



Effective Date: June 2024

This listing is subject to re-examination in one year.

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CSI: Division: 22 00 00 — PLUMBING  
Section: 22 11 00—Facility Water Distribution  
Section: 22 11 16—Domestic Water Piping

Division: 23 00 00 — HVAC  
Section: 23 21 13—Hydronic Piping

### Product certification system:

The ICC-ES product certification system includes testing samples taken from the market or supplier's stock, or a combination of both, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the supplier's quality system.

Products: Aquatechnik Polypropylene (PP-R) Piping System

Listee: Aquatechnik Group s.p.a  
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Magnago (MI) 20020 Italy  
[www.aquatechnik.it](http://www.aquatechnik.it)  
[www.aquatechnikNA.com](http://www.aquatechnikNA.com)

### Compliance with the following codes:

2024, 2021, 2018, 2015, 2012 and 2009 *International Plumbing Code*® (IPC)  
2024, 2021, 2018, 2015, 2012 and 2009 *International Residential Code*® (IRC)  
2024, 2021, 2018, 2015, 2012 and 2009 *International Mechanical Code*® (IMC)  
2024, 2021, 2018, 2015, 2012 and 2009 *Uniform Plumbing Code*® (UPC)\*  
2024, 2021, 2018, 2015, 2012 and 2009 *Uniform Mechanical Code*® (UMC)\*  
2022, 2019, 2016, 2013 and 2010 *California Plumbing Code* (CPC)  
2022, 2019, 2016, 2013 and 2010 *California Mechanical Code* (CMC)  
2023, 2020 and 2017 *City of Los Angeles Plumbing Code*  
2023, 2020 and 2017 *City of Los Angeles Mechanical Code*  
2023 *Florida Plumbing Code*  
2023 *Florida Mechanical Code*  
2023, 2021 and 2017 *Code of Massachusetts Regulation 248 CMR 10.00: Uniform State Plumbing Code*  
2023, 2021 and 2017 *Massachusetts State Building Code 780 CMR Ninth Edition: Chapter 28*  
2022 and 2017 *Uniform Illustrated Plumbing Code - India*™ (UPC-I)\*  
2020, 2015 and 2010 *National Plumbing Code of Canada*® (NPC)\*\*

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Compliance with the following standards:

ASTM F2389-2023, Pressure-rated Polypropylene (PP) Piping Systems  
CSA B137.11-2020, Polypropylene (PP-R) Pipe and Fittings for Pressure Applications  
NSF/ANSI 14-2022, Plastic Piping Systems Components and Related Materials  
NSF/ANSI 51-2019, Food Equipment Materials  
NSF/ANSI/CAN 61-2023, Drinking Water System Components – Health Effects  
NSF/ANSI/CAN 372-2022, Drinking water system components – Lead content  
ICC-ES LC1004, PMG Listing Criteria for PP, PEX, PEX-AL-PEX, and PP-AL-PP Piping, Tube and Fittings Used in Radiant Heating and Water Supply Systems (Approval Date: Nov 2009, Editorial Revision Date: June 2010)

Identification:

**Fusio-Technik, Fusio-Technik UVres, Fiber-T, Fiber-Cond and Rain-Water Piping:**

The piping must be marked every 5 feet (1524 mm) with the following:

- 1) Manufacturer's name or trademark;
- 2) Nominal pipe size;
- 3) Metric series pipe shall be marked with the dimension ratio or both the outside diameter and wall thickness and shall include the term "metric;"
- 4) IPS series pipe shall include the marking "SCH 80" or "Schedule 80";
- 5) Type of material (PP-R) and classification number (80 or 100);
- 6) Pressure rating(s) and temperature for which the rating(s) is valid (for example, 355 psi at 73°F, 100 psi at 180°F);
- 7) This specification designation, ASTM F 2389, with which the pipe complies;
- 8) Manufacturer's production code which allows the manufacturer to identify production date and location if producing at different sites;
- 9) Pipe intended for the transport of potable water or other water that could include residual free chlorine as a disinfectant shall also include the chlorine resistant destination for which it complies, CL-TD;
- 10) The ICC-ES PMG listing mark. The ICC-ES PMG listing number (PMG-1475) is optional.

**Fusio-Technik Fittings:**

Fittings must be marked with the following:

- 1) Nominal size;
- 2) Dimension ratio or schedule of the corresponding pipe, unless the fittings are made as part of a system sold by the manufacturer, and the same fitting design is used for all pipe series produced as part of the system;
- 3) Type of material (PP-R);
- 4) For threaded fittings, the fitting or the packaging in which the fitting is sold shall include either "Metric" or "NPT" as appropriate. For metric thread fittings, the packaging shall state that the fittings are not interchangeable with, and shall not be used with NPT fittings. For NPT thread fittings, the packaging shall state that the fittings are not interchangeable with, and shall not be used with metric fittings;
- 5) The fitting or the packaging in which the fitting is sold shall include this specification designation, ASTM F 2389, with which the fitting complies; and
- 6) The ICC-ES PMG listing mark.

Installation:

Aquatechnik piping and fittings must be installed in accordance with the manufacturer's published installation instructions, the applicable codes and this listing. Where differences exist, the instructions in this listing must govern. The minimum cold bending radius is six times the nominal diameter.

**Water Distribution:** Horizontally laid pipe must be secured in such a manner that temperature-induced expansion and contraction are accommodated. In areas using the Uniform Plumbing Code (UPC), PP piping must not be installed within the first 18 inches (457 mm) of piping connected to a

water heater. The system may be installed in concrete in accordance with the manufacturer's instructions. The piping must be secured to the concrete reinforcement (i.e. "rebar") to hold it in place while pouring concrete. When embedment is in concrete, installation, including minimum concrete cover, must comply with IBC Section 1907, or IRC Section R506.1, as applicable.

**Water Service:** Buried piping must be installed in such a manner that external loads do not decrease the vertical dimension of the cross section by more than 5 percent. Piping must be installed to provide an allowance for contraction of the line due to temperature change prior to backfilling. In areas with poor soil conditions (plastic clays), the trench bottom must be prepared using granular material to provide a stable base. Potable water service piping must not be located in, under or above cesspools, septic tanks, septic tank drainage fields or pits.

**Water Distribution and Water Service Piping:** Installed piping must be pressure-tested and inspected as required by IPC Section 606.6, IRC Section P2503.6 or UPC Section 103.5.

**Hydronic Piping Systems:** The installation must comply with Chapter 12 of the applicable mechanical code(s) and the manufacturer's published installation instructions. Details of the design and installation of the hydronic piping system must be submitted to the code official for approval. All circuits must be formed from continuous lengths of piping, from manifold supply to return. No splices are allowed. The system may be installed in either concrete or wood floors. When the system is embedded in concrete floors, a moisture barrier must be laid over a concrete base slab a minimum of 3<sup>1</sup>/<sub>2</sub> inches (38 mm) thick. Under-floor insulation and reinforcing mesh must then be placed on the slab. The piping must be uncoiled and attached to the mesh using soft steel wire. A concrete topping is then laid over the piping. When embedment is in concrete, installation, including minimum concrete cover, must comply with IBC Section 1906.3, or IRC Section R506.1, as applicable. When the piping is installed over polystyrene boards, the boards must comply with IBC Section 2603, or IRC Section R314, as applicable.

Antifreeze protection may be achieved by the addition of chemicals detailed in Item 1 of the Conditions of Listing, below. The quantity of these allowed chemicals required to achieve a specific freeze protection level is beyond the scope of this listing. Addition of antifreeze to the radiant heating loop must be in accordance with the manufacturer's installation instructions and the material safety data sheet (MSDS).

Mounting brackets and installation hardware are provided by the manufacturer. Horizontally laid pipe must be secured in such a way that temperature-induced expansion and contraction are accommodated.

**Hydronic Piping:** The piping must be pressure-tested for leaks before installation of covering, as noted in Section 1208 of the IMC, Section 1207 of the UMC, or Section M2103.3 of the IRC, as applicable. The leak test must be witnessed by the code official or the code official's designated representative.

**Food Zones:** The T-Fiber piping is acceptable for contact with the following types of food at a maximum temperature of 203°F (95°C): aqueous acidic, aqueous non-acidic, dairy, oil in water emulsions and dry solids. When use temperature is less than 150°F (65.5°C), there shall be no restrictions in installation. If use temperature is equal to or above 150°F (65.5°C), then the T-Fiber piping is only for use in hot-filled applications.

Models:

**Aquatechnik Fusio-Technik, Fusio-Technik UVres, Fiber-T, Fiber-Cond and Rain-Water Pipe and Fusio-Technik Fittings:** Aquatechnik pipe and fittings are manufactured from random copolymer polypropylene pipe (PP-R) materials satisfying ASTM F 2389 and CSA B137.11 and is available in white with a red strip, white with a grey strip, white with a black UV external layer and in violet colors.

The pipe and fittings are available in nominally 20-, 25-, 32-, 40-, 50-, 63-, 75-, 90-, 110-, 125-, 160-, 200-, 250, 315-, 355- 400- millimeters (1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4, 6, 8, 10, 12, 14 and 16 inches) outside-diameter sizes in 5.79-meter (19 feet) straight lengths.

The pipe and fitting products are pressure-rated for a minimum of 100 psi (690 kPa) at 180°F (82°C) for standard dimension ratios (SDRs) of 7.4, 9, 11, and 17.6 and for a minimum 160 psi (1100 kPa) at

73°F (23°C) for all SDRs. SDR is the ratio of outside diameter to wall thickness and is constant for all pipe sizes. Fittings and pipe must be joined by heat fusion with a proprietary device. Flanged, threaded, copper solder, PEX, and grooved adapter fittings are available for joining to other materials.

