

FITTINGS



200 SERIES

COMPRESSION FITTINGS FOR COPPER PIPES

Site
BRESCIA

1964
APE RACCORDERIE
IS FOUNDED

with the name
"Minuterie Metalliche
di Pe Angelo"

Commercial
presence
in over

50
COUNTRIES



Today, with

52,000 m²

it is one of the few
manufacturing companies

APE[®]
RACCORDERIE

on the national
and international market for
almost 60 years

**MANUFACTURERS OF ENTIRE
HEATING AND SANITARY SYSTEMS**

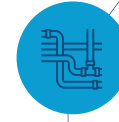
Fittings that
can be tightened
or crimped



All products
and systems are
certified by major
international bodies

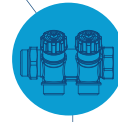


Multilayer
pipe



Floor, wall and ceiling
radiant systems

Distribution
manifolds



FITTINGS

PIPES

GAS

THERM

FITTINGS














200 SERIES

Compression fittings with O-rings for copper pipes

200 SERIES

Compression fittings with O-rings for copper pipes

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200 SERIES

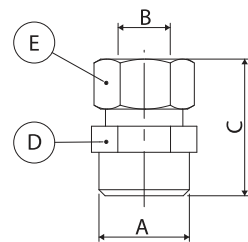
Compression fittings with O-rings for copper pipes

MALE STRAIGHT ART. 201



Code	Size (mm)	Bag (nr)	Box (nr)
32013812	3/8" x Ø12	10	180
32013814	3/8" x Ø14	10	150
32013816	3/8" x Ø16	10	120
32011212	1/2" x Ø12	10	150
32011214	1/2" x Ø14	10	150
32011216	1/2" x Ø16	10	120
32011218	1/2" x Ø18	10	120
32013414	3/4" x Ø14	10	100
32013416	3/4" x Ø16	10	100
32013418	3/4" x Ø18	10	100
32013422	3/4" x Ø22	10	80
32010118	1" x Ø18	10	70
32010122	1" x Ø22	10	60
32010128	1" x Ø28	10	50

A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
G 3/8" ISO 228	Ø12	30,4	CH 21	CH 23
G 3/8" ISO 228	Ø14	30,3	CH 23	CH 26
G 3/8" ISO 228	Ø16	31,3	CH 25	CH 28
G 1/2" ISO 228	Ø12	31,4	CH 21	CH 23
G 1/2" ISO 228	Ø14	31,4	CH 23	CH 26
G 1/2" ISO 228	Ø16	32,4	CH 25	CH 28
G 1/2" ISO 228	Ø18	32,4	CH 27	CH 30
G 3/4" ISO 228	Ø14	32,3	CH 27	CH 26
G 3/4" ISO 228	Ø16	33,4	CH 27	CH 28
G 3/4" ISO 228	Ø18	33,4	CH 27	CH 30
G 3/4" ISO 228	Ø22	34,1	CH 33	CH 37
G 1" ISO 228	Ø18	36,3	CH 33	CH 30
G 1" ISO 228	Ø22	37,2	CH 33	CH 37
G 1" ISO 228	Ø28	37	CH 38	CH 42



200 SERIES

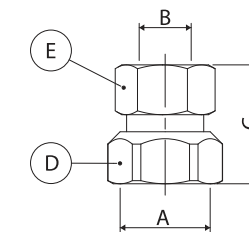
Compression fittings with O-rings for copper pipes

FEMALE STRAIGHT ART. 202



Code	Size (mm)	Bag (nr)	Box (nr)
32023812	3/8" x Ø12	10	150
32023814	3/8" x Ø14	10	130
32023816	3/8" x Ø16	10	100
32021212	1/2" x Ø12	10	150
32021214	1/2" x Ø14	10	120
32021216	1/2" x Ø16	10	120
32021218	1/2" x Ø18	10	120
32023414	3/4" x Ø14	10	100
32023416	3/4" x Ø16	10	100
32023418	3/4" x Ø18	10	100
32023422	3/4" x Ø22	10	80
32020122	1" x Ø22	10	60
32020128	1" x Ø28	10	50

