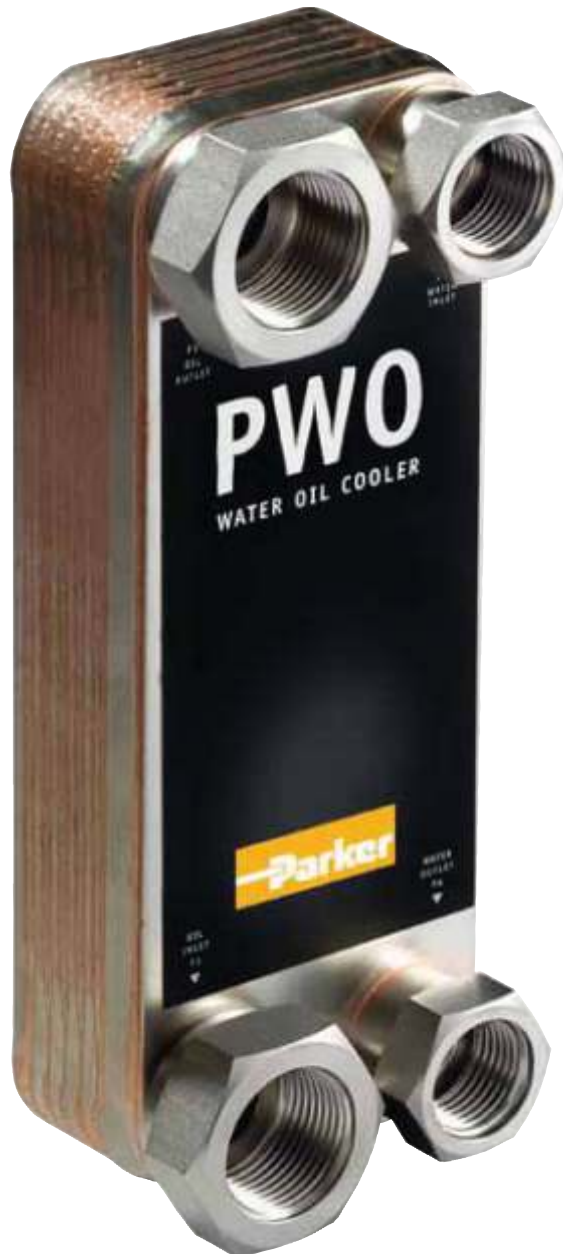


## PLATE WATER/OIL COOLER TYPE PWO

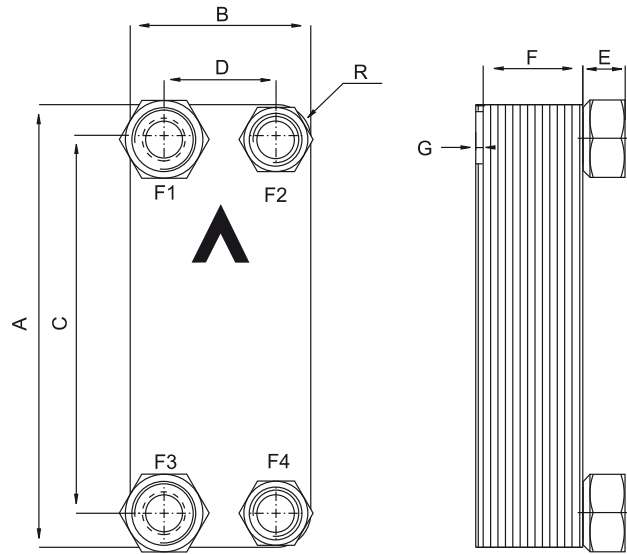
# Water/Oil Cooler PWO

- Industrial and Marine applications
- Light and compact
- Suitable for many applications
- Easy installation
- Cost-efficient and environmentally friendly



# PLATE WATER/OIL COOLER TYPE PWO

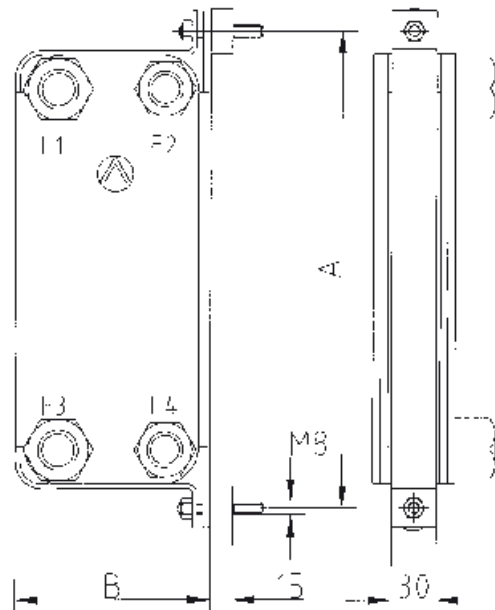
**PWO Standard Range** of water oil coolers is available in a wide number of sizes and is in general available for immediate off-the-shelf delivery. The basic material is AISI 316 stainless steel, vacuum brazed with pure copper. The PWO requires only a small refrigerant volume resulting in lower cost and a more environmentally-friendly installation. Low installation cost allows for oversizing to accommodate for future increase in requirements or peak loads.



