

## CIRCULATION LANCE



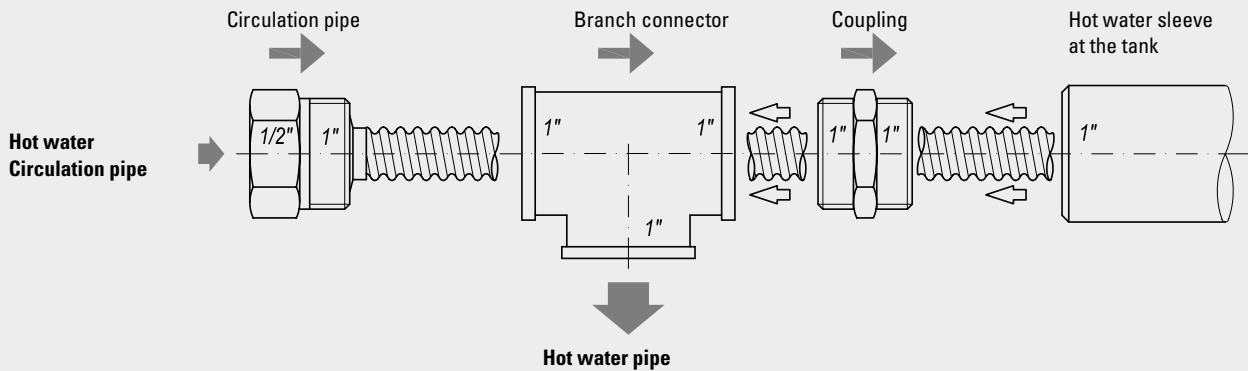
**Circulation lance for tanks with corrugated stainless steel pipe.**  
 When hot water circulation is planned in house installations – where hot water is available from the tap at all times – a circulation lance must be connected in the domestic hot water line of stratified or fresh water tanks with corrugated stainless steel pipes.

The WT 5 circulation lance is suitable for preheating the domestic hot water with up to 5 kW circulation losses. The lance is delivered complete with a T-piece and a hexagon nipple and is compliant with the "Directive on the quality of water intended for human consumption" 98/83/EC. The T-piece and hexagon nipple are DVGW-tested (German Technical and Scientific Association for Gas and Water).

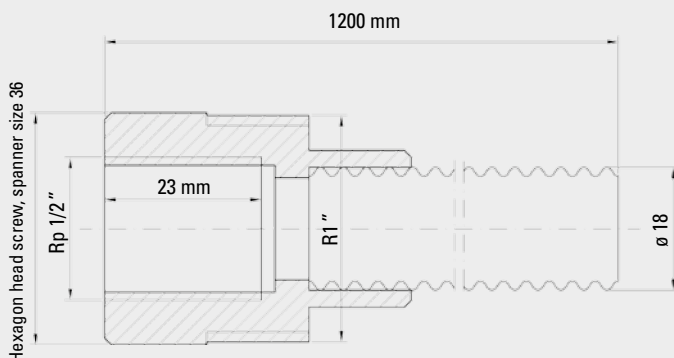
### Specifications

Type	WT 5
Item no.	1620012
<b>Connections</b>	
Domestic hot water line	Rp 1" (5/4") female
Circulation pipe	Rp 1/2" (3/4") female
<b>Material</b>	
Circulation pipe – corrugated pipe	Stainless steel 1.4404
Circulation pipe – headpiece	Stainless steel 1.4305
T-piece (branch connector)	Lead-free copper alloy containing silicium
Hexagon nipple (coupling)	Lead-free copper alloy containing silicium

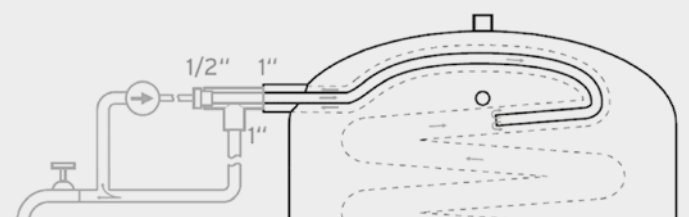
### WT5 circulation lance (1")



### Circulation pipe – headpiece

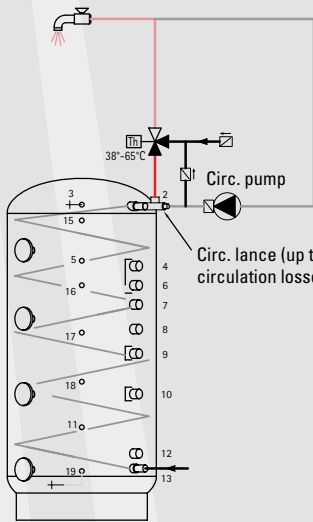


### Circulation lance installed in the tank



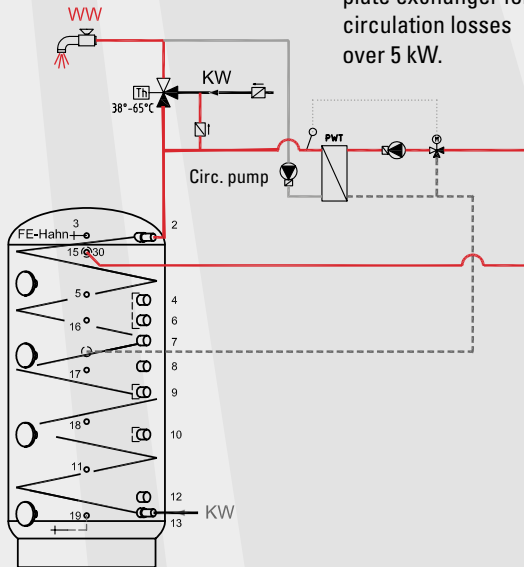
**Note:** The threaded connections have to be sealed properly (hemp, sealing compound, ...).

