GF Piping Systems

+GF+

Aquasystem

PP-R piping system for hot & cold water, heating and chilled water systems

The best choice for you

GF Piping Systems is dedicated to designing, manufacturing and marketing piping systems for the safe and secure conveyance of liquid and gases. Our pipe, fittings and valves are widely used in a variety of building services applications.

Aquasystem has been designed and produced as a piping system for hot and cold water supply, heating, chilled water and boosted cold water.

Hotels

Aquasystem offers an economic and high energy efficient piping system, with a wide operating temperature range, providing maximum comfort for the end user in hotels.

Often these buildings are high-rise and the lightweight nature of GF's plastic piping system make it an ideal choice for hot & cold water throughout these buildings.

The Aquasystem range provides customers with the complete range of services for hot & cold water, heating and chilled water with quick and easy installation, through either a socket or an electrofusion process.

Residential

Aquasystem delivers a perfect solution to water conservation, water management and energy efficiency that not only allows you to satisfy regulations but adds real economic and ecological value with a reduced carbon footprint.

With Aquasystem we aim to make our customers' lives easier by developing an outstanding range of products to be installed quickly, easily and reliably.

Rising costs are a major concern in our market and we deliver solutions that are both competitively priced and sustainable.

Offices

Aquasystem is the perfect solution for your commercial projects. The use of potable water with this system provides benefits such as high impact strength and no corrosion.

Plastics are lighter and more economical than traditional materials, therefore reducing energy usage and greenhouse gas emissions, due to better production and transportation.

Aquasystem delivers performance, cost and sustainability benefits in one product.

Aquasystem made easy

Typical Application Temperatures

Hot Water Systems HWS	Cold Water Systems CWS	Heating Systems HTG	Boosted Cold Water BCW	Chilled Water Systems CHW
65°C	10°C	82°C	6°C	5°C

Aquasystem

PP-R piping system for hot & cold water, heating and chilled water systems

Available nationwide

Features of Aquasystem

Some of the best advantages offered by Aquasystem compared with traditional systems are listed below:

Cost Saving

Compared with traditional systems, Aquasystem can reduce installation times by least 30%.

Lightweight

Plastic piping is considerably lighter when compared to traditional materials contributing to quick and easy installation on site.

Corrosion Resistant

Aquasystem will not corrode and is resistant to most chemicals used in water, heating and distribution systems.

Maintenance

Plastic piping compared to traditional systems require lower maintenance of the pipework. This offers cost savings due to smooth inner walls requiring less flushing and contributing to lower pressure losses.

Low Expansion

All piping systems expand, Aquasystem has a very low expansion rate compared to other plastic materials, due to the reinforced fibreglass material in the middle layer.

Low Thermal Conductivity

The thermal conductivity of Aquasystem is also very low when compared to traditional systems, thus reducing the heat losses in a hot water, heating system and heat gains in a chilled water system. This does not remove the statutory requirements for insulation of both heat loss/gain and condensation control.

Smooth Surface

The internal surface of the pipework remains smooth thereby reducing pressure losses and maintaining a constant bore size.

Hygienically Safe

Aquasystem has WRAS material approval and is non-toxic.

Abrasion Resistance

The high abrasion resistance of Aquasystem guarantees a long service life.

Noise Reduction

Aquasystem reduces noise transmission through the pipework compared with traditional material systems.

High Strength

Resistant to impact and bending stresses.

WRAS APPROVED MATERIAL

BIM SHAPING THE FUTURE OF CONSTRUCTION

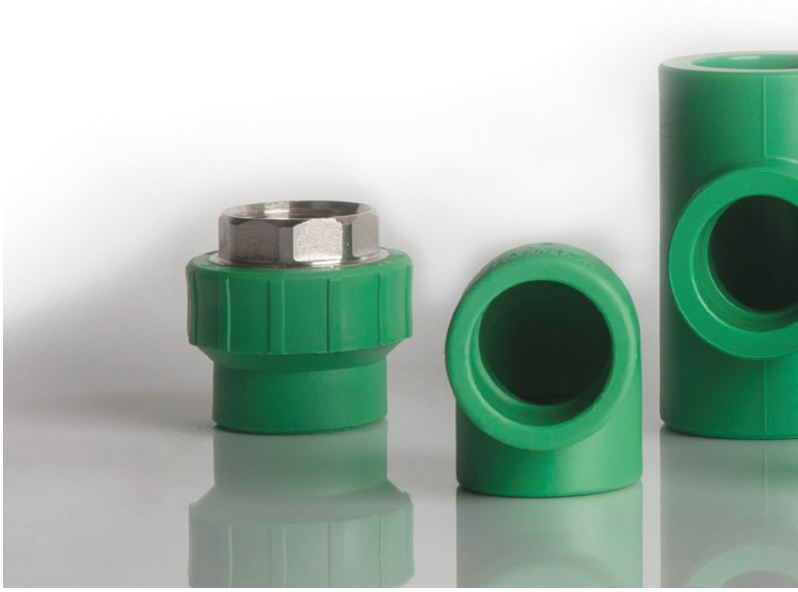
Main benefits for building owner

- Proven quality standard
- No theft value
- Reduces carbon footprint
- No corrosion over lifetime
- Design life up to 50 years
- Energy saving
- Fully recyclable

Corrosion of traditional pipework

Main benefits for the installer

- Quick and easy installation
- Prefabrication possibilities
- Lightweight
- Technical support available
- High impact strength



Aquasystem

Aquasystem is a polypropylene-random piping system which is lightweight, cost-effective and corrosion-free.

Aquasystem is a perfect solution for commercial buildings, used for the riser and distribution runs for space heating, domestic hot water, mains cold water and chilled water services.

Aquasystem pipe is always white in colour but contains a green middle layer of PP-R reinforced with fibreglass, which reduces material expansion in heated water applications.

Materials: Polypropylene-random pipe and fittings

Dimension range: d20 – d125

Jointing technology: Electrofusion, socket fusion, butt fusion with transition options to traditional systems available

Operating pressure: Up to 20 bar

Operating temperature: 0°C to 90°C

Applications

Unlike our INSTAFLEX range, AQUASYSTEM is a rigid piping solution, perfect for risers and run-outs in a range of applications.

- Heating systems
- Domestic hot water
- Mains and boosted cold water services
- Chilled water

Suitable applications:

- Schools
- Hospitals
- Hotels
- Accommodation blocks
- Office blocks

Technical information

Size range: d20 - d125mm

Pressure: PN20 @ 20°C

Temperature range: 0°C to 90°C

Thermal Conductivity @ 20°C: 0.24W/m°C

Expansion/ Contraction: 0.035mm/m°C

Approvals: WRAS

Aquasystem Jointing

Jointing Method	Products	Size	Tools required	
Socket Fusion	Elbow Socket Tee Reducing tee Reducer Cap Crossover Saddle with spigot Transition fittings Distribution Manifold Unions Valves Flange adaptor	d20-d63	MSE 63 - Hand Held Pipe Cutter Tangit Cleaner Cloth	
Socket Fusion		d20-d125	SG125 - Bench Mounted Pipe Cutter Tangit Cleaner Cloth	
Electrofusion	Electrofusion Coupler	d20-d125	MSA 330 Pipe Cutter Rotary Peeler Hand Scraper Tangit Cleaner Cloth	

Note: All machines are available for purchase and hire

Pipe Sizing

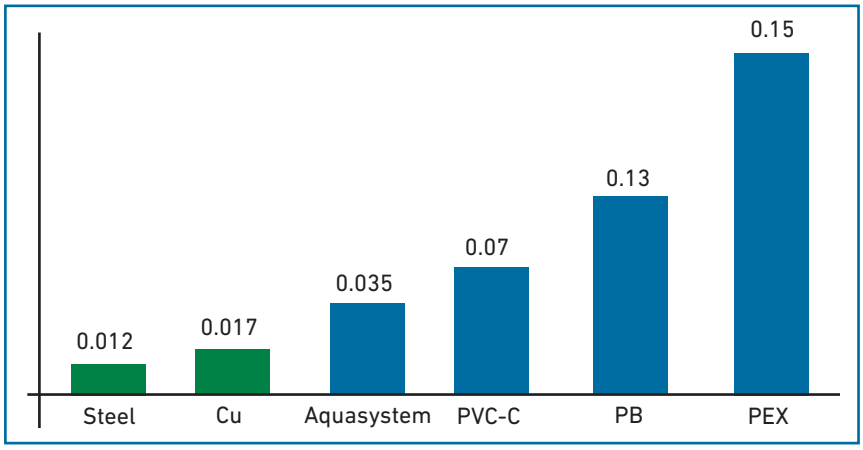
Copper		Aquasystem PP-R SDR 7.4			
Outside Diameter (mm)	Inside Diameter (mm)	Outside Diameter min (mm)	Outside Diameter max (mm)	Wall Thickness (mm)	Wall Thickness tol
15	13.6	20	20.3	2.8	0.4
22	20.2	25	25.3	3.5	0.5
28	26.2	32	32.3	4.4	0.6
35	32.6	40	40.4	5.5	0.7
42	39.9	50	50.5	6.9	0.8
54	51.6	63	63.6	8.6	1.0
67	64.3	75	75.7	10.3	1.2
76	73.2	90	90.9	12.3	1.4
108	105.0	110	110.1	15.1	1.7
		125	126.2	17.1	1.9

Thermal expansion

All materials expand or contract with an increase or decrease in temperature. During the design and installation of Aquasystem, it is important to calculate the change in length caused by the difference in the operating temperature and installation temperature.

