

TECHNICAL CATALOGUE

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# DISTRIBUTION MANIFOLDS





ITAP SpA, founded in Lumezzane (Brescia) in 1972, is currently one of the leading production companies in Italy of valves, fittings and distribution manifolds for plumbing and heating systems. Thanks to fully automated production processes, with 63 tooling machines and 25 assembly lines, we are able to produce 150,000 pieces per day. Our innate pursuit for innovation and observance of technical regulations in force is supported by the company certification ISO 9001: 2008. The company has always considered its focus on quality as the main tool to obtaining significant business results: today ITAP SpA is proud to offer products bearing the approval of numerous international certifying bodies.





DISTRIBUTION  
MANIFOLDS

ITAP MANIFOLDS ARE  
USED TO DISTRIBUTE  
HEAT-TRANSFER FLUID  
INSIDE A SYSTEM.

# 450

## MODULAR DISTRIBUTION MANIFOLD, 1/2" FEMALE OUTLETS

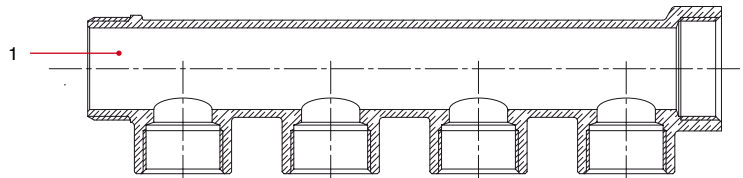


SIZE	PRESSURE	CODE	PACKING
3/4" x 2	10bar/145psi	450003402	12/120
3/4" x 3	10bar/145psi	450003403	8/80
3/4" x 4	10bar/145psi	450003404	6/60
1" x 2	10bar/145psi	450010002	12/96
1" x 3	10bar/145psi	450010003	8/64
1" x 4	10bar/145psi	450010004	6/48

### TECHNICAL SPECIFICATIONS

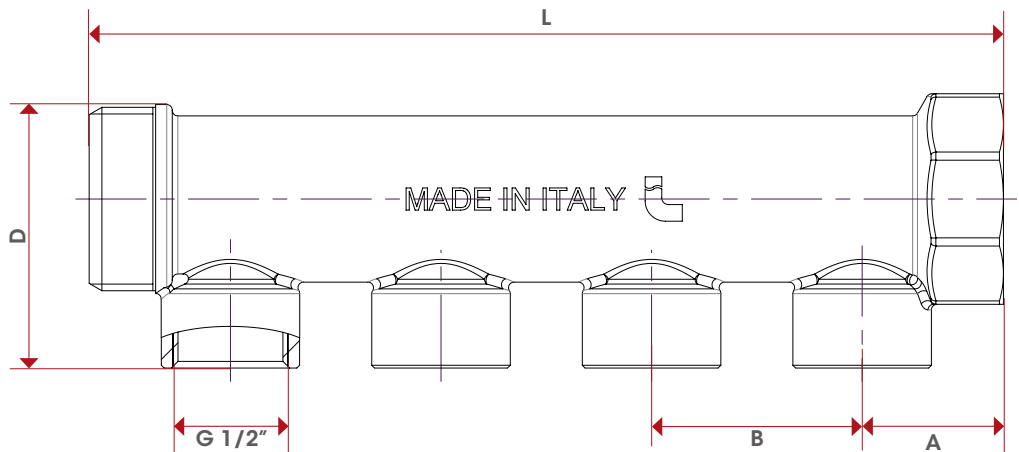
Distribution manifold with female outlets.  
 Suitable for fittings for copper, PEX, polybutylene or multilayer piping.  
 Body in forged, nickel-plated brass.  
 Centres distance: mm.38.  
 Maximum working temperature: 110°C.  
 Threads ISO228 (equivalent to DIN EN ISO 228 and BS EN ISO 228).

### MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Body	1	Nickel-plated brass CW617N

### OVERALL DIMENSIONS



	3/4"	1"
L-2	87	89
L-3	125	127
L-4	163	165
A	24,5	25,5
B	38	38
D	43	49,5
Kg/cm <sup>2</sup> bar	10	10
LBS - psi	145	145

### CERTIFICATIONS





# 455

MODULAR  
DISTRIBUTION  
MANIFOLD,  
1/2" MALE OUTLETS,  
CONICAL SEAT

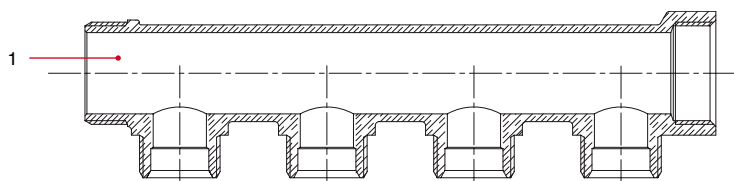


SIZE	PRESSURE	CODE	PACKING
3/4" x 2	10bar/145psi	455003402	12/120
3/4" x 3	10bar/145psi	455003403	8/80
3/4" x 4	10bar/145psi	455003404	6/60
1" x 2	10bar/145psi	455010002	12/96
1" x 3	10bar/145psi	455010003	8/64
1" x 4	10bar/145psi	455010004	6/48

## TECHNICAL SPECIFICATIONS

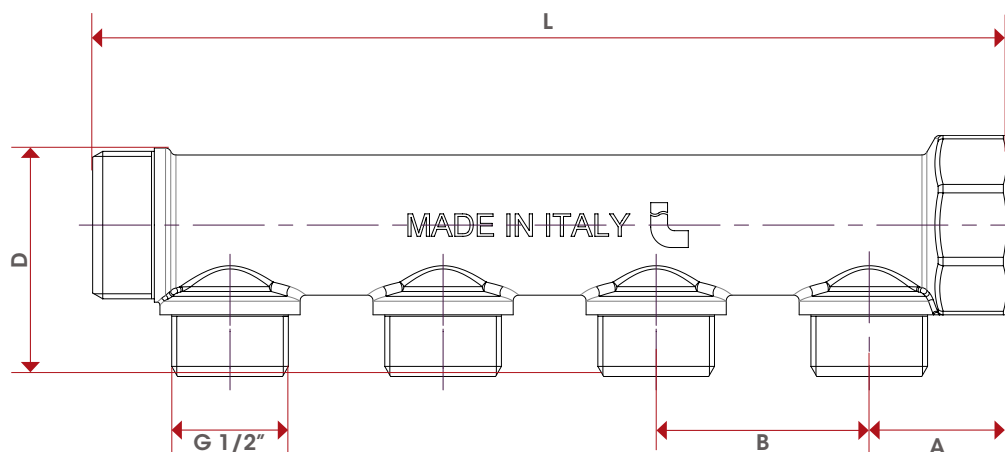
Distribution manifold with male outlets.  
Suitable for fittings for copper, PEX, polybutylene or multilayer piping.  
Body in forged, nickel-plated brass.  
Centres distance: mm.38.  
Maximum working temperature: 110°C.  
Threads ISO228 (equivalent to DIN EN ISO 228 and BS EN ISO 228).  
The male thread "G" is equipped with a conical seat and inner diameter mm.16.

## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Body	1	Nickel-plated brass CW617N

## OVERALL DIMENSIONS



	3/4"	1"
L-2	87	89
L-3	125	127
L-4	163	165
A	24,5	25,5
B	38	38
D	43	49,5
Kg/cm <sup>2</sup> bar	10	10
LBS - psi	145	145

## CERTIFICATIONS



# 456

MODULAR DISTRIBUTION  
MANIFOLD, 1/2" MALE  
OUTLETS, FLAT SEAT

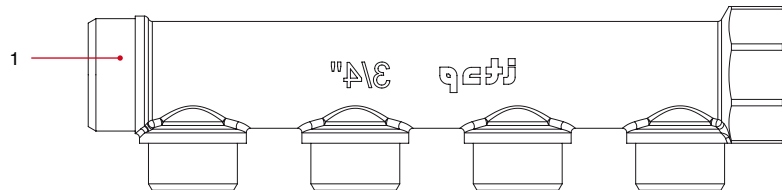


SIZE	PRESSURE	CODE	PACKING
3/4" x 2	10bar/145psi	456003402	12/120
3/4" x 3	10bar/145psi	456003403	8/80
3/4" x 4	10bar/145psi	456003404	6/60

## TECHNICAL SPECIFICATIONS

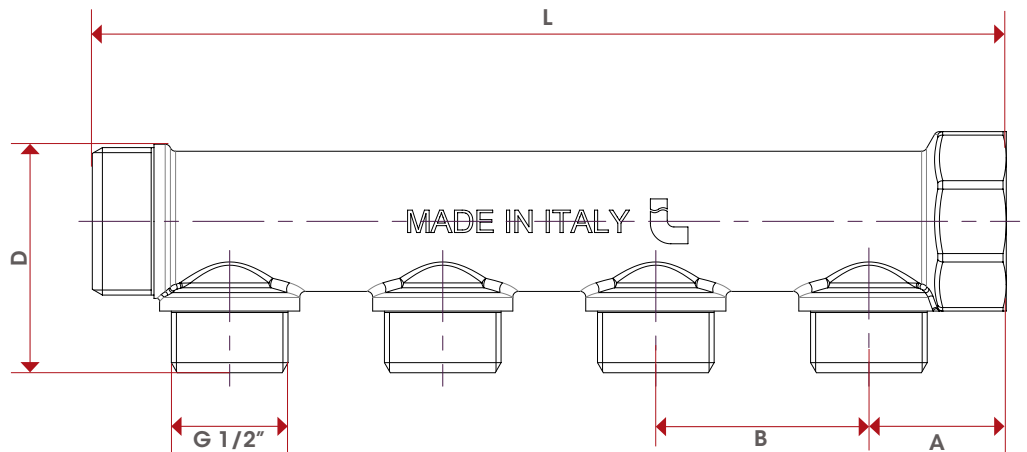
Distribution manifold with male outlets.  
Suitable for fittings for copper, PEX, polybutylene or multilayer piping.  
Body in forged brass.  
Centres distance: mm.38.  
Maximum working temperature: 110°C.  
Threads ISO228 (equivalent to DIN EN ISO 228 and BS EN ISO 228).  
The male thread "G" is equipped with a flat seat and inner diameter mm.14,5.

## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Body	1	Brass CW617N

## OVERALL DIMENSIONS



	3/4"	1"
L-2	87	89
L-3	125	127
L-4	163	165
A	24,5	25,5
B	38	38
D	43	49,5
Kg/cm <sup>2</sup> bar	10	10
LBS - psi	145	145

## CERTIFICATIONS





# 465

MODULAR  
DISTRIBUTION  
MANIFOLD WITH  
SHUT-OFF VALVES,  
1/2" MALE OUTLETS,  
CONICAL SEAT



SIZE	PRESSURE	CODE	PACKING
3/4" x 2	10bar/145psi	465003402	4/76
3/4" x 3	10bar/145psi	465003403	4/52
3/4" x 4	10bar/145psi	465003404	4/32
1" x 2	10bar/145psi	465010002	4/52
1" x 3	10bar/145psi	465010003	4/32
1" x 4	10bar/145psi	465010004	4/32

## TECHNICAL SPECIFICATIONS

Distribution manifold with shut-off valves to the male outlets, suitable for fittings for copper, PEX, polybutylene or multilayer piping.

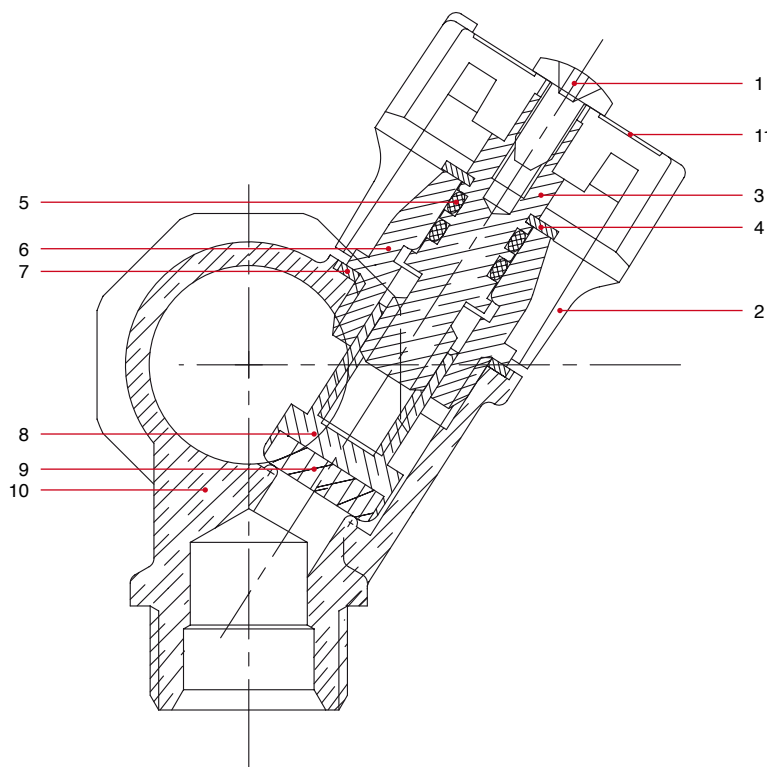
Body in forged, nickel-plated brass.

Maximum working temperature: 110 °C.

Threads ISO228 (equivalent to DIN EN ISO 228 and BS EN ISO 228).

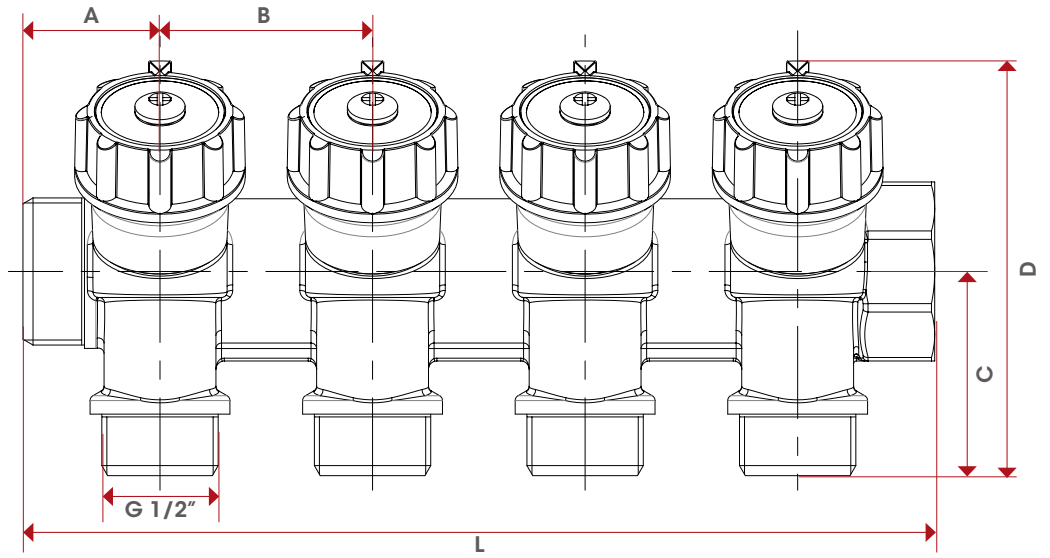
The male thread "G" is equipped with a conical seat and inner diameter mm.16.

## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Screw	2/4	Zinc-plated steel Fe
2	Handle	2/4	ABS
3	Bonnet	2/4	Brass CW614N
4	Ring	2/4	Steel UNI 7434 - 75
5	O-ring	4/8	NBR
6	Plug	2/4	Brass CW614N
7	Washer	2/4	Aluminium
8	Screw	2/4	Brass CW614N
9	Washer	2/4	NBR
10	Body	1	Nickel-plated brass CW617N
11	Disk	2/4	Aluminium

OVERALL  
DIMENSIONS



	3/4"	1"
L-2	87	88
L-3	125	126
L-4	163	164
A	24,5	24,5
B	38	38
C	36,5	36,5
D	74	81,5
Kg/cm <sup>2</sup> bar	10	10
LBS - psi	145	145

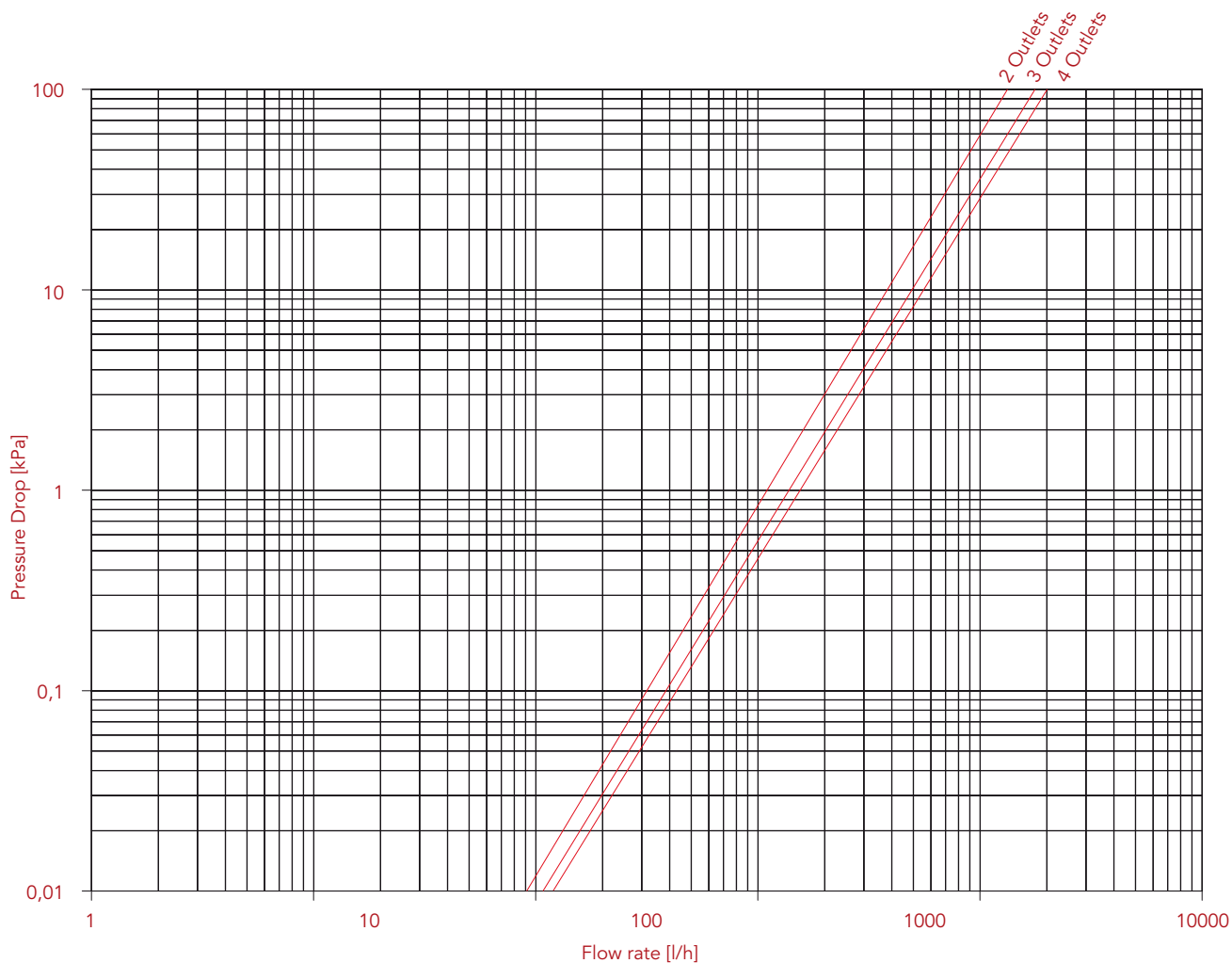
CERTIFICATIONS



# FLOW RATE AND PRESSURE DROP CHART

## WITH WATER

Art. 450 - 455 - 456

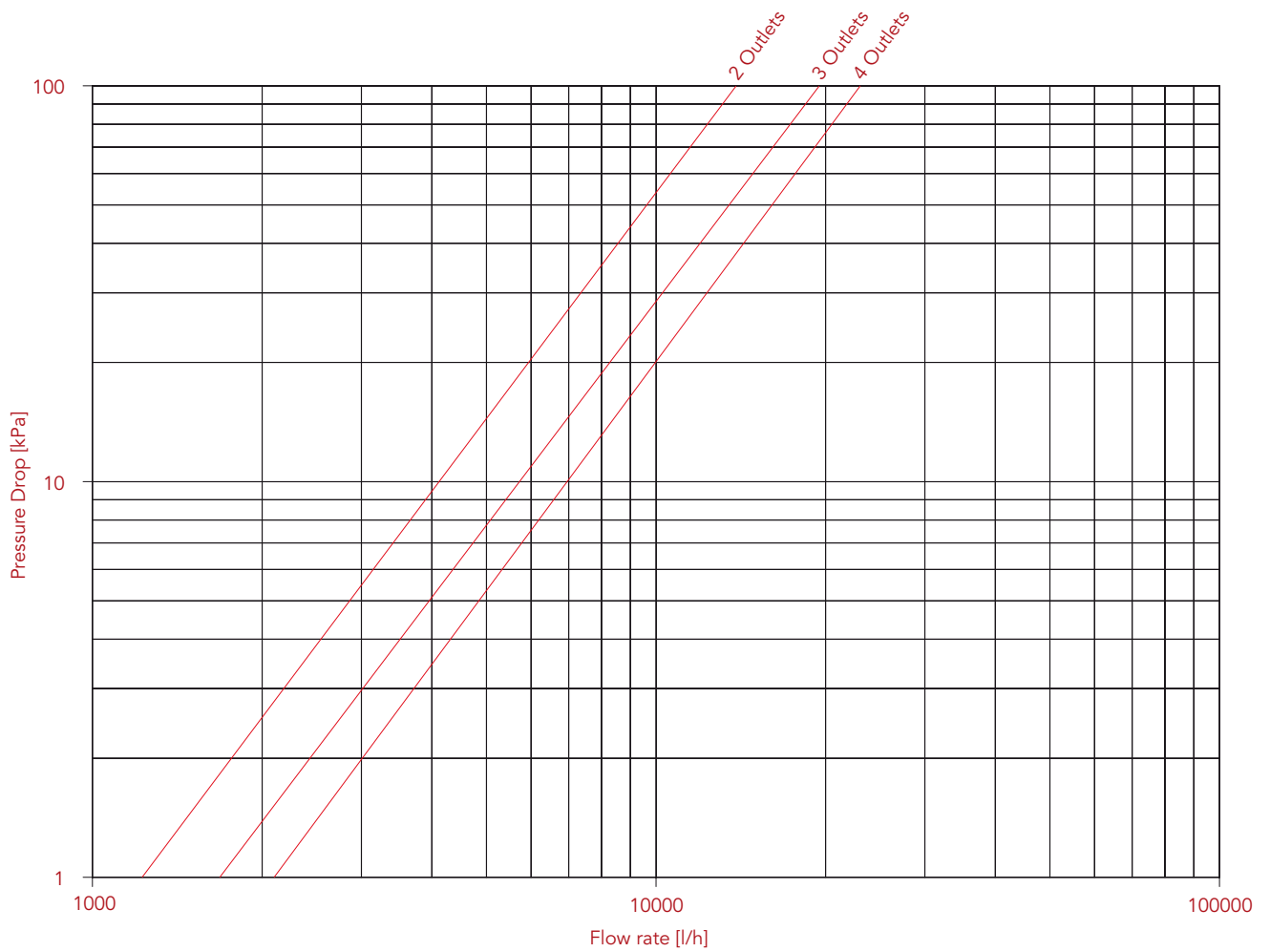


SIZE	3/4"		
Outlets	2	3	4
Kv	13,30	17,70	20,90

# FLOW RATE AND PRESSURE DROP CHART

WITH WATER

Art. 450 - 455

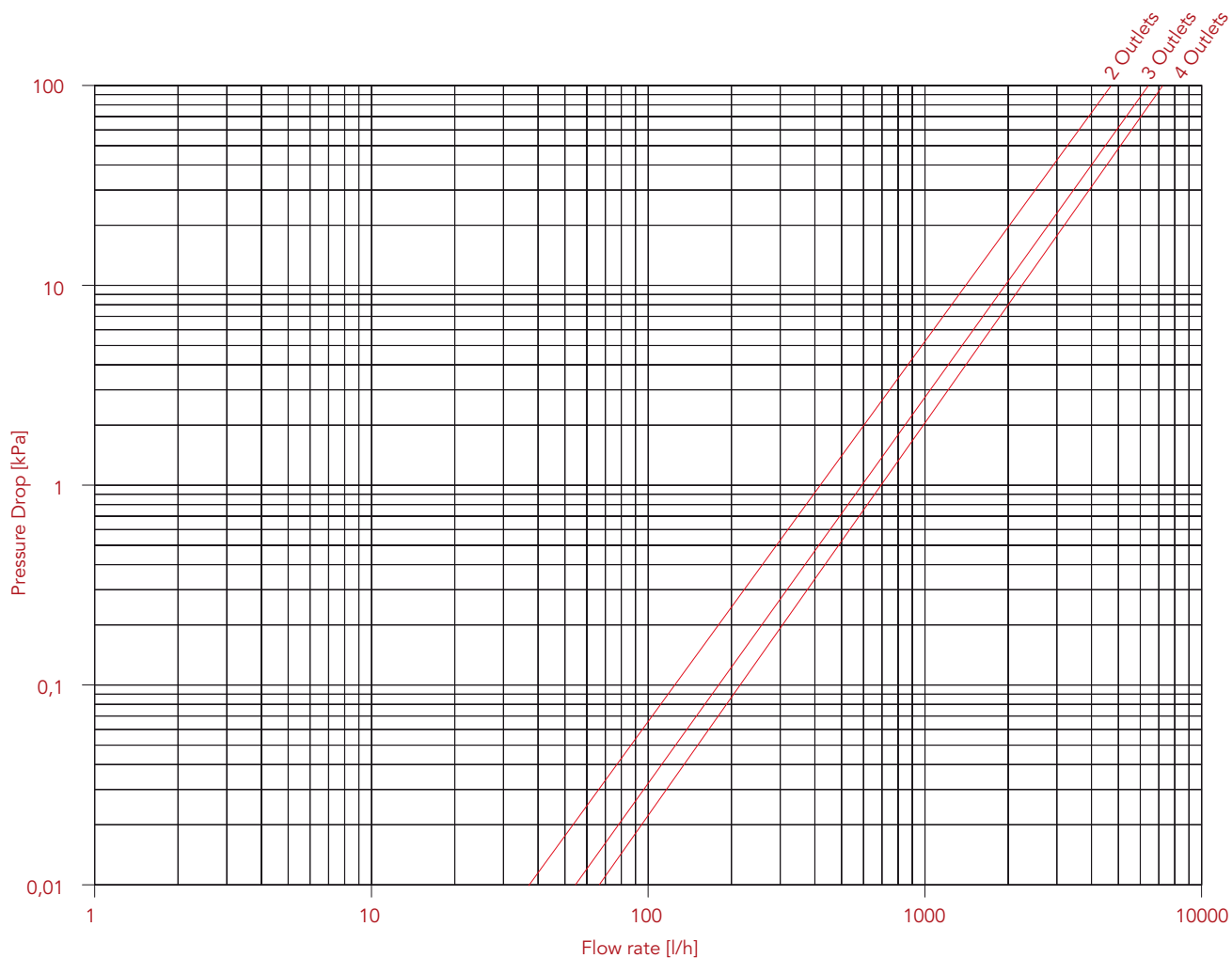


SIZE	1"		
Outlets	2	3	4
Kv	13,87	19,49	23,05

