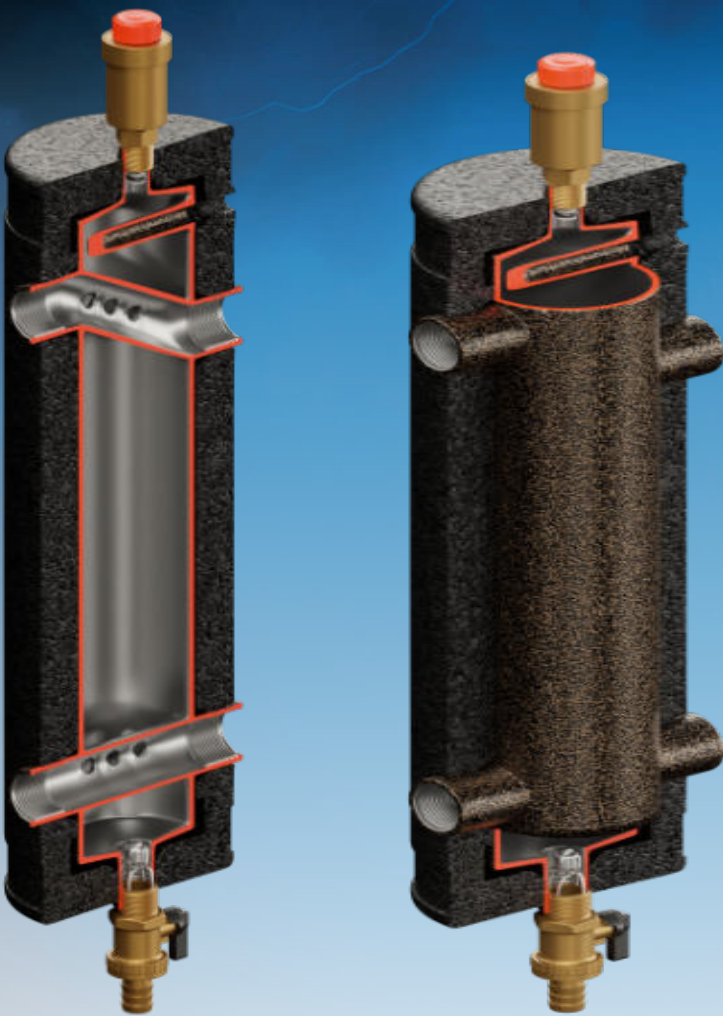


30 YEARS ELTERM®

**LOW LOSS  
HEADERS  
ELTERM**



SHE-CDI, SHE-CD



heat pump



condensing boiler

A+++



SHE-OC

**SHE-CDI and SHE-CD**  
flow management



Patent P.421808



**Measurement tube**  
Essential for correct temperature measurement



**Insulation EPP**  
Minimises heat loss



**Mounting bracket**  
Facilitates wall mounting



**Air vent and drain valve**  
Guarantees effective venting. Allows water to be admitted/dissolved in the central heating system.



**Neodymium magnetic separator**  
Captures ferromagnetic impurities in the central heating system.



# Low loss header vertical SHE-OC, SHE



measurement tube



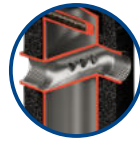
Air vent & Drain valve



insulation



SMART



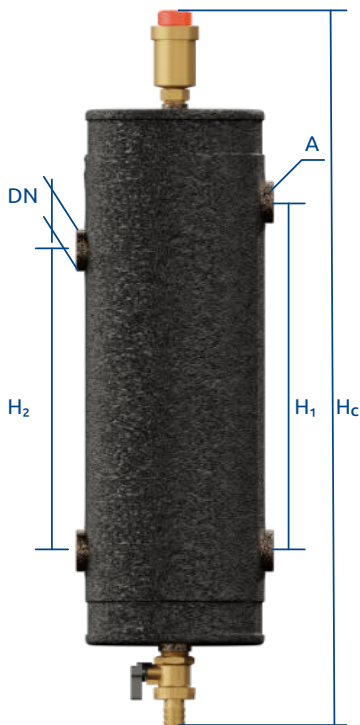
Flow controller



INOX

stainless steel

|        |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|
| SHE-OC | ● | ● | ● | ● | ○ | ○ |
| SHE    | ● | ● | ○ | ○ | ○ | ○ |