The amount of expansion or contraction is dependent on the coefficient linear expansion, α, which is the elongation of a 1m length of pipe for a temperature increase of 1°C. Aquasystem's coefficient linear thermal expansion:
α = 0.035mm/m°C

Coefficient of Linear Expansion α (mm/m°C)



Calculating the change in length

Changes in length are calculated using the following formula:

$\Delta L = \alpha \times L \times \Delta T$ Where ΔL = change in length (mm)

α = coefficient of expansion (mm/m°C)

L = original length (m)

ΔT = temperature difference (°C)

ΔT is the difference between the installation temperature and the operating temperature.

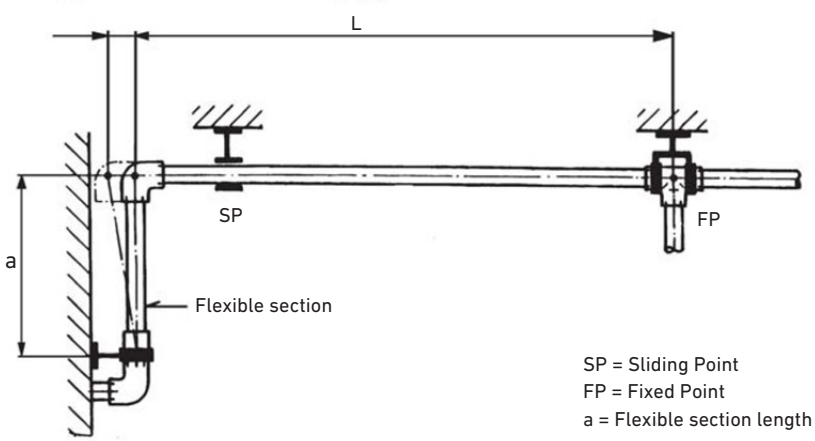
Note: If the operating temperature is higher than the installation temperature, then the pipe length increases. If the operating temperature is lower than the installation temperature, then the pipe contracts.

Change in length at varying difference in temperatures

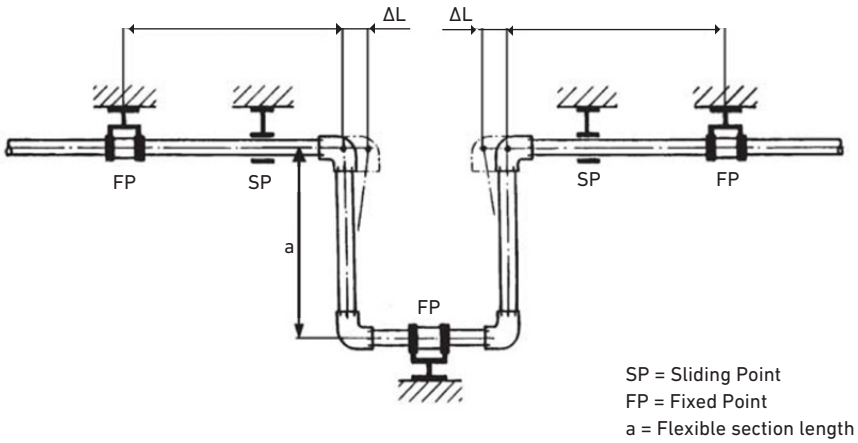
Aquasystem	ΔL (mm)							
Pipe length (m) ΔT	10°C	20°C	30°C	40°C	50°C	60°C	70°C	80°C
1.0	0.35	0.70	1.10	1.40	1.80	2.10	2.50	2.80
2.0	0.70	1.40	2.10	2.80	3.50	4.20	4.90	5.60
3.0	1.10	2.10	3.20	4.20	5.30	6.30	7.40	8.40
4.0	1.40	2.80	4.20	5.60	7.00	8.40	9.80	11.20
5.0	1.80	3.50	5.30	7.00	8.80	10.50	12.30	14.00
6.0	2.10	4.20	6.30	8.40	10.50	12.60	14.70	17.20
7.0	2.50	4.90	7.40	9.80	12.30	14.70	17.20	19.60
8.0	2.80	5.60	8.40	11.20	14.00	16.80	19.60	22.40
9.0	3.20	6.30	9.50	12.60	15.80	18.90	22.10	25.20
10.0	3.50	7.00	10.50	14.00	17.50	21.00	24.50	28.00

Installation of Flexible Sections

It is important to control the direction and amount of thermal movement by correct positioning of fixed points. This ensures the pipe can be moved freely within loose brackets. Changes in the length are usually accommodated by flexible sections at changes of direction of the pipework or in expansion loops. The movement of the flexible section must not be restrained by fixed pipe brackets or protrusions of wall, girders, etc. The following example shows how to install fixed and sliding brackets at a change of direction:



An expansion loop can be installed to compensate the expansion and contraction of the system. Here, the change in length is distributed over two flexible sections.



Calculating the flexible section length

The length of the flexible section; a (mm) can be calculated using the following formula:

$a = k \times \sqrt{\Delta L \times od}$

Where: ΔL = change in length (mm)
k = 20 (constant for PP-R)
od = outside pipe diameter (mm)

Precautions

UV Radiation

Aquasystem although UV stabilised, should not be directly exposed to the sun for prolonged amounts of time.

Low Temperatures

When temperatures are close to 0°C, Aquasystem can become brittle and therefore impact to the pipework should be avoided. Care should also be taken to ensure that the medium in the pipework does not freeze, to prevent damage to the piping system.

Threaded connections to metal

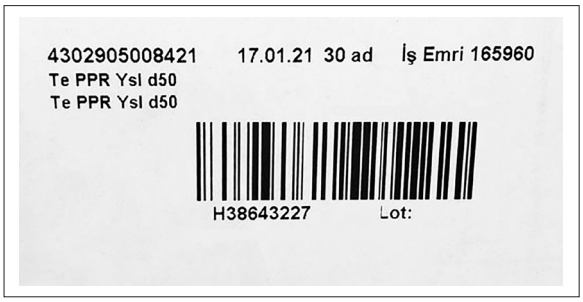
Where it is necessary to join to metal threads, it is recommended to use PTFE tape.

Transport and storage

Please observe the tips below for material transport and storage.

Packaging

GF pipes and fittings are packed as ready for transport in a customer-friendly way.
Packing ensures safety, efficient storage and easy transport.



All product ranges are identified in the Warehouse Management System (WMS) by barcode label. This barcode system ensures management of products and prevents complexity and errors during storage and loading.

Storage

Method of storage should not damage the pipes. As long as they are stored properly, no permanent deformations or damages will occur on the pipes and fittings. Pipes should not be stacked above 1.5 m to prevent sliding.

Pipes packed in the factory might be stacked on wooden frames. Appropriate materials such as pallet etc. should be used to prevent any damage on the socket parts of the pipes stored for a long time. This also makes it easier to lift the pipes.

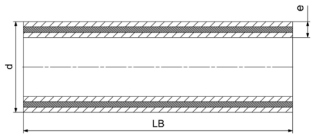
All products should not be stored outside and protected from sunlight.

Pipes and fittings packed in carton boxes should be protected against moisture.
Carton boxes should be sealed and stored in a dry area.

Transportation

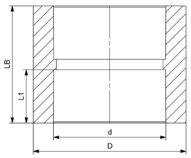
Pipes should be carefully transported to prevent any damages. Avoid sudden and hard pressures on pipes and fittings that might cause freezing in cold weather conditions. Ensure that pipes do not slide and drop onto the floor. Loading and unloading and packing of pipes in a crate should be carried out by means of a suitable forklift truck.

Aquasystem



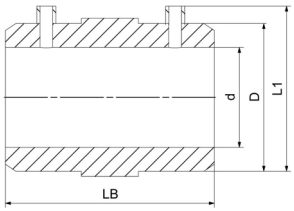
Aquasystem® Faser Fiberglass Reinforced Pipe PP-R PN20 SDR7.4

DN (mm)	Code	SP	PN (bar)	SDR	d (mm)	e (mm)	LB (mm)
20	**4200002000121**	100	20	7.4	20	2.8	4000
25	**4200002500221**	80	20	7.4	25	3.5	4000
32	**4200003200321**	60	20	7.4	32	4.4	4000
40	**4200004000421**	40	20	7.4	40	5.5	4000
50	**4200005000521**	20	20	7.4	50	6.9	4000
63	**4200006300621**	16	20	7.4	63	8.6	4000
75	**4200007500721**	12	20	7.4	75	10.3	4000
90	**4200009000821**	8	20	7.4	90	12.3	4000
110	**4200011000921**	4	20	7.4	110	15.1	4000
125	**4200012500121**	4	20	7.4	125	17.1	4000



