



SINGLE PIPE AND TWIN PIPE SYSTEM VALVES



GIACOMINI
WATER E-MOTION

Technical documentation

0185EN

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TWIN PIPE VALVES WITH THERMOSTATIC OPTION

Use

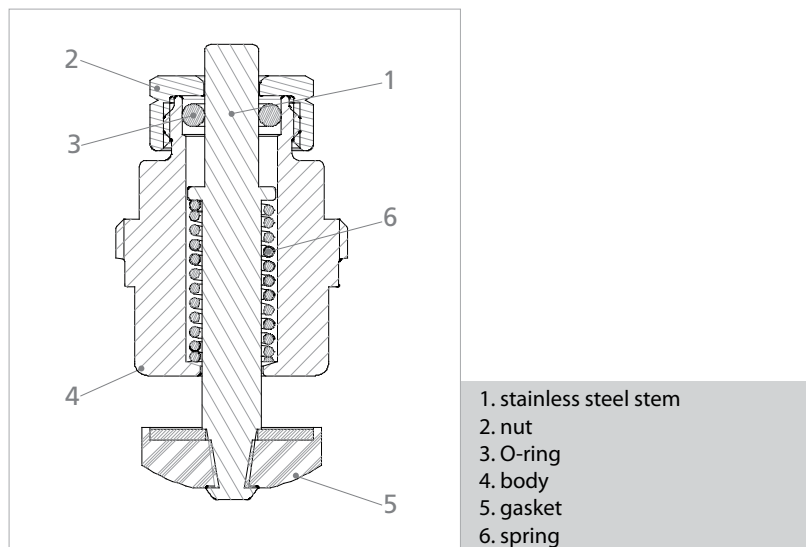
Giacomini's series of "twin pipe" valves is used in heating systems as a valid alternative to the traditional connections made with a valve and a lockshield valve which, whether superimposed or alongside each other, require large chases in the walls. With these valves on the other hand, the coupling with the heating elements is made with just one connection. This means a better aesthetic result and less costly interventions - factors that are often important in the case of renovation projects in particular. The wide series of accessories facilitates every type of solution as they can be used on the various heating element models available on the market.

Characteristics

The Giacomini series of "twin pipe" valves offers solutions with wall- or floor-mounting derived connections, with straight or perpendicular entry from below, with right or left connection, for plates or radiators. They come in a manual version with micrometric handwheel, and can easily be transformed into the thermostatic version by applying any head of the Giacomini series.

Their micrometric lockshield valve ensures the balancing of the circuit until the full closure of the flow to the heating element, for both traditional TWIN PIPE distribution and collector distribution (horizontal or coplanar).

Internal bonnet



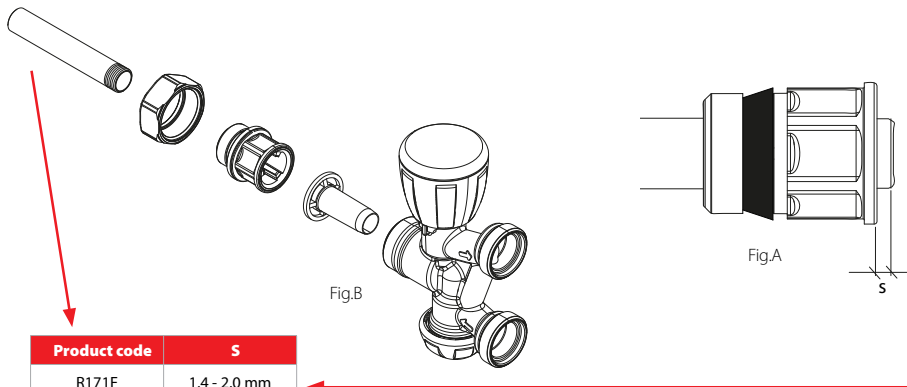
Technical data

- Temperature series: 5÷110 °C
- Max. working pressure: 10 bar
- Maximum differential pressure: 1,4 bar

Connection to the radiator

The connection to the heating element is made with a self-sealing tail piece which, by following some simple instructions carefully, will allow you to quickly produce practical installations with long-lasting reliability. The Giacomini self-sealing tail piece is, in fact, fitted with an elastomer part so it can be assembled on the heating element without the addition of hemp, paste or other sealing materials. To tighten the tail piece, just apply a torque no greater than 25 Nm, lubricating the elastomer element if necessary with silicone-based products.

Only for models requiring the use of the R171F injection probe.



Only for models requiring the use of the R171P or R171C injection probe.



Warning!

To ensure correct system operation, you are advised to install the probe so that it protrudes by at least 2-3 mm inside the tail piece; this will avoid short-circuits in the heating fluid.



Connection to the heating element

R171C = copper
R171P = plastic
R171F = threaded copper

To obtain a good yield from the heating element, you are advised to apply probes with a length equal to roughly 2/3 of the heating element itself.

Connection to the system

When connecting the valve to the supply pipes, it is important to respect the preferential flow direction when this is indicated by the arrows on the body.

Connection to the system

When connecting the valve to the supply pipes, it is important to respect the correct flow direction indicated by the arrows on the body. In this way, the shutter is struck by the fluid current in the opening direction, guaranteeing optimum operation in both manual and thermostatic version.

R440N



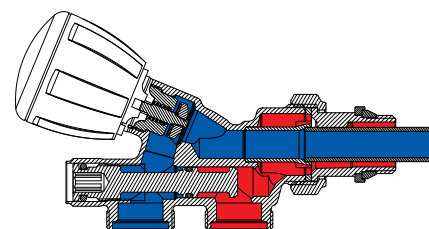
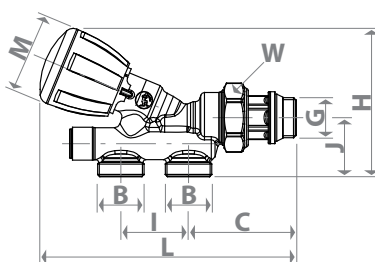
"Compact" micrometric valve with thermostatic option for twin pipe systems.

NOTES

Probe Ø 12 mm (R171P series) included.

For the connection to the system, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	H	J	L	C	M	W
R440NX032	1/2"x16	35	77	31	133	56	42	32



R438

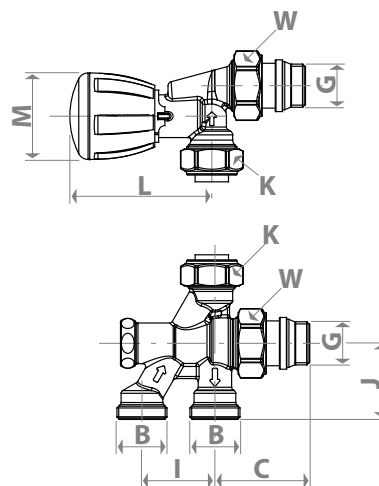


Group with thermostatic option for twin pipe systems, with angle valve and lockshield valve, 100 % transit to the radiator, self-sealing tail piece.

NOTES

The connection pipe Ø 16 mm (R194 series) between the valve and the lockshield valve must be purchased separately. For the connection to the pipe, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	J	L	C	M	W	K
R438X062	1/2"x16	35	37	68	46	42	30	27
R438X063	1/2"x18	50	42	68	38	42	30	27



R438P

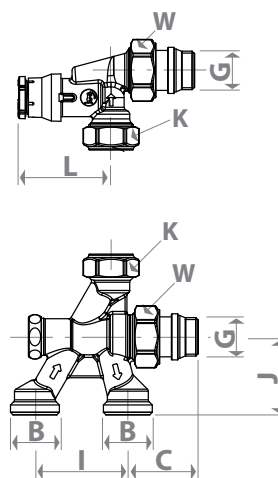


Group with thermostatic option for twin pipe systems, with angle valve and lockshield valve, 100 % transit to the radiator, self-sealing tail piece.

NOTE

The connection pipe Ø 16 mm (R194 series) between the valve and the lockshield valve must be purchased separately. For the connection to the pipe, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	J	L	C	W	K
R438PX037	1/2"x3/4"E	50	42	50	38	30	27



R438-1

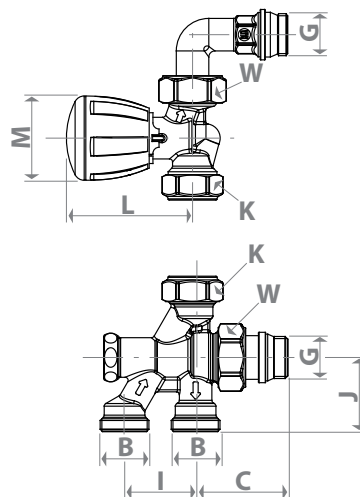


Group with thermostatic option for twin pipe systems, with straight valve and lockshield valve, 100 % transit to the radiator, self-sealing tail piece.

