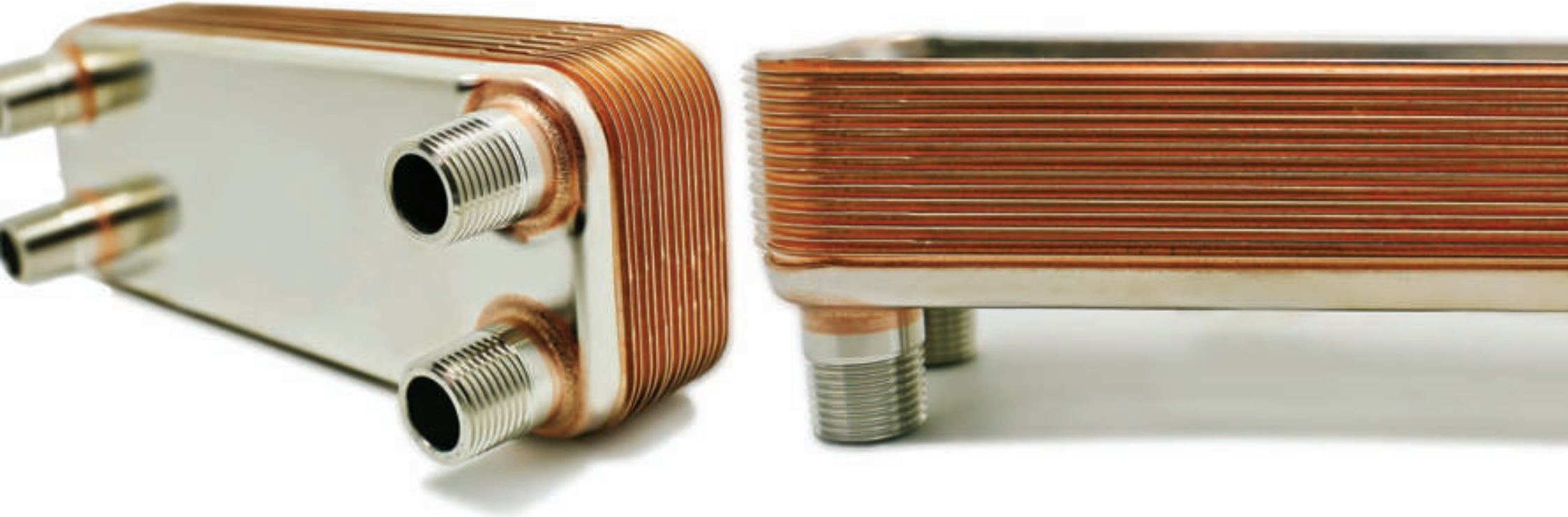




-Brazen plate heat exchanger

- Gasket plate heat exchanger

Brazed Plate Heat Exchanger





Construction of Brazed PHE



Brazed PHE Material	
Channel plates :	316L or 304 stainless
Cover plates :	304 stainless
Brazing material:	Copper
Connections:	304 stainless

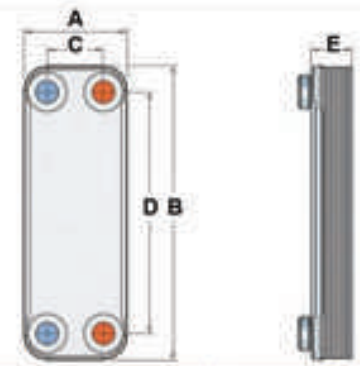
The advantages of Brazed PHE :

- Compact structure and easy installation
 - Made of thin plates
 - High heat exchanging coefficient
 - Small liquid retardation
- Light in weight
 - 20%-30% of shell-tube heat exchanger
- Small consumption of water
 - only need 1/3 of shell-tube heat exchanger water.
- Durability
 - Withstand high temperature 400 C and high pressure 45 bar.
- Low scaling coefficient
 - High turbulence reduces scaling coefficient