Description	Part Number (COD)	Dimensions
FUSIO-TECHNIK PIPE, PP-RCT, SDR 11 to convey cold potable and non-potable fluids, white color with blue strips, rods length 19 ft	61208U	SDR 11- 1/2"-0,07"
	61210U	SDR 11 - 3/4"-0,09"
	61212U	SDR 11 - 1"-0,11"
	61214U	SDR 11- 1 1/4"-0.15"
	61216U	SDR 11 - 1 1/2"-0,18"
	61218U	SDR 11 - 2"-0,23"
	61220U	SDR 11 - 2 1/2"-0,27"
	61222U	SDR 11 - 3"-0,32"
	61224U	SDR 11 - 3 1/2"-0,39"
	61226U	SDR 11 - 4"-0,45"
	61228U	SDR 11 - 6"-0,57"
	61230U	SDR 11 - 8"-0,72"
faser FIBER-T PIPE, SDR 7,4, PP-RCT/PP-R, multi-layer pipe to convey hot and cold potable and not-potable fluids with fibre-reinforced intermediate layer and inner layer in PP-RCT WOR (White Oxidation Resistance), inner layer white color, external layer white color with red strips, rods length 19 ft	61358U	SDR 7,4 - 1/2"-0,11"
	61360U	SDR 7,4 - 3/4" -0,14"
	61362U	SDR 7,4 - 1"-0,17"
	61364U	SDR 7,4 - 1 1/4"-0,22"
	61366U	SDR 7,4 - 1 1/2"-0,27"
	61368U	SDR 7,4 - 2"-0,34"
	61370U	SDR 7,4 - 2 1/2"-0,41"
	61372U	SDR 7,4 - 3"-0,48"
	61374U	SDR 7,4 - 3 1/2"-0,59"
	61376U	SDR 7,4 - 4"-0,67"
	61378U	SDR 7,4 - 6"-0,81"
	61380U	SDR 7,4 - 8"-1,06"
61382U	SDR 7,4 - 10"-1,33"	

	61384U	SDR 7,4 - 12"-1,68"
faser FIBER-COND PIPE, SDR 9, PP-RCT/PP-RF/PP-R, multi-layer pipe to convey hot and cold potable and not-potable fluids with fibre-reinforced intermediate layer and inner layer in PP-RCT WOR (White Oxidation Resistance), inner layer white color, external layer white color with red strips, rods length 19 ft	61362UX	SDR 9 - 1"-0,14"
	61364UX	SDR 9 - 1 1/4"-0,18"
	61366UX	SDR 9 - 1 1/2"-0,22"
	61368UX	SDR 9 - 2"-0,28"
	61370UX	SDR 9 - 2 1/2"-0,33"
	61372UX	SDR 9 - 3"-0,39"
	61374UX	SDR 9 - 3 1/2"-0,48"
	61376UX	SDR 9 - 4"-0,55"
faser FIBER-COND PIPE, SDR 11, PP-RCT/PP-RF/PP-R, multi-layer pipe to convey cold potable and not-potable fluids, for technical installations, heating, chilled water with fibre-reinforced intermediate layer and inner layer in PP-RCT WOR (White Oxidation Resistance), inner layer white color, external layer white color with grey strips, rods length 19 ft	61462U-058	SDR 11 - 1"-0,11"
	61464U-058	SDR 11 - 1 1/4"-0,15"
	61466U-058	SDR 11 - 1 1/2"-0,18"
	61468U-058	SDR 11 - 2"-0,23"
	61470U-058	SDR 11 - 2 1/2"-0,27"
	61472U-058	SDR 11 - 3"-0,32"
	61474U-058	SDR 11 - 3 1/2"-0,39"
	61476U-058	SDR 11 - 4"-0,45"
	61478U	SDR 11 - 6"-0,57"
	61480U	SDR 11 - 8"-0,72"
	61482U	SDR 11 - 10"-0,89"
	61484U	SDR 11 - 12"-1,12"
	61486U	SDR 11 - 14"-1,27"
61488U	SDR 11 - 16"-1,43"	

<p>faser FIBER-LIGHT PIPE, SDR 17,6, PP-RCT/PP-RF/PP-R, multi-layer pipe to convey cold potable and not-potable fluids, for technical installations, heating, chilled water intermediate layer and inner layer in PP-RCT WOR (White Oxidation Resistance), inner layer white color, external layer white color with green strips, rods length 19 ft, butt-welding from Ø 6"</p>	61468UZ	SDR 17,6 - 2"-0,14"
	61470UZ	SDR 17,6 - 2 1/2"-0,17"
	61472UZ	SDR 17,6 - 3"-0,20"
	61474UZ	SDR 17,6 - 3 1/2"-0,25"
	61476UZ	SDR 17,6 - 4"-0,28"
	61478UZ	SDR 17,6 - 6"-0,35"
	61480UZ	SDR 17,6 - 8"-0,44"
	61482UZ	SDR 17,6 - 10"-0,56
	61484UZ	SDR 17,6 - 12"-0,70
	61486UZ	SDR 17,6 - 14"-0,79"
	61488UZ	SDR 17,6 - 16"-0,89"
	61490UZ	SDR 17,6 - 18"-1,00"
	61492UZ	SDR 17,6 - 20"-1,11"
61494UZ	SDR 17,6 - 22"-1,25"	
61496UZ	SDR 17,6 - 24"-1,41"	
<p>RAIN-WATER PIPE, SDR 11, PP-R, for recycling, reclaimed and rain-water, violet color, rods length 13 ft</p>	61608	SDR 11 - 1/2"-0,07"
	61610	SDR 11 - 3/4"-0,09"
	61612	SDR 11 - 1"-0,11"
	61614	SDR 11 - 1 1/4"-0,15
	61616	SDR 11 - 1 1/2"-0,18"
	61618	SDR 11 - 2"-0,23"
	61620	SDR 11 - 2 1/2"-0,27"
	61622	SDR 11 - 3"-0,32"
	61624	SDR 11 - 3 1/2"-0,39"
	61626	SDR 11 - 4"-0,45"
61628	SDR 11 - 6"-0,57"	
PIPE COUPLING, SDR 5, socket-welding	62008U	SDR 5 - 1/2"

	62010U	SDR 5 - 3/4"
	62012U	SDR 5 - 1"
	62014U	SDR 5 - 1 1/4"
	62016U	SDR 5 - 1 1/2"
	62018U	SDR 5 - 2"
	62020U	SDR 5 - 2 1/2"
	62022U	SDR 5 - 3"
	62024U	SDR 5 - 3 1/2"
	62026U	SDR 5 - 4"
REDUCED PIPE COUPLING, SDR 5, socket-welding	62312U	SDR 5 - 3/4"-1/2"
	62316U	SDR 5 - 1"-3/4"
REDUCER, SDR 5,M/F, socket-welding	62112U	SDR 5 - M3/4"-F1/2"
	62114U	SDR 5 - M1"-F1/2"
	62116U	SDR 5 - M1"-F3/4"
	62118U	SDR 5 - M1 1/4"-F1/2"
	62120U	SDR 5 - M1 1/4"-F3/4"
	62122U	SDR 5 - M1 1/4"-F1"
	62124U	SDR 5 - M1 1/2"-F1/2"
	62126U	SDR 5 - M1 1/2"-F3/4"
	62128U	SDR 5 - M1 1/2"-F1"
	62130U	SDR 5 - M1 1/2"-F1 1/4"
	62132U	SDR 5 - M2"-F3/4"
	62134U	SDR 5 - M2"-F1"
	62136U	SDR 5 - M2"-F1 1/4"
	62138U	SDR 5 - M2"-F1 1/2"
	62139U	SDR 5 - M2 1/2"-F1 1/4"
	62140U	SDR 5 - M2 1/2"-F1 1/2"
	62142U	SDR 5 - M2 1/2"-F2"
	62144U	SDR 5 - M3"-F1 1/2"
	62152U	SDR 5 - M3"-F2"
	62153U	SDR 5 - M3"-F2 1/2"
	62155U	SDR 5 - M3 1/2"-F2"
	62157U	SDR 5 - M3 1/2"-F2 1/2"
	62159U	SDR 5 - M3 1/2"-F3"
62168U	SDR 5 -M 4"-F2 1/2"	
62170U	SDR 5 - M4"-F3"	
62172U	SDR 5 -M4"-F3 1/2"	
REDUCER, SDR 7,4, butt-welding, short shank	62174UK	SDR 7,4 - 3 1/2"
	62176UK	SDR 7,4 - 6"-4
	62181UK	SDR 7,4 - 8"-4"
	62182UK	SDR 7,4 - 8"-6"
	62184UK	SDR 7,4 - 10"-6"
	62186UK	SDR 7,4 - 10"-8"
	62199UK	SDR 7,4 - 12"-8"

	62200UK	SDR 7,4 - 12"-10"
REDUCER, SDR 11, butt-welding, long shank	62173U	SDR 11 - 6"-3"
	62174U	SDR 11 - 6"-3 1/2"
	62176U	SDR 11 - 6"-4"
	62180U	SDR 11 - 8"-4"
	62182U	SDR 11 - 8"-6"
	62184U	SDR 11 - 10"-6"
	62186U	SDR 11 - 10"-8"
	62200U	SDR 11 - 12"-10"
REDUCER, SDR 11, butt-welding, short shank	62214U	SDR 11 - 14"-10"
	62216U	SDR 11 - 14"-12"
	62242U	SDR 11 - 16"-12"
	62244U	SDR 11 - 16"-14"
REDUCER, SDR 17,6, butt-welding, long shank	62173UZ	SDR 17,6 - 6"-3"
	62174UZ	SDR 17,6 - 6"-3 1/2"
	62176UZ	SDR 17,6 - 6"-4"
	62180UZ	SDR 17,6 - 8"-4"
	62182UZ	SDR 17,6 - 8"-6"
	62184UZ	SDR 17,6 - 10"-6"
	62186UZ	SDR 17,6 - 10"-8"
	62200UZ	SDR 17,6 - 12"-10"
REDUCER, SDR 17,6, butt-welding, short shank	62214UZ	SDR 17,6 - 14"-10"
	62216UZ	SDR 17,6 - 14"-12"
	62240UZ	SDR 17,6 - 16"-10"
	62242UZ	SDR 17,6 - 16"-12"
	62244UZ	SDR 17,6 - 16"-14"
	62248UZ	SDR 17,6 - 18"-14"
	62250UZ	SDR 17,6 - 18"-16"
	62254UZ	SDR 17,6 - 20"-16"
	62256UZ	SDR 17,6 - 20"-18"
	62260UZ	SDR 17,6 - 22"-18"
	62262UZ	SDR 17,6 - 22"-20"
	62266UZ	SDR 17,6 - 24"-20"
	62268UZ	SDR 17,6 - 24"-22"
	ELBOW 90°, SDR 5, socket-welding	63108U
63110U		SDR 5 - 3/4"
63112U		SDR 5 - 1"
63114U		SDR 5 - 1 1/4"
63116U		SDR 5 - 1 1/2"
63118U		SDR 5 - 2"
63120U		SDR 5 - 2 1/2"



