

# MANUAL VALVES AND LOCKSHIELD VALVES FOR RADIATORS

## 1. DESCRIPTION

FAR valves and lockshield valves are designed for use on heating and cooling systems.

**VALVE:** the component which permits adjustment or shutting off of the fluid circulating within the system.

**LOCKSHIELD VALVE:** the component which allows circuit balancing.



Art. 1050 - Art. 1100

Chrome-plated angled valve and lockshield valve with interchangeable sizes for copper, plastic and multilayer pipe.  
Size: 3/8" - 1/2"



Art. 1250 - Art. 1300

Chrome-plated straight valve and lockshield valve with interchangeable sizes for copper, plastic and multilayer pipe.  
Size: 3/8" - 1/2"



Art. 1150 - Art. 1200

Chrome-plated angled valve and lockshield valve with iron pipe connection.  
Size: 3/8" - 1/2" - 3/4" - 1"



Art. 1350 - Art. 1400

Chrome-plated straight valve and lockshield valve with iron pipe connection.  
Size: 3/8" - 1/2" - 3/4" - 1"

A variety of methods is available for connecting radiators into a distribution network, but the most commonly used are the following: lateral, opposite and bottom connection.



### OPPOSITE CONNECTION

This method ensures maximum efficiency as hot water has to pass through the whole heating body of the radiator. From an installation point of view, however, the situation is more complicated because it is necessary to be aware of the centre line between valve and lockshield valve, and the length of the radiator.



### BOTTOM CONNECTION

This is the least used and is achieved by making both connections at the bottom. Heat release is reduced from 5% to 10%, as water flow has a direct path towards exiting from the radiator.

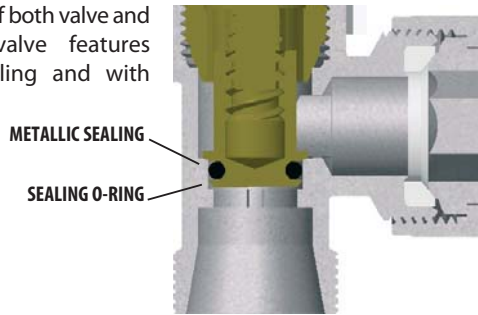


### LATERAL CONNECTION

Lateral is the most common type of connection: it permits good radiator efficiency and easy installation as the only thing necessary bear in mind is the centre line between valve and lockshield valve.

## 2. CONSTRUCTION FEATURES

The shutter of both valve and lockshield valve features metallic sealing and with O-ring seal.



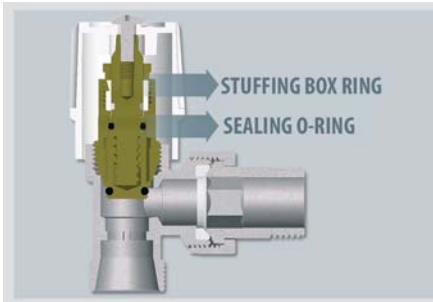
Terminals have a conical thread to optimize the seal and are provided with a special soft film - Loctite® Dri-Seal5061- which guarantees an effective seal on standard threading. If necessary, it is possible to apply the film with other common types of sealing system.

### CONICAL THREAD WITH SEALING FILM

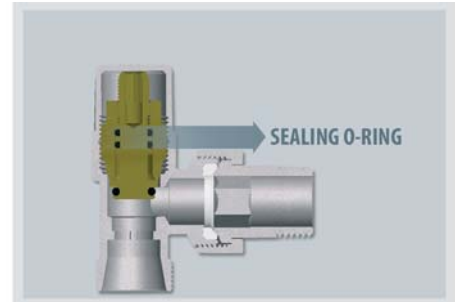


The seal between terminal and valve body is achieved by a HPF seat, which guarantees both reliability and durability.