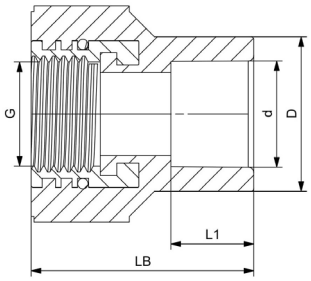
Aquasystem® Socket PP-R

Dim. (mm)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	L1 (mm)	LB (mm)
20	**4302502020021**	500	100	25	27.5	19.2	14.5	33.0
25	**4302502520121**	350	50	25	33.0	24.2	16.0	37.0
32	**4302503220221**	200	40	25	41.0	31.1	18.0	40.0
40	**4302504020321**	125	25	25	52.0	39.0	21.0	45.0
50	**4302505020421**	70	10	25	66.3	48.9	23.5	51.0
63	**4302506320521**	45	9	25	83.5	62.5	28.0	57.5
75	**4302507520621**	30	5	25	98.0	74.0	30.5	66.0
90	**4302509020721**	20	4	25	118.0	89.0	34.5	75.0
110	**4302511020821**	10	1	25	143.5	108.0	39.5	83.5
125	**4302512520922**	7	1	25	165.0	122.4	40.0	90.0



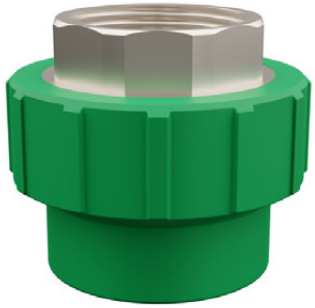
Aquasystem® Electrofusion Coupler PP-R

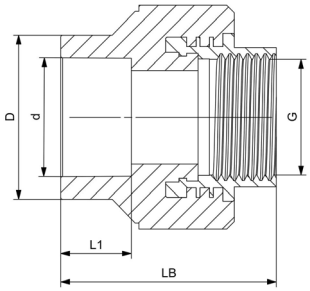
Dim. (mm)	Code	GP	SP	d (mm)	D (mm)	L1 (mm)	LB (mm)
20	**4302902091522**	150	10	20	33.0	50.0	70.0
25	**4302902591522**	130	10	25	38.0	57.0	70.0
32	**4302903291522**	80	10	32	46.0	62.0	79.0
40	**4302904091522**	50	5	40	55.0	71.0	90.0
50	**4302905091522**	30	2	50	67.0	82.0	100.0
63	**4302906391522**	20	1	63	86.0	101.0	106.0
75	**4302907591522**	14	1	75	103.0	115.0	121.0
90	**4302909091522**	10	1	90	121.0	134.0	131.0
110	**4302911091522**	3	1	110	142.0	156.0	142.0
125	**4302912591522**	3	1	125	163.0	175.0	151.0



Aquasystem® Female Socket (Round) BSPT-Rp PP-R

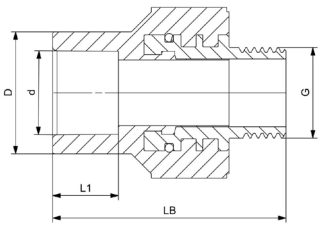
Dim. (mm)	G (inch)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	L1 (mm)	LB (mm)
20	½	**4302702040021**	325	25	25	27.9	19.2	15.0	40.3
20	¾	**4302702040121**	250	25	25	28.0	19.2	18.5	42.5
25	½	**4302702540021**	225	25	25	33.0	24.2	17.0	40.3
25	¾	**4302702540121**	225	25	25	33.0	24.2	16.5	38.0
32	¾	**4302703240021**	100	20	25	43.5	31.1	18.5	45.5
32	1	**4302703240221**	125	25	25	43.5	31.1	18.5	45.5





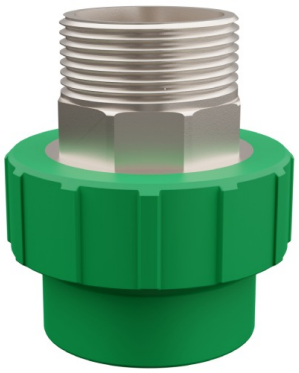
Aquasystem® Female Socket (Hexagon) BSPT-Rp PP-R

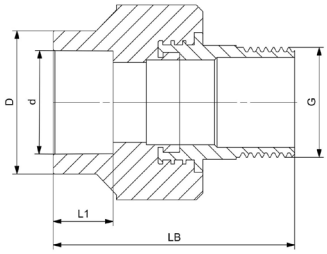
Dim. (mm)	G (inch)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	L1 (mm)	LB (mm)
32	1	**4302703230621**	80	20	25	43.0	31.1	18.5	56.5
40	1 ¼	**4302704040021**	50	10	25	52.8	39.3	21.1	58.5
50	1 ½	**4302705040021**	40	5	25	65.0	48.9	26.0	62.5
63	2	**4302706340021**	20	5	25	82.5	62.0	28.0	75.8
75	2 ½	**4302707525621**	16	4	25	101.2	74.3	31.0	80.0
90	3	**4302709028621**	10	1	25	119.0	88.8	35.8	98.0
110	4	**4302711025721**	6	1	25	147.0	108.9	43.0	99.3



Aquasystem® Male Socket (Round) BSPT-R PP-R

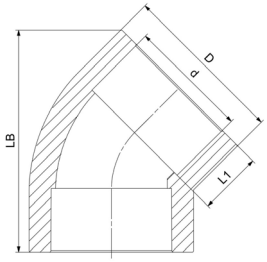
Dim. (mm)	G (inch)	Code	GP	SP	D (mm)	d (mm)	L1 (mm)	LB (mm)
20	½	**4302702040921**	250	50	27.9	19.2	15.0	55.8
20	¾	**4302702040321**	200	25	28.0	19.2	18.5	59.0
25	½	**4302702540921**	200	40	33.0	24.3	17.0	55.8
25	¾	**4302702540321**	200	40	33.0	24.2	16.5	54.5
32	¾	**4302703240121**	100	20	43.5	31.1	18.5	62.0
32	1	**4302703240321**	100	20	43.5	31.1	18.5	63.5





Aquasystem® Male Socket (Hexagon) BSPT-R PP-R

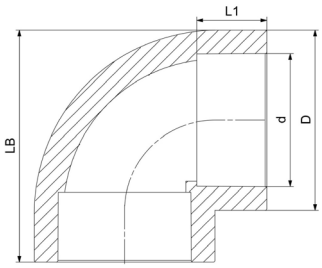
Dim. (mm)	G (inch)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	L1 (mm)	LB (mm)
32	1	**4302703230321**	80	20	25	43.0	31.1	18.0	72.6
40	1 ¼	**4302704040121**	50	10	25	52.8	39.3	21.1	77.5
50	1 ½	**4302705040121**	40	5	25	65.0	48.9	26.0	81.5
63	2	**4302706340121**	20	5	25	82.5	62.0	28.0	95.3
75	2 ½	**4302707527621**	16	4	25	101.2	74.3	31.0	104.2
90	3	**4302709029621**	10	1	25	119.0	88.8	35.8	122.0
110	4	**4302711027821**	4	1	25	147.0	108.9	43.0	130.4



Aquasystem® Elbow 45° PP-R

Remark:
There are two alternatives for d160 mm fittings: Butt fusion and Socket fusion fittings. Butt fusion product is SDR 11 and only compatible with same SDR pipes. Socket fusion product could be welded with all type of pipes.

Dim. (mm)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	L1 (mm)	LB (mm)
20	**4302102000121**	400	50	25	28.0	19.3	15.0	45.2
25	**4302102500221**	300	50	25	33.0	24.3	17.0	52.1
32	**4302103200321**	175	25	25	42.8	31.1	18.1	59.5
40	**4302104000421**	75	15	25	52.6	39.0	21.0	70.2
50	**4302105000521**	40	5	25	65.6	48.9	24.0	85.6
63	**4302106300621**	20	4	25	83.6	62.2	27.6	103.2
75	**4302107501221**	16	4	25	98.6	73.4	31.0	119.7
90	**4302109001322**	6	2	25	97.7	89.0	33.0	136.4
110	**4302111001422**	4	1	25	117.7	108.4	37.5	158.6
125	**4302112501522**	2	1	25	132.7	122.8	40.5	182.7

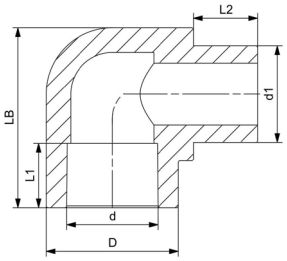


Aquasystem® Elbow 90° PP-R

Remark:

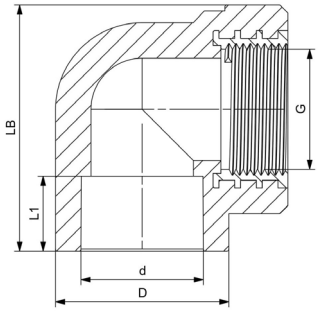
There are two alternatives for d160 mm fittings: Butt fusion and Socket fusion fittings. Butt fusion product is SDR 11 and only compatible with same SDR pipes. Socket fusion product could be welded with all type of pipes.

