THERMOSTATIC MIXING VALVE
BASIC SERIES VTA370, VTA570

The ESBE thermostatic mixing valves series VTA370 and VTA570 offer high flow capacity and high functionality for under floor heating circuits.

VTA370
External thread

Pump flange/
External thread

Rotating nut/
External thread

VTA570
External thread

Pump flange/
External thread

Rotating nut/
External thread

OPERATION

The series VTA370/VTA570 is the number one choice for under floor heating systems requiring a scald safe* function, which is important in order to protect under floor heating pipes and also the floor itself.

The valves series VTA570 are also suitable as pre-mixing devices for domestic hot water installations where very high flow rates are required, in which case further mandatory temperature control devices has to be installed at the water taps to provide point of use protection. Series VTA570 is also suitable for cooling applications.

FUNCTION

Asymmetrical flow pattern. Scald safe*.

VERSIONS

The product range includes a wide choice of valves delivered with male thread, pump flange, external thread or nut and various ranges of temperature, which facilitate easy installation and maintenance.

Supplied with large temperature setting knob instead of top cover, unless otherwise stated.

**) Scald safe means that in the case of a cold water failure, the hot water supply shuts off automatically.*

MEDIA

These valves can handle the following types of media:
- Closed systems
- Water with antifreeze additive (glycol ≤ 50% mixture)

VALVES ARE DESIGNED FOR

Series	Temperature range 10 – 30°C	20 – 43°C	35 – 60°C	45 – 65°C	Application
VTA370					Potable water, in line
VTA570	○ 1)			○ 1)	
VTA370					Potable water, point of use
VTA570					
VTA370					Solar heating
VTA570					
VTA370					Cooling
VTA570	●				
VTA370		●	●		Floor heating
VTA570		●		●	

● recommended ○ secondary alternative

1) Mandatory temperature control devices has to be installed at the water taps to provide point of use protection.

TECHNICAL DATA

Pressure class: PN 10
Working pressure: 1.0 MPa (10 bar)
Differential pressure, mixing: max. 0.3 MPa (3 bar)
Pressure drop diagram: see catalogue
Max. media temperature:
Temp. range 10–30°C 65°C
Temp. range 20–43, 35–60, 45–65°C continuously 95°C
temporarily 100°C
Min. media temperature: 0°C
Temperature stability:
Temp. range 10–30°C ±2°C*
Temp. range 20–43, 35–60, 45–65°C ±3°C**
Connection: External thread (G), ISO 228/1

Material
Valve housing and other metal parts with fluid contact:
Dezincification resistant brass, DZR

* Valid at unchanged cold/return water pressure, minimum flow rate 9 l/min. Minimum temperature difference between cold water inlet and mixed water outlet 3°C and recommended maximum temperature difference between return water and mixed water outlet: 10°C.

** Valid at unchanged hot/return water pressure, minimum flow rate 9 l/min. Minimum temperature difference between hot water inlet and mixed water outlet 10°C and recommended maximum temperature difference between return water and mixed water outlet: 10°C.

PED 97/23/EC, article 3.3

Pressure Equipment in conformity with PED 97/23/EC, article 3.3 (sound engineering practice). According to the directive the equipment shall not carry any CE-mark.

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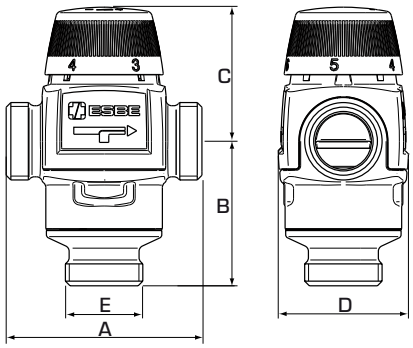
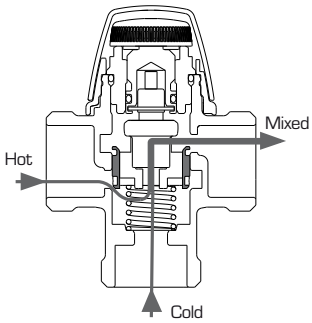
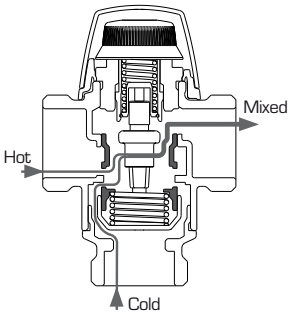




