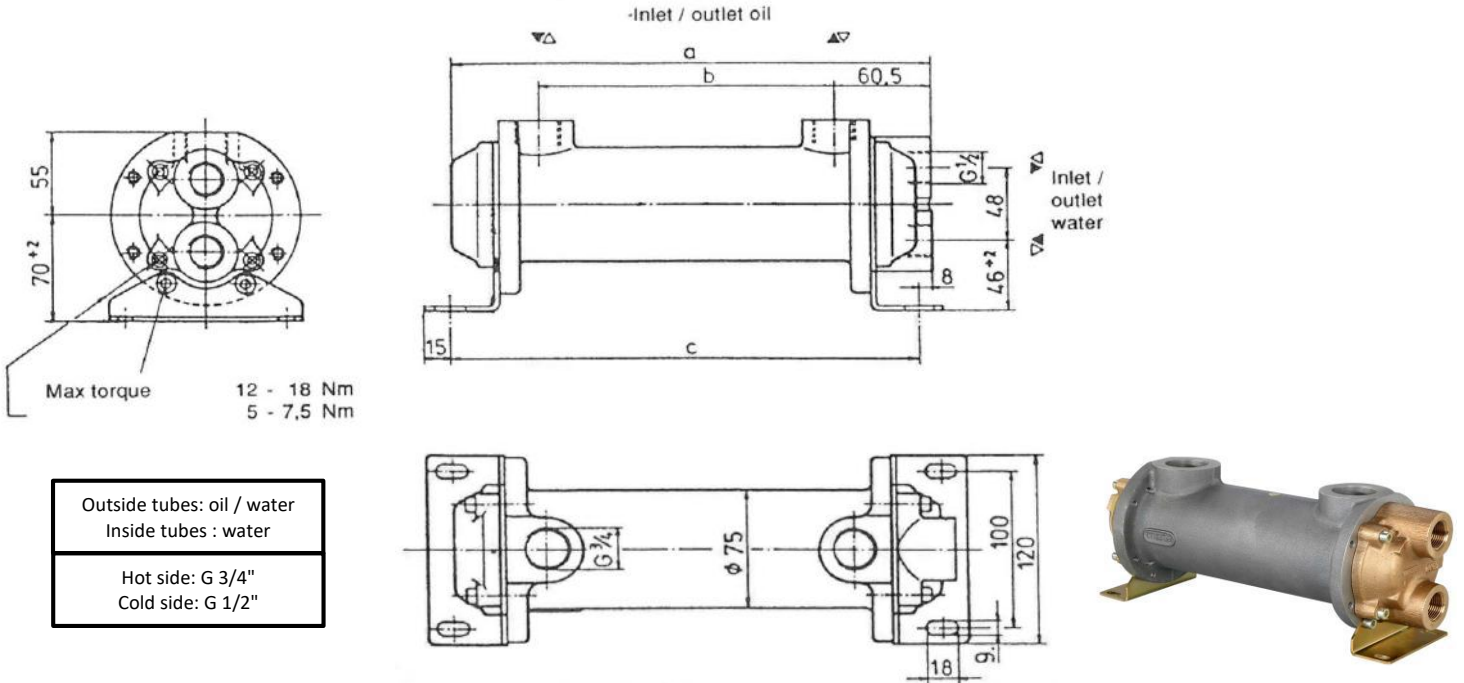


**TECHNICAL
DATA**

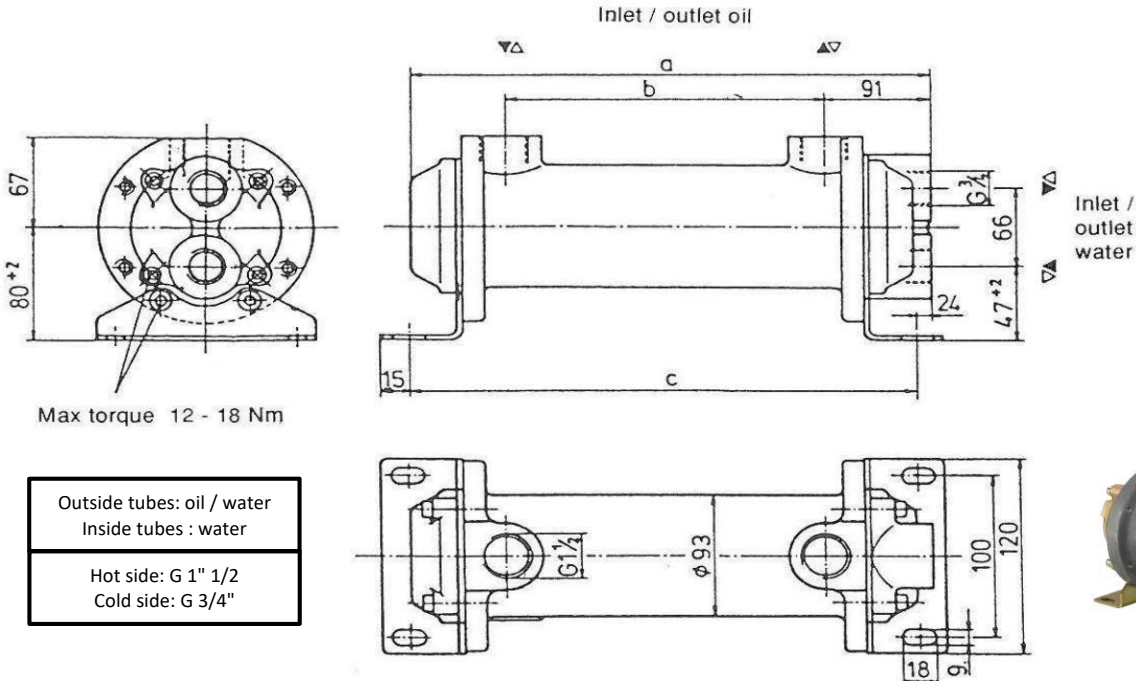
**MULTITUBULAR HEAT EXCHANGER
Oil / Water
A065**



| | | | | | | |
|--------------------------------|--|------------|---------------|------------|--|--------|
| Data | Cooling of oil / water by untreated water or sea water | | | | | |
| Dimensions [mm] | Core length [mm] | | | | | |
| | | 161 | 241 | 411 | | |
| | a | 212 | 292 | 462 | | |
| | b | 100 | 180 | 350 | | |
| c | 205 | 285 | 455 | | | |
| Area [m²] | A | 0,15 | 0,23 | 0,39 | | |
| Volume [L] | Outside tubes | 0,28 | 0,43 | 0,75 | | |
| | Inside tubes | 0,26 | 0,34 | 0,51 | | |
| Weight [kg] | Total | 2,80 | 3,40 | 4,70 | | |
| | Tubestack only | 1,00 | 1,30 | 2,00 | | |
| Working characteristics | Maximum working pressure [bar] | | Outside tubes | 16 | Maximum water flow rate Qw = 30.6 L/min | |
| | | | Inside tubes | 10 | | |
| | Maximum working temperature [°C] | | Outside tubes | 120 | | |
| | | | Inside tubes | 90 | | |
| Designation | Tube | Tube plate | Baffle | Shell | Cover | O-ring |
| Materials | CuNi10Fe | CuZn39Pb2 | CuZn36 | anod. Al | CuSn7Pb6Zn4 | Viton |
| Model | <div style="display: flex; justify-content: center; align-items: center; gap: 10px;"> <div style="border: 1px solid black; padding: 2px 5px;">A</div> <div style="border: 1px solid black; padding: 2px 5px;">0</div> <div style="border: 1px solid black; padding: 2px 5px;">6</div> <div style="border: 1px solid black; padding: 2px 5px;">5</div> <div style="font-size: 20px;">-</div> <div style="border: 1px solid black; padding: 2px 5px;">2</div> <div style="border: 1px solid black; padding: 2px 5px;">4</div> <div style="border: 1px solid black; padding: 2px 5px;">1</div> <div style="font-size: 20px;">-</div> <div style="border: 1px solid black; padding: 2px 5px;">4</div> </div> <div style="margin-top: 10px;"> <div style="display: flex; justify-content: center; align-items: center; gap: 20px;"> <div style="text-align: left;"> <p>Type</p> <p>Core diameter</p> <p>Core length</p> <p>Number of passes on cold side</p> </div> <div style="border: 1px solid gray; padding: 2px 5px;">Geometry</div> </div> </div> | | | | | |

