

# INSET MIXING VALVES

Thermostatic mixing valves

Technical data sheet



## Inset mixing valve

The T81 range of inset mixing valve are compact mixing valves specially designed for sanitary installations requiring inset installation. They allow to obtain water at a preset and constant temperature. The T81 family of concealed mixers is equipped with a compact thermoplastic cartridge, CP7. This removable and interchangeable cartridge facilitates the maintenance of the device, ensures protection against legionella, is precise and highly reliable. The performance of the T81 family of mixers complies with the EN1111 standard.

- Customisation available : all devices may be supplied bare to allow any customisation of handles, rosettes and dials
- High reliability and precision of CP7 thermostatic cartridge
- Modular, interchangeable mechanism
- Max. flow rate from 32 to 50l/min
- Conform to EN1111
- Easy maintenance and installation
- Excellent regulation
- Protection against legionella
- Anti-scald protection

Technical features	
Maximum static pressure	10 bar
Minimum operating pressure	1 bar
Maximum flow rate under 3 bar	42l/min
Hot water temperature	85°C (60-70°C recommended)
Minimum temperature variation between inlets	10°C
Maximum pressure variation between inlets	1.5 bar
Setting range	15 to 50°C

## Approvals

### ACS

### CP7 cartridge

The CP7 thermoplastic cartridge is specifically designed for incorporation. The cartridge offers the best temperature regulation and flow capacity with one single geometry. The CP7 cartridges has many advantages :

- Outstanding reliability
- Anti-scalding safety and regulation : compliance with EN1111
- Anti-limescale with polymer body : low sensitivity to limescale
- Can be preset at a specific temperature
- Light weight

This cartridge regulates the mixed water temperature thanks to a wax element. Depending on the temperature of the mixed water, this element will expand or retract to adjust the hot and cold water dosage until the desired temperature is reached.

For example, if the water is too hot, the wax element will expand and push a "stem" out of the cartridge, like an actuator. This will act on the distributor which will increase the quantity of cold water and decrease the quantity of hot water.

## The answer against legionella

The thermostatic cartridge can be dismantled, replaced and protects from legionella thanks to a thermal shock. En effet il est possible de procéder à un choc thermique. By simply removing the rosette and turning the cartridge to the maximum hot position, the device allow the hot water circulate. Bacteria is killed above 60°C.

## Application

For bathrooms and any other sanitary fittings requiring inset installation :

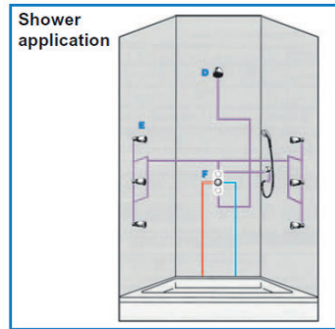
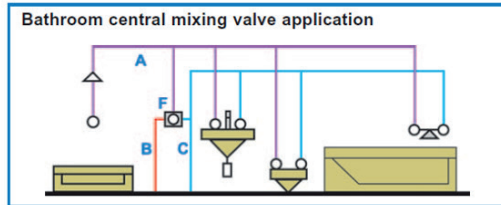
- Shower cubicles
- Prefabricated shower panels
- Sinks
- ...

## Installation

The water is mixed as closed as possible to the points of use regarded as being « at risk », like showers, the volume of water between the mixer receiving very hot water (>50°C) and the final supply pipework is less than 3litre in compliance with the regulation.

### Example of installation:

- (A) Mixed
- (B) Hot
- (C) Cold
- (D) High shower head
- (E) Side shower head
- (F) Mixing valve



## Description

This model is composed of 2 free outlet without flow tap. Provide it if is directly connected to shower head or a spout. The embedding kit and the temperature kit are included with the mixing valve.



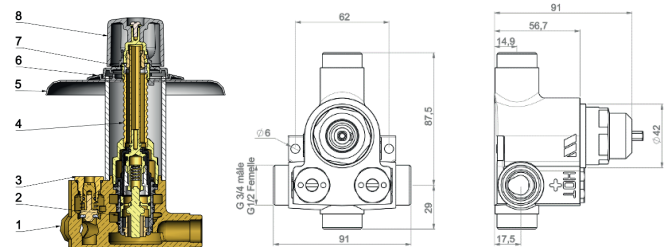
### Model T8137

Thermostatic mixing valves

Type	Connection	Flow rate	Ref.	Weight (kg)
Complete mixing valve, rosette 150mm, standard handle	F 1/2" M3/4"	50l/min	<b>T8137S</b>	1,75
Complete mixing valve, rosette 150mm, standard handle	F 1/2" M3/4"	50l/min	<b>T8137C</b>	1,85

### Nomenclature and materials

N°	Description	Materials
1	Body	Brass CB770S
2	Replacement cartridge	TCP7
3	Valve	Brass + EPDM + Stainless steel
4+7	Embedding kit	Brass + plastic
5	Rosette	Brass
6	Temperature kit	ABS
8	Handle	ABS



## Description

This mixing valve has one high outlet. The embedding kit and the temperature kit are included with the mixing valve.