Dim. (mm)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	L1 (mm)	LB (mm)
20	**4302102000721**	400	50	25	28.0	19.2	14.5	40.0
25	**4302102500821**	250	50	25	33.0	24.2	16.7	46.8
32	**4302103200921**	125	25	25	41.8	31.2	18.3	55.7
40	**4302104001021**	75	15	25	52.6	39.0	20.5	67.5
50	**4302105001121**	40	5	25	67.6	48.8	23.7	84.5
63	**4302106301221**	20	4	25	85.0	62.0	27.5	103.0
75	**4302107501321**	16	4	25	100.0	74.2	31.0	120.0
90	**4302109001421**	8	1	25	119.6	89.2	35.5	141.5
110	**4302111001521**	3	1	25	144.6	108.4	41.5	170.4
125	**4302112501622**	2	1	25	165.0	122.6	42.0	206.5



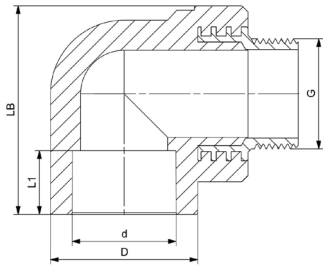
Aquasystem® Elbow 90° Male-Female PP-R

Dim. (mm)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	d1 (mm)	L1 (mm)	L2 (mm)	LB (mm)
20	**4302102005021**	350	50	25	29	19.2	20	16.0	16.0	41.5
25	**4302102505121**	200	40	25	35	24.2	25	17.0	17.0	47.5



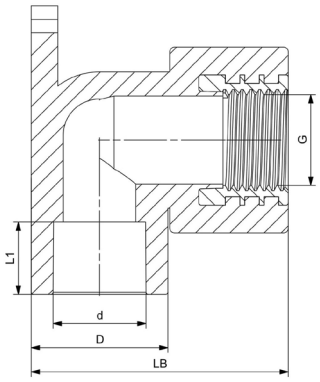
Aquasystem® Female Elbow BSPT-Rp PP-R

Dim. (mm)	G (inch)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	L1 (mm)	LB (mm)
20	½	**4302102030021**	200	50	25	28.0	19.2	15.0	48.0
20	¾	**4302102030121**	200	40	25	30.0	19.2	16.0	50.0
25	½	**4302102530021**	175	25	25	35.0	24.2	21.0	52.0
25	¾	**4302102530121**	140	35	25	32.5	24.2	16.5	59.0
32	¾	**4302103230021**	75	15	25	44.0	31.1	19.0	62.5
32	1	**4302103230121**	75	15	25	44.0	31.1	19.0	62.5



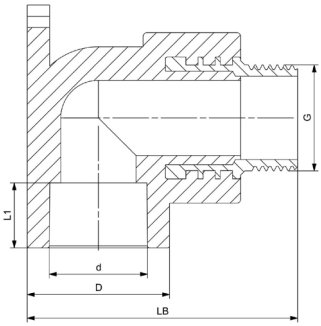
Aquasystem® Male Elbow BSPT-R PP-R

Dim. (mm)	G (inch)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	L1 (mm)	LB (mm)
20	½	**4302102030221**	200	40	25	28.0	19.2	15.0	48.0
20	¾	**4302102030321**	180	20	25	30.0	19.2	16.0	50.0
25	½	**4302102530221**	180	30	25	35.0	24.2	21.0	51.7
25	¾	**4302102530321**	100	25	25	32.5	24.2	16.5	59.0
32	¾	**4302103230221**	75	15	25	44.0	31.1	19.0	62.5
32	1	**4302103230321**	80	10	25	44.0	31.1	19.0	62.3



Aquasystem® Female Backplate Elbow Type 3 BSPT-Rp PP-R

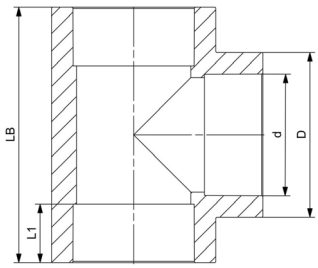
Dim. (mm)	G (inch)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	L1 (mm)	LB (mm)
20	¾	**4302102030421**	100	20	25	28.2	19.2	15.0	53.1
25	½	**4302102530421**	100	20	25	35.0	24.2	16.5	54.0
25	¾	**4302102530521**	100	20	25	35.0	24.2	16.5	54.0



Aquasystem® Male Backplate Elbow Type 3 BSPT-R PP-R

Dim. (mm)	G (inch)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	L1 (mm)	LB (mm)
25	¾	**4302102530621**	100	25	25	35.0	24.2	16.0	66.5

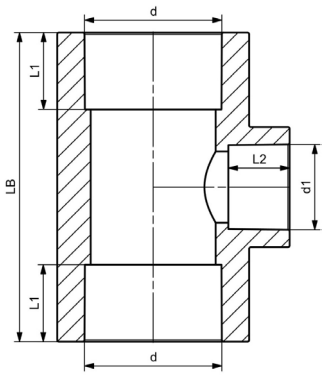
Aquasystem® Tee PP-R



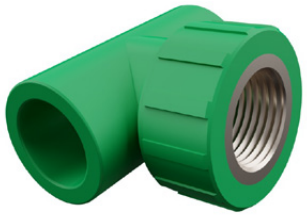
Remark:
There are two alternatives for d160 mm fittings: Butt fusion and Socket fusion fittings. Butt fusion product is SDR 11 and only compatible with same SDR pipes. Socket fusion product could be welded with all type of pipes.

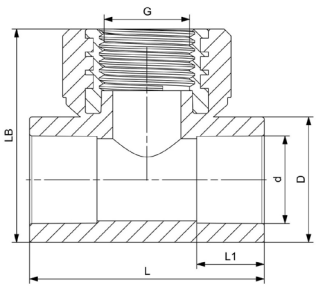
Dim. (mm)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	L1 (mm)	LB (mm)
20	**4302902008021**	250	50	25	27.8	19.2	14.8	51.5
25	**4302902508121**	150	25	25	32.5	24.2	16.0	59.0
32	**4302903208221**	100	10	25	41.5	31.1	18.0	70.0
40	**4302904008321**	50	5	25	54.0	39.0	21.0	87.0
50	**4302905008421**	30	5	25	66.2	49.0	25.5	102.5
63	**4302906308521**	20	4	25	83.0	61.9	27.5	128.0
75	**4302907508621**	10	1	25	98.0	73.6	30.5	140.0
90	**4302909008721**	6	1	25	117.5	89.0	35.5	163.8
110	**4302911008821**	3	1	25	143.5	108.0	38.0	194.0
125	**4302912508922**	2	1	25	165.0	123.0	40.0	248.0

Aquasystem® Reducing Tee PP-R



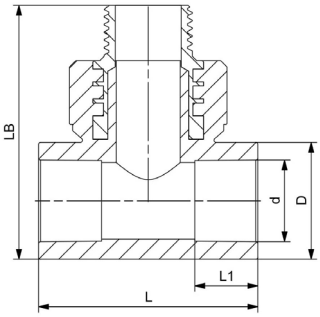
Dim. (mm)	Code	GP	SP	PN (bar)	d (mm)	d1 (mm)	L1 (mm)	L2 (mm)	LB (mm)
25-20-25	**4302902520121**	175	25	25	24.2	19.2	16.0	14.5	59.0
32-20-32	**4302903220421**	100	10	25	31.1	19.2	19.2	17.2	74.0
32-25-32	**4302903220621**	100	10	25	31.1	24.2	19.2	17.5	74.0
40-20-40	**4302904020721**	50	5	25	39.0	19.2	21.9	17.4	88.0
40-25-40	**4302904020821**	50	5	25	39.0	24.3	21.9	17.4	88.0
40-32-40	**4302904020921**	50	5	25	39.0	31.1	21.9	20.0	87.5
50-20-50	**4302905021021**	40	5	25	48.9	19.2	26.0	18.0	106.0
50-25-50	**4302905021221**	30	5	25	48.9	24.4	26.0	17.0	106.0
50-32-50	**4302905021321**	30	5	25	48.9	31.1	26.0	20.5	105.5
50-40-50	**4302905021421**	30	5	25	48.9	39.0	23.5	20.5	107.0
63-20-63	**4302906321321**	24	4	25	61.9	19.2	27.5	14.5	80.0
63-25-63	**4302906321421**	24	4	25	61.9	24.3	27.6	16.5	85.0
63-32-63	**4302906321521**	24	4	25	61.9	31.5	27.6	18.1	91.0
63-40-63	**4302906321621**	16	4	25	61.9	39.4	27.6	21.1	102.5
63-50-63	**4302906321721**	16	4	25	61.9	48.9	27.5	23.5	111.5
75-20-75	**4302907521621**	10	2	25	73.4	19.2	30.0	14.5	138.0
75-25-75	**4302907521721**	10	2	25	73.4	24.2	30.0	16.0	138.0
75-32-75	**4302907521821**	10	2	25	73.4	31.1	30.0	18.0	138.0
75-40-75	**4302907521921**	10	2	25	73.4	39.0	30.0	20.5	138.0
75-50-75	**4302907522021**	10	2	25	73.4	48.9	30.0	23.5	138.0
75-63-75	**4302907522121**	10	2	25	73.4	61.9	30.0	27.5	138.0
90-63-90	**4302409021622**	12	2	25	88.2	61.9	33.0	27.5	145.6
90-75-90	**4302909021722**	5	1	25	88.2	73.4	33.0	30.0	152.4
110-63-110	**4302411021522**	3	1	25	108.0	61.9	37.0	27.5	174.5
110-75-110	**4302911021622**	3	1	25	108.0	73.4	37.0	31.3	192.5
110-90-110	**4302911021722**	2	1	25	108.0	88.3	37.0	33.8	188.2
125-75-125	**4302412521622**	2	1	25	122.4	73.4	40.0	30.0	200.2
125-90-125	**4302412521722**	2	1	25	122.4	88.2	40.0	33.0	218.6
125-110-125	**4302912521822**	2	1	25	122.4	108.0	40.0	37.0	230.4