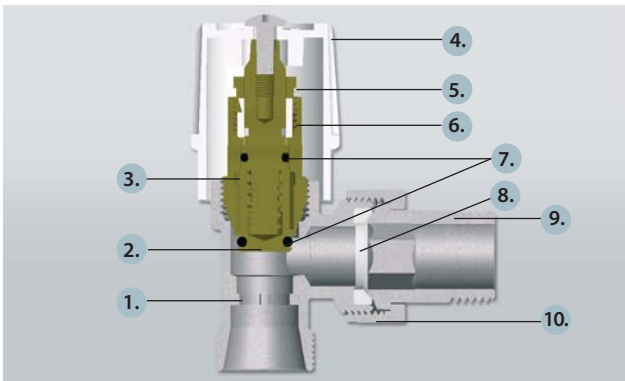
### HPF SEAT



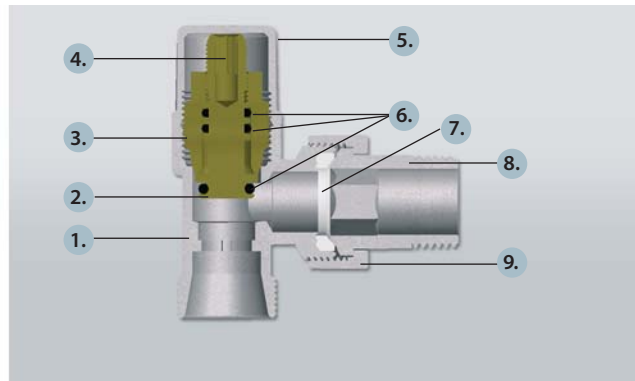
An effective seal is ensured within the valve body by means of a stuffing box with an internal O-ring, while in the lockshield valve it is achieved by two O-rings located on the stem. During assembly the two O-rings are oiled, thus creating a lubricated zone between them, which avoids shutter locking.



## 3. CONSTRUCTION MATERIALS



1. Valve body	CW617N brass
2. Shutter	CW614N brass
3. Body	CW614N brass
4. Manual regulating valve	ABS
5. Stuffing box ring	CW614N brass
6. Stuffing box	PTFE
7. Sealing O-rings	EPDM
8. Valve-terminal sealing seat	HPF
9. Terminal body	CW617N brass
10. Terminal tightening nut	CW617N brass









1. Lockshield valve body	CW617N brass
2. Shutter	CW614N brass
3. Body	CW614N brass
4. Regulating screw	CW614N brass
5. Anti-tamper cap	CW617N brass
6. Sealing O-rings	EPDM
7. Valve-terminal sealing seat	HPF
8. Terminal	CW617N brass
9. Terminal tightening nut	CW617N brass

## 4. INSTALLATION COMPONENTS

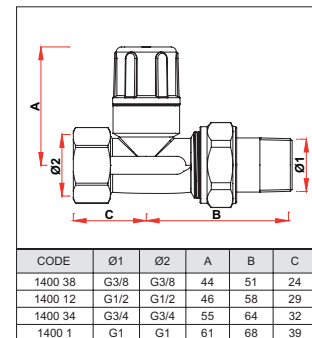
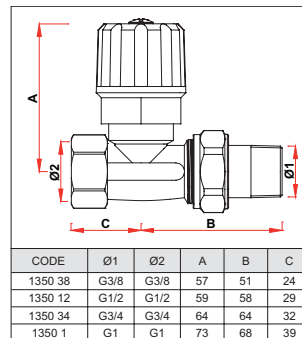
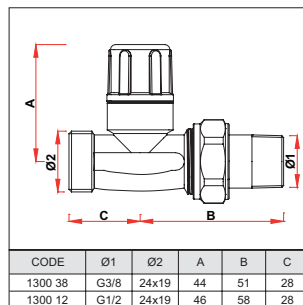
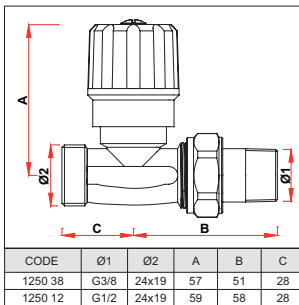
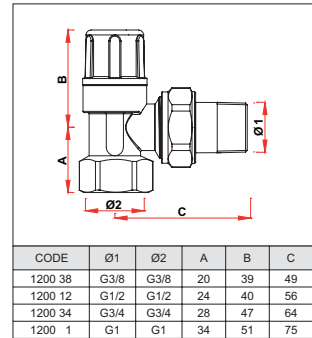
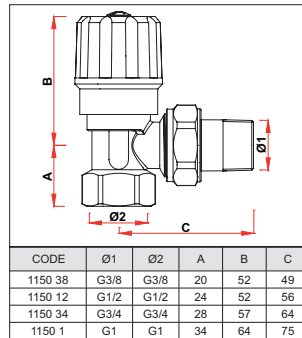
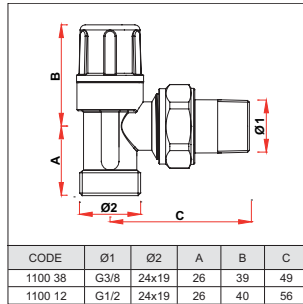
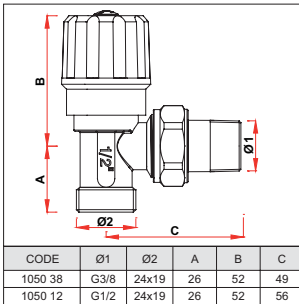
FAR manual valves and lockshield valves are available with interchangeable sizes for copper, plastic and multilayer pipe.