VTA370



VTA570

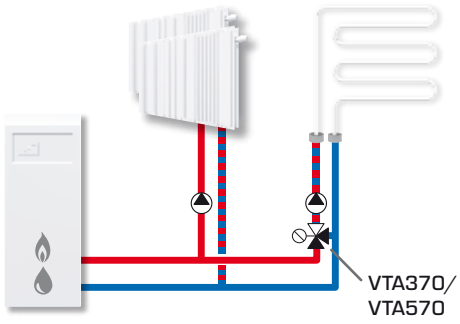
SERIES VTA372/VTA572, EXTERNAL THREAD

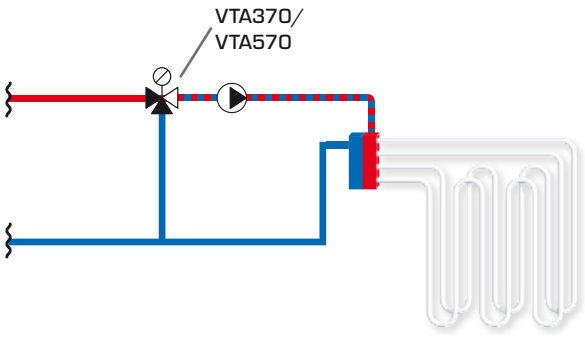
Art. No.	Reference	Temp. range	Kvs*	Connection E	Dimension A	B	C	D	Note	Weight [kg]
3170 01 00	VTA572	10 -30°C	4.5	G 1"	84	62	60	56		0.86
3170 04 00			4.8	G 1¼"						0.95
3110 53 00	VTA372	20 - 43°C	2.3	G 1"	70	42	52	46		0.48
3170 02 00	VTA572	20 - 43°C	4.5	G 1"	84	62	60	56		0.86
3170 05 00			4.8	G 1¼"						0.95
3110 54 00	VTA372	35 - 60°C	2.3	G 1"	70	42	52	46		0.48
3170 03 00	VTA572	45 - 65°C	4.5	G 1"	84	62	60	56		0.86
3170 06 00			4.8	G 1¼"						0.95

* Kvs-value in m^3/h at a pressure drop of 1 bar.

INSTALLATION EXAMPLES

See the catalogue section “How to choose the correct installation/ position” for further information and connection examples.





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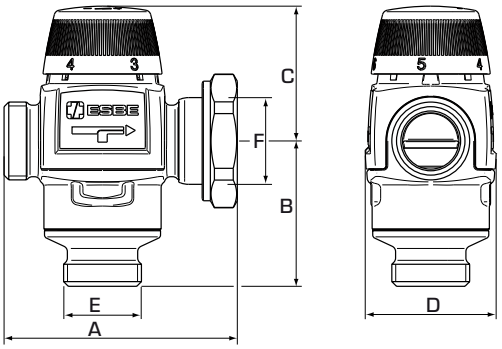

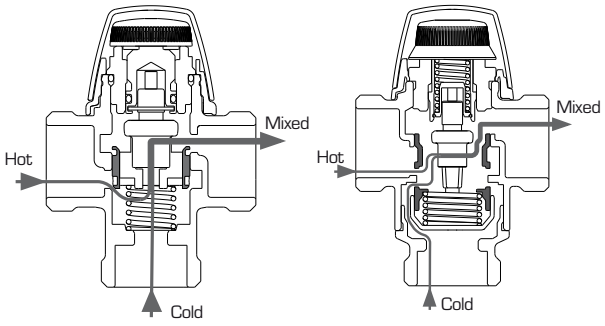

VTA370 VTA570

SERIES VTA377/VTA577, PUMP FLANGE AND EXTERNAL THREAD

Art. No.	Reference	Temp. range	Kvs*	Connection		Dimension				Note	Weight [kg]
				E	F	A	B	C	D		
3170 10 00	VTA577	10 -30°C	4.5	G 1"	PF 1½"	100	62	60	57		0.99
3110 55 00	VTA377	20 - 43°C	2.3	G 1"	PF 1½"	86	42	52	57		0.62
3170 11 00	VTA577		4.5	G 1"	PF 1½"	100	62	60	57		0.99
3110 56 00	VTA377	35 - 60°C	2.3	G 1"	PF 1½"	86	42	52	57		0.62
3170 12 00	VTA577	45 - 65°C	4.5	G 1"	PF 1½"	100	62	60	57		0.99

SERIES VTA378/VTA578, ROTATING NUT AND EXTERNAL THREAD

Art. No.	Reference	Temp. range	Kvs*	Connection		Dimension				Note	Weight [kg]
				E	F	A	B	C	D		
3170 16 00	VTA578	10 -30°C	4.5	G 1"	RN 1"	93	62	60	56		0.91
3110 57 00	VTA378	20 - 43°C	2.3	G 1"	RN 1"	78	42	52	56		0.52
3170 17 00	VTA578		4.5	G 1"	RN 1"	93	62	60	56		0.91
3110 58 00	VTA378	35 - 60°C	2.3	G 1"	RN 1"	78	42	52	56		0.52
3170 18 00	VTA578	45 - 65°C	4.5	G 1"	RN 1"	93	62	60	56		0.91

* Kvs-value in m^3/h at a pressure drop of 1 bar. PF = Pump Flange, RN = Rotating Nut

INSTALLATION EXAMPLES

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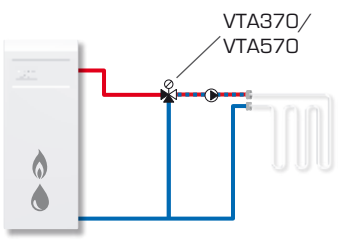
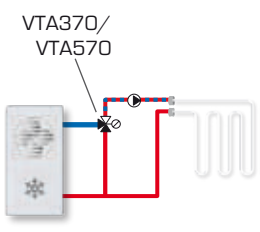
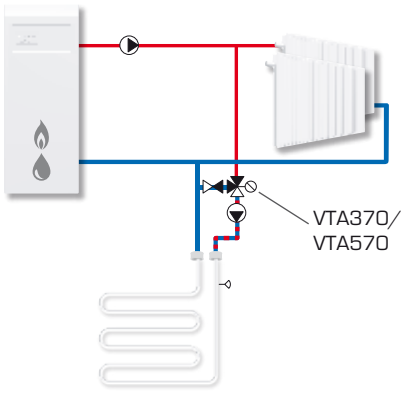


Heating



Cooling



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