

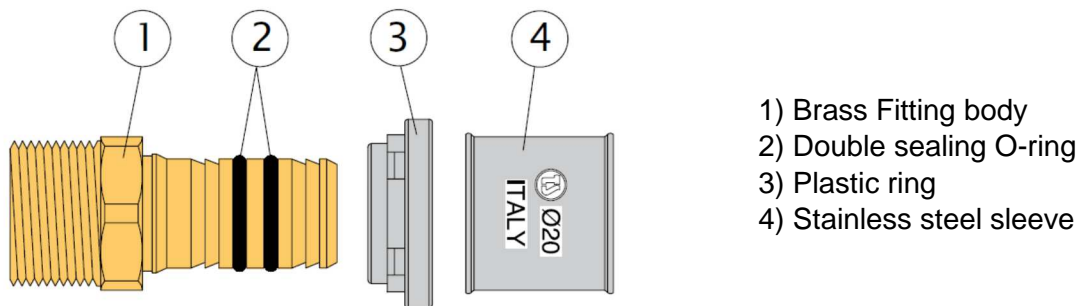
Application

The **te-sa Press Fittings** are suited to realize pressed connections with multilayer pipes in drinking water applications and in heating distribution systems. The developed special conformation shape of the fitting, allow using most of the pressing machine in the market equipped with jaws of "TH" profile (that is the suggested type), or also "H" or "U" profiles for the sizes up to 32 mm. The excellent raw materials, the high quality standard level realized by means of several controls adopted during production and the complete available range of sizes and configurations, allow the realize also complex installations with easiness and reliability in the time.

Constructive particularities in the products are the four transparent windows located on the plastic ring that maintain engaged the stainless steel sleeve. These windows allow seeing if the pipe reached the correct insertion position into the sleeve before the press. The second function of the plastic ring is to avoid the contact between the brass fitting and the aluminum of the multilayer pipe. This electrical insulation prevents corrosion phenomena due to electrolytic effects that can appear in rare and unlucky situations. On the fittings are positioned two O-ring that permit to have high safety in the junction. The brass alloys in use are compliant with the European Standards concerning the materials for uses in distribution systems of hot and cold water for human consumption.

All **te-sa** fittings are completely **Made in Italy**.

Components, Materials and Technical data



- 1) Brass Fitting body
- 2) Double sealing O-ring
- 3) Plastic ring
- 4) Stainless steel sleeve

The body of the fittings (1) is totally made of brass with a complete range for most of the pipe sizes. The brass alloys that te-sa uses for the Press Fittings Series are suitable for uses in drinking water applications and compliant with the "4MS Common Composition List" and with the "UBA HCACL List". The screwed connections are in the size range from 1/2" to 2". The hydraulic seal is guaranteed by the presence of two O-rings in EPDM peroxidic (2). The position of the washers have been studied to press the fitting with the three pressing jaws most used that corresponding to the profiles TH, H and U. The Stainless Steel Sleeve (4) is showing either the brand of the factory either the size of the fitting for an immediate recognizing of the dimension of the fitting. The plastic ring (3), beside to keep assembled the fitting it makes a physical separation between the material of the fitting and the aluminum of the multilayer pipe, this construction solution avoids a possible galvanic corrosion phenomenon made by the contact of the two different metals.

- Bodies forged before machining made of brass UNI-EN 12165:2016 CW617N-DW
- Bodies directly machined from rods made of brass UNI-EN 12164:2016 CW617N-DW
- Seals O-ring made of compound EPDM-PX 70SH
- Pipe sleeve made of Stainless Steel AISI304 – EN 1.4301
- Insulation plastic ring made of Polypropylene
- Sizes available: 16x2 – 18x2 – 20x2 – 26x3 – 32x3 – 40x3,5 – 50x4 – 63x4,5
- Press Fitting suitable for use in the distribution of cold and hot drinking water, heating system also with glycol solutions at maximum percentage of 30%, compressed air distribution systems.
- Maximum Pressure 16 bar
- Maximum Temperature 95°C
- Maximum peak Temperature 110°C for 1 hour