| insulated version     | SHE 28-OC *<br>25/50 | SHE 40-OC<br>25/65 | SHE 70-OC<br>32/80 | SHE 100-OC<br>40/100 | SHE 115-OC<br>50/100 | SHE 156-OC<br>50/125 |
|-----------------------|----------------------|--------------------|--------------------|----------------------|----------------------|----------------------|
| Product code          | 402028               | 402040             | 402070             | 402100               | 402115               | 402156               |
| non-insulated version | SHE 28 *<br>25/50    | SHE 40<br>25/65    | SHE 70<br>32/80    | SHE 100<br>40/100    | SHE115<br>50/100     | SHE 156<br>50/125    |
| Product code          | 401028               | 401040             | 401070             | 401100               | 401115               | 401156               |
| Max. power (ΔT=15K)   | 28 kW                | 40 kW              | 70 kW              | 100 kW               | 115 kW               | 156 kW               |
| Max. power (ΔT=20K)   | 35 kW                | 55 kW              | 90 kW              | 135 kW               | 150 kW               | 210 kW               |
| Connection (DN) A     | 25 - 1 "Int.         | 25 - 1 "Int.       | 32 - 1 1/4" Int.   | 40 - 1 1/2" Ext.     | 50 - 2" Ext.         | 50 - 2" Ext.         |
| Max. flow             | 1,6 m³/h             | 2,3 m³/h           | 4,0 m³/h           | 5,7 m³/h             | 6,6 m³/h             | 9,0 m³/h             |
| Max. temperature      | 110°C                | 110°C              | 110°C              | 110°C                | 110°C                | 110°C                |
| Pressure nominal      | 6 bar                | 6 bar              | 6 bar              | 6 bar                | 6 bar                | 6 bar                |
| Capacity V            | 0,7 l                | 1,4 l              | 2,4 l              | 3,7 l                | 4,3 l                | 6,7 l                |
| P x V (bar x l)       | 4,2                  | 8,4                | 14,4               | 22,2                 | 25,8                 | 40,2                 |
| H <sub>1</sub>        | 250 mm               | 290 mm             | 340 mm             | 340 mm               | 400 mm               | 400 mm               |
| H <sub>2</sub>        | 220 mm               | 250 mm             | 300 mm             | 300 mm               | 350 mm               | 350 mm               |
| H <sub>c</sub>        | 570 mm               | 600 mm             | 670 mm             | 670 mm               | 745 mm               | 745 mm               |



## Low loss header insulated SHE-OC 435, 700, 750 kW on request

| insulated version   | SHE 225-OC<br>65/150 | SHE 420-OC<br>80/200 | SHE 435-OC<br>100/200 | SHE 700-OC<br>100/250 | SHE 750-OC<br>125/250 |
|---------------------|----------------------|----------------------|-----------------------|-----------------------|-----------------------|
| Kod towaru          | 402225               | 402420               | 402435                | 402700                | 402750                |
| Max. power (ΔT=15K) | 225 kW               | 420 kW               | 435 kW                | 700 kW                | 750 kW                |
| Max. power (ΔT=20K) | 300 kW               | 560 kW               | 580 kW                | 935 kW                | 1000 kW               |
| Flange DN (PN16)    | 65-2 1/2"            | 80-3"                | 100-4"                | 100-4"                | 125-5"                |
| Max. flow           | 12,9 m³/h            | 24,0 m³/h            | 25,2 m³/h             | 39,0 m³/h             | 41,5 m³/h             |
| Max. temperature    | 110°C                | 110°C                | 110°C                 | 110°C                 | 110°C                 |
| Pressure nominal    | 6 bar                | 6 bar                | 6 bar                 | 3 bar                 | 3 bar                 |
| Capacity V          | 13,0 l               | 27,5 l               | 32,4 l                | 50,6 l                | 50,6 l                |
| P x V (bar x l)     | 78,0                 | 165,0                | 194,4                 | 151,8                 | 151,8                 |
| H <sub>1</sub>      | 565 mm               | 680 mm               | 650 mm                | 650 mm                | 650 mm                |
| H <sub>2</sub>      | 500 mm               | 600 mm               | 550 mm                | 550 mm                | 550 mm                |
| H <sub>c</sub>      | ~915 mm              | ~1055 mm             | ~1210 mm              | ~1210 mm              | ~1210 mm              |