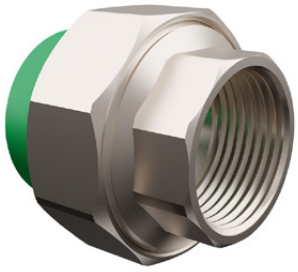
Aquasystem® Tee Female BSPT-Rp PP-R

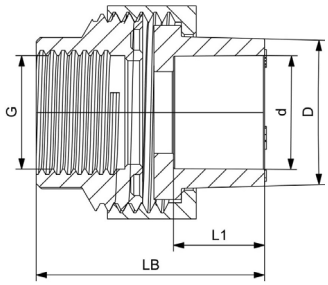
Dim. (mm)	G (inch)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	L1 (mm)	L (mm)	LB (mm)
20	½	**4302902030021**	160	20	25	27.5	19.2	14.8	51.5	46.8
20	¾	**4302902030121**	160	20	25	29.8	19.2	14.8	59.0	50.9
25	½	**4302902530021**	120	15	25	33.0	24.2	16.0	59.0	54.5
25	¾	**4302902530121**	120	20	25	33.0	24.2	16.0	59.0	54.5
32	¾	**4302903230021**	60	15	25	42.0	31.1	18.5	75.0	69.0
32	1	**4302903230121**	70	10	25	42.0	31.1	18.5	74.5	69.0



Aquasystem® Tee Male BSPT-R PP-R

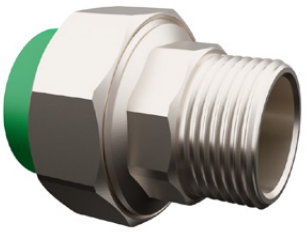
Dim. (mm)	G (inch)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	L1 (mm)	L (mm)	LB (mm)
20	½	**4302902030221**	150	30	25	27.5	19.2	14.8	51.5	59.8

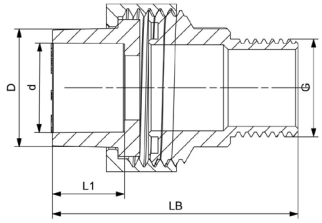




Aquasystem® Transition Joint Hexagonal Female BSPT-Rp PP-R

Dim. (mm)	G (inch)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	L1 (mm)	LB (mm)
20	½	**4302702030421**	300	50	25	25.2	19.2	15.4	38.6
20	¾	**4302902030321**	150	50	25	25.2	19.2	15.4	41.1
25	¾	**4302702530021**	150	50	25	32.8	24.3	18.5	44.1
32	1	**4302703230021**	150	25	25	39.9	31.2	20.5	50.1
40	1 ¼	**4302904030021**	50	10	25	49.7	39.0	23.9	58.7
50	1 ½	**4302905030021**	30	5	25	57.9	48.9	24.0	58.9
63	2	**4302906330021**	20	2	25	73.6	61.9	27.5	66.1

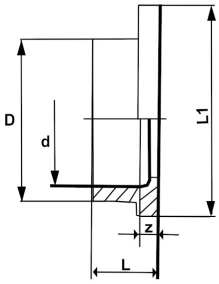




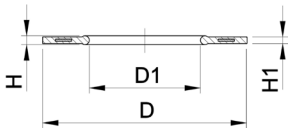
Aquasystem® Transition Joint Hexagonal Male BSPT-R PP-R

Dim. (mm)	G (inch)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	L1 (mm)	LB (mm)
20	½	**4302702030521**	300	50	25	25.2	19.2	15.4	52.6
20	¾	**4302902030421**	150	50	25	25.2	19.2	15.4	56.1
25	¾	**4302702530121**	150	30	25	32.8	24.3	18.5	59.1
32	1	**4302703230121**	125	25	25	39.9	31.2	20.5	65.1
40	1 ¼	**4302904030121**	50	10	25	49.7	39.0	23.9	76.5
50	1 ½	**4302905030121**	30	5	25	57.9	48.9	24.0	79.3
63	2	**4302906330121**	20	2	25	73.6	61.9	27.5	82.0

Aquasystem® Flange Adaptor PP-R



Remarks	Dim. (mm)	Code	GP	SP	PN (bar)	D (mm)	L (mm)	L1 (mm)	Z (mm)
	25	**4302902533022**	400	100	10	33.0	23.0	41.0	5.0
	32	**4302903233022**	250	50	10	41.0	25.0	50.0	5.0
	40	**4302904033022**	200	50	10	50.0	27.0	61.0	5.0
	50	**4302905033022**	80	20	10	61.0	33.0	74.0	8.0
	63	**4302906333022**	50	10	10	76.0	37.0	91.0	8.0
	75	**4302907533022**	48	4	10	90.0	39.0	107.0	8.0
	90	**4302909033022**	28	4	10	106.0	46.0	126.0	10.0
	110	**4302911033022**	15	3	10	131.0	49.0	150.0	7.0
	125	**4302912533022**	12	1	10	146.0	55.0	162.0	17.5



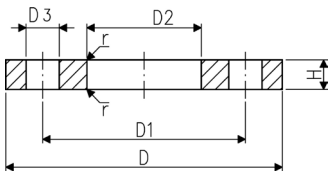
Profile Flange Gasket, metric
EPDM / FKM

Model:

- For all metric GF Flange Adaptors
- Hardness: 70° Shore EPDM, 75° Shore FKM
- EPDM: approved acc. to DVGW Water W 270, KTW recommendation
- Centering on the inner diameter of the screw crown
- Material steel insert: carbon steel
- Rubber-steel body combined with rubber profile cord ring up to d630
- Rubber-steel body ideal for big dimensions (d710 - d1000)

di FA are the suitable inner diameters of flanges adaptors

d (mm)	D (mm)	di FA (mm)	D1 (mm)	DN (mm)	PN (bar)	EPDM Code	FKM Code	Weight (kg)	H (mm)	H1 (mm)
16	46	6 - 16	16	10	16	**748 440 705**	**749 440 705**	0.012	4	3
20	51	10 - 20	20	15	16	**748 440 706**	**749 440 706**	0.013	4	3
25	61	12 - 22	22	20	16	**748 440 707**	**749 440 707**	0.014	4	3
32	71	18 - 28	28	25	16	**748 440 708**	**749 440 708**	0.019	4	3
40	82	30 - 40	40	32	16	**748 440 709**	**749 440 709**	0.026	4	3
50	92	36 - 46	46	40	16	**748 440 710**	**749 440 710**	0.039	4	3
63	107	48 - 58	58	50	16	**748 440 711**	**749 440 711**	0.050	5	4
75	127	59 - 69	69	65	16	**748 440 712**	**749 440 712**	0.082	5	4
90	142	73 - 84	84	80	16	**748 440 713**	**749 440 713**	0.083	5	4
110	162	94 - 104	104	100	16	**748 440 714**	**749 440 714**	0.127	6	5
125	162	113 - 123	123	100	16	**748 440 715**	**749 440 715**	0.105	6	5



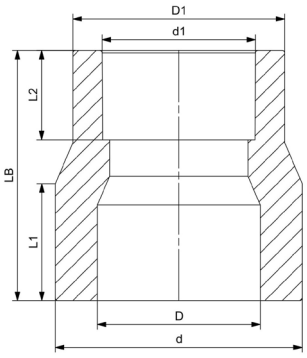
Backing Flange, Galvanised Steel
for Socket Systems

Model:

- Galvanised steel, suitable for laying underground
- Connecting dimension: ISO 7005, EN 1092, BS 4504, DIN 2501
- Bolt circle PN10/16

AL: number of holes
*Bolt circle PN16

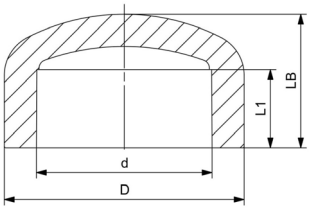
d (mm)	d (inch)	DN (mm)	PN (bar)	Code	Weight (kg)	SC	H (mm)	D (mm)	AL	D3 (mm)	D2 (mm)	D1 (mm)
20	½	15	16	**724 701 606**	0.220	M12x55	7	95	4	14	28	65
25	¾	20	16	**724 701 607**	0.320	M12x60	7	105	4	14	34	75
32	1	25	16	**724 701 608**	0.410	M12x60	7	115	4	14	42	85
40	1 ¼	32	16	**724 701 609**	0.820	M16x70	8	140	4	18	51	100
50	1 ½	40	16	**724 701 610**	1.040	M16x75	8	150	4	18	62	110
63	2	50	16	**724 701 611**	1.220	M16x80	8	165	4	18	78	125
75	2 ½	65	16	**724 701 612**	1.440	M16x85	8	185	4	18	92	145
90	3	80	16	**724 701 613**	1.530	M16x90	8	200	4	18	110	160
110	3	80	16	**724 701 014**	1.840	M16x95	8	200	4	18	133	160
110		100	16	**724 700 014**	1.840	M16x95	8	220	8	18	133	180
125	4	100	16	**724 700 015**	1.950	M16X95	8	220	8	18	150	180
125		125	16	**724 701 015**	2.020	M16X95	8	250	8	18	150	210



Aquasystem® Reducer PP-R

Remark:
There are two alternatives for d160 mm fittings: Butt fusion and Socket fusion fittings. Butt fusion product is SDR 11 and only compatible with same SDR pipes. Socket fusion product could be welded with all type of pipes.