	63122U	SDR 5 - 3"
	63124U	SDR 5 - 3 1/2"
	63126U	SDR 5 - 4"
ELBOW 90°, SDR 7,4, butt-welding	63128UK	SDR 7,4 - 6" fiber T
	63130UK	SDR 7,4 - 8" fiber T
ELBOW 90°, SDR 7,4, butt-welding, segmented fitting of faser FIBER-T	63128UCK	SDR 7,4 - 6" fiber T
	63130UCK	SDR 7,4 - 8" fiber T
	63132UCK	SDR 7,4 - 10" fiber T
	63134UCK	SDR 7,4 - 12" fiber T
ELBOW 90°, SDR 11, butt-welding	63128U	SDR 11 - 6"
	63130U	SDR 11 - 8" fiber cond
	63132U	SDR 11 - 10" fiber cond
	63134U	SDR 11 - 12" fiber cond
ELBOW 90°, SDR 11, butt-welding, segmented fitting of faser FIBER-COND	63136UC	SDR 11 - 14" fiber cond
	63138UC	SDR 11 - 16" fiber cond
ELBOW 90°, SDR 17,6, butt-welding	63128UZ	SDR 17,6 - 6" fiber light
	63130UZ	SDR 17,6 - 8" fiber light
	63132UZ	SDR 17,6 - 10" fiber light
	63134UZ	SDR 17,6 - 12" fiber light
ELBOW 90°, SDR 17,6, butt-welding, segmented fitting of faser FIBER-LIGHT	63136UCZ	SDR 17,6 - 14" fiber light
	63138UCZ	SDR 17,6 - 16" fiber light
	63140UCZ	SDR 17,6 - 18" fiber light
	63142UCZ	SDR 17,6 - 20" fiber light
	63144UCZ	SDR 17,6 - 22" fiber light
	63146UCZ	SDR 17,6 - 24" fiber light
ELBOW M/F 90°, SDR 7,4, socket-welding	63308U	SDR 5 - 1/2"
	63310U	SDR 5 - 3/4"
	63312U	SDR 5 - 1"
	63314U	SDR 5 - 1 1/4"
ELBOW 45°, SDR 5, socket-welding	63508U	SDR 5 - 1/2"

	63510U	SDR 5 - 3/4"
	63512U	SDR 5 - 1"
	63514U	SDR 5 - 1 1/4"
	63516U	SDR 5 - 1 1/2"
	63518U	SDR 5 - 2"
	63520U	SDR 5 - 2 1/2"
	63522U	SDR 5 - 3"
	63524U	SDR 5 - 3 1/2"
	63526U	SDR 5 - 4"
ELBOW 45°, SDR 7,4, butt-welding	63528UK	SDR 7,4 - 6"
	63530UK	SDR 7,4 - 8"
ELBOW 45°, SDR 7,4, butt-welding, segmented fitting of faser FIBER-T	63528UCK	SDR 7,4 - 6" fiber T
	63530UCK	SDR 7,4 - 8" fiber T
	63532UCK	SDR 7,4 - 10" fiber T
	63534UCK	SDR 7,4 - 12" fiber T
ELBOW 45°, SDR 11, butt-welding	63528U	SDR 11 - 6" fiber cond
	63530U	SDR 11 - 8" fiber cond
	63532U	SDR 11 - 10" fiber cond
	63534U	SDR 11 - 12" fiber cond
ELBOW 45°, SDR 11, butt-welding, segmented fitting of faser FIBER-COND	63536UC	SDR 11 - 14" fiber cond
	63538UC	SDR 11 - 16" fiber cond
ELBOW 45°, SDR 17,6, butt-welding	63528UZ	SDR 17,6 - 6" fiber light
	63530UZ	SDR 17,6 - 8" fiber light
	63532UZ	SDR 17,6 - 10" fiber light
	63534UZ	SDR 17,6 - 12" fiber light
ELBOW 45°, SDR 17,6, butt-welding, segmented fitting of faser FIBER-LIGHT	63536UCZ	SDR 17,6 - 14" fiber light
	63538UCZ	SDR 17,6 - 16" fiber light
	63540UCZ	SDR 17,6 - 18" fiber light
	63542UCZ	SDR 17,6 - 20" fiber light
	63544UCZ	SDR 17,6 - 22" fiber light

	63546UCZ	SDR 17,6 - 24" fiber light
ELBOW M/F 45°, SDR 5, socket-welding	63708U	SDR 5 - 1/2"
	63710U	SDR 5 - 3/4"
	63712U	SDR 5 - 1"
TEE, SDR 5, socket-welding	64108U	SDR 5 - 1/2"
	64110U	SDR 5 - 3/4"
	64112U	SDR 5 - 1"
	64114U	SDR 5 - 1 1/4"
	64116U	SDR 5 - 1 1/2"
	64118U	SDR 5 - 2"
	64120U	SDR 5 - 2 1/2"
	64122U	SDR 5 - 3"
	64124U	SDR 5 - 3 1/2"
64126U	SDR 5 - 4"	
TEE, SDR 7,4, butt-welding	64128UK	SDR 7,4- 6"
	64130UK	SDR 7,4 - 8"
TEE, SDR 7,4, butt-welding, segmented fitting of faser FIBER-T	64128UCK	SDR 7,4- 6" fiber T
	64130UCK	SDR 7,4 - 8" fiber T
	64132UCK	SDR 7,4 - 10" fiber T
	64134UCK	SDR 7,4 - 12" fiber T
TEE, SDR 11, butt-welding	64128U	SDR 11- 6"
	64130U	SDR 11 - 8"
	64132U	SDR 11 - 10"
	64134U	SDR 11 - 12"
TEE, SDR 11, butt-welding, segmented fitting of faser FIBER-COND	64136UC	SDR 11 - 14" segmented fiber cond
	64138UC	SDR 11 - 16" fiber cond
TEE, SDR 17,6, butt-welding	64128UZ	SDR 17,6 - 6" fiber light
	64130UZ	SDR 17,6 - 8" fiber light

	64132UZ	SDR 17,6 - 10" fiber light
	64134UZ	SDR 17,6 - 12" fiber light
TEE, SDR 17,6, butt-welding, segmented fitting of faser FIBER-LIGHT	64136UCZ	SDR 17,6 - 14" segmented fiber light
	64138UCZ	SDR 17,6 - 16" fiber light
	64140UCZ	SDR 17,6 - 18" segmented fiber light
	64142UCZ	SDR 17,6 - 20" fiber light
	64144UCZ	SDR 17,6 - 22" segmented fiber light
	64146UCZ	SDR 17,6 - 24" segmented fiber light
	REDUCED TEE, SDR 5, socket-welding	64218U
64220U		SDR 5 - 3/4"-1/2"-1/2"
64222U		SDR 5 - 3/4"-1/2"-3/4"
64232U		SDR 5 - 1"-3/4"-3/4"
64234U		SDR 5 - 1"-1/2"-1"
64240U		SDR 5 - 1"-3/4"-1"
64242U		SDR 5 - 1 1/4"-1/2"-1 1/4"
64244U		SDR 5 - 1 1/4"-3/4"-1 1/4"
64245U		SDR 5 - 1 1/4"-1"-1"
64246U		SDR 5 - 1 1/4"-1"-1 1/4"
64247U		SDR 5 - 1 1/2"-1/2"-1 1/2"
64248U		SDR 5 - 1 1/2"-3/4"-1 1/2"
64250U		SDR 5 - 1 1/2"-1"-1 1/2"
64251U		SDR 5 - 1 1/2"-1 1/4"-1 1/2"
64252U		SDR 5 - 2"-1/2"-2"
64254U		SDR 5 - 2"-3/4"-2"
64256U		SDR 5 - 2"-1"-2"
64258U		SDR 5 - 2"-1 1/4"-2"
64260U		SDR 5 - 2"-1 1/2"-2"
64261U		SDR 5 - 2 1/2"-1/2"-2 1/2"
64262U		SDR 5 - 2 1/2"-3/4"-2 1/2"
64264U		SDR 5 - 2 1/2"-1"-2 1/2"
64266U		SDR 5 - 2 1/2"-1 1/4"-2 1/2"
64268U		SDR 5 - 2 1/2"-1 1/2"-2 1/2"
64270U		SDR 5 - 2 1/2"-2"-2 1/2"
64280U		SDR 5 - 3"-1 1/2"-3"
64282U		SDR 5 - 3"-2"-3"
64284U		SDR 5 - 3"-2 1/2"-3"
64286U		SDR 5 - 3 1/2"-2"-3 1/2"
64288U		SDR 5 - 3 1/2"-2 1/2"-3 1/2"
64290U		SDR 5 - 3 1/2"-3"-3 1/2"
64294U		SDR 5 - 4"-3"-4"
64296U	SDR 11 - 4"-3 1/2"-4"	
REDUCED TEE, SDR 7,4, butt-welding	64298UK	SDR 7,4 - 6"-3"-6" fiber-T
	64299UK	SDR 7,4 - 6"-3 1/2"-6" fiber-T

