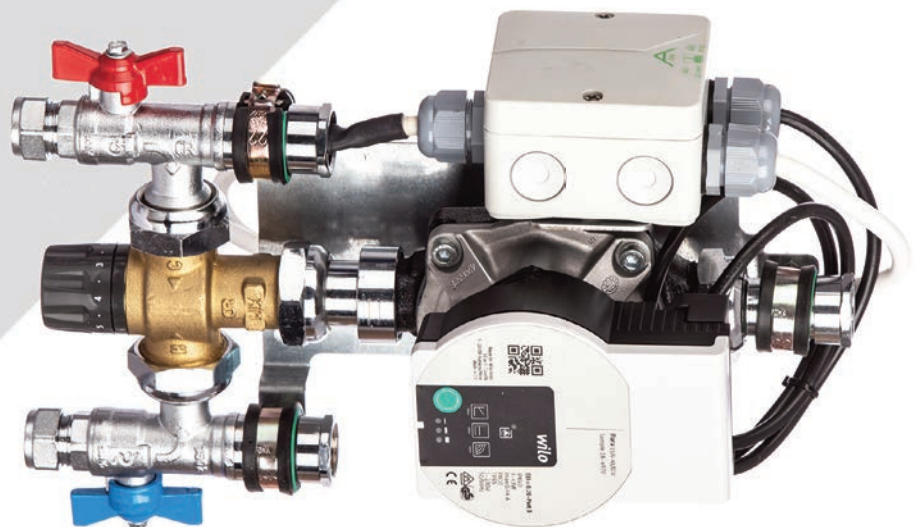
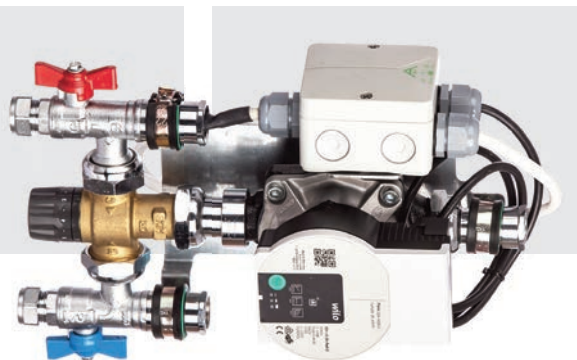


compact  
under floor heating unit



altecnic

# compact under floor heating unit



## Introduction

Underfloor heating systems work on a lower temperature than radiator systems.

Radiator systems typically have a hot water flow temperature of 82°C whilst flow temperature for under floor heating will be between 35 to 60°C, depending upon the floor and sub-floor construction.

The tempering or thermostatic mixing valve is the hub of an underfloor system.

It mixes colder water returning from the under floor pipework with hot water from the boiler to supply mixed water at the specified temperature back to the under floor pipework.

The Altecnic 5219 adjustable tempering valve is the hub of the Compact UFH unit and has proven very reliable on this type of application over a number years.

The mixed water temperature is adjustable with the range 35 to 65°C and the mixed water temperature is maintained within  $\pm 2^\circ\text{C}$  regardless of changing boiler flow and return temperatures.

## Compact UFH Unit

The Altecnic Compact UFH single zone control unit is designed for use on smaller heating circuits such as conservatories, extensions or a single room. It provides temperature controlled pre mixed water to under floor heating zones with a heat output of up to 3kW, satisfying under floor areas up to 40 square metres.

The Compact UFH unit is pre assembled and wired for installer convenience and is supplied complete with a mounting bracket for installation on a wall. A pre wired flow thermostat is connected via a wiring centre to the pump, which in turn has a mains cable supplied for connection to the power supply.

Connections to the primary heating system are made via two isolation ball valves. An Altecnic 5219 thermostatic tempering valve and Wilo 15/6-43/SCU pump are all mounted on the central bracket complete with anti vibration mountings for a near silent operation. G 1/2" connections allow for flexible connection to the UFH unit from the under floor heating circuit.