NOTES

The connection pipe Ø 16 mm (R194 series) between the valve and the lockshield valve must be purchased separately. For the connection to the pipe, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	J	L	C	M	W	K
R438IX043	1/2"x16	35	37	62	46	42	30	27
R438IX044	1/2"x18	50	42	62	38	42	30	27



R438M

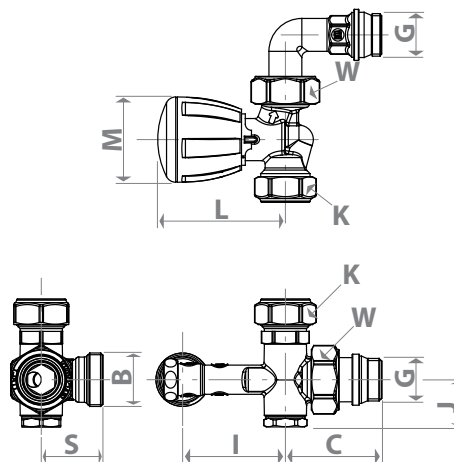


Group with thermostatic option for twin pipe systems, with straight valve and lockshield valve, with wall connection, 100 % transit to the radiator, self-sealing tail piece.

NOTES

The connection pipe Ø 16 mm (R194 series) between the valve and the lockshield valve must be purchased separately. For the connection to the pipe, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	J	L	C	S	M	W	K
R438MX033	1/2"x18	50	23	62	47	30	42	30	27



R356B1

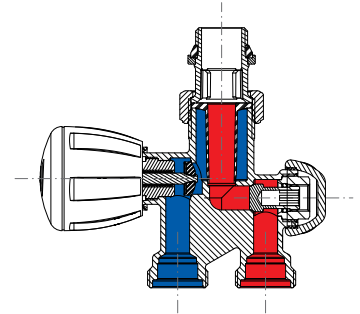
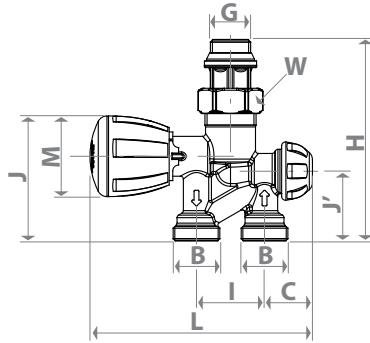


Micrometric valve with thermostatic option for twin pipe systems, straight, with entry to radiator from below, with self-sealing tail piece.

NOTES

The injection probe \varnothing 12 mm (R171F series) must be purchased separately.
For the connection to the system, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	J	J'	L	C	H	M	W
R356BX041	1/2"x16	35	44	36	115	25	104	42	30
R356BX062	1/2"x18	50	43	35	116	22	103	42	30



R357B1

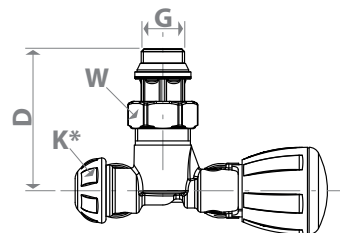
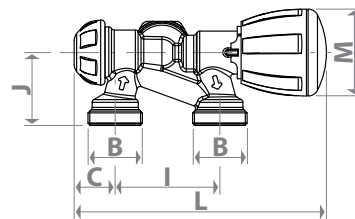


Micrometric valve with thermostatic option for twin pipe systems, angled, with entry to radiator from the wall, right-hand connection, self-sealing tail piece.

NOTES

The injection probe \varnothing 12 mm (R171F series) must be purchased separately.
For the connection to the system, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	J	L	C	D	M	W
R357BX062	1/2"x18	50	35	123	22	68	42	30



R358B1

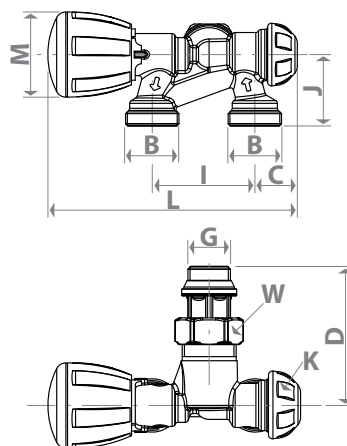


Micrometric valve with thermostatic option for twin pipe systems, angled, with entry to radiator from the wall, left-hand connection, self-sealing tail piece.

NOTES

The injection probe Ø 12 mm (R171F series) must be purchased separately.
For the connection to the system, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	J	L	C	D	M	W
R356BX062	1/2"x18	50	35	123	22	68	42	30



SINGLE PIPE VALVES WITH THERMOSTATIC OPTION

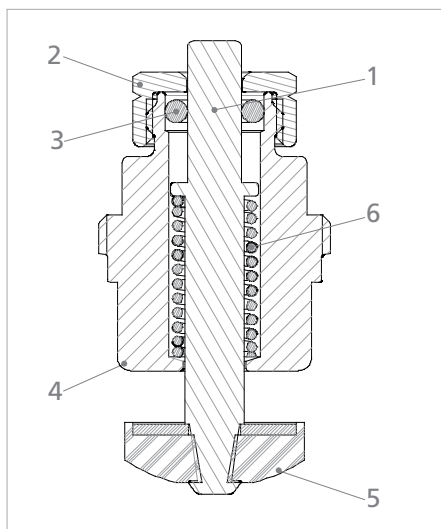
Use

Giacomini's series of "single pipe" valves is designed to enhance single pipe systems with the methods already in use in traditional collector systems, offering the market a series of micrometric valves with thermostatic option compatible with any type of thermostatic or thermoelectric head of the Giacomini series.

Characteristics

The Giacomini "single pipe" valves allow the total exclusion of the heating element from the supply circuit, so interventions can be made on it even when the system is operating. By closing the handwheel and built-in lockshield valve, in fact, the heating fluid crosses over the valve bypass and reaches the heating element.

Internal bonnet



- 1. stainless steel stem
- 2. nut
- 3. O-ring
- 4. body
- 5. gasket
- 6. spring

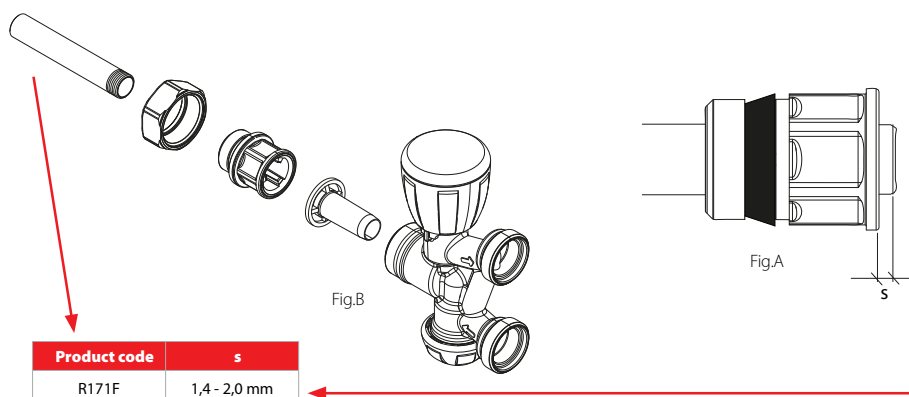
Technical data

- Temperature series: 5÷110 °C
- Max. working pressure: 10 bar
- Maximum flow rate via the heating element:
 - 50% for manual applications
 - 35% in combination with thermostatic heads $\Delta T = 2K$

Connection to the radiator

The connection to the heating element is made with a self-sealing tail piece which, by following some simple instructions carefully, will allow you to quickly produce practical installations with long-lasting reliability. The Giacomini self-sealing tail piece is, in fact, fitted with an elastomer part so it can be assembled on the heating element without the addition of hemp, paste or other sealing materials. To tighten the tail piece, just apply a torque no greater than 25 Nm, lubricating the elastomer element if necessary with silicone-based products.

Only for models requiring the use of the R171F injection probe.



Only for models requiring the use of the R171P or R171C injection probe.



Warning!

To ensure correct system operation, you are advised to install the probe so that it protrudes by at least 2-3 mm inside the tail piece; this will avoid short-circuits in the heating fluid.



Connection to the heating element

R171C = copper
 R171P = plastic
 R171F = threaded copper

To obtain a good yield from the heating element, you are advised to apply probes with a length equal to roughly 2/3 of the heating element itself.

Connection to the system

When connecting the valve to the supply pipes, it is important to respect the preferential flow direction when this is indicated by the arrows on the body.

Connection to the system

When connecting the valve to the supply pipes, you are advised to respect the correct flow direction indicated by any arrows on the body; in this way, the shutter will be struck by the flow in the opening direction. This ensures a better fluid current adjustment and less turbulence when crossing through the valve.