# Low loss header vertical SHE-CDI Condens INOX, SHE-CD Condens



measurement tube



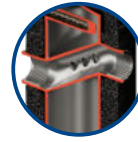
Air vent & drain valve



insulation



SMART

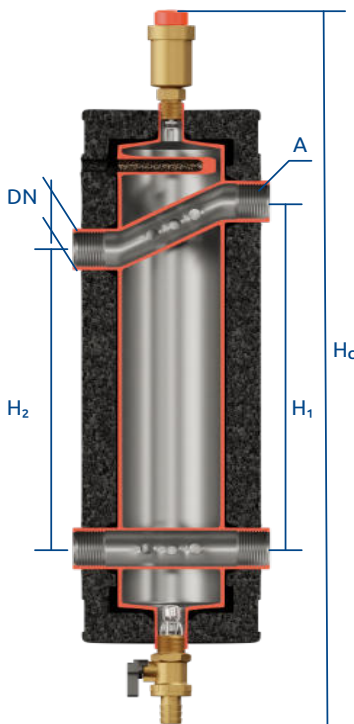


FLOW Controller



INOX  
stainless steel

|         |   |   |   |   |   |   |
|---------|---|---|---|---|---|---|
| SHE-CDI | ● | ● | ● | ● | ● | ● |
| SHE-CD  | ● | ● | ● | ● | ● | ○ |



| INOX                | SHE-CDI 55<br>25/65 | SHE-CDI 90<br>32/80 | SHE-CDI 135<br>40/100 | SHE-CDI 210<br>50/125 |
|---------------------|---------------------|---------------------|-----------------------|-----------------------|
| <b>Product code</b> | <b>404055</b>       | <b>404090</b>       | <b>404135</b>         | <b>404210</b>         |
| Max. power (ΔT=20K) | 55 kW               | 90 kW               | 135 kW                | 210 kW                |

|                     | SHE-CD 55<br>25/65 | SHE-CD 90<br>32/80 | SHE-CD 135<br>40/100 | SHE-CD 150<br>50/100 | SHE-CD 210<br>50/125 |
|---------------------|--------------------|--------------------|----------------------|----------------------|----------------------|
| <b>Product code</b> | <b>403055</b>      | <b>403090</b>      | <b>403135</b>        | <b>403150</b>        | <b>403210</b>        |
| Max. power (ΔT=20K) | 55 kW              | 90 kW              | 135 kW               | 150 kW               | 210 kW               |

|                   |            |             |             |              |              |
|-------------------|------------|-------------|-------------|--------------|--------------|
| Connection (DN) A | 25-1" Int. | 32 1¼" Int. | 40 1½" Ext. | 50 - 2" Ext. | 50 - 2" Ext. |
| Max. flow         | 2,3 m³/h   | 4,0 m³/h    | 5,7m³/h     | 6,6 m3/h     | 9,0 m3/h     |
| Max. temperature  | 110°C      | 110°C       | 110°C       | 110°C        | 110°C        |
| Pressure nominal  | 6 bar      | 6 bar       | 6 bar       | 6 bar        | 6 bar        |
| Capacity V        | 1,4 l      | 2,4 l       | 3,7 l       | 4,3 l        | 6,7 l        |
| P x V (bar x l)   | 8,4        | 14,4        | 22,2        | 25,8         | 40,2         |
| H <sub>1</sub>    | 290 mm     | 340 mm      | 340 mm      | 400 mm       | 400 mm       |
| H <sub>2</sub>    | 250 mm     | 300 mm      | 300 mm      | 350 mm       | 350 mm       |
| H <sub>c</sub>    | 600 mm     | 670 mm      | 670 mm      | 745 mm       | 745 mm       |