**TECHNICAL
DATA**

**MULTITUBULAR HEAT EXCHANGER
Oil / Water
A083**



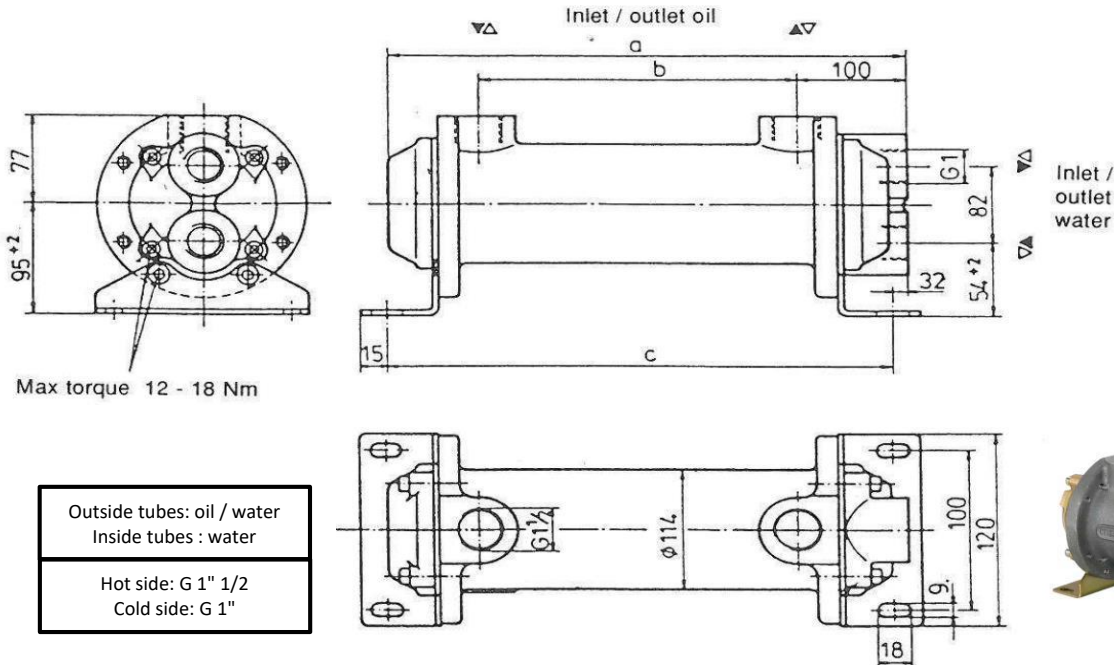
Max torque 12 - 18 Nm

| |
|----------------------------|
| Outside tubes: oil / water |
| Inside tubes : water |
| Hot side: G 1" 1/2 |
| Cold side: G 3/4" |

| | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|------------|---------------|------------|--|--------|---|---|---|---|---|---|---|---|---|---|---|---|
| Data | Cooling of oil / water by untreated water or sea water | | | | | | | | | | | | | | | | | |
| Dimensions [mm] | Core length [mm] | | | | | | | | | | | | | | | | | |
| | | 190 | 241 | 411 | | | | | | | | | | | | | | |
| | a | 261 | 312 | 482 | | | | | | | | | | | | | | |
| | b | 99 | 150 | 320 | | | | | | | | | | | | | | |
| c | 233 | 284 | 454 | | | | | | | | | | | | | | | |
| Area [m²] | A | 0,27 | 0,34 | 0,59 | | | | | | | | | | | | | | |
| Volume [L] | Outside tubes | 0,57 | 0,73 | 1,24 | | | | | | | | | | | | | | |
| | Inside tubes | 0,60 | 0,70 | 1,05 | | | | | | | | | | | | | | |
| Weight [kg] | Total | 4,40 | 4,90 | 6,75 | | | | | | | | | | | | | | |
| | Tubestack only | 1,68 | 2,03 | 3,17 | | | | | | | | | | | | | | |
| Working characteristics | Maximum working pressure [bar] | | Outside tubes | 16 | Maximum water flow rate Qw = 69 L/min | | | | | | | | | | | | | |
| | | | Inside tubes | 10 | | | | | | | | | | | | | | |
| | Maximum working temperature [°C] | | Outside tubes | 120 | | | | | | | | | | | | | | |
| | | | Inside tubes | 90 | | | | | | | | | | | | | | |
| Designation | Tube | Tube plate | Baffle | Shell | Cover | O-ring | | | | | | | | | | | | |
| Materials | CuNi10Fe | CuZn39Pb2 | CuZn36 | anod. Al | CuSn7Pb6Zn4 | Viton | | | | | | | | | | | | |
| Model | <table border="1" style="margin: auto;"> <tr> <td style="padding: 5px;">A</td> <td style="padding: 5px;">0</td> <td style="padding: 5px;">8</td> <td style="padding: 5px;">3</td> <td style="padding: 5px;">-</td> <td style="padding: 5px;">2</td> <td style="padding: 5px;">4</td> <td style="padding: 5px;">1</td> <td style="padding: 5px;">-</td> <td style="padding: 5px;">4</td> <td style="padding: 5px;">/</td> <td style="padding: 5px;">H</td> </tr> </table> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: left;"> <p>Type</p> <p>Core diameter</p> <p>Core length</p> <p>Number of passes on cold side</p> </div> <div style="text-align: center;"> <p>Geometry</p> </div> <div style="text-align: left;"> <p>Flow on hot side - Standard H High flow</p> </div> <div style="text-align: right;"> <p>Options</p> </div> </div> | | | | | | A | 0 | 8 | 3 | - | 2 | 4 | 1 | - | 4 | / | H |
| A | 0 | 8 | 3 | - | 2 | 4 | 1 | - | 4 | / | H | | | | | | | |

**TECHNICAL
DATA**

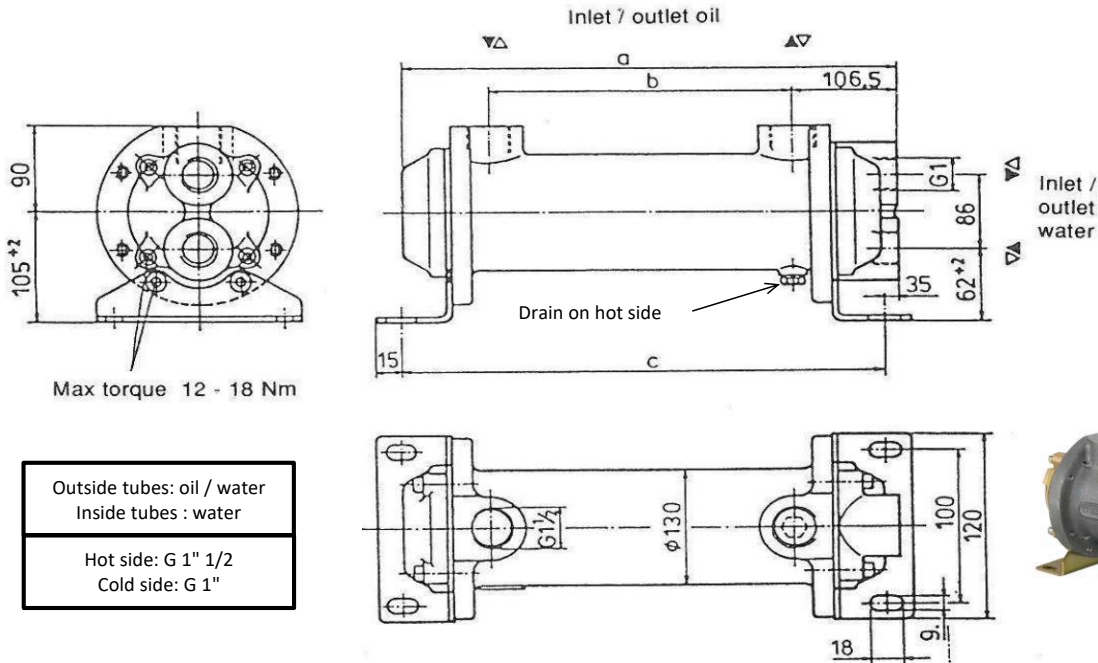
**MULTITUBULAR HEAT EXCHANGER
Oil / Water
A104**