In order to make installation easier, FAR offers a range of accessories:

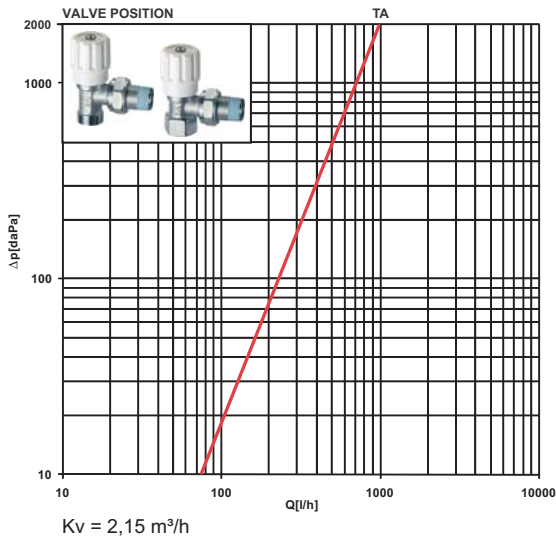
<p><b>ART. 8820</b></p>	<p><b>CHROME-PLATED TELESCOPIC TERMINAL</b> To cover the distance between valve and radiator 3/8": extension from 32 mm to 55 mm 1/2": extension from 35 mm to 60 mm</p>	
<p><b>ART. 8850</b></p>	<p><b>CHROME-PLATED STRAIGHT EXTENSION WITH INTERCHANGEABLE CONNECTION</b> Available with 30-35-40 mm extension Also available with Ø 18 and 22 mm connection kit for copper pipe.</p>	
<p><b>ART. 8865</b></p>	<p><b>CHROME-PLATED REDUCER COMPLETE WITH SEALING GASKET</b> Permits changing a FAR 24x19 female thread in a 1/2" - 3/4" male flat faced or eurokonus thread</p>	
<p><b>ART. 8870</b></p>	<p><b>CHROME-PLATED REDUCER COMPLETE WITH SEALING GASKET</b> Permits changing a FAR 24x19 female thread in a 1/2" female thread</p>	
<p><b>ART. 8900</b></p>	<p><b>CHROME-PLATED SPECIAL ELBOW WITH INTERCHANGEABLE SIZE AND Ø 16 CUT PIPE</b> Available with 30 and 100 mm length</p>	
<p><b>ART. 5560</b></p>	<p><b>ECCENTRIC FITTING</b> Available sizes: 1-2-3-4-5-6 cm with 3/8"-1/2"-3/4" thread, female-female and male-female versions.</p>	