# FLOW RATE AND PRESSURE DROP CHART

## WITH WATER

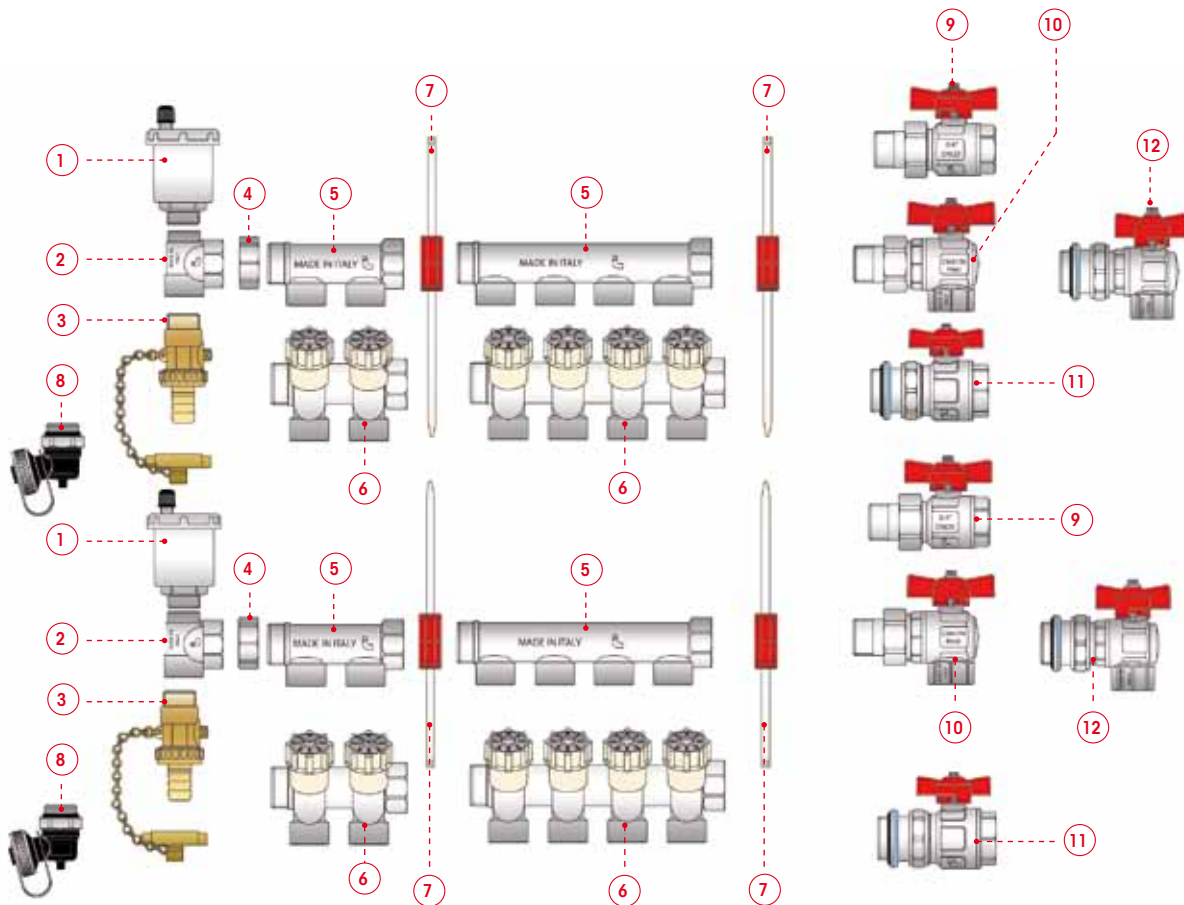
Art. 465



SIZE	3/4" - 1"		
Outlets	2	3	4
Kv	13,30	17,70	20,90

# ACCESSORIES CHART FOR MANIFOLDS

accessories chart art. 450 - 455 - 456 - 465



POS	ART	DESCRIPTION
1	362 362R	Automatic air vent valve
2	491	Female 3-way end fitting for manifolds
3	139	Drain ball valve with brass hose connection
4	496	Female end cap with washer
5	450-455 456	Modular distribution manifold
6	465	Modular distribution manifold with shut off valves
7	499CS	Set to fix simple manifolds to the box
8	489SO	Adjustable drain cock
9	098	Ball valve for manifold
10	298	Angle ball valve for manifold
11	098S	Ball valve for manifold with o-ring on the union
12	298S	Angle ball valve for manifold with o-ring on the union



# 885

DUAL DISTRIBUTION  
MANIFOLD, 1/2" MALE  
OUTLETS, CONICAL SEAT