R437N



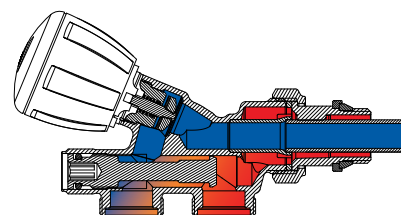
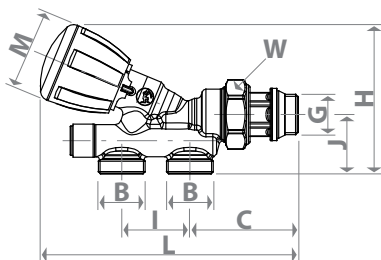
"Compact" micrometric valve with thermostatic option for single pipe systems.

NOTES

Probe Ø 12 mm, length 450 mm (R171P series), included.

For the connection to the system, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	H	J	L	C	M	W
R437NX031	1/2"x16	35	77	31	133	56	42	32



R437



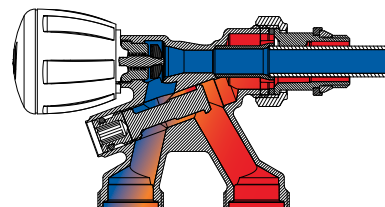
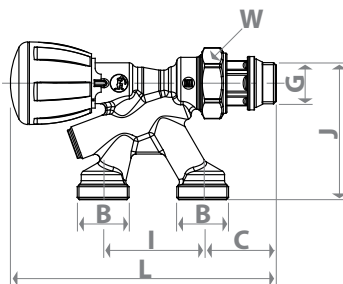
Micrometric valve with thermostatic option for single pipe systems, with built-in lockshield valve.

NOTES

Probe Ø 12 mm, length 450 mm (R171P series), included.

For the connection to the system, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	J	L	C	M	W
R437X032	1/2"x18	50	59	134	37	42	32



R436

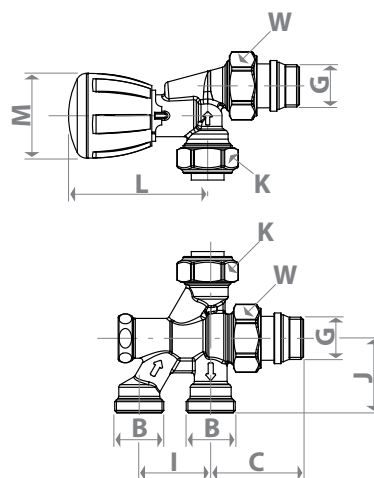


Group with thermostatic option for single pipe systems, with angle valve and lockshield valve, self-sealing tail piece.

NOTES

The connection pipe Ø 16 mm (R194 series) between the valve and the lockshield valve must be purchased separately. For the connection to the pipe, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	J	L	C	M	K	W
R436X062	1/2"x16	35	37	68	46	42	27	30
R436X063	1/2"x18	50	42	68	38	42	27	30



R436-1

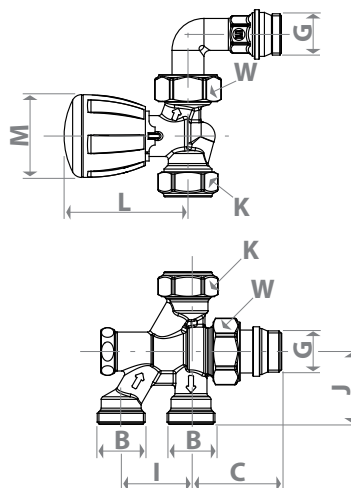


Group with thermostatic option for single pipe systems, with straight valve and lockshield valve, self-sealing tail piece.

NOTES

The connection pipe Ø 16 mm (R194 series) between the valve and the lockshield valve must be purchased separately. For the connection to the pipe, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	J	L	C	M	K	W
R436IX043	1/2"x16	35	37	62	46	42	27	30
R436IX044	1/2"x18	50	42	62	38	42	27	30



R436M

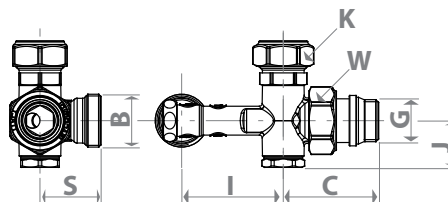
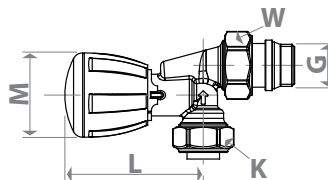


Group with thermostatic option for single pipe systems, with angle valve and lockshield valve, wall connection, self-sealing tail piece.

NOTES

The connection pipe Ø 16 mm (R194 series) between the valve and the lockshield valve must be purchased separately. For the connection to the pipe, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	J	L	C	S	M	K	W
R436MX037	1/2"x18	50	23	68	47	30	42	27	30



R436M-1

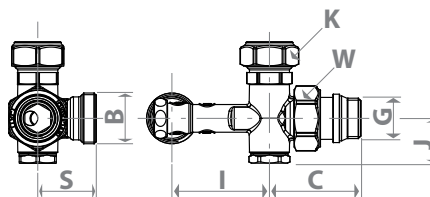
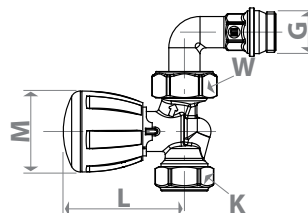


Group with thermostatic option for single pipe systems, with straight valve and lockshield valve, wall connection, self-sealing tail piece.

NOTES

The connection pipe Ø 16 mm (R194 series) between the valve and the lockshield valve must be purchased separately. For the connection to the pipe, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	J	L	C	S	M	K	W
R436MX033	1/2"x18	50	23	62	47	30	42	27	30



R356M1

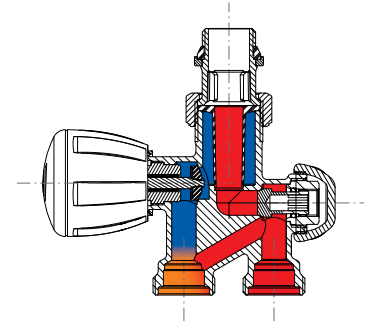
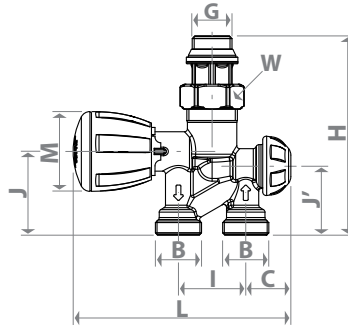


Micrometric valve with thermostatic option for single pipe systems, straight, with entry to radiator from below, with self-sealing tail piece.

NOTES

The injection probe Ø 12 mm (R171F series) must be purchased separately.
For the connection to the pipe, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	J	J'	L	C	H	M	W
R356MX061	1/2"x16	35	44	36	115	25	104	42	30
R356MX062	1/2"x18	50	43	35	116	22	103	42	30



R357M1

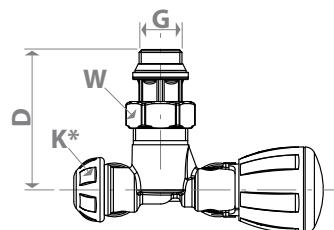
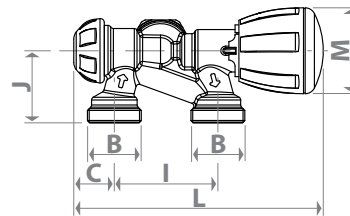


Micrometric valve with thermostatic option for single pipe systems, angled, with entry to radiator from below, right-hand connection with self-sealing tail piece.
T357MX011: version for toweldryer, brilliant chrome-plating, without self-seal.

NOTES

* The injection probe Ø 12 mm (R171C or R171P series) must be purchased separately.
* Measurement of the operating key for the brilliant chrome-plated brass nut T26C.
** The injection probe Ø 12 mm (R171F series) must be purchased separately.
For the connection to the pipe, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	J	L	C	D	M	K*	W
T357MX011	1/2"x16 *	35	35	124	31	68	42	30	30
R357MX062	1/2"x18 **	50	35	123	22	68	42	-	30



R358M1



Micrometric valve with thermostatic option for single pipe systems, angled, with entry to radiator from below, left-hand connection with self-sealing tail piece.

T358MX011: version for toweldryer, brilliant chrome-plating, without self-seal.

NOTES

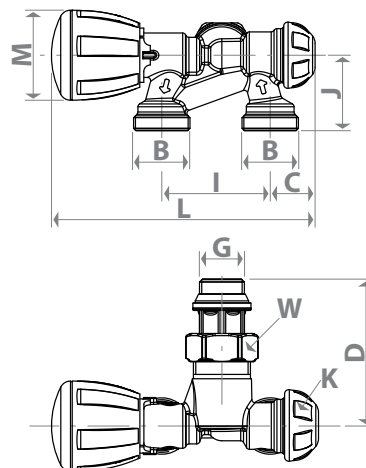
* The injection probe Ø 12 mm (R171C or R171P series) must be purchased separately.

