

# brazed plate heat exchangers



Palmer brazed plate heat exchangers consist of a pack of refined AISI 316 plates which are brazed together by copper or nickel in a furnace. When assembling the pack every second plate is turned 180° in the pane. There are two separate flow channels with two mediums in counter current.

**Material properties**

- Plates: Stainless steel 1.4401 AISI 316
- Solder: Copper 99.99% or Nickel
- Maximum operating pressure: 31 bar
- Max temperature 200°C
- PED (97/23/CE)
- DIN EN ISO 4001

## brazed plate heat exchanger

| ORDER CODE | [kW] | PRIMARY |          |        |          |  | SECONDARY |          |        |          | CONNECTIONS |
|------------|------|---------|----------|--------|----------|--|-----------|----------|--------|----------|-------------|
|            |      | In [°C] | Out [°C] | [kg/s] | Dp [kPa] |  | In [°C]   | Out [°C] | [kg/s] | Dp [kPa] |             |
| PHEB40     | 40   | 80      | 60       | 0,48   | 16,6     |  | 55        | 75       | 0,48   | 13,9     | 1"          |
| PHEB60     | 60   | 80      | 60       | 0,72   | 17       |  | 55        | 75       | 0,72   | 14       | 1"          |
| PHEB80     | 80   | 80      | 60       | 0,96   | 17,2     |  | 55        | 75       | 0,96   | 16       | 1"          |
| PHEB120    | 120  | 80      | 60       | 1,43   | 26       |  | 55        | 75       | 1,43   | 24,8     | 1"          |
| PHEB150    | 150  | 80      | 60       | 1,79   | 30,8     |  | 55        | 75       | 1,79   | 29,7     | 1"          |
| PHEB180    | 180  | 80      | 60       | 2,15   | 28,6     |  | 55        | 75       | 2,15   | 26,1     | 2"          |
| PHEB240    | 240  | 80      | 60       | 2,87   | 31,9     |  | 55        | 75       | 2,87   | 29,8     | 2"          |
| PHEB360    | 360  | 80      | 60       | 4,3    | 35       |  | 55        | 75       | 4,3    | 33       | 2"          |



- Silicone coated fabric, coated one side with water resistant flexible coating.
- Rockwool inner insulation
- PR velcro fastenings
- Reduces energy losses and protects from scalding

## flexible insulation jackets

| ORDER CODE | KW     |
|------------|--------|
| PHEBFIJ40  | 40 kW  |
| PHEBFIJ60  | 60 kW  |
| PHEBFIJ80  | 80 kW  |
| PHEBFIJ120 | 120 kW |
| PHEBFIJ150 | 150 kW |
| PHEBFIJ180 | 180 kW |
| PHEBFIJ240 | 240 kW |
| PHEBFIJ360 | 360 kW |

# threaded plate heat exchangers

Palmer conventional gasketed plate heat exchangers can be used with liquid-liquid and liquid-cooling gas. The shape of pattern of the plate is designed so the heat is transferred with no medium transfer between the plates.

- Pressure plates: plain carbon steel
- Nozzles: stainless steel
- Plates: stainless steel 316
- Max operating pressure - 6 bar
- Operating temperatures: -10°C to +100°C



