



DRAIN UNIT

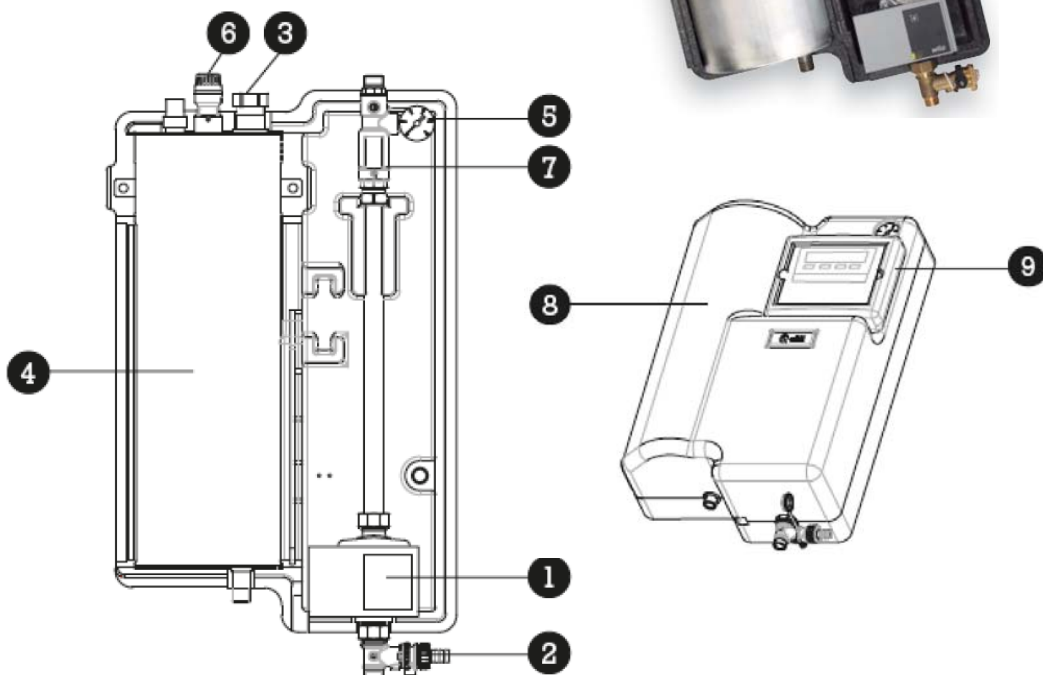
The Drain Unit is a solar pump group with drain-back system. It can be installed with practically any brand of collectors on the market as well as with any accumulator/inter-accumulator.

By draining the solar collectors, overheating and freezing problems in the panels will be avoided. As with hydraulic units without drain-back, the main function of the Drain Unit is to pump the solar fluid from the collectors to the accumulator in order to transfer the collected energy.