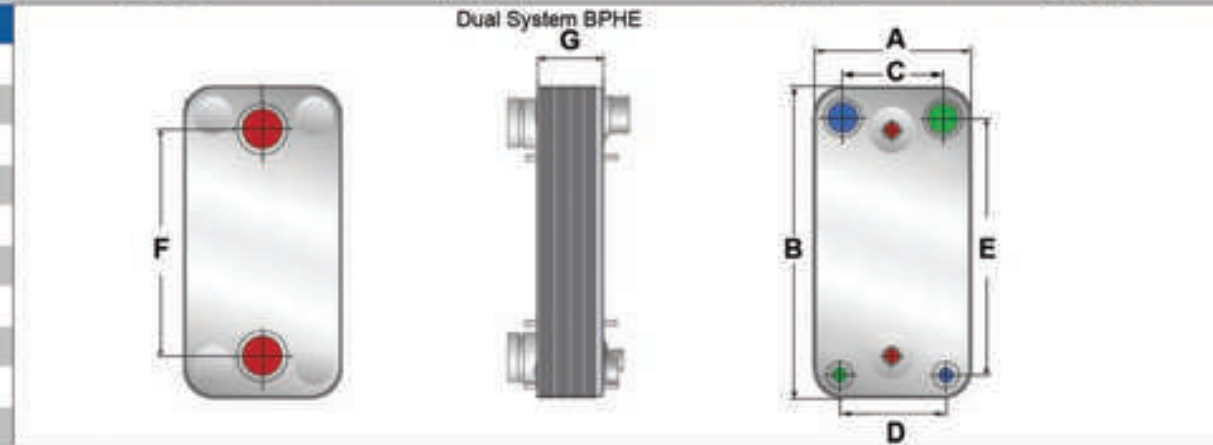
Braze PHE dimensional data

Model	BL14	BL20	BL26	BL26C
Width A (mm)	78	78	111	124
Height B (mm)	206	310	310	304
Length E (mm)	9+2.3n	9+2.3n	10+2.36n	13+2.4n
Horizontal port distance C (mm)	42	42	50	70
Vertical port distance D (mm)	172	282	250	250
Max pressure [Mpa]	3	3	3/4.5	3
Max flowrate [M3/h]	3.6	3.6	8.1	8.1
Weight [kg]	0.6+0.06n	1.0+0.08n	1.3+0.12n	2.2+0.16n



Model	BL50	BL95	BL120	BL190	BL200	BL600
Width A (mm)	111	191	246	307	321	429
Height B (mm)	525	616	528	696	738	1388
Length E (mm)	10+2.35n	11+2.35n	13+2.36n	13+2.75n	13+2.7n	22+2.78n
Horizontal port distance C (mm)	50	92	174	179	188	220
Vertical port distance D (mm)	466	519	456	567	603	1190
Max pressure [Mpa]	3/4.5	3/4.5	3	3	2.1	1.5
Max flowrate [M3/h]	12.7	39	42	100	100	300
Weight [kg]	2.6+0.19n	7.8+0.36n	7.2+0.52n	12.5+0.72n	13+0.75n	31.8+1.73n

Model	BL100 *	BL210 *
Width A (mm)	246	322
Height B (mm)	495	739
Length G (mm)	10+2.15n	13+2.55n
Up Horizontal port distance C (mm)	157	205.2
Low Horizontal port distance D (mm)	168	224
Gas Vertical port distance E (mm)	405	631
Water Vertical port distance F (mm)	408	568
Max pressure [Mpa]	3/4.5	3/4.5
Max flowrate [M3/h]	42	100
Weight [kg]	6.5+0.37n	13+0.78n



• BHPE Plates and Channel Types

BPHEs are available with different types of channel plates where the herringbone pattern varies. The chevrons can be obtuse (high theta plate, D) or acute (low theta plate, X).



• Connections:



*Thread NPT/ BSP standard are all available.
*More connections are available on request.