(In a system application maximum pressure and temperature are depending to the characteristics of the pipe)

Assembly steps



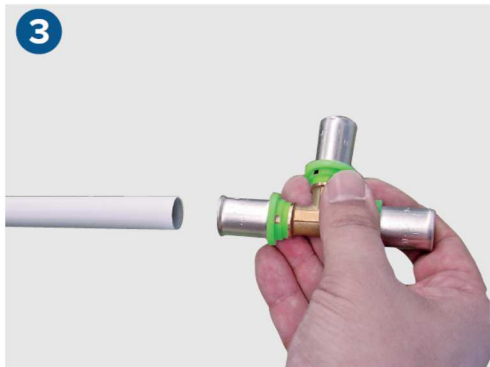
1) CUTTING

Cut the pipe by using a proper scissors which avoid the ovalization, and taking care it will be perpendicular to its axes.



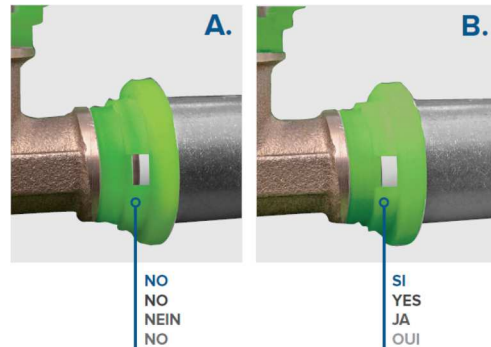
2) CALIBRATION

Use the proper flaring tool to calibrate and flair the pipe extremity, determining the right internal diameter of the pipe and creating a rounding-off that avoid the O-Rings movement during the pipe insertion.



3) INSERTION OF THE FITTING

Insert the fitting inside the pipe until the end, verifying that the pipe is completely visible through the openings of the plastic ring. It is forbidden to use any type of lubricant, because it can damage the O-Rings.



The picture "A" shows a non-correct introduction of the pipe into the fitting. The picture "B" shows a correct introduction of the pipe that is correspondence of the head of the plastic ring.



4) PRESSING

Open the tongs of the pressing machine. If using the "TH" profile tongs, place the fitting in order to have the plastic ring collar inside the dedicated seat of the tongs. If using the "H" or "U" (**only for sizes up to 32x3**), place the tongs on the clamp next to the plastic ring. Press the fitting.



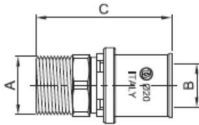
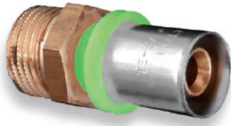
5) VERIFY

Visual and hydraulic check that the fitting is correctly pressed at the end of the procedure. The pressure test is required to verify absence of leakage, especially in the cases where the fitting will be positioned concealed in the structures.

The te-sa Press Fittings Range

Art. 800

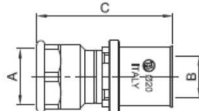
- Male straight fitting



Art.	A	B	C
800-04-160	1/2"	Ø16x2	49,8
800-04-180	1/2"	Ø18x2	49,8
800-04-200	1/2"	Ø20x2	49,8
800-04-205	1/2"	Ø20x2,5	49,8
800-05-180	3/4"	Ø18x2	52,8
800-05-200	3/4"	Ø20x2	52,8
800-05-205	3/4"	Ø20x2,5	52,8
800-05-260	3/4"	Ø26x3	57,8
800-06-260	1"	Ø26x3	57,8
800-06-320	1"	Ø32x3	57,8
800-07-320	1 1/4"	Ø32x3	57,8
800-07-400	1 1/4"	Ø40x3,5	61
800-08-500	1 1/2"	Ø50x4	72,5
800-09-630	2"	Ø63x4,5	79