## Construction details

The unit consists of:	Qty
Altecnic 5219 tempering valve	1
Wilo 15/6-43/SCU pump	1
Short swivel joint connector	1
Long swivel joint connector	1
Wiring box	1
Connection Tee with integral ball isolation valve	2
Back mounting plate	1
Rubber lined pipe clamps	3
Gaskets and fittings	

## Technical specification

Maximum static pressure:	10 bar
Maximum inlet temperature:	90°C
Adjustment range:	35 to 65°C
Connection sizes:	15mm compression G 1/2

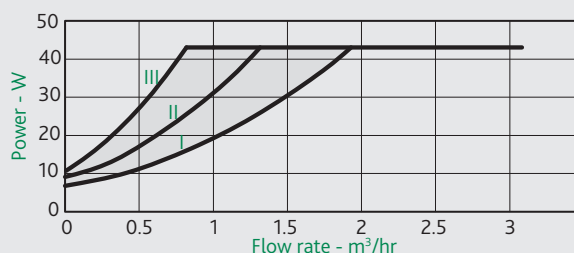
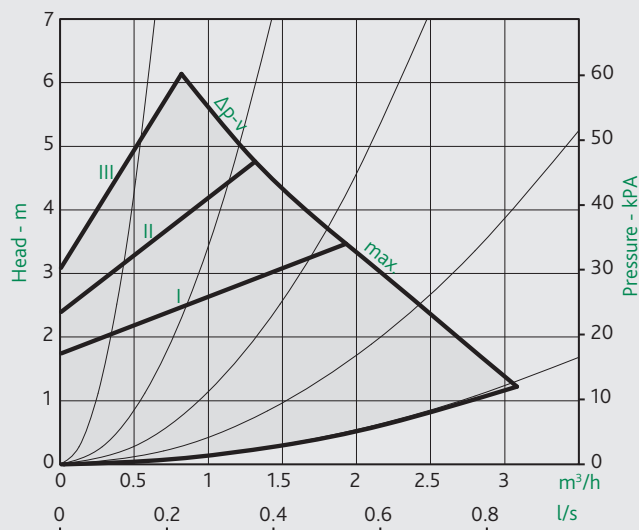
## Wilo 15/6-43/SCU Pump

The 15/6-43/SCU pump has been designed to optimise efficiency in domestic heating systems.

Fitted with the most up to date motor technology, and with an EEI value of  $\leq 0.20$  is designed to meet the efficiency demands of the ErP directive 2009/125/EC.

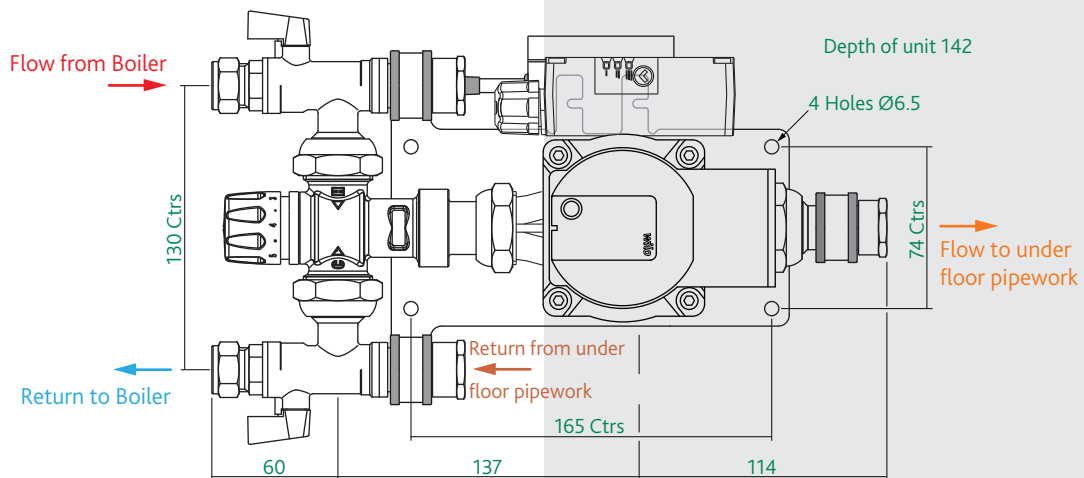
See pump manufacturer's literature for more detailed information.