A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
G 3/8" ISO 228	Ø12	27,4	CH 21	CH 23
G 3/8" ISO 228	Ø14	27,4	CH 23	CH 26
G 3/8" ISO 228	Ø16	28,2	CH 25	CH 28
G 1/2" ISO 228	Ø12	27,4	CH 24	CH 23
G 1/2" ISO 228	Ø14	27,4	CH 24	CH 26
G 1/2" ISO 228	Ø16	28,4	CH 25	CH 28
G 1/2" ISO 228	Ø18	30,9	CH 27	CH 30
G 3/4" ISO 228	Ø14	29,5	CH 30	CH 26
G 3/4" ISO 228	Ø16	30,3	CH 30	CH 28
G 3/4" ISO 228	Ø18	30,4	CH 30	CH 30
G 3/4" ISO 228	Ø22	31,6	CH 33	CH 37
G 1" ISO 228	Ø22	32,7	CH 38	CH 37
G 1" ISO 228	Ø28	31,2	CH 38	CH 42



200 SERIES

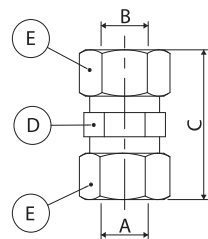
Compression fittings with O-rings for copper pipes

STRAIGHT COUPLING ART. 203



Code	Size (mm)	Bag (nr)	Box (nr)
32030012	Ø12	10	150
32030014	Ø14	10	100
32030016	Ø16	10	100
32030018	Ø18	10	80
32030022	Ø22	10	50
32030028	Ø28	10	40

Code	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
32030012	Ø12	Ø12	37	CH 21	CH 23
32030014	Ø14	Ø14	37	CH 23	CH 26
32030016	Ø16	Ø16	39	CH 25	CH 28
32030018	Ø18	Ø18	38,8	CH 27	CH 30
32030022	Ø22	Ø22	40,6	CH 33	CH 37
32030028	Ø28	Ø28	41,2	CH 38	CH 42



200 SERIES

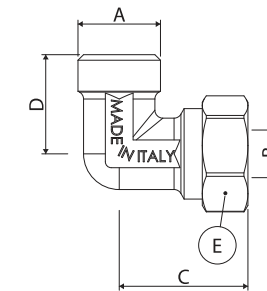
Compression fittings with O-rings for copper pipes

MALE ELBOW ART. 253



Code	Size (mm)	Bag (nr)	Box (nr)
32531212	1/2" x Ø12	10	120
32531214	1/2" x Ø14	10	100
32531216	1/2" x Ø16	10	100
32531218	1/2" x Ø18	10	80
32533414	3/4" x Ø14	10	80
32533416	3/4" x Ø16	10	80
32533418	3/4" x Ø18	10	70
32533422	3/4" x Ø22	5	40
32530128	1" x Ø28	5	25

Code	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
32531212	G1/2" ISO 228	Ø12	32,5	25	CH 23
32531214	G1/2" ISO 228	Ø14	32,5	25	CH 26
32531216	G1/2" ISO 228	Ø16	33,4	26	CH 28
32531218	G1/2" ISO 228	Ø18	35,4	27	CH 30
32533414	G3/4" ISO 228	Ø14	32,4	28	CH 26
32533416	G3/4" ISO 228	Ø16	33,4	28	CH 28
32533418	G3/4" ISO 228	Ø18	37,4	30	CH 30
32533422	G3/4" ISO 228	Ø22	42	33	CH 37
32530128	G1" ISO 228	Ø28	46	41,5	CH 42



200 SERIES

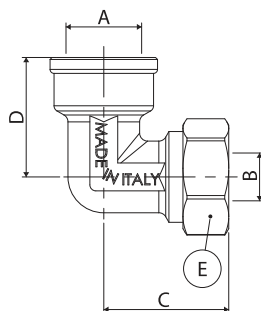
Compression fittings with O-rings for copper pipes

FEMALE ELBOW ART. 252



Code	Size (mm)	Bag (nr)	Box (nr)
32521212	1/2" x Ø12	10	100
32521214	1/2" x Ø14	10	70
32521216	1/2" x Ø16	10	70
32521218	1/2" x Ø18	10	70
32523414	3/4" x Ø14	10	80
32523416	3/4" x Ø16	10	80
32523418	3/4" x Ø18	10	60
32523422	3/4" x Ø22	5	40
32520128	1" x Ø28	5	20