## 5. DIMENSIONAL FEATURES

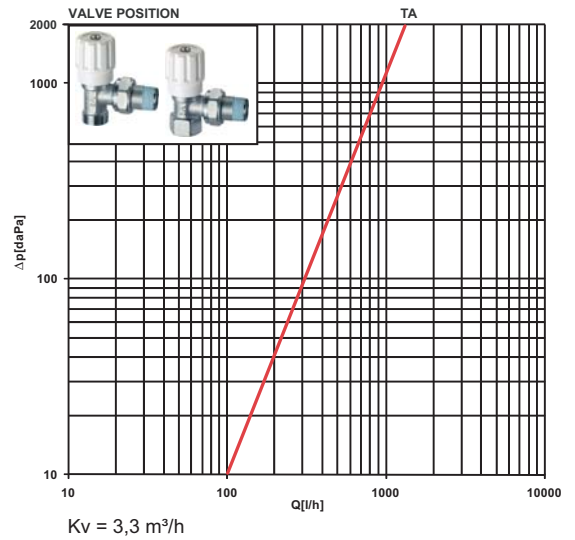


## 6. FLUID DYNAMIC FEATURES

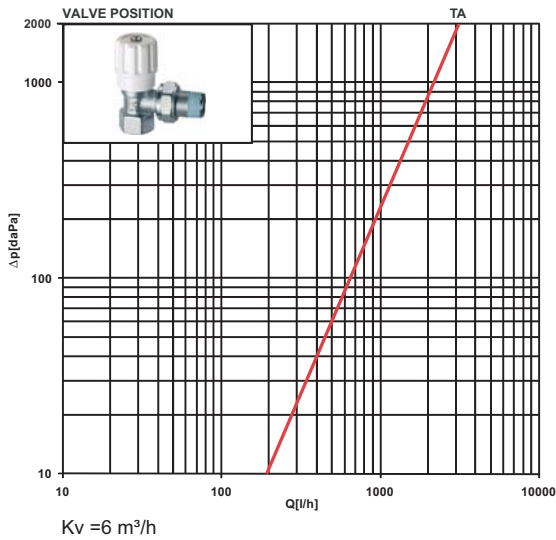
**Art. 1050 38 - 1150 38**



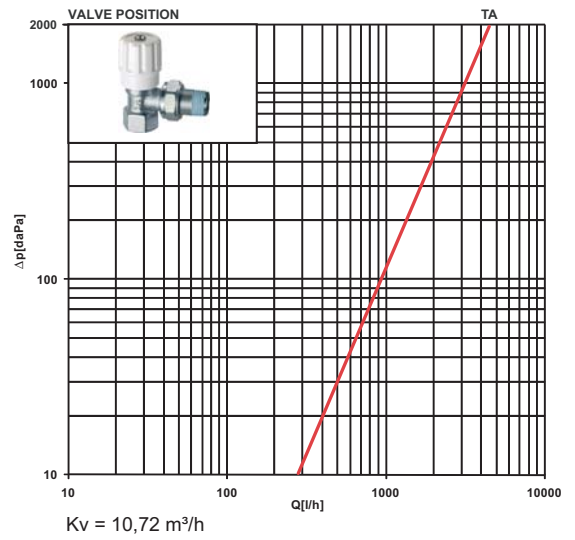
**Art. 1050 12 - 1150 12**



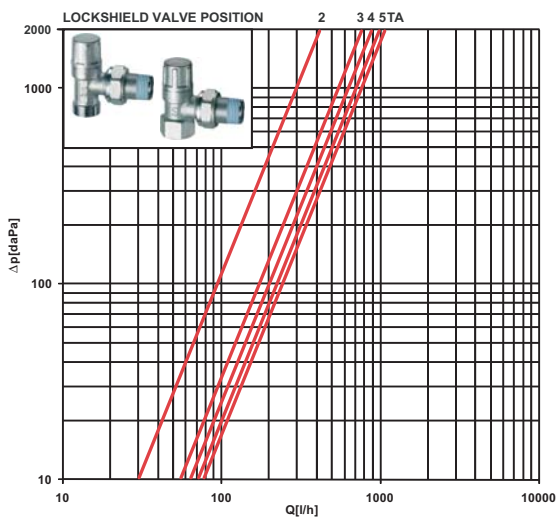
**Art. 1150 34**



**Art. 1150 1**

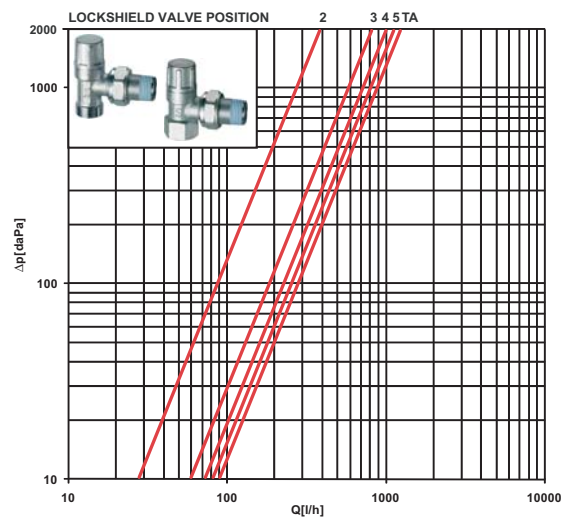