Baode Condenser Selection Form

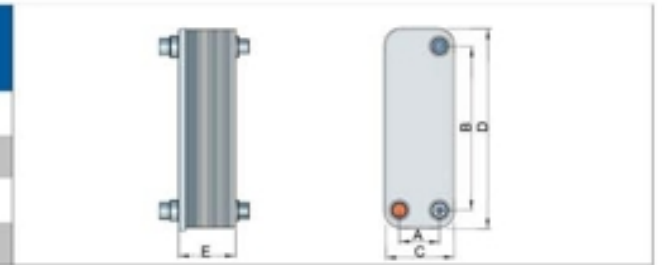
Capacity (KW)	Tdew 35°C Water 25/30°C			Tdew 40°C Water 30/35°C			Tdew 50°C Water 40/45°C			Tdew 60°C Water 50/55°C			Water Flowrate M3/h
	Model			Model			Model			Model			
	BL26	BL50C	BL95B	BL26	BL50C	BL95B	BL26	BL50C	BL95B	BL26	BL50C	BL95B	
2.5	12			12			12			14			0.43
3.8	16			16			18			18			0.60
5.0	18			20			22			22			0.86
7.5	26			28			30			32			1.28
10.0	34			36			40			42			1.71
12.5	42	18		46	18		48	20		52	20		3.14
15.0	48	22		54	22		58	24		62	24		2.58
17.5	56	24		62	24		66	26		70	26		3.00
20.0	64	26		70	26		74	28		78	28		3.43
22.5		28		78	28		82	30		86	30		3.85
25.0		30		84	30		88	32		92	32		4.28
27.5		34		90	34		94	36		98	36		4.71
30.0		36		96	36		100	38		104	38		5.14
32.5		40		102	40		106	42		110	42		5.57
35.0		42		108	42		112	44		116	44		6.01
37.5		46		114	46		118	48		122	48		6.42
40.0		48		120	48		124	50		128	50		6.85
42.5		50		126	50		130	52		134	52		7.28
45.0		52		132	52		136	54	38	140	54	42	7.71
47.5		56	36	138	56	36	142	58	40	146	58	44	8.14
50.0		58	38	144	58	38	148	60	42	152	60	46	8.56
62.5			46		48			52			56		10.70
75.0			54		56			60			66		12.86
87.5			62		64			70			76		15.00
100.0			70		74			80			88		17.13
125.0			88		92			100			108		21.41
150.0			104		108			118			128		25.69
175.0			120		126			138			150		29.97
200.0			138		144			156					34.25

Baode Evaporator Selection Form

Capacity (KW)	Tdew 2°C Water 12/7°C			Tdew 3°C Water 12/7°C			Tdew 5°C Water 15/10°C			Tdew 10°C Water 20/15°C			Water Flowrate M3/h
	Model			Model			Model			Model			
	BL26	BL50D	BL95A	BL26	BL50D	BL95A	BL26	BL50D	BL95A	BL26	BL50D	BL95A	
2.5	16			18			14			14			0.43
3.8	20			22			18			18			0.60
5.0	24			28			24			24			0.86
7.5	34			40			34			32			1.28
10.0	44			52	26		42			40			1.71
12.5	54	26		64	30		52	26		50	24		3.14
15.0	64	30		76	36		62	30		58	28		2.58
17.5		34		88	40		74	34		70	32		3.00
20.0		38		100	46		86	38		82	36		3.43
22.5		42		112	50		98	42		94	38		3.85
25.0		46		124	56		110	44		106	42		4.28
27.5		50		136	60	36	122	50		118	46		4.71
30.0		56	34	148	66	38	134	52	34	130	50	30	5.14
32.5		60	36	160	72	40	146	58	36	142	54	32	5.57
35.0		64	40	172	78	42	158	62	38	154	58	36	6.01
37.5			42		48			40			62	38	6.42
40.0			44		50			44			64	40	6.85
42.5			46		54			46			66	42	7.28
45.0			48		56			48			68	44	7.71
47.5			52		60			50			70	46	8.14
50.0			54		62			54			72	48	8.56
62.5			66		78			64			84	60	10.70
75.0			80		94			76			96	72	12.86
87.5			94		110			88			108	82	15.00
100.0			108		124			100			118	96	17.13
125.0			134		158			126			138	118	21.41
150.0			162		194			154			166	144	25.69
175.0			190					184			198	170	29.97
200.0			220					214			228	198	34.25