| TYPE  | A<br>mm<br>(±2) | B<br>mm<br>(±1) | C<br>mm<br>(±1) | D<br>mm<br>(±1) | E<br>mm<br>(±1) (+0,5% - 1.5%) | F<br>* = x number of<br>plates (±1) | G<br>mm | R<br>mm |
|-------|-----------------|-----------------|-----------------|-----------------|--------------------------------|-------------------------------------|---------|---------|
| B5T   | 193             | 76              | 154             | 40              | 20.1 2x3/4" - 2x1/2"           | 2.24 x * + 4                        | 7       | 18      |
| B8T   | 317             | 76              | 278             | 40              | 20.1 2x3/4" - 2x1/2"           | 2.24 x * + 4                        | 7       | 18      |
| B10T  | 289             | 119             | 243             | 72              | 20.1 2x1 1/4" - 2x1"           | 2.24 x * + 4                        | 6       | 22      |
| B12H  | 287             | 117             | 234             | 63              | 27.1 2x1 1/4" - 2x1"           | 2.24 x * + 4                        | 6       | 22      |
| B15   | 465             | 72              | 432             | 40              | 20.1 2x3/4" - 2x1/2"           | 2.24 x * + 4                        | 7       | 16      |
| B16   | 376             | 119             | 320             | 63              | 27.1 2x1 1/4" - 2x1 1/4"       | 2.24 x * + 4                        | 6       | 23      |
| B25T  | 526             | 119             | 479             | 72              | 20.1 2x1 1/4" - 2x1"           | 2.24 x * + 4                        | 6       | 23      |
| B28   | 526             | 119             | 470             | 63              | 27.1 2x1 1/4" - 2x1 1/4"       | 2.24 x * + 4                        | 6       | 23      |
| B35   | 393             | 243             | 324             | 174             | 27.1 2x1 1/2" - 2x1 1/4"       | 2.34 x * + 8                        | 3       | 35      |
| B56   | 525             | 243             | 430             | 148             | 54.2 ISO G 4x 2 1/2"           | 2.44 x * + 14                       | 3       | 48      |
| B120T | 525             | 243             | 456             | 174             | 27.1 2x1 1/2" - 2x1 1/4"       | 2.29 x * + 10                       | 4       | 35      |

Units size >B35-90 should always be fixed with two clamps per cooler >B35-90

| Clamp Type   | A   | B   |
|--------------|-----|-----|
| FK-B5T       | 219 | 90  |
| FK-B8T       | 342 | 90  |
| FK-B10T, B12 | 319 | 135 |
| FK-B15       | 496 | 90  |
| FK-B16       | 408 | 139 |
| FK-B25T, B28 | 554 | 135 |
| FK-B35       | 422 | 259 |
| FK-B56/B120T | 554 | 259 |

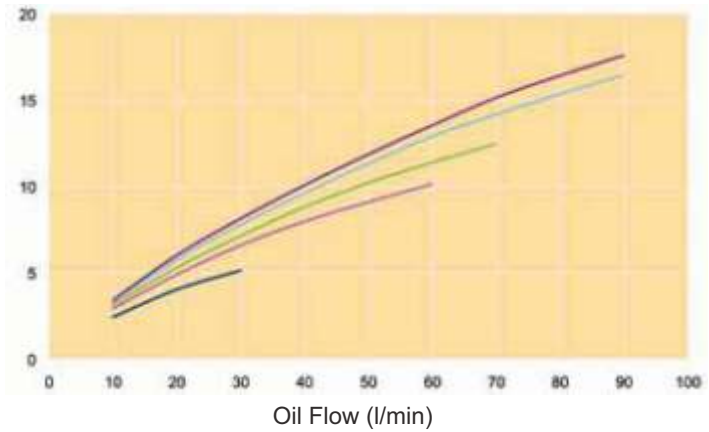
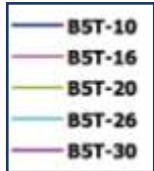