## gasketed threaded plate heat exchanger

| Order Code  | Frame Type | [kW] | PIPE CONNECTIONS | Primary |          |        |          | Secondary |          |        |
|-------------|------------|------|------------------|---------|----------|--------|----------|-----------|----------|--------|
|             |            |      |                  | In [°C] | Out [°C] | [m3/h] | Dp [kPa] | In [°C]   | Out [°C] | [m3/h] |
| PHEG11460   | AV7        | 60   | 1 1/4" BSP       | 80      | 70       | 2,6    | 14,3     | 65        | 75       | 2,6    |
| PHEG11480   | AV7        | 80   | 1 1/4" BSP       | 80      | 70       | 3,4    | 14,9     | 65        | 75       | 3,4    |
| PHEG114100  | AV7        | 100  | 1 1/4" BSP       | 80      | 70       | 4,3    | 15,3     | 65        | 75       | 4,3    |
| PHEG114120  | AV7        | 120  | 1 1/4" BSP       | 80      | 70       | 5,2    | 17,0     | 65        | 75       | 5,2    |
| PHEG114140  | AV7        | 140  | 1 1/4" BSP       | 80      | 70       | 6,0    | 17,4     | 65        | 75       | 6,0    |
| PHEG114160  | AV7        | 160  | 1 1/4" BSP       | 80      | 70       | 6,9    | 17,9     | 65        | 75       | 6,9    |
| PHEG114180  | AV7        | 180  | 1 1/4" BSP       | 80      | 70       | 7,8    | 19,6     | 65        | 75       | 7,8    |
| PHEG114200  | AV7        | 200  | 1 1/4" BSP       | 80      | 70       | 8,6    | 20,2     | 65        | 75       | 8,6    |
| PHEG212100  | AX8        | 100  | 2 1/2" BSP       | 80      | 70       | 4,3    | 28,5     | 65        | 75       | 4,3    |
| PHEG212120  | AX8        | 120  | 2 1/2" BSP       | 80      | 70       | 5,2    | 31,7     | 65        | 75       | 5,2    |
| PHEG212140  | AX8        | 140  | 2 1/2" BSP       | 80      | 70       | 6,0    | 34,5     | 65        | 75       | 6,0    |
| PHEG212160  | AX8        | 160  | 2 1/2" BSP       | 80      | 70       | 6,9    | 36,8     | 65        | 75       | 6,9    |
| PHEG212180  | AX8        | 180  | 2 1/2" BSP       | 80      | 70       | 7,8    | 38,8     | 65        | 75       | 7,8    |
| PHEG212200  | AX8        | 200  | 2 1/2" BSP       | 80      | 70       | 8,6    | 40,5     | 65        | 75       | 8,6    |
| PHEG212240  | AX8        | 240  | 2 1/2" BSP       | 80      | 70       | 10,3   | 49,6     | 65        | 75       | 10,3   |
| PHEG212280  | AX8        | 280  | 2 1/2" BSP       | 80      | 70       | 12,1   | 42,9     | 65        | 75       | 12,1   |
| PHEG212300  | AX8        | 300  | 2 1/2" BSP       | 80      | 70       | 12,9   | 52,1     | 65        | 75       | 12,9   |
| PHEG212320  | AX8        | 320  | 2 1/2" BSP       | 80      | 70       | 13,8   | 52,8     | 65        | 75       | 13,8   |
| PHEG212360  | AX8        | 360  | 2 1/2" BSP       | 80      | 70       | 15,5   | 54,0     | 65        | 75       | 15,5   |
| PHEG212400  | AX8        | 400  | 2 1/2" BSP       | 80      | 70       | 17,2   | 55,1     | 65        | 75       | 17,2   |
| PHEG212440  | AX11       | 440  | 2 1/2" BSP       | 80      | 70       | 19,0   | 48,5     | 65        | 75       | 19,0   |
| PHEG212480  | AX11       | 480  | 2 1/2" BSP       | 80      | 70       | 20,7   | 48,9     | 65        | 75       | 20,7   |
| PHEG212520  | AX11       | 520  | 2 1/2" BSP       | 80      | 70       | 22,4   | 49,3     | 65        | 75       | 22,4   |
| PHEG212560  | AX11       | 560  | 2 1/2" BSP       | 80      | 70       | 24,1   | 49,7     | 65        | 75       | 24,1   |
| PHEG212600  | AX11       | 600  | 2 1/2" BSP       | 80      | 70       | 25,9   | 48,0     | 65        | 75       | 25,9   |
| PHEG212700  | AX11       | 700  | 2 1/2" BSP       | 80      | 70       | 30,2   | 51,6     | 65        | 75       | 30,2   |
| PHEG212800  | AX11       | 800  | 2 1/2" BSP       | 80      | 70       | 34,5   | 54,7     | 65        | 75       | 34,5   |
| PHEG212900  | AX11       | 900  | 2 1/2" BSP       | 80      | 70       | 38,8   | 55,8     | 65        | 75       | 38,8   |
| PHEG2121000 | AX11       | 1000 | 2 1/2" BSP       | 80      | 70       | 43,1   | 54,9     | 65        | 75       | 43,1   |
| PHEG2121500 | AX11       | 1500 | 2 1/2" BSP       | 80      | 70       | 64,6   | 58,8     | 65        | 75       | 64,7   |

# gasketed plate heat exchangers



Palmer conventional gasketed plate heat exchangers can be used with liquid-liquid, liquid-vapor and liquid-cooling gas. The shape of pattern of the plate is designed so the heat is transferred with no medium transfer between the plates.