Art. 801

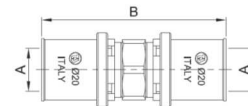
- Female straight fitting



Art.	A	B	C
801-04-160	1/2"	Ø16x2	52,3
801-04-180	1/2"	Ø18x2	52,3
801-04-200	1/2"	Ø20x2	52,3
801-04-205	1/2"	Ø20x2,5	52,3
801-05-180	3/4"	Ø18x2	54,3
801-05-200	3/4"	Ø20x2	54,3
801-05-205	3/4"	Ø20x2,5	54,3
801-05-260	3/4"	Ø26x3	58,3
801-06-260	1"	Ø26x3	58,3
801-06-320	1"	Ø32x3	58,3
801-07-320	1 1/4"	Ø32x3	58,3
801-07-400	1 1/4"	Ø40x3,5	58
801-08-500	1 1/2"	Ø50x4	66,5
801-09-630	2"	Ø63x4,5	71

Art. 802

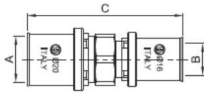
- Double straight fitting



Art.	A	B
802-160-160	Ø16x2	70
802-180-180	Ø18x2	70
802-200-200	Ø20x2	70
802-205-205	Ø20x2,5	70
802-260-260	Ø26x3	80
802-320-320	Ø32x3	80
802-400-400	Ø40x3,5	63
802-500-500	Ø50x4	80
802-630-630	Ø63x4,5	80

Art. 803

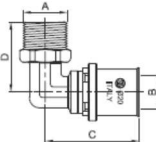
- Reduced straight fitting



Art.	A	B	C
803-180-160	Ø18x2	Ø16x2	70
803-200-160	Ø20x2	Ø16x2	70
803-200-180	Ø20x2	Ø18x2	70
803-205-160	Ø20x2,5	Ø16x2	70
803-260-160	Ø26x3	Ø16x2	75
803-260-180	Ø26x3	Ø18x2	75
803-260-200	Ø26x3	Ø20x2	75
803-260-205	Ø26x3	Ø20x2,5	75
803-320-160	Ø32x3	Ø16x2	75
803-320-180	Ø32x3	Ø18x2	75
803-320-200	Ø32x3	Ø20x2	75
803-320-260	Ø32x3	Ø26x3	80
802-400-260	Ø40x3,5	Ø26x3	63
802-400-320	Ø40x3,5	Ø32x3	63
802-500-320	Ø50x4	Ø32x3	71,5
802-500-400	Ø50x4	Ø40x3,5	71,5
802-630-400	Ø63x4,5	Ø40x3,5	71,5
802-630-500	Ø63x4,5	Ø50x4	80

Art. 810

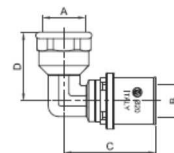
- Male elbow 90°



Art.	A	B	C	D
810-04-160	1/2"	Ø16x2	45,8	39,5
810-04-180	1/2"	Ø18x2	45,8	39,5
810-04-200	1/2"	Ø20x2	45,8	40,5
810-04-205	1/2"	Ø20x2,5	45,8	40,5
810-05-180	3/4"	Ø18x2	48,8	43,5
810-05-200	3/4"	Ø20x2	48,8	43,5
810-05-205	3/4"	Ø20x2,5	48,8	43,5
810-05-260	3/4"	Ø26x3	53,8	48,5
810-06-320	1"	Ø32x3	58,3	54,5
810-07-400	1 1/4"	Ø40x3,5	60	53,5
810-08-500	1 1/2"	Ø50x4	75	57
810-09-630	2"	Ø63x4,5	82	66