## CIRCULATION LANCE



Small circulation with circulation losses up to 5 kW using a circulation lance.

Circ. lance (up to 5 kW circulation losses)



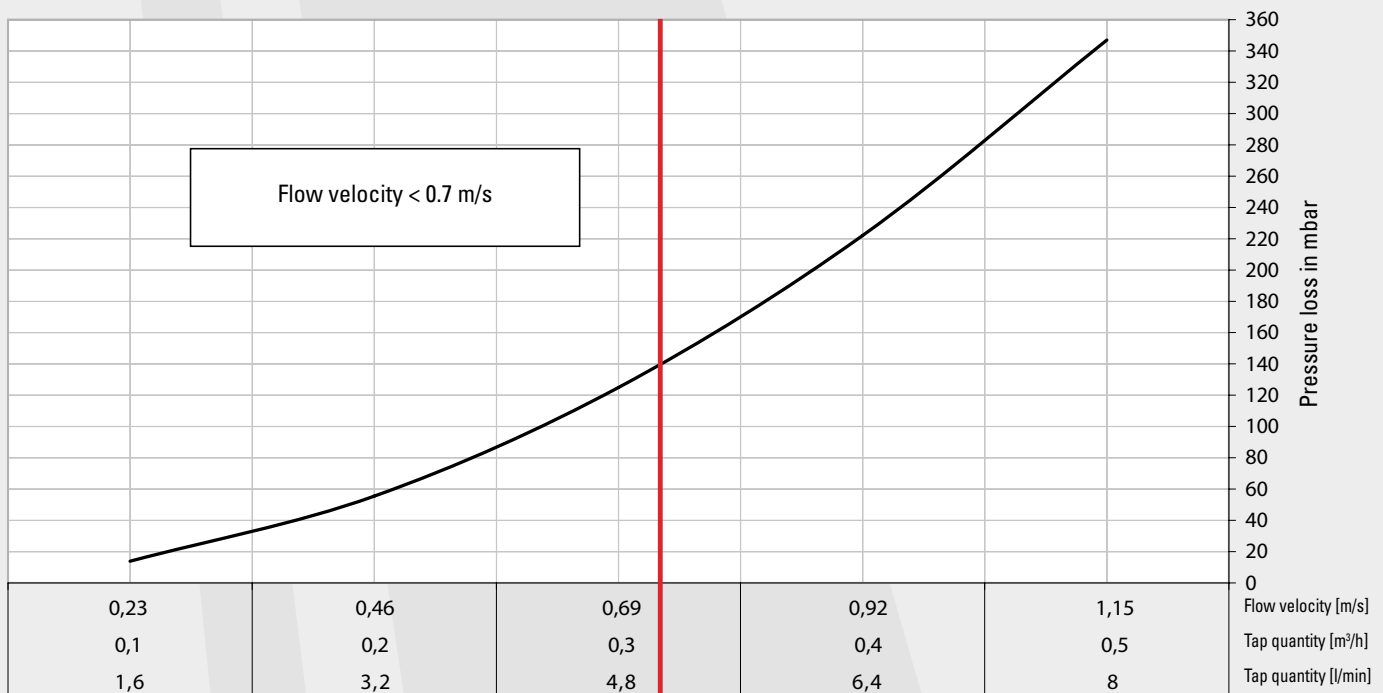
Circulation using plate exchanger for circulation losses over 5 kW.

### Hot water circulation performance of PRO-CLEAN® 1000 I

Circulation forward flow [°C]	Circ. return flow [°C]	Flow in the circulation system [l/h]	Power [W]	Pressure loss p [mbar]
<b>50°C<sup>1)</sup></b>				
38.6	32.1	500	3770	350
39.2	33.1	400	2828	300
40.0	32.7	300	2538	240
40.4	31.9	200	1972	200
40.5	30.5	100	1160	110
<b>55°C<sup>1)</sup></b>				
41.4	33.1	500	4814	350
41.6	33.4	400	3799	300
42.5	32.5	300	3480	240
42.8	32.0	200	2501	200
42.9	31.8	100	1283	110
<b>60°C<sup>1)</sup></b>				
42.7	32.5	500	5873	350
43.2	33.4	400	4858	300
45.7	34.0	300	3741	240
46.5	33.8	200	2944	200
46.8	33.0	100	1595	110

<sup>1)</sup> Upper tank temperature.

### Pressure loss for circulation lance



Volumetric flow and flow velocity