# PLATE WATER/OIL COOLER TYPE PWO

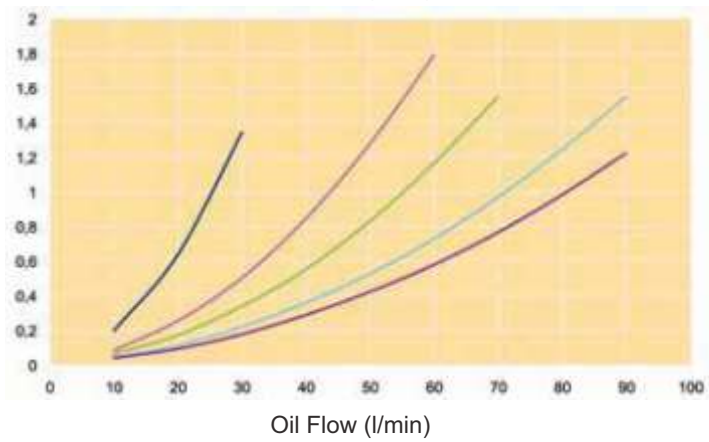
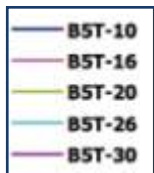
Oil type: ISO VG 46  
 Oil/water flow ratio: 2/1

Inlet oil temperature 60°C at  $\Delta p$  max 2 bar  
 Inlet water temperature 20°C

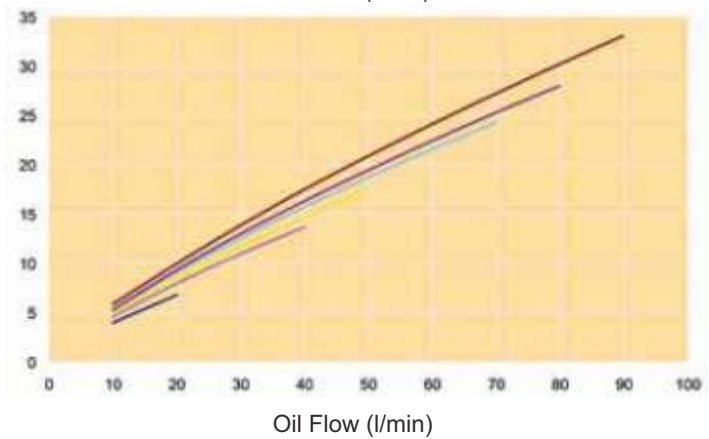
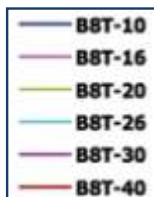
Head Load (Kw9)  
 B5T



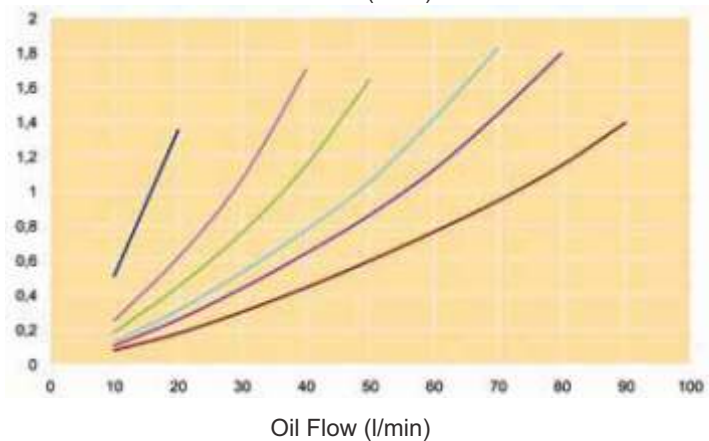
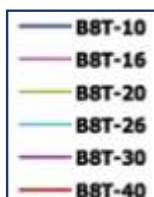
Pressure Drop (bar)  
 B5T