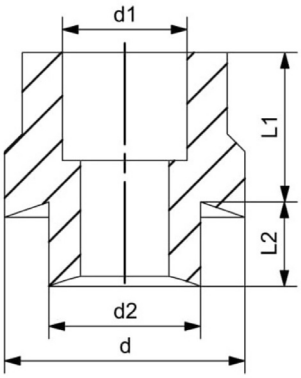
	Dim. (mm)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	D1 (mm)	d1 (mm)	L1 (mm)	L2 (mm)	LB (mm)
	25-20	**4302402510021**	500	100	25	16.3	25.0	28.0	19.2	18.5	15.5	36.0
	32-20	**4302403210121**	400	50	25	20.9	32.0	29.0	19.2	21.0	14.5	41.5
	32-25	**4302403210221**	350	50	25	21.4	32.0	33.8	24.2	19.6	16.0	38.2
	40-20	**4302404010321**	250	50	25	30.8	40.0	29.0	19.2	26.8	16.0	45.8
	40-25	**4302404010421**	250	25	25	30.8	40.0	34.0	24.2	27.0	19.0	46.5
	40-32	**4302404010521**	175	25	25	31.0	40.0	42.5	31.1	26.7	20.0	47.0
	50-20	**4302405010621**	150	25	25	33.2	50.0	26.5	19.2	23.5	14.5	47.5
	50-25	**4302405010721**	150	25	25	33.2	50.0	33.0	24.2	23.5	16.0	48.5
	50-32	**4302405010821**	150	25	25	33.2	50.0	41.5	31.1	23.5	18.1	50.7
	50-40	**4302405010921**	100	20	25	33.4	50.0	52.0	39.0	23.5	20.5	53.8
	63-25	**4302406311021**	75	15	25	42.0	63.0	33.0	24.2	27.5	16.5	55.3
	63-32	**4302406311121**	75	15	25	41.8	63.0	41.5	31.1	27.5	18.1	58.0
	63-40	**4302406311221**	75	15	25	42.0	63.3	52.0	39.0	27.5	20.7	60.5
	63-50	**4302406311321**	50	10	25	43.0	63.0	65.5	48.9	27.5	32.2	63.0
	75-50	**4302407511421**	40	8	25	50.0	75.0	66.0	48.9	30.0	24.0	68.0
	75-63	**4302407511521**	40	8	25	51.5	75.0	82.4	61.9	30.0	28.0	71.5
	90-50	**4302409011521**	20	5	25	60.0	90.0	66.0	48.9	40.0	23.5	68.0
	90-63	**4302409011621**	20	5	25	60.0	90.0	84.0	61.9	41.0	27.5	75.0
	90-75	**4302409011721**	16	4	25	59.0	90.0	98.0	73.4	41.0	30.5	81.0
	110-63	**4302411011721**	16	4	25	70.8	110.0	84.0	61.9	45.0	28.0	82.0
	110-75	**4302411011821**	16	4	25	72.0	110.0	98.5	73.4	45.0	31.0	87.0
	110-90	**4302411011921**	16	4	25	75.0	110.0	118.5	89.0	45.0	35.5	92.0
	125-75	**4302412512022**	12	1	25	78.2	125.0	124.2	73.4	40.0	30.0	98.0
	125-90	**4302412512122**	12	1	25	82.4	125.0	136.4	88.2	40.0	33.0	102.0
	125-110	**4302412512222**	12	1	25	84.3	125.0	142.9	108.6	52.0	37.7	105.2



Aquasystem® End Cap PP-R

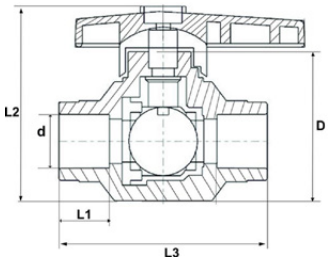
Dim. (mm)	Code	GP	SP	PN (bar)	D (mm)	d (mm)	L1 (mm)	LB (mm)
20	**4302902006021**	1000	100	25	28.0	19.2	14.5	22.5
25	**4302902506121**	600	100	25	33.5	24.2	17.0	26.5
32	**4302903206221**	300	50	25	42.0	31.1	19.0	30.3
40	**4302904006321**	175	25	25	52.0	39.0	20.5	39.0
50	**4302905006421**	100	10	25	65.0	48.9	23.5	45.4
63	**4302906306521**	50	10	25	83.0	61.9	28.0	44.9
75	**4302907506621**	25	5	25	99.0	73.4	31.0	50.7
90	**4302909006821**	18	3	25	119.4	90.0	35.5	59.8
110	**4302911006721**	9	3	25	143.8	108.0	41.5	69.9

Aquasystem® Saddle With Spigot PP-R

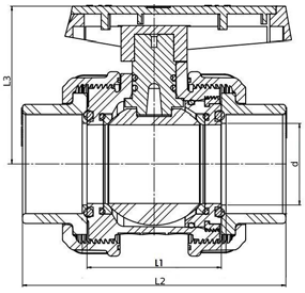


d - d1 (mm)	Code	GP	SP	PN (bar)	L1 (mm)	d2 (mm)	L2 (mm)
40 - 20	**4302904090022**	350	50	25	20.0	22.0	7.0
40 - 25	**4302904090122**	300	50	25	27.0	22.0	7.0
50 - 20	**4302905090022**	350	50	25	20.0	22.0	8.0
50 - 25	**4302905090122**	300	50	25	27.0	22.0	8.0
63 - 20	**4302906390022**	350	50	25	20.0	22.0	10.0
63 - 25	**4302906390122**	300	50	25	27.0	22.0	10.0
63 - 32	**4302906390222**	150	25	25	30.0	32.0	10.0
75 - 20	**4302907590022**	350	50	25	20.0	22.0	10.0
75 - 25	**4302907590122**	300	50	25	27.0	22.0	10.0
75 - 32	**4302907590222**	200	25	25	30.0	32.0	10.0
75 - 40	**4302907590322**	125	25	25	30.0	32.0	15.0
90 - 20	**4302909090022**	350	50	25	20.0	22.0	15.0
90 - 25	**4302909090122**	300	50	25	27.0	22.0	15.0
90 - 32	**4302909090222**	200	25	25	30.0	32.0	15.0
90 - 40	**4302909090322**	125	25	25	30.0	32.0	15.0
110 - 20	**4302911090022**	350	50	25	20.0	22.0	15.0
110 - 25	**4302911090122**	300	50	25	27.0	22.0	15.0
110 - 32	**4302911090222**	200	50	25	30.0	32.0	15.0
110 - 40	**4302911090322**	125	25	25	30.0	32.0	15.0
110 - 50	**4302911090422**	50	25	25	39.0	50.0	15.0
125 - 20	**4302912590022**	350	50	25	27.0	22.0	15.0
125 - 25	**4302912590122**	300	50	25	30.0	22.0	15.0
125 - 32	**4302912590222**	200	50	25	30.0	32.0	15.0
125 - 40	**4302912590322**	125	25	25	30.0	32.0	15.0
125 - 63	**4302912590422**	30	10	25	45.0	63.0	17.0

Aquasystem® Ball Valve (Welt-In) PP-R



Dim. (mm)	Code	GP	SP	PN (bar)	d (mm)	D (mm)	L1 (mm)	L2 (mm)	L3 (mm)
20	**4302802042822**	100	10	20	20	50.0	16.0	72.0	88.0
25	**4302802542922**	70	10	20	25	57.5	19.0	82.0	76.0
32	**4302803243022**	45	5	20	32	70.3	20.0	92.0	68.0
40	**4302804043622**	25	1	20	40	88.0	36.1	121.4	109.1
50	**4302805043722**	20	1	20	50	98.0	36.5	140.0	125.2
63	**4302806343822**	15	1	20	63	106.0	35.9	121.1	119.3
75	**4302807543922**	8	1	20	75	125.5	42.6	159.5	144.9

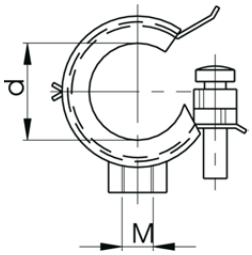


Aquasystem® Special Ball Valve (Union) PP-R

Attention:

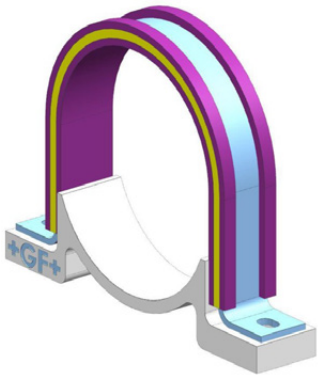
- PN10 cold water applications only.