**Art. 1100 38 - 1200 38**



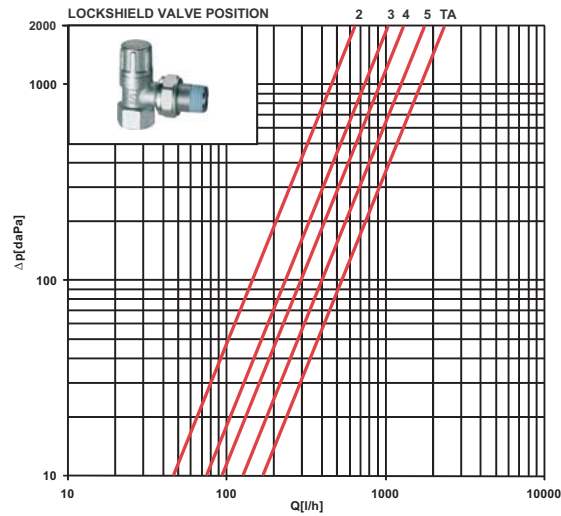
TURNS	2	3	4	5	TA
$K_v \text{ [m}^3/\text{h]}$	0,83	1,75	2,1	2,26	2,35

**Art. 1100 12 - 1200 12**



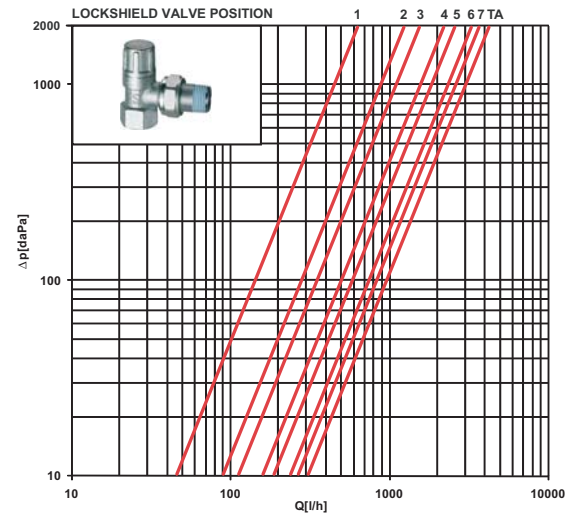
TURNS	2	3	4	5	TA
$K_v \text{ [m}^3/\text{h]}$	0,87	1,84	2,18	2,47	2,65

## Art. 1200 34



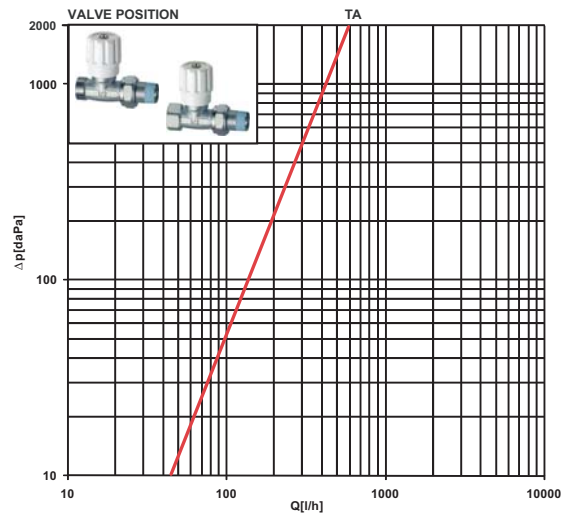
TURNS	2	3	4	5	TA
Kv [m³/h]	1,39	2,14	2,95	4	5