|                     | SHE-CD 300<br>65/150 | SHE-CD 560<br>32/80 |
|---------------------|----------------------|---------------------|
| <b>Product code</b> | <b>403300</b>        | <b>403560</b>       |
| Max. power (ΔT=15K) | 300 kW               | 560 kW              |
| Flange DN (PN 16)   | 65-2½"               | 80-3"               |
| Max. flow           | 12,9 m³/h            | 24,0 m³/h           |
| Max. temperature    | 110°C                | 110°C               |
| Pressure nominal    | 6 bar                | 6 bar               |
| Capacity V          | 13,0 l               | 27,5 l              |
| P x V (bar x l)     | 78,0                 | 165,0               |
| H <sub>1</sub>      | 565 mm               | 680 mm              |
| H <sub>2</sub>      | 500 mm               | 600 mm              |
| H <sub>c</sub>      | ~915 mm              | ~1055 mm            |

# Low loss headers - Economical version

## SHE-28 kW low loss header



air vent & drain valve



measurement tube

## SHE-OC 28 kW low loss header



air vent & drain valve



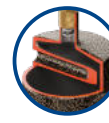
SMART



rubber insulation

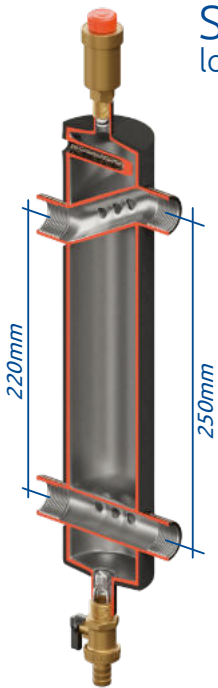


mounting bracket



measurement tube

## SHE CD Condens 35 kW low loss header



air vent & drain valve



SMART



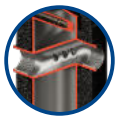
rubber insulation



mounting bracket



measurement tube



FLOW Controller

|                          | SHE 28 25/50  | SHE 28-OC 25/50 | SHE 35-CD 25/50 |
|--------------------------|---------------|-----------------|-----------------|
| <b>Product code</b>      | <b>401028</b> | <b>402028</b>   | <b>403035</b>   |
| insulation solar lagging | NO            | YES             | YES             |
| Max. power (ΔT=15K)      | 28 kW         | 28 kW           |                 |
| Max. power (ΔT=20K)      | 35 kW         | 35 kW           | 35 kW           |
| Connection (DN) A        | 25 - 1 „Int   | 25 - 1 "Int     | 25 - 1 "Int     |
| Max. flow                | 1,6 m³/h      | 1,6 m³/h        | 1,6 m³/h        |
| Max. temperature         | 110°C         | 110°C           | 110°C           |
| Pressure nominal         | 6 bar         | 6 bar           | 6 bar           |
| Capacity V               | 0,7 l         | 0,7 l           | 0,7 l           |
| P x V (bar x l)          | 4,2           | 4,2             | 4,2             |

### There are 3 main cases of work:

#### figure 1.

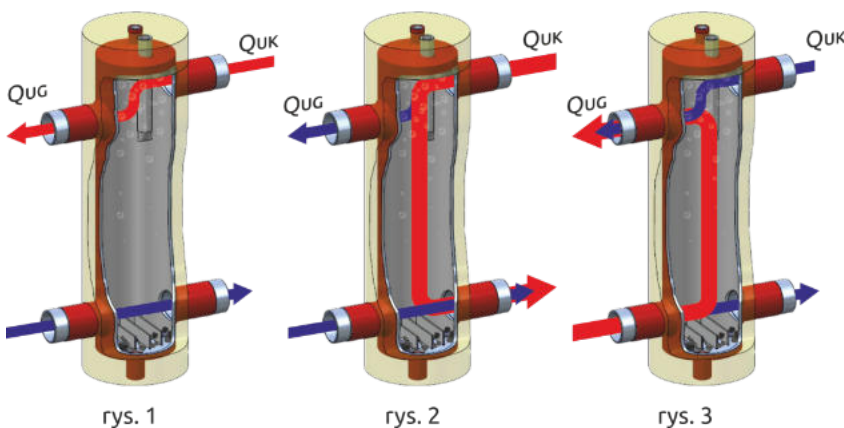
The heat demand from the heating system is equal to the amount of heat the boiler generates. In this situation, the amount of heating medium exported by the boiler is equal to the amount received by the heating circuit. -  $Q_{UG} = Q_{UK}$