| | | | | | | |
|--------------------------------|---|------------|---------------|------------|--|--------|
| Data | Cooling of oil / water by untreated water or sea water | | | | | |
| Dimensions [mm] | Core length [mm] | | | | | |
| | | 214 | 314 | 564 | | |
| | a | 299 | 399 | 649 | | |
| | b | 120 | 220 | 470 | | |
| c | 256 | 356 | 606 | | | |
| Area [m²] | A | 0,50 | 0,75 | 1,37 | | |
| Volume [L] | Outside tubes | 0,95 | 1,40 | 2,50 | | |
| | Inside tubes | 0,95 | 1,20 | 1,80 | | |
| Weight [kg] | Total | 6,60 | 8,20 | 12,00 | | |
| | Tubestack only | 3,45 | 4,53 | 7,20 | | |
| Working characteristics | Maximum working pressure [bar] | | Outside tubes | 16 | Maximum water flow rate Qw = 94 L/min | |
| | | | Inside tubes | 10 | | |
| | Maximum working temperature [°C] | | Outside tubes | 120 | | |
| | | | Inside tubes | 90 | | |
| Designation | Tube | Tube plate | Baffle | Shell | Cover | O-ring |
| Materials | CuNi10Fe | CuZn39Pb2 | CuZn36 | anod. Al | CuSn7Pb6Zn4 | Viton |
| Model | <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 2px;">A</div> <div style="border: 1px solid black; padding: 2px;">1</div> <div style="border: 1px solid black; padding: 2px;">0</div> <div style="border: 1px solid black; padding: 2px;">4</div> <div style="font-size: 24px; margin: 0 10px;">-</div> <div style="border: 1px solid black; padding: 2px;">3</div> <div style="border: 1px solid black; padding: 2px;">1</div> <div style="border: 1px solid black; padding: 2px;">4</div> <div style="font-size: 24px; margin: 0 10px;">-</div> <div style="border: 1px solid black; padding: 2px;">4</div> <div style="font-size: 24px; margin: 0 10px;">/</div> <div style="border: 1px solid black; padding: 2px;">H</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 30%;"> <p>Type</p> <p>Core diameter</p> <p>Core length</p> <p>Number of passes on cold side</p> </div> <div style="width: 30%; text-align: center;"> <p>Geometry</p> </div> <div style="width: 30%;"> <p>Flow on hot side - Standard H - High flow</p> <p>Options</p> </div> </div> | | | | | |

