Sondex DH-HW Compact District Heating Unit
Compact district heating unit for domestic hot water and indirect plants. Perfect for one-family houses, terrace houses and apartments.

Hotwater production based on the counter flow principle. The unit is delivered as a wallmounted solution. Sondex DH-HW is a complete unit for indirect plants with plate heat exchangers for heat and hot water. The unit is specially developed for two-stringed plants and plants with floor heating. Sondex DH-HW is supplied with two automatic thermostats controlling the heat circle and the hot domestic water.

The unit is supplied with our own high-efficiency brazed heat exchanger, in which the sensor of the thermo-valve is placed, securing an exact control of the water temperature, a minimal wait for the hot water and calcium control.

Sondex DH-HW refrigerates the district heating water effectively and grants a big quantity of fresh hot water which is heated successively while tapping.

The temperature of the hot water is controlled by a thermo-valve, factory adjusted at 45°C. This adjustment is consumer- as well as environment friendly, as the temperature is kept below the critical limit for calcium deposit in the domestic water.

Properties
The water heater has a big output of tempered, hot water, which is heated while tapping. The output depends on the temperatures of the district heating side as well as the domestic water side. The output also depends on the differential pressure available.

The thermo-valve always keeps the domestic water on the flow control set point of the valve and keeps the service pipe appropriate hot, so that the water is hot immediately when tapping.

Installation of Meter
The meter can be placed in flow or return. Various measures of the meters have been considered, and if they must be placed in flow or return. This solution makes it possible to build in leakage supervision.

Service and Installation-Friendly
A consistant assembly with union and an appropriate piping makes it easy to install and service the unit. Quick and easy installation with the two screw eyes in each corner. Connection of tubes is finished in one of the six unions, which are easy to disassemble and to mount on each tube, whereafter the union is tightened.

Design
By the construction a clear and convenient placement of the components, as well as a functional and environment-friendly structure have been considered. Sondex DH-HW can be delivered with a white-painted steel cabinet in a modern design.

Lifetime
Application of acid-resistant, stainless steel, AISI 316 - for plate heat exchangers and tubes respectively as well as application of approved quality components ensure the unit a long lifetime.
**Technical specifications**

**Sondex DH-HW - Compact District Heating Unit**

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1. Expansion connection
2. Air screw
3. Control valve sensor VV
4. Control valve sensor SF
5. Pump 15-40/130
6. Control valve FR
7. Differential pressure valve
8. Capillary tubes for differential pressure valve
9. Control valve FR
10. 3 bar safety valve
11. Meter adjustment tube 110/160 mm
12. 10 bar security valve
13. ¾” non-return valve
14. ¾” dirt filter
15. Outlet from the safety valve
16. 6 x shutoff valves (Auxiliary equipment)
17. Expansion tank

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**Connections:**
1. ¾” female thread nut secondary return
2. ¾” female thread nut secondary flow
3. ¾” female thread nut district heating flow
4. ¾” female thread nut district heating return
5. ¾” female thread nut hot water flow
6. ¾” female thread nut cold water return
7. Outflow

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**Data**

- **Weight and measures incl.:** Max. 45 kg
- **Shell and packing:** H675 x B550 x D320 mm
- **Max. temp. (primary/secondary):** 120°C / 95°C
- **Max. pressure:** PN16
- **Cabinet (Auxiliary equipment):** Steel cabinet, white-painted

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**Example: Hotwater Capacity from 10°C/45°C**

<table>
<thead>
<tr>
<th>Heat Exchanger</th>
<th>Output KW</th>
<th>Primary Temp. °C</th>
<th>Primary Backwards °C</th>
<th>Tap Quantity l/min.</th>
<th>Pressure loss Primary Bar</th>
<th>Primary flow l/h</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Forwards</td>
<td>Backwards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32,3</td>
<td>60</td>
<td>30</td>
<td>13,2</td>
<td>0,25</td>
<td>936</td>
<td></td>
</tr>
<tr>
<td>32,3</td>
<td>70</td>
<td>40</td>
<td>12</td>
<td>0,12</td>
<td>936</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>80</td>
<td>40</td>
<td>18</td>
<td>0,1</td>
<td>936</td>
<td></td>
</tr>
</tbody>
</table>

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**Example:**

<table>
<thead>
<tr>
<th>Heat exchanger</th>
<th>Primary Temp. °C</th>
<th>Secondary Temp. °C</th>
<th>Pressure loss Primary Bar</th>
<th>Flow Primary l/h</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>60/30</td>
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<tr>
<td>25</td>
<td>80/40</td>
<td>35/65</td>
<td>0,25</td>
<td>540</td>
</tr>
</tbody>
</table>

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