



PROFACTOR®
DER DEUTSCHE QUALITÄTSSTANDARD

EN

TECHNICAL DATA SHEET AND USER MANUAL



**PRODUCT
CODE**

**PF AF 700 –
PF AF 724**

**AXIAL FITTINGS WITH
A SLIP-ON SLEEVE**

1. PURPOSE AND SCOPE

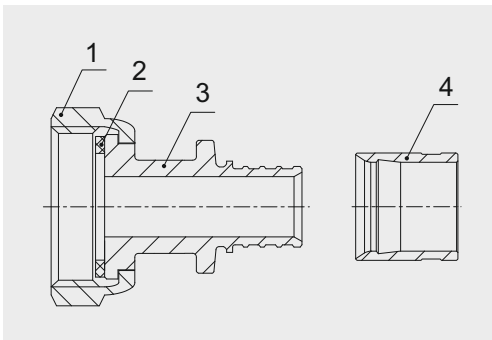
Axial fittings are designed to create pipe joints for connection of cross-linked polyethylene pipes.

These fittings are used in the systems of hot- and cold-water supply, heating of residential and public buildings, drinking and household purpose systems, as well as the connectors in pipes transporting liquids that are non-corrosive to materials of the fittings.

2. TECHNICAL SPECIFICATIONS

Product Code	PF	AF 703, AF 704	AF 705, AF 708, AF 709, AF 715	AF 716	AF 717, AF 723, AF 724	AF 719, AF 720	AF 700 – 702, AF 706, AF 707, AF 710 – 714, AF 718, AF 721, AF 722
Connection thread	G	1/2", 3/4", 1", 1 1/4"	1/2", 3/4", 1"	1/2", 3/4"	1/2"	3/4"	—
Outer diameter of connectable pipes	DN, mm	16, 20, 25, 32, 40					
Maximum pressure	bar	25					
Operating pressure	bar	10					
Operating temperature of the medium	°C	–20°C to +95°C					
Average service life	years	30					

3. DESIGN



PF AF 701 – 722:

- 1 – Coupling nut
- 2 – Sealing gasket
- 3 – Fitting body

PF AF 700:

- 4 – Sleeve body

The fitting connector has ridges to enhance coupling with the pipe during the installation. All of the pipe G-threads are in accordance with ISO 228-1:2000, DIN 259.

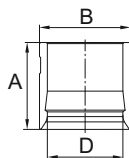
Axial fittings with a slip-on sleeve are compatible with cross-linked polyethylene pipes that have the following dimensions:

Outer diameter of the pipe DN, mm	16	20	25	32	40
Wall thickness of the pipe, mm	2,0 – 2,2	2,0 – 2,8	3,5	4,4	5,5

4. MATERIALS

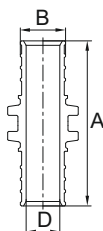
The Fitting and sleeve body (3, 4), and coupling nut (1) — Brass CW617N (EN 12164, EN 12165, EN 12168) that can be used in a potable water supply network.
Sealing gasket (2) — EPDM.

5. NOMENCLATURE AND DIMENSIONS



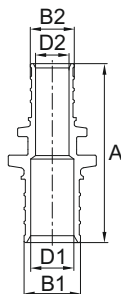
Axial slip-on sleeve

Product Code	Outer diameter of the pipe DN, mm	A, mm	B, mm	D, mm	Weight, g
PF AF 700.16	16	24	21,5	16,9	26
PF AF 700.20	20	25	25	20,7	29
PF AF 700.25	25	29	30	25,45	43
PF AF 700.32	32	34	39,5	32,9	101
PF AF 700.40	40	37	48,5	41,5	141



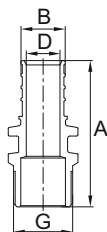
Axial equal coupling socket

Product Code	Outer diameter of the pipe DN, mm	A, mm	B, mm	D, mm	Weight, g
PF AF 701.16	16 x 16	44,6	13,45	10	38
PF AF 701.20	20 x 20	53,2	16,5	12,5	59
PF AF 701.25	25 x 25	69	19,8	15,3	99
PF AF 701.32	32 x 32	82	25,5	20	189
PF AF 701.40	40 x 40	91	32	23,5	385