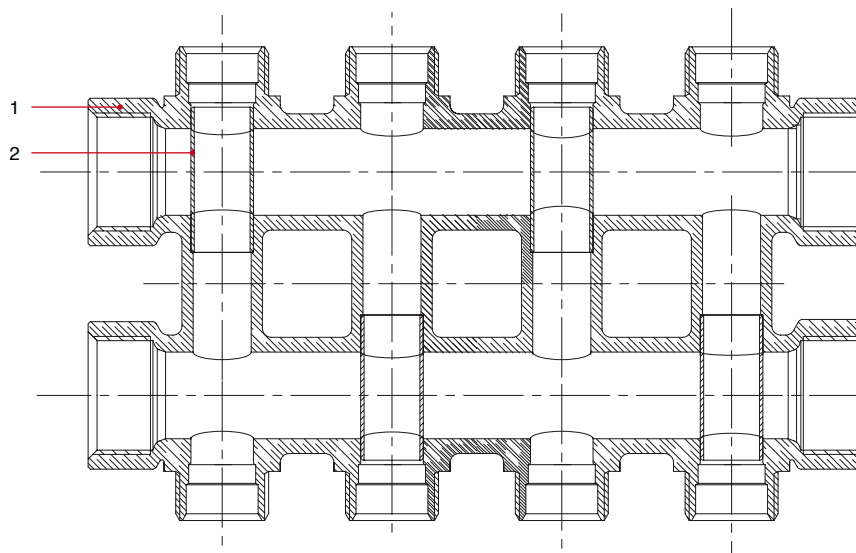


SIZE	PRESSURE	CODE	PACKING
3/4" x 2+2	10bar/145psi	88500340238	1/22
3/4" x 4+4	10bar/145psi	88500340438	1/26
3/4" x 6+6	10bar/145psi	88500340638	1/16
3/4" x 8+8	10bar/145psi	88500340838	1/12
3/4" x 10+10	10bar/145psi	88500341038	1/8
1" x 2+2	10bar/145psi	88501000238	1/22
1" x 4+4	10bar/145psi	88501000438	1/21
1" x 6+6	10bar/145psi	88501000638	1/10
1" x 8+8	10bar/145psi	88501000838	1/10
1" x 10+10	10bar/145psi	88501001038	1/5

## TECHNICAL SPECIFICATIONS

Dual distribution manifold with male outlets.  
Suitable for fittings for copper, PEX, polybutylene or multilayer piping.  
Body in casted, nickel-plated brass.  
Maximum working pressure: 110°C.  
Threads: ISO228 (equivalent to DIN EN ISO 228 and BS EN ISO 228).  
The male thread "G" is equipped with a conical seat and inner diameter mm.16.  
Centres distance: mm.38.