	64300UK	SDR 7,4 - 6"-4"-6" fiber-T
	64302UK	SDR 7,4 - 8"-6"-8" fiber-T
REDUCED TEE, SDR 7,4, butt-welding, segmented fitting of faser FIBER-T pipe	64300UCK	SDR 7,4 - 6"-4"-6" fiber-T
	64302UCK	SDR 7,4 - 8"-6"-8" fiber-T
	64307UCK	SDR 7,4 - 10"-8"-10"fiber T
	643096UCK	SDR 7,4 - 12"-10"-12" fiber T
REDUCED TEE, SDR 11, butt-welding	64298U	SDR 11 -6"-3"-6"
	64299U	SDR 11 - 6"-3 1/2"-6"
	64300U	SDR 11 - 6"-4"-6"
	64302U	SDR 11 - 8"-6"-8"
	64306U	SDR 11 - 10"-6"-10"
	64307U	SDR 11 - 10"-8"-10"
	643094U	SDR 11 - 12"-8"-12"
	643096U	SDR 11 - 12"-10"-12"
REDUCED TEE, SDR 11, butt-welding, segmented fitting of faser FIBER-COND pipe	643122UC	SDR 17,6 - 14"-10"-14" fiber cond
	643124UC	SDR 17,6 - 14"-12"-14" fiber cond
	643152UC	SDR 17,6 - 16"-12"-16" fiber cond
	643154UC	SDR 17,6 - 16"-14"-16" fiber cond
REDUCED TEE, SDR 17,6, butt-welding	64300UCZ	SDR 17,6 - 6"-4"-6" fiber light
	64302UCZ	SDR 17,6 - 8"-6"-8" fiber-light
	64306UCZ	SDR 17,6 - 10"-6"-10"fiber light
	64307UCZ	SDR 17,6 - 10"-8"-10"fiber light
	643094UCZ	SDR 17,6 - 12"-8"-12"fiber light
	643096UCZ	SDR 17,6 - 12"-10"-12" fiber light
REDUCED TEE, SDR 17,6, butt-welding, segmented fitting of faser FIBER-LIGHT pipe	643124UCZ	SDR 17,6 - 14"-12"-14" fiber light
	643154UCZ	SDR 17,6 - 16"-14"-16" fiber light
	643182UCZ	SDR 17,6 - 18"-12"-18"
	643184UCZ	SDR 17,6 - 18"-14"-18"
	643186UCZ	SDR 17,6 - 18"-16"-18"
	643218UCZ	SDR 17,6 - 20"-16"-20"
	643220UCZ	SDR 17,6 - 20"-18"-20"
	643254UCZ	SDR 17,6 - 22"-18"-22"
	643256UCZ	SDR 17,6 - 22"-20"-22"

	643292UCZ	SDR 17,6 - 24"-20"-24"
	643294UCZ	SDR 17,6 - 24"-22"-24"
CROSS, SDR 5, socket-welding	64308U	SDR 5 - 1/2"
	64310U	SDR 5 - 3/4"
	64312U	SDR 5 - 1"
	64314U	SDR 5 - 1 1/4"
COVER CAP, SDR 5, for welding	65008U	SDR 5 - 1/2"
	65010U	SDR 5 - 3/4"
	65012U	SDR 5 - 1"
	65014U	SDR 5 - 1 1/4"
	65016U	SDR 5 - 1 1/2"
	65018U	SDR 5 - 2"
	65020U	SDR 5 - 2 1/2"
	65022U	SDR 5 - 3"
	65024U	SDR 5 - 3 1/2"
	65026U	SDR 5 - 4"
COVER CAP, SDR 7,4, butt-welding, short shank	65028UK	SDR 7,4 - 6"
	65030UK	SDR 7,4 - 8"
	65032UK	SDR 7,4 - 10"
	65034UK	SDR 7,4 - 12"
COVER CAP, SDR 11, butt-welding, long shank	65028U	SDR 11 - 6"
	65030U	SDR 11 - 8"
	65032U	SDR 11 - 10"
	65034U	SDR 11 - 12"
COVER CAP, SDR 11, butt-welding, short shank	65036U	SDR 11 - 14"
	65038U	SDR 11 - 16"
COVER CAP, SDR 17,6, butt-welding, long shank	65028UZ	SDR 17,6 - 6"
	65030UZ	SDR 17,6 - 8"
	65032UZ	SDR 17,6 - 10"
	65034UZ	SDR 17,6 - 12"
COVER CAP, SDR 17,6, butt-welding, short shank	65036UZ	SDR 17,6 - 14"
	65038UZ	SDR 17,6 - 16"
	65040UZ	SDR 17,6 - 18"
	65042UZ	SDR 17,6 - 20"
	65044UZ	SDR 17,6 - 22"
	65046UZ	SDR 17,6 - 24"
FUSION OUTLET, socket-welding	650472U	output 1/2" for pipe 1 1/4" weld in

	saddle500316/miller50348-50348A-50378
650474U	output 3/4 for pipe 1 1/4 weld in saddle500316/miller50348-50348A-50378
650478U	output 1/2 for pipe 1 1/2 weld in saddle500320/miller50348-50348A-50378
650480U	output 3/4 for pipe 1 1/2 weld in saddle500320/miller50348-50348A-50378
650498U	output 1/2 for pipe 2 weld in saddle 500340/miller 50348-50348A-50378 output 1/2 for pipe 2 1/2 weld in saddle 500348/miller 50348-50348A-50378
650500U	output 3/4 for pipe 2 weld in saddle 500340/miller 50348-50348A-50378 output 3/4 for pipe 2 1/2 weld in saddle 500348/miller 50348-50348A-50378
650502U	output 1 for pipe 2 weld in saddle 500342/miller 50352-50382 output 1 for pipe 2 1/2 weld in saddle 500360/miller 50352-50382
650556U	output 1/2 for pipe 3 weld in saddle 500386/miller 50348-50348A-50378 output 1/2 for pipe 3 1/2 weld in saddle 500428/miller 50348-50348A-50378 output 1/2 for pipe 4 weld in saddle 500468/miller 50348-50348A-50378
650558U	output 3/4 for pipe 3 weld in saddle 500386/miller 50348-50348A-50378 output 3/4 for pipe 3 1/2 weld in saddle 500428/miller 50348-50348A-50378 output 3/4 for pipe 4 weld in saddle 500468/miller 50348-50348A-50378
650560U	output 1 for pipe 3 weld in saddle 500400/miller 50352-50382 output 1 for pipe 3 1/2 weld in saddle 500430/miller 50352-50382 output 1 for pipe 4 weld in saddle 500470/miller 50352-50382
650580U	output 1 1/4 for pipe 3 weld in saddle500420/miller50354-50384
650582U	output 1 1/2 for pipe 3 weld in saddle500422/miller50356-50386
650600U	output 1 1/4 for pipe 3 1/2 weld in saddle500440/miller50354-50384
650620U	output 1 1/2 for pipe 3 1/2 weld in saddle500460/miller50356-50386
650622U	output 2 for pipe 3 1/2 weld in saddle500462/miller50358-50388
650638U	output 1 1/4 for pipe 4 weld in saddle500472/miller50354-50384
650640U	output 1 1/2 for pipe 4 weld in saddle500480/miller50356-50386
650660U	output 2 for pipe 4 weld in saddle500500/miller50358-50388
650672U	output 1/2 for pipe 6 weld in saddle 500508/miller 50348-50348A-50378 output 1/2 for pipe 8 weld in saddle 500586/miller 50348-50348A-50378
650674U	output 3/4 for pipe 6 weld in saddle 500508/miller 50348-50348A-50378 output 3/4 for pipe 8 weld in saddle 500586/miller 50348-50348A-50378
650676U	output 1 for pipe 6 weld in saddle 500510/miller 50352-50382 output 1 for pipe 8 weld in saddle 500588/miller 50352-50382

	650678U	output 1¼/for pipe 6/weld in saddle 500512/miller 50354-50384 output 1¼/for pipe 8/weld in saddle 500590/miller 50354-50384
	650680U	output 1½/for pipe 6/weld in saddle500520/miller50356-50386
	650700U	output 2/for pipe 6/weld in saddle500540/miller50358-50388
	650720U	output 2½/for pipe 6/weld in saddle500560/miller50360-50390
	650740U	output 3/for pipe 6/weld in saddle500580/miller50362-50392
	650760U	output 1½/for pipe 8/weld in saddle500600/miller50356-50386
	650780U	output 2/for pipe 8/weld in saddle500620/miller50358-50388
	650800U	output 2½/for pipe 8/weld in saddle500640/miller50360-50390
	650820U	output 3/for pipe 8/weld in saddle500660/miller50362-50392
	650840U	output 3½/for pipe 8/weld in saddle500680/miller50364-50394
	650860U	uscita125/for pipe 8/weld in saddle500700/miller50366-50396
	650872U	output ½/for pipe 10/weld in saddle 500702/miller 50348-50348A-50378 output ½/for pipe 12/weld in saddle 500822/miller 50348-50348A-50378
	650874U	output ¾/for pipe 10/weld in saddle 500702/miller 50348-50348A-50378 output ¾/for pipe 12/weld in saddle 500822/miller 50348-50348A-50378
	650876U	output 1/for pipe 10/weld in saddle 500704/miller 50352-50382 output 1/for pipe 12/weld in saddle 500824/miller 50352-50382
	650878U	output 1¼/for pipe 10/weld in saddle 500706/miller 50354-50384 output 1¼/for pipe 12/weld in saddle 500826/miller 50354-50384
	650880U	output 1½/for pipe 10/weld in saddle500720/miller50356-50386
	650900U	output 2/for pipe 10/weld in saddle500740/miller50358-50388



	650920U	output 2 $\frac{1}{2}$ /for pipe 10/weld in saddle500760/miller50360-50390
	650940U	output 3/for pipe 10/weld in saddle500780/miller50362-50392
	650960U	output 3 $\frac{1}{2}$ /for pipe 10/weld in saddle500800/miller50364-50394
	650980U	uscita125/for pipe 10/weld in saddle500820/miller50366-50396
	650994U	output 1 $\frac{1}{2}$ /for pipe 12/weld in saddle500828/miller50356-50386
	650996U	output 2/for pipe 12/weld in saddle500830/miller50358-50388
	650998U	output 2 $\frac{1}{2}$ /for pipe 12/weld in saddle500832/miller50360-50390
	651000U	output 30/for pipe 12/weld in saddle500834/miller50362-50392
	651002U	output 3 $\frac{1}{2}$ /for pipe 12/weld in saddle500836/miller50364-50394
	651004U	uscita125/for pipe 12/weld in saddle500838/miller50366-50396
	651012U	output $\frac{1}{2}$ /for pipe 14-16/weld in saddle 500842/miller 50348-50348A-50378 output $\frac{1}{2}$ /for pipe 18-24/weld in saddle 500842/miller 50378
	651014U	output $\frac{3}{4}$ /for pipe 14-16/weld in saddle 500842/miller 50348-50348A-50378 output $\frac{3}{4}$ /for pipe 18-24/weld in saddle 500842/miller 50378
	651016U	output 1/for pipe 14-16/weld in saddle 500844/miller 50352-50382 output 1/for pipe 18-24/weld in saddle 500844/miller 50382
	651018U	output 1 $\frac{1}{4}$ /for pipe 14-400/weld in saddle 500846/miller 50354-50384 output 1 $\frac{1}{4}$ /for pipe 18-630/weld in saddle 500846/miller 50384
	651020U	output 1 $\frac{1}{2}$ /for pipe 14-400/weld in saddle 500848/miller 50356-50386 output 1 $\frac{1}{2}$ /for pipe 18/weld in saddle 500860/miller 50386
	651021U	output 1 $\frac{1}{2}$ /for pipe 20-24/weld in saddle 500874/miller 50386
	651022U	output 2/for pipe 14-16/weld in saddle 500850/miller 50358-50388 output 2/for pipe 18/weld in saddle 500864/miller 50388