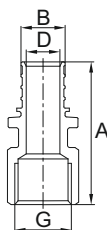
Axial reducing coupling socket

Product Code	Outer diameter of the pipe DN, mm	A, mm	B1, mm	D1, mm	B2, mm	D2, mm	Weight, g
PF AF 702.2016	20 x 16	48,9	16,5	12,5	13,45	10	45
PF AF 702.2516	25 x 16	56,8	19,8	15,3	13,45	10	67
PF AF 702.2520	25 x 20	61,1	19,8	15,3	16,5	12,5	73
PF AF 702.3225	32 x 25	76	25,5	20	19,8	15,3	141
PF AF 702.4025	40 x 25	86	32	23,5	19,8	15,3	263
PF AF 702.4032	40 x 32	92	32	23,5	25,5	20	305



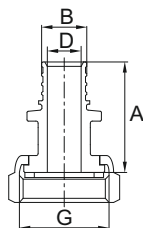
Combined axial adaptor with male thread

Product Code	Outer diameter of the pipe DN, mm Connection G-thread	A, mm	B, mm	D, mm	Weight, g
PF AF 703.1615M	16 x 1/2"	45,3	13,45	10	49
PF AF 703.2015M	20 x 1/2"	50,8	16,5	12,5	63
PF AF 703.1620M	16 x 3/4"	47,8	13,45	10	74
PF AF 703.2020M	20 x 3/4"	52,3	16,5	12,5	84
PF AF 703.2515M	25 x 1/2"	58,5	19,8	15,3	80
PF AF 703.2520M	25 x 3/4"	60	19,8	15,3	96
PF AF 703.2525M	25 x 1"	66	19,8	15,3	143
PF AF 703.3220M	32 x 3/4"	37	25,5	20	141
PF AF 703.3225M	32 x 1"	73	25,5	20	190
PF AF 703.4032M	40 x 1 1/4"	82	32	23,5	295



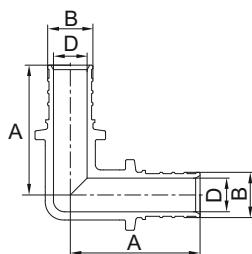
Combined axial adaptor with female thread

Product Code	Outer diameter of the pipe DN, mm Connection G-thread	A, mm	B, mm	D, mm	Weight, g
PF AF 704.1615F	16 x 1/2"	45,8	13,45	10	65
PF AF 704.2015F	20 x 1/2"	50,3	16,5	12,5	76
PF AF 704.1620F	16 x 3/4"	47,8	13,45	10	92
PF AF 704.2020F	20 x 3/4"	52,3	16,5	12,5	102
PF AF 704.2515F	25 x 1/2"	—	—	—	—
PF AF 704.2520F	25 x 3/4"	60	19,8	15,3	120
PF AF 704.2525F	25 x 1"	63	19,8	15,3	165
PF AF 704.3225F	20 x 3/4"	68,5	25,5	20	232
PF AF 704.4032F	40 x 1 1/4"	78	32	23,5	406



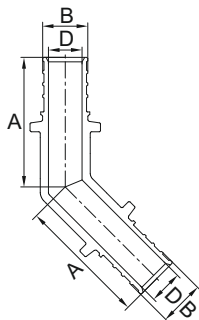
Axial adaptor with coupling nut

Product Code	Outer diameter of the pipe DN, mm Connection G-thread	A, mm	B, mm	D, mm	Weight, g
PF AF 705.1615U	16 x 1/2"	31,3	13,45	10	52
PF AF 705.2015U	20 x 1/2"	35,8	16,5	12,5	63
PF AF 705.1620U	16 x 3/4"	35,2	13,45	10	67
PF AF 705.2020U	20 x 3/4"	35,7	16,5	12,5	74
PF AF 705.2520U	25 x 3/4"	44,5	19,8	19,8	91
PF AF 705.2525U	25 x 1"	44,5	15,3	15,3	132
PF AF 705.3220U	32 x 3/4"	—	—	—	—
PF AF 705.3225U	20 x 3/4"	51,5	25,5	20	175
PF AF 705.4025U	40 x 1"	—	—	—	—



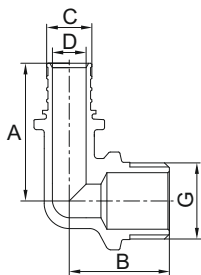
Axial elbow 90°

Product Code	Outer diameter of the pipe DN, mm	A, mm	B, mm	D, mm	Weight, g
PF AF 706.16	16 x 16	37,8	13,45	10	68
PF AF 706.20	20 x 20	44,4	16,5	12,5	104
PF AF 706.25	25 x 25	55,2	19,8	15,3	166
PF AF 706.32	32 x 32	64,2	25,5	20	308
PF AF 706.40	40 x 40	75	32	23,5	579