**TECHNICAL
DATA**

**MULTITUBULAR HEAT EXCHANGER
Oil / Water
A120**



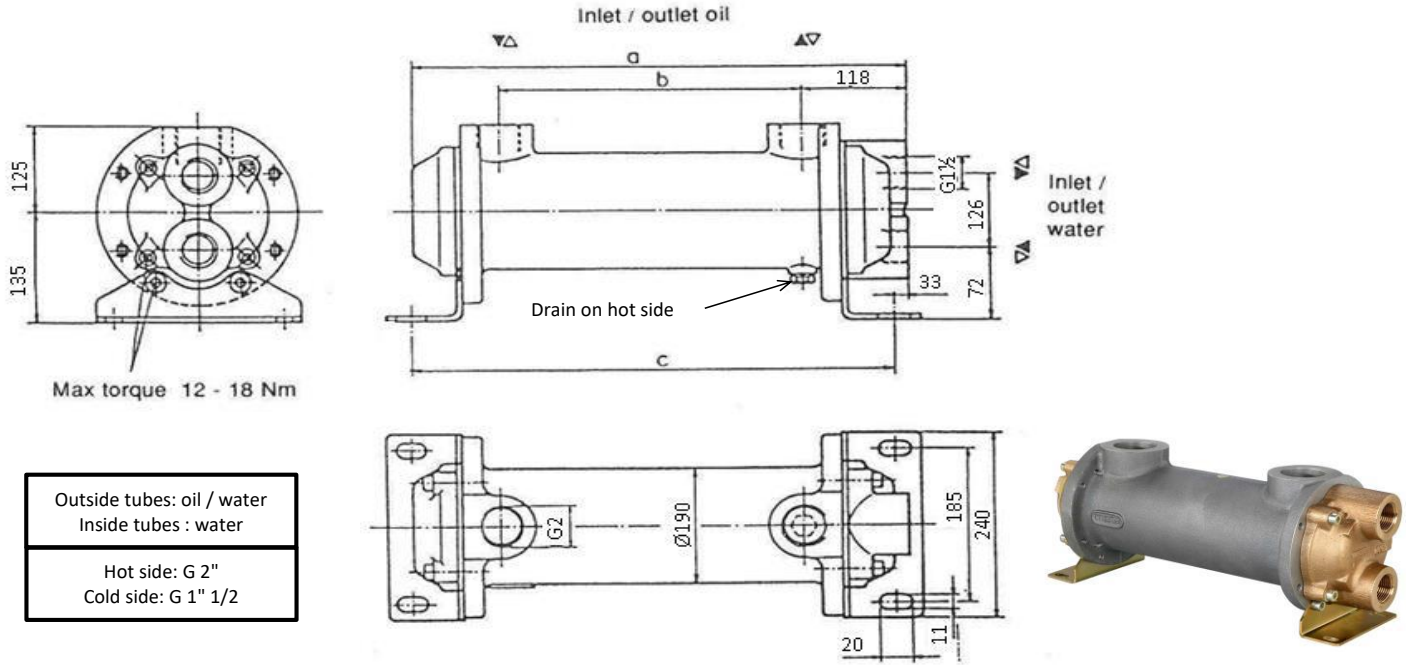
Max torque 12 - 18 Nm

| |
|--|
| Outside tubes: oil / water Inside tubes : water |
| Hot side: G 1" 1/2 Cold side: G 1" |

| | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|------------|---------------|------------|---|--------|---|---|---|---|---|---|---|---|---|---|---|---|
| Data | Cooling of oil / water by untreated water or sea water | | | | | | | | | | | | | | | | | |
| Dimensions [mm] | Core length [mm] | | | | | | | | | | | | | | | | | |
| | | 324 | 524 | 814 | | | | | | | | | | | | | | |
| | a | 415 | 615 | 905 | | | | | | | | | | | | | | |
| | b | 222 | 422 | 712 | | | | | | | | | | | | | | |
| c | 365 | 565 | 855 | | | | | | | | | | | | | | | |
| Area [m²] | A | 1,11 | 1,83 | 2,87 | | | | | | | | | | | | | | |
| Volume [L] | Outside tubes | 1,85 | 3,00 | 4,66 | | | | | | | | | | | | | | |
| | Inside tubes | 1,85 | 2,60 | 3,70 | | | | | | | | | | | | | | |
| Weight [kg] | Total | 10,50 | 14,50 | 20,50 | | | | | | | | | | | | | | |
| | Tubestack only | 5,90 | 8,80 | 13,20 | | | | | | | | | | | | | | |
| Working characteristics | Maximum working pressure [bar] | | Outside tubes | 16 | Maximum water flow rate Qw = 168 L/min | | | | | | | | | | | | | |
| | | | Inside tubes | 10 | | | | | | | | | | | | | | |
| | Maximum working temperature [°C] | | Outside tubes | 120 | | | | | | | | | | | | | | |
| | | | Inside tubes | 90 | | | | | | | | | | | | | | |
| Designation | Tube | Tube plate | Baffle | Shell | Cover | O-ring | | | | | | | | | | | | |
| Materials | CuNi10Fe | CuZn39Pb2 | CuZn36 | anod. Al | CuSn7Pb6Zn4 | Viton | | | | | | | | | | | | |
| Model | <table border="1" style="margin: auto;"> <tr> <td style="padding: 5px;">A</td> <td style="padding: 5px;">1</td> <td style="padding: 5px;">2</td> <td style="padding: 5px;">0</td> <td style="padding: 5px;">-</td> <td style="padding: 5px;">5</td> <td style="padding: 5px;">2</td> <td style="padding: 5px;">4</td> <td style="padding: 5px;">-</td> <td style="padding: 5px;">4</td> <td style="padding: 5px;">/</td> <td style="padding: 5px;">H</td> </tr> </table> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: left;"> <p>Type</p> <p>Core diameter</p> <p>Core length</p> <p>Number of passes on cold side</p> </div> <div style="text-align: center;"> <p>Geometry</p> </div> <div style="text-align: left;"> <p>Flow on hot side - Standard H High flow</p> <p>Options</p> </div> </div> | | | | | | A | 1 | 2 | 0 | - | 5 | 2 | 4 | - | 4 | / | H |
| A | 1 | 2 | 0 | - | 5 | 2 | 4 | - | 4 | / | H | | | | | | | |