	651023U	output 2/for pipe 20-24/weld in saddle 500876/miller 50388
	651024U	output 2 1/2/for pipe 14/weld in saddle500852/miller50360-50390
	651026U	output 3/for pipe 14/weld in saddle500854/miller50362-50392
	651028U	output 3 1/2/for pipe 14/weld in saddle500856/miller50364-50394
	651030U	uscita125/for pipe 14/weld in saddle500858/miller50366-50396
	651040U	output 2 1/2/for pipe 16/weld in saddle500852/miller50360-50390
	651041U	output 2 1/2/for pipe 18/weld in saddle 500866/miller 50390 output 2 1/2/for pipe 20/weld in saddle 500878/miller 50390 output 2 1/2/per tubo 22/weld in saddle 500886/miller 50390 output 2 1/2/for pipe 24/weld in saddle 500894/miller 50390
	651042U	output 3/for pipe 16/weld in saddle 500854/miller 50362-50392 output 3/for pipe 18/weld in saddle 500868/miller 50392
	651043U	output 3/for pipe 20/weld in saddle 500880/miller 50392 output 3/per tubo 22/weld in saddle 500888/miller 50392 output 3/for pipe 24/weld in saddle 500896/miller 50392
	651044U	output 3 1/2/for pipe 16/weld in saddle 500856/miller 50364-50394 output 3 1/2/for pipe 18/weld in saddle 500870/miller 50394
	651045U	output 3 1/2/for pipe 20/weld in saddle 500882/miller 50394 output 3 1/2/per tubo 22/weld in saddle 500890/miller 50394
	651047U	output 3 1/2/for pipe 24/weld in saddle 500898/miller 50394
	651046U	uscita125/for pipe 16/weld in saddle500858/miller50366-50396
	651048U	output 4/for pipe 18/weld in saddle 500872/miller 50396 output 4/for pipe 20/weld in saddle 500884/miller 50396
	651049U	output 4/per tubo 22/weld in saddle 500892/miller 50396 output 4/for pipe 24/weld in saddle 500990/miller 50396
TRANSITION FITTING from copper to PP-R pipes	65100U	F 1/2" for pipe 1/2"
	65102U	F 3/4" for pipe 3/4"
	65106U	F 1" for pipe 1"
TRANSITION FITTING EXPANSION from PE-X to PP-R pipes	65110U	F 1/2" for pipe 1/2"
	65112U	F 1/2" for pipe 3/4"
	65114U	F 3/4" for pipe 3/4"
	65116U	F 1" for pipe 1"
TRANSITION FITTING CRIMP from PE-X to PP-R pipes	65120U	F 1/2" for pipe 1/2"
	65122U	F 1/2" for pipe 3/4"
	65124U	F 3/4" for pipe 3/4"
	65126U	F 1" for pipe 1"
PP-R TO GROOVED PIPE TRANSITION,	652014U	1 1/4"- 1 1/4"

coupling not included	652016U	1 1/2" - 1 1/2"
	652018U	2" - 2"
DIRECT JOINT, SDR 5, socket-welding	65132U	SDR 5 - output Ø 1/2", for pipe 1 1/2"~10", miller 50346-50346A
	65134U	SDR 5 - output Ø 3/4", for pipe 2"~10" miller 50348-50348A output Ø 3/4", for pipe 2"~24", miller 50378
	65136U	SDR 5 - output Ø 1", for pipe 2 1/2"~10", miller 50352 output Ø 1", for pipe 2 1/2"~24", miller 50382
	65138U	SDR 5 - output Ø 1 1/4", for pipe 3"~10", miller 50354 output Ø 1 1/4", for pipe 3"~24", miller 50394
THREADED DIRECT JOINT F, SDR 5, socket-welding	65152U	SDR 5 - output Ø 1/2", for pipe 1 1/2"~10", miller 50346-50346A
	65154U	SDR 5 - output Ø 3/4", for pipe 1 1/2"~10", miller 50348-50348A output Ø 3/4", for pipe 1 1/2"~24", miller 50378
FUSIO-TECHNIK DIRECT JOINT WITH SAFETY DERIVATION	65170U	SDR 5 - output Ø 1/2"-sm, for pipe 1 1/2"~10", miller 50346-50346A
	65172U	SDR 5 - output Ø 5/8"-sm, for pipe 1 1/2"~10" miller 50346-50346A
	65174U	SDR 5 - output Ø 7/8"-sm, for pipe 2"~10", miller 50348-50348A output Ø 7/8"-sm, for pipe 2"~24", miller 50378
COLLAR TO WELD, SDR 11, socket-welding, with O-Ring, for flanges and PP valves series 40358	65208U	SDR 11 - 1/2"
	65210U	SDR 11 - 3/4"
	65212U	SDR 11 - 1"
	65214U	SDR 11 - 1 1/4"
	65216U	SDR 11 - 1 1/2"
	65218U	SDR 11 - 2"
	65220U	SDR 11 - 2 1/2"
	65222U	SDR 11 - 3"
	65224U	SDR 11 - 3 1/2"
65226U	SDR 11 - 4"	
COLLAR TO WELD, SDR 7,4, butt-welding, short shank	65228UK	SDR 7,4 - 6"
	65230UK	SDR 7,4 - 8"
	65232UK	SDR 7,4 - 10"
	65234UK	SDR 7,4 - 12"
COLLAR TO WELD, SDR 11, butt-welding, long shank	65228U	SDR 11 - 6"
	65230U	SDR 11 - 8"
	65232U	SDR 11 - 10"

	65234U	SDR 11 - 12"
COLLAR TO WELD, SDR 11, butt-welding, short shank	65236U	SDR 11 - 14"
	65238U	SDR 11- 16"
COLLAR TO WELD, SDR 17,6, butt-welding, long shank	65228UZ	SDR 17,6 - 6"
	65230UZ	SDR 17,6 - 8"
	65232UZ	SDR 17,6 - 10"
	65234UZ	SDR 17,6 - 12"
COLLAR TO WELD, SDR 17,6, butt-welding, short shank	65236UZ	SDR17,6 - 14"
	65238UZ	SDR 17,6- 16"
	65240UZ	SDR 17,6 - 18"
	65242UZ	SDR 17,6 - 20"
	65244UZ	SDR 17,6 - 22"
	65246UZ	SDR 17,6 - 24"
FLANGES	65266U	for collar ½"
	65268U	for collar ¾"
	65270U	for collar 1"
	65272U	for collar 1¼"
	65274U	for collar 1½"
	65276U	for collar 2"
	65278U	for collar 2½"
	65280U	for collar 3"
	65282U	for collar 3½"
	65284U	for collar 4"
	65286U	for collar 6"
	65290U	for collar 8"
	65292U	for collar 10"
	65294U	for collar 12"
	65296U	for collar 14"
	65298U	for collar 16"
65300U	for collar 18"	
65302U	for collar 20"	
65304U	for collar 22"	
65306U	for collar 24"	
SWAN NECK faser FIBER-T, socket-welding	65414U	SDR 7,4 - 1/2"
	65416U	SDR 7,4 - 3/4"

	65418U	SDR 7,4 - 1"
MOULDED SWAN NECK, SDR 5, socket-welding	65438U	SDR 5 - 1/2"
CURVE 90° F/F, SDR 5, socket-welding, double coupling wide radius	65458U	SDR 5 - 1/2"
	65460U	SDR 5 - 3/4"
THREADED JOINT F., SDR 5, socket-welding, with alloy NPT thread	66008U	SDR 5 - F $\frac{1}{2}$ " - $\frac{1}{2}$ "
	66009U	SDR 5 - F $\frac{1}{2}$ " - $\frac{3}{4}$ "
	66010U	SDR 5 - F $\frac{3}{4}$ " - $\frac{3}{4}$ "
	66011U	SDR 5 - F $\frac{3}{4}$ " - $\frac{1}{2}$ "
	66013U	SDR 5 - F $\frac{3}{4}$ " - 1"
THREADED JOINT F, SDR 5, socket-welding, with hexagonal seat and alloy NPT thread	66108U	SDR 5 - F $\frac{1}{2}$ " - $\frac{1}{2}$ "
	66109U	SDR 5 - F $\frac{3}{4}$ " - $\frac{1}{2}$ "
	66110U	SDR 5 - F $\frac{3}{4}$ " - $\frac{3}{4}$ "
	66112U	SDR 5 - F1" - 1"
	66114U	SDR 5 - F1 $\frac{1}{4}$ " - 1 $\frac{1}{4}$ "
	66116U	SDR 5 - F1 $\frac{1}{2}$ " - 1 $\frac{1}{2}$ "
	66118U	SDR 5 - F2" - 2"
	66120U	SDR 5 - F2 $\frac{1}{2}$ " - 2 $\frac{1}{2}$ "
	66122U	SDR 5 - F3" - 3"
	66124U	SDR 5 - F4" - 3 $\frac{1}{2}$ "
	66125U	SDR 5 - F4" - 4"
66126U	SDR 5 - F5" - 4"	
THREADED JOINT F, SDR 5, male socket-welding, with alloy NPT thread	66150U	SDR 5 - F $\frac{1}{2}$ " - $\frac{1}{2}$ "
THREADED JOINT F, SDR 5, male socket-welding, with hexagonal seat and alloy NPT thread	66158U	SDR 5 - F $\frac{1}{2}$ " - $\frac{1}{2}$ "
THREADED JOINT M, SDR 5, socket-welding, with alloy NPT thread	66208U	SDR 5 - M $\frac{1}{2}$ " - $\frac{1}{2}$ "
	66209U	SDR 5 - M $\frac{1}{2}$ " - $\frac{3}{4}$ "
	66210U	SDR 5 - M $\frac{3}{4}$ " - $\frac{3}{4}$ "
	66211U	SDR 5 - M $\frac{3}{4}$ " - $\frac{1}{2}$ "
	66213U	SDR 5 - M $\frac{3}{4}$ " - 1"
THREADED JOINT M, SDR 5, socket-welding,	66308U	SDR 5 - M $\frac{1}{2}$ " - $\frac{1}{2}$ "