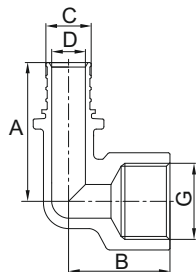
Axial elbow 45°

Product Code	Outer diameter of the pipe DN, mm	A, mm	B, mm	D, mm	Weight, g
PF AF 707.20	20 x 20	38	16,5	12,5	89
PF AF 707.25	25 x 25	46	19,8	15,3	138
PF AF 707.32	32 x 32	60	25,5	20	286
PF AF 707.40	40 x 40	69	32	23,5	556



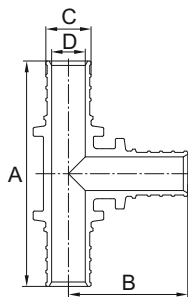
Axial reducing elbow with male thread

Product Code	Outer diameter of the pipe DN, mm Connection G-thread	A, mm	B, mm	C, mm	D, mm	Weight, g
PF AF 708.1615M	16 x 1/2"	39,8	33	13,45	10	83
PF AF 708.2015M	20 x 1/2"	44,4	34,5	16,5	12,5	101
PF AF 708.2020M	20 x 3/4"	48	37	16,5	12,5	133
PF AF 708.2520M	25 x 3/4"	56,5	34	19,8	15,3	159
PF AF 708.3225M	32 x 1"	65	41	25,5	20	268



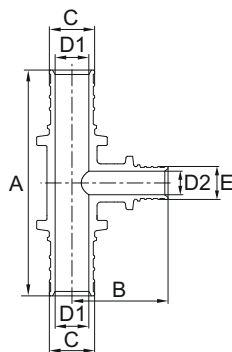
Axial reducing elbow with female thread

Product Code	Outer diameter of the pipe DN, mm Connection G-thread	A, mm	B, mm	C, mm	D, mm	Weight, g
PF AF 709.1615F	16 x 1/2"	39,8	29,5	13,45	10	85
PF AF 709.2015F	20 x 1/2"	44,4	31,5	16,5	12,5	136
PF AF 709.1620F	16 x 3/4"	47	33,5	13,45	10	104
PF AF 709.2020F	20 x 3/4"	48	37	16,5	12,5	135
PF AF 709.2520F	25 x 3/4"	56,5	30,5	19,8	15,3	164
PF AF 709.2525F	25 x 1"	61	32	19,8	15,3	216
PF AF 709.3225F	32 x 1"	66,5	39	25,5	20	303



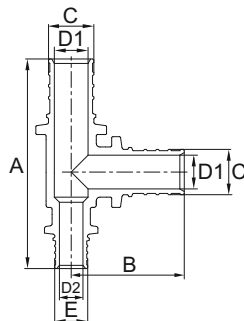
Axial equal tee

Product Code	Outer diameter of the pipe DN, mm	A, mm	B, mm	C, mm	D, mm	Weight, g
PF AF 710.16	16 x 16 x 16	67,2	38,6	13,45	10	87
PF AF 710.20	20 x 20 x 20	78,4	42,6	16,5	12,5	132
PF AF 710.25	25 x 25 x 25	94	52	19,8	15,3	199
PF AF 710.32	32 x 32 x 32	117,5	64,5	25,5	20	395
PF AF 710.40	40 x 40 x 40	138	75	32	23,5	780



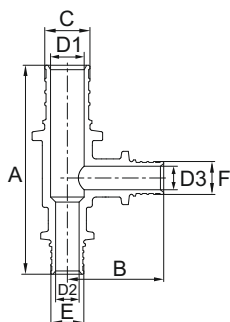
Axial tee with reduced lateral branch

Product Code	Outer diameter of the pipe DN, mm	A, mm	B, mm	C, mm	D1, mm	E, mm	D2, mm	Weight, g
PF AF 711.201620	20 x 16 x 20	76,3	38,6	16,5	12,5	13,45	10	117
PF AF 711.251625	25 x 16 x 25	94	42,5	19,8	15,3	13,45	10	181
PF AF 711.252025	25 x 20 x 25	97	47	19,8	15,3	16,5	12,5	186
PF AF 711.321632	32 x 16 x 32	107	49,8	25,5	20	13,45	10	291
PF AF 711.322032	32 x 20 x 32	107	50,5	25,5	20	16,5	12,5	292
PF AF 711.322532	32 x 25 x 32	117,5	59,5	25,5	20	19,8	15,3	366
PF AF 711.402040	40 x 20 x 40	127	55,5	32	23,5	16,5	12,5	559