Art. 811

- Female elbow 90°

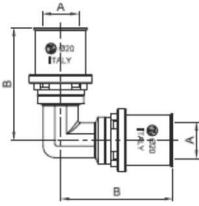


Art.	A	B	C	D
811-04-160	1/2"	Ø16x2	45,8	39,5
811-04-180	1/2"	Ø18x2	45,8	39,5
811-04-200	1/2"	Ø20x2	45,8	40,5
811-04-205	1/2"	Ø20x2,5	45,8	40,5
811-05-180	3/4"	Ø18x2	50,3	42,5
811-05-200	3/4"	Ø20x2	50,3	42,5
811-05-205	3/4"	Ø20x2,5	50,3	42,5
811-05-260	3/4"	Ø26x3	55,3	44,5
811-06-320	1"	Ø32x3	60,8	53,5
811-07-400	1 1/4"	Ø40x3,5	60	59
811-08-500	1 1/2"	Ø50x4	75	66
811-09-630	2"	Ø63x4,5	82	78

The te-sa Press Fittings Range

Art. 812

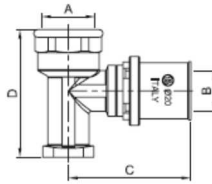
- Elbow 90°



Art.	A	B
812-160-160	Ø16x2	46
812-180-180	Ø18x2	46
812-200-200	Ø20x2	50
812-205-205	Ø20x2,5	50
812-260-260	Ø26x3	54
812-320-320	Ø32x3	61
812-400-400	Ø40x3,5	60
812-500-500	Ø50x4	75
812-630-630	Ø63x4,5	82

Art. 813

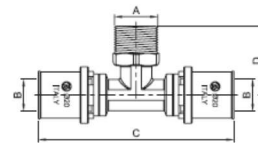
- Wall plate elbow



Art.	A	B	C	D
813-04-160	1/2"	Ø16x2	49,3	40
813-04-180	1/2"	Ø18x2	49,3	50
813-04-200	1/2"	Ø20x2	49,3	50
813-05-200	3/4"	Ø20x2	49,3	62
813-05-260	3/4"	Ø26x3	54,3	62

Art. 820

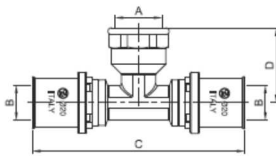
- Male Tee fitting



Art.	A	B	C	D
820-04-160	1/2"	Ø16x2	91,6	33
820-04-180	1/2"	Ø18x2	91,6	33
820-04-200	1/2"	Ø20x2	96,6	33
820-04-260	1/2"	Ø26x3	97,6	36
820-05-200	3/4"	Ø20x2	97,6	39
820-05-260	3/4"	Ø26x3	107,6	39
820-06-320	1"	Ø32x3	116,6	42

Art. 821

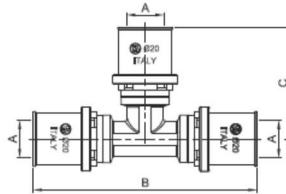
- Female tee fitting



Art.	A	B	C	D
821-160-04-160	1/2"	Ø16x2	91,6	33
821-180-04-180	1/2"	Ø18x2	91,6	33
821-200-04-200	1/2"	Ø20x2	96,6	33
821-260-04-260	1/2"	Ø26x3	97,6	33
821-200-05-200	3/4"	Ø20x2	100,6	36
821-260-05-260	3/4"	Ø26x3	110,6	36
821-320-06-320	1"	Ø32x3	116,6	42
821-400-06-400	1"	Ø40x3,5	120	55
821-400-07-400	1 1/4"	Ø40x3,5	120	59
821-500-05-500	3/4"	Ø50x4	150	52,5
821-500-06-500	1"	Ø50x4	150	55
821-500-07-500	1 1/4"	Ø50x4	150	64
821-630-06-630	1"	Ø63x4,5	164	61,5

Art. 822

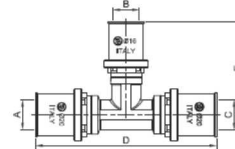
- Tee fitting equal



Art.	A	B	C
822-160-160-160	Ø16x2	91,6	46
822-180-180-180	Ø18x2	91,6	46
822-200-200-200	Ø20x2	96,6	50
822-260-260-260	Ø26x3	107,6	54
822-320-320-320	Ø32x3	116,6	58,5
822-205-205-205	Ø20x2,5	96,6	50
822-400-400-400	Ø40x3,5	120	60
822-500-500-500	Ø50x4	150	75
822-630-630-630	Ø63x4,5	164	82

