1080125011	125	67	167.0	27.0	1.329	1

**Elbow 45° female/male**

SDR 6 / 7.4 / 9 / 11

Material:
Standards:
Colour:fusiolen® PP-R
DIN 16962, DIN EN ISO 15874
green

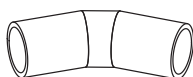
Article no.	d	l	l1	D	z	z1	kg	PU
socket welding								
1080020020	20	19.5	19.5	29.5	5.0	9.0	0.013	10
1080020021	25	22.0	22.0	34.0	6.0	8.5	0.017	10
1080032022	32	25.5	29.0	43.0	7.5	11.5	0.036	5
1080040023	40	30.0	33.0	52.0	9.5	13.5	0.057	5

**Elbow 45° butt welding**

pipe segments (**or Injection moulded fitting)

Material:
Standards:
Colour:fusiolen® PP-RCT
DIN 16962, DIN EN ISO 15874
blue / green

Article no.	D	z	kg	PU
butt welding				
SDR 11				
1084160013 **	160.0	95.0	1.371	1
1084200015 **	200.0	146.0	3.310	1
1084250017 **	250.0	182.0	6.218	1
2084315026 *	315.0	498.0	27.100	1
2084355030 *	355.0	520.0	38.158	1
2084400034 *	400.0	548.0	44.712	1
2084450038 *	450.0	580.0	60.260	1
SDR 17.6				
2087160020 **	160.0	95.0	1.080	1
2087200022 **	200.0	146.0	1.990	1
2087250024 **	250.0	182.0	3.875	1
2087315027 *	315.0	498.0	18.000	1
2087355031 *	355.0	520.0	22.058	1
2087400035 *	400.0	548.0	30.800	1
2087450039 *	450.0	580.0	39.123	1
2087500042 *	500.0	665.0	55.112	1
2087630044 *	630.0	741.0	97.148	1



pipe segmentser Artikel

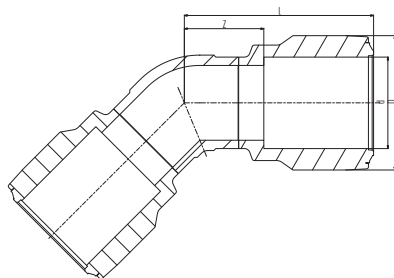


Injection moulded fitting

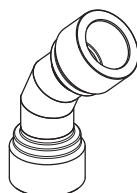
*mechanically stabilised through a fibre mix integrated in the middle layer of the fusiolen® PP-RCT.

**Injection moulded fitting (green)

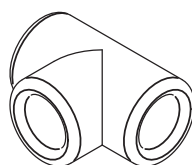
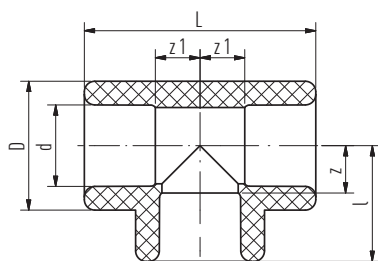
Please note! Electrofusion sockets can not be processed directly with injection moulded fittings. When using electrofusion sockets either segment welded special fittings must be used or pipe pieces must be welded to the injection moulded fittings



Angle with injected molded part



Angles in segmental construction



Elbow 45° with push-fit adapter

pipe segments

Material:
Standards:
Colour:fusiolen® PP-RCT / EPDM
DIN EN ISO 15874
green

Article no.	d	l	D	z	kg	PU
SDR 11						
2054090070 *	90	221.5	152.0	72.5	5.419	1
2054110071 *	110	264.5	175.0	85.5	7.482	1
2054125072 *	125	276	190.0	95.0	6.321	1
2054160073 *	160	331	235.0	139.0	8.971	1
2054200074 *	200	440	285.0	200.0	16.310	1
2054250075 *	250	497	375.0	254.0	36.218	1
2054315076	315	607	450.0	332.0	75.300	1
2054355077	355	638	492.0	355.0	82.650	1
2054400078	400	675	540.0	375.0	112.900	1
2054450079	450	719	600.0	401.0	148.500	1
SDR 17.6						
2057160080 *	160	331	235.0	139.0	8.680	1
2057200081 *	200	440	285.0	200.0	14.990	1
2057250082 *	250	497	355.0	254.0	26.875	1
2057315083	315	597	425.0	322.0	50.600	1
2057355084	355	628	470.0	345.0	62.058	1
2057400085	400	675	510.0	285.0	78.400	1
2057450086	450	704	565.0	386.0	94.723	1

*Injection moulded fitting (green)

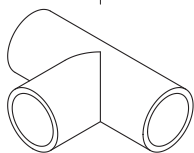
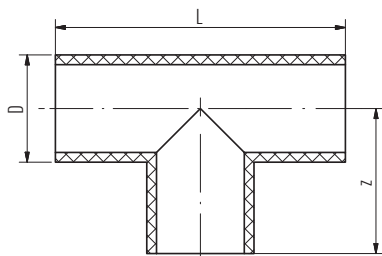
Do not use for aquatherm blue MF RP OT

T-piece socket welding

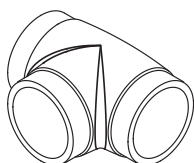
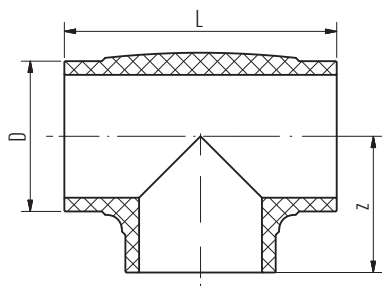
SDR 6 / 7.4 / 9 / 11 / 17.6 — Injection moulded fittings

Material:
Standards:
Colour:fusiolen® PP-R
DIN 16962, DIN EN ISO 15874
green

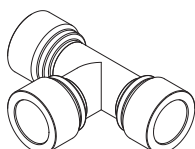
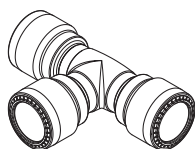
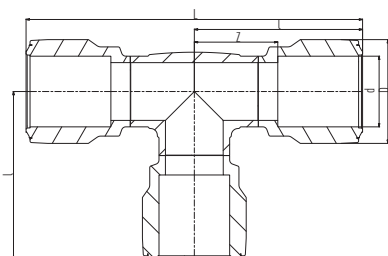
Article no.	d	l	D	L	z	z1	kg	PU
socket welding								
1060020016	20	25.5	27.0	51.0	11.0	11.0	0.017	10
1060025017	25	30.5	34.0	62.0	14.5	15.0	0.033	10
1060032018	32	33.5	43.0	70.0	15.5	17.0	0.054	5
1060040019	40	40.5	52.0	81.0	20.0	20.0	0.099	5
1060050020	50	49.5	68.0	99.0	26.0	26.0	0.177	5
1060063021	63	60.0	84.0	120.0	32.5	32.5	0.368	1
1060075022	75	68.5	100.0	137.0	38.5	38.5	0.541	1
1060090023	90	79.0	120.0	158.0	46.0	46.0	0.920	1
1060110024	110	93.0	147.0	186.0	56.0	56.0	1.598	1
1060125025	125	116.5	167.0	233.0	76.5	76.5	2.673	1



pipe segmenter Artikel



Injection moulded fitting



T-piece butt welding

pipe segment

Material:
Standards:
Colour:fusiolen® PP-RCT / Glass fibre
DIN 16962, DIN EN ISO 15874
green

Article no.	D	L	z	kg	PU
butt welding					
SDR 11					
1064160013 *	160.0	290.0	145.0	2.943	1
1064200015 *	200.0	410.0	205.0	6.099	1
1064250017 *	250.0	486.0	243.0	10.710	1
2064315001	315.0	920.0	460.0	36.674	1
2064355002	355.0	960.0	480.0	40.000	1
2064400003	400.0	1.000.0	500.0	62.100	1
2064450004	450.0	1.050.0	525.0	82.792	1
SDR 17.6					
2067160010 *	160.0	290.0	145.0	2.348	1
2067200011 *	200.0	410.0	205.0	4.500	1
2067250012 *	250.0	486.0	243.0	8.868	1
2067315013	315.0	920.0	460.0	19.800	1
2067355014	355.0	960.0	480.0	27.500	1
2067400015	400.0	1.000.0	500.0	40.395	1
2067450016	450.0	1.050.0	525.0	45.400	1
2067500017	500.0	1.200.0	600.0	75.726	1
2067630018	630.0	1.330.0	665.0	122.500	1

*Injection moulded fitting

Please note! Electrofusion sockets can not be processed directly with injection moulded fittings. When using electrofusion sockets either segment welded special fittings must be used or pipe pieces must be welded to the injection moulded fittings.

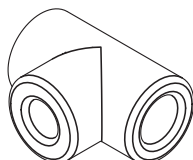
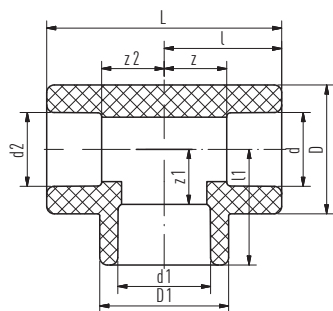
T-piece with push-fit adapter

Material:
Standards:
Colour:fusiolen® PP-RCT / EPDM
DIN EN ISO 15874
green

Article no.	d	l	D	L	z	kg	PU
SDR 11							
2054090050	90	248	152.0	496.0	99.0	4.765	1
2054110051	110	325.5	175.0	651.0	118.0	8.006	1
2054125052	125	325.5	190.0	651.0	144.5	10.162	1
2054160053	160	381	235.0	762.0	189.0	14.340	1
2054200054	200	499	285.0	998.0	259.0	25.599	1
2054250055	250	558	375.0	1.116.0	315.0	55.710	1
2054315056 *	315	645	450.0	1.290.0	370.0	92.450	1
2054355057 *	355	685	492.0	1.370.0	402.0	129.072	1
2054400058 *	400	725	540.0	1.450.0	425.0	165.100	1
2054450059 *	450	775	600.0	1.550.0	457.0	215.300	1
SDR 17.6							
2057160060	160	381	235.0	762.0	189.0	13.747	1
2057200061	200	499	285.0	998.0	259.0	24.000	1
2057250062 *	315	558	355.0	1.116.0	315.0	43.368	1
2057315063 *	315	635	425.0	1.270.0	360.0	68.700	1
2057355064 *	355	675	470.0	1.350.0	392.0	87.500	1
2057400065 *	400	725	510.0	1.450.0	425.0	111.795	1
2057450066 *	450	760	565.0	1.520.0	442.0	128.800	1

*pipe segments

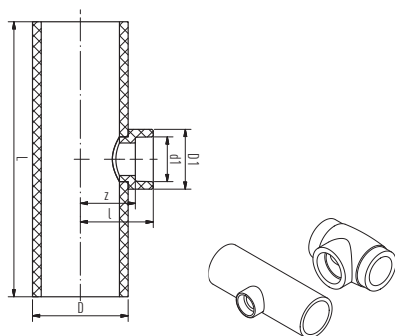
Do not use for aquatherm blue MF RP OT

**Red. T-piece socket welding**

SDR 6 / 7.4 / 9 / 11 / 17.6 – Injection moulded fittings

Material:
Standards:
Colour:fusiolen® PP-R
DIN 16962, DIN EN ISO 15874
green

Article no.	d	d1	d2	l	l1	D	D1	L	z	z1	z2	kg	PU
socket welding													
1060020033	20	25.0	20.0	31.0	30.5	34.0	34.0	62.0	16.5	14.5	16.5	0.040	10
1060025037	25	20.0	20.0	31.0	30.5	34.0	34.0	62.0	15.0	16.0	16.5	0.039	10
1060025038	25	20.0	25.0	31.0	30.5	34.0	34.0	62.0	15.0	16.0	15.0	0.036	10
1060032039	32	16.0	32.0	35.0	31.0	43.0	29.5	70.0	17.0	18.0	17.0	0.053	5
1060032040	32	20.0	20.0	36.8	37.0	43.0	43.0	73.5	18.8	22.5	22.3	0.076	5
1060032041	32	20.0	32.0	35.0	31.0	43.0	29.5	70.0	17.0	16.5	17.0	0.053	5
1060032042	32	25.0	25.0	35.0	34.5	43.0	43.0	70.0	17.0	18.5	19.0	0.069	5
1060032043	32	25.0	32.0	35.0	32.0	43.0	34.0	70.0	17.0	16.0	17.0	0.050	5
1060040044	40	20.0	40.0	41.5	36.0	52.0	34.0	83.0	21.0	21.5	21.0	0.091	5
1060040045	40	25.0	40.0	41.5	36.0	52.0	34.0	83.0	21.0	20.0	21.0	0.089	5
1060040046	40	32.0	40.0	42.0	40.5	52.0	52.0	84.0	21.5	22.5	21.5	0.092	5
1060050047	50	20.0	50.0	49.5	40.5	68.0	29.5	99.0	26.0	26.0	26.0	0.162	5
1060050048	50	25.0	50.0	49.5	44.5	68.0	34.0	99.0	26.0	28.5	26.0	0.158	5
1060050049	50	32.0	50.0	49.5	44.5	68.0	43.0	99.0	26.0	26.5	26.0	0.160	5
1060050050	50	40.0	50.0	49.5	49.5	68.0	68.0	99.0	26.0	29.0	26.0	0.161	5
1060063051	63	20.0	63.0	60.0	48.5	84.0	34.0	120.0	32.5	34.0	32.5	0.335	1
1060063052	63	25.0	63.0	60.0	48.5	84.0	34.0	120.0	32.5	32.5	32.5	0.331	1
1060063053	63	32.0	63.0	60.0	53.0	84.0	52.0	120.0	32.5	35.5	32.5	0.340	1
1060063054	63	40.0	63.0	60.0	53.0	84.0	52.0	120.0	32.5	33.0	32.5	0.332	1
1060063055	63	50.0	63.0	60.0	56.0	84.0	68.0	120.0	32.5	36.5	32.5	0.398	1
1060075056	75	20.0	75.0	68.5	54.5	100.0	34.0	137.0	38.5	40.0	38.5	0.501	1
1060075057	75	25.0	75.0	68.5	54.5	100.0	34.0	137.0	38.5	38.5	38.5	0.497	1
1060075058	75	32.0	75.0	68.5	59.0	100.0	52.0	137.0	38.5	41.0	38.5	0.505	1
1060075059	75	40.0	75.0	68.5	59.0	100.0	52.0	137.0	38.5	38.5	38.5	0.497	1
1060075060	75	50.0	75.0	68.5	66.0	100.0	84.0	137.0	38.5	42.5	38.5	0.550	1
1060075061	75	63.0	75.0	68.5	66.0	100.0	84.0	137.0	38.5	38.5	38.5	0.515	1
1060090062	90	32.0	90.0	79.0	64.0	120.0	43.0	158.0	46.0	46.0	46.0	0.880	1
1060090063	90	40.0	90.0	79.0	66.5	120.0	52.0	158.0	46.0	46.0	46.0	0.862	1
1060090064	90	50.0	90.0	79.0	69.5	120.0	68.0	158.0	46.0	46.0	46.0	0.905	1
1060090065	90	63.0	90.0	79.0	73.5	120.0	84.0	158.0	46.0	46.0	46.0	0.876	1
1060090066	90	75.0	90.0	79.0	76.0	120.0	100	158.0	46.0	46.0	46.0	0.991	1
1060110067	110	63.0	110.0	93.0	83.5	147.0	84.0	186.0	56.0	56.0	56.0	1.534	1
1060110068	110	75.0	110.0	93.0	86.0	147.0	100.0	186.0	56.0	56.0	56.0	1.517	1
1060110069	110	90.0	110.0	93.0	89.0	147.0	120.0	186.0	56.0	56.0	56.0	1.548	1
1060125070	125	75.0	125.0	116.5	106.5	167.0	100.0	233.0	76.5	76.5	76.5	2.427	1
1060125071	125	90.0	125.0	116.5	109.5	167.0	120.0	233.0	76.5	76.5	76.5	2.509	1
1060125072	125	110.0	125.0	116.5	113.5	167.0	147.0	233.0	76.5	76.5	76.5	2.563	1

**Red. T-piece, socket- & butt welding**

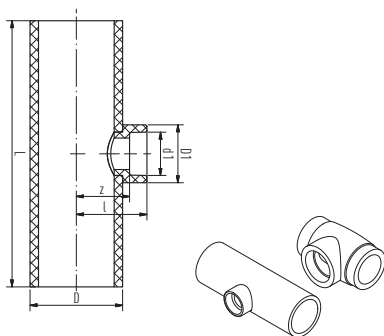
Material: fusiole® PP-R
Standards: DIN 16962, DIN EN ISO 15874
Colour: green

Article no.	D	d1	l	D1	L	z	kg	PU
Departure: socket welding								
SDR 11								
1064160074	160.0	75.0	122.0	100.0	460.0	92.0	3.140	1
1064160076	160.0	90.0	125.0	120.0	460.0	92.0	3.176	1
1064160078 *	160.0	125.0	120.0	167.0	290.0	80.0	2.842	1

* Injection moulded fitting

Please note! Electrofusion sockets can not be processed directly with injection moulded fittings.