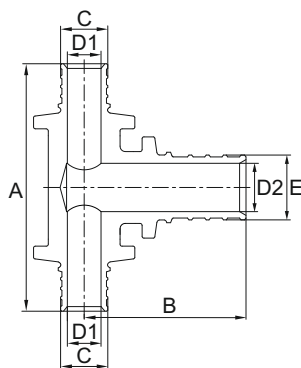
Axial tee with reduced end branch

Product Code	Outer diameter of the pipe DN, mm	A, mm	B, mm	C, mm	D1, mm	E, mm	D2, mm	Weight, g
PF AF 712.202016	20 x 20 x 16	75,1	43,2	16,5	12,5	13,45	10	120
PF AF 712.252516	25 x 25 x 16	87,8	52	19,8	15,3	13,45	10	183
PF AF 712.252520	25 x 25 x 20	92	54,5	19,8	15,3	16,5	12,5	193
PF AF 712.323220	32 x 32 x 20	—	—	—	—	—	—	—
PF AF 712.323225	32 x 32 x 25	—	—	—	—	—	—	—



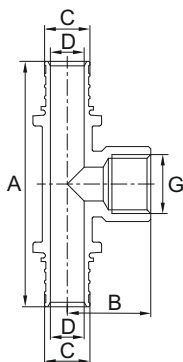
Axial tee with reduced lateral and end branches

Product Code	Outer diameter of the pipe DN, mm	A, mm	B, mm	C, mm	D1, mm	E, mm	D2, mm	F, mm	D3, mm	Weight, g
PF AF 713.201616	20 x 16 x 16	72,25	38,6	16,5	12,5	13,45	10	13,45	10	104
PF AF 713.251616	25 x 16 x 16	87,5	43	19,8	15,3	13,45	10	13,45	10	145
PF AF 713.251620	25 x 16 x 20	87	42	19,8	15,3	13,45	10	16,5	12,5	148
PF AF 713.252016	25 x 20 x 16	87,8	46,1	19,8	15,3	16,5	12,5	13,45	10	181
PF AF 713.252020	25 x 20 x 20	88	47	19,8	15,3	16,5	12,5	16,5	12,5	163
PF AF 713.322020	32 x 20 x 20	—	—	—	—	—	—	—	—	—
PF AF 713.322025	32 x 20 x 25	117,25	51,6	25,5	20	16,5	12,5	19,8	15,3	325
PF AF 713.322520	32 x 25 x 20	—	—	—	—	—	—	—	—	—
PF AF 713.322525	32 x 25 x 25	117,25	59,5	25,5	20	19,8	15,3	19,8	15,3	339



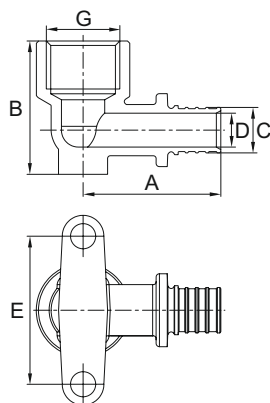
Axial tee with increased lateral branch

Product Code	Outer diameter of the pipe DN, mm	A, mm	B, mm	C, mm	D1, mm	E, mm	D2, mm	Weight, g
PF AF 714.162016	16 x 20 x 16	69,2	41,9	13,45	10	16,5	12,5	102
PF AF 714.162516	16 x 25 x 16	—	—	—	—	—	—	—
PF AF 714.202520	20 x 25 x 20	81	53,3	16,5	12,5	19,8	15,3	160
PF AF 714.253225	25 x 32 x 25	—	—	—	—	—	—	—
PF AF 714.203220	20 x 32 x 20	—	—	—	—	—	—	—



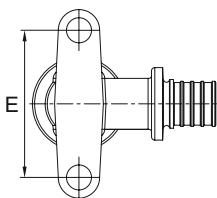
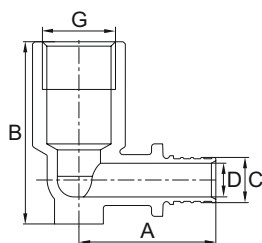
Axial tee with female thread on lateral branch