with hexagonal seat and alloy NPT thread	66310U	SDR 5 - M <sup>3</sup> / <sub>4</sub> " - <sup>3</sup> / <sub>4</sub> "
	66311U	SDR 5 - M <sup>3</sup> / <sub>4</sub> " - <sup>1</sup> / <sub>2</sub> "
	66312U	SDR 5 - M1" - 1"
	66314U	SDR 5 - M1 <sup>1</sup> / <sub>4</sub> " - 1 <sup>1</sup> / <sub>4</sub> "
	66316U	SDR 5 - M1 <sup>1</sup> / <sub>2</sub> " - 1 <sup>1</sup> / <sub>2</sub> "
	66318U	SDR 5 - M2" - 2"
	66320U	SDR 5 - M2 <sup>1</sup> / <sub>2</sub> " - 2 <sup>1</sup> / <sub>2</sub> "
	66321U	SDR 5 - M2 <sup>1</sup> / <sub>2</sub> " - 3"
	66322U	SDR 5 - M3" - 3"
	66324U	SDR 5 - M3" - 3 <sup>1</sup> / <sub>2</sub> "
	66325U	SDR 5 - M4" - 3 <sup>1</sup> / <sub>2</sub> "
	66327U	SDR 5 - M4" - 4"
	66326U	SDR 5 - M5" - 4"
THREADED JOINT M, SDR 5, male socket-welding, with alloy NPT thread	66350U	SDR 5 - M <sup>1</sup> / <sub>2</sub> " - <sup>1</sup> / <sub>2</sub> "
THREADED JOINT M, SDR 5, male socket-welding, with hexagonal seat and alloy NPT thread	66358U	SDR 5 - M <sup>1</sup> / <sub>2</sub> " - <sup>1</sup> / <sub>2</sub> "
THREADED ELBOW F, SDR 5, socket-welding, with alloy NPT thread	67008U	SDR 5 - F <sup>1</sup> / <sub>2</sub> " - <sup>1</sup> / <sub>2</sub> "
	67009U	SDR 5 - F <sup>1</sup> / <sub>2</sub> " - <sup>3</sup> / <sub>4</sub> "
	67010U	SDR 5 - F <sup>3</sup> / <sub>4</sub> " - <sup>3</sup> / <sub>4</sub> "
	67011U	SDR 5 - F <sup>3</sup> / <sub>4</sub> " - <sup>1</sup> / <sub>2</sub> "
	67013U	SDR 5 - F <sup>3</sup> / <sub>4</sub> " - 1"
	67014U	SDR 5 - F1" - 1"
THREADED ELBOW F WITH BRACKET, SDR 5, male socket-welding, with alloy NPT thread	67108U	SDR 5 - F <sup>1</sup> / <sub>2</sub> " - <sup>1</sup> / <sub>2</sub> "
	67109U	SDR 5 - F <sup>3</sup> / <sub>4</sub> " - <sup>1</sup> / <sub>2</sub> "
	67110U	SDR 5 - F <sup>3</sup> / <sub>4</sub> " - <sup>3</sup> / <sub>4</sub> "
	67111U	SDR 5 - F <sup>1</sup> / <sub>2</sub> " - <sup>3</sup> / <sub>4</sub> "
DOUBLE TERMINAL KIT, multiple inputs, female NPT threads, with closing caps for surplus in-put	67178U	F <sup>1</sup> / <sub>2</sub> " - <sup>1</sup> / <sub>2</sub> " interaxis 5,91"

TERMINAL BRACKET WITH DOUBLE INTEGRATED ELBOW, female NPT threads	67190U	F $\frac{1}{2}$ " - $\frac{3}{4}$ " interaxis 5,91"
THREADED ELBOW F, SDR 5, male socket welding, with alloy NPT thread	67208U	SDR 5 - F $\frac{1}{2}$ " - $\frac{1}{2}$ "
THREADED ELBOW M, SDR 5, socket-welding, with alloy NPT thread	67500U	SDR 5 - M $\frac{1}{2}$ " - $\frac{3}{4}$ "
	67508U	SDR 5 - M $\frac{1}{2}$ " - $\frac{1}{2}$ "
	67509U	SDR 5 - M $\frac{3}{4}$ " - $\frac{1}{2}$ "
	67510U	SDR 5 - M $\frac{3}{4}$ " - $\frac{3}{4}$ "
	67511U	SDR 5 - M $\frac{3}{4}$ " - 1"
	67512U	SDR 5 - M1" - 1"
THREADED TEE F, SDR 5, socket-welding, with alloy NPT thread	68008U	SDR 5 - $\frac{1}{2}$ " - F $\frac{1}{2}$ " - $\frac{1}{2}$ "
	68009U	SDR 5 - $\frac{1}{2}$ " - F $\frac{3}{4}$ " - $\frac{1}{2}$ "
	68010U	SDR 5 - $\frac{3}{4}$ " - F $\frac{3}{4}$ " - $\frac{3}{4}$ "
	68011U	SDR 5 - $\frac{3}{4}$ " - F $\frac{1}{2}$ " - $\frac{3}{4}$ "
	68014U	SDR 5 - 1" - F $\frac{3}{4}$ " - 1"
	68016U	SDR 5 - 1" - F1" - 1"
THREADED TEE M, SDR 5, socket-welding, with alloy NPT thread	68508U	SDR 5 - $\frac{1}{2}$ " - M $\frac{1}{2}$ " - $\frac{1}{2}$ "
THREADED PIPE UNION M, SDR 11, male socket-welding, with alloy NPT thread	69230U	SDR 11 - M $\frac{1}{2}$ " - $\frac{1}{2}$ "
	69232U	SDR 11 - M $\frac{3}{4}$ " - $\frac{3}{4}$ "
	69234U	SDR 11 - M1" - 1"
	69236U	SDR 11 - M1 $\frac{1}{4}$ " - 1 $\frac{1}{4}$ "
	69238U	SDR 11 - M1 $\frac{1}{2}$ " - 1 $\frac{1}{2}$ "
	69240U	SDR 11 - M2" - 2"

THREADED PIPE UNION F, SDR 11, male socket-welding, with alloy NPT thread	69260U	SDR 11 - F $\frac{1}{2}$ " - $\frac{1}{2}$ "
	69262U	SDR 11 - F $\frac{3}{4}$ " - $\frac{3}{4}$ "
	69264U	SDR 11 - F1" - 1"
	69266U	SDR 11 - F1 $\frac{1}{4}$ " - 1 $\frac{1}{4}$ "
	69268U	SDR 11 - F1 $\frac{1}{2}$ " - 1 $\frac{1}{2}$ "
	69270U	SDR 11 - F2" - 2 "
PIPE UNION, SDR 11, female socket-welding, with ISO thread, external ring in CW 117	69280U	SDR 11 - $\frac{1}{2}$ " - $\frac{1}{2}$ "
	69282U	SDR 11 - $\frac{3}{4}$ " - $\frac{3}{4}$ "
	69284U	SDR 11 - 1" - 1"
	69286U	SDR 11 - 1 $\frac{1}{4}$ " - 1 $\frac{1}{4}$ "
	69288U	SDR 11 - 1 $\frac{1}{2}$ " - 1 $\frac{1}{2}$ "
	69290U	SDR 11 - 2" - 2 "
PIPE UNION in PP-R, SDR 11, female socket-welding	69320U	SDR 11 - $\frac{1}{2}$ " - $\frac{1}{2}$ "
	69322U	SDR 11 - $\frac{3}{4}$ " - $\frac{3}{4}$ "
	69324U	SDR 11 - 1" - 1"
PIPE UNION WITH CHECK VALVE, in synthetic material, female socket-welding	69360U	SDR 11 - $\frac{1}{2}$ " - $\frac{1}{2}$ "
	69362U	SDR 11 - $\frac{3}{4}$ " - $\frac{3}{4}$ "
	69364U	SDR 11 - 1" - 1"
RING NUT, of PA-M, for pipe union in PP-R	40328	$\frac{1}{2}$ "
	40330	$\frac{3}{4}$ "
	40332	1"
EUROCONE FITTING IN PP-R	69390U	$\frac{1}{2}$ "
RING NUT, socket-welding, with alloy thread	69314U	F $\frac{1}{2}$ "
ELECTRIC COUPLING, SDR 5, socket-welding, low tension	69508U	SDR 5 - $\frac{1}{2}$ "
	69510U	SDR 5 - $\frac{3}{4}$ "
	69512U	SDR 5 - 1"
	69514U	SDR 5 - 1 $\frac{1}{4}$ "
	69516U	SDR 5 - 1 $\frac{1}{2}$ "