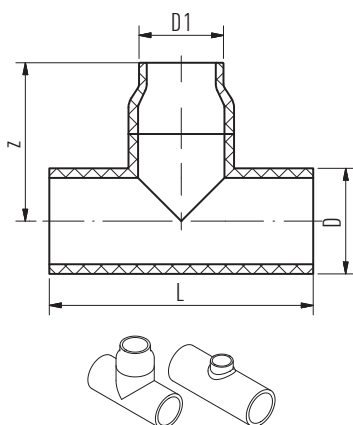
When using electrofusion sockets either segment welded special fittings must be used or pipe pieces must be welded to the injection moulded fittings.

**aquatherm blue red. T-piece, socket & butt welding**

Material: fusiole® PP-R
Standards: DIN 16962, DIN EN ISO 15874
Colour: blue / green

Article no.	D	d1	l	D1	L	z	kg	PU
Departure: socket welding								
SDR 11								
2064200020	200.0	75.0	142.0	100.0	500.0	112.0	5.460	1
2064200021	200.0	90.0	145.0	120.0	500.0	112.0	5.580	1
2064200022	200.0	110.0	149.0	147.0	500.0	112.0	5.810	1
2064200023	200.0	125.0	155.0	167.0	500.0	115.0	6.100	1
2064250025	250.0	75.0	167.0	100.0	750.0	137.0	12.440	1
2064250026	250.0	90.0	170.0	120.0	750.0	137.0	12.420	1
2064250027	250.0	110.0	174.0	147.0	750.0	137.0	12.760	1
2064250028	250.0	125.0	180.0	167.0	750.0	140.0	13.030	1
2064315031	315.0	125.0	213.0	167.0	920.0	173.0	25.000	1
2064355035	355.0	125.0	233.0	167.0	960.0	193.0	32.500	1
2064400040	400.0	125.0	255.0	167.0	1.000.0	215.0	42.100	1
2064450046	450.0	125.0	280.0	167.0	1.050.0	240.0	55.700	1
SDR 17.6								
2067160060	160.0	75.0	122.0	100.0	460.0	92.0	2.227	1
2067160061	160.0	90.0	125.0	120.0	460.0	92.0	2.364	1
2067160062 *	160.0	125.0	120.0	167.0	290.0	80.0	2.309	1
2067200063	200.0	75.0	142.0	100.0	500.0	112.0	3.620	1
2067200064	200.0	90.0	145.0	120.0	500.0	112.0	3.742	1
2067200065	200.0	110.0	149.0	147.0	500.0	112.0	3.976	1
2067200066	200.0	125.0	155.0	167.0	500.0	115.0	4.269	1
2067250068	250.0	75.0	167.0	100.0	750.0	137.0	8.149	1
2067250069	250.0	90.0	170.0	120.0	750.0	137.0	8.274	1
2067250070	250.0	110.0	174.0	147.0	750.0	137.0	8.504	1
2067250071	250.0	125.0	180.0	167.0	750.0	140.0	9.000	1
2067315074	315.0	125.0	213.0	167.0	920.0	173.0	17.570	1
2067355078	355.0	125.0	233.0	167.0	960.0	193.0	21.500	1
2067400083	400.0	125.0	255.0	167.0	1.000.0	215.0	27.690	1
2067450089	450.0	125.0	280.0	167.0	1.050.0	240.0	36.470	1
2067500096	500.0	125.0	305.0	167.0	1.200.0	265.0	51.250	1
2067630104	630.0	125.0	370.0	167.0	1.330.0	330.0	89.170	1

pipes with weld-in saddle / *injection moulded



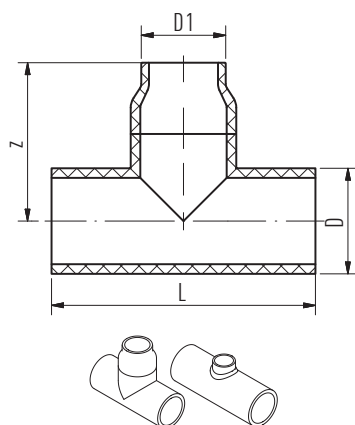
aquatherm blue SDR 11 red. T-piece butt welding

Material:
Standards:
Colour:

fusiolen® PP-R
DIN 16962, DIN EN ISO 15874
blue / green

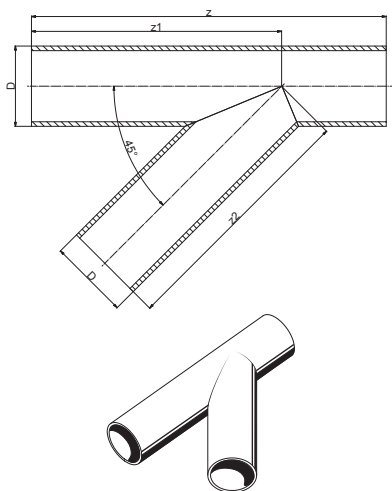
Article no.	D	D1	L	z	kg	PU
butt welding						
SDR 11						
2064200024	200.0	160	500.0	300.0	7.650	1
2064250029	250.0	160	750.0	375.0	19.030	1
2064250030	250.0	200	750.0	375.0	21.100	1
2064315032 *	315.0	160	920.0	237.5	25.000	1
2064315033	315.0	200	920.0	460.0	33.200	1
2064315034	315.0	250	920.0	460.0	31.500	1
2064355036 *	355.0	160	960.0	257.5	32.500	1
2064355037 *	355.0	200	960.0	267.5	30.200	1
2064355038	355.0	250	960.0	480.0	40.000	1
2064355039	355.0	315	960.0	480.0	40.000	1
2064400041 *	400.0	160	1.000.0	354.0	44.100	1
2064400042 *	400.0	200	1.000.0	318.0	44.100	1
2064400043 *	400.0	250	1.000.0	280.0	46.000	1
2064400044	400.0	315	1.000.0	500.0	57.790	1
2064400045	400.0	355	1.000.0	500.0	52.715	1
2064450047 *	450.0	160	1.050.0	379.0	57.900	1
2064450048 *	450.0	200	1.050.0	343.0	57.900	1
2064450049 *	450.0	250	1.050.0	305.0	57.900	1
2064450050 *	450.0	315	1.050.0	315.0	58.400	1
2064450051	450.0	355	1.050.0	525.0	62.491	1
2064450052	450.0	400	1.050.0	525.0	62.683	1

Pipe with reducer / *Pipe with weld-in saddle

**aquatherm blue SDR 17.6 red. T-piece,
butt welding**Material:
Standards:
Colour:fusiolen® PP-RCT
DIN 16962, DIN EN ISO 15874
blue/green

Article no.	D	D1	L	z	kg	PU
butt welding						
SDR 17.6						
2067200067	200.0	160	500.0	300.0	5.000	1
2067250072	250.0	160	750.0	375.0	11.600	1
2067250073	250.0	200	750.0	375.0	11.500	1
2067315075 *	315.0	160	920.0	237.5	16.500	1
2067315076	315.0	200	920.0	460.0	23.600	1
2067315077	315.0	250	920.0	460.0	22.600	1
2067355079 *	355.0	160	960.0	257.5	21.500	1
2067355080 *	355.0	200	960.0	267.5	21.900	1
2067355081	355.0	250	960.0	480.0	28.300	1
2067355082	355.0	315	960.0	480.0	30.500	1
2067400084 *	400.0	160	1.000.0	354.0	29.700	1
2067400085 *	400.0	200	1.000.0	318.0	29.700	1
2067400086 *	400.0	250	1.000.0	280.0	29.000	1
2067400087	400.0	315	1.000.0	500.0	30.667	1
2067400088	400.0	355	1.000.0	500.0	30.748	1
2067450090 *	450.0	160	1.050.0	379.0	37.000	1
2067450091 *	450.0	200	1.050.0	343.0	37.000	1
2067450092 *	450.0	250	1.050.0	305.0	37.000	1
2067450093 *	450.0	315	1.050.0	315.0	37.000	1
2067450094	450.0	355	1.050.0	525.0	50.500	1
2067450095	450.0	400	1.050.0	525.0	50.100	1
2067500097 *	500.0	160	1.200.0	404.0	53.400	1
2067500098 *	500.0	200	1.200.0	368.0	53.500	1
2067500099 *	500.0	250	1.200.0	330.0	53.500	1
2067500100	500.0	315	1.200.0	340.0	54.000	1
2067500101	500.0	355	1.200.0	600.0	57.039	1
2067500102	500.0	400	1.200.0	600.0	57.245	1
2067500103	500.0	450	1.200.0	600.0	57.365	1
2067630105 *	630.0	160	1.330.0	474.0	91.530	1
2067630106 *	630.0	200	1.330.0	438.0	91.500	1
2067630107 *	630.0	250	1.330.0	400.0	91.500	1
2067630108 *	630.0	315	1.330.0	405.0	92.350	1
2067630109	630.0	400	1.330.0	665.0	97.299	1
2067630110	630.0	450	1.330.0	665.0	97.703	1
2067630111	630.0	500	1.330.0	665.0	98.032	1

Pipe with reducer / *Pipe with weld-in saddle

**aquatherm blue Y-pieces**

MF = multi-layer, fibre-reinforced

Material:
Standards:
Colour:fusiolen® PP-RCT / Glass fibre
DIN16962-2
blue

Article no.	D	z	z1	z2	kg	PU
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socket welding

SDR 11

2084063001	63.0	560.0	380.0	380.0	0.843	1
2084075002	75.0	570.0	405.0	405.0	1.210	1
2084090003	90.0	577.0	412.0	412.0	1.750	1
2084110004	110.0	610.0	435.0	435.0	2.730	1
2084125005	125.0	665.0	475.0	475.0	3.840	1

butt welding

2084160007	160.0	782.0	551.0	551.0	7.300	1
2084200009	200.0	925.0	650.0	650.0	13.360	1
2084250011	250.0	1.105.0	780.0	780.0	24.780	1

SDR 17.6

socket welding

2087125006	125.0	665.0	475.0	475.0	2.470	1
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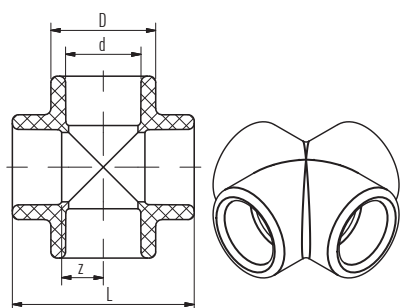
butt welding

2087160008	160.0	782.0	551.0	551.0	4.700	1
2087200010	200.0	925.0	650.0	650.0	8.640	1
2087250012	250.0	1.105.0	780.0	780.0	16.010	1

Special fittings on demand. Mechanically stabilised through a fibre mix integrated in the middle layer of the fusiolen® PP-RCT

Attention – please note!

These branches are for special applications in unpressurized areas. e.g. in vacuum dewatering within shipbuilding.

**Cross**

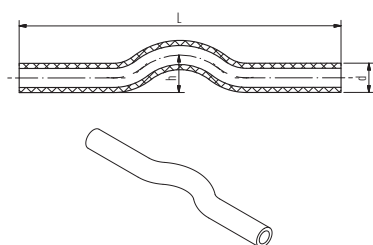
SDR 6 / 7.4 / 9 / 11

Material:
Standards:
Colour:fusiolen® PP-R
DIN 16962, DIN EN ISO 15874
green

Article no.	d	D	L	z	kg	PU
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socket welding

1040020090	20	29.5	51.5	11.3	0.025	10
1040025091	25	34.0	59.0	13.5	0.035	10
1040032092	32	43.0	70.0	17.0	0.062	5
1040040093	40	52.0	83.0	21.0	0.099	5

**Cross over fitting**

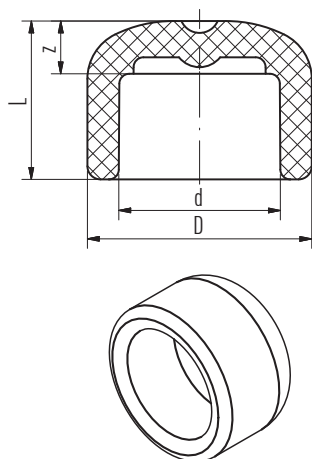
SDR 6 / 7.4 / 9 / 11

Material:
Standards:
Colour:fusiolen® PP-R
DIN 16962, DIN EN ISO 15874
green

Article no.	d	L	h	kg	PU
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socket welding

1090020002	20	352.0	32.0	0.060	10
1090025003	25	352.0	37.5	0.091	10
1090032004	32	352.0	48.0	0.154	5

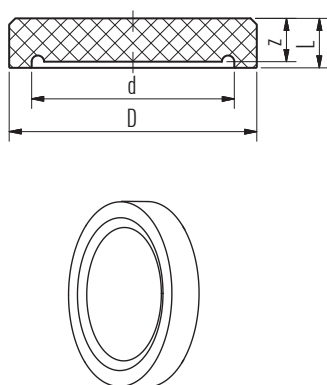


End cap

SDR 6 / 7.4 / 9 / 11

Material:
Standards:
Colour:fusiolen® PP-R
DIN 16962, DIN EN ISO 15874
green

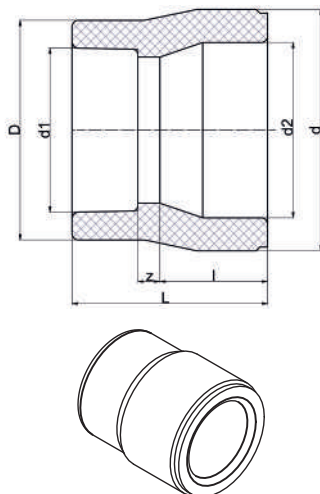
Article no.	d	D	L	z	kg	PU
socket welding						
1020020002	20	29.5	24.0	9.5	0.009	10
1020025003	25	34.0	24.0	8.0	0.011	10
1020032004	32	43.0	29.0	11.0	0.023	5
1020040005	40	52.0	38.0	17.5	0.042	5
1020050006	50	68.0	44.5	21.0	0.082	5
1020063007	63	84.0	52.0	24.5	0.146	1
1020075008	75	100.0	58.5	28.5	0.243	1
1020090009	90	120.0	67.5	34.5	0.365	1
1020110010	110	147.0	65.0	28.0	0.635	1
1020125011	125	167.0	82.0	42.0	0.872	1



End cap butt-welding

Material:
Standards:
Colour:fusiolen® PP-RCT
DIN 16962, DIN EN ISO 15874
green

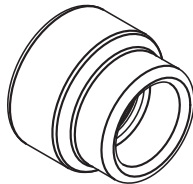
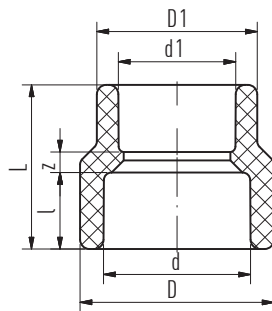
Article no.	D	d	L	z	kg	PU
butt welding						
SDR 11						
1024160013	160.0	130.8	70.0	14.6	0.631	1
1024200015	200.0	163.6	80.0	18.2	1.070	1
1024250017	250.0	204.6	90.0	22.7	1.989	1
1024315018	315.0	257.8	70.0	52.5	4.200	1
1024355019	355.0	290.6	80.0	67.5	6.410	1
1024400020	400.0	327.4	70.0	60.0	7.190	1
1024450021	450.0	368.2	80.0	70.0	10.500	1
SDR 17.6						
2027160001	160.0	141.8	70.0	9.1	0.679	1
2027200002	200.0	177.2	80.0	11.4	0.925	1
2027250003	250.0	221.6	90.0	14.2	1.305	1
2027315004	315.0	279.2	70.0	60.0	4.500	1
2027355005	355.0	314.8	70.0	60.0	5.540	1
2027400006	400.0	354.6	75.0	65.0	6.000	1
2027450007	450.0	399.0	70.0	56.0	8.520	1
2027500008	500.0	443.2	75.0	62.0	12.500	1
2027630009	630.0	558.6	90.0	78.0	23.500	1