	Dim. (mm)	Code	GP	SP	PN (bar)	d (mm)	L1 (mm)	L2 (mm)	L3 (mm)
*	20	**4302802042522**	70	10	10	20	45.0	83.0	48.0
*	25	**4302802542622**	50	10	10	25	51.0	95.0	55.0
*	32	**4302803242722**	30	6	10	32	55.0	105.0	65.0
*	40	**4302804043122**	15	5	10	40	64.0	122.0	76.0
*	50	**4302805043222**	12	3	10	50	75.0	143.0	87.0
*	63	**4302806343322**	8	2	10	63	85.0	167.0	101.0



Pipe clamp

d (mm)	Code	SP	Weight (kg)	M (mm)
16	**761 066 296**	50	0.039	8
20	**761 066 297**	50	0.045	8
25	**761 066 298**	50	0.053	8
32	**761 066 299**	50	0.046	8
40	**761 066 300**	50	0.071	8
50	**761 066 301**	50	0.087	8
63	**761 066 302**	10	0.134	8
75	**761 066 303**	50	0.135	8
90	**761 066 304**	10	0.156	10
110	**761 066 305**	25	0.228	10



Pipe Brackets ROM

d (mm)	Code	SP	Weight (kg)
125	**761 070 337**	5	0.228

MSA 330 Electrofusion Unit with fusion data recording

The MSA 330 electrofusion unit combines high performance in jointing with easy and safe handling. The internal memory has a capacity of 1000 jointing records, for data transfer the unit is equipped with an USB interface. The record formats are PDF and CSV, both manageable with common and free PC software applications. An intuitive operation menu guides you through the complete jointing process. For fusion data input a scanner is connected. The entire welding process is controlled and regulated with energy output compensation depending on ambient temperature and the indication of cooling time. Robust aluminum housing with convenient cable winding and handle for weight balanced transport. The unit is suitable for jointing in series.
Scope of delivery: transport case, angle adapters (4.0 mm and 4.7 mm), operation instructions and configuration chart.

Technical Data:

- Ambient temperature: -10°C to +45°C
- Mains voltage: 230 V (±15%) or 115 V (±15%)
- Mains frequency: 40 Hz - 70 Hz
- Fusion voltage: 8 - 48V AC
- Fusion current: 100 A (max)
- Suggested power generator: 3.5 kVA (5.0 kVA for fittings with d>200mm)
- Protection factor: Class 1 / IP 65
- Mains cable: 4 m / Fusion cable: 4 m
- Interface: USB (type A) for PC communication and software updates
- Weight: 19 kg
- Dimensions (WxHxD): 280 x 480 x 240 mm
- Display: LCD (20 alphanumerical char. x 4 lines), contrast adjustment
- Configurable languages: 11

description	Voltage	Code	Weight (kg)
Barcode scanner, carton box	115 V	**790 160 070**	18.000
Barcode scanner, transport case	115 V	**790 160 071**	18.000

MSE 63/MSE 110 MSE socket fusion tool

Note:
For fusion jointing of PP, PE and PVDF pipes and fittings.Size range d 16 - 110 mm

Code	Weight (kg)
790 105 096	2.075

SG 125 Socket fusion bench machine

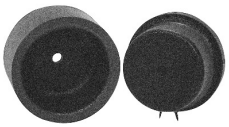
- Portable heating element - socket fusion machine for use in the workshop and on job sites.
- For fusion jointing of PP, PE, PB and PVDF pipes and fittings; dimension 20 - 90 mm
- **Base machine**
- Compact, sturdy design, distortion-free machine bed
- Handwheel with torque locking mechanism for the slide movement
- Fast selection of insertion depth according to the pipe dimension
- **Heater**
- Thermostatic temperature control
- High temperature accuracy over the entire heating surface
- Universal, left and right prismatic clamping devices, complete, for chlamping pipe and fittings. Additional set of prismatic clamping devices for outer clamping of pipes available as an option.
- V-shaped pipe support d 20 - 125 mm
- Back stop
- Machine specific tool set
- Timer to clock fusion times
- Including transport packaging, without accessories

d-d (mm)	Performance	Code	Weight (kg)
20 - 90	115 V/1500 W	**790 310 037**	65.000

Table clamp

- Specifically designed for placing the heater on a working bench

Code	Weight (kg)
790 109 315	0.660



Set of heating tools for welder

d (mm)	Code	SP	Weight (kg)
20	**760 840 562**		0.001
25	**760 840 563**		0.100
32	**760 840 564**		0.180
40	**760 840 565**		0.270
50	**760 840 566**		0.300
63	**760 840 567**		0.300
75	**760 840 568**	1	0.300
90	**760 840 569**	1	0.400
110	**760 840 570**		0.001
125	**760 840 571**	1	0.500

Set of heating tools for saddles

d (mm)	Code	SP	Weight (kg)
40 - 20 - 25	**760 840 585**	1	0.209
50 - 20 - 25	**760 840 586**	1	0.223
63 - 20 - 25	**760 840 587**	1	0.223
75 - 20 - 25	**760 840 588**	1	0.231
90 - 20 - 25	**760 840 589**	1	0.231
110 - 20 - 25	**760 840 590**	1	0.233
125 - 20 - 25	**760 840 591**	1	0.250
50 - 32 - 40	**760 840 592**	1	0.285
63 - 32 - 40	**760 840 593**	1	0.317
75 - 32 - 40	**760 840 594**	1	0.322
90 - 32 - 40	**760 840 595**	1	0.322
110 - 32 - 40	**760 840 596**	1	0.334
125 - 32 - 40	**760 840 597**	1	0.350

Tempil stick

Temperature (°C)	Code	Weight (kg)
253	**799 496 008**	0.169
274	**799 496 009**	0.013

Rotary pipe peeler for sizes d20 to d125

Model:

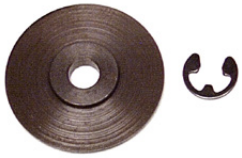
- Rotary peeling tool d20mm to d125mm. This innovative rotary peeler is designed for use with PE80, PE100, PEX and PP-R pipe systems as a universal solution for peeling pipe sizes d20mm through to d125mm. This peeler is available for hire or sale.

GF Code	Weight (kg)
20014M027	1.600

PPC Plastic pipe cutter

- For cutting plastic pipes d10 - d160

Article	d-d (mm)	Code	SP	Weight (kg)	Closest inch (inch)
PPC 63, s max. = 7.2mm	10 - 63	**790 109 001**	1	0.865	⅛ - 2
PPC 110, s max. = 12.7mm	50 - 110	**790 109 002**	1	1.624	1 ½ - 4



Replacement cutting wheels

- **for plastic pipe cutter**

d-d (mm)	Article	Code	SP	Weight (kg)
10 - 63	SR 63 max. s=7,2 mm	**790 109 011**	1	0.004
50 - 110	SR 110/160 max. s=12,7 mm	**790 109 012**	1	0.015

Pipe shears

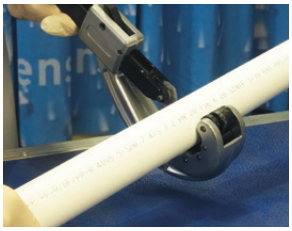
d-d (mm)	Code	SP	Weight (kg)
16 - 25	**760 853 279**	1	0.295

KS cleaner and blue paper

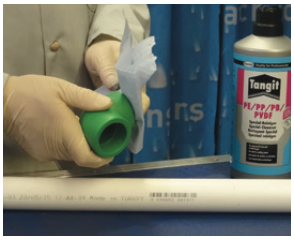
#	Code	Weight (kg)
1 litre	**799 298 023**	0.872

Socket fusion jointing

1. Cut the pipe
Cut the pipe at a right angle, if necessary remove swarf from the inside.

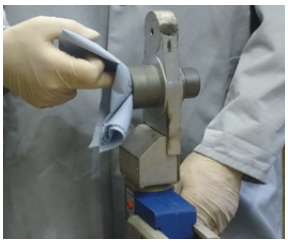


2. Clean the fitting and pipe
Clean the internal surface of the fitting and the outside of the pipe using Tangit KS cleaner and a lint free cloth (any dirt or grease on the fitting or pipe can result in a joint failure).

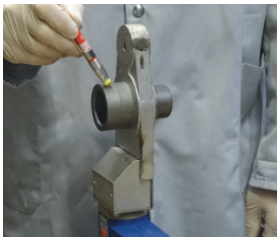


3. Mark the insertion depth
Mark the insertion depth into the heater bush and fitting (see table below) on the pipe. The mark must remain visible under heating and jointing.

4. Clean the heater bushes
Clean the heater bushes with Tangit KS cleaner and a lint free cloth. To clean inside the smaller bushes the cloth can be wrapped around a piece of dowel or wooden pencil.
The heater bushes should be wiped clean after each welding.



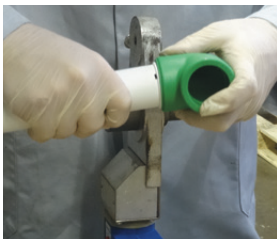
5. Check the fusion temperature
Once the socket fusion machine is on and has been allowed to heat up, check the fusion temperature, which must range between 253°C and 274°C. The temperature is checked using Tempil sticks. The yellow stick melts at 253°C and the red stick melts at 274°C. When the yellow stick melts and the red one does not melt, the heater bushes are at the correct temperature for the fusion. After checking the fusion temperature, wipe the heater bushes with a clean lint free cloth.