	69518U	SDR 5 - 2"
	69520U	SDR 5 - 2½"
	69522U	SDR 5 - 3"
	69524U	SDR 5 - 3½"
	69526U	SDR 5 - 4"
ELECTRIC COUPLING, SDR 11 socket-welding, low tension, grey color	69528	SDR 11 - 6"
	69530	SDR 11 - 8"
	69532	SDR 11 - 10"
	69534	SDR 11 - 12"
	69536	SDR 11 - 14"
ELECTRIC COUPLING, SDR 17,6 socket-welding, low tension, white color	69538	SDR 11 - 16"
	69534UZ	SDR 17,6 - 12"
	69536UZ	SDR 17,6 - 14"
	69538UZ	SDR 17,6 - 16"
	69540UZ	SDR 17,6 - 18"
	69542UZ	SDR 17,6 - 20"
TANG, male socket-welding, for ball valve, for serie 40008U,40058U, 40068U, 40098U	69544UZ	SDR 17,6 - 22"
	69546UZ	SDR 17,6 - 24"
	40208U	F¾" - ½"
	40210U	F1" - ¾"
	40212U	F1¼" - 1"
	40214U	F1½" - 1¼"
40216U	F2" - 1½"	
40218U	F2½" - 2"	

faser -UVRES PIPE, SDR, 7,4, PP-RCT/PP-R, multilayer pipe to convey hot and cold potable and not-potable fluids, with external layer in PP-R mixed with special additives that warranties ultraviolet radiation protection, resistance to direct sunlight exposure, intermediate layer loaded with special fibers and inner layer in PP-RCT WOR (White Oxidation Resistance), inner layer white color, external layer black color, rods length 19 ft	61358SR	SDR 7,4 - 1/2"-0,11"
	61360SR	SDR 7,4 - 3/4" -0,14"
	61362SR	SDR 7,4 - 1"-0,17"
	61364SR	SDR 7,4 - 1 1/4"-0,22"
	61366SR	SDR 7,4 - 1 1/2"-0,27"
	61368SR	SDR 7,4 - 2"-0,34"
	61370SR	SDR 7,4 - 2 1/2"-0,41"
	61372SR	SDR 7,4 - 3"-0,48"
	61374SR	SDR 7,4 - 3 1/2"-0,59"
	61376SR	SDR 7,4 - 4"-0,67"

faser UVRES PIPE, SDR, 11 PP-RCT/PP-R, multilayer pipe to convey hot and cold potable and not-potable fluids, with external layer in PP-R mixed with special additives that warranties ultraviolet radiation protection, resistance to direct sunlight exposure, intermediate layer loaded with special fibers and inner layer in PP-RCT WOR (White Oxidation Resistance), inner layer white color, external layer black color, rods length 19 ft	61468SR	SDR 11 - 2"-0,23"
	61470SR	SDR 11 - 2 1/2"-0,27"
	61472SR	SDR 11 - 3"-0,32"
	61474SR	SDR 11 - 3 1/2"-0,39"
	61476SR	SDR 11 - 4"-0,45"
	61478SR	SDR 11 - 6"-0,57"
	61480SR	SDR 11 - 8"-0,72"
	61482SR	SDR 11 - 10"-0,89"
	61484SR	SDR 11 - 12"-1,12"
PIPE COUPLING, SDR 5, socket-welding	62008SR	SDR 5 - 1/2"
	62010SR	SDR 5 - 3/4"
	62012SR	SDR 5 - 1"
	62014SR	SDR 5 - 1 1/4"
	62016SR	SDR 5 - 1 1/2"
	62018SR	SDR 5 - 2"
	62020SR	SDR 5 - 2 1/2"
	62022SR	SDR 5 - 3"
	62024SR	SDR 5 - 3 1/2"
62026SR	SDR 5 - 4"	
REDUCED PIPE COUPLING, SDR 5, socket-welding	62312SR	SDR 5 - 3/4"-1/2"
	62316SR	SDR 5 - 1"-3/4"
REDUCER, SDR 5, M/F, socket-welding	62112SR	SDR 5 - M3/4"-F1/2"
	62114SR	SDR 5 - M1"-F1/2"
	62116SR	SDR 5 - M1"-F3/4"
	62118SR	SDR 5 - M1 1/4"-F1/2"
	62120SR	SDR 5 - M1 1/4"-F3/4"
	62122SR	SDR 5 - M1 1/4"-F1"
	62124SR	SDR 5 - M1 1/2"-F1/2"
	62126SR	SDR 5 - M1 1/2"-F3/4"
	62128SR	SDR 5 - M1 1/2"-F1"
	62130SR	SDR 5 - M1 1/2"-F1 1/4"
	62132SR	SDR 5 - M2"-F3/4"
	62134SR	SDR 5 - M2"-F1"
	62136SR	SDR 5 - M2"-F1 1/4"
	62138SR	SDR 5 - M2"-F1 1/2"
62139SR	SDR 5 - M2 1/2"-F1 1/4"	
62140SR	SDR 5 - M2 1/2"-F1 1/2"	

	62142SR	SDR 5- M2 1/2"-F2"
	62144SR	SDR 5 - M3"-F1 1/2"
	62152SR	SDR 5 - M3"-F2"
	62153SR	SDR 5 - M3"-F2 1/2"
	62155SR	SDR 5 - M3 1/2"-F2"
	62157SR	SDR 5 - M3 1/2"-F2 1/2"
	62159SR	SDR 5 - M3 1/2"-F3"
	62168SR	SDR 5 - M4"-F2 1/2"
	62170SR	SDR 5 - M4"-3"
	62172SR	SDR 5 -M4"-F 1/2"
REDUCER, SDR 7,4, butt-welding, short shank	62173SR	SDR 7,4 - 6"-3"
	62174SR	SDR 7,4 - 6"-3 1/2"
	62176SR	SDR 7,4 - 6"-4"
	62180SR	SDR 7,4 - 8"-4"
	62182SR	SDR 7,4 - 8"-6"
	62184SR	SDR 7,4 - 10"-6"
	62186SR	SDR 7,4 - 10"-8"
62200SR	SDR 17,4 - 12"-10"	
ELBOW 90°, SDR 5, socket-welding	63108SR	SDR 5 - 1/2"
	63110SR	SDR 5 - 3/4"
	63112SR	SDR 5 - 1"
	63114SR	SDR 5 - 1 1/4"
	63116SR	SDR 5 - 1 1/2"
	63118SR	SDR 5 - 2"
	63120SR	SDR 5 - 2 1/2"
	63122SR	SDR 5 - 3"
	63124SR	SDR 5 - 3 1/2"
	63126SR	SDR 5 - 4"
ELBOW 90°, SDR 11, butt-welding	63128SR	SDR 11 - 6"
	63130SR	SDR 11 - 8"
	63132SR	SDR 11 - 10"
	63134SR	SDR 11 - 12"
ELBOW M/F 90°, SDR 7,4, socket-welding	63308SR	SDR 5 - 1/2"
	63310SR	SDR 5 - 3/4"
	63312SR	SDR 5 - 1"
	63314SR	SDR 5 - 1 1/4"

ELBOW 45°, SDR 5, socket-welding	63508SR	SDR 5- 1/2"
	63510SR	SDR 5 - 3/4"
	63512SR	SDR 5 - 1"
	63514SR	SDR 5 - 1 1/4"
	63516SR	SDR 5 - 1 1/2"
	63518SR	SDR 5 - 2"
	63520SR	SDR 5 - 2 1/2"
	63522SR	SDR 5 - 3"
	63524SR	SDR 5 - 3 1/2"
	63526SR	SDR 5 - 4"
ELBOW 45°, SDR 11, butt-welding	63528SR	SDR 11 - 6"
	63530SR	SDR 11 - 8"
	63532SR	SDR 11 - 10"
	63534SR	SDR 11 - 12"
ELBOW M/F 45°, SDR 5, socket-welding	63708SR	SDR 5 - 1/2"
	63710SR	SDR 5 - 3/4"
	63712SR	SDR 5 - 1"
TEE, SDR 5, socket-welding	64108SR	SDR 5 - 1/2"
	64110SR	SDR 5 - 3/4"
	64112SR	SDR 5 - 1"
	64114SR	SDR 5 - 1 1/4"
	64116SR	SDR 5 - 1 1/2"
	64118SR	SDR 5 - 2"
	64120SR	SDR 5 - 2 1/2"
	64122SR	SDR 5 - 3"
	64124SR	SDR 5 - 3 1/2"
	64126SR	SDR 5 - 4"
TEE, SDR 11, butt-welding	64128SR	SDR 11- 6"
	64130SR	SDR 11 - 8"
	64132SR	SDR 11 - 10"
	64134SR	SDR 11 - 12"
REDUCED TEE, SDR 5, socket-welding	64220SR	SDR 5 - 3/4"-1/2"-1/2"
	64222SR	SDR 5 - 3/4"-1/2"-3/4"

	64232SR	SDR 5 - 1"-3/4"-3/4"
	64234SR	SDR 5 -1"-1/2"-1"
	64240SR	SDR 5 - 1"-3/4"-1"
	64242SR	SDR 5 - 1 1/4"-1/2"-1 1/4"
	64244SR	SDR 5 - 1 1/4"-3/4"-1 1/4"
	64245SR	SDR 5 - 1 1/4"-1"-1"
	64246SR	SDR 5 - 1 1/4"-1"-1 1/4"
	64247SR	SDR 5 - 1 1/2"-1/2"-1 1/2"
	64248SR	SDR 5 - 1 1/2"-3/4"-1 1/2"
	64250SR	SDR 5 - 1 1/2"-1"-1 1/2"
	64251SR	SDR 5 - 1 1/2"-1 1/4"-1 1/2"
	64252SR	SDR 5 - 2"-1/2"-2"
	64254SR	SDR 5 - 2"-3/4"-2"
	64256SR	SDR 5 - 2"-1"-2"
	64258SR	SDR 5 - 2"-1 1/4"-2"
	64260SR	SDR 5 - 2"-1 1/2"-2"
	64261SR	SDR 5 - 2 1/2"-1/2"-2 1/2"
	64262SR	SDR 5 - 2 1/2"-3/4"-2 1/2"
	64264SR	SDR 5 - 2 1/2"-1"-2 1/2"
	64266SR	SDR 5 - 2 1/2"-1 1/4"-2 1/2"
	64268SR	SDR 5 - 2 1/2"-1 1/2"-2 1/2"
	64270SR	SDR 5 - 2 1/2"-2"-2 1/2"
	64280SR	SDR 5 - 3"-1 1/2"-3"
	64282SR	SDR 5 - 3"-2"-3"
	64284SR	SDR 5 - 3"-2 1/2"-3"
	64286SR	SDR 5 - 3 1/2"-2"-3 1/2"
	64288SR	SDR 5 - 3 1/2"-2 1/2"-3 1/2"
	64290SR	SDR 5 - 3 1/2"-3"-3 1/2"
	64294SR	SDR 5 - 4"-3"-4"
	64296SR	SDR 11 - 4"-3 1/2"-4"
REDUCED TEE, SDR 11, butt-welding	64298SR	SDR 11 -6"-3"-6"
	64299SR	SDR 11 - 6"-3 1/2"-6"
	64300SR	SDR 11 - 6"-4"-6"
	64302SR	SDR 11 - 8"-6"-8"
	64306SR	SDR 11 - 10"-6"-10"
	64307SR	SDR 11 - 10"-8"-10"
	643094SR	SDR 11 - 12"-8"-12"
	643096SR	SDR 11 - 12"-10"-12"
CROSS, SDR 5, socket-welding	64308SR	SDR 5 - 1/2"
	64310SR	SDR 5 - 3/4"
	64312SR	SDR 5 - 1"
	64314SR	SDR 5 - 1 1/4"
CROSS, SDR 11, socket-welding, segmented	64322SRC	SDR 5 - 3" faser UVRES SDR 11
	64326SRC	SDR 5 - 4" faser UVRES SDR 11
	64328SRC	SDR 11 - 6 "faser UVRES SDR 11
	64330SRC	SDR 11 - 8" faser UVRES SDR 11
	64332SRC	SDR 11 - 10" faser UVRES SDR 11
	64334SRC	SDR 11 - 12" faser UVRES SDR 11
COVER CAP, SDR 5, for welding	65008SR	SDR 5 - 1/2"