* Measurement of the operating key for the brilliant chrome-plated brass nut T26C.

** The injection probe Ø 12 mm (R171F series) must be purchased separately.

For the connection to the pipe, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	J	L	C	D	M	K *	W
T358MX011	1/2"x16 *	35	35	124	31	68	42	30	30
R358MX062	1/2"x18 **	50	35	123	22	68	42	-	30

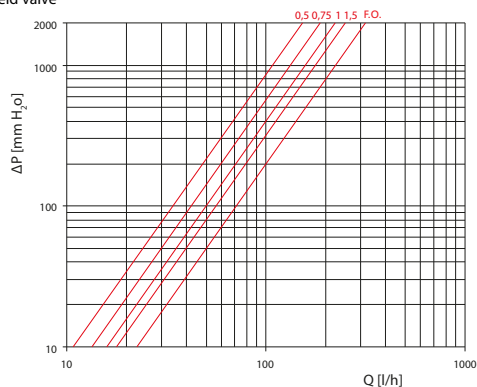


Losses of pressure

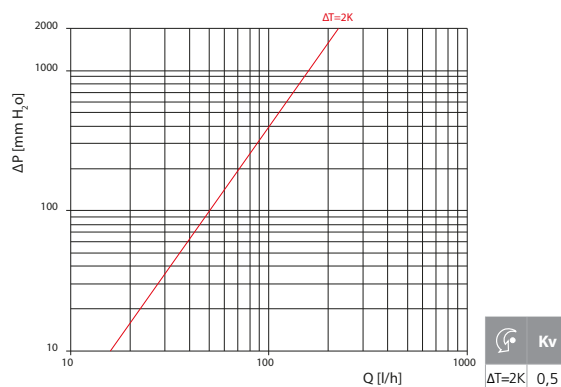
TWIN PIPE VALVES

R438 R438-1

The numbers relating to the curves indicate the number of opening rotations of the internal lockshield valve

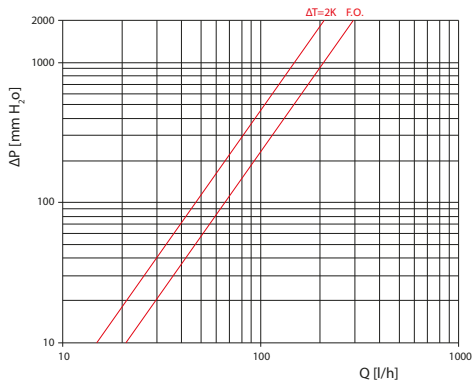


ΔT=2K lockshield valve fully open



R438M

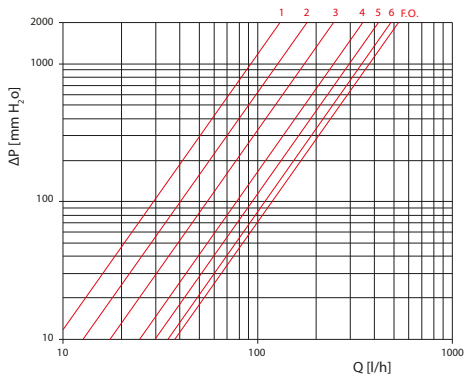
F.O. manual handwheel fully open and lockshield valve fully open
 $\Delta T=2K$ lockshield valve fully open



Kv
$\Delta T=2K$ 0,47
F.O. 0,66

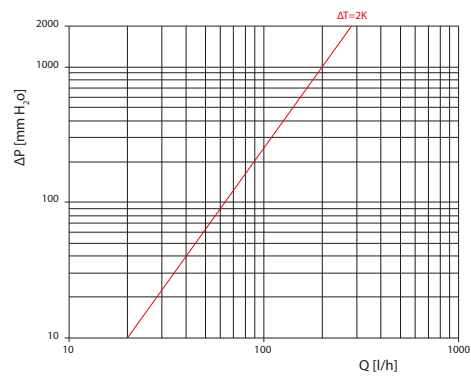
R440N

The numbers relating to the curves indicate the number of opening rotations of the internal lockshield valve



Kv
1 0,29
2 0,40
3 0,55
4 0,78
5 0,94
6 1,09
F.O. 1,18

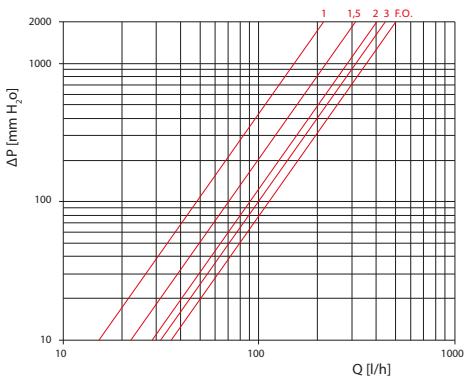
$\Delta T=2K$ lockshield valve fully open



Kv
$\Delta T=2K$ 0,63

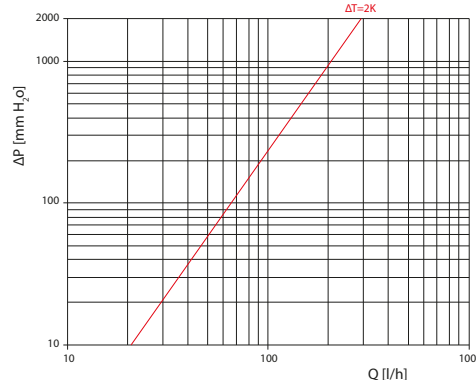
R356B1

The numbers relating to the curves indicate the number of opening rotations of the internal lockshield valve



Kv
1 0,48
1.5 0,70
2 0,90
3 1,00
F.O. 1,13

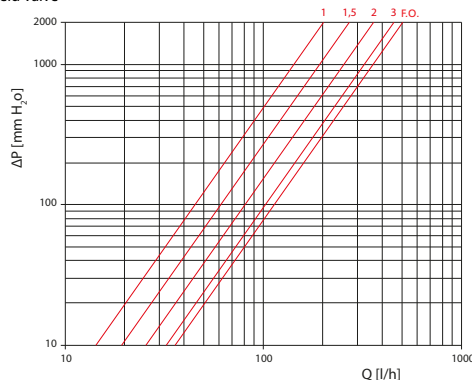
$\Delta T=2K$ lockshield valve fully open



Kv
$\Delta T=2K$ 0,65

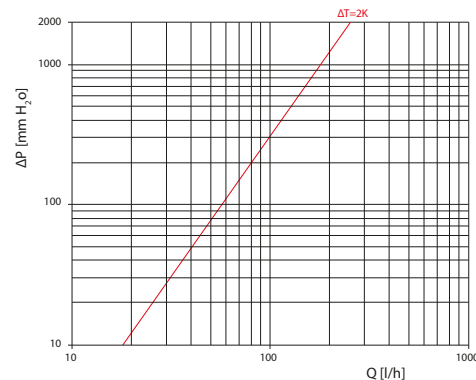
R357B1 R358B1

The numbers relating to the curves indicate the number of opening rotations of the internal lockshield valve



Kv
1 0,45
1.5 0,61
2 0,81
3 1,02
F.O. 1,13

$\Delta T=2K$ lockshield valve fully open

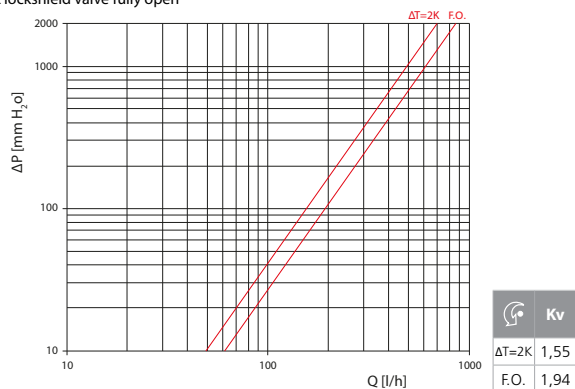


Kv
$\Delta T=2K$ 0,57

SINGLE PIPE VALVES

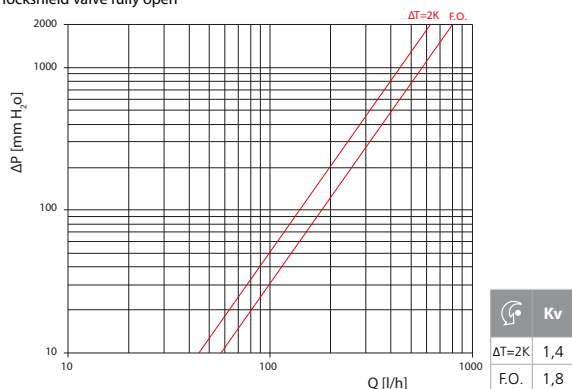
R437N

F.O. manual handwheel fully open and lockshield valve fully open
 $\Delta T=2K$ lockshield valve fully open