- Pressure plates: plain carbon steel
- Nozzles: stainless steel
- Plates: stainless steel 316
- Max operating pressure - 6 bar
- Operating temperatures: -10°C to +100°C

## gasketed flanged plate heat exchanger

| Order Code | Frame Type | [kW] | PIPE CONNECTIONS | Primary |          |        |          | Secondary |          |        |
|------------|------------|------|------------------|---------|----------|--------|----------|-----------|----------|--------|
|            |            |      |                  | In [°C] | Out [°C] | [m3/h] | Dp [kPa] | In [°C]   | Out [°C] | [m3/h] |
| PHEG4400   | AV20       | 400  | DN100            | 80      | 70       | 17,2   | 28,2     | 65        | 75       | 17,2   |
| PHEG4440   | AV20       | 440  | DN100            | 80      | 70       | 19,0   | 27,4     | 65        | 75       | 19,0   |
| PHEG4480   | AV20       | 480  | DN100            | 80      | 70       | 20,7   | 29,4     | 65        | 75       | 20,7   |
| PHEG4520   | AV20       | 520  | DN100            | 80      | 70       | 22,4   | 28,6     | 65        | 75       | 22,4   |
| PHEG4560   | AV20       | 560  | DN100            | 80      | 70       | 24,1   | 30,3     | 65        | 75       | 24,1   |
| PHEG4600   | AV20       | 600  | DN100            | 80      | 70       | 25,9   | 29,6     | 65        | 75       | 25,9   |
| PHEG4700   | AV20       | 700  | DN100            | 80      | 70       | 30,2   | 30,0     | 65        | 75       | 30,2   |
| PHEG4800   | AV20       | 800  | DN100            | 80      | 70       | 34,5   | 30,5     | 65        | 75       | 34,5   |
| PHEG4900   | AV20       | 900  | DN100            | 80      | 70       | 38,8   | 34,4     | 65        | 75       | 38,8   |
| PHEG41000  | AV20       | 1000 | DN100            | 80      | 70       | 43,1   | 38,1     | 65        | 75       | 43,1   |
| PHEG41500  | AV20       | 1500 | DN100            | 80      | 70       | 64,6   | 46,3     | 65        | 75       | 64,7   |
| PHEG42000  | AV20       | 2000 | DN100            | 80      | 70       | 86,2   | 64,0     | 65        | 75       | 86,2   |
| PHEG6800   | AV40       | 800  | DN150            | 80      | 70       | 34,5   | 61,9     | 65        | 75       | 34,5   |
| PHEG6900   | AV40       | 900  | DN150            | 80      | 70       | 38,8   | 42,1     | 65        | 75       | 38,8   |
| PHEG61000  | AV40       | 1000 | DN150            | 80      | 70       | 43,1   | 48,2     | 65        | 75       | 43,1   |
| PHEG61500  | AV40       | 1500 | DN150            | 80      | 70       | 64,6   | 47,0     | 65        | 75       | 64,7   |
| PHEG62000  | AV40       | 2000 | DN150            | 80      | 70       | 86,2   | 48,4     | 65        | 75       | 86,2   |