Code	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
32521212	G1/2" ISO 228	Ø12	33	31,5	CH 23
32521214	G1/2" ISO 228	Ø14	31,4	30	CH 26
32521216	G1/2" ISO 228	Ø16	32,8	30	CH 28
32521218	G1/2" ISO 228	Ø18	35,4	32	CH 30
32523414	G3/4" ISO 228	Ø14	32,5	30	CH 26
32523416	G3/4" ISO 228	Ø16	33,8	30	CH 28
32523418	G3/4" ISO 228	Ø18	35,4	32	CH 30
32523422	G3/4" ISO 228	Ø22	41,7	35,5	CH 37
32520128	G1" ISO 228	Ø28	46	45,5	CH 42



200 SERIES

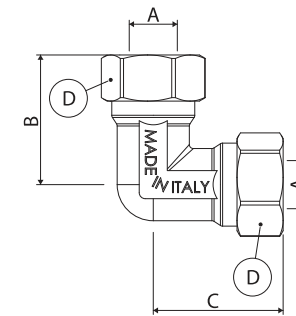
Compression fittings with O-rings for copper pipes

90° EQUAL ELBOW ART. 251



Code	Size (mm)	Bag (nr)	Box (nr)
32510012	Ø12	10	100
32510014	Ø14	10	80
32510016	Ø16	10	70
32510018	Ø18	10	60
32510022	Ø22	5	30
32510028	Ø28	5	20

Code	A (mm)	B (mm)	C (mm)	D (mm)
32510012	Ø12	32,5	32,5	CH 23
32510014	Ø14	32,5	32,5	CH 26
32510016	Ø16	33,5	33,5	CH 28
32510018	Ø18	35,5	35,5	CH 30
32510022	Ø22	41,5	41,5	CH 37
32510028	Ø28	46	46	CH 42

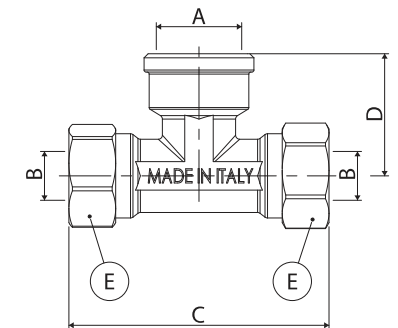


FEMALE TEE ART. 232



Code	Size (mm)	Bag (nr)	Box (nr)
32321212	1/2" x Ø12	10	60
32321214	1/2" x Ø14	10	50
32321216	1/2" x Ø16	10	50
32323416	3/4" x Ø16	10	40
32323422	3/4" x Ø22	5	25
32320128	1" x Ø28	5	15

Code	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
32321212	G1/2" ISO 228	Ø12	64	30	CH 23
32321214	G1/2" ISO 228	Ø14	63	29,5	CH 26
32321216	G1/2" ISO 228	Ø16	66	30	CH 28
32323416	G3/4" ISO 228	Ø16	71	31	CH 28
32323422	G3/4" ISO 228	Ø22	85	36,5	CH 37
32320128	G1" ISO 228	Ø28	92	45,5	CH 42



200 SERIES

Compression fittings with O-rings for copper pipes

**EQUAL TEE
ART. 231**



**FEMALE ELBOW WITH FLANGE
ART. 254**

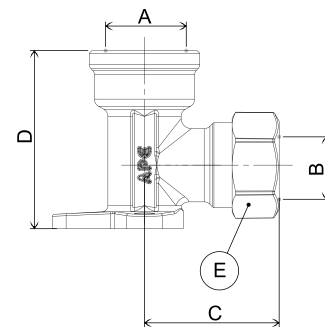
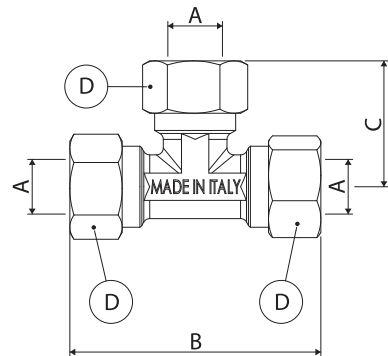


Code	Size (mm)	Bag (nr)	Box (nr)
32310012	Ø12	10	60
32310014	Ø14	10	50
32310016	Ø16	10	50
32310018	Ø18	10	30
32310022	Ø22	5	20
32310028	Ø28	5	15

Code	Size (mm)	Bag (nr)	Box (nr)
32541212	1/2" x Ø12	10	60
32541214	1/2" x Ø14	10	60
32541216	1/2" x Ø16	10	60