Art. 823

- Tee fitting reduced middle section

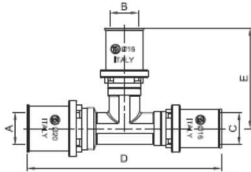


Art.	A	B	C	D	E
823-160-160-160	Ø16x2	Ø16x2	Ø16x2	91,6	46
823-200-160-200	Ø20x2	Ø16x2	Ø20x2	96,6	46
823-200-180-200	Ø20x2	Ø18x2	Ø20x2	96,6	46
823-260-160-260	Ø26x3	Ø16x2	Ø26x3	107,6	46
823-260-200-260	Ø26x3	Ø20x2	Ø26x3	107,6	50
823-320-160-320	Ø32x3	Ø16x2	Ø32x3	116,6	46
823-320-180-320	Ø32x3	Ø18x2	Ø32x3	116,6	46
823-320-200-320	Ø32x3	Ø20x2	Ø32x3	116,6	50
823-320-260-320	Ø32x3	Ø26x2	Ø32x3	116,6	54
823-400-260-400	Ø40x3,5	Ø26x2	Ø40x3,5	120	60
823-400-280-400	Ø40x3,5	Ø28x2	Ø40x3,5	120	60
823-400-320-400	Ø40x3,5	Ø32x3	Ø40x3,5	120	60
823-500-320-500	Ø50x4	Ø32x3	Ø50x4	150	65,5
823-500-400-500	Ø50x4	Ø40x3,5	Ø50x4	150	65,5
823-630-320-630	Ø63x4,5	Ø32x3	Ø63x4,5	164	74,5
823-630-400-630	Ø63x4,5	Ø40x3,5	Ø63x4,5	164	75,5
823-630-500-630	Ø63x4,5	Ø50x4	Ø63x4,5	164	79

The te-sa Press Fittings Range

Art. 824

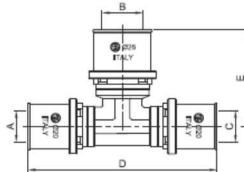
- Tee fitting reduced



Art.	A	B	C	D	E
824-180-160-160	Ø18x2	Ø16x2	Ø16x2	91,6	46
824-200-160-160	Ø20x2	Ø16x2	Ø16x2	96,6	46
824-200-200-160	Ø20x2	Ø20x2	Ø16x2	96,6	50
824-260-160-200	Ø26x3	Ø16x2	Ø20x2	102,6	46
824-260-200-160	Ø26x3	Ø20x2	Ø16x2	102,6	50
824-260-200-200	Ø26x3	Ø20x2	Ø20x2	102,6	50
824-260-260-160	Ø26x3	Ø26x3	Ø16x2	102,6	54
824-260-260-200	Ø26x3	Ø26x3	Ø20x2	102,6	54
824-320-200-260	Ø32x3	Ø20x2	Ø26x3	116,6	50
824-320-260-260	Ø32x3	Ø26x3	Ø26x3	116,6	54
824-320-320-200	Ø32x3	Ø32x3	Ø20x2	116,6	54
824-320-320-260	Ø32x3	Ø32x3	Ø26x2	116,6	54
824-400-320-260	Ø40x3,5	Ø32x3	Ø26x2	120	60

Art. 825

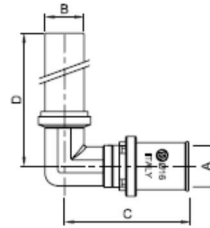
- Tee fitting enlarged middle section



Art.	A	B	C	D	E
825-160-180-160	Ø16x2	Ø18x2	Ø16x2	91,6	46
825-160-200-160	Ø16x2	Ø20x2	Ø16x2	91,6	50
825-200-260-200	Ø20x2	Ø26x3	Ø20x2	96,6	54
825-260-320-260	Ø26x3	Ø32x3	Ø26x3	107,6	54
825-320-400-320	Ø32x3	Ø40x3,5	Ø32x3	120	60