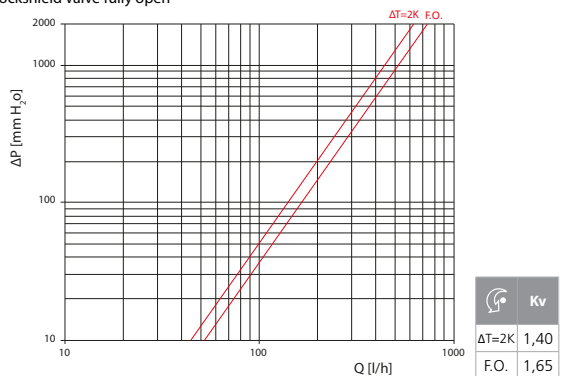
R437

F.O. manual handwheel fully open and lockshield valve fully open
 $\Delta T=2K$ lockshield valve fully open



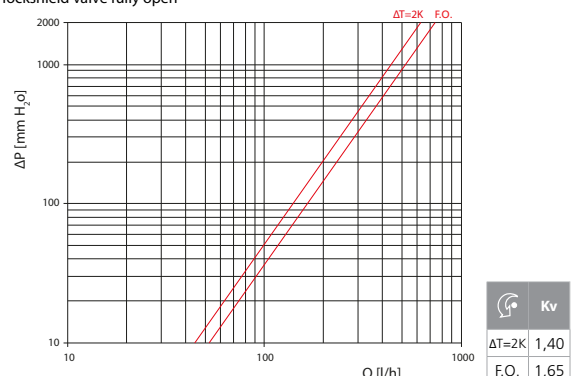
R436 R436-1

F.O. manual handwheel fully open and lockshield valve fully open
 $\Delta T=2K$ lockshield valve fully open



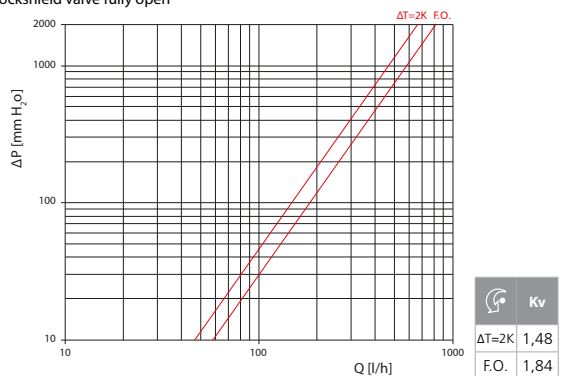
R436M R436M-1

F.O. manual handwheel fully open and lockshield valve fully open
 $\Delta T=2K$ lockshield valve fully open



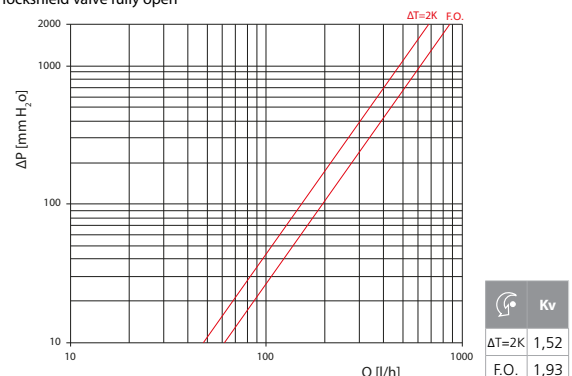
R356M1

F.O. manual handwheel fully open and lockshield valve fully open
 $\Delta T=2K$ lockshield valve fully open



R357M1 R358M1

F.O. manual handwheel fully open and lockshield valve fully open
 $\Delta T=2K$ lockshield valve fully open



SINGLE PIPE / TWIN PIPE VALVES WITH THERMOSTATIC OPTION, R304T SERIES

Use

Thanks to its special construction characteristics, the R304T valve can be used for manual or thermostatic single pipe or twin pipe systems. The various positioning possibilities for the command handwheel means that thermostatic elements can be applied even when there is little available space. In addition, the handwheel can be orientated as required, allowing connections either on the wall or on the floor.

Characteristics

Thanks to its special double built-in lockshield valve, the R304T valve can be used in both the single pipe and the twin pipe versions. In the twin pipe version, the lockshield valve enables the balancing of the heating element as specified by the system designer. The total closure of the lockshield valve and command handwheel allow the heating element to be disconnected from the system. The fact that the head can be oriented allows installation to both the right and the left of the heating element, even on fairly narrow radiators like those made of aluminium or steel. In particular conditions, the special internal conformation of the valve body allows the entry of the supply flow from either of the two connections. If the differential pressure of the valve connections is high, it is better if the inlet connection is the one nearest the radiator.

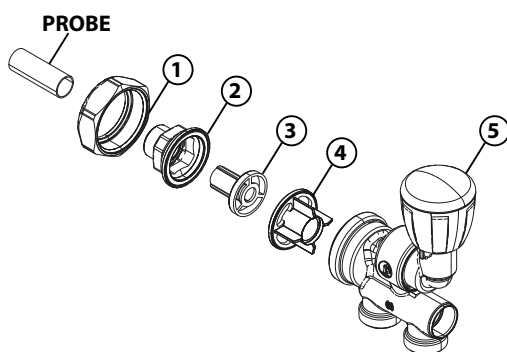


WARNING!

If the differential pressure of the valve connections is high, it is better if the inlet connection is the one nearest the radiator.

Instructions for installing the probe

Only for models requiring the use of the R171P or R171C injection probe.



1. Insert the probe in the black probe-holder separator (3); the probe size must correspond to the diameter of the hole on the probe-holder.
2. Tighten the tail piece and nut (2 - 1) on the radiator connection.
3. After positioning the separator (4) in the valve body (5), tighten the nut (1) to the valve body of the R304T.



Warning!

To obtain a good yield from the heating element, you are advised to apply probes with a length equal to roughly 2/3 of the heating element itself.

Technical data

- Temperature series: 5÷110 °C
- Max. working pressure: 10 bar
- Maximum differential pressure: 1,4 bar
- Percentage of flow rate to the radiator in the single pipe version with the manual valve fully open: 47 %
- Percentage of flow rate to the radiator in the single pipe version with a thermostatic head: 33 %

R304T

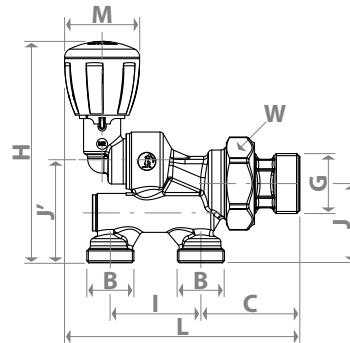


Valve for twin pipe and single pipe systems, micrometric, with thermostatic option, with command handwheel that can be oriented 0-180°.

NOTES

The injection probe Ø 12 mm (R171C or R171P series) must be purchased separately.
For the connection to the pipe, use the R178, R178C, R179 or R179AM adaptors.

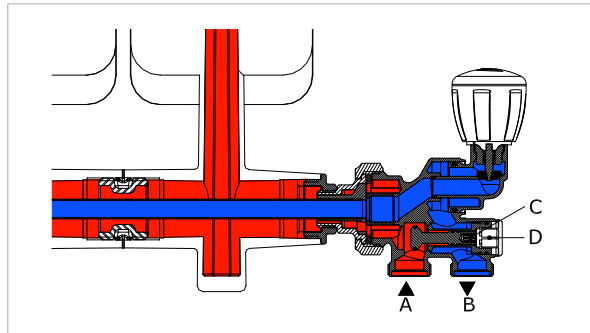
Product code	GxB	I	J	J'	L	C	H	M	W	Ø PROBE
R304TX011	1/2"x16	35	38	50	115	51	116	42	46	11
R304TX012	1/2"x18	50	44	56	125	51	122	42	46	11
R304TX013	3/4"x16	35	38	50	116	53	116	42	46	12
R304TX014	3/4"x18	50	44	56	126	53	122	42	46	12
R304TX015	1"right x16	35	38	50	118	55	116	42	46	14
R304TX016	1"left x 16	35	38	50	118	55	116	42	46	14
R304TX017	1"right x18	50	44	56	128	55	122	42	46	14
R304TX018	1"left x 18	50	44	56	128	55	122	42	46	14



Kit of tail pieces for R304T valves

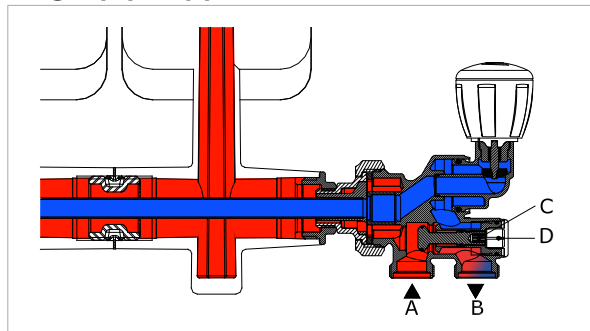
Product code	GxB
P304TX003	1/2"
P304TX004	3/4"
P304TX005	1"right
P304TX006	1"left

Twin pipe application



In the twin pipe version, the R304T valve works by closing (clockwise) the external lockshield valve (D) with a 10 mm allen spanner in order to prevent the bypass of the fluid in the valve. You can use a 4 mm allen spanner to intervene on the internal lockshield valve (C), firstly to balance the flow rate of the fluid that passes through the heating element, but also to disconnect the radiator from the system (if the internal lockshield valve is fully closed). For the valve to work in the best possible manner, the delivery fluid should enter the valve from the connection nearest the heating element. If the differential pressure of the valve connections is not high (less than 2 m.H₂O - as in the case of fairly small heating elements), operation is still guaranteed even when the supply arrives from the connection furthest from the heating element.