Code	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
32310012	Ø12	63	32	CH 21	CH 23
32310014	Ø14	63	32	CH 23	CH 26
32310016	Ø16	66	32	CH 25	CH 28
32310018	Ø18	74	38	CH 27	CH 30
32310022	Ø22	85	42	CH 33	CH 37
32310028	Ø28	92	46	CH 38	CH 42

Code	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
32541212	G1/2" ISO 228	Ø12	32	43,5	CH 23
32541214	G1/2" ISO 228	Ø14	32,3	43,5	CH 26
32541216	G1/2" ISO 228	Ø16	34	43,5	CH 28



TECHNICAL SPECIFICATIONS

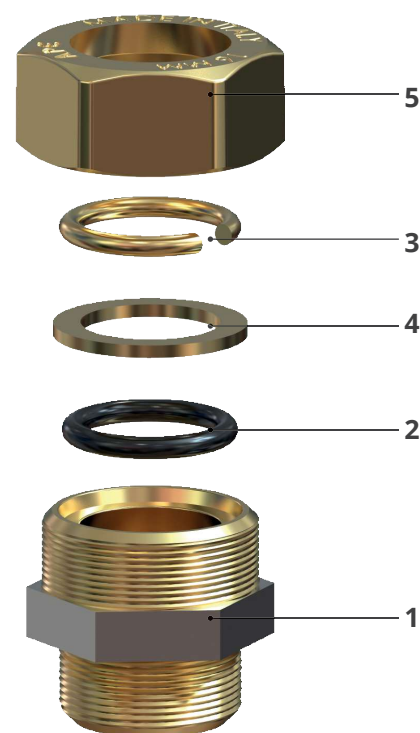
200 SERIES



INTRODUCTION

The Series 200 compression screw fittings with O-ring for copper pipe, manufactured in accordance with UNI EN 1254-2 and DM 174, have been designed and manufactured in order to increase sealing characteristics and reduce assembly time, thus facilitating the installation work. They consist of:

- fitting body;
- locking nut;
- compression washer;
- snap ring;
- sealing O-ring.



The fittings are made of CW617N brass in order to comply with DM174, are used in both plumbing/heating and gas systems, and are available in a wide range of shapes in diameters from Ø12 to Ø28.

The seal between copper pipe and fitting is achieved by compression of the O-ring [2], which, with the interposition of a ring [3], is applied by the nut [5] through tightening on the body. Installation is particularly easy; even in case of disassembly and subsequent re-use, you only need to replace the O-ring in order to restore the correct functionality.

The products have been tested at the Istituto Giordano laboratories (ref. no. 226101).

N.	Description	Materials
1	Body	CW617N
2	O-ring	NBR 70 SCH
3	Snap ring	OT 63
4	Washer	CW617N
5	Locking nut	CW617N

TECHNICAL FEATURES

Field of application	Plumbing/heating and gas systems Gas supply plants for domestic use
Operating fluid	Drinking water, technical water and glycol water 1st - 2nd -3rd families acc. to UNI EN 437 (manufactured gas, natural gas and LPG)
Temperature range	5°C to 80°C -20°C to 70°C
Operating pressure	max 10 bar MOP 0,5
Type of piping	copper

INSTALLATION INSTRUCTIONS

200 SERIES



NECESSARY TOOLS AND COMPONENTS

In order to achieve a perfect joint between pipe and fitting, we strongly recommend that you carefully follow the following assembly instructions.

CUTTING

Cut the tube to the desired length using special shears: the cut must be perpendicular to the axis of the tube. CAUTION: do not use a hacksaw as it creates burrs that will cut the O-ring.

INSTALLATION

Installation must comply with UNI 7129 standard, which covers gas systems with a heat input not greater than 35 kW.

The greatest attention must be paid to the following sequence of operations:

1. First insert the nut [5] and then the snap ring [3], and finally the washer [4] and the O-ring [2] on the copper pipe in succession.
2. Bring the pipe to the end stop on the fitting itself;
3. Finally, tighten observing the tightening torques indicated in the table.



TIGHTENING

Tighten the nut using the appropriate spanners. Caution: the nut must be tightened using two spanners, one for pulling and the other as a contrast. APE Raccorderie recommends the following tightening torques when installing 200 Series fittings.

Pipe diameter (mm)	Nominal tightening (Nm)	Max tightening torque (Nm)
12	30	35
14	35	40
16	35	40
18	35	40
22	40	45
28	55	60

Lined writing area with 20 horizontal green lines.

Lined writing area with 20 horizontal green lines.



APE RACCORDERIE S.R.L.

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