Art. 828

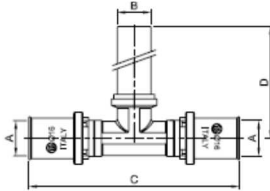
- Elbow 90° connector for radiators with copper pipe Ø15x300 mm. **Chrome plated**



Art.	A	B	C	D
828-160-15-300	Ø16x2	Ø15	49,8	320
828-200-15-300	Ø20x2	Ø15	49,8	320

Art. 829

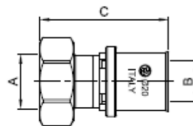
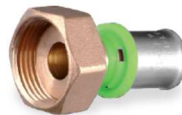
- Tee connector for radiators with copper pipe Ø15x300 mm. **Chrome plated**



Art.	A	B	C	D
829-160-15-300	Ø16x2	Ø15	96,6	320
829-200-15-300	Ø20x2	Ø15	96,6	320

Art. 830

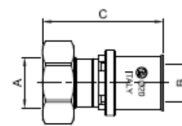
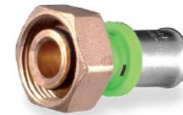
- Straight fitting with flat seal



Art.	A	B	C
830-05-160	3/4"	Ø16x2	49,8
830-05-180	3/4"	Ø18x2	49,8
830-05-200	3/4"	Ø20x2	49,8

Art. 831

- Straight fitting with Eurocone connection

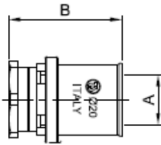


Art.	A	B	C
831-05-160	3/4"	Ø16x2	50
831-05-180	3/4"	Ø18x2	50
831-05-200	3/4"	Ø20x2	50

The te-sa Press Fittings Range

Art. 832

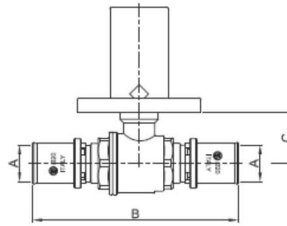
- End cap fitting



Art.	A	B
832-160	∅16x2	35,3
832-180	∅18x2	35,3
832-200	∅20x2	35,3
832-260	∅26x3	36,3
832-320	∅32x3	36,3

Art. 826

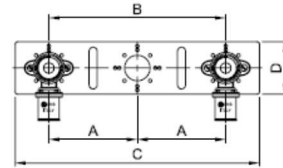
- Stopcock with protection cap



Art.	A	B	C min	C max
826-160-160	∅16x2	106	28	50
826-180-180	∅18x2	106	28	50
826-200-200	∅20x2	106	28	50
826-260-260	∅26x2	106	28	50

Art. 844

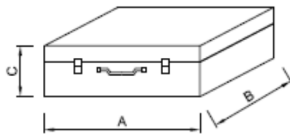
- Mounting plate with fitting Art. 813



Art.	A	B	C	D
844-076-04-160	76	152	210	45

Art. 862

- Electric radial press machine with automatic return



Art.	A	B	C
862	510	290	125

Art. 870

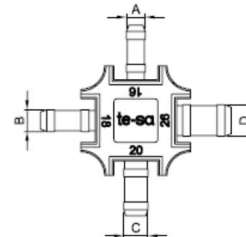
- Pressing tongs TH profile



870-16 for pipes Øe 16 mm
 870-18 for pipes Øe 18 mm
 870-20 for pipes Øe 20 mm
 870-26 for pipes Øe 26 mm
 870-32 for pipes Øe 32 mm
 870-40 for pipes Øe 40 mm
 870-50 for pipes Øe 50 mm
 870-63 for pipes Øe 63 mm

Art. 840

- Deburring tool / reamer



Art.	A	B	C	D
840-16-18-20-26	16x2	18x2	20x2	26x3

For more information it is possible refer to the **te-sa** catalogue or directly on the **te-sa** web site