

# Chapter 10

## Fittings

## RAFIT + Soft-seal fitting



Quick installation: cuts connection  
times for copper pipe  
Cutting ring withstands high pull-out  
forces on the pipe  
Compact dimensions

**WATTS®**

## Chapter 10

# Fittings

### FITTINGS FOR COPPER

#### 872M - RAFIT+

Soft-seal one-piece fitting for quick connection of copper pipes (UNI EN 1057) to male-threaded valves, lockshields and manifolds. EPDM taper ferrule with steel reinforcement core. High pull-out strength (cutting ring).



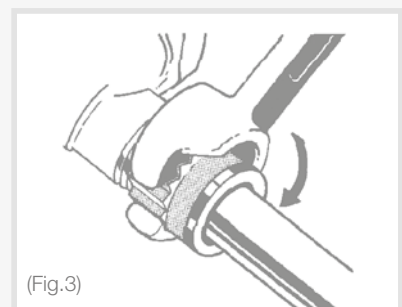
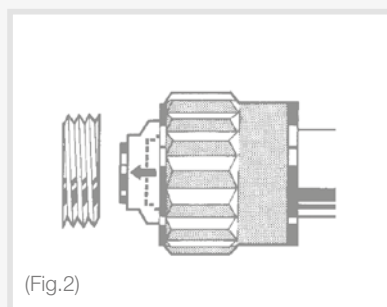
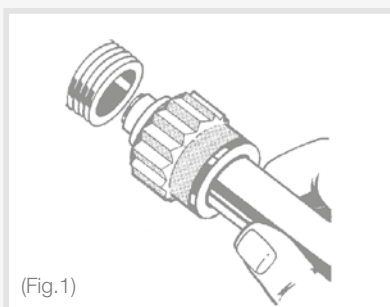
Part Number	DN	Ø Pipe	Qty/Box	Box/Carton
872M1215	1/2"	15	25	300

\* 1/2"S M24x1.5 thread (for 102S and 119SX single-pipe valves with 1/2"S pipe-side connection)

Dimensions at the end of the section.

#### TECHNICAL NOTE - Installation of RAFIT one-piece quick fittings

- 1 - When cutting the pipe, carefully deburr the ends if necessary.
- 2 - Insert the pipe in the fitting by pushing it in until it butts up against the end stop (Fig.1) and holding it still in this position during tightening; the seal will thus be thrust outwards from the fitting body (Fig.2).
- 3 - Approach the fitting to the threaded end-piece until the head of the taper ferrule engages inside it, then tighten by hand.
- 4 - Fully tighten with the respective wrench (Art. 829M), in accordance with the recommended tightening torques (Fig.3).



**820R**

Three-piece compression fitting for copper pipes (chrome-plated pipe lock nut, brass taper ferrule and reinforcement core) for connecting copper pipes to male-threaded valves, lockshields and manifolds. Metal seal.



Part Number	DN	Ø Pipe	Qty/Box	Box/Carton
820R1210	1/2"	10	10	150
820R1212	1/2"	12	10	150
820R3418	3/4"	18	10	100
820R3422	3/4"	22	10	100

\* 1/2"S M24x1.5 thread (for 102M and 119SX single-pipe valves with 1/2"S pipe-side connection)

Dimensions at the end of the section.

**829M**

Steel wrench for tightening RAFIT+ and 820R fittings.

Part Number	DN	Qty/Box	Box/Carton
829M2025	3/8" - 1/2"	1	1


**FITTINGS FOR CROSS-LINKED POLYETHYLENE AND MULTI-LAYER PIPES**
**817M**

Three-piece nickel-plated compression fitting for **cross-linked polyethylene pipes** to UNI 9338. EPDM O-Ring. Not suitable for oils.

Part Number	DN	Ø Pipe	Qty/Box	Box/Carton
817MC12142	1/2"	14 x 2,0	10	200
817MC1215	1/2"	15 x 2,5	10	200
817MC341713	3/4"	17 x 2,0	10	150



\* 1/2"S M24x1.5 thread (for 102M and 119SX single-pipe valves with 1/2"S pipe-side connection)

Dimensions at the end of the section.

**NIPPLES, ELBOWS, SOLDER ALLOY**
**220**

Three-piece nickel-plated elbow fitting.

Part Number	DN	Qty/Box	Box/Carton
220SN12	1/2"	10	100
220SN34	3/4"	10	65
220SN1	1"	10	35

Dimensions at the end of the section.