Heat Load (Kw)  
 B8T



Pressure Drop (bar)  
 B8T

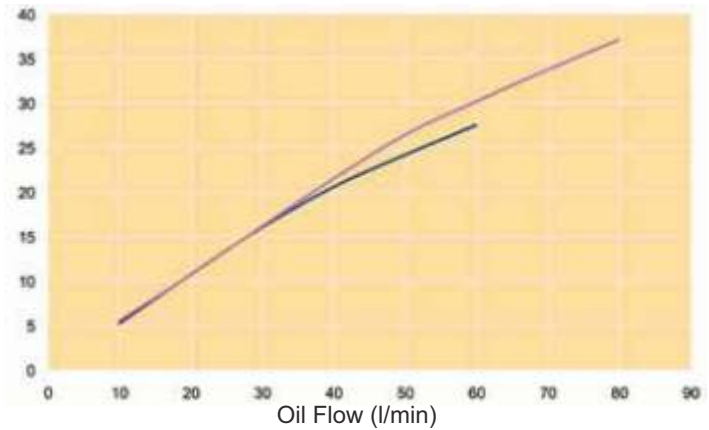


# PLATE WATER/OIL COOLER TYPE PWO

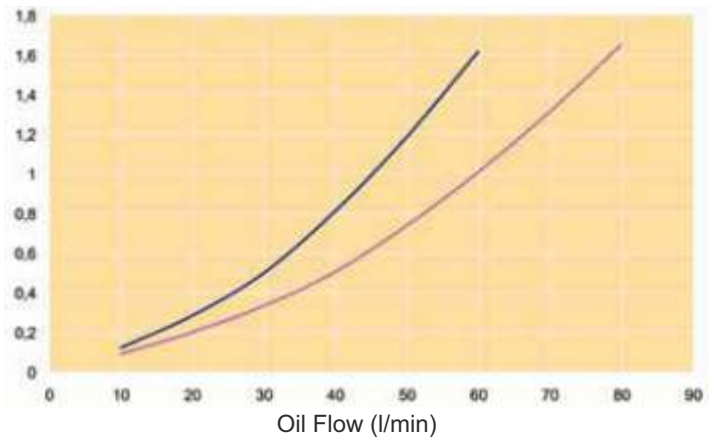
Oil type: ISO VG 46  
Oil/water flow ratio: 2/1

Inlet oil temperature 60°C at  $\Delta p$  max 2 bar  
Inlet water temperature 20°C

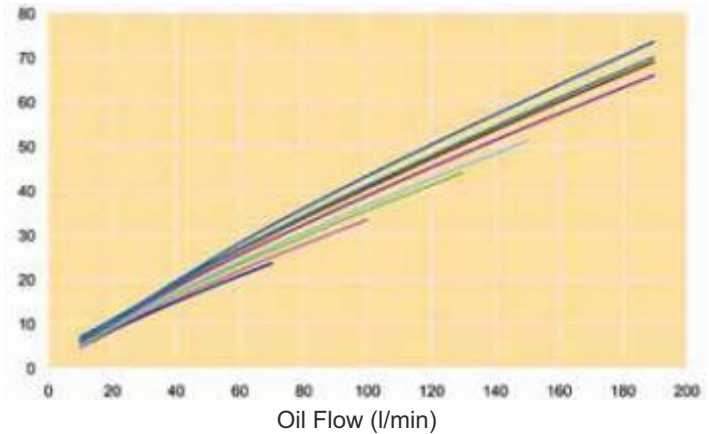
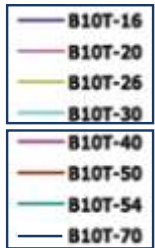
Heat Load (Kw)  
B15



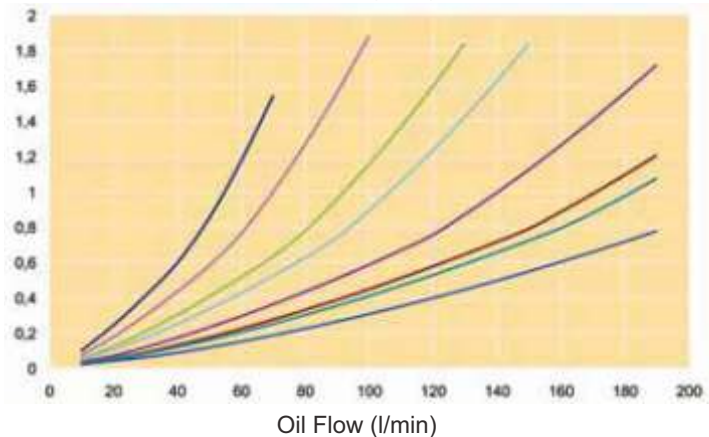
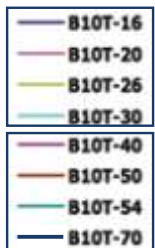
Pressure Drop (bar)  
B15



Heat Load (Kw)  
B10T



Pressure Drop (bar)  
B10T

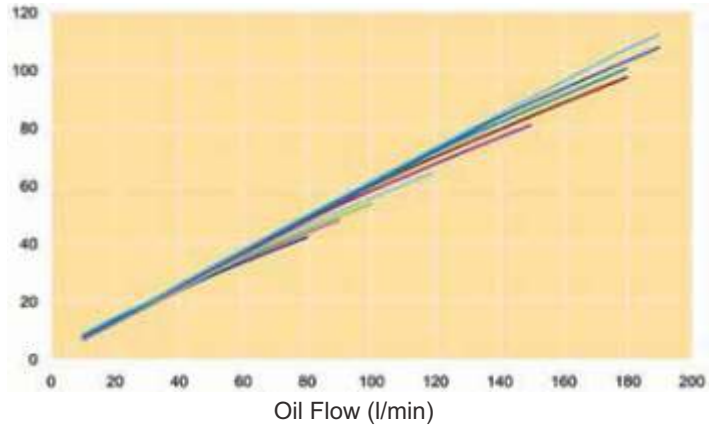
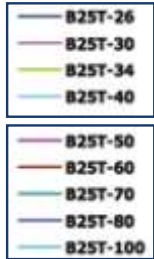