Product Code	Outer diameter of the pipe DN, mm Connection G-thread	A, mm	B, mm	C, mm	D, mm	Weight, g
PF AF 715.1615F16	16 x 1/2" x 16	79,6	29,5	13,45	10	112
PF AF 715.2015F20	20 x 1/2" x 20	88,8	31,5	16,5	12,5	151
PF AF 715.2020F20	20 x 3/4" x 20	96	33,5	16,5	12,5	190
PF AF 715.2520F25	25 x 3/4" x 25	113	30,5	19,8	15,3	230
PF AF 715.3225F32	32 x 1" x 32	133	39	25,5	20	420
PF AF 715.4025F40	40 x 1" x 40	141	41,5	32	23,5	684



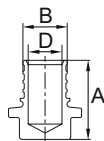
Axial wall plate elbow with bracket

Product Code	Outer diameter of the pipe DN, mm Connection G-thread	A, mm	B, mm	C, mm	D, mm	E, mm	Weight, g
PF AF 716.1615F	16 x 1/2"	40	40,5	13,45	10	45	126
PF AF 716.2015F	20 x 1/2"	44,5	41,5	16,5	12,5	45	140
PF AF 716.2020F	20 x 3/4"	48	41,5	16,5	12,5	45	152
PF AF 716.2520F	25 x 3/4"	56,5	46,5	19,8	15,3	45	184



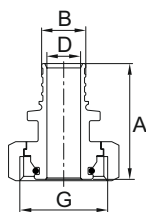
Axial wall plate elbow with long connector

Product Code	Outer diameter of the pipe DN, mm Connection G-thread	A, mm	B, mm	C, mm	D, mm	E, mm	Weight, g
PF AF 717.1615F	16 x 1/2"	40	55,5	13,45	10	45	152
PF AF 717.2015F	20 x 1/2"	44,5	55,5	16,5	12,5	45	168



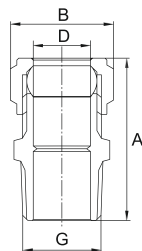
Axial plug

Product Code	Outer diameter of the pipe DN, mm	A, mm	B, mm	D, mm	Weight, g
PF AF 718.16	16	26	13,45	10	25



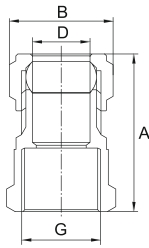
Axial adaptor with coupling nut (eurocone)

Product Code	Outer diameter of the pipe DN, mm Connection G-thread	A, mm	B, mm	D, mm	Weight, g
PF AF 719.16G	16 x 3/4"	38,3	13,45	10	77
PF AF 719.20G	20 x 3/4"	43,5	16,5	12,5	80



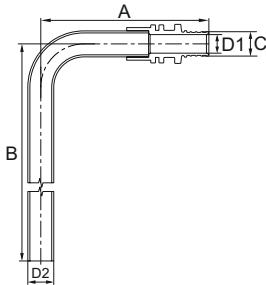
Male straight fitting for ss and copper pipe

Product Code	Outer diameter of the pipe DN, mm Connection G-thread	A, mm	B, mm	D, mm	Weight, g
PF AF 723.1515M	15 x 1/2"	42,5	24	15	69



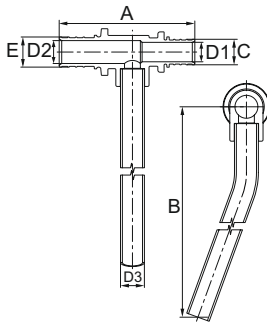
Female straight fitting for ss and copper pipe

Product Code	Outer diameter of the pipe DN, mm Connection G-thread	A, mm	B, mm	D, mm	Weight, g
PF AF 724.1515F	15 x 1/2"	41	24	15	72



Axial L-shaped tube for radiator connection

Product Code	Outer diameter of the pipe DN, mm	A, mm	B, mm	C, mm	D1, mm	D2, mm	Weight, g
PF AF 721.1615	16 x 15	92,5	250	13,45	10	15	152
PF AF 721.2015	20 x 15	92,5	250	16,5	12,5	15	166
PF AF 721.1615L05	16 x 15	92,5	500	13,45	10	15	241
PF AF 721.1615L1	16 x 15	92,5	1000	13,45	10	15	420