COMPONENTS

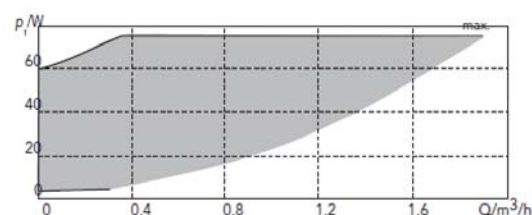
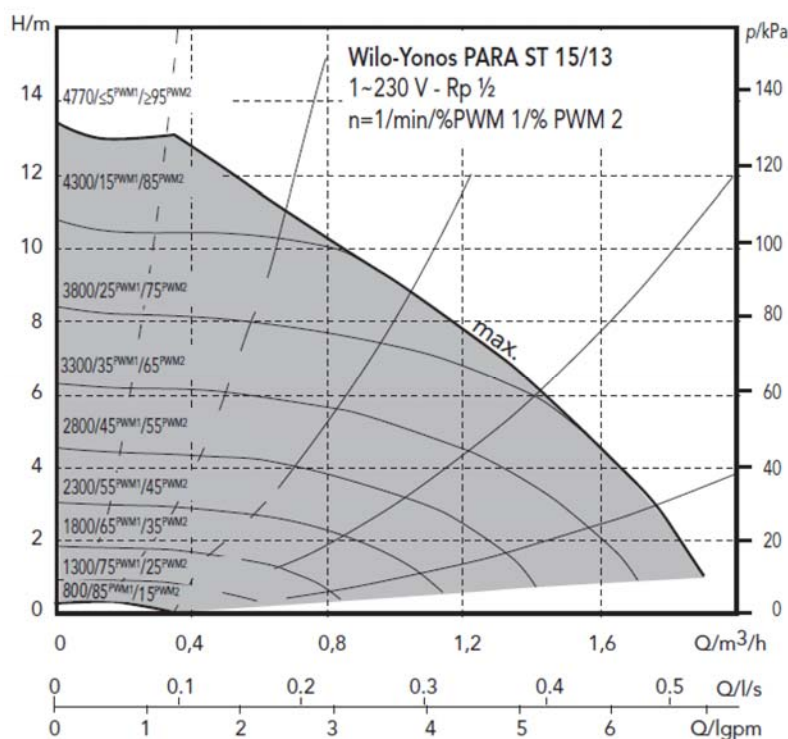
1. Solar pump
2. Circuit draining and filling valve
3. Filling taps
4. Air draining chamber
5. Pressure gauge
6. Safety valve set to 3bar
7. Flow meter and level indication
8. Expanded Polypropylene (EPP) insulating housing
9. Solar controller (in systems with control included)



HYDRAULIC CHARACTERISTICS

Pump:

Wilo Yonos Para ST15/13 WM





• TECHNICAL CHARACTERISTICS

- Max. operating temperature: 110°C
- Max. peak temperature: 130°C
- Safety valve set to 3 bar
- Flow indicator range: 2 to 12l/min
- Connections: ½" M or 15mm copper piping
- Controller parameters regulation:
 - Activation temperature difference between collectors and storage tank: 15°C
 - Max. permissible temperature in the collector field: 130°C
 - Pump speed lower limit (PWMmin): 60% or higher
 - Set filling time (PWM at 100%): min. 5 minutes

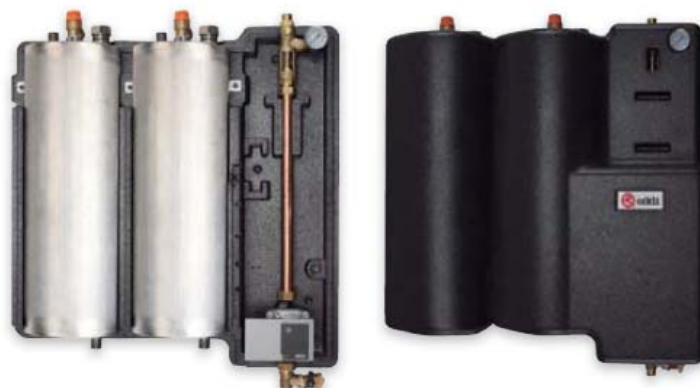
• ADVANTAGES

- High efficiency pumps
- Installation protected against freezing and overheating
- Can be installed with any storage tank and control unit in the market
- Flexible and configurable system
- Air vent and expansion vessels not needed



REFERENCE: 74400

- Separation volume = 8 litres



REFERENCE: 74400DO

- Separation volume = 16 litres



REFERENCE: V-00625

- Extension kit tank for Drain Unit.
- Separation volumen increase: 8 to 16 litres

The total separation volume of the Drain Unit is 8 or 16 litres. The volume of the primary fluid that remains above the Drain-Unit should not exceed this capacity. Bear in mind the difference in height between the top of the collector array and the bottom part of the Drain-Unit.

Volume calculation on the upper part:

$$\text{Volume} = \text{N}^{\circ} \text{ collectors} + \text{Volume of collector fluid} + \text{Pipe volume}$$