# PLATE WATER/OIL COOLER TYPE PWO

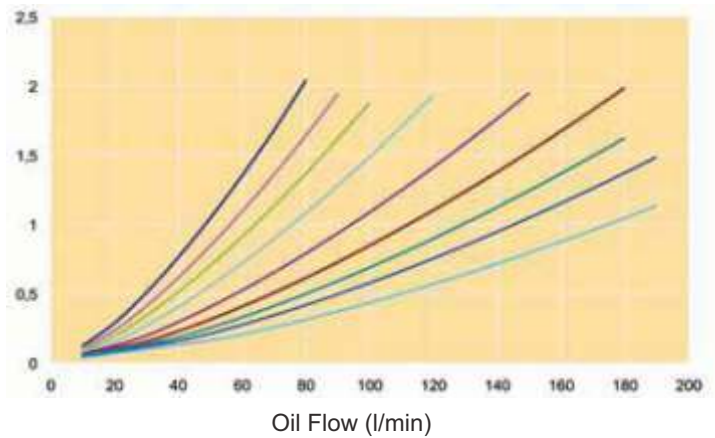
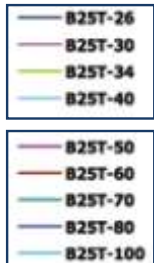
Oil type: ISO VG 46  
Oil/water flow ratio: 2/1

Inlet oil temperature 60°C at  $\Delta p$  max 2 bar  
Inlet water temperature 20°C