	65010SR	SDR 5 - 3/4"
	65012SR	SDR 5 - 1"
	65014SR	SDR 5 - 1 1/4"
	65016SR	SDR 5 - 1 1/2"
	65018SR	SDR 5 - 2"
	65020SR	SDR 5 - 2 1/2"
	65022SR	SDR 5 - 3"
	65024SR	SDR 5 - 3 1/2"
	65026SR	SDR 5 - 4"
COVER CAP, SDR 11, butt-welding, long shank	65028SR	SDR 11 - 6"
	65030SR	SDR 11 - 8"
	65032SR	SDR 11 - 10"
	65034SR	SDR 11 - 12"
FUSION OUTLET, socket welding	650472SR	1/2 for pipe 1 1/4"
	650474SR	3/4 for pipe 1 1/4"
	650478SR	1/2 for pipe 1 1/2"
	650480SR	3/4 for pipe 1 1/2"
	650498SR	1/2 for pipe 2 - 2 1/2"
	650500SR	3/4 for pipe 2 - 2 1/2"
	650502SR	1 for pipe 2 - 2 1/2"
	650556SR	1/2" for pipe 3 -3 1/2 - 4"
	650558SR	3/4" for pipe 3 -3 1/2 - 4"
	650560SR	1" for pipe 3 -3 1/2 - 4"
	650580SR	1 1/4" for pipe 3"
	650582SR	1 1/2" for pipe 3"
	650600SR	1 1/4" for pipe 3 1/2"
	650620SR	1 1/2" for pipe 3 1/2"
	650622SR	2" for pipe 3 1/2"
	650638SR	1 1/4" for pipe 4"
	650640SR	1 1/2" for pipe 4"
	650660SR	2" for pipe 4"
	650672SR	1/2" for pipe 6"- 8"
	650674SR	3/4" for pipe 6"- 8"
	650676SR	1" for pipe 6"- 8"
	650678SR	1 1/4" for pipe 6"- 8"
	650680SR	1 1/2" for pipe 6"
	650700SR	2" for pipe 6"
	650720SR	2 1/2" for pipe 6"
	650740SR	3" for pipe 6"
	650760SR	1 1/2" for pipe 8"
	650780SR	2" for pipe 8"
	650800SR	2 1/2" for pipe 8"
	650820SR	3" for pipe 8"
	650840SR	3 1/2" for pipe 8"
	650860SR	4" for pipe 8"
	650872SR	1/2 for pipe 10"-12"
	650874SR	3/4 for pipe 10"-12"
	650876SR	1" for pipe 10"-12"
	650878SR	1 1/4" for pipe 10"-12"
	650880SR	1 1/2" for pipe 10"
	650900SR	2" for pipe 10"
	650920SR	2 1/2" for pipe 10"
	650940SR	3" for pipe 10"

	650960SR	3½" for pipe 10"
	650980SR	4" for pipe 10"
	650994SR	1 1/2 for pipe 12"
	650996SR	2 for pipe 12"
	650998SR	2 1/2 for pipe 12"
	651000SR	3" for pipe 12"
	651002SR	3½" for pipe 12"
	651004SR	4" for pipe 12"
	651012SR	1/2" pipe 14-16-18-20-22-24"
	651014SR	3/4" pipe 14-16-18-20-22-24"
	651016SR	1" pipe 14-16-18-20-22-24"
	651018SR	1 1/4" pipe 14-16-18-20-22-24"
	651020SR	1 1/2 for pipe 14-16-18"
	651022SR	2 for pipe 14-16-18"
	651024SR	2 1/2 for pipe 14"
	651026SR	3" for pipe 14"
	651028SR	3 1/2" for pipe 14"
	651030SR	4" for pipe 14"
	651040SR	2 1/2 for pipe 16"
	651042SR	3" for pipe 16"
	651044SR	3 1/2" for pipe 16"
	651046SR	4" for pipe 16"
DIRECT JOINT, SDR 5, socket-welding	65132SR	SDR 5 - output Ø ½", for pipe 1½"-10"
	65134SR	SDR 5 - output Ø ¾", for pipe 2"-10"
	65136SR	SDR 5 - output Ø 1", for pipe 2½"-10"
	65138SR	SDR 5 - output Ø 1¼", for pipe 2½"-10"
THREADED DIRECT JOINT F, SDR 5, socket-welding	65152SRU	SDR 5 - output Ø ½", for pipe 1½"-10"
	65154SRU	SDR 5 - output Ø ¾", for pipe 1½"-10"
FUSIO-TECHNIK DIRECT JOINT WITH SAFETY DERIVATION	65170SRU	SDR 5 - output Ø ½"-sm, for pipe 1½"-10"
	65172SRU	SDR 5 - output Ø ⅝"-sm, for pipe 1½"-10"
	65174SRU	SDR 5 - output Ø ⅞"-sm, for pipe 2"-10"
COLLAR TO WELD, SDR 11, socket-welding, with O-Ring, for flanges and PP valves series 40358	65208SR	SDR 11 - ½" - collar OD 1,02
	65210SR	SDR 11 - ¾" - collar OD 1,30
	65212SR	SDR 11 - 1" - collar OD 1,57
	65214SR	SDR 11 - 1¼" - collar OD 1,93
	65216SR	SDR 11 - 1½" - collar OD 2,28
	65218SR	SDR 11 - 2" - collar OD 2,87
	65220SR	SDR 11 - 2½" - collar OD 3½
	65222SR	SDR 11 - 3" - collar OD 4,25
	65224SR	SDR 11 - 3½" - collar OD 5,12
	65226SR	SDR 11 - 4" - collar OD 5,79
COLLAR TO WELD, SDR 11, butt-welding	65228SR	SDR 11 - 6" - collar OD 8,35
	65230SR	SDR 11 - 8" - collar OD 10,55
	65232SR	SDR 11 - 10"
	65234SR	SDR 11 - 12"

THREADED JOINT F, SDR 5, socket-welding, with hexagonal seat and alloy thread	66108SRU	SDR 5 - F $\frac{1}{2}$ " - $\frac{1}{2}$ "
	66109SRU	SDR 5 - F $\frac{3}{4}$ " - $\frac{1}{2}$ "
	66110SRU	SDR 5 - F $\frac{3}{4}$ " - $\frac{3}{4}$ "
	66112SRU	SDR 5 - F1" - 1"
	66114SRU	SDR 5 - F1 $\frac{1}{4}$ " - 1 $\frac{1}{4}$ "
	66116SRU	SDR 5 - F1 $\frac{1}{2}$ " - 1 $\frac{1}{2}$ "
	66118SRU	SDR 5 - F2" - 2"
	66120SRU	SDR 5 - F2 $\frac{1}{2}$ " - 2 $\frac{1}{2}$ "
THREADED JOINT M, SDR 5, socket-welding, with hexagonal seat and alloy thread	66308SRU	SDR 5 - M $\frac{1}{2}$ " - $\frac{1}{2}$ "
	66310SRU	SDR 5 - M $\frac{3}{4}$ " - $\frac{3}{4}$ "
	66311SRU	SDR 5 - M $\frac{3}{4}$ " - $\frac{1}{2}$ "
	66312SRU	SDR 5 - M1" - 1"
	66314SRU	SDR 5 - M1 $\frac{1}{4}$ " - 1 $\frac{1}{4}$ "
	66316SRU	SDR 5 - M1 $\frac{1}{2}$ " - 1 $\frac{1}{2}$ "
	66318SRU	SDR 5 - M2" - 2"
	66320SRU	SDR 5 - M2 $\frac{1}{2}$ " - 2 $\frac{1}{2}$ "
	66321SRU	SDR 5 - M2 $\frac{1}{2}$ " - 3"
	66322SRU	SDR 5 - M3" - 3"
	66324SRU	SDR 5 - M3" - 3 $\frac{1}{2}$ "

#### Conditions of Listing:

1. The products recognized in this listing must be installed in accordance with the manufacturer's published installation instructions and the applicable codes.
2. Where used in radiant heating systems, the pipe and fittings are recognized for use with water, as well as aqueous solutions of ethylene glycol or propylene glycol for antifreeze, up to 100 percent concentrations of either glycol.
3. When installation is in fire-resistance-rated assemblies, evidence of compliance with IBC Section 712 (penetrations) must be provided to the code official for approval.
4. During placement of cover over the piping, the pipe must be maintained at the greater of 1 $\frac{1}{2}$  times the working pressure or 100 psi (689.4 kPa).
5. Each installation must be pressure-tested for leaks in the presence of the code official or the code official's designated representative.
6. Clearances from heat-producing equipment must be in accordance with the applicable code.
7. Hydronic piping systems that utilize a non-potable heat transfer fluid must not be connected to the potable water system except through the use of approved devices such as backflow preventers or double-walled heat exchangers.
8. For jurisdictions enforcing the IPC, for water supply and distribution, heat-fusion joints must be installed in accordance with IPC Section 605.20.1.
9. The products recognized in this listing are under a quality control program with two surveillance inspections per year by ICC-ES.