**Reducing socket, socket welding**

SDR 6 / 7.4 / 9 / 11 / 17.6

Material:
Standards:
Colour:fusiolen® PP-R
DIN 16962, DIN EN ISO 15874
green

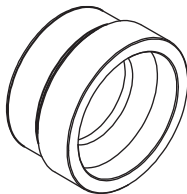
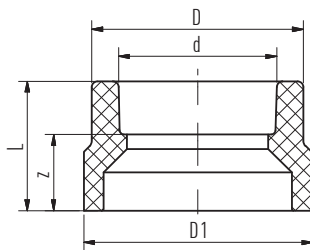
Article no.	d	d1	d2	l	D	L	z	kg	PU
socket welding									
1040025022	25	20.0	16.5	16.0	29.5	38.5	8.0	0.012	10
1040032023	32	20.0	21.5	18.0	29.5	37.5	5.0	0.015	5
1040032024	32	25.0	21.0	18.0	34.0	38.0	4.0	0.016	5
1040040025	40	20.0	26.5	20.5	29.5	45.0	10.0	0.025	5
1040040026	40	25.0	26.5	20.5	34.0	50.0	13.5	0.028	5
1040040027	40	32.0	26.5	20.5	43.0	50.0	11.5	0.032	5
1040050028	50	20.0	33.5	23.5	29.5	55.0	17.0	0.045	5
1040050029	50	25.0	33.5	23.5	34.0	55.0	15.5	0.044	5
1040050030	50	32.0	33.5	23.5	43.0	54.0	12.5	0.048	5
1040050031	50	40.0	33.5	23.5	52.0	53.0	9.0	0.053	5
1040063032	63	20.0	42.0	27.5	29.5	65.0	23.0	0.073	1
1040063033	63	25.0	42.0	27.5	34.0	65.0	21.5	0.071	1
1040063034	63	32.0	42.0	27.5	43.0	62.0	16.5	0.080	1
1040063035	63	40.0	42.0	27.5	52.0	64.5	16.5	0.089	1
1040063036	63	50.0	42.0	27.5	68.0	63.5	12.5	0.107	1
1040075037	75	40.0	50.0	30.0	52.0	69.5	19.0	0.131	1
1040075038	75	50.0	50.0	30.0	68.0	63.0	9.5	0.141	1
1040075039	75	63.0	50.0	30.0	84.0	71.0	13.5	0.170	1
1040075040	75	20.0	50.0	30.0	34.5	65.5	21.0	0.113	1
1040075041	75	25.0	50.0	30.0	34.5	65.5	19.5	0.111	1
1040075042	75	32.0	50.0	30.0	52.0	69.5	21.5	0.140	1
1040090043	90	50.0	60.0	33.0	68.0	75.0	18.5	0.193	1
1040090044	90	63.0	60.0	33.0	84.0	78.0	17.5	0.224	1
1040090045	90	75.0	60.0	33.0	100.0	81.5	18.5	0.273	1
1040110046	110	63.0	73.5	37.0	84.0	86.0	21.5	0.356	1
1040110047	110	75.0	73.5	37.0	100.0	89.0	22.0	0.383	1
1040110048	110	90.0	73.5	37.0	120.0	99.0	29.0	0.500	1
1040125049	125	75.0	84.0	40.0	100.0	101.0	31.0	0.518	1
1040125050	125	90.0	84.0	40.0	120.0	99.0	26.0	0.588	1
1040125051	125	110.0	84.0	40.0	147.0	112.0	35.0	0.832	1

**Reducing socket female/female**

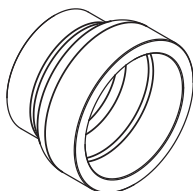
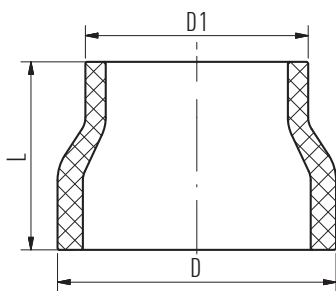
SDR 6 / 7.4 / 9 / 11 / 17.6

Material:
Standards:
Colour:fusiolen® PP-R
DIN 16962, DIN EN ISO 15874
green

Article no.	d	d1	L	D	D1	L	z	kg	PU
double sided socket welding									
1040040073	40	32.0	20.5	52.0	43.0	44.0	5.5	0.035	1
1040050074	50	32.0	23.5	68.0	43.0	53.0	11.5	0.066	1
1040050075	50	40.0	23.5	68.0	52.0	50.5	6.3	0.069	1
1040063076	63	40.0	27.5	84.0	52.0	61.0	13.0	0.115	1
1040063077	63	50.0	27.5	84.0	68.0	56.0	5.0	0.120	1
1040075078	75	50.0	30.0	100.0	68.0	68.0	14.5	0.192	1
1040075079	75	63.0	30.0	100.0	84.0	62.5	5.0	0.185	1
1040090080	90	63.0	33.0	120.0	84.0	74.0	13.5	0.276	1
1040090081	90	75.0	33.0	120.0	100.0	69.0	6.0	0.297	1
1040110082	110	75.0	37.0	147.0	100.0	85.0	18.0	0.516	1
1040110083	110	90.0	37.0	147.0	120.0	77.3	7.3	0.520	1
1040125084	125	90.0	40.0	167.0	120.0	91.0	18.0	0.749	1
1040125085	125	110.0	40.0	167.0	147.0	87.0	10.0	0.726	1

**Reducing socket,
socket & butt welding**Material:
Standards:
Colour:fusiolen® PP-RCT
DIN 16962, DIN EN ISO 15874
green

Article no.	d	D	D1	L	z	kg	PU
one side socket welding, other side butt welding							
SDR 9							
1043160122	110	147.0	160	90.0	53.0	0.694	1
1043160123	125	167.0	160	90.0	50.0	0.868	1
1043200124	125	167.0	200	135.0	95.0	1.599	1
SDR 11							
1044160053	110	147.0	160	90.0	53.0	0.673	1
1044160055	125	167.0	160	90.0	50.0	0.709	1
1044200057	125	167.0	200	135.0	95.0	1.341	1

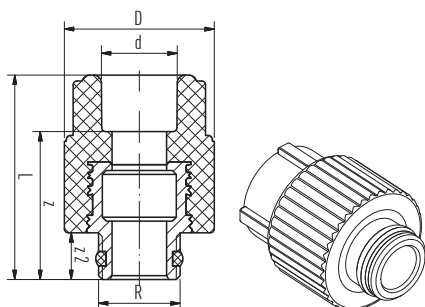


Reducing socket, butt welding

Material:
Standards:
Colour:

fusiolen® PP-RCT
DIN 16962, DIN EN ISO 15874
green

Article no.	D	D1	L	kg	PU
double sided butt welding					
SDR 11					
1044200059	200.0	160	135.0	1.140	1
1044250061	250.0	160	172.5	2.152	1
1044250063	250.0	200	172.5	2.681	1
1044315065	315.0	250	225.0	4.690	1
1044355066	355.0	250	170.0	4.548	1
1044355067	355.0	315	160.0	4.401	1
1044400069	400.0	315	122.0	4.550	1
1044400070	400.0	355	110.0	4.620	1
1044450071	450.0	315	142.0	6.500	1
1044450072	450.0	355	132.0	6.500	1
1044450073	450.0	400	122.0	6.000	1
SDR 17.6					
2047200004	200.0	160	135.0	1.012	1
2047250005	250.0	160	172.5	1.500	1
2047250006	250.0	200	172.5	1.602	1
2047315008	315.0	200	225.0	2.886	1
2047315009	315.0	250	225.0	3.420	1
2047355010	355.0	250	170.0	4.480	1
2047355011	355.0	315	160.0	3.108	1
2047400012	400.0	250	152.0	3.240	1
2047400013	400.0	315	122.0	3.000	1
2047400014	400.0	355	112.0	2.500	1
2047450015	450.0	315	142.0	4.000	1
2047450016	450.0	355	132.0	4.000	1
2047450017	450.0	400	122.0	4.000	1
2047500018	500.0	315	172.0	6.500	1
2047500019	500.0	355	152.0	7.000	1
2047500020	500.0	400	142.0	6.500	1
2047500021	500.0	450	122.0	5.500	1
2047630022	630.0	400	192.0	14.500	1
2047630023	630.0	450	172.0	12.500	1
2047630024	630.0	500	152.0	11.000	1



Transition piece with male thread

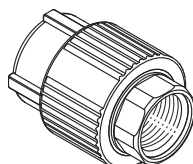
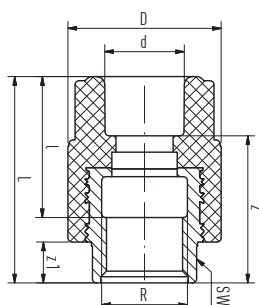
round, self sealing — SDR 6 / 7.4 / 11

Material:
Standards:
Colour:

fusiolen® PP-R / brass
DIN 16962, DIN EN ISO 15874
green

Article no.	d	D	L	z	z2	R	kg	PU
one side socket welding								
1070020051	20	38.5	52.5	38.0	12.0	1/2"	0.090	10
1070025052	25	38.5	54.0	38.0	12.0	1/2"	0.078	10
1070025053	25	38.5	53.5	37.5	13.0	3/4"	0.085	10

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

**Transition piece with female thread**

with spanner flat — SDR 6 / 7.4 / 9 / 11

Material: fusiolen® PP-R / brass or stainless steel
 Standards: DIN 16962, DIN EN ISO 15874
 Colour: green

Article no.	d	l	D	L	z	z1	R	SW	kg	PU
one side socket welding										
1070020008	20	34.5	38.5	50.5	36.0	10.0	1/2"	24	0.078	10
1070020009	20	29.0	43.5	50.0	35.5	10.0	3/4"	31	0.112	10
1070025010	25	36.0	38.5	52.0	36.0	10.0	1/2"	24	0.081	10
1070025011	25	29.0	43.5	50.0	34.0	10.0	3/4"	31	0.109	10
1070032012	32	32.0	43.5	53.0	35.0	10.0	3/4"	31	0.114	5
1070032013	32	37.5	60.0	59.5	41.5	14.0	1"	39	0.239	5
1070040014	40	40.0	60.0	62.0	41.5	14.0	1"	39	0.227	5
1070040015	40	40.0	74.0	63.0	42.5	15.0	1 1/4"	50	0.385	5
1070050016	50	43.0	74.0	66.0	42.5	15.0	1 1/4"	50	0.404	5
1070050017	50	45.0	85.5	67.0	43.5	15.0	1 1/2"	55	0.418	5
1070063018	63	51.5	84.0	73.5	46.0	15.0	1 1/2"	55	0.442	1
1070063019	63	51.0	101.0	77.0	49.5	19.0	2"	67	0.600	1
1070075020	75	51.0	100.0	77.0	47.0	19.0	2"	67	0.610	1

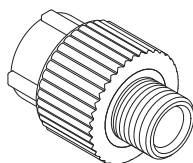
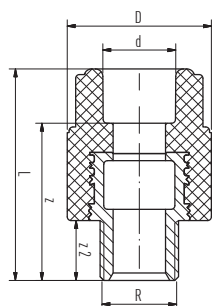
*stainless steel

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

Transition piece with male thread

round, brass or stainless steel — SDR 6 / 7.4 / 9 / 11

Material: fusiolen® PP-R / brass or stainless steel
 Standards: DIN 16962, DIN EN ISO 15874
 Colour: green



Article no.	d	D	L	z	z2	R	kg	PU
one side socket welding								
1070020022	20	38.5	56.5	42.0	16.0	1/2"	0.084	10
1070020023	20	38.5	57.5	43.0	17.0	3/4"	0.109	10
1070025024	25	38.5	58.0	42.0	16.0	1/2"	0.085	10
1070025025	25	38.5	57.5	41.5	17.0	3/4"	0.090	10
1070032026	32	38.5	59.5	41.5	17.0	3/4"	0.095	5
1070020074 *	20	38.5	56.5	42.0	16.0	1/2"	0.096	10
1070020075 *	20	38.5	57.5	43.0	17.0	3/4"	0.108	10
1070025076 *	25	38.5	58.0	42.0	16.0	1/2"	0.098	10
1070025077 *	25	38.5	57.5	41.5	17.0	3/4"	0.108	10
1070032078 *	32	38.5	59.5	41.5	17.0	3/4"	0.115	5

*stainless steel

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

Transition piece with male thread

round, self sealing — SDR 6 / 7.4 / 11

Material: fusiolen® PP-R / brass
 Standards: DIN 16962, DIN EN ISO 15874
 Colour: green

Article no.	d	d1	d2	D	L	z	z2	R	kg	PU
one side socket welding										
1070020051	20	21.0	14.0	38.5	52.5	38.0	12.0	1/2"	0.090	10
1070020052	25	21.0	14.0	38.5	54.0	38.0	12.0	1/2"	0.078	10
1070020053	25	26.5	18.0	38.5	53.5	37.5	13.0	1/2"	0.085	10

Information pursuant to Article 33 of Regulation (EC) 1907/2006 (REACH): Our products with brass components may contain lead in concentrations >0.1% (w/w).

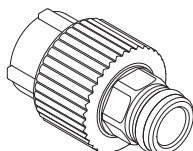
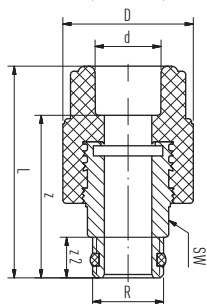
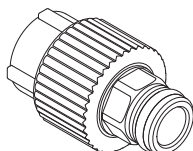
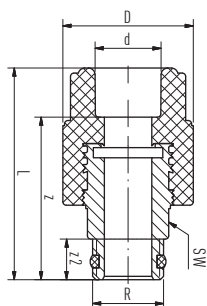
Transition piece with male thread

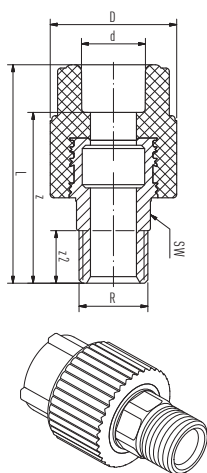
self sealing, with hex shaped threaded transition — SDR 6 / 7.4 / 11

Material: fusiolen® PP-R / brass
 Standards: DIN 16962, DIN EN ISO 15874
 Colour: green

Article no.	d	D	L	z	z2	R	SW	kg	PU
one side socket welding									
1070020056	20	38.5	63.5	49.0	13.0	1/2"	22	0.111	10

Information pursuant to Article 33 of Regulation (EC) 1907/2006 (REACH): Our products with brass components may contain lead in concentrations >0.1% (w/w).



**Transition piece with male thread**

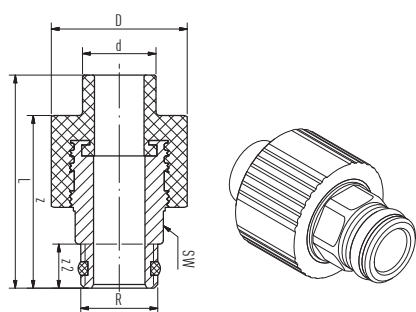
with spanner flat, brass or stainless steel — SDR 6 / 7.4 / 9 / 11

Material: fusiolen® PP-R / brass or stainless steel
Standards: DIN 16962, DIN EN ISO 15874
Colour: green

Article no.	d	D	L	z	z2	R	SW	kg	PU
one side socket welding									
1070020027	20	38.5	66.5	52.0	16.0	1/2"	22	0.104	10
1070020028	20	38.5	67.5	53.0	17.0	3/4"	24	0.129	10
1070025029	25	38.5	68.0	52.0	16.0	1/2"	21	0.107	10
1070025030	25	38.5	67.5	51.5	17.0	3/4"	24	0.103	10
1070032031	32	53.0	78.5	60.5	20.0	1"	32	0.216	5
1070032032	32	68.0	81.0	63.0	21.0	1 1/4"	42	0.318	5
1070040033	40	52.0	81.0	60.5	20.0	1"	32	0.222	5
1070040034	40	68.0	84.5	64.0	21.0	1 1/4"	42	0.324	5
1070050035	50	68.0	85.5	62.0	21.0	1 1/4"	42	0.351	5
1070050036	50	74.0	88.5	65.0	22.0	1 1/2"	46	0.425	5
1070063037	63	72.5	94.5	67.0	22.0	1 1/2"	46	0.467	1
1070063038	63	84.0	102.5	75.0	23.5	2"	50	0.685	1
1070075039	75	84.0	102.0	72.0	23.5	2"	50	0.733	1
1070075040	75	100.0	105.0	75.0	26.7	2 1/2"	65	0.970	1
1070090041	90	120.0	121.0	88.0	30.0	3"	85	1.326	1
1070110042	110	147.0	148.0	111.0	39.0	4"	105	2.730	1
1070032079 *	32	53.0	78.5	60.5	20.0	1"	32	0.204	5
1070032080 *	32	68.0	81.0	63.0	21.0	1 1/4"	41	0.360	5
1070040081 *	40	52.0	81.0	60.5	20.0	1"	32	0.251	5
1070040082 *	40	68.0	84.5	64.0	21.0	1 1/4"	41	0.362	5
1070050083 *	50	68.0	85.5	62.0	21.0	1 1/4"	41	0.389	5
1070050084 *	50	74.0	88.5	65.0	22.0	1 1/2"	46	0.480	5
1070063085 *	63	72.5	94.5	67.0	22.0	1 1/2"	46	0.523	1
1070063086 *	63	84.0	102.5	75.0	23.5	2"	50	0.708	1
1070075087 *	75	84.0	102.0	72.0	23.5	2"	50	0.699	1

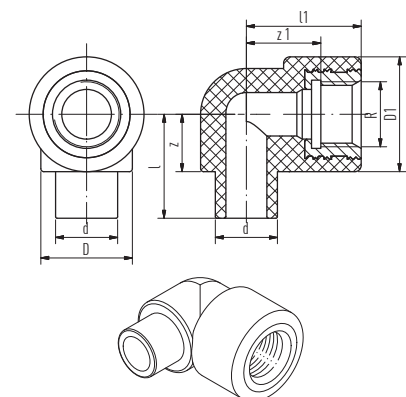
*stainless steel

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

**Transition piece with male thread**self-sealing with hexagon threaded transition, female/male
— SDR 6 / 7.4 / 11Material: fusiolen® PP-R / brass
Standards: DIN 16962, DIN EN ISO 15874
Colour: green

Article no.	d	D	L	z	z2	R	SW	kg	PU
one side socket welding									
1070020054	20	38.5	59.0	48.0	13.0	1/2"	22	0.107	10

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

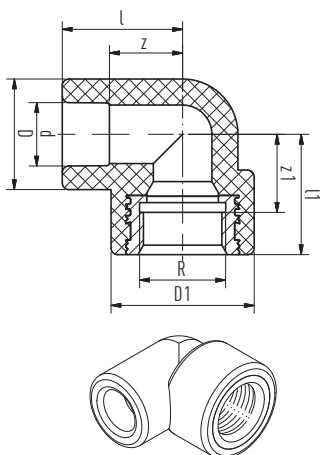
**Transition elbow with female thread**

SDR 6 / 7.4 / 11

Material: fusiolen® PP-R / brass
Standards: DIN 16962, DIN EN ISO 15874
Colour: green

Article no.	d	l	l1	D	D1	z	z1	R	kg	PU
one side socket welding										
1070020097	20	33.5	37.0	29.5	37.0	18.5	24.0	1/2"	0.076	10

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).