6. Heat the pipe and fitting
Push the pipe and the fitting simultaneously onto the heater bushes up to the insertion depth mark (this must remain visible). The pipe and the fitting are held on the heater bushes with a gentle pressure and kept straight and level. A timer should be used to ensure the correct heating time (see table below) has elapsed.

7. Joint the pipe and fitting
Align the pipe and fitting and bring them together. Push the pipe into the fitting up to the insertion depth mark (which must remain visible). Do not twist the pipe whilst pushing together. Maintain a gentle pressure whilst holding.

8. Fusion inspection
Inspect the outer fusion bead. An even bead from the fitting and one from the pipe should be visible all the way around the pipe. Ensure the newly made joint remains stress-free until the cooling time (see table below) has elapsed them together for the correct time (see table below).

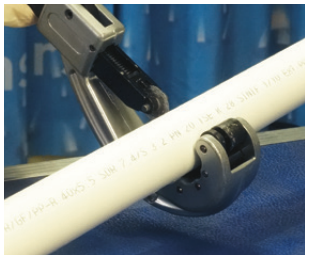


Pipe Size OD (mm)	Insertion Depth (mm)	Heating Time (secs)	Change Over Time (secs)	Holding Time (secs)	Cooling Time (mins)
20	14	6	4	6	2
25	16	7	4	7	3
32	18	8	6	8	4
40	20	12	6	12	4
50	23	18	6	18	5
63	26	25	8	25	6
75	28	30	8	30	8
90	31	40	10	40	8
110	33	50	10	50	8
125	40	60	10	60	8

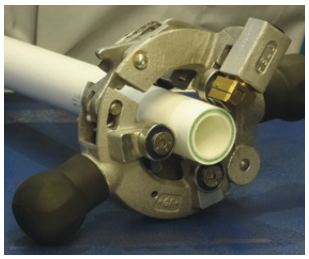
Note: heating time to be increased by 50% for ambient temperatures below +5°C

Electrofusion jointing

1. Cut the pipe
Cut the pipe at a right angle, if necessary remove swarf from the inside.



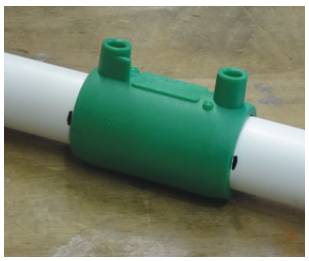
2. Scrape the pipe ends
The pipe ends should be scraped with a blade all the way around the pipe and to a depth greater than the insertion depth. This can be by rotary scraper.
Note: The fusion process should be started within 30 minutes of scraping.



3. Clean the fitting & pipe
Clean the internal surface of the fitting and the outside of the pipe using Tangit KS cleaner and a lint free cloth (any dirt or grease on the fitting or pipe can result in a joint failure).

4. Mark the insertion depth
Mark the insertion depth into the fitting on the pipe.

5. Insert the pipe into the fitting
Insert the scraped pipe ends into the fitting up to the insertion depth mark. Align both ends of the pipe and secure the fitting and the pipe.



6. Attach the electrofusion machine cables
Attach the clamps to make the connection between the cables and the resistor pins on the fitting.

7. Follow the electrofusion machine instructions
The barcode on the fitting can be read to transmit fusion data to machine.
Complete the fusion procedure in accordance with the machine instructions. Ensure the newly made joint remains stress-free until the cooling time (see table) has elapsed. 2 hours hardening time must be allowed from when the fitting is cool before conducting pressure tests.

Minimum cooling time without moving coupler and pipe:

Pipe Size OD (mm)	Cooling time (mins)
20	10
25	10
32	10
40	15
50	15
63	20
75	25
90	30
110	35
125	40

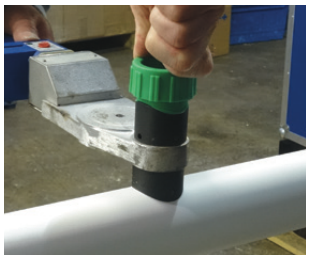
Installation of Saddles

Assemble the special heating tools for saddles on a standard socket welder. Once the socket welder is on, check the temperature, which must be in the range of 253°C-274°C (this operation may be performed by means of Tempil sticks). Wipe the heating tools with a clean lint free cloth. Clean the surfaces to be welded with Tangit KS cleaner and a lint free cloth.

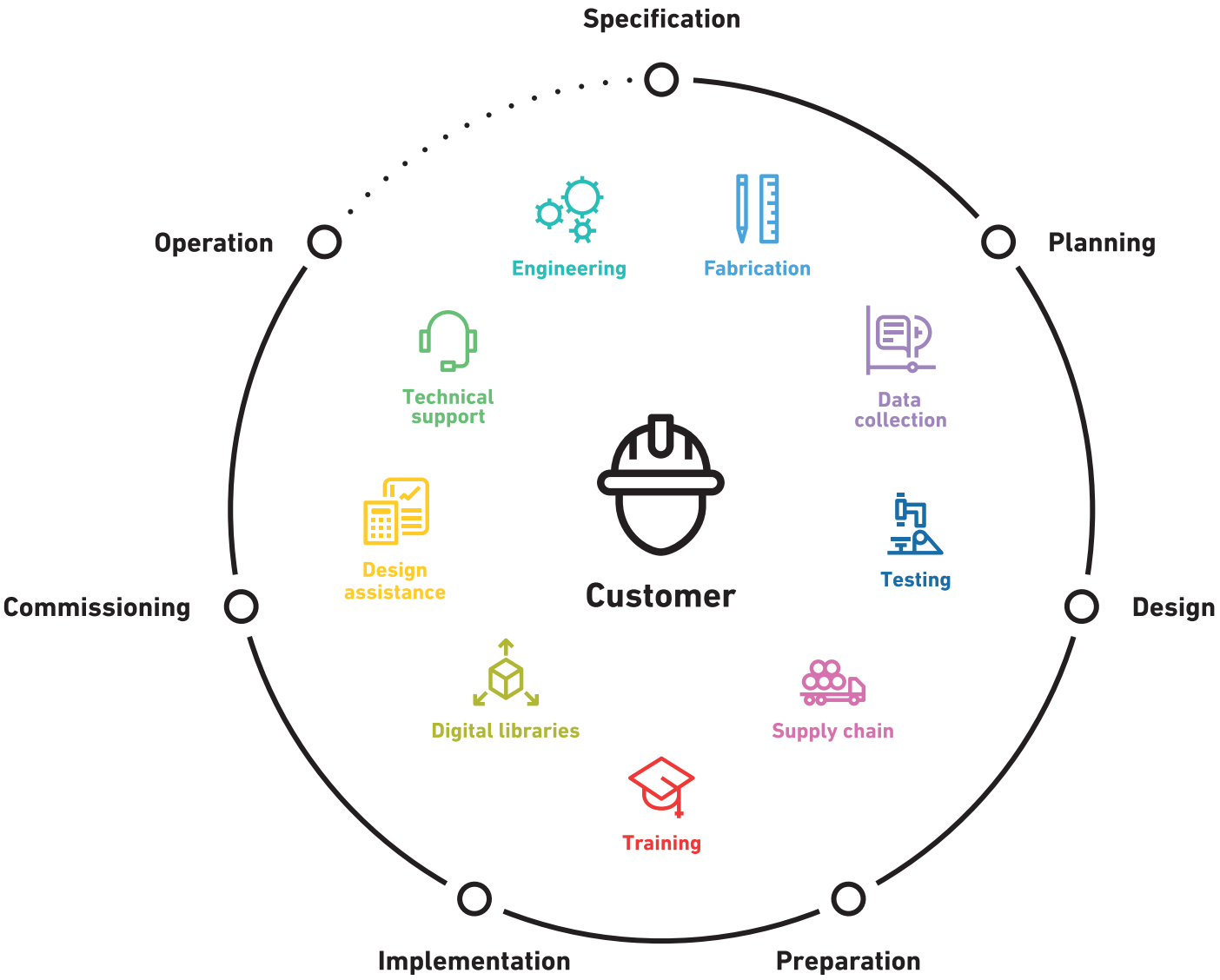
Drill the pipe with the specific drill, taking into consideration the saddle spigot diameter. The swarf must be taken out, avoiding any pipe contamination. It is possible to smooth the hole mouth by changing the rotating of the drill direction.

Push the saddle heating tool with the spigot into the pipe hole and the saddle into the other tool. Heat the pipe surface and the saddle for 30 seconds.

Once the heating process is over, remove the socket welder and push the saddle spigot into the pipe hole with a light pressure until the surfaces will meet entirely. Keep the position for 15-20 seconds and the system cool down for 30 minutes, before making the pressure test.



One partner from planning to commissioning



GF Piping Systems

Aquasystem

Our sales teams provide National coverage for the UK and Ireland.

For further support or to arrange a visit from one of our sales experts please visit:

Call GF : 024 7653 5535

email : uk.ps@georgfischer.com

Aquasystem Installation
Corinthia Hotel London

The technical data is not binding. It neither constitutes expressly warranted characteristics nor guaranteed properties nor a guaranteed durability. It is subject to modification. Our General Terms of Sale

www.gfps.com/uk

20014L126 (04.22)
© Georg Fischer Sales Ltd
Printed in the UK