



 **ULTIMHEAT® UNIVERSITY** 

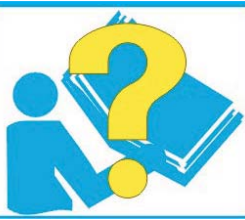


# Université Ultimheat

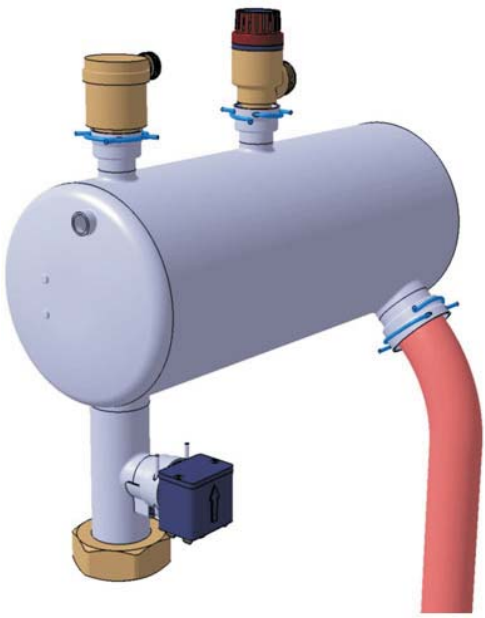
## Ultimheat Snap-In\* pipe joint concept

### Le concept Ultimheat Snap-In\* de raccordement de tuyauteries

J.Jumeau  
20100628



**In high volume professional applications, assembly time of pipes, fittings and controls used on pipes are time consuming. Watertight, pressure-tight, and orientation are the main quality issues.**



Ultimheat has developed a simple concept designed for liquid heaters which allows easy assembly, adjustable and waterproof joint. The connection of the heater to accessories (flow switch, pressure switch, overpressure valve, air bleeder) and user's own pipes is simple and fast and can be done without costly investment. This system is also compatible with pipe end forming existing on the market.

**Average cost saving** : (compared to threaded solutions)

- On fittings price : 70%
- On assembly time : 80 to 90%



**Operating Principle:**

The male part is formed to create a ring of larger diameter than the nominal diameter. This increase in diameter can be achieved by forming the tube, welded brass fitting, crimped ring, or be molded, stamped or machined on accessories.

The smooth portion between the ring and the end of the tube receives an O-ring.



The female part, usually mounted on the heater is flared to receive the male part, and compressing the O-ring.

The female part also has four holes for the passage of a clip that will lock the two parts together, while still rotatable on 360 °, and allows a substantial alignment and length position tolerance.



The assembly takes a few seconds.



The clips may have different forms that allow or not a subsequent removal



	<p>Main dimensions of female parts achievable on stainless steel heater output or input</p> <p>DN10 DN15 DN20 DN25 DN32</p>																				
	<p>Female part formed directly on tanks</p>																				
	<p>Female part forming on input or output pipe</p>																				
	<p>Ends of male parts compatible (Ultimheat can supply the male pipes with formed ends on request)</p>																				
<table border="1" data-bbox="159 1232 494 1456"> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4,4</td> <td>5,5</td> <td>6</td> <td>6</td> <td>6</td> </tr> <tr> <td>Ø19</td> <td>Ø23,5</td> <td>Ø28</td> <td>Ø34</td> <td>Ø41</td> </tr> <tr> <td>DN10</td> <td>DN15</td> <td>DN20</td> <td>DN25</td> <td>DN32</td> </tr> </table>						4,4	5,5	6	6	6	Ø19	Ø23,5	Ø28	Ø34	Ø41	DN10	DN15	DN20	DN25	DN32	<p>The system of crimping retainer rings Ultimheat (rings available at Ultimheat)</p>
4,4	5,5	6	6	6																	
Ø19	Ø23,5	Ø28	Ø34	Ø41																	
DN10	DN15	DN20	DN25	DN32																	
	<p>Hand Tools and crimping machines for ring crimping available from Ultimheat.</p>																				
	<p>Available accessories: flow switch, pressure switch, overpressure valve, automatic air bleeder. The flow switch special design avoids wrong flow orientation. Also on request, using the same design: remote or direct pressure gauge, sensor pocket, drain valve</p>																				