Single pipe application

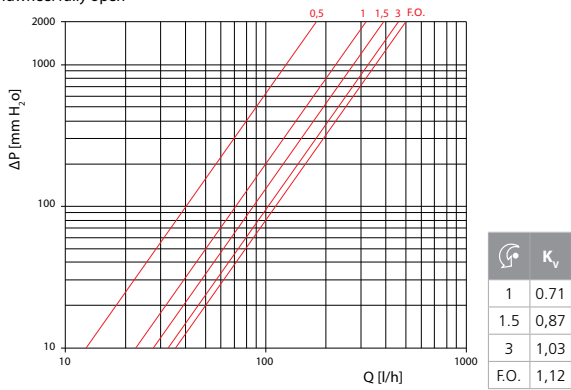


To use the R304T valve in the single pipe version, use a 10 mm allen spanner to rotate the external lockshield valve (D) anticlockwise in order to fully open the bypass. The radiator can be disconnected from the system if the internal lockshield valve (C) is fully closed with the aid of a 4 mm allen spanner. For the valve to work in the best possible manner, the delivery fluid should enter the valve from the connection nearest the heating element. If the differential pressure of the valve connections is not high (as in the case of fairly small heating elements), operation is still guaranteed even when the supply arrives from the connection furthest from the heating element.

Losses of pressure

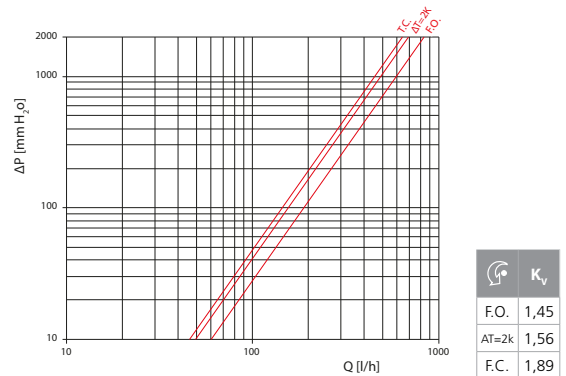
R304T twin pipe version

F.O. manual handwheel fully open and lockshield valve fully open
 NB: handwheel fully open



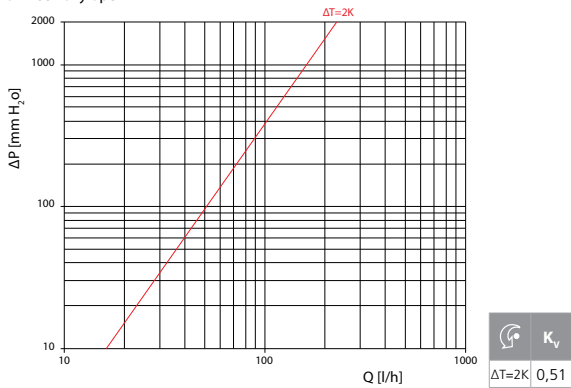
R304T single pipe version

F.O. manual handwheel fully open and lockshield valve fully open
 $\Delta T=2K$ internal lockshield valve fully open
 F.O. manual handwheel fully closed and internal lockshield valve fully open



R304T twin pipe version with opening corresponding to $\Delta T=2K$

F.O. manual handwheel fully open and lockshield valve fully open
 NB: handwheel fully open

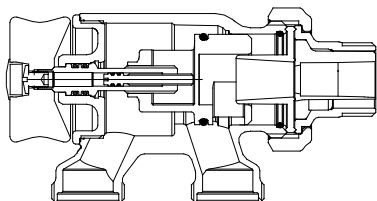


MANUAL SINGLE PIPE VALVES

Use

When creating traditional single pipe heating systems, manual 4-way valves (without thermostatic option) are often preferred. The Giacomini R324N valve is a single pipe valve with the possibility to allocate the flow rate in the radiator between 0 % and 100 %. The complete closure of the handwheel leads to the total isolation of the heating element, thereby deviating the entire flow rate onto the bypass conduit. This operation allows interventions on a single radiator without the need to interrupt system operation. The special internal conformation of the valve means it can work even if the delivery and return connections are inverted.

Characteristics



Single pipe valve with the possibility of allocating the flow rate in the radiator between 0 % and 100 %, and micrometric pre-adjustment. The micrometric adjustment is essential in all applications where it is important to limit the maximum valve opening. In this way, you can balance the flow rates to the heating elements installed on the ring, and recover the ring after any maintenance work.



NB:

In the Giacomini R324N valve, the coupling of the probe with the flow separator is made easier by using the P16S probe-holder separator.

Technical data

- Temperature series: 5÷110 °C
- Max. working pressure: 10 bar

R324N

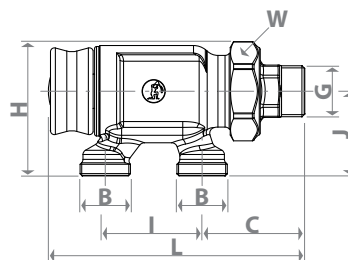


Manual valve for single pipe systems, with micrometric pre-adjustment.

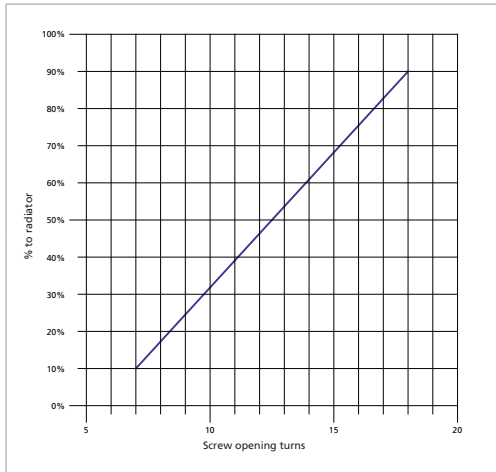
NOTES

The injection probe \varnothing 12 mm (R171C or R171P series) must be purchased separately. For the connection to the pipe, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	J	H	L	C	W	Kv	\varnothing PROBE
R324NX011	1/2"x16	35	38	64	126	52	46	1,80	11
R324NX012	1/2"x18	50	44	69	131	52	46	1,80	11
R324NX013	3/4"x16	35	38	64	127	53	46	1,80	12
R324NX014	3/4"x18	50	44	69	132	53	46	2,10	12
R324NX015	1"left x16	35	38	64	129	55	46	2,50	14
R324NX016	1"left x 18	50	44	69	134	55	46	2,50	14
R324NX017	1"right x16	35	38	64	129	55	46	2,50	14
R324NX018	1"right x 18	50	44	69	134	55	46	2,50	14



Regulation



The flow rate is allocated with the aid of the micrometric adjustment screw. Starting from the complete closure of the valve and the adjustment screw, the latter is then re-opened by a number of rotations corresponding to the required percentage (refer to the diagram).

R314N

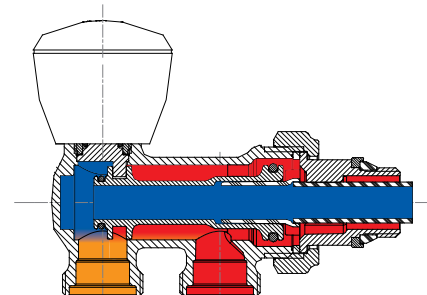
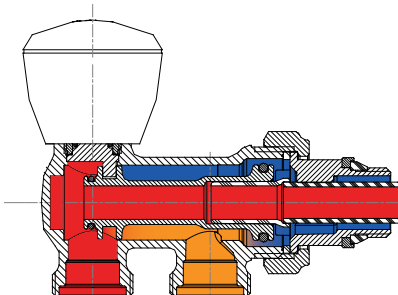
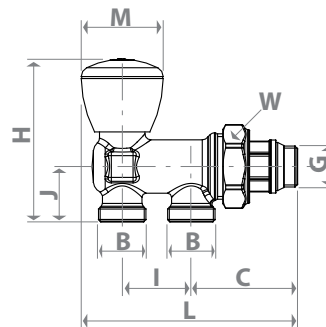
Manual valve for single pipe systems.