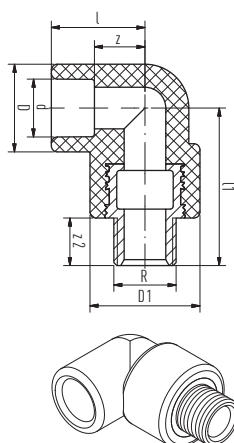
Transition-Elbow with female thread

brass or stainless steel — SDR 6 / 7.4 / 9 / 11

Material: fusiofen® PP-R / brass or stainless steel
Standards: DIN 16962, DIN EN ISO 15874
Colour: green

Article no.	d	l	l1	D	D1	z	z1	R	kg	PU
one side socket welding										
1070020091	20	37.0	37.0	34.0	44.0	22.5	24.0	3/4"	0.102	10
1070020092	20	31.0	31.5	29.5	37.0	16.5	18.5	1/2"	0.076	10
1070025093	25	37.0	37.0	34.0	44.0	21.0	24.0	3/4"	0.100	10
1070025094	25	33.5	31.5	34.0	37.0	17.5	18.5	1/2"	0.075	10
1070032095	32	27.5	51.0	43.0	44.0	9.5	38.0	3/4"	0.104	5
1070032096	32	34.0	66.5	43.0	60.5	16.0	44.5	1"	0.249	5

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).



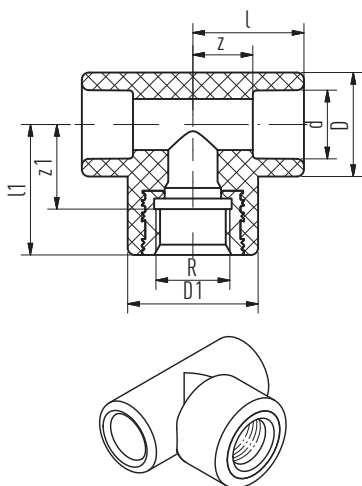
Transition-Elbow with male thread

brass or stainless steel — SDR 6 / 7.4 / 9 / 11

Material: fusiofen® PP-R / brass or stainless steel
Standards: DIN 16962, DIN EN ISO 15874
Colour: green

Article no.	d	l	l1	D	D1	z	z2	R	kg	PU
one side socket welding										
1070020099	20	31.5	53.0	29.5	37.0	17.0	16.0	1/2"	0.108	10
1070020100	20	31.5	54.0	34.0	38.0	17.0	17.0	3/4"	0.128	10
1070025101	25	31.5	54.0	34.0	38.0	15.5	17.0	3/4"	0.104	10
1070032102	32	27.5	68.0	43.0	38.0	9.5	17.0	3/4"	0.112	5
1070032103	32	31.0	85.5	43.0	52.0	13.0	20.0	1"	0.231	5

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

**Transition-T-piece with female thread**

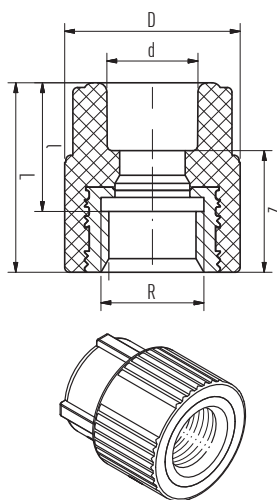
brass or stainless steel — SDR 6 / 7.4 / 9 / 11

Material: fusiole® PP-R / brass or stainless steel
 Standards: DIN 16962, DIN EN ISO 15874
 Colour: green

Article no.	d	l	l1	D	D1	z	z1	R	kg	PU
one side socket welding										
1060020141	20	31,5	37,0	29,5	37,0	17,0	24,0	1/2"	0,086	10
1060020142	20	37,0	37,0	34,0	44,0	22,5	24,0	3/4"	0,121	10
1060025143	25	34,0	38,0	34,0	37,0	18,0	25,0	1/2"	0,090	10
1060025144	25	37,0	37,0	34,0	44,0	21,0	24,0	3/4"	0,109	10
1060032145	32	35,0	37,0	43,0	37,0	17,0	24,0	1/2"	0,103	5
1060032146	32	27,5	51,0	43,0	44,0	9,5	38,0	3/4"	0,111	5
1060032147	32	31,5	67,0	43,0	60,0	13,5	45,0	1"	0,255	5
1060040148	40	42,0	40,0	52,0	37,0	21,5	27,0	1/2"	0,142	5
1060040149	40	40,5	40,5	52,0	52,0	20,0	27,5	3/4"	0,147	5
1060040150	40	41,5	56,0	52,0	60,0	21,0	34,0	1"	0,276	5
1060050151	50	49,5	63,5	68,0	60,0	26,0	41,5	1"	0,385	5
1060050152	50	49,5	44,5	68,0	43,0	26,0	31,5	1/2"	0,237	5
1060050153	50	49,5	44,5	68,0	43,0	26,0	31,5	3/4"	0,243	5
1060020160 *	20	31,5	37,0	29,5	37,0	17,0	24,0	1/2"	0,087	10
1060020161 *	20	37,0	37,0	34,0	44,0	22,5	24,0	3/4"	0,108	10
1060025162 *	25	34,5	38,0	34,0	37,0	18,5	25,0	1/2"	0,093	10
1060025163 *	25	37,0	37,0	34,0	44,0	21,0	24,0	3/4"	0,111	10
1060032164 *	32	35,0	37,0	43,0	37,0	17,0	24,0	1/2"	0,113	5
1060032165 *	32	27,5	51,0	43,0	44,0	9,5	38,0	3/4"	0,111	5
1060032166 *	32	31,5	67,0	43,0	60,0	13,5	45,0	1"	0,082	5

* stainless steel

NOTICE: aquatherm green-metal compound fittings are manufactured from fusiole® PP-R and brass. Metal inserts, without hex shaped spanner flat, with 1/2" and 3/4" female are also available in stainless steel.

**Transition piece with female thread**

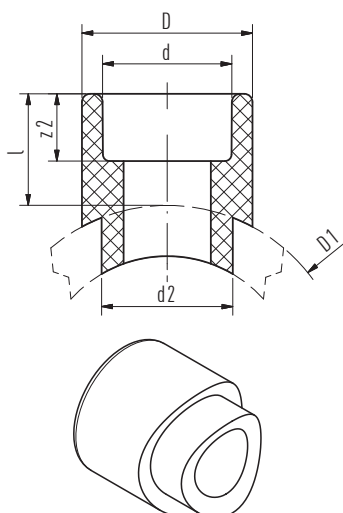
round, brass or stainless steel — SDR 6 / 7.4 / 9 / 11

Material: fusiole® PP-R / brass or stainless steel
 Standards: DIN 16962, DIN EN ISO 15874
 Colour: green

Article no.	d	l	D	L	z	R	kg	PU
one side socket welding								
1070020002	20	27,5	37,5	40,5	26,0	1/2"	0,064	10
1070020003	20	27,5	43,5	40,5	26,0	3/4"	0,089	10
1070025004	25	29,5	38,5	42,5	26,5	1/2"	0,065	10
1070025005	25	27,5	43,5	40,5	24,5	3/4"	0,087	10
1070032006	32	30,5	43,5	43,5	25,5	3/4"	0,092	5
1070020060 *	20	27,5	37,5	40,5	26,0	1/2"	0,069	10
1070020061 *	20	27,5	43,5	40,5	26,0	3/4"	0,090	10
1070025062 *	25	29,5	38,5	42,5	26,5	1/2"	0,069	10
1070025063 *	25	27,5	43,5	40,5	24,5	3/4"	0,086	10
1070032064 *	32	30,5	43,5	43,5	25,5	3/4"	0,092	5
1070032065 *	32	28,0	37,0	41,0	23,0	1/2"	0,078	5

* stainless steel

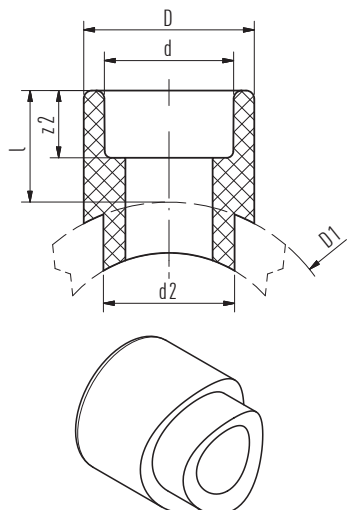
Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

**Weld-in saddle**

socket welding — SDR 6 / 7.4 / 9 / 11 / 17.6

Material:
Standards:
Colour:fusiolen® PP-R
DIN 16962, DIN EN ISO 15874
green

Article no	D1	d	d2	l	D	z2	kg	PU
socket welding								
1030040001 *	40	20	25.0	27.0	29.5	14.5	0.016	5
1030040002 *	40	25	25.0	28.5	34.0	16.0	0.017	5
1030050003	50	20	25.0	27.5	29.5	14.5	0.018	5
1030050004	50	25	25.0	28.5	34.0	16.0	0.019	5
1030063005	63	20	25.0	27.5	29.5	14.5	0.017	5
1030063006	63	25	25.0	28.5	34.0	16.0	0.019	5
1030063007	63	32	32.0	30.0	43.0	18.0	0.028	5
1030075008	75	20	25.0	27.5	29.5	14.5	0.018	5
1030075009	75	25	25.0	28.5	34.0	16.0	0.019	5
1030075010	75	32	32.0	30.0	43.0	18.0	0.028	5
1030075011	75	40	40.0	34.0	52.0	20.5	0.049	5
1030090012	90	20	25.0	27.5	29.5	14.5	0.018	5
1030090013	90	25	25.0	28.5	34.0	16.0	0.019	5
1030090014	90	32	32.0	30.0	43.0	18.0	0.029	5
1030090015	90	40	40.0	34.0	52.0	20.5	0.048	5
1030110016	110	20	25.0	27.5	29.5	14.5	0.019	5
1030110017	110	25	25.0	28.5	34.0	16.0	0.020	5
1030110018	110	32	32.0	30.0	43.0	18.0	0.030	5
1030110019	110	40	40.0	34.0	52.0	20.5	0.050	5
1030110020	110	50	50.0	34.0	68.0	23.5	0.091	5
1030125021	125	20	25.0	27.5	29.5	14.5	0.019	5
1030125022	125	25	25.0	28.5	34.0	16.0	0.020	5
1030125023	125	32	32.0	30.0	43.0	18.0	0.029	5
1030125024	125	40	40.0	34.0	52.0	20.5	0.050	5
1030125025	125	50	50.0	34.0	68.0	23.5	0.090	5
1030125026	125	63	63.0	38.0	84.0	27.5	0.149	5
1030160028	160	25	25.0	28.5	34.0	16.0	0.023	5
1030160029	160	32	32.0	30.0	43.0	18.0	0.034	5
1030160030	160	40	40.0	34.0	52.0	20.5	0.054	5
1030160031	160	50	50.0	34.0	68.0	23.5	0.094	5
1030160032	160	63	63.0	38.0	84.0	27.5	0.157	5
1030160033	160	75	75.0	42.0	100.0	30.0	0.238	5
1030160034	160	90	90.0	45.0	120.0	33.0	0.360	5
1030250035	200-250	20	25.0	27.5	29.5	14.5	0.020	5
1030250036	200-250	25	25.0	28.5	34.0	16.0	0.021	5
1030250037	200-250	32	32.0	30.0	43.0	18.0	0.031	5
1030200038	200	40	40.0	34.0	52.0	20.5	0.049	5
1030200039	200	50	50.0	34.0	68.0	23.5	0.087	5
1030200040	200	63	63.0	37.5	84.0	27.5	0.146	5
1030200041	200	75	75.0	42.0	100.0	30.0	0.225	5
1030200042	200	90	90.0	45.0	120.0	33.0	0.356	5
1030200043	200	110	110.0	49.0	147.0	37.0	0.638	5

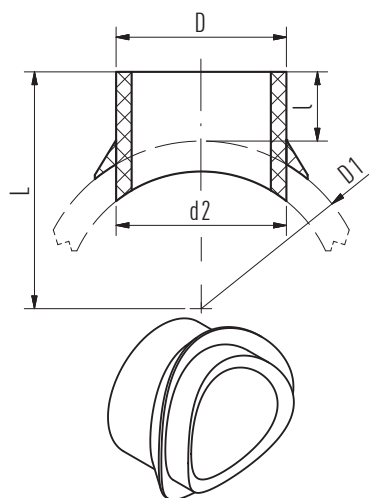
**Weld-in saddle**

(Continued) SDR 6 / 7.4 / 9 / 11 / 17.6

Material: fusiolen® PP-R
Standards: DIN 16962, DIN EN ISO 15874
Colour: green

Article no.	D1	d	d2	l	D	z2	kg	PU
socket welding								
1030250045	250	40	40.0	34.0	52.0	20.5	0.053	5
1030250046	250	50	50.0	34.0	68.0	23.5	0.090	5
1030250047	250	63	63.0	37.5	84.0	27.5	0.152	5
1030250048	250	75	75.0	42.0	100.0	30.0	0.222	5
1030250049	250	90	90.0	45.0	120.0	33.0	0.348	5
1030250050	250	110	110.0	49.0	147.0	37.0	0.602	5
1030250051	250	125	125.0	55.0	167.0	40.0	0.820	5
1030315052	315-355	63	63.0	37.5	84.0	27.5	0.153	1
1030315053	315-355	75	75.0	42.0	100.0	30.0	0.230	1
1030315054	315	90	90.0	45.0	120.0	33.0	0.363	1
1030315055	315	110	110.0	49.0	147.0	37.0	0.592	1
1030315056	315	125	125.0	55.0	167.0	40.0	0.830	1
1030355058	355	90	90.0	45.0	120.0	33.0	0.355	1
1030355059	355	110	110.0	49.0	147.0	37.0	0.586	1
1030355060	355	125	125.0	55.0	167.0	40.0	0.813	1
1030500062	400-500	75	75.0	42.0	100.0	30.0	0.216	1
1030450063	400-450	110	110.0	49.0	147.0	37.0	0.535	1
1030400064	400	125	125.0	55.0	167.0	40.0	0.693	1
1030500065	400-500	90	90.0	45.0	120.0	33.0	0.330	1
1030500066	450-500	125	125.0	55.0	167.0	40.0	0.671	1
1030630067	400-630	63	63.0	37.5	84.0	27.5	0.498	1
1030560068	500	110	110.0	49.0	147.0	37.5	0.533	1
1030630069	630	75	75.0	42.0	100.0	30.0	0.260	1
1030630070	630	90	90.0	45.0	120.0	33.0	0.350	1
1030630071	630	125	125.0	55.0	167.0	40.0	0.689	1
1030630072	630	110	110.0	49.0	147.0	37.0	0.567	1

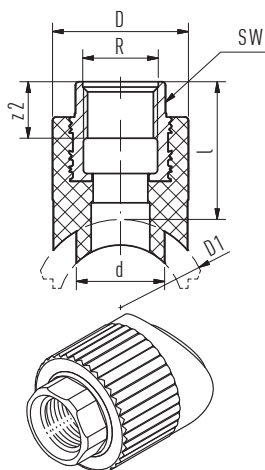
With weld-on surface and additional weld-in socket for fusion with the pipe wall. The necessary tools for processing can be found in the Tools chapter.

**Weld-in saddle butt-welding**

Material: fusiolen® PP-RCT / fibreglass
Standards: DIN 16962, DIN EN ISO 15874
Colour: green

Article no.	D1	D	d2	l	L	kg	PU
butt welding							
SDR 9							
1033315073	315	160.0	160.0	80.0	237.5	0.831	1
1033355074	355	160.0	160.0	80.0	257.5	0.845	1
SDR 11							
1034315057	315	160.0	160.0	80.0	237.5	0.862	1
1034355061	355	160.0	160.0	80.0	257.5	0.867	1

With weld-on surface and additional weld-in socket for fusion with the pipe wall. The necessary tools for processing can be found in the Tools chapter.