# heat exchangers insulation jackets

## gasketed heat exchanger flexible insulation jackets

| ORDER CODE    | CONNECTION SIZE | kW   | PHE CODE    |
|---------------|-----------------|------|-------------|
| IJPHEG11460   | 1 1/4"          | 60   | PHEG11460   |
| IJPHEG11480   | 1 1/4"          | 80   | PHEG11480   |
| IJPHEG114100  | 1 1/4"          | 100  | PHEG114100  |
| IJPHEG114120  | 1 1/4"          | 120  | PHEG114120  |
| IJPHEG114140  | 1 1/4"          | 140  | PHEG114140  |
| IJPHEG114160  | 1 1/4"          | 160  | PHEG114160  |
| IJPHEG114180  | 1 1/4"          | 180  | PHEG114180  |
| IJPHEG114200  | 1 1/4"          | 200  | PHEG114200  |
| IJPHEG212100  | 2 1/2"          | 100  | PHEG212100  |
| IJPHEG212120  | 2 1/2"          | 120  | PHEG212120  |
| IJPHEG212140  | 2 1/2"          | 140  | PHEG212140  |
| IJPHEG212160  | 2 1/2"          | 160  | PHEG212160  |
| IJPHEG212180  | 2 1/2"          | 180  | PHEG212180  |
| IJPHEG212200  | 2 1/2"          | 200  | PHEG212200  |
| IJPHEG212240  | 2 1/2"          | 240  | PHEG212240  |
| IJPHEG212280  | 2 1/2"          | 280  | PHEG212280  |
| IJPHEG212300  | 2 1/2"          | 300  | PHEG212300  |
| IJPHEG212320  | 2 1/2"          | 320  | PHEG212320  |
| IJPHEG212360  | 2 1/2"          | 360  | PHEG212360  |
| IJPHEG212400  | 2 1/2"          | 400  | PHEG212400  |
| IJPHEG212440  | 2 1/2"          | 440  | PHEG212440  |
| IJPHEG212480  | 2 1/2"          | 480  | PHEG212480  |
| IJPHEG212520  | 2 1/2"          | 520  | PHEG212520  |
| IJPHEG212560  | 2 1/2"          | 560  | PHEG212560  |
| IJPHEG212600  | 2 1/2"          | 600  | PHEG212600  |
| IJPHEG212700  | 2 1/2"          | 700  | PHEG212700  |
| IJPHEG212800  | 2 1/2"          | 800  | PHEG212800  |
| IJPHEG212900  | 2 1/2"          | 900  | PHEG212900  |
| IJPHEG2121000 | 2 1/2"          | 1000 | PHEG2121000 |
| IJPHEG2121500 | 2 1/2"          | 1500 | PHEG2121500 |
| IJPHEG4400    | 4"              | 400  | PHEG4400    |
| IJPHEG4440    | 4"              | 440  | PHEG4440    |
| IJPHEG4480    | 4"              | 480  | PHEG4480    |
| IJPHEG4520    | 4"              | 520  | PHEG4520    |
| IJPHEG4560    | 4"              | 560  | PHEG4560    |
| IJPHEG4600    | 4"              | 600  | PHEG4600    |
| IJPHEG4700    | 4"              | 700  | PHEG4700    |
| IJPHEG4800    | 4"              | 800  | PHEG4800    |
| IJPHEG4900    | 4"              | 900  | PHEG4900    |

# econopac modular heat exchangers (HS)



The econopac HS modules are compact and efficient domestic hot water production systems for instantaneous hot water.

Primary temperatures:  
In 75 °C  
Out 40 °C

Secondary temperatures:  
In 10 °C  
Out 50 °C

- Modules include:
- Stainless steel plate heat exchanger
  - 3-way regulating valve
  - Electronic control unit
  - High limit thermostat