NOTES

The injection probe \varnothing 12 mm (R171C or R171P series) must be purchased separately. For the connection to the pipe, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	H	J	L	C	M	W
R314NX002	1/2"x16	35	83	28	110	54	42	38



R314DN



Manual valve for single pipe systems with external probe.

NOTES

The connection pipe Ø 16 mm (R194 series) between the valve and the lockshield valve must be purchased separately. For the connection to the pipe, use the R178, R178C, R179 or R179AM adaptors.

Product code	GxB	I	H	J	L	C	M	W	K
R314DX032	1/2"x16	35	83	28	141	91	42	38	27

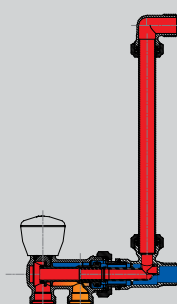
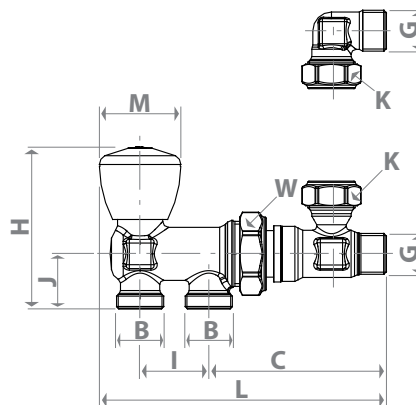


Fig.A

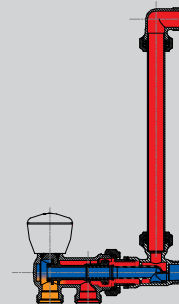


Fig.B

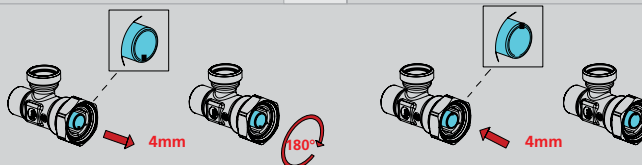


fig.c

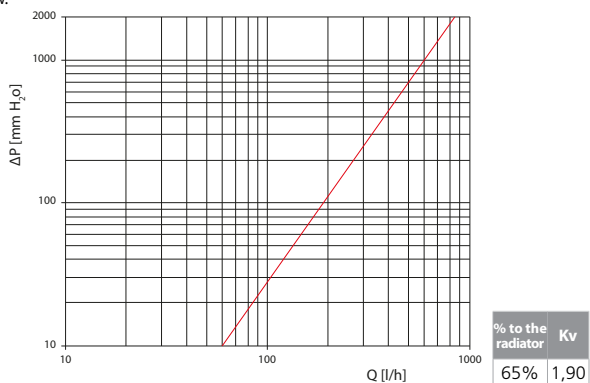
Layout of the connections

In the standard configuration, the return is near the radiator and the delivery is on the outside. (fig.a) If the opposite configuration is necessary (delivery near the radiator and return on the outside - Fig.b), you must intervene on the separation group, -with the operations shown in fig.c.

Losses of pressure

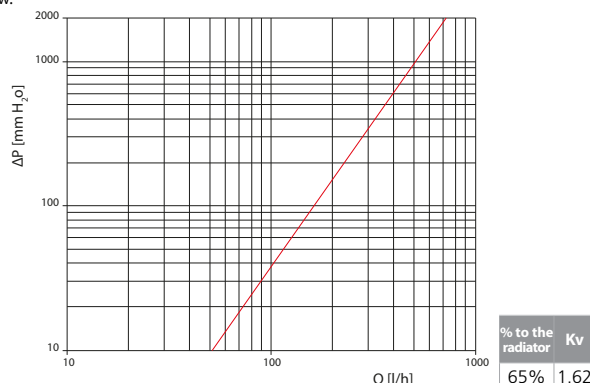
R314N

With the valve in the open position, the flow rate to the radiator corresponds to 65% of the total inflow.



R314DN

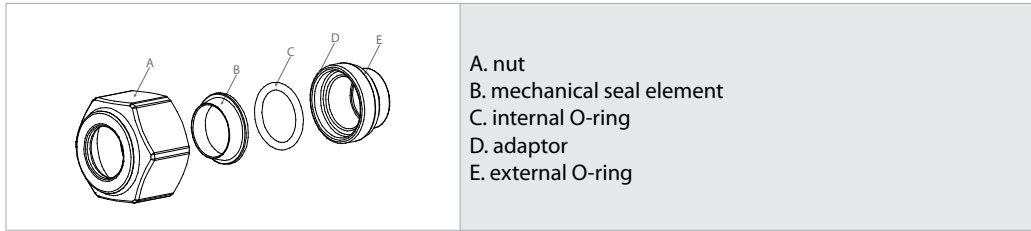
With the valve in the open position, the flow rate to the radiator corresponds to 65% of the total inflow.



ADAPTORS

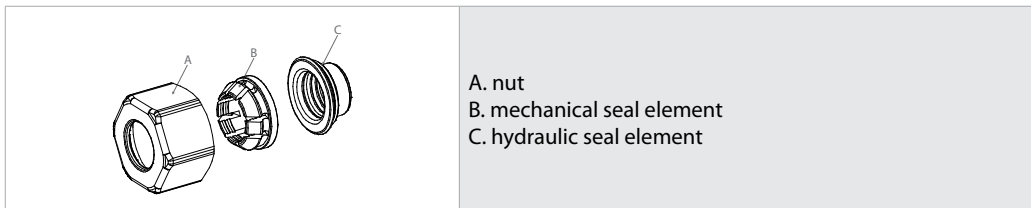
The connection of the copper pipes to the thermo-hydraulic distribution systems can be made with the following types of compression fittings. You are advised to check the sizes and codes available for each figure, referring to the latest price list catalogue.

R178 - Compression fittings for copper pipes



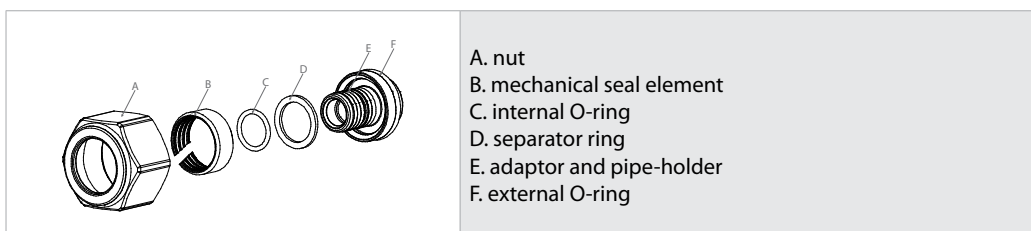
1. The pipe must be cut perpendicular to its axis, and deburred on the outer surface.
2. Fit first the nut (A) and then the mechanical seal element (B) on the pipe.
3. Lubricate the hydraulic seal elements (this is essential to prevent any damage to the O-ring during installation, that could jeopardise the effectiveness of the joint).
4. Install the internal O-ring (C) in the seat of the adaptor (D) (where envisaged) or the seat of the end part of the thermo-hydraulic distribution system.
5. Insert the pipe in the adaptor (D) (where envisaged) or in the end part of the thermo-hydraulic distribution system, pushing it right down as far as it will go.
6. Tighten the nut (A) to the end part of the thermo-hydraulic distribution.

R178C - Compact compression fittings for copper pipes



1. The pipe must be cut perpendicular to its axis, and deburred on the outer surface.
2. Fit first the nut (A) and then the mechanical seal element (B) on the pipe.
3. Lubricate the hydraulic seal element (C) (this is essential to prevent any damage to it during installation, jeopardising the effectiveness of the joint).
4. Install the hydraulic seal element (C) in the seat of the end part of the thermo-hydraulic distribution system.
5. Insert the pipe in the end part of the thermo-hydraulic distribution system, pushing it right down as far as it will go.
6. Tighten the nut (A) to the end part of the thermo-hydraulic distribution system.

R179AM - Compression fittings for synthetic or multilayer pipes



1. The pipe must be cut perpendicular to its axis, using shears (you are advised to rotate the shears slightly while cutting, to facilitate the operation). In the case of multilayer pipes, use the wheel pipe-cutter to limit the ovaling effect.
2. Make sure the hydraulic seal elements are not damaged during installation, as this could jeopardise the effectiveness of the joint:
 - a. deburr the internal surface of the pipe, using the RP205 tool;
 - b. calibrate the internal surface of the pipe, using the RP209 tool (only in the case of multilayer pipes);
 - c. lubricate the hydraulic seal elements and the internal pipe surface in contact with the internal O-ring (C).
3. Fit first the separator ring (D) and then the pipe on the adaptor pipe-holder, pushing it right down as far as it will go.
4. House the adaptor in the end part of the thermo-hydraulic distribution system, via the external O-ring (F).
5. Tighten the nut (A) to the end part of the thermo-hydraulic distribution system.