#### figure 2.

The heat demand of the heating system is lower than the heat generated by the boiler (the thermostatic valves on the radiators are "closed"). In this situation, part of the heating medium returns through the low loss header directly to the boiler and gives a signal to the boiler automatics to reduce the power of the boiler or to switch it OFF. Thanks to the low loss header, the response time of the automatic control system is significantly shortened. -  $Q_{UG} > Q_{UK}$

#### figure 3.

The heat demand from the heating system is greater than the amount of heat generated by the boiler. In this situation, the pumps of the heating system suck up part of the heating medium flow through the low loss header, which gives a signal to the boiler automatics to increase the boiler power - The response time of the automatics is also reduced -  $Q_{UG} < Q_{UK}$



rys. 1

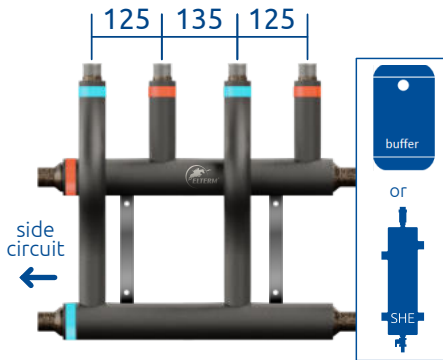
rys. 2

rys. 3

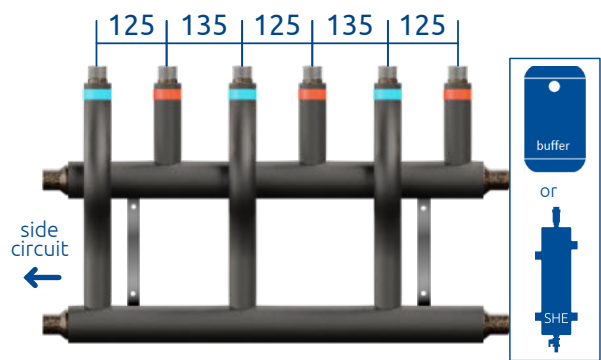
# Manifolds for pump groups RGP 2D+ i 3D+

- compatible with SHE, SHE-OC, SHE-CD

- to work with buffer



manifolds for pump groups RGP 2D+  
(2 outputs upwards + 1 sideways)



manifolds for pump groups RGP 3D+  
(3 outputs upwards + 1 sideways)

side circuit  
←

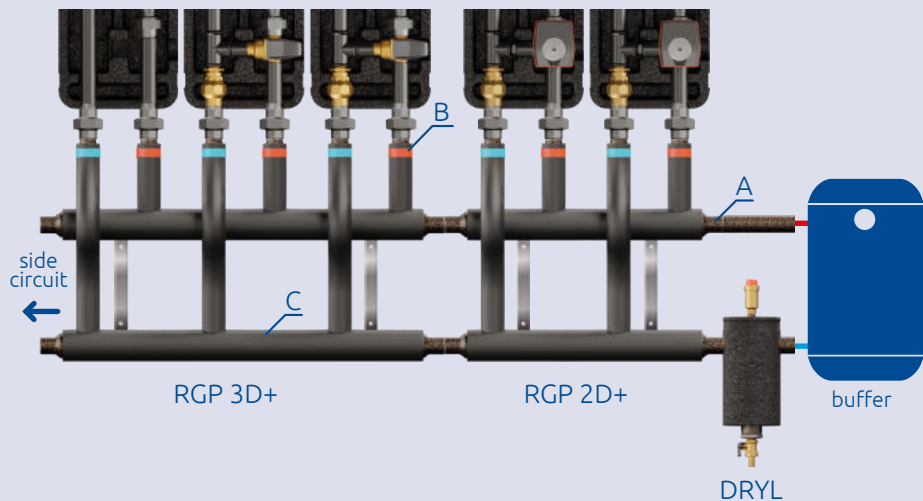
Possibility of connecting an additional circuit, e.g:

- DHW storage tank
- C.H. radiator
- release valve
- Air vent



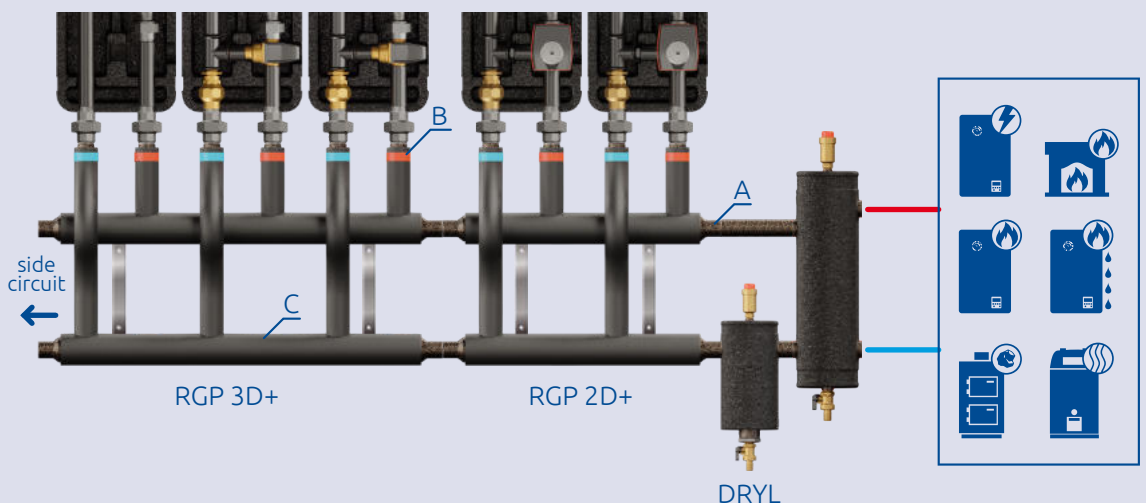
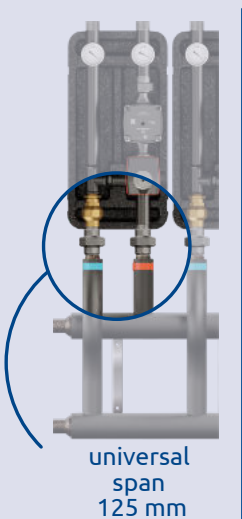
heat pump, C.H. heating boiler + buffer + distributor manifold

pump group



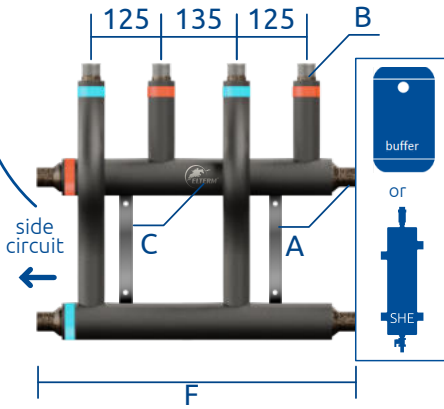
heat pump, C.H. heating boiler + low loss header + distributor manifold