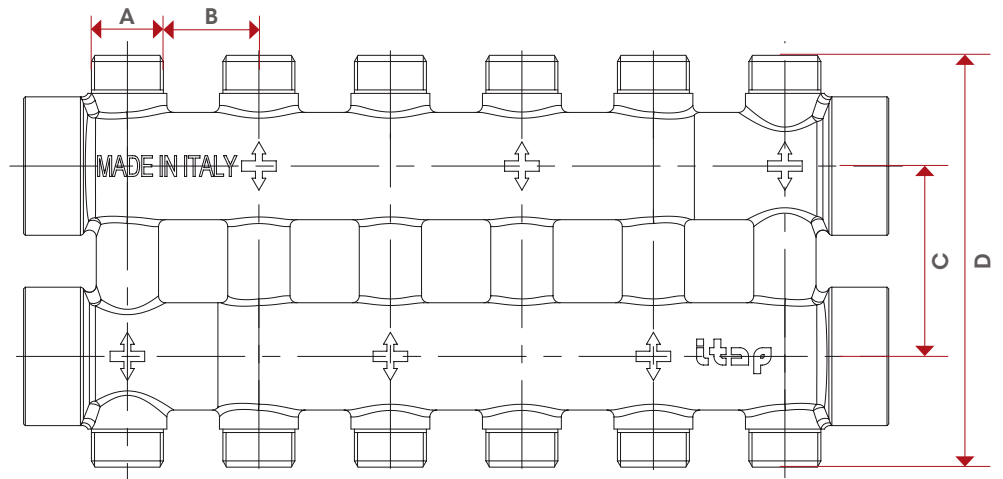
## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Body	1	Nickel-plated brass CB735S
2	Pipe	2/10	Brass CW508L



OVERALL  
DIMENSIONS



	3/4"	1"
L-2-2	98	98
L-4-4	174	174
L-6-6	250	250
L-8-8	326	326
L-10-10	402	402
DN	20	25
A	30	30
B	38	38
C	50	55
D	106	119
Kg/cm <sup>2</sup> bar	10	10
LBS - psi	145	145

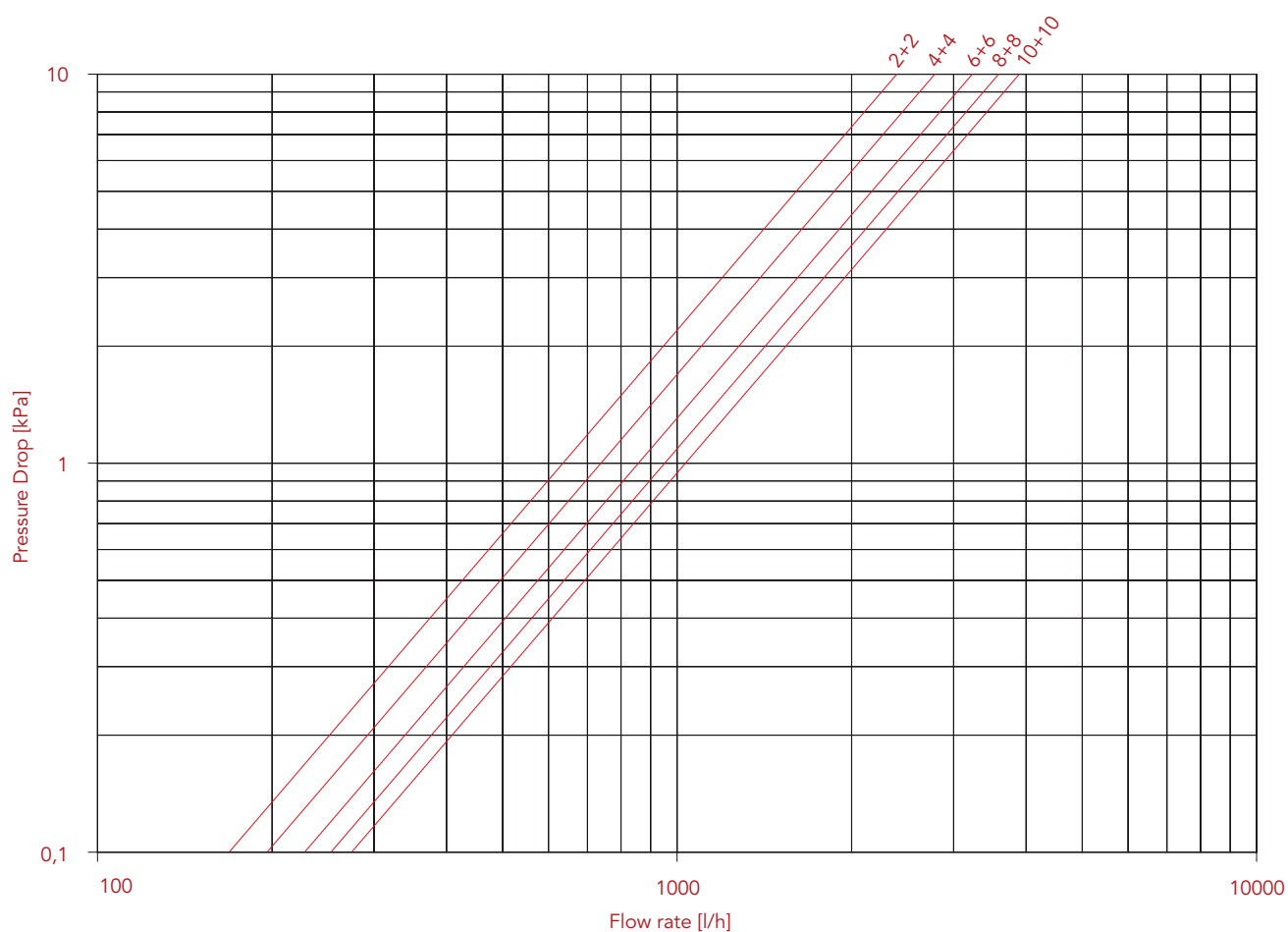
CERTIFICATIONS



# FLOW RATE AND PRESSURE DROP CHART

## WITH WATER

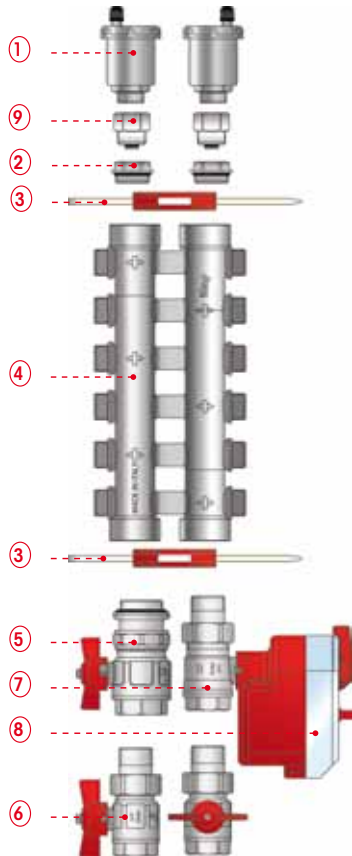
Art: 885



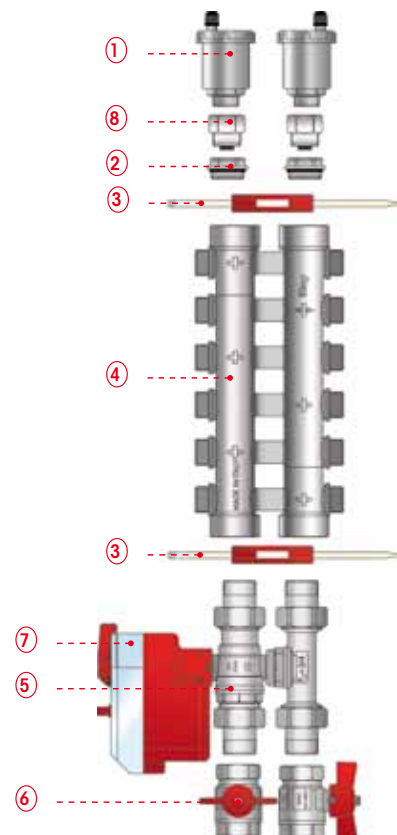
SIZE	3/4"				
Outlets	2+2	4+4	6+6	8+8	10+10
Kv	9,00	10,50	12,10	13,50	14,60

