PLATE HEAT EXCHANGERS



EQPipe | Brazed Plate Heat Exchangers

FLEXIBLE USE OF LOW-GWP REFRIGERANTS IN HIGH EFFICIENCY BPHEs

DESIGN & FUNCTION

The newer refrigerants have different properties, which vary depending on their components. These differences can affect the flow behaviour, causing an uneven distribution of the refrigerant. As a result, the EQPipe is more efficient than conventional refrigerant distribution systems and able to solve more demanding new heat pump duties with much lower logarithmic mean temperature differences. With the EQPipe distributor Kelvion offers a solution with a reliable and competitive product. By means of a freely configurable stainless steel tube, with flexible lengths, tube and nozzle diameters, the new distribution pipe can turn a potential uneven distribution of refrigerant into an even distribution. Plates and channels within our high efficiency BPHEs can be evenly supplied with refrigerant, thus 100% of the available surface area is used.

ADVANTAGES

- Proactive approach to further the development and use of low-GWP refrigerants in brazed plate heat exchangers
- Helps not only to slow and ultimately reverse the global warming, but also to ensure the competitiveness of the industry
- The modular nature of the EQPipe allows to expand and update our established brazed plate heat exchanger range of units with distribution systems
- EQPipe prevents division of oils in the refrigerant and creates turbulence to guarantee a homogeneous mixture of liquid and gaseous refrigerant in the evaporator inlet

SCHEMATIC VIEW INTO A BPHE WITH EQPIPE



FEATURES

Configurable according to the requirements of the respective application by:

- ► Variable pipe diameters
- Variable bore cross sections
- Availability for all one-way flow arrangements
- Stainless steel 1.4301

LOW-GWP REFRIGERANTS ARE BEING DISTRIBUTED EVENLY IN THE HIGH EFFICIENCY BPHE:

As result the EQPipe is performing more efficient than conventional systems and able to solve higher demanding new heat pump duties with much lower logarithmic mean temperature differences.

SELECTING THE OPTIMUM HEAT EXCHANGER, WE NEED:

- Required temperature range
- Flow rates or required heat load
- Maximal permitted pressure drop
- Required working conditions

APPROVALS

- Directive 2014/68/EU of the European Parliament and of the council of 15 May 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of pressure equipment
- ASME Boiler & Pressure Vessel Code Section VIII Division 1, ASME U, UM
- ▶ DIN EN 13445-3
- ▶ UL 207 (USA Canada)
- ... and many more depending on series/type

OVERVIEW OF PIPE AND NOZZLE DIAMETERS

Available model types	Distribution Pipe ø [mm]						
	12	18	22	28	35	42	54
Туре 400	EQ 11	EQ 31	EQ42	-	-	-	-
Туре 500	EQ 11	EQ 31	EQ42	-	-	-	-
Type 550	EQ 11	EQ 31	EQ42	-	-	-	-
Type 7-TD	EQ 11	EQ 31	EQ42	-	-	-	-
Туре 700	EQ 11	EQ 31	EQ42	EQ52	EQ62	-	-
Type 770-TD	EQ 11	EQ 31	EQ42	EQ52	EQ62	-	-
Туре 770	EQ 11	EQ 31	EQ42	EQ52	EQ62	EQ73	-
Туре 800	EQ 11	EQ 31	EQ42	EQ52	EQ62	EQ73	EQ83
Туре 900	EQ 11	EQ 31	EQ42	EQ52	EQ62	EQ73	EQ83
Type 9-TD	EQ 11	EQ 31	EQ42	EQ52	EQ62	EQ73	EQ83
Туре 1000	EQ 11	EQ 31	EQ42	EQ52	EQ62	EQ73	EQ83

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Letter	Nozzle Ø [mm]				
A	0,8 mm				
В	1,0 mm				
C	1,3 mm				
D	1,5 mm				
E	2,0 mm				
F	2,8 mm				
G	2,5 mm				
Н	0,5 mm				
J	1,7 mm				
К	2,6 mm				
[]	[]				
Available for all model types					