

# ELTERM – safety heat exchangers



|         | Up to 32kW<br>40/133 | Up to 32kW OC<br>40/133 | Up to 45kW<br>50/133 |
|---------|----------------------|-------------------------|----------------------|
| Version |                      |                         |                      |

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

## Operating and installation manual

### Purpose:

Solid fuel boilers can be installed in closed central heating installation only when efficient device is installed with the purpose of heat removal in case of malfunction, such as lack of energy (Ministry of Infrastructure Ordinance, Journal of Laws from April 7th 2009 no 56 pos. 461). Our safety heat exchanger (or external cooling coil) ECC Strażnik is such device. Immediately after opening electroless, thermic, relief safety valve – type STS.S (operating temperatures +97°C ±2°C) – it discharges the excess of heat into the sewer by copper coil. ECC is designed to cooperate with both steel and cast iron boilers not equipped with such device directly in the factory.

|  | ECC 32 40/133                       | ECC 32 <b>OC</b> 40/133             | ECC 45 50/133                       |
|--|-------------------------------------|-------------------------------------|-------------------------------------|
| Catalogue number                             | 07 03 032                           | 07 13 032                           | 07 03 045                           |
| Coil power (max. boiler power)               | 32 kW                               | 32 kW                               | 45 kW                               |
| Cooling coil surface (Cu)                    | 0,16 m <sup>2</sup>                 | 0,16 m <sup>2</sup>                 | 0,23 m <sup>2</sup>                 |
| Minimal cooling water flow                   | 18 l/min.                           | 18 l/min.                           | 18 l/min.                           |
| Response temperature                         | 97 <sup>0</sup> C ±2 <sup>0</sup> C | 97 <sup>0</sup> C ±2 <sup>0</sup> C | 97 <sup>0</sup> C ±2 <sup>0</sup> C |
| Weight                                       | 8,0 kg                              | 8,4 kg                              | 10,5 kg                             |
| H <sub>1</sub>                               | 290 mm                              | 290 mm                              | 400 mm                              |
| H <sub>C</sub>                               | 410 mm                              | 410 mm                              | 560 mm                              |
| V  | 3,5 l                               | 3,5 l                               | 4,9 l                               |
| P max  | 6 bar                               | 6 bar                               | 6 bar                               |
| T max  | 110 <sup>0</sup> C                  | 110 <sup>0</sup> C                  | 110 <sup>0</sup> C                  |
| Internal thread (connection to boiler)       | 1½"                                 | 1½"                                 | 2"                                  |
| External thread (connection to installation) | 1½"                                 | 1½"                                 | 2"                                  |

### Operation:

ECC is a small cylindrical tank with build-in copper cooling coil with appropriate surface for heat removal (see above table). It is equipped with STS.S electroless, thermic, relief safety valve, which opens completely when reaching temperature of +97°C. Then water with +8°C is let through the coil – gradually reducing output temperature.

### Installation:

ECC is to be installed directly by boiler in its highest point (in practice – on boiler outlet) in order to absorb water with highest temperature. ECC construction enables venting (there is no need for additional air vent). STS.S valve needs to be connected permanently, without shut-off valve to waterwork installation and always under pressure. Copper coil output needs to be connected to sewage.

### Maintenance:

At least once a year ECC proper operation needs to be verified. In order to do so, one need to press manual trigger (orange button). Periodically valve seat needs to be cleansed to remove precipitate – pressing orange button several times should do the work. In case of water leakage with valve closed please follow WATTS manual.

## WARRANTY

- ✓ The manufacturer gives warranty for faultless operation of device 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 device, 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 EN1/2016

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

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

- **safety units for CH and UHW:** GBCO 3 bar; GBCWU 6 bar/8bar; GBCWU INOX 6bar/8bar
- **connecting manifolds:** 2-way; 3-way and manufactured against special order
- **chemical dosing pots:** DCE 3,5l; DCE 5l; DCE 10l; DCE 15l; DCE 25l
- **magnetic filter-desilters:** Dryl 37 25/76; Dryl 60 32/89; Dryl 95 40/114; Dryl 144 50/133; Dryl 275 65/159; Dryl 365 80/219
- **safety heat exchangers:** Strażnik 32 40/133; Strażnik 32 40/133 – OC; Strażnik 45 50/133

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 poz. 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, July 19th, 2016

Maciej Kaszuba  