**TECHNICAL
DATA**

**MULTITUBULAR HEAT EXCHANGER
Oil / Water
A178**



| |
|--|
| Outside tubes: oil / water Inside tubes : water |
| Hot side: G 2" Cold side: G 1" 1/2 |

| | | | | | | | | | | | | | | | | |
|--------------------------------|--|---------------|--------|---|-------------|--------|---|---|---|---|---|---|---|---|---|---|
| Data | Cooling of oil / water by untreated water or sea water | | | | | | | | | | | | | | | |
| Dimensions [mm] | Core length [mm] | | | | | | | | | | | | | | | |
| | | 720 | | | | | | | | | | | | | | |
| | a | 813 | | | | | | | | | | | | | | |
| | b | 602 | | | | | | | | | | | | | | |
| | c | 772 | | | | | | | | | | | | | | |
| Area [m²] | A | 6,00 | | | | | | | | | | | | | | |
| Volume [L] | Outside tubes | 7,50 | | | | | | | | | | | | | | |
| | Inside tubes | 7,20 | | | | | | | | | | | | | | |
| Weight [kg] | Total | 45,00 | | | | | | | | | | | | | | |
| | Tubestack only | 27,50 | | | | | | | | | | | | | | |
| Working characteristics | Maximum working pressure [bar] | Outside tubes | 16 | Maximum water flow rate Q _w = 380 L/min | | | | | | | | | | | | |
| | | Inside tubes | 10 | | | | | | | | | | | | | |
| | Maximum working temperature [°C] | Outside tubes | 120 | | | | | | | | | | | | | |
| | | Inside tubes | 90 | | | | | | | | | | | | | |
| Designation | Tube | Tube plate | Baffle | Shell | Cover | O-ring | | | | | | | | | | |
| Materials | CuNi10Fe | CuZn39Pb2 | CuZn36 | anod. Al | CuSn7Pb6Zn4 | Viton | | | | | | | | | | |
| Model | <table border="1" style="margin: auto;"> <tr> <td style="padding: 5px;">A</td> <td style="padding: 5px;">1</td> <td style="padding: 5px;">7</td> <td style="padding: 5px;">8</td> <td style="padding: 5px;">-</td> <td style="padding: 5px;">7</td> <td style="padding: 5px;">2</td> <td style="padding: 5px;">0</td> <td style="padding: 5px;">-</td> <td style="padding: 5px;">4</td> </tr> </table> <div style="margin-top: 10px;"> <p>Type: A 1 7 8</p> <p>Core diameter: 720</p> <p>Core length: 720</p> <p>Number of passes on cold side: 4</p> </div> | | | | | | A | 1 | 7 | 8 | - | 7 | 2 | 0 | - | 4 |
| A | 1 | 7 | 8 | - | 7 | 2 | 0 | - | 4 | | | | | | | |