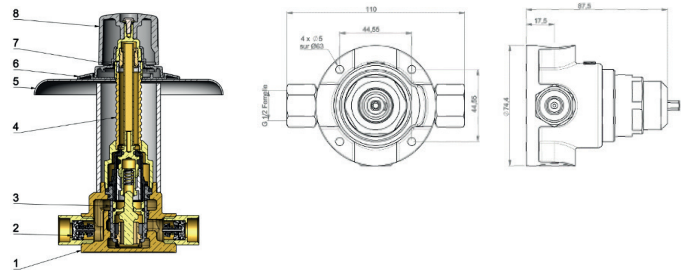
### Model T8175

Thermostatic mixing valves

Type	Connection	Flow rate	Ref.	Weight (kg)
Complete mixing valve, rosette 150mm, standard handle	F 1/2"	42l/min	<b>T8175S</b>	2,1
Complete mixing valve, rosette 150mm, consulate handle	F 1/2"	42l/min	<b>T8175C</b>	2,2
Complete mixing valve, rosette 150mm, no handle	F 1/2"	42l/min	<b>T8175SM</b>	1,8
Bare mixing valve	F 1/2"	42l/min	<b>T8175</b>	1,5

### Nomenclature et materials

N°	Description	Materials
1	Body	Brass CB770S
2	Valve	Plastic + EPDM + Stainless steel
3	Thermostatic cartridge	TCP7
4+7	Kembedding kit	Brass + plastic
5	Rosette	Brass
6	Temperature kit	ABS
8	Handle	ABS

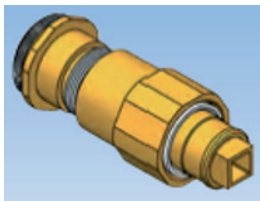


## Replacement cartridge



For mixing valve type	Cartridge type	Ref.
T8137	CP7	TCP7
T8175		

## Kembedding kit



This installation kit is designed for all inset mixing valves that are fitted with a TCP7 cartridge, such as the T8137, T8147, T8175. It consists of a length adaptor, friction unit (pipe-nut), plastic bushing and a square tube.

For mixing valve type	Ref.
T8137	22T108375NM
T8175	

## ABS temperature kit



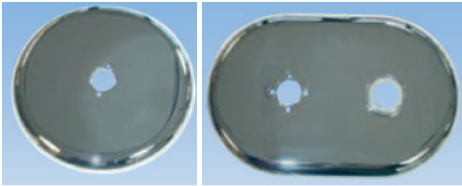
For mixing valve type	Ref.
T8137	22T108376
T8175	

## Handles



For mixing valve type	Standard handle art.number	Consulate handle art. number
T8137	T108193	T108262
T8175	T108193	T108262

## Chrome rosette fitting



Description	Ref.
Standard	22T108193
Consulat	22T108262
Thala white	22T107870
Thala chromium	22T107871

Oval chrome rosette fitting	
Ø130mm chrome rosette fitting	
For mixing valve type	Ref.
T8137	T109819
T8175	T109819

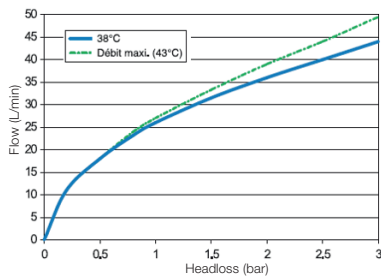
Ø150mm chrome rosette fitting	
For mixing valve type	Ref.
T8137	T109813
T8175	T109813

## Cartridge extractor

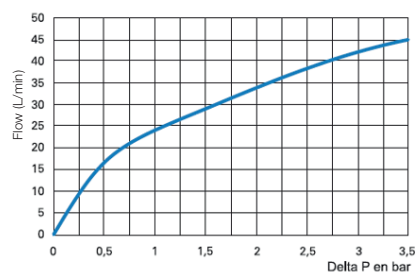


For mixing valve type	Ref.
T8137	TB120014
T8175	TB120014

## Fonctionnement



T8137



T8175

The descriptions and photographs contained in this product specification sheet are supplied by way of information only and are not binding. Watts reserves the right to carry out any technical and design improvements to its products without prior notice. Warranty : All sales and contracts for sale are expressly conditioned on the buyer's assent to Watts terms and conditions found on its website at [www.watts.com](http://www.watts.com). Watts hereby objects to any term, different from or additional to Socla terms, contained in any buyer communication in any form, unless agreed to in a writing signed by an officer of Watts.



WATTS INDUSTRIES France

1590 avenue d'Orange • CS 10101 Sorgues 84275 VEDENE CEDEX • France  
Tél. +33 (0)4 90 33 28 28 • Fax +33 (0)4 90 33 28 39  
contact@wattswater.com • [www.watts.eu](http://www.watts.eu)