## Art. 1200 1



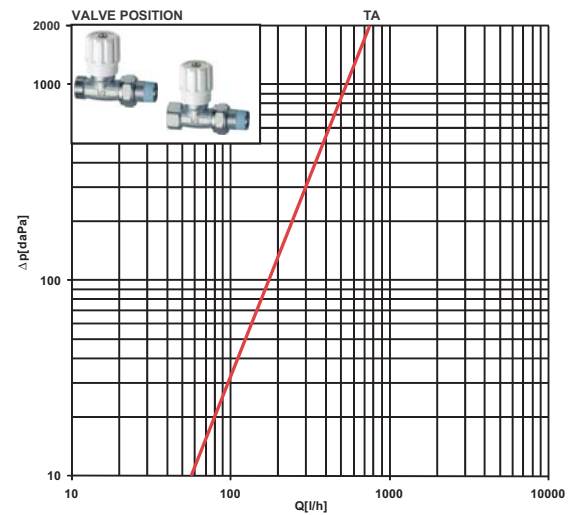
TURNS	1	2	3	4	5	6	7	TA
Kv [m³/h]	1,49	3	3,89	5,2	6	7,41	8,55	9,89

## Art. 1250 38 - 1350 38



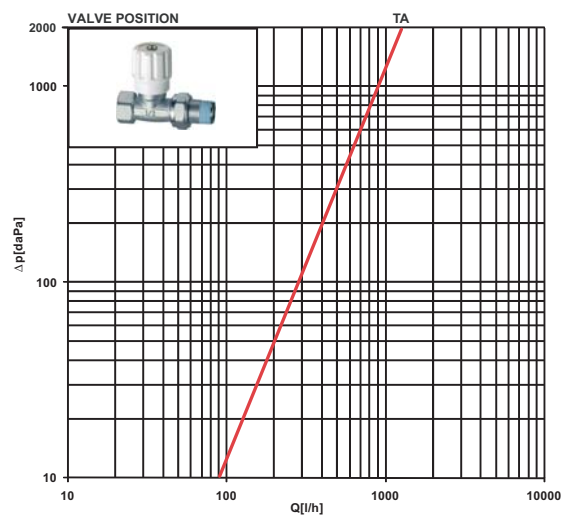
Kv = 1,3 m³/h

## Art. 1250 12 - 1350 12



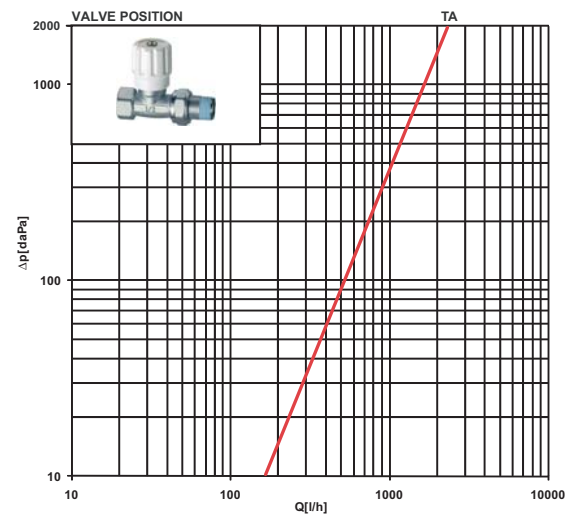
Kv = 1,6 m³/h

## Art. 1350 34



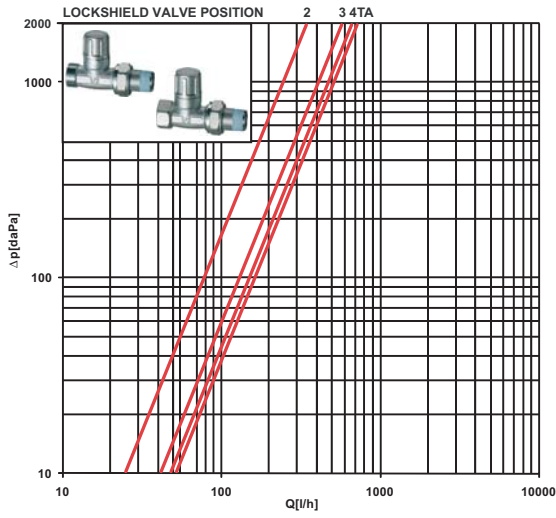
Kv = 2,6 m³/h

## Art. 1350 1



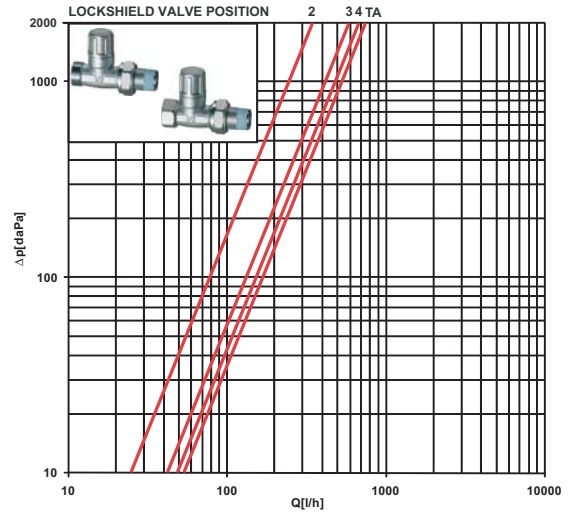
Kv = 5,24 m³/h