**Weld-in saddle with female thread**

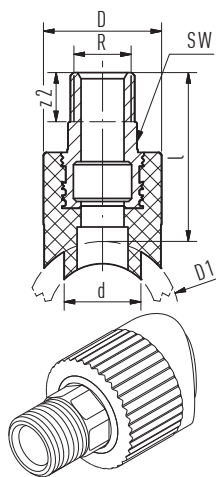
With spanner flat — SDR 6 / 7.4 / 9 / 11 / 17.6

Material:
Standards:
Colour:fusiolen® PP-R / brass
DIN 16962, DIN EN ISO 15874
green

Article no.	D1	d	l	D	z2	R	SW	kg	PU
one side socket welding									
1030040100 *	40	25	39.0	38.5	16.0	1/2"	24	0.088	5
1030050106	50	25	39.0	38.5	16.0	1/2"	24	0.090	5
1030063112	63	25	39.0	38.5	16.0	1/2"	24	0.089	5
1030075118	75	25	39.0	38.5	16.0	1/2"	24	0.083	5
1030090126	90	25	39.0	38.5	16.0	1/2"	24	0.090	5
1030110134	110	25	39.0	38.5	16.0	1/2"	24	0.089	5
1030125142	125	25	39.0	38.0	16.0	1/2"	24	0.092	5
1030160150	160	25	39.0	38.5	16.0	1/2"	24	0.092	5
1030250158	200-250	25	39.0	38.5	16.0	1/2"	24	0.092	5
1030040101	40	25	39.0	43.5	21.0	3/4"	31	0.107	5
1030050107	50	25	39.0	43.5	21.0	3/4"	31	0.110	5
1030063113	63	25	39.0	43.5	21.0	3/4"	31	0.109	5
1030075119	75	25	39.0	43.5	21.0	3/4"	31	0.109	5
1030090127	90	25	39.0	43.5	21.0	3/4"	31	0.110	5
1030110135	110	25	39.0	43.5	21.0	3/4"	31	0.110	5
1030125143	125	25	39.0	43.5	21.0	3/4"	31	0.112	5
1030160151	160	25	39.0	43.5	21.0	3/4"	31	0.112	5
1030250159	200-250	25	39.0	43.5	21.0	3/4"	31	0.112	5
1030075120	75	32	43.0	60.0	22.0	1"	39	0.223	5
1030090128	90	32	43.0	60.0	22.0	1"	39	0.223	5
1030110136	110	32	43.0	60.0	22.0	1"	39	0.223	5
1030125144	125	32	43.0	60.0	22.0	1"	39	0.224	5
1030160152	160	32	43.0	60.0	22.0	1"	39	0.226	5
1030250160	200-250	32	43.0	60.0	22.0	1"	39	0.244	5

*do not use with aquatherm blue OT

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

**Weld-in saddle with male thread**

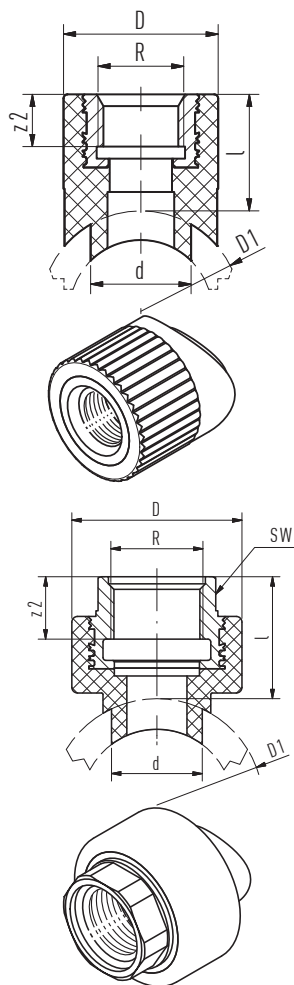
With spanner flat — SDR 6 / 7.4 / 9 / 11 / 17.6

Material:
Standards:
Colour:fusiolen® PP-R / brass
DIN 16962, DIN EN ISO 15874
green

Article no.	D1	d	l	D	z2	R	SW	kg	PU
one side socket welding									
1030040102 *	40	25	55.0	38.5	16.0	1/2"	21	0.088	5
1030050108	50	25	55.0	38.5	16.0	1/2"	21	0.090	5
1030063114	63	25	55.0	38.5	16.0	1/2"	21	0.089	5
1030075121	75	25	55.0	38.5	16.0	1/2"	21	0.097	5
1030090129	90	25	55.0	38.5	16.0	1/2"	21	0.090	5
1030110137	110	25	55.0	38.5	16.0	1/2"	21	0.089	5
1030125145	125	25	55.0	38.5	16.0	1/2"	21	0.092	5
1030160153	160	25	55.0	38.5	16.0	1/2"	21	0.092	5
1030040103 *	40	25	56.0	43.5	17.0	3/4"	24	0.107	5
1030050109	50	25	56.0	43.5	17.0	3/4"	24	0.110	5
1030063115	63	25	56.0	43.5	17.0	3/4"	24	0.109	5
1030075122	75	25	56.0	43.5	17.0	3/4"	24	0.109	5
1030090130	90	25	56.0	43.5	17.0	3/4"	24	0.110	5
1030110138	110	25	56.0	43.5	17.0	3/4"	24	0.110	5
1030125146	125	25	56.0	43.5	17.0	3/4"	24	0.112	5
1030160154	160	25	56.0	43.5	17.0	3/4"	24	0.112	5

*do not use with aquatherm blue OT

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

**Weld-in saddle with female thread**

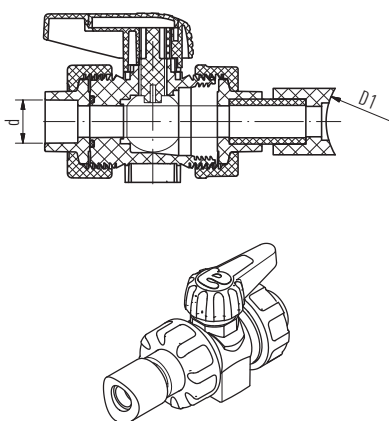
SDR 6 / 7.4 / 9 / 11 / 17.6

Material:
Standards:
Colour:fusiolen® PP-R / stainless steel
DIN 16962, DIN EN ISO 15874
green

Article no.	D1	d	l	D	z2	R	SW	kg	PU
one side socket welding									
1030040104 **	40	25	39.0	38.5	16.0	1/2"	-	0.062	5
1030050110	50	25	39.0	38.5	16.0	1/2"	-	0.064	5
1030063116	63	25	39.0	38.5	16.0	1/2"	-	0.064	5
1030075123	75	25	39.0	38.5	16.0	1/2"	-	0.064	5
1030090131	90	25	39.0	38.5	16.0	1/2"	-	0.064	5
1030110139	110	25	39.0	38.5	16.0	1/2"	-	0.069	5
1030125147	125	25	39.0	38.5	16.0	1/2"	-	0.065	5
1030160155	160	25	39.0	38.5	16.0	1/2"	-	0.066	5
1030250161	200-250	25	39.0	38.5	16.0	1/2"	-	0.065	5
1030040105	40	25	39.0	43.5	21.0	3/4"	-	0.082	5
1030050111	50	25	39.0	43.5	21.0	3/4"	-	0.074	5
1030063117	63	25	39.0	43.5	21.0	3/4"	-	0.073	5
1030075124	75	25	39.0	43.5	21.0	3/4"	-	0.074	5
1030090132	90	25	39.0	43.5	21.0	3/4"	-	0.074	5
1030110140	110	25	39.0	43.5	21.0	3/4"	-	0.083	5
1030125148	125	25	39.0	43.5	21.0	3/4"	-	0.074	5
1030160156	160	25	39.0	43.5	21.0	3/4"	-	0.076	5
1030250162	200-250	25	39.0	43.5	21.0	3/4"	-	0.084	5
1030075125 *	75	32	43.0	60.0	22.0	1"	39	0.234	5
1030090133 *	90	32	43.0	60.0	22.0	1"	39	0.235	5
1030110141 *	110	32	43.0	60.0	22.0	1"	39	0.236	5
1030125149 *	125	32	43.0	60.0	22.0	1"	39	0.235	5
1030160157 *	160	32	43.0	60.0	22.0	1"	39	0.238	5
1030250163 *	200-250	32	43.0	60.0	22.0	1"	39	0.237	5

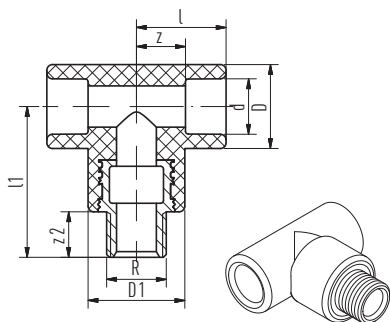
*with hexagon threaded transition

**not for aquatherm blue pipe OT

**aquatherm weld-on saddle set**with ball valve for mounting under pressure
in use with hot tapping tool — SDR 6 / 7.4 / 9 / 11 / 17.6Material:
Standards:
Colour:fusiolen® PP-R
DIN 16962, DIN EN ISO 15874
green

Article no.	d	D1	PU
socket welding			
1090075010	40	75	1
1090090011	40	90	1
1090110012	40	110	1
1090125013	40	125	1
1090125014	63	125	1
1090160015	40	160	1
1090160016	63	160	1
1090200017	40	200	1
1090200018	63	200	1
1090250019	40	250	1
1090250020	63	250	1
1090315021	63	315-355	1
1090400022	63	400-630	1

Items are not always available from stock. Please enquire separately about delivery times and quantities.
The necessary tools for processing can be found in the Tools chapter.

**Threaded branch tee with female thread**

SDR 6 / 7.4 / 11

Material: fusiolen® PP-R / brass
 Standards: DIN 16962, DIN EN ISO 15874
 Colour: green

Article no.	d	l	l1	D	D1	z	z2	R	kg	PU
double-sided socket welding										
1060020154	20	31.5	53.0	29.5	37.0	17.0	16.0	1/2"	0.102	10

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

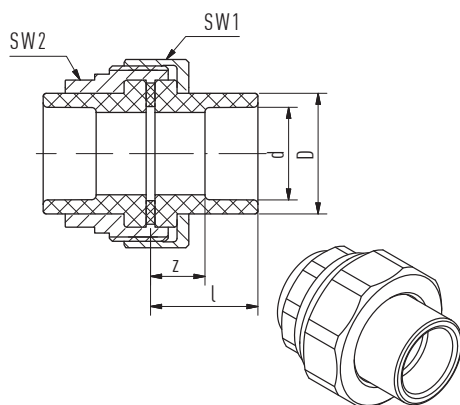
Water meter nut adapter

with gasket — SDR 6 / 7.4 / 9 / 11

Material: fusiolen® PP-R / brass
 Standards: DIN 16962, DIN EN ISO 15874
 Colour: green

Article no.	d	l	l1	D	z	R	SW	kg	PU
one side socket welding									
1050020090	20	59.5	3.0	38.5	45.0	3/4"	30	0.136	1
1050025091	25	61.0	3.0	38.5	45.0	3/4"	30	0.155	1
1050032092	32	62.0	3.0	43.5	44.0	3/4"	30	0.162	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

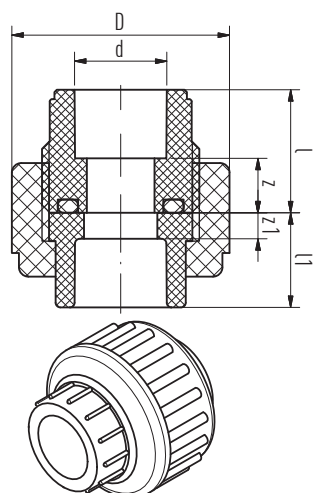
**Coupling screw joint, brass**

SDR 6 / 7.4 / 9 / 11

Material: fusiolen® PP-R / brass
 Standards: DIN 16962, DIN EN ISO 15874
 Colour: green, brass

Article no.	d	l	D	z	SW1	SW2	kg	PU
socket welding								
1050032040	32	36.5	41.0	18.5	64	50	0.479	1
1050040041	40	38.0	50.0	17.5	80	60	0.841	1
1050050042	50	41.0	61.0	17.5	86	70	0.821	1
1050063043	63	45.0	76.0	17.5	108	90	1.498	1
1050075044	75	31.0	90.0	17.5	128	104	1.998	1

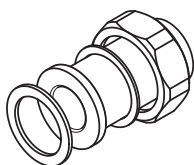
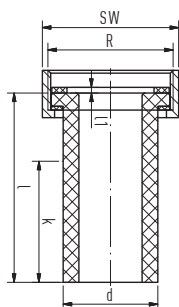
Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

**Coupling screw joint**

SDR 6 / 7.4 / 9 / 11

Material: fusiolen® PP-R
 Standards: DIN 16962, DIN EN ISO 15874
 Colour: green

Article no.	d	l	l1	D	z	z1	kg	PU
socket welding								
1050020050	20	26.0	20.0	46.0	12.0	5.5	0.036	10
1050025051	25	28.0	21.0	56.0	12.0	5.0	0.058	10
1050032052	32	30.0	23.0	66.0	12.0	5.0	0.089	5
1050040053	40	34.0	25.5	79.0	13.5	5.0	0.136	5
1050050054	50	39.0	28.8	87.0	15.5	5.0	0.170	5
1050063055	63	47.5	32.5	107.0	20.0	5.0	0.240	1
1050075056	75	50.0	36.0	128.0	20.0	6.0	0.546	1

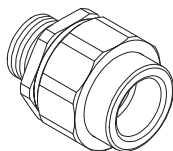
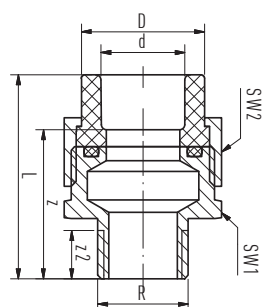
**Loose nut adapter**

with gasket — SDR 6 / 7.4 / 9 / 11

Material:
Standards:
Colour:fusiolen® PP-R / brass
DIN 16962, DIN EN ISO 15874
green

Article no.	d	l	l1	k	R	SW	kg	PU
one side socket welding								
1050020082	20	100.0	3.0	65.0	1"	36	0.079	1
1050025083	25	100.0	3.0	62.0	1 1/4"	46	0.104	1
1050032084	32	100.0	3.0	58.0	1 1/2"	52	0.175	1
1050040085	40	100.0	3.0	53.0	2"	64	0.258	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

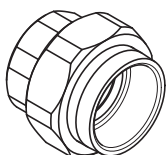
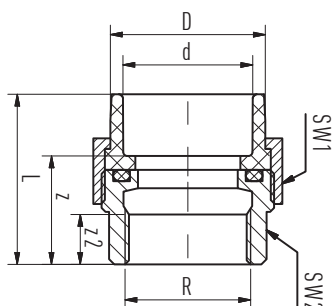
**Transition coupling with male thread**

with union nut and welding socket — SDR 6 / 7.4 / 9 / 11

Material:
Standards:
Colour:fusiolen® PP-R / brass
DIN 16962, DIN EN ISO 15874
green

Article no.	d	D	L	z	z2	R	SW1	SW2	kg	PU
one side socket welding										
1050020070	20	27.5	52.5	38.0	13.5	1/2"	34	36	0.145	1
1050025071	25	36.0	59.5	43.5	14.5	3/4"	42	46	0.243	1
1050032072	32	41.5	64.5	46.5	16.8	1"	48	52	0.336	1
1050040073	40	53.0	70.0	49.5	19.1	1 1/4"	60	64	0.517	1
1050050074	50	59.0	84.8	61.3	22.0	1 1/2"	48	72	0.624	1
1050063075	63	74.0	95.5	68.0	25.0	2"	62	89	1.045	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

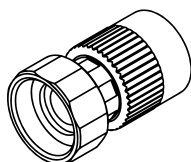
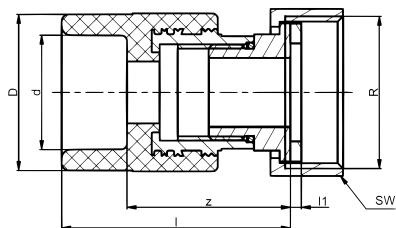
**Transition coupling with female thread**

with union nut and welding socket — SDR 6 / 7.4 / 9 / 11

Material:
Standards:
Colour:fusiolen® PP-R / brass
DIN 16962, DIN EN ISO 15874
green

Article no.	d	D	L	z	z2	R	SW1	SW2	kg	PU
one side socket welding										
1050020076	20	27.5	45.0	30.5	15.0	1/2"	36	24	0.112	1
1050025077	25	36.0	49.0	33.0	15.5	3/4"	46	32	0.193	1
1050032078	32	41.5	54.0	36.0	15.0	1"	52	40	0.291	1
1050040079	40	53.0	56.5	36.0	20.0	1 1/4"	64	47	0.423	1
1050050080	50	59.0	64.8	41.3	19.0	1 1/2"	72	57	0.610	1
1050063081	63	74.0	74.5	47.0	18.0	2"	89	68	0.924	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

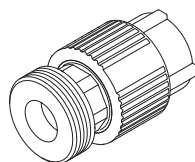
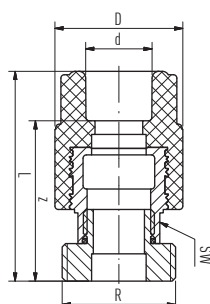
**Nut adapter ISO-standard**

SDR 6 / 7.4 / 9 / 11

Material:
Standards:
Colour:fusiolen® PP-R / brass
DIN 16962, DIN EN ISO 15874
green

Article no.	d	l	l1	D	z	R	SW	kg	PU
one side socket welding									
1050020097	20	58.5	3.0	38.5	34.0	1"	36	0.182	10
1050025098	25	60.0	3.0	38.5	44.0	1"	36	0.186	10
1050025099	25	60.0	3.0	43.5	44.0	1 1/4"	46	0.274	10
1050032100	32	63.0	3.0	43.5	45.0	1 1/4"	46	0.279	5
1050032101	32	69.5	3.0	60.0	51.5	1 1/2"	52	0.446	5
1050040102	40	72.0	3.0	60.0	51.5	1 1/2"	52	0.421	5
1050040103	40	72.0	3.0	74.0	51.5	2"	64	0.719	5
1050050104	50	75.0	3.0	74.0	51.5	2"	64	0.736	5
1050050105	50	77.0	3.0	84.0	53.5	2 1/4"	72	0.831	5
1050063106	63	83.5	3.0	84.0	56.0	2 1/4"	72	0.889	1
1050063107	63	82.5	3.0	101.0	55.0	2 3/4"	89	1.306	1
1050075108	75	85.0	3.0	100.0	55.0	2 3/4"	89	1.275	1
1050075109	75	91.0	3.0	100.0	61.0	3 1/2"	110	1.818	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