pump groups

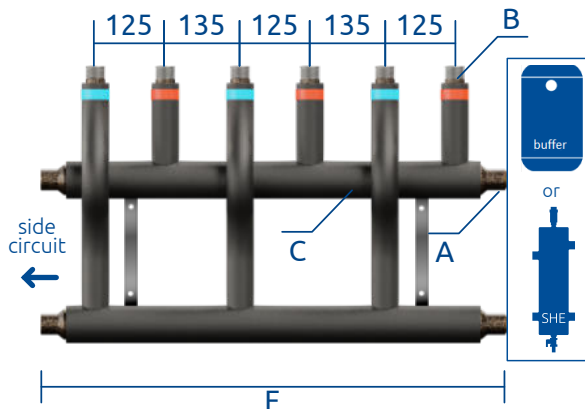


# Manifolds to pump groups RGP 2D+ i 3D+

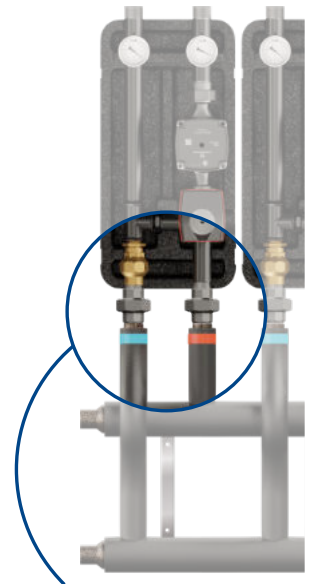
- compatible with SHE, SHE-OC, SHE-CD
- to work with buffer



manifolds for pump groups RGP 2D+  
(2 outputs upwards + 1 sideways)



manifolds for pump groups RGP 3D+  
(3 outputs upwards + 1 sideways)



universal span  
125 mm

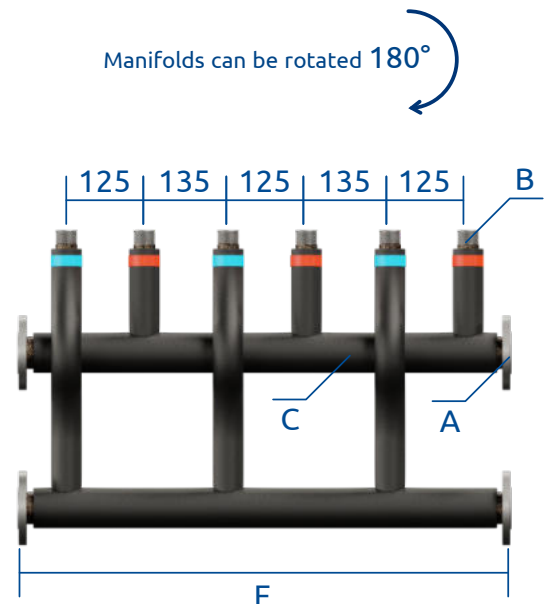
|                   |   |               |               |              |
|-------------------|---|---------------|---------------|--------------|
| Connection DN A   | 25 - 1" Int.                                    | 32 - 1¼" Int. | 40 - 1½" Ext. | 50 - 2" Ext. |
| To SHE OC         | 40 kW   | 70 kW         | 100 kW        | 115/156 kW   |
| To SHE CD         | 55 kW   | 90 kW         | 135 kW        | 210 kW       |
| <b>B=1"</b>       | <b>RGP 2D+ (2 outputs upwards + 1 sideways)</b> |               |               |              |
| Product code      | 512040  | 512070        | 512100        | 512156       |
| rubber insulation | YES   | YES           | YES           | YES          |
| Product code      | 502040  | 502070        | 502100        | 502156       |
| rubber insulation | YES   | YES           | YES           | YES          |
| Dimension F (mm)  | 605   | 605           | 525           | 595          |
| <b>B=1"</b>       | <b>RGP 3D+ (3 outputs upwards + 1 sideways)</b> |               |               |              |
| Product code      | 513040  | 513070        | 513100        | 513156       |
| rubber insulation | YES   | YES           | YES           | YES          |
| Product code      | 503040  | 503070        | 503100        | 503156       |
| rubber insulation | NO  | NO            | NO            | NO           |
| Dimension F (mm)  | 865   | 865           | 785           | 855          |
| Connection DN - A | 25 - 1" Int.                                    | 32 - 1¼" Int. | 40 - 1½" Ext. | 50 - 2" Ext. |
| Connection DN - B | 25 - 1" Ext.                                    | 25 - 1" Ext.  | 25 - 1" Ext.  | 25 - 1" Ext. |
| Main pipe DN - C  | 40 - 1½"  | 40 - 1½"      | 40 - 1½"      | 50 - 2"      |

