



Exchanger connection options	
<b>Standard</b>	G 1" - 20mm long
<b>Alternative</b>	older
<b>Other</b>	On request
<b>Additional</b>	On rear positions L1 to L4
<b>Studs &amp; Bolts</b>	On request

Insulation options	Example picture
<b>Aluminium coated PU foam</b> Heating applications to +150°C (Peak)	
<b>Self-adhesive rubberised</b> Cooling applications -50 to +105°C	
<b>PROTEX pre-insulated</b> Heating & cooling applications -50 to +150°C (Peak)	

Mounting options	Example picture
<b>Wall Connection Set</b> Simple, compact & professional mount using the exchanger connections	
<b>Angled Wall Bracket</b> "L" bracket including strap & screws	

Detachable pipe connection options	Example picture
<b>VER 20</b> From G1" to DN20 weld (2 pcs/set)	
<b>VER 22</b> From G1" to 22 mm solder (2 pcs/set)	
<b>VER 3/4</b> From G1" to 3/4" thread (2 pcs/set)	
<b>VEROR1</b> From G1" to 1" thread - reduction-free (2 pcs/set)	

Amount of plates	Type	10	16	20	26	30	36	40	50	60	70	80	90	100	110	120	
Volume Primary side (l)*	L	0.41	0.71	0.92	1.22	1.43	1.73	1.94	2.45	2.96	3.47	3.98	4.49	5.00	5.51	6.02	
	M	0.28	0.49	0.63	0.84	0.98	1.19	1.33	1.68	2.03	2.38	2.73	3.08	3.43	3.78	4.13	
	H	0.23	0.40	0.51	0.68	0.80	0.97	1.08	1.37	1.65	1.94	2.22	2.51	2.79	3.08	3.36	
Volume Secondary side (l)*	L	0.51	0.82	1.02	1.33	1.53	1.84	2.04	2.55	3.06	3.57	4.08	4.59	5.10	5.61	6.12	
	M	0.35	0.56	0.70	0.91	1.05	1.26	1.40	1.75	2.10	2.45	2.80	3.15	3.50	3.85	4.20	
	H	0.29	0.46	0.57	0.74	0.86	1.03	1.14	1.43	1.71	2.00	2.28	2.57	2.85	3.14	3.42	
Max working pressure (bar)		25															
Min / Max temperature (°C)		-10/+180															
PED Class Group 1 (Category)		SEP			SEP (I L Plate)		Cat. I (SEP H Plate)		Cat. I		Cat. I (II L Plate)		Cat. II (I H Plate)		Cat. II		
PED Class Group 2 (Category)		SEP															
Plate packet depth L(mm)*	L	32.5	46.0	55.0	68.5	77.5	91.0	100.0	122.5	145.0	167.5	190.0	212.5	235.0	257.5	280.0	
	M	27.3	37.68	44.6	54.98	61.9	72.28	79.2	96.5	113.8	131.1	148.4	165.7	183.0	200.3	217.6	
	H	24.5	33.2	39.0	47.7	53.5	62.2	68.0	82.5	97.0	111.5	126.0	140.5	155.0	169.5	184.0	
Net Weight Empty (kg)		4.20	5.16	5.80	6.76	7.40	8.36	9.00	10.6	12.2	13.8	15.4	17.0	18.6	20.2	21.8	
Heat Transfer Area (m²)		0.45	0.78	1.01	1.34	1.57	1.90	2.13	2.69	3.25	3.81	4.37	4.93	5.49	6.05	6.61	

**Where appropriate the following European standards and regulations were used during design and construction:**

97/23/EC (Pressure Equipment Directive)  
 EN 1148 (Water to water heat exchangers for district heating)  
 EN 10272 (Stainless steel bars used for pressure purposes)  
 EN 10028-7 (Stainless steel flat products used for pressure purposes)  
 Please ask your sales partner if you require other standards or certification to be applied.

EN 13445 (Unfired Pressure Vessels )  
 ISO 2768-m (General tolerances class "m")  
 ISO 228-1 ("G" Thread BSP parallel)

©2015 Errors, Omissions and Technical Alterations excepted  
 Connections : 1.4301 (304) / Plates : 1.4404 (316L) / Braze : Cu 99.9%  
 Sizes in mm unless otherwise shown

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	Drawn by Checked by	02.11.2015 03.11.2015	AWU DRO		

\* Calculated values (final tolerance to ISO 2768-m)

PBF20L: Volume Side 1 (l) = (n/2-1)*0.102	Volume Side 2 (l) = (n/2)*0.102	L Length (mm) = (n*2.25)+10	Area (m²) = (n-2)*0.056	Weight (kg) = (n*0.16)+2.6
PBF20M: Volume Side 1 (l) = (n/2-1)*0.07	Volume Side 2 (l) = (n/2)*0.07	L Length (mm) = (n*1.73)+10	Area (m²) = (n-2)*0.056	Weight (kg) = (n*0.16)+2.6
PBF20H: Volume Side 1 (l) = (n/2-1)*0.057	Volume Side 2 (l) = (n/2)*0.057	L Length (mm) = (n*1.45)+10	Area (m²) = (n-2)*0.056	Weight (kg) = (n*0.16)+2.6

Status	Change	Date	Name

**PBF20LMH\_STD\_15\_Rev01**