**221**

Three-piece nickel-plated straight fitting.

Part Number	DN	Qty/Box	Box/Carton
221SN12	1/2"	10	100
221SN34	3/4"	10	60
221SN1	1"	10	35

Dimensions at the end of the section.

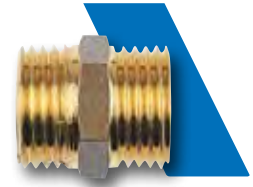


**892GL**

Nipple fitting with male threaded connections.

Part Number	DN	Qty/Box	Box/Carton
892GL12	1/2" MM	10	300
892GL34	3/4" MM	10	100

Dimensions at the end of the section.



**890GL**

Nipple fitting with male threaded connections.

Part Number	DN	Qty/Box	Box/Carton
890GL12	1/2" MM	10	150

Dimensions at the end of the section.



**833M**

Brass male/male adaptor.

Part Number	DN	Qty/Box	Box/Carton
833M1234	1/2" - 3/4"	10	150

Dimensions at the end of the section.



**821M**

Brass male/female adaptor.

Part Number	DN	Qty/Box	Box/Carton
821M12M38F	1/2" M x 3/8" F	10	300
821M12M34F	1/2" M x 3/4" F	10	150

Dimensions at the end of the section.



**834M**

Brass female plugs.

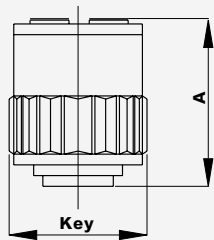
Part Number	DN	Qty/Box	Box/Carton
834M12	1/2"	10	400
834M34	3/4"	10	50
834M1	1"	10	50

Dimensions at the end of the section.



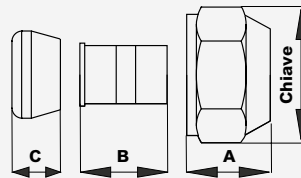
OVERALL DIMENSIONS

872M



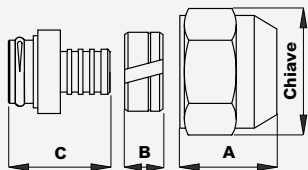
DN	A	Rafit wrench
3/8"	25	20
1/2"	27	25
1/2"S	29	27

820R



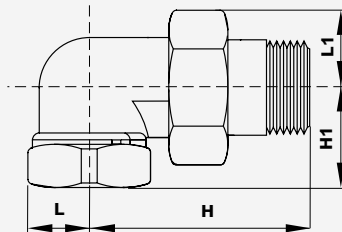
DN	A	B	C	Wrench
3/8"	17	24	9	20
1/2"	19	24	10	25
1/2"S	20	24	11	25
3/4"	20	24	11	32

817M - 817MS



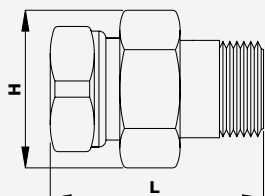
DN	A	B	C	Wrench
1/2"	23	8	21	20
1/2"S	26	8	22	25
3/4"	24	8	22	32

220



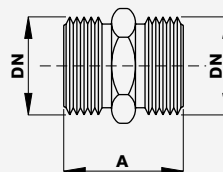
DN	H	H1	L	L1
3/8"MF	47	27	14	14
1/2"MF	53	34	16	18
3/4"MF	60	37	19	21
1"MF	77	46	23	27

221



DN	H	L
3/8"MF	28	43
1/2"MF	35	51
3/4"MF	42	58
1"MF	54	62

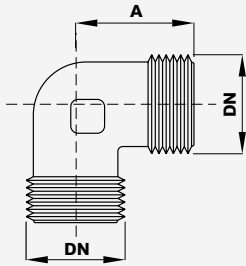
892GL



DN	A
3/8"	22
1/2"	25
3/4"	28

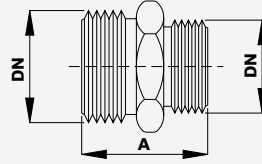
OVERALL DIMENSIONS

890GL



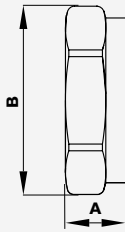
DN	A
1/2"	26

833M



DN	A	DN	A
3/8" x 1/2"	24	1/2" x 1"	34
3/8" x 3/4"	28	3/4" x 1"	35
1/2" x 3/4"	30		

834M



DN	A	B
3/8"	7	19
1/2"	9	25
3/4"	18	35
1"	18	38



10