Warning!


When connecting the multilayer pipes to the thermo-hydraulic distribution systems, the positioning of the plastic separator ring between the exposed surface of the metal layer of the pipe and the adaptor body will prevent electro-corrosive phenomena that could jeopardise the reliability of the joint.

THERMOSTATIC HEADS

On the Giacomini twin pipe and single pipe valves with thermostatic option, just remove the R450TG manual handwheel (with the aid of a screwdriver) to then easily assemble the Giacomini thermostatic heads, using the exclusive CLIP CLAP fixing system.




Modello	R460X001	R470X001	R468CX001	R468X001
L' - L	53	35	63	52

 **Warning!**
In the case of systems with thermostatic heads, you are advised to use R147N differential valves to avoid any risk of overpressure when the actuators close.

ACCESSORIES AND SPARE PARTS


Probes

R171P Plastic probe for twin pipe and single pipe valves.
Length 450 mm



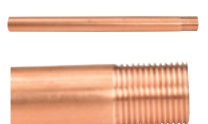
Product code	Size
R171PY001	ø 11
R171PY002	ø 12
R171PY003	ø 14

R171C Copper probe for twin pipe and single pipe valves.
Length 450 mm



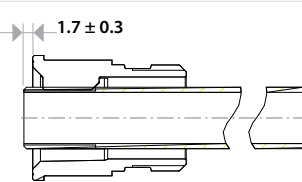
Product code	Size
R171CY001	ø 11
R171CY002	ø 12
R171CY003	ø 14

R171F Threaded copper probe for twin pipe and single pipe valves.
Length 450 mm



Product code	Size
R171FY002	ø 12

Special insertion of the threaded probe.
When the M12x1 threaded probe is correctly inserted and fully screwed onto the tail piece, it should protrude from the tail piece by 1,7 mm.



Tail pieces

P15TG



Chrome-plated tail piece with self-seal for valves and lockshield valves of the Giacotech series.

NOTES

P15TGX002: for versions with 3/8" iron connection.
 P15TGX003: for versions with 3/8"x16 adaptor connection.
 P15TGX004: for versions with 1/2"x16 / 1/2"x18 adaptor connection, 1/2" iron connection.
 P15TGX043: for R437, R437N and R440N valves.
 P15TGX045: for R356B1, R356M1, R357B1, R357M1, R358B1, R358M1 valves.

Product code	Size
P15TGX002	3/8"
P15TGX003	1/2" x 3/8"
P15TGX004	1/2"
P15TGX043	1/2"
P15TGX045	1/2"

P15-7



Chrome-plated tail piece for 4-way valves, R324N, R304T series.

Product code	Size
P15X033	1/2"
P15X034	3/4"
P15X035	1" right thread
P15X036	1" left thread

Other accessories

P26PD



Plastic cap for lockshield valves.

NOTES

P26PY012: for versions with 3/8" iron connection.
 P26PY013: for versions with 1/2" iron connection and 3/8"x16 / 1/2"x16 / 1/2"x3/8" adaptor connection.

Product code	Size
P26PY012	3/8"
P26PY013	1/2"

P16S



Plastic probe-holder separator for valves of the R324N and R304T series.

Product code	Size
P16SY001	1/2" - probe ø 11
P16SY002	3/4" - probe ø 12
P16SY003	1" - probe ø 14

P16-1



Plastic flow separator for valves of the R356B1, R356M1, R357B1, R357M1, R358B1, R358M1 series.

Product code	Size
P16Y001	-

P16-3



Plastic flow separator for valves of the R437N, R440N series.

Product code	Size
P16Y003	-

P16-5



Plastic flow separator for valves of the R324N series.

Product code	Size
P16Y005	-

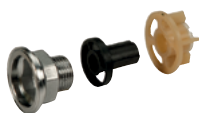
P16-6



Plastic flow separator for valves of the R304T series.

Product code	Size
P16Y008	-

P304T



Spare tail piece for R304T valves, complete with probe-holder separator and flow separator.

Product code	Size
P304TX003	1/2"
P304TX004	3/4"
P304TX005	1" right thread
P304TX006	1" left thread

R194



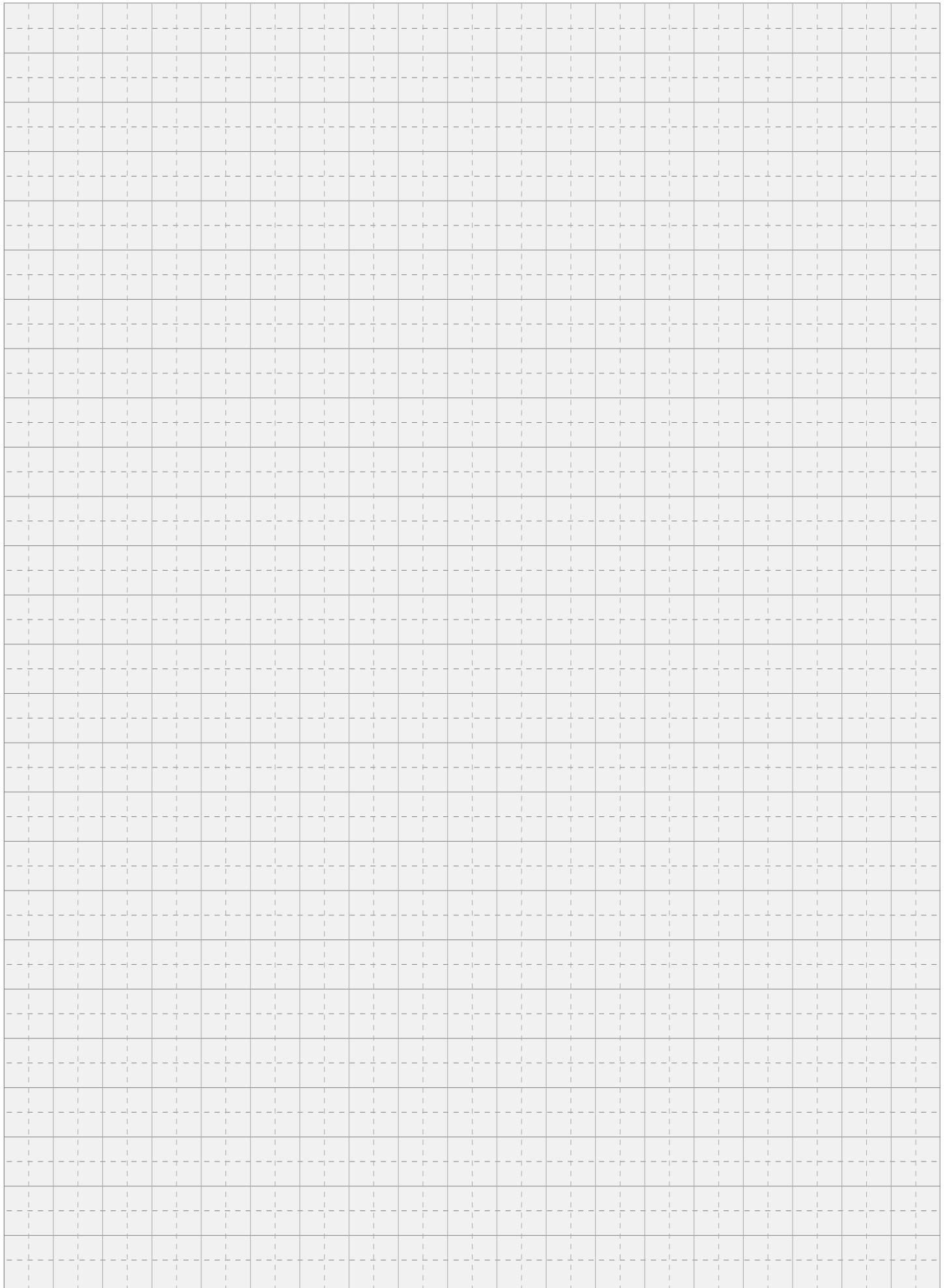
Chrome-plated pipe ø 16 mm, for connecting the twin pipe and single pipe groups with two connections.

Product code	Size
R194X002	ø 16 x 600 mm
R194X003	ø 16 x 900 mm
R194X004	ø 16 x 1000 mm
R194X005	ø 16 x 1200 mm

NOTES

The page contains a large grid of graph paper for taking notes. The grid consists of 20 columns and 30 rows of small squares. The top-left corner of the grid is positioned directly below the 'NOTES' header.

NOTES





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