

# Distribution low los headers SKE



Product	SKE 40 2D+	SKE 55 2DC	SKE 90 2DC	SKE 96 4DC+
Version				

**ELTERM M.M.Kaszuba Sp.J., ul. Przemysłowa 5, 86-200 Chełmno, [www.elterm.pl](http://www.elterm.pl)**

## Operating and installation manual

### APPLICATION

Distribution low loss header (D-LLH) separates boiler cycle from the heating cycle. D-LLHs are usually applied in medium or high power rating heating systems (practically, from 25 kW upwards), comprised of one or more boilers, particularly those comprised of several heating cycles (e.g. floor heating cycle + radiator heating cycle + hot utility water heating cycle). Application of a hydraulic unit in these types of cycles eliminates the necessity to balance pump flows – D-LLH enables independent operation of individual cycles and uninterrupted pump performance (no pump interference). Another important feature is their desilting and venting capability. Moreover, thanks to inserted neodymium magnet separator (SMART), it stops tiny magnetic shards from being spread into the whole system, something which is directly responsible for causing rust and corrosion.

### CONSTRUCTION

Distribution low loss header, depending on version consists of:

- ✓ Horizontal or vertical cylindrical tank with feed circuit and two installation circuits
- ✓ 6 external thread connections DN25;
- ✓ Internal thread ½" connection with mounted air vent;
- ✓ Internal thread ½" connection with mounted drain valve and neodymium magnet separator SMART;
- ✓ Measuring tube (for sensor);
- ✓ EPP thermal insulation;

### OPERATION

Distribution low loss header separates boiler cycle from the heating cycle. Three basic coupling operating principles may be distinguished:

- ✓ Heat demand of the heating system is equal to the amount of heat the boiler produces. In this situation, the amount of heating medium generated by the boiler is equal to the amount collected by the heating cycle.
- ✓ Heat demand of the heating system is lower than the amount of heat produced by the boiler (thermostatic valves on the radiators are "half closed"). In this situation, part of the heating medium is returned through the hydraulic balancer directly to the boiler, which signals the boiler automatic control system to reduce boiler power or switch the boiler off.
- ✓ Heat demand of the heating system is higher than the amount of heat produced by the boiler. In this situation, heating system pumps force part of the heating medium flow through the coupling, which signals the boiler automatic control system to increase boiler power.

D-LLH operation is automatic with no need to regulate.

### MAINTENANCE

Distribution low loss header needs to be periodically cleaned off silt and other deposits (we recommend yearly cleaning procedures after the heating season is over). Automatic vent ensures automatic balancer venting. Keep the balancer clean, away of moisture, avoid leaks at connection points. Use only for boiler or heating systems with: power rating, heating medium flow, maximum temperature and maximum pressure within the admissible limit values provided in the relevant catalogue sheet for the given coupling.

## WARRANTY

- ✓ The manufacturer gives warranty for faultless operation of hydraulic balancer type SKE for a period of 2 years (24 months) of the date of sale.
- ✓ Warranty repairs are made by the manufacturer or authorised representative of the same.
- ✓ Warranty expires if any alterations are made to the product without the manufacturer's consent, or if the product covered by the warranty is used against its intended purpose, in which cases the manufacturer shall not be held liable for any negative effects of such product use.
- ✓ The user is responsible for strict adherence to the operating and installation manual for the hydraulic coupling, paying particular attention to the maximum admissible technical parameters provided in the relevant catalogue sheet.
- ✓ Failure to adhere to the above renders the warranty void.
- ✓ Incomplete warranty is invalid.
- ✓ Specific cases not covered by this warranty are regulated by the Civil Code.

Producer seal	Date of sale	Seller seal and signature

## Declaration of conformity EN5/2017

Elterm M.M. Kaszuba Sp.J., ul. Przemysłowa 5, 86-200 Chełmno

We herewith declare, under our sole responsibility, that the following products:

- **SKE 40 2D**
- **SKE 55 2DC+ (Condens), SKE 90 2DC+ (Condens)**
- **SKE 96 4DC+**

Manufactured by ELTERM conform to the pressure equipment directive 2014/68/UE; EN 13445 "Unfired pressure vessels" as amended - UNM and to the ordinance by the Minister of Economy of 11.02.2015 on the absolute requirements concerning pressure equipment and pressure equipment units (Journal of Laws Dz.U.2015 pos. 244).

Relevant conformity assessment procedure: Internal production control – module A (in accordance with 2014/68/UE – equipment up to category I). Usable for water with  $T < 110^{\circ}\text{C}$ , for the remaining maximum admissible operating parameters and dimensions see the relevant manual or catalogue sheets available at [www.elterm.pl](http://www.elterm.pl)

Chełmno, March 24th, 2017

Maciej Kaszuba  