Axial T-shaped tube for radiator connection

Product Code	Outer diameter of the pipe DN, mm	A, mm	B, mm	C, mm	D1, mm	E, mm	D2, mm	D3, mm	Weight, g
PF AF 722.161516	16 x 15 x 16	69,2	250	13,45	10	13,45	10	15	162
PF AF 722.161520	16 x 15 x 20	74,3	250	13,45	10	16,5	12,5	15	175
PF AF 722.201516	20 x 15 x 16	74,3	250	16,5	12,5	13,45	10	15	175
PF AF 722.201520	20 x 15 x 20	78,4	250	16,5	12,5	16,5	12,5	15	189
PF AF 722.201525	20 x 15 x 25	86,7	250	16,5	12,5	19,8	15,3	15	217
PF AF 722.251520	25 x 15 x 20	86,7	250	19,8	15,3	16,5	12,5	15	217
PF AF 722.251525	25 x 15 x 25	94	250	19,8	15,3	19,8	15,3	15	235

6. INSTALLATION INSTRUCTIONS

Before connecting cross-linked polyethylene pipes using axial fittings with a slip-on sleeve cut the pipe strictly perpendicularly to the pipe's axis, then calibrate the end of the pipe and chamfer the inner diameter. Install on the pipe the slip-on sleeve, so that the sleeve markings are on the side opposite of the pipe cut. The distance between the pipe end and the sleeve must be twice the length of the sleeve. Insert the expander into the pipe and expand the pipe to the permitted size. Turn the expander 30° and expand the pipe again. Install the pipe onto the fitting connector.

Install into the axial grip the neck of the fitting and the sleeve. Slide the sleeve onto the fitting. Make sure that the mounted sleeve has slipped all the way onto the fitting body.

Use axial eurocone connector (PF AF 719) to attach L- and T-shaped tubes (PF AF 720, PF AF 721) to the radiator. Install the tubes vertically and securely fix them to the floor for the future concrete screed.

Do not use lubricants for installation!

After installation, the units of sanitary systems must be tested for tightness. They have to be put through a hydrostatic (hydraulic) or bubble (pneumatic) test.

7. OPERATION AND MAINTENANCE

Axial fittings with a slip-on sleeve must be used without exceeding the pressure and temperature specified in the specifications table.

Installation and dismantling of products should be carried out in the absence of pressure in the system.

For the entire period of system service life after a hydraulic test, the axial fittings with a slip-on sleeve do not require additional maintenance. Therefore, these fittings can be used when installing hidden piping.

8. WARRANTY OBLIGATIONS

The warranty period is 24 months from the date of sale to the end consumer. Throughout the entire warranty period, the manufacturer guarantees the proper functioning of the product and its compliance with safety requirements, provided that the consumer follows the rules for storage, transportation, installation, operation, and maintenance of the product. The warranty covers all defects arising through the manufacturer's fault.

The warranty does not cover defects resulting from:

- Violation of storage, transportation, installation, operation, or maintenance conditions;
- Exposure to substances aggressive to the materials of the product;
- Signs of mechanical damage;
- Damage caused by fire, natural disasters, or other force majeure circumstances;
- Damage caused by improper actions of the user;
- Evidence of unauthorized interference with the product design.



The product described in this technical manual is a technically complex device that must be installed by a qualified specialist with appropriate experience working with this type of equipment.

Installation and commissioning must be carried out by an authorized and certified company.

Profactor Armaturen GmbH reserves the right to make changes to the product design that do not affect its technical characteristics or functional features.



INTERNATIONAL WARRANTY CARD

NAME OF THE PRODUCT

PRODUCT CODE, SIZE

QUANTITY

SELLER NAME AND ADDRESS

DATE OF PURCHASE

SELLER STAMP

SELLER SIGNATURE

For the warranty term refer to the Warranty obligation clause in the technical manual

FOLD LINE

FOLD LINE

In case of any claims to the product quality the following documents should be submitted:

1. Application with customer and product details:

- Name of the customer, actual address and phone number
- Article of the product
- Reason for the claim and photo
- Plumbing system where installed (name, address, phone number)

2. Invoice copy and receipt

3. Warranty card

RETURN/EXCHANGE COMMENTS

DATE

SIGNATURE



Profactor Armaturen GmbH

Ruffinallee 9, c/o Kanzlei Antegra, 82166 Gräfelfing, Germany;
Tel.: +49 89 21546092; info@pf-armaturen.de; www.profactor.de