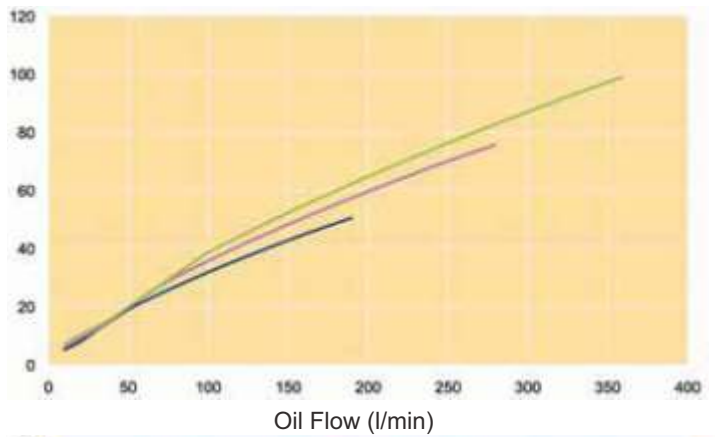
Heat Load (Kw)  
B25T



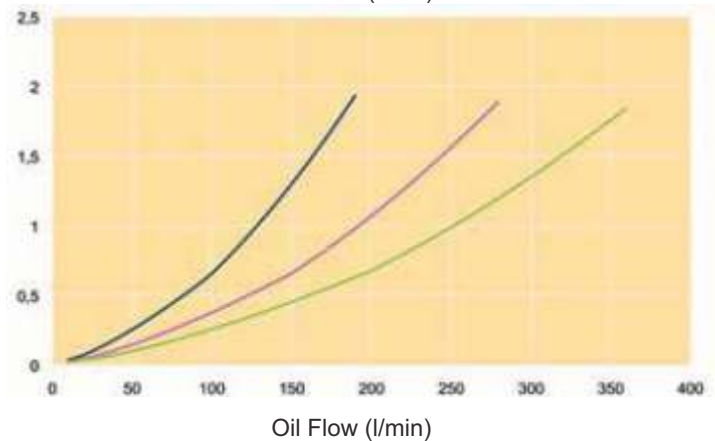
Pressure Drop (bar)  
B25T



Heat Load (Kw)  
B12



Pressure Drop (bar)  
B12

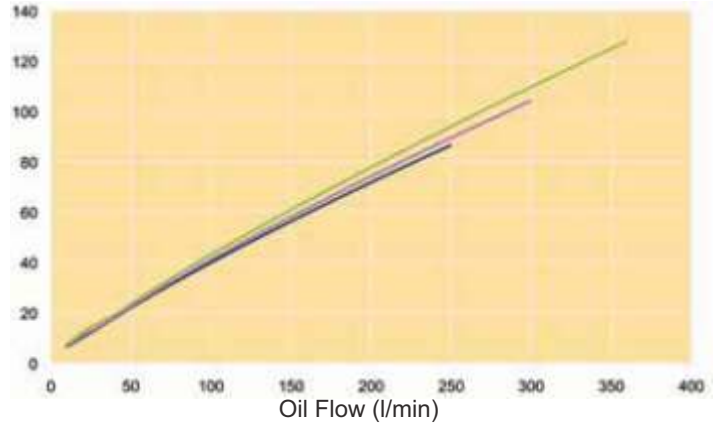


# PLATE WATER/OIL COOLER TYPE PWO

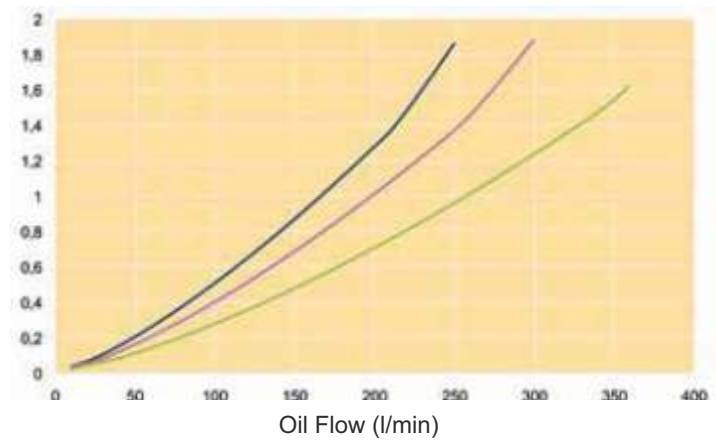
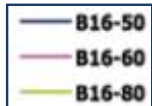
Oil type: ISO VG 46  
Oil/water flow ratio: 2/1

Inlet oil temperature 60°C at  $\Delta p$  max 2 bar  
Inlet water temperature 20°C