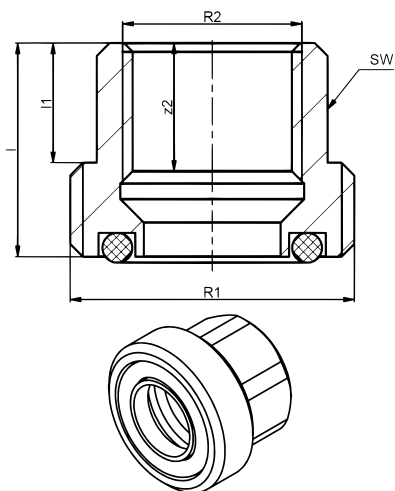
**Counterpart with male thread**

with welding socket for ISO-standard — SDR 6 / 7.4 / 9 / 11

Material:
Standards:
Colour:fusiolen® PP-R / brass
DIN 16962, DIN EN ISO 15874
green

Article no.	d	D	L	z	R	SW	kg	PU
one side socket welding								
1050020110	20	37.5	61.5	47.0	1"	24	0.151	10
1050025111	25	37.5	63.0	47.0	1"	24	0.153	10
1050025112	25	43.5	63.0	47.0	1 1/4"	31	0.221	10
1050032113	32	43.5	66.0	48.0	1 1/4"	31	0.226	5
1050032114	32	60.0	76.5	58.5	1 1/2"	39	0.408	5
1050040115	40	60.0	79.0	58.5	1 1/2"	39	0.414	5
1050040116	40	74.0	79.0	58.5	2"	50	0.650	5
1050050117	50	74.0	82.0	58.5	2"	50	0.634	5
1050050118	50	84.0	83.0	59.5	2 1/4"	55	0.750	5
1050063119	63	84.0	89.5	62.0	2 1/4"	55	0.728	1
1050063120	63	101.0	95.0	65.5	2 3/4"	67	1.093	1
1050075121	75	100.0	95.0	65.0	2 3/4"	67	1.117	1
1050075122	75	100.0	100.0	70.0	3 1/2"	67	1.436	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

**Brass counterpart with female thread**

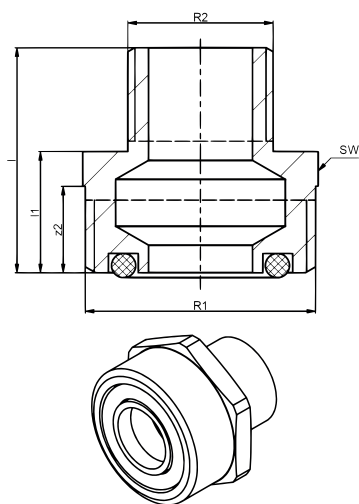
Material:

brass

to ISO-Norm-screwed connection — SDR 6 / 7.4 / 9 / 11

Article no.	l1	L	z2	R1	R2	SW	kg	PU
1050000130	14.0	25.0	15.0	1"	1/2"	25	0.063	10
1050000131	12.5	26.0	14.0	1 1/4"	3/4"	32	0.119	10
1050000132	15.0	31.0	17.0	1 1/2"	1"	40	0.175	5
1050000133	17.0	33.0	22.0	2"	1 1/4"	47	0.263	5
1050000134	20.0	36.0	19.0	2 1/4"	1 1/2"	57	0.333	5
1050000135	24.0	42.0	24.0	2 3/4"	2"	68	0.517	1
9600027522	24.0	46.0	27.0	3 1/2"	2 1/2"	84	0.801	1
9600027524	27.0	46.0	27.0	4"	3"	97	0.943	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

**Brass counterpart with male thread**

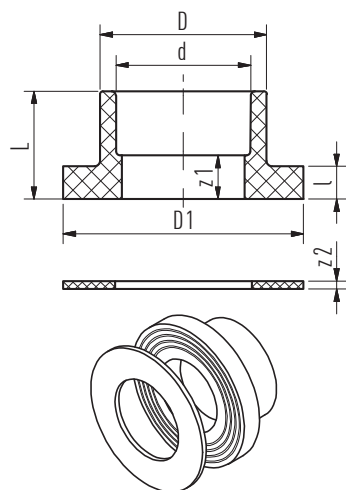
Material:

brass

to ISO-Norm-screwed connection — SDR 6 / 7.4 / 9 / 11

Article no.	l1	L	z2	R1	R2	SW	kg	PU
1050000138	17.5	32.5	10.5	1"	1/2"	34	0.109	10
1050000139	21.0	38.5	12.5	1 1/4"	3/4"	42	0.188	10
1050000140	22.5	41.5	13.5	1 1/2"	1"	48	0.211	5
1050000141	22.5	44.5	13.0	2"	1 1/4"	60	0.363	5
1050000142	34.0	56.0	16.0	2 1/4"	1 1/2"	48	0.472	5
1050000143	38.0	63.0	16.0	2 3/4"	2"	62	0.803	1
9600027722	42.0	70.0	22.0	3 1/2"	2 1/2"	82	1.189	1
9600027724	42.0	74.0	22.0	4"	3"	97	1.398	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

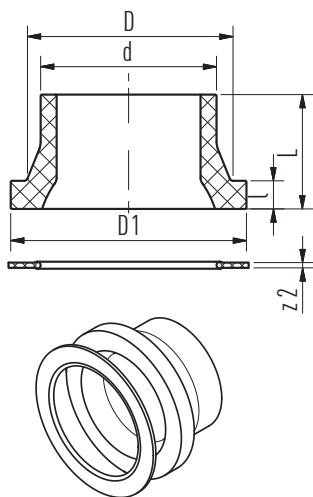
**Flange adapter**

with gasket — SDR 6 / 7.4 / 9 / 11

Material:
Standards:
Colourfusiolen® PP-R
DIN 16962, DIN EN ISO 15874
green

Article no.	d	L	l	D	D1	z1	z2	kg	PU
one side socket welding									
1050032020	32	34.0	10.0	41.0	68.0	16.0	3.0	0.053	1
1050040021	40	35.5	11.0	50.0	78.0	15.0	3.0	0.071	1
1050050022	50	39.5	12.0	61.0	88.0	16.0	3.0	0.071	1
1050063023	63	43.5	14.0	76.0	102.0	16.0	3.0	0.112	1
1050075024	75	46.0	16.0	90.0	122.0	16.0	3.0	0.169	1
1050090025	90	50.0	17.0	108.0	138.0	17.0	3.0	0.261	1
1050110026	110	55.5	18.5	131.0	158.0	18.5	3.0	0.329	1
1050125028	125	63.0	20.0	165.0	188.0	23.0	3.0	0.724	1
1050125027 *	125	195.0	18.5	131.0	158.0	-	3.0	1.180	1

*only use with fitting 125 mm; with 110 mm flange adapter / Suitable flange adapter for shut off valves are available on request

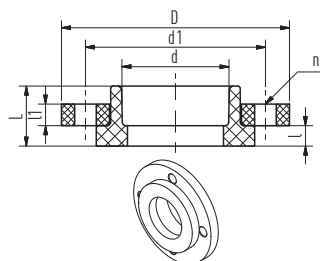
**Flange adapter butt welding**

with gasket

Material: fusiolen® PP-RCT
Standards: DIN 16962, DIN EN ISO 15874
Colour: green

Article no.	d	l	D	D1	L	z2	kg	PU
one side butt welding								
SDR 11								
1054160030	160	25.0	175.0	212.0	93.0	3.0	0.955	1
1054200032	200	32.0	232.0	268.0	130.0	6.0	1.957	1
1054250034	250	35.0	285.0	320.0	130.0	6.0	2.717	1
1054315035	315	35.0	335.0	370.0	168.0	6.0	6.000	1
1054355036	355	40.0	373.0	430.0	180.0	6.0	7.930	1
1054400037	400	46.0	427.0	482.0	195.0	6.0	12.000	1
1054450038	450	60.0	514.0	585.0	139.0	7.0	15.200	1
SDR 17.6								
2057160100	160	18.0	175.0	212.0	80.0	3.0	0.821	1
2057200101	200	32.0	232.0	268.0	130.0	6.0	1.849	1
2057250102	250	35.0	285.0	320.0	130.0	6.0	2.736	1
2057315103	315	25.0	335.0	370.0	168.0	6.0	4.500	1
2057355104	355	30.0	373.0	430.0	184.0	6.0	7.000	1
2057400105	400	33.0	427.0	482.0	195.0	6.0	7.360	1
2057450106	450	46.0	514.0	585.0	142.0	7.0	10.400	1
2057500107	500	46.0	530.0	585.0	138.0	7.0	8.700	1
2057630108	630	50.0	642.0	685.0	140.0	7.0	12.530	1

Up to 160 mm EPDM-gasket without steel ring insert. From 200 mm EPDM-gasket with steel ring insert.
Suitable flange adapter for shut off valves available on request.

**Flange adapter incl. Flange PN6**

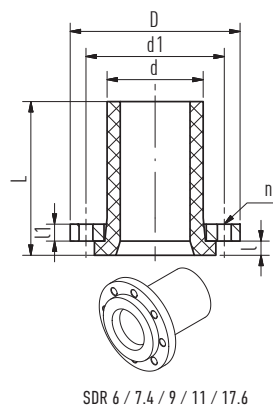
without gasket

Material: Flansch: steel, galvanised,
Flange adapter: fusiolen® PP-R
Standards: Flange according to DIN 2641
Colour: Flange: black / Flange adapter: green

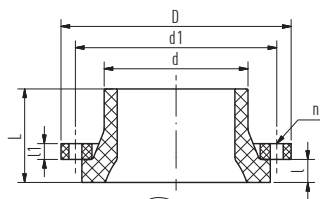
Article no.	d	D	d1	l	l1	L	n	kg	PU
socket welding									
SDR 6 / 7.4 / 9 / 11 / 17.6									
1050032001	32	100.0	75.0	10.0	10.0	34.0	4	1.090	1
1050040002	40	120.0	90.0	11.0	10.0	35.5	4	1.170	1
1050050003	50	130.0	100.0	12.0	10.0	39.5	4	1.360	1
1050063004	63	140.0	110.0	14.0	10.0	43.5	4	0.886	1
1050075005	75	160.0	130.0	16.0	10.0	46.0	4	1.148	1
1050090006	90	190.0	150.0	17.0	10.0	50.0	4	1.618	1
1050110007	110	210.0	170.0	18.5	10.0	55.5	4	1.824	1
1050125009	125	240.0	200.0	20.0	12.0	63.0	4	3.945	1
SDR 6 / 7.4 / 9 / 11 / 17.6									
1050125008 *	125	210.0	170.0	18.5	10.0	195.0	8	2.715	1
butt welding									
SDR 11									
1050160010	160	265.0	225.0	25.0	12.0	93.0	8	4.136	1
1050200011	200	320.0	280.0	32.0	12.0	130.0	8	6.694	1
1050250012	250	375.0	335.0	35.0	12.0	130.0	8	9.500	1

d = Connection dimension. d1 = hole-circle. PN 6 = Flange according to DIN 2641

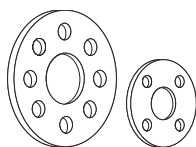
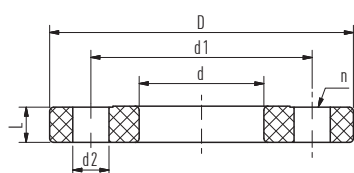
*125 mm Fitting with 110 mm. flange adapter incl. flange PN6 use only in combination with a fitting



SDR 6 / 7.4 / 9 / 11 / 17.6



butt welding

**Plastic coated steel flange**

SDR 6 / 7.4 / 9 / 11 / 17.6

Material:

Standards:

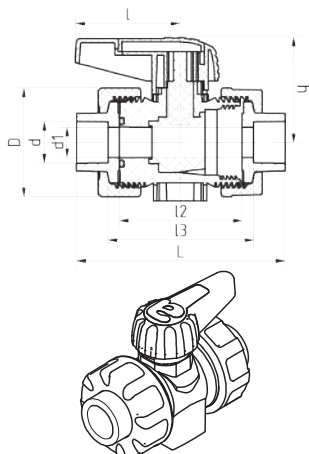
Colour:

PP / steel
Flange according to
DIN EN 1092, DIN 2501
grey

Article no.	fitting Art. no.	Ø Flange adapter	DN	d	d1	D	d2	L	n	kg	PU
1040032150	1050032020	32	25	42.0	85.0	122.0	14.0	17.0	4	0.4	1
1040040151	1050040021	40	32	51.0	100.0	142.0	18.0	17.0	4	0.5	1
1040050152	1050050022	50	40	62.0	110.0	156.0	18.0	19.0	4	0.7	1
1040063153	1050063023	63	50	78.0	125.0	170.0	18.0	20.0	4	0.9	1
1040075154	1050075024	75	65	92.0	145.0	191.0	18.0	21.0	4	1.0	1
1040090155	1050090025	90	80	110.0	160.0	206.0	18.0	21.0	8	1.2	1
1040110156	1050110026 1050125027	110	100	133.0	180.0	226.0	18.0	22.0	8	1.5	1
1040125157	1050125028 (125 mm)	125	125	167.0	210.0	261.0	18.0	26.0	8	1.9	1
1040160158	1052160029 1054160030	160	150	178.0	240.0	296.0	22.0	28.0	8	1.8	1
1040200159 *	1052200031 1054200032	200	200	235.0	295.0	350.0	22.0	32.0	8	3.1	1
1040250160 *	1052250033 1054250034	250	250	288.0	350.0	412.0	22.0	36.0	12	4.9	1
1040315161 *	1054315035	315	300	338.0	400.0	462.0	22.0	42.0	12	6.4	1
1040355162 *	1054355036	355	350	376.0	460.0	525.0	22.0	52.0	16	11.1	1
1040400163 *	2057400105	400	400	430.0	515.0	586.0	26.0	56.0	16	14.7	1
1040450164 *	2057450106	450	500	514.0	620.0	690.0	27.0	54.5	20	20.3	1
1040500165 *	2057500107	500	500	530.0	620.0	690.0	27.0	55.0	20	19.2	1
1040630166 *	2057630108	630	600	642.0	725.0	804.0	30.0	62.0	20	27.7	1

d = Connection dimension. d1 = hole-circle. PN10/16= Flange according to DIN EN1092. DIN2501

*Flange PN16 200 – 630 mm (Art. no. 9700015934–9700015954) available on request.



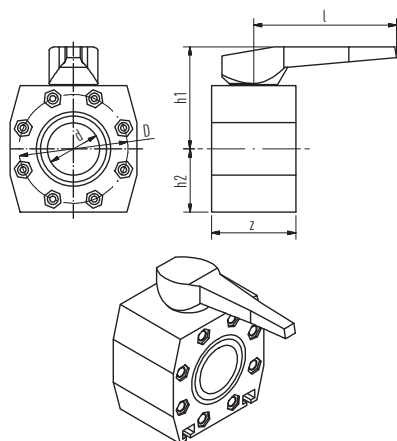
PP-ball valve, with union nut and welding socket

SDR 6 / 7.4 / 9 / 11

Material:
Colour:fusiolen® PP-R
green

Article no.	d	d1	D	h	l1	l2	l3	L	l	kg	PU
socket welding											
1090020052	20	13.5	50.3	48.0	25.0	56.5	68.0	97.0	48.0	0.118	1
1090025053	25	18.5	59.0	56.5	25.0	65.5	78.0	110.0	59.0	0.184	1
1090032054	32	23.9	70.3	64.5	26.0	72.0	84.5	120.5	59.0	0.274	1
1090040055	40	31.0	85.9	83.3	45.0	85.0	100.0	141.0	63.5	0.483	1
1090050056	50	38.5	99.5	89.4	45.0	89.0	107.0	154.0	63.5	0.648	1
1090063057	63	50.0	125.5	115.0	45.0	101.0	118.0	173.0	108.0	1.206	1
1090075051	75	-	129.0	139.0	-	-	216.0	276.0	152.0	2.441	1

Also suitable for vacuum pipes.



PP-ball valve, with flange connection on both sides

SDR 6 / 7.4 / 9 / 11 / 17.6

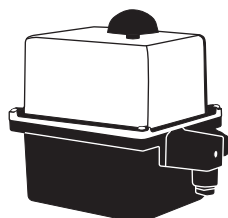
Material:
Colour:fusiolen® PP-R
green

Article no.	für Ø	d	l	D	z	h1	h2	kg	PU
1090090058	90	77.0	210.0	160.0	124.0	150.0	93.0	4.196	1
1090110059	110	94.0	260.0	180.0	145.0	165.0	103.0	5.612	1
1090160060	160	135.0	310.0	240.0	205.0	210.0	136.5	13.420	1

Also suitable for vacuum pipes.

For dimension 125 mm the PP-ball valve Art. no. 1090110059 with flange adapter Art. no. 1050125027 and flange Art. no. 1040110156 is used. For connection with aquatherm green weldable flange adapter (Art. no. 3050090006 – 1054160030) and aquatherm green plastic coated steel flange (Art. no. 1040090155 – 1040160158). Hexagon screw M 16x60 mm for Art. no. 1090090058/1090110059 Hexagon screw M 20x80 mm for Art. no. 1090110059 corresponding flat washer M 16.