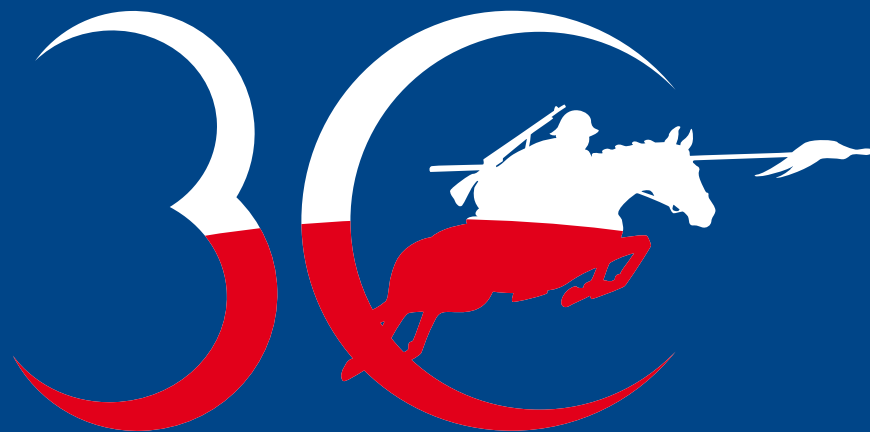
|                   |                                       |
|-------------------|---------------------------------------|
| Connection DN A   | 50 - 2" Ext.                          |
| To SHE OC         | 115/156 kW                            |
| To SHE CD         | 210 kW                                |
| <b>B=5/4"</b>     | <b>2 outputs upwards + 1 sideways</b> |
| Product code      | 562156                                |
| rubber insulation | YES                                   |
| <b>B=5/4"</b>     | <b>3 outputs upwards + 1 sideways</b> |
| Product code      | 563156                                |
| rubber insulation | YES                                   |
| Connection DN A   | 50 - 2" Ext.                          |
| Connection DN - B | 32 - 1¼" Ext.                         |
| Main pipe DN - C  | 50 - 2"                               |

## Flanged manifolds on request:

|                   |   |               |               |               |
|-------------------|---|---------------|---------------|---------------|
| To SHE OC         | 225 kW  | 420 kW        | 435/700 kW    | 750 kW        |
| To SHE CD         | 300 kW  | 560 kW        |               |               |
| Connection DN A   | 65 - 2½"  | 80 - 3"       | 100 - 4"      | 125 - 5"      |
| <b>B=5/4"</b>     | <b>RGP 2D+ (2 outputs upwards + 1 sideways)</b> |               |               |               |
| Product code      | 562225  | 562420        | 562700        | 562750        |
| rubber insulation | YES   | YES           | YES           | YES           |
| Dimension F (mm)  | 525   | 525           | 525           | 525           |
| <b>B=5/4"</b>     | <b>RGP 3D+ (3 outputs upwards + 1 sideways)</b> |               |               |               |
| Product code      | 563225  | 563420        | 563700        | 563750        |
| rubber insulation | YES   | YES           | YES           | YES           |
| Dimension F (mm)  | 785   | 785           | 785           | 785           |
| Flange PN 16-A    | 65 - 2½"  | 80 - 3"       | 100 - 4"      | 125 - 5"      |
| Connection DN - B | 32 - 1¼" Ext.                                   | 32 - 1¼" Ext. | 32 - 1¼" Ext. | 32 - 1¼" Ext. |
| Main pipe DN - C  | 65 - 2½"  | 80 - 3"       | 100 - 4"      | 125 - 5"      |

Manifolds can be rotated 180°





**YEARS ELTERM<sup>®</sup>**

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

[www.elterm.pl](http://www.elterm.pl)  
office: [biuro@elterm.pl](mailto:biuro@elterm.pl)  
service: [serwis@elterm.pl](mailto:serwis@elterm.pl)

Elterm reserves the right to make design changes to improve its products.  
Photos are for illustration only. Current price list always at [www.elterm.pl](http://www.elterm.pl)