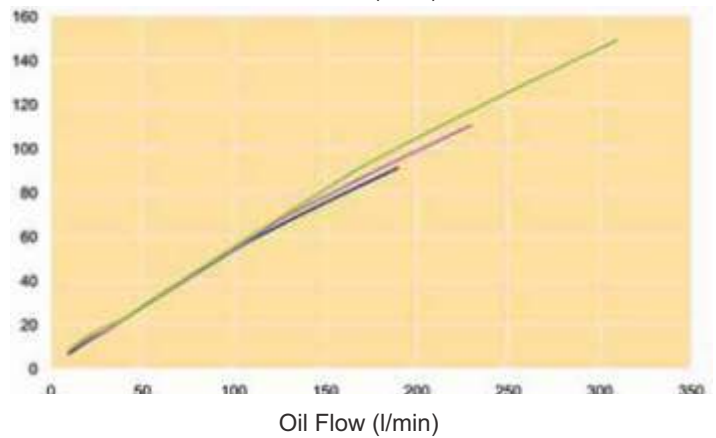
Heat Load (Kw)  
B16



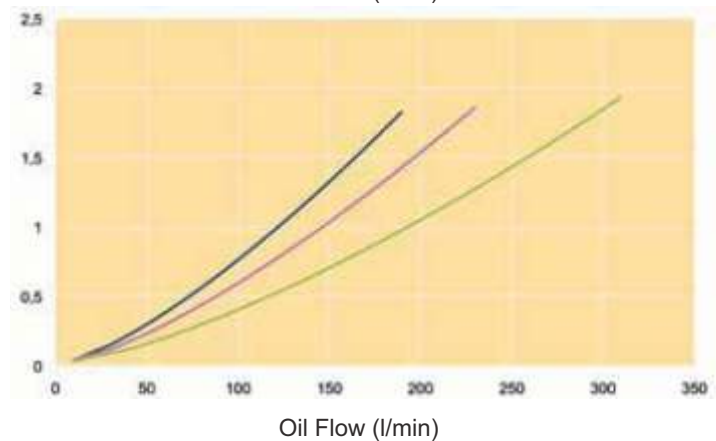
Pressure Drop (bar)  
B16



Heat Load (Kw)  
B28



Pressure Drop (bar)  
B28

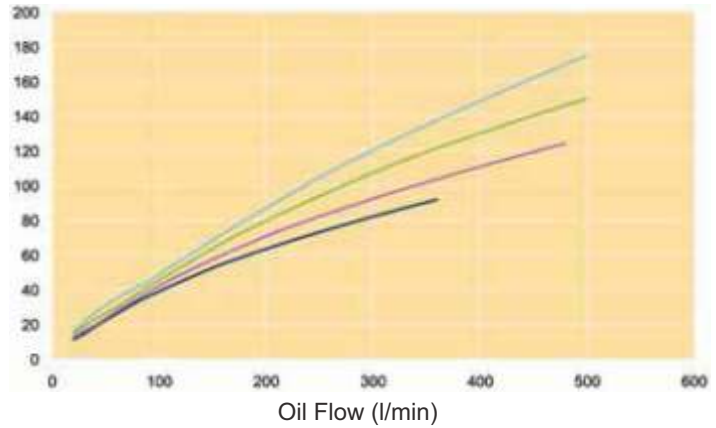


# PLATE WATER/OIL COOLER TYPE PWO

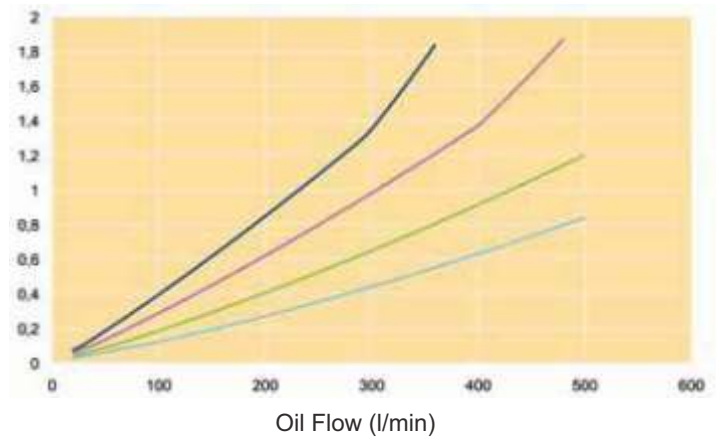
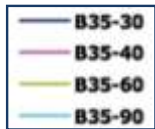
Oil type: ISO VG 46  
Oil/water flow ratio: 2/1

Inlet oil temperature 60°C at  $\Delta p$  max 2 bar  
Inlet water temperature 20°C

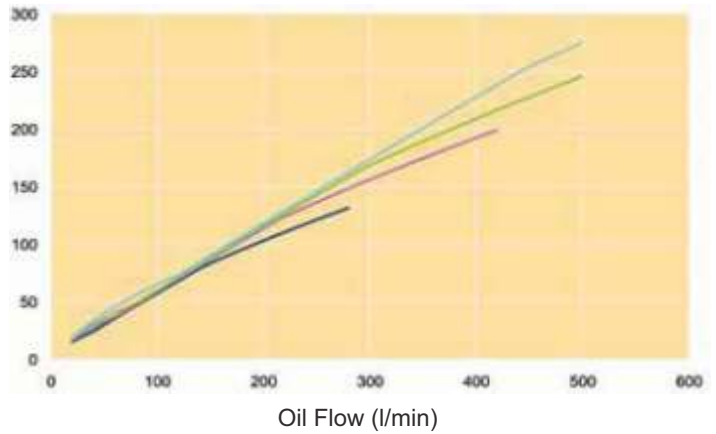
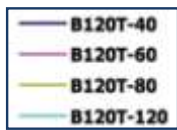
Heat Load (Kw)  
B35



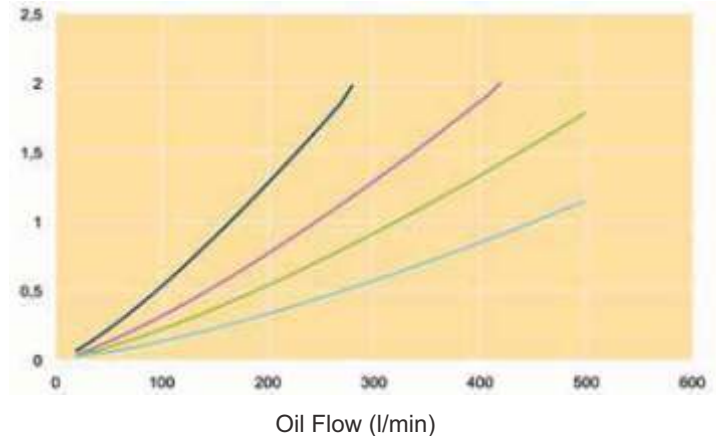
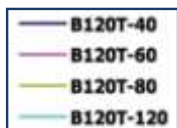
Pressure Drop (bar)  
B35