NOTICE: These are not included in the above articles.



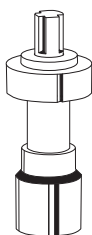
Electrical drive for ball valve

Colour:

black / red

for article no. 1090020052 – 1090063057 (*for article no. 1090090058 – 1090110059)

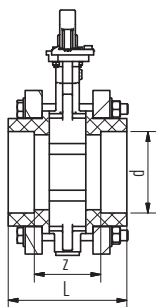
Article no.	Dimension	for Article no.	kg	PU
230 Volt				
9700041489	20	incl. fixtures for 1090020052	1.500	1
9700041491	25	incl. fixtures for 1090025053	1.600	1
9700041493	32	incl. fixtures for 1090032054	1.600	1
9700041495	40	incl. fixtures for 1090040055	1.600	1
9700041497	50	incl. fixtures for 1090050056	1.700	1
9700041499	63	incl. fixtures for 1090063057	1.700	1
9700041603 *	90	incl. fixtures for 1090090058	3.300	1
9700041605 *	110	incl. fixtures for 1090110059	3.400	1
9700041608 *	160	incl. fixtures for 1090160060	3.700	1
24 Volt				
9700041589	20	incl. fixtures for 1090020052	1.500	1
9700041591	25	incl. fixtures for 1090025053	1.600	1
9700041593	32	incl. fixtures for 1090032054	1.600	1
9700041595	40	incl. fixtures for 1090040055	1.600	1
9700041597	50	incl. fixtures for 1090050056	1.700	1
9700041599	63	incl. fixtures for 1090063057	1.700	1
9700041703 *	90	incl. fixtures for 1090090058	3.300	1
9700041705 *	110	incl. fixtures for 1090110059	3.400	1
9700041708 *	160	incl. fixtures for 1090160060	3.700	1

**Extension for ball valve**

for article no. 1090020052– 1090160060

Material:
Colour:PVC
grey

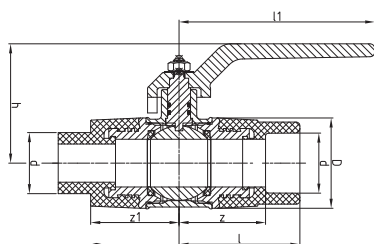
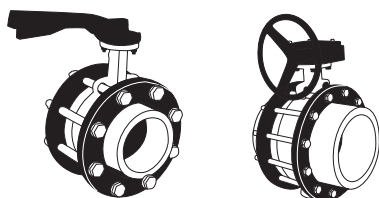
Article no.	for Article no.	l	kg	PU
9700098900	1090020052 L:100 mm	100	0.020	1
9700098901	1090025053/1090032054 L:100 mm	100	0.025	1
9700098902	1090040055/1090050056 L:100 mm	100	0.030	1
9700098903	1090063057 L:100 mm	100	0.125	1

**aquatherm blue butterfly valve**

with a hand lever or gearbox

Material:
Colour:fusiolen® PP-R, stainless steel
blue

Article no.	d	L	z	kg	PU
socket welding					
with hand lever for SDR 6 / 7.4 / 9 / 11 / 17.6					
9702041820	75	138.0	80.0	6.500	1
9702041822	90	146.0	80.0	8.850	1
9702041824	110	163.0	89.0	10.400	1
9702041826	125	184.0	104.0	15.250	1
butt welding					
with hand lever for SDR 11					
9702041830	160	242.0	229.0	19.400	1
with hand lever for SDR 17.6					
9702541830	160	242.0	228.0	18.100	1
with gearbox for SDR 11					
9702041834	200	320.0	309.0	38.400	1
9702041838	250	328.0	318.0	55.200	1
9702041842	315	432.0	420.5	75.800	1
with gearbox for SDR 17.6					
9702541834	200	320.0	309.0	37.700	1
9702541838	250	328.0	318.0	54.400	1
9702541842	315	432.0	420.5	72.600	1

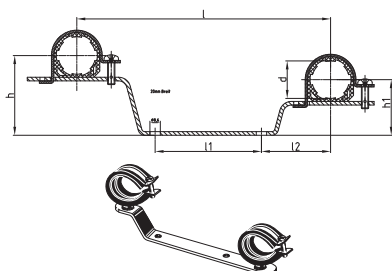
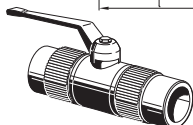
**Ball valve for a manifold**

inside/outside — SDR 6 / 7.4 / 9 / 11

Material:
Colour:fusiolen® PP-R / brass
green

Article no.	d	l	l1	D	z	z1	h	kg	PU
socket welding									
1050032189	32	63.0	108.0	47.5	45.0	46.5	78.0	0.575	2

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

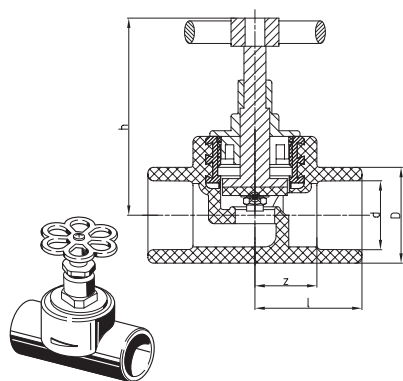
**Supporting strap for four-port manifold**

with clamps, galvanised, double

Material:

Steel galvanized

Article no.	d	l	l1	l2	h	h1	kg	PU
9600060210	32	210.0	80.0	57.0	66.0	46.0	0.226	2

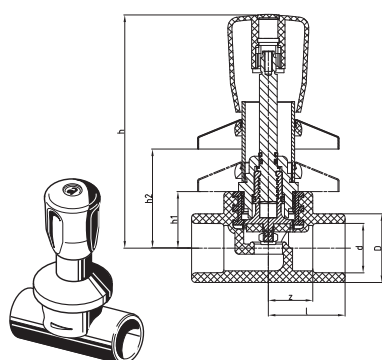
**Globe valve**

for surface installation — SDR 6 / 7.4 / 9 / 11

Material:
Colour:fusiolen® PP-R / brass
green

Article no.	d	l	D	z	h	kg	PU
socket welding							
1090020040	20	35.0	29.5	20.5	75.3	0.165	1
1090025041	25	38.0	34.0	22.0	75.0	0.172	1
1090032042	32	49.0	43.0	31.0	97.0	0.314	1
1090040043	40	60.0	52.0	39.5	111.5	0.585	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

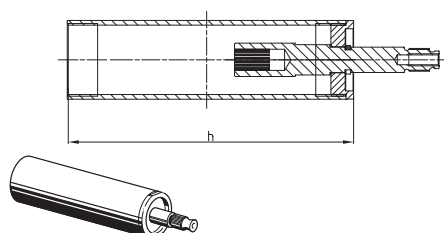
**Concealed valve, chromium plated**

SDR 6 / 7.4 / 9 / 11

Material:
Colour:fusiolen® PP-R / brass
green

Article no.	d	l	D	z	h	h1	H2	kg	PU
socket welding									
1050020150	20	35.0	29.5	20.5	116.0	28.0	59.0	0.319	1
1050025151	25	38.0	34.0	22.0	116.0	28.0	59.0	0.330	1
1050032152	32	49.0	43.0	31.0	121.0	34.0	59.0	0.416	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

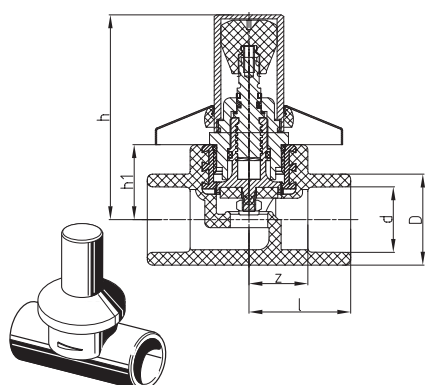
**Extension for concealed valve**

chromium-plated for art. no 1050020150-1050032152

Material:
Colour:brass
chrome

Article no.	H	kg	PU
9600040900	92.0	0.148	1
9600040902	132.0	0.209	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

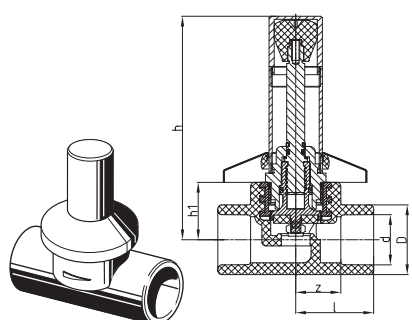
**Concealed valve, tamper proof**

chromium-plated / short design, socket welding — SDR 6 / 7.4 / 9 / 11

Material:
Colour:fusiolen® PP-R / brass
green, chrome

Article no.	d	l	D	z	h	h1	kg	PU
socket welding								
1050020153	20	35.0	29.5	20.5	71.5	28.0	0.258	1
1050025154	25	38.0	34.0	22.0	72.0	28.0	0.288	1
1050032155	32	49.0	43.0	31.0	82.5	34.0	0.376	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

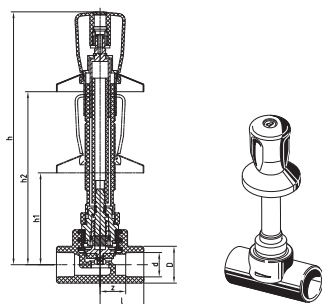
**Concealed valve, tamper proof**

chromium-plated / long design, socket welding — SDR 6 / 7.4 / 9 / 11

Material:
Colour:fusiolen® PP-R / brass
green, chrome

Article no.	d	l	D	z	h	h1	kg	PU
socket welding								
1050020159	20	35.0	29.5	20.5	109.0	28.0	0.342	1
1050025160	25	38.0	34.0	22.0	109.0	28.0	0.350	1
1050032161	32	49.0	43.0	31.0	115.0	34.0	0.432	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

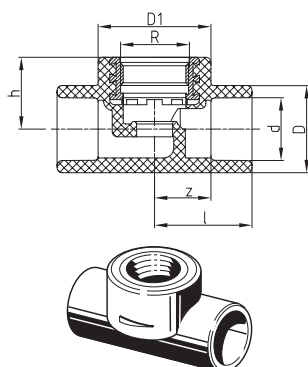
**Concealed valve, construction depth 55–100 mm**

suitable for construction depth 55 mm bis 100 mm — SDR 6 / 7.4 / 9 / 11

Material: fusiolen® PP-R / brass
Colour: green, chrome

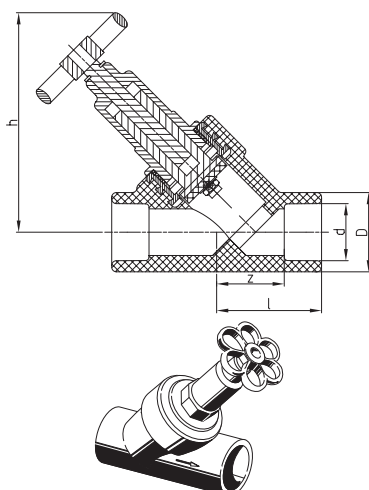
Article no.	d	l	D	z	h	h1	h2	kg	PU
socket welding									
1050020156	20	35.0	29.5	20.5	213.0	59.0	147.0	0.357	1
1050025157	25	38.0	34.0	22.0	213.0	59.0	147.0	0.369	1
1050032158	32	49.0	43.0	31.0	219.0	65.0	153.0	0.455	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

**Stop valve body**Material: fusiolen® PP-R / brass
Colour: green

Article no.	d	l	D	D1	z	h	R	kg	PU
socket welding									
1090020046	20	35.0	29.5	44.0	20.0	28.0	3/4"	0.082	1
1090025047	25	38.0	34.0	44.0	22.0	28.0	3/4"	0.101	1
1090032048	32	49.0	43.0	52.0	31.0	34.0	1"	0.146	1
1090040049	40	60.0	52.0	69.0	39.5	41.0	1 1/4"	0.313	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

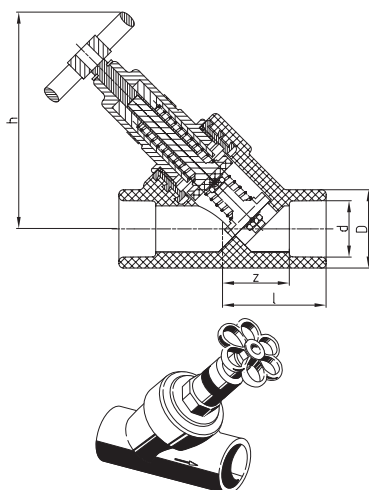
**Inclined valve**

without drain, socket welding — SDR 6 / 7.4 / 9 / 11

Material: fusiolen® PP-R / brass
Colour: green

Article no.	d	l	D	z	h	kg	PU
socket welding							
1050020162	20	45.0	34.0	30.5	95.5	0.294	1
1050025163	25	45.0	34.0	29.0	95.5	0.283	1
1050032164	32	56.0	43.0	38.0	111.5	0.421	1
1050040165	40	65.0	52.0	44.5	135.0	0.834	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

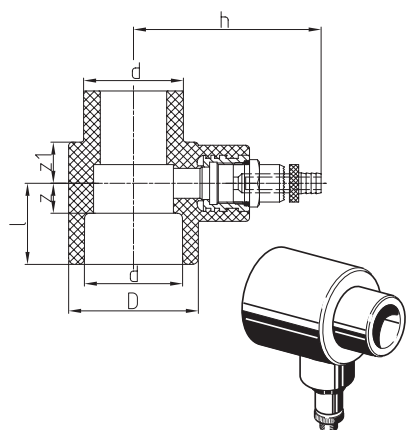
**Non-return valve**

without drain, socket welding — SDR 6 / 7.4 / 9 / 11

Material: fusiolen® PP-R / brass
Colour: green

Article no.	d	l	D	z	h	kg	PU
socket welding							
1050020170	20	45.0	34.0	30.5	95.5	0.297	1
1050025171	25	45.0	34.0	29.0	95.5	0.292	1
1050032172	32	56.0	43.0	38.0	111.5	0.432	1
1050040173	40	65.0	52.0	44.5	135.0	0.840	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

**Draining branch**

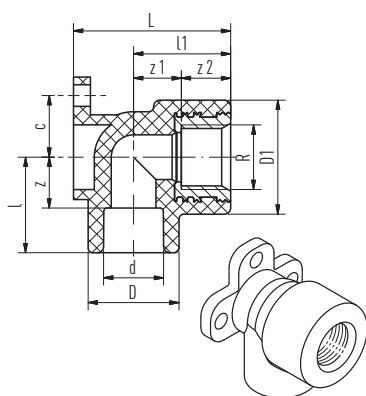
to weld in aquatherm green valves
SDR 6 / 7.4 / 9 / 11

Material:
Colour:

fusiolen® PP-R / brass
green

Article no.	d	l	D	z	z1	h	kg	PU
socket welding								
1050020183	20	26.0	34.0	11.5	16.5	71.0	0.098	1
1050025184	25	26.0	34.0	10.0	16.5	71.0	0.096	1
1050032185	32	32.0	43.0	14.0	17.0	74.5	0.118	1
1050040186	40	32.5	52.0	12.0	16.5	80.5	0.140	1
1050050187	50	39.0	68.0	15.5	17.0	88.0	0.202	1
1050063188	63	44.0	84.0	16.5	16.5	96.0	0.288	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

**Back plate elbow**

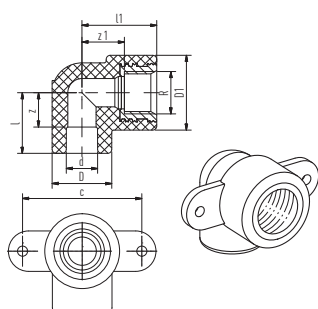
brass (*stainless steel) — SDR 6 / 7.4 / 11

Material: fusiolen® PP-R / brass or stainless steel
Standards: DIN 1692, DIN EN ISO 15874
Colour: green

Article no.	d	R	l	l1	D	D1	L	z	z1	z2	c	kg	PU
one side socket welding													
1040020151	20	1/2"	31.0	31.5	29.5	37.0	51.0	16.5	18.5	13.0	20.0	0.079	10
1040020152	20	3/4"	37.0	37.0	34.0	44.0	54.0	22.5	24.0	13.0	-	0.106	10
1040025153	25	3/4"	37.0	37.0	34.0	44.0	54.0	21.0	24.0	13.0	-	0.105	10
1040025154	25	1/2"	33.5	31.0	34.0	37.0	53.0	17.5	18.0	13.0	20.0	0.080	10
1090020070 *	20	1/2"	31.0	31.5	29.5	37.0	51.0	16.5	18.5	13.0	20.0	0.084	10
1090020071 *	20	3/4"	37.0	37.0	34.0	44.0	54.0	22.5	24.0	13.0	-	0.101	10
1090025072 *	25	3/4"	37.0	37.0	34.0	44.0	54.0	21.0	24.0	13.0	-	0.111	10
1090025073 *	25	1/2"	33.5	31.0	34.0	37.0	53.0	17.5	18.0	13.0	20.0	0.076	10

*stainless steel

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

**Back plate elbow for dry construction**

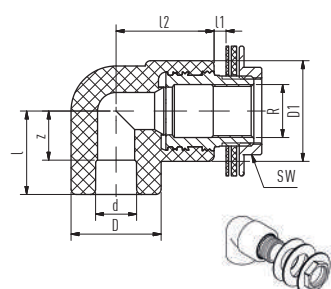
brass (*stainless steel) — SDR 6 / 7.4 / 11

Material: fusiolen® PP-R / brass or stainless steel
Standards: DIN 16962, DIN EN ISO 15874
Colour: green

Article no.	d	l	l1	D	D1	z	z1	R	kg	PU
one side socket welding										
1040020156	20	30.0	37.0	29.5	37.0	15.5	24.0	1/2"	0.079	10
1090020074 *	20	30.0	37.0	29.5	37.0	15.5	24.0	1/2"	0.078	10

*stainless steel)

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

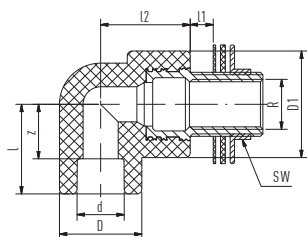
**Transition piece with counternut**

with gasket and tension washer, socket welding — SDR 6 / 7.4 / 11

Material: fusiolen® PP-R / brass
Standards: DIN 16962, DIN EN ISO 15874
Colour: green

Article no.	d	l	l1	l2	D	D1	z	R	SW	kg	PU
one side socket welding											
1050020062	20	37.0	3.5	35.0	29.5	44.0	22.5	1/2"	29	0.154	10
1050025063	25	37.0	3.5	37.0	34.0	44.0	21.0	1/2"	29	0.206	10

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).