# ACCESSORIES CHART FOR MANIFOLDS

accessories chart art. 885



POS	ART	DESCRIPTION
1	362-362R	Automatic air vent valve
2	495	Male end fitting with o-ring
3	499CC	Set to fix dual manifolds to the box
4	885	Dual manifold
5	098S	Ball valve for manifolds with o-ring
6	098	Ball valve for manifolds
7	980	2-way zone ball valve
8	990 - 991 989	Electric actuator for zone ball valves Electric actuator for 2-way zone ball valves
9	365	Automatic check valve

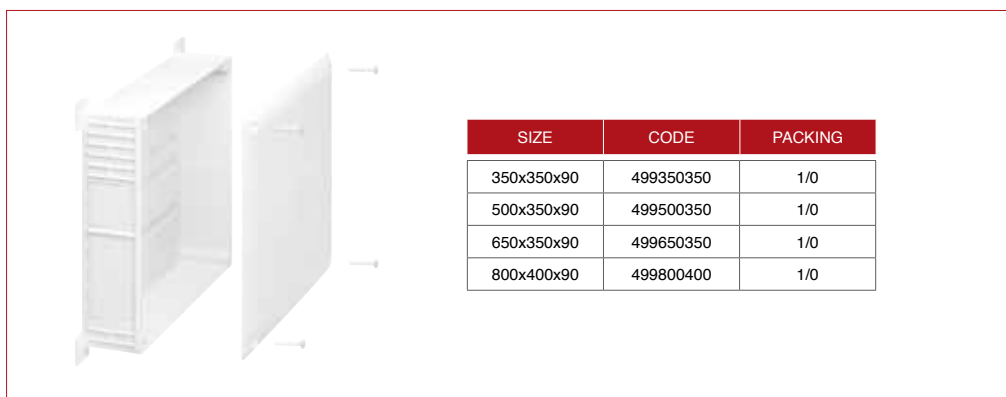


POS	ART	DESCRIPTION
1	362-362R	Automatic air vent valve
2	495	Male end fitting with o-ring
3	499CC	Set to fix dual manifolds to the box
4	885	Dual manifold
5	986	4-way zone ball valve
6	092	Ball valve, female/female threads
7	990 - 991	Electric actuator for zone ball valves
8	365	Automatic check valve



# 499

## UNIVERSAL PLASTIC BOX FOR MANIFOLDS



SIZE	CODE	PACKING
350x350x90	499350350	1/0
500x350x90	499500350	1/0
650x350x90	499650350	1/0
800x400x90	499800400	1/0

### TECHNICAL SPECIFICATIONS

ITAP plastic box with the kit art. 499CS and 499CC is suitable for the use with manifolds of any manufacturer.

The cover is equipped with ventilation holes. Supplied with a removable shield to protect the manifolds from the plastering holes.

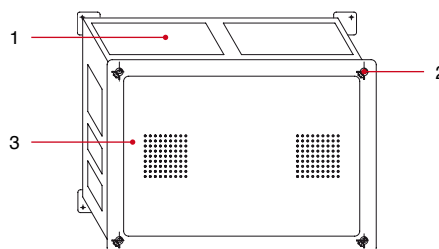
Available sizes:

mm.350xmm.350, mm.500xmm.350,

mm.650xmm.350, mm.800xmm.400.

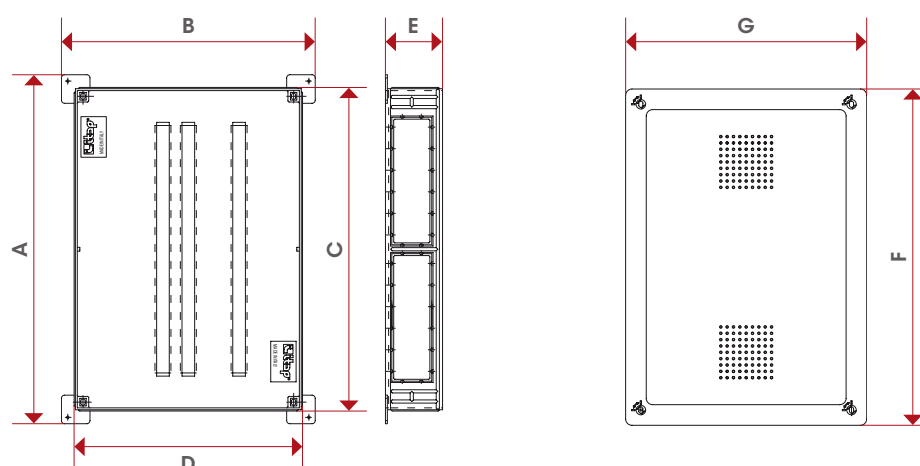
Usable depth: mm.90, mm.95.

### MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Box	1	Polystyrene PS
2	Screw	4	Nylon
3	Cover	1	Polystyrene PS

### OVERALL DIMENSIONS



	350 x 350	500 x 350	650 x 350	800 x 400
A	400	550	700	850
B	400	400	400	450
C	360	510	660	810
D	360	360	360	410
E	90	90	90	95
F	380	530	680	830
G	380	380	380	430

# 499CS

SET TO FIX SIMPLE  
MANIFOLDS TO THE  
PLASTIC BOX

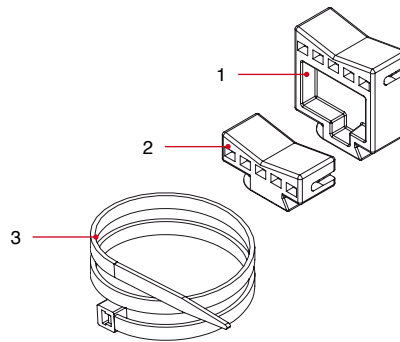


SIZE	CODE	PACKING
-	499CS	1/50

## TECHNICAL SPECIFICATIONS

Consisting of: 2 long brackets, 2 short brackets, 4 plastic strips.  
**Suitable for simple forged or cast manifolds.**

## MATERIALS



POS.	DESCRIPTION	N.	MATERIAL
1	Bracket	2	Polypropylene
2	Bracket	2	Polypropylene
3	Plastic strip	2	Nylon

# 499CC

SET TO FIX DUAL  
MANIFOLDS TO THE  
PLASTIC BOX

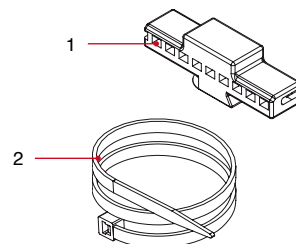


SIZE	CODE	PACKING
-	499CC	1/50

## TECHNICAL SPECIFICATIONS

Consisting of: 2 brackets for dual manifolds, 2 plastic strips.  
**Suitable for dual manifolds.**