## Wilo 15/6-43/SCU Pump Curves



# compact under floor heating unit

## Dimensions

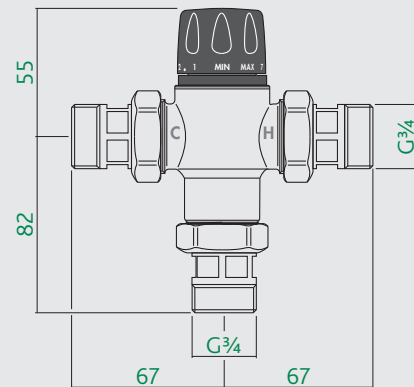


## 5219 tempering valve

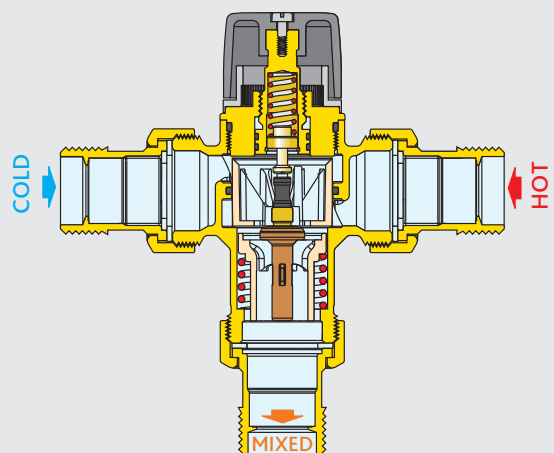
Tempering valves are used in systems where the inlet water can reach temperatures significantly above 60°C, for example as part of an under floor heating system.



## Dimensions



## Construction Details



## Construction details

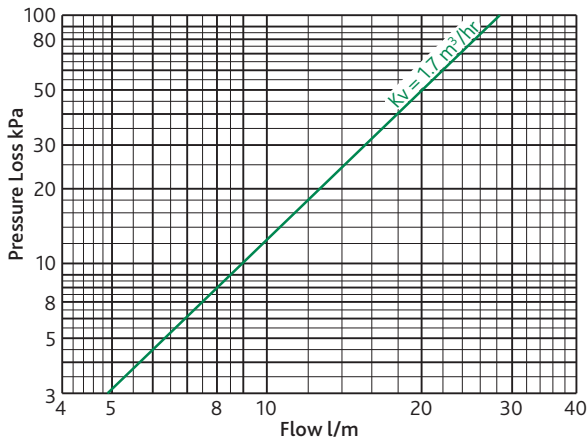
Component	Material	Grade
Body	DZR brass chrome plated	BS EN 12165 CW602N
Obturator	PSU	
Spring	Stainless steel	
Seals	EPDM	
Setting Knob	ABS	

## Technical data

Max. working pressure:	10 bar - Static
Max. inlet temperature:	90°C
Max. inlet pressure ratio (H/C or C/H):	2:1
Accuracy:	±2°C
Setting Range:	30 to 65°C
Min. flow rate for stable temperature:	4 l/m
Compression ends:	BS EN 1254-2
Threaded ends:	Body G1 Tailpipe G <sup>3</sup> / <sub>4</sub>
	BS EN ISO 228/1 BS EN ISO 228/1

# compact under floor heating unit

## Kv value and flow rate



## Kv value and flow rate

To ensure stable operation, the valve must have a minimum flow rate of 4 l/min.

Recommended flow rate values to ensure stable operation with an accuracy of  $\pm 2^\circ\text{C}$ .

Prod Code	Kv - m <sup>3</sup> /hr	Min. Flowrate - l/s	Max. Flowrate - l/s
521915	1.7	4	33

Maximum flowrate at a  $\Delta p = 150 \text{ kPa}$  (1.5 bar)

## Temperature adjustment

The temperature can be set to the desired value using the control knob with the graduated scale on the valve.

The locking position on the control knob prevents unauthorised adjustment of the set temperature.

Pos.	Min	1	2	3	4	5	6	7	Max
$^\circ\text{C}$	35	40	45	48	52	56	60	63	65

With  $T_{\text{hot}} = 70^\circ\text{C}$ ,  $T_{\text{cold}} = 15^\circ\text{C}$ ,  $P_{\text{hot}} = 3\text{bar}$  and  $P_{\text{cold}} = 3\text{bar}$

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