## Econopac HS modular plate heat exchanger for instantaneous hot water

| ORDER CODE | [kW] | PRIMARY |       | SECONDARY |       | PHE      | CONNECTIONS |
|------------|------|---------|-------|-----------|-------|----------|-------------|
|            |      | [m3/h]  | [kPa] | [m3/h]    | [kPa] |          |             |
| ECONHS25   | 25   | 0,6     | 3,63  | 0,5       | 0,95  | AV3-7 H  | 1"          |
| ECONHS50   | 50   | 1,2     | 5,09  | 1,1       | 3,80  | AV3-11 H | 1"          |
| ECONHS75   | 75   | 1,8     | 5,86  | 1,6       | 8,56  | AV3-15 H | 1"          |
| ECONHS100  | 100  | 2,5     | 6,40  | 2,2       | 15,21 | AV3-19 H | 1"          |
| ECONHS125  | 125  | 3,1     | 6,85  | 2,7       | 23,77 | AV3-23 H | 1"          |
| ECONHS150  | 150  | 3,7     | 7,28  | 3,2       | 13,58 | AV3-27 H | 1"          |
| ECONHS175  | 175  | 4,3     | 7,70  | 3,8       | 18,49 | AV3-31 H | 1"          |
| ECONHS200  | 200  | 4,9     | 8,15  | 4,3       | 24,15 | AV3-35 H | 1"          |
| ECONHS250  | 250  | 6,1     | 9,12  | 5,4       | 14,74 | AV3-43 H | 1" 1/4      |
| ECONHS300  | 300  | 7,4     | 10,23 | 6,5       | 21,23 | AV3-51 H | 1" 1/4      |
| ECONHS350  | 350  | 8,6     | 11,50 | 7,5       | 28,89 | AV3-59 H | 1" 1/4      |
| ECONHS450  | 450  | 11,1    | 23,31 | 9,7       | 19,56 | AX8-19 L | 2"          |
| ECONHS550  | 550  | 13,5    | 23,53 | 11,8      | 29,22 | AX8-23 L | 2"          |
| ECONHS650  | 650  | 16,0    | 23,79 | 14,0      | 40,81 | AX8-27 L | 2"          |
| ECONHS750  | 750  | 18,4    | 24,09 | 16,1      | 54,34 | AX8-31 L | 2"          |
| ECONHS800  | 800  | 19,7    | 24,09 | 17,2      | 61,82 | AX8-41 L | 2"          |

# econopac modular heat exchangers (HSA)

The econopac HSA modules are compact and efficient domestic hot water production systems for use with a buffer.

Primary temperatures:

In 75 °C

Out 50 °C

Secondary temperatures:

In 25 °C

Out 55 °C

Modules include:

- Stainless steel plate heat exchanger
- 3-way regulating valve
- Electronic control unit
- High limit thermostat



Econopac HS.A modular plate heat exchanger for use with buffer

| ORDER CODE | [kW] | PRIMARY |       | SECONDARY |       | PHE      | CONNECTIONS |
|------------|------|---------|-------|-----------|-------|----------|-------------|
|            |      | [m3/h]  | [kPa] | [m3/h]    | [kPa] |          |             |
| ECONHSA25  | 25   | 0,9     | 6,52  | 0,7       | 1,86  | AV3-7 H  | 1"          |
| ECONHSA50  | 50   | 1,7     | 9,14  | 1,4       | 7,45  | AV3-11 H | 1"          |
| ECONHSA75  | 75   | 2,6     | 10,54 | 2,2       | 16,77 | AV3-15 H | 1"          |
| ECONHSA100 | 100  | 3,4     | 11,53 | 2,9       | 29,82 | AV3-19 H | 1"          |
| ECONHSA125 | 125  | 4,3     | 12,38 | 3,6       | 46,59 | AV3-23 H | 1"          |
| ECONHSA150 | 150  | 5,2     | 13,19 | 4,3       | 26,63 | AV3-27 H | 1"          |
| ECONHSA175 | 175  | 6,0     | 14,01 | 5,0       | 36,24 | AV3-31 H | 1"          |
| ECONHSA200 | 200  | 6,9     | 14,86 | 5,7       | 47,33 | AV3-35 H | 1"          |
| ECONHSA250 | 250  | 8,6     | 16,75 | 7,2       | 28,89 | AV3-43 H | 1" 1/4      |
| ECONHSA300 | 300  | 10,3    | 18,92 | 8,6       | 41,60 | AV3-51 H | 1" 1/4      |
| ECONHSA350 | 350  | 12,0    | 21,40 | 10,0      | 56,63 | AV3-59 H | 1" 1/4      |
| ECONHSA450 | 450  | 15,5    | 41,55 | 12,9      | 14,98 | AX8-19 L | 2"          |
| ECONHSA550 | 550  | 18,9    | 41,98 | 15,8      | 22,37 | AX8-23 L | 2"          |
| ECONHSA650 | 650  | 22,4    | 42,49 | 18,6      | 31,25 | AX8-27 L | 2"          |
| ECONHSA750 | 750  | 25,8    | 43,08 | 21,5      | 41,60 | AX8-31 L | 2"          |
| ECONHSA800 | 800  | 27,5    | 43,08 | 22,9      | 47,33 | AX8-41 L | 2"          |