Heat Load (Kw)  
B120T



Pressure Drop (bar)  
B120T

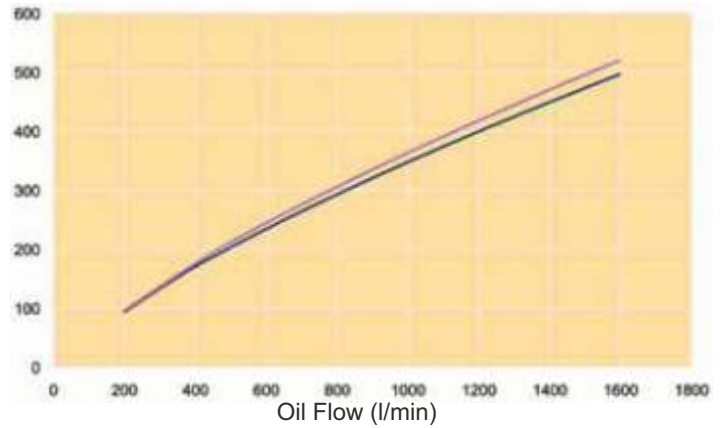
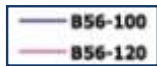


# PLATE WATER/OIL COOLER TYPE PWO

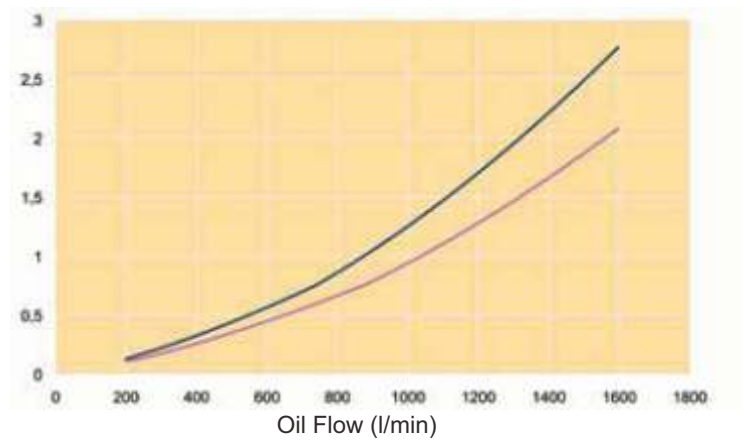
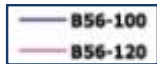
Oil type: ISO VG 46  
Oil/water flow ratio: 2/1

Inlet oil temperature 60°C at  $\Delta p$  max 2 bar  
Inlet water temperature 20°C

Heat Load (Kw)  
B56



Pressure Drop (bar)  
B56





# PLATE WATER/OIL COOLER TYPE PWO



B5T  
Dimensions  
76 x 193 mm



B8T  
Dimensions  
76 x 317 mm



B10T  
Dimensions  
119x 289 mm



B12H  
Dimensions  
117 x 287 mm



B15  
Dimensions  
72 x 465 mm



B16  
Dimensions  
119 x 376 mm



B25T  
Dimensions  
119 x 526 mm



B28  
Dimensions  
119 x 526 mm



B35  
Dimensions  
243 x 393 mm



B56  
Dimensions  
243 x 525 mm



B120T  
Dimensions  
243 x 525 mm

| TYPE  | Max Temp<br>°C | Min Temp<br>°C | Working Pressure<br>155 °C bar | Test Pressure<br>bar | Empty Weight Kg<br>* = number of plates |
|-------|----------------|----------------|--------------------------------|----------------------|---|
| B5T   | 225            | -196           | 31                             | 50                   | 0.50 + NoP* x 0.05                      |
| B8T   | 225            | -196           | 31                             | 50                   | 0.81 + NoP* x 0.08                      |
| B10T  | 225            | -196           | 31                             | 50                   | 1.39 + NoP* x 0.10                      |
| B12H  | 225            | -196           | 28                             | 45                   | 1.44 + NoP* x 0.12                      |
| B15   | 225            | -196           | 31                             | 50                   | 1.31 + NoP* x 0.10                      |
| B16   | 225            | -196           | 31                             | 50                   | 1.73 + NoP* x 0.12                      |
| B25T  | 225            | -196           | 31                             | 50                   | 2.15 + NoP* x 0.18                      |
| B28   | 225            | -196           | 28                             | 45                   | 2.26 + NoP* x 0.16                      |
| B35   | 225            | -196           | 31                             | 50                   | 6.99 + NoP* x 0.34                      |
| B56   | 225            | -196           | 28                             | 45                   | 16.27 + NoP* x 0.42                     |
| B120T | 225            | -196           | 31                             | 50                   | 10.27 + NoP* x 0.40                     |

Material:

Plates: EN 10028/7-1.4401 (AISI 316)

Brazing: Pure copper

Connections: EN 10272-1.4401 (AISI 316)