Transition elbow for plasterboard

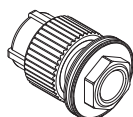
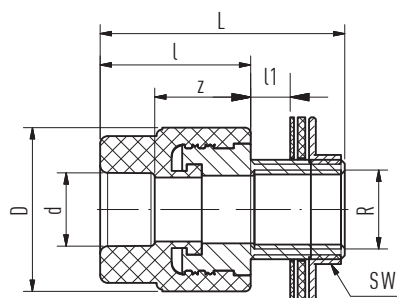
SDR 6 / 7.4 / 11

Material:
Colour:fusiolen® PP-R / brass
green

Article no.	d	l	l1	l2	D	D1	z	R	SW	kg	PU
one side socket welding											
1050020064	20	37.0	18.5	35.0	29.5	44.0	22.5	1/2"	29	0.223	10

with 30 mm thread, counternut, gasket and tension washer

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).



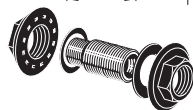
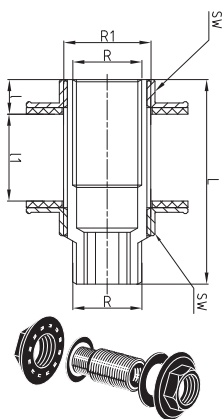
Transition piece with counternut

with gasket and tension washer, socket welding — SDR 6 / 7.4 / 11

Material:
Standards:
Colour:fusiolen® PP-R / brass
DIN 16962, DIN EN ISO 15874
green

Article no.	d	l	l1	D	L	z	R	SW	kg	PU
one side socket welding										
1050020060	20	40.0	13.5	43.5	65.0	25.5	1/2"	29	0.204	10

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).



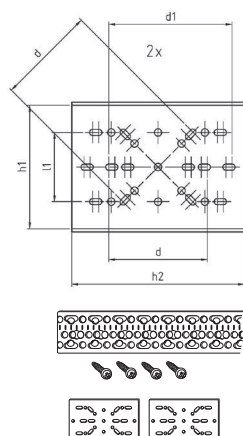
Dry construction wall fitting

Material:

brass

Article no.	R	R1	l	l1	L	SW	kg	PU
9600020114	1/2"	3/4"	10.5	26.0	62.0	30	0.213	10

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

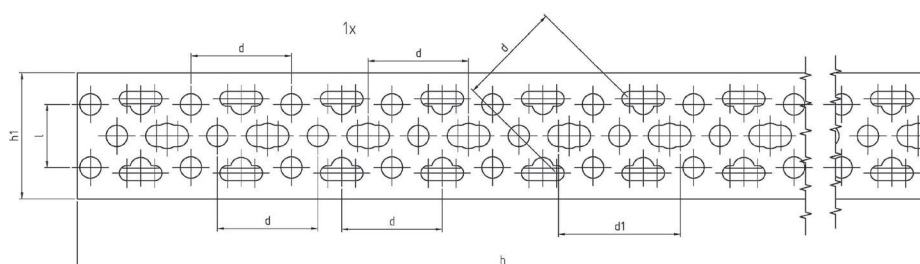


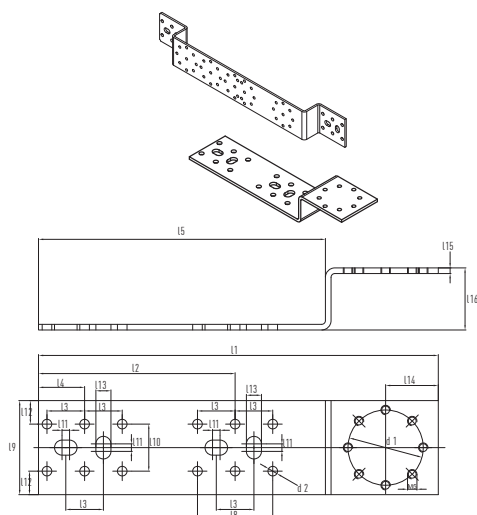
Mounting plate galvanised

to fix back plate elbows as double connection including 2 fixing plates and 4 screws

Material:
Colour:Iron, galvanised
zinc

Article no.	d	d1	l	l1	h	h1	h2	kg	PU
7050000016	40	50.0	25	28	560	50	70	0.546	1



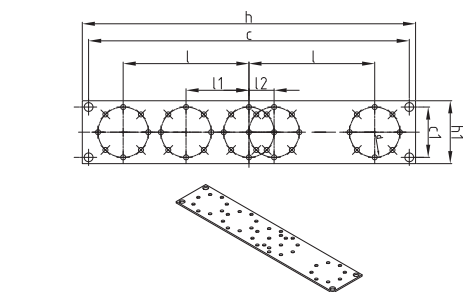
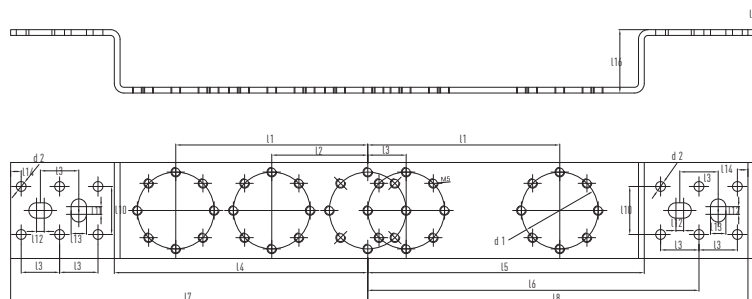


Mounting rail (double and single)

Material:
Colour:

Iron, galvanised
zinc

Article no.	d1	d2	kg	PU
7050000017	40.0	5.1	0.412	2
7050000018	40.0	5.1	0.235	2



Mounting plate galvanised

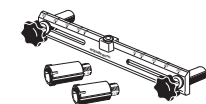
to fix back plate elbows as double connection

Material:
Colour:

Iron, galvanised
zinc

Article no.	d	l	l1	l2	c	c1	h	h1	kg	PU
7050000020	40	100	50	20	255	40	265	50	0.221	1

Not suitable for connection with sound insulation plate (art. no. 7020000015). We recommend mounting rail art. no. 7050000016



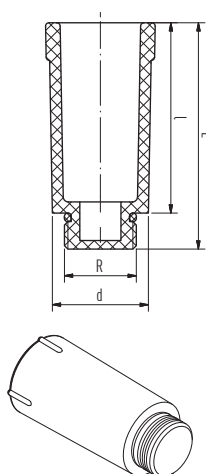
Assembling jig

as water level with 2 plugs 1/2"

Material:
Colour:

fusiolen® PP-R
green

Article no.	kg	PU
9800050700	0.252	1



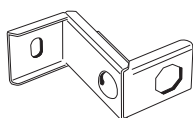
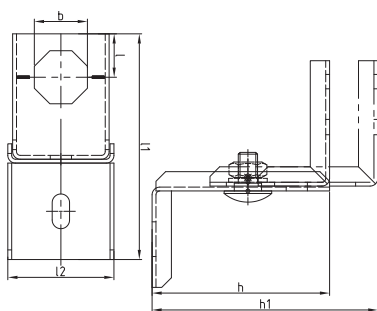
Plug for pressure tests

with gasket

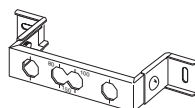
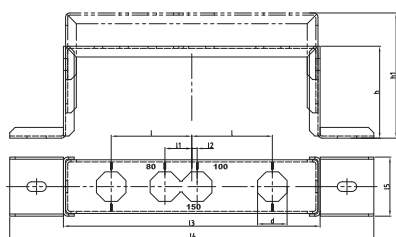
Material:
Colour:

fusiolen® PP-R
green

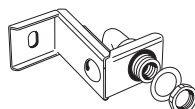
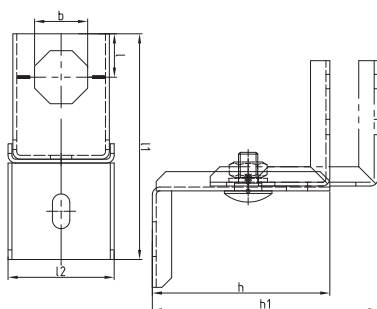
Article no.	d	l	L	R	kg	PU
9800050708	28	55.5	66.0	1/2"	0.022	10
9800050710	34	55.5	66.0	3/4"	0.027	10

**Mounting unit, single**Material:
Colour:Iron, galvanised
zinc

Article no.	b	l	l1	l2	h	h1	kg	PU
7050000002	27.5	118	22.5	55	92.5	122.5	0.278	1

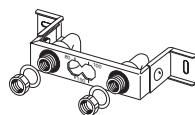
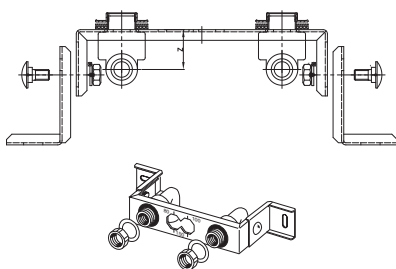
**Mounting unit, double**Material:
Colour:Iron, galvanised
zinc

Article no.	b	l	l1	l2	h	h1	l3	l4	l5	kg	PU
7050000001	27.5	75	25	5	92.5	122.5	239	339	55	0.630	1

**Mounting unit with one
aquatherm green transition elbow**Material:
Colour:fusiolen® PP-R, brass
Iron, galvanised
green, zinc

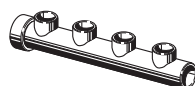
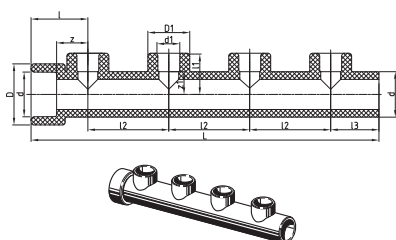
Article no.	b	l	l1	l2	h	h1	kg	PU
7050000004	27.5	22.5	118	55	92.5	122.5	0.434	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

**Mounting unit with two
aquatherm green transition elbows**Material:
Colour:fusiolen® PP-R, brass
Iron, galvanised
green, zinc

Article no.	b	l	l1	l2	z	h	h1	kg	PU
7050000003	27.5	75	25	5	37.5	92.5	122.5	0.942	1

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

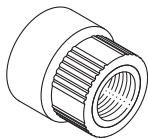
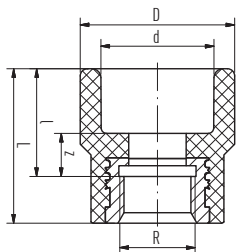
**Four-port manifold**

length: 246 mm, with 4 branches — SDR 6 / 7.4 / 9 / 11

Material:
Colour:fusiolen® PP-R
green

Article no.	d	d1	l	l1	l2	l3	D	D1	L	z	z1	kg	PU
1090032032	32	16.0	40	29	57	36	43.0	29.5	245.0	22.0	16	0.148	1
1090032033	32	20.0	40	29	57	36	43.0	29.5	245.0	22.0	14.5	0.134	1

The four-port manifold can be shortened or extended by fusion with further four-port manifolds, if required



Manifold end piece with female thread

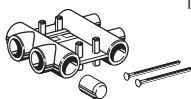
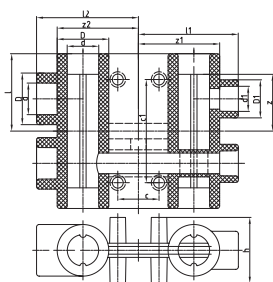
SDR 6 / 7.4 / 9 / 11

Material:
Standards:
Colour:fusiolen® PP-R / brass
DIN 16962, DIN EN ISO 15874
green

Article no.	d	l	D	L	z	R	kg	PU
one side socket welding								
1090032034	32	30.0	43.0	43.0	12.0	1/2"	0.073	1

Transition piece as manifold endpiece with female thread

Information in accordance with Article 33 of Regulation (EC) No 1907/2006 (REACH): Our products containing brass components may contain lead in concentrations of >0.1% (w/w).

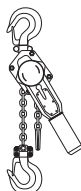


Distribution block plumbing

SDR 6 / 7.4 / 11

Material:
Colour:fusiolen® PP-R
green

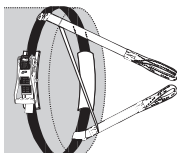
Article no.	d	d1	l	l1	l2	D	D1	z	z1	z2	c	c1	cl	l3	h	kg	PU
socket welding																	
1050025016	25	20.0	60	77.5	79	40.0	29.5	44.0	63	63.0	32	80	100	36	51	0.273	1
including 1 plug and 2 fasteners																	



Chain hoist

Tools for assembling push-in couplings

Article no.	kg	PU
9800050530	2.800	1



Tension band

width 50 mm including towing eyes. For fixing the pipe when assembling push-in couplings

Article no.	kg	PU
9800050533	2.500	1
50 mm incl. towing eyes		

Brush

for applying lubricant when assembling push-in coupling systems

Article no.	kg	PU
9800050534	0.045	1

aquatherm Lubricant

250 ml for use when assembling push-in coupling systems

Article no.	kg	PU
9800050535	0.280	1

Adhesive tape to protect against UV-radiation

Article no.	Dimension	kg	PU
9700010871	Dimension 50 mm x 10 m	0.133	1

**aquatherm-PP-Primer**

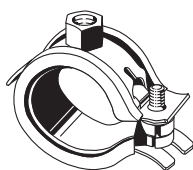
for aquatherm PP pipes

Article no.	Container	kg	PU
9700050230	Container: 1l	0.994	1
9700050231	Container: 10l	9.269	1

aquatherm special top coat

for aquatherm PP pipes

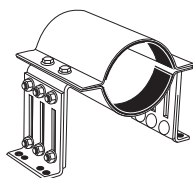
Article no.	Container	kg	PU
9700050232	black Container: 2.5l	3.007	1
9700050233	white Container: 2.5l	3.436	1

**Pipe clamps suitable for sliding and fixed point installation**

Material: steel

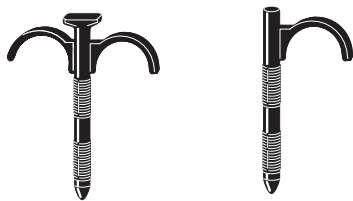
Article no.	for pipe diameters	kg	PU
9600060520	20	0.048	50
9600060525	25	0.051	50
9600060532	32	0.060	50
9600060540	40	0.067	50
9600060550	50	0.079	50
9600060563	63	0.091	25
9600060575	75	0.105	25
9600060590	90	0.128	25
9600060594	110	0.155	25
9600060595	125	0.212	25
9600060597	160	0.342	25
9600060650	200	1.014	1
9600060654	250	1.193	1
9600060658	315	1.618	1
9600060660	355	1.920	1

Thread connection: M8 & M10 for 16 – 125 mm | M10 for 160 mm | M16 for 200 – 355 mm

**Pipe clamps suitable for fixed point installation**

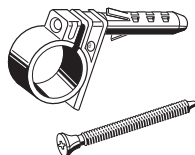
Material: steel

Article no.	for pipe diameters	kg	PU
9600060768	160	8.548	1
9600060770	200	9.449	1
9600060774	250	19.367	1
9600060778	315	22.753	1
9600060780	355	24.840	1
9600060782	400	43.642	1
9600060784	450	46.253	1
9600060786	500	48.865	1
9600060790	630	55.659	1

**Pipe fastening bow 16-32 mm**

Material: PA

Article no.	for pipe diameters	kg	PU
7020016005	for pipes 16-32 mm L=45 mm	0.005	50
7020016006	for pipes 16-32 mm L=75 mm	0.007	50
7020016007	for pipes 16-32 mm L=45 mm	0.007	50
7020016008	for pipes 16-32 mm L=75 mm	0.009	50

**Plastic pipe clamps 16-40 mm**

Material: fusiofen® PP-R

Article no.	for pipe diameters	kg	PU
7090020011	for pipes 20 mm	0.008	50
7090025012	for pipes 25 mm	0.016	50
7090032013	for pipes 32 mm	0.017	50
7040040014	for pipes 40 mm	0.020	50

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