## Art. 1300 38 - 1400 38



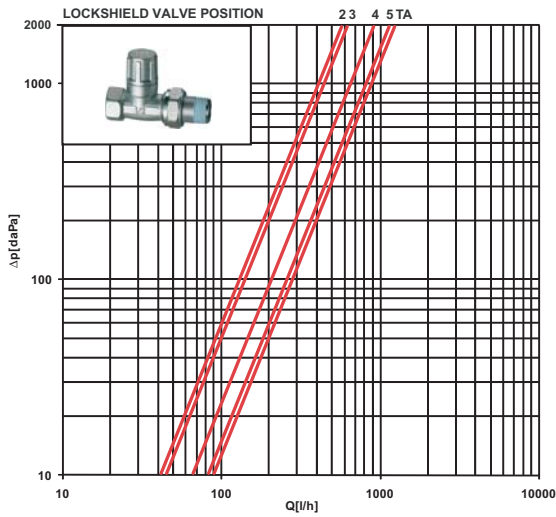
TURNS	2	3	4	TA
Kv [m³/h]	0,75	1,14	1,41	1,52

## Art. 1300 12 - 1400 12



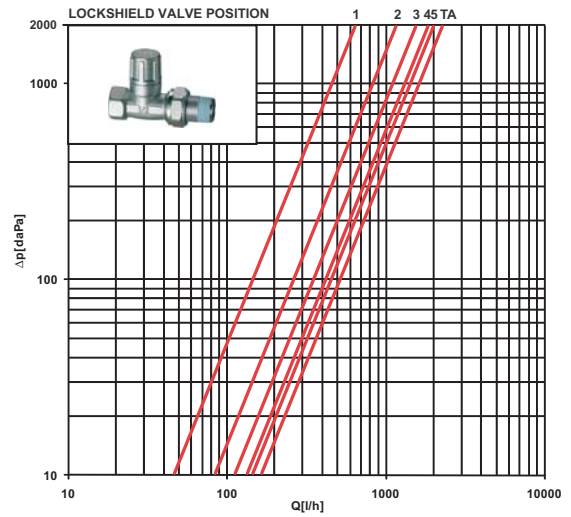
TURNS	2	3	4	TA
Kv [m³/h]	0,7	1,13	1,46	1,56

## Art. 1400 34



TURNS	2	3	4	5	TA
Kv [m³/h]	1,25	1,42	1,94	2,4	2,5

## Art. 1400 1



TURNS	1	2	3	4	5	TA
Kv [m³/h]	1,46	2,57	3,65	4,15	4,5	5

## 7. TECHNICAL FEATURES

Nominal pressure:	16 bar
Max. temperature:	95° C
Compatible media:	water, water with glycol