## MATERIALS

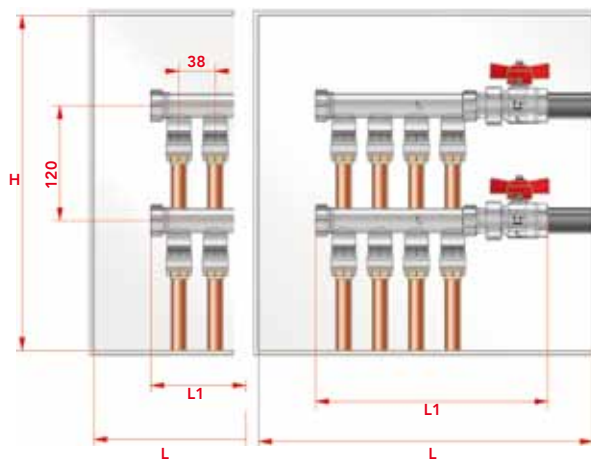


POS.	DESCRIPTION	N.	MATERIAL
1	Bracket	2	Polypropylene
2	Plastic strip	2	Nylon

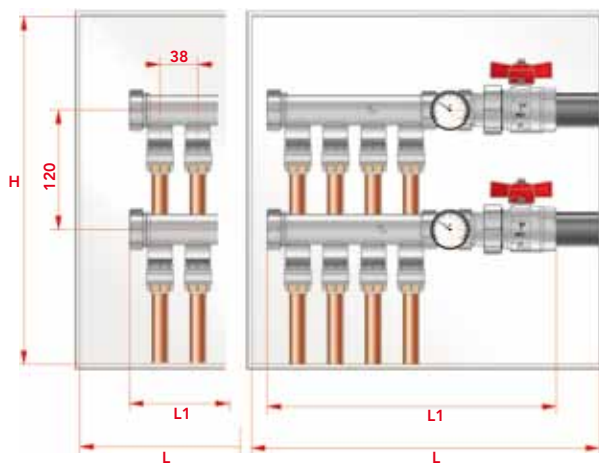
# POSITIONING THE MANIFOLDS INTO BOXES

Positioning the manifolds  
Art. 450 - 455 - 456 - 465  
into plastic boxes

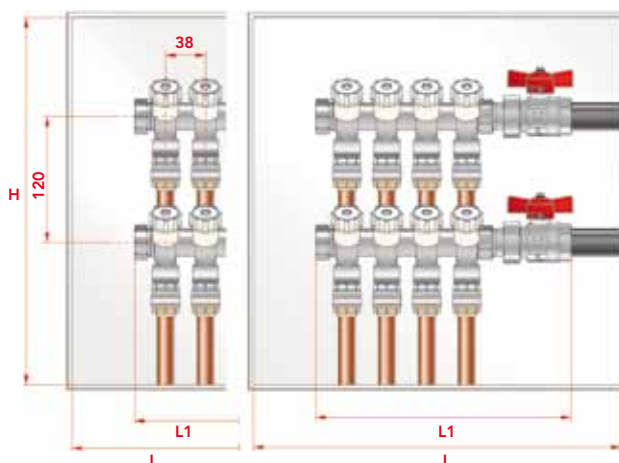
CODE	499.350.350		499.500.350		
LxH (mm)	350x350		500x350		
N Outlets	4	4+2	4+3	4+4	4+4+2
MANIFOLD	3/4"				
L1	243	319	357	396	472



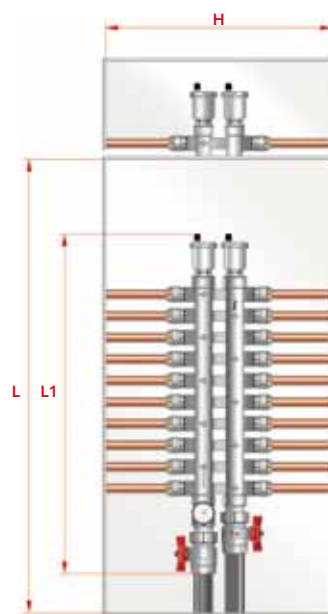
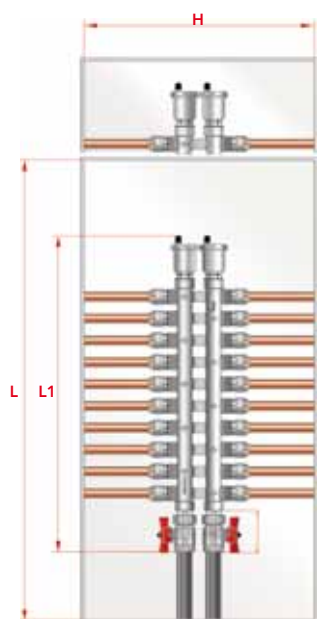
CODE	499.350.350	499.500.350		499.650.350	
LxH (mm)	350x350	500x350		650x350	
N Outlets	4	4+2	4+3	4+4	4+4+2
MANIFOLD	1"				
L1	290	367	405	443	520



CODE	499.350.350		499.500.350		
LxH (mm)	350x350		500x350		
N Outlets	4	4+2	4+3	4+4	4+4+2
MANIFOLD	3/4" - 1"				
L1	243	319	357	396	472



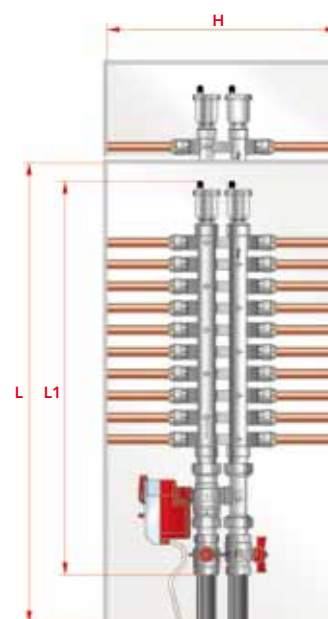
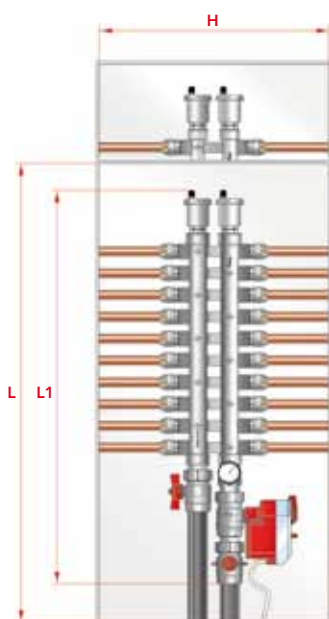
Positioning the manifolds  
Art. 885  
into plastic boxes



CODE	499.350.350	499.500.350	499.650.350	499.800.400
LxH (mm)	350x350	500x350	650x350	800x400
N Outlets	2+2	4+4	6+6	8+8
MANIFOLD	3/4"			
L1	246	322	398	474

CODE	499.350.350	499.500.350	499.650.350	499.800.400
LxH (mm)	350x350	500x350	650x350	800x400
N Outlets	2+2	4+4	6+6	8+8
MANIFOLD	1"			
L1	296	372	448	524

Positioning the manifolds  
Art. 885 with zone valves  
in plastic boxes



CODE	499.500.350	499.650.350	499.800.400
LxH (mm)	500X350	650X350	800X400
N Outlets	2+2	4+4	6+6
MANIFOLD	3/4" - 1"		
L1	382	458	534



# NOTES

A series of horizontal dashed lines for taking notes, starting from the top right of the 'NOTES' header and extending down the page.

MANIFOLDS

We reserve the right to make improvements and changes to the products described herein and to the relative technical data, at any time and without forewarning.



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