Baode Air Dryer Data

Model	Size (mm)					Weight (kg)
	A	B	C	D	E	
BL14	172	42	78	206	9+2.3N	0.7+0.06n
BL26	250	50	111	310	10+2.36N	1.3+0.12n
BL95	519	92	191	616	11+2.72N	7.8+0.44n
BL200	603	188	321	738	13+2.7N	13+0.75n



Flow rate (n.m ³ /min)	Model	Plates No	Gas side Connection	Air side Connection
0.62	BL14-17	17	3/8", 3/8"	1/2"
0.92	BL14-25	25	3/8", 1/2"	5/8"
1.2	BL14-33	33	3/8", 1/2"	5/8"
1.6	BL14-45	45	3/8", 1/2"	5/8"
1.85	BL26-26	26	1/2", 5/8"	1 1/8"
2.45	BL26-34	34	1/2", 5/8"	1 1/8"
3	BL26-42	42	1/2", 5/8"	1 1/8"
3.55	BL26-50	50	1/2", 5/8"	1 1/8"
4.1	BL26-58	58	1/2", 5/8"	1 1/8"
4.7	BL26-70	70	1/2", 5/8"	1 3/8"
5.4	BL26-81	81	1/2", 5/8"	1 3/8"
6.7	BL26-133	113	1/2", 5/8"	1 3/8"
7.1	BL95-26	26	1/2", 1 3/8"	2 1/2"
8.3	BL95-34	34	1/2", 1 3/8"	2 1/2"

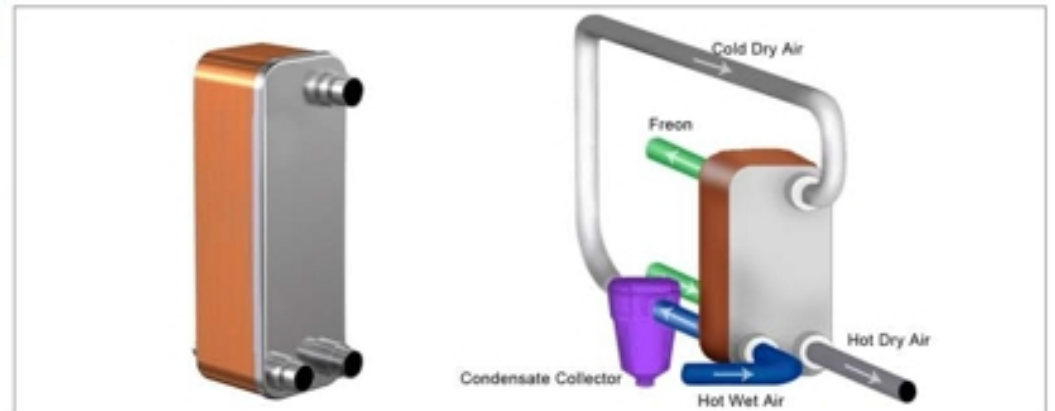
Flow rate (n.m ³ /min)	Model	Plates No	Gas side Connection	Air side Connection
11.7	BL95-46	46	1/2", 1 3/8"	2 1/2"
14.2	BL95-58	58	1/2", 1 3/8"	2 1/2"
16.7	BL95-70	70	1/2", 1 3/8"	2 1/2"
20	BL95-86	86	1/2", 1 3/8"	2 1/2"
23	BL95-102	102	1/2", 1 3/8"	2 1/2"
40	BL200-80	80	1 3/8", 2"	3"
45	BL200-92	92	1 3/8", 2"	3"
50	BL200-108	108	1 3/8", 2"	3"
55	BL200-124	124	1 3/8", 2"	3"
60	BL200-148	148	1 3/8", 2"	3"
65	BL200-172	172	1 3/8", 2"	3"
70	BL200-196	196	1 3/8", 2"	3"
75	2*BL200-72	2*72	1 3/8", 2"	3"
80	2*BL200-80	2*80	1 3/8", 2"	3"

Model	BL14	BL26	BL95	BL200
Min Temp	-160°C	-160°C	-160°C	-160°C
Max Temp	225°C	225°C	225°C	225°C
Design Pressure	30 bar	30 bar	30 bar	16 bar
Test Pressure	45 bar	45 bar	45 bar	21 bar

● The Principle of Baode Air dryer.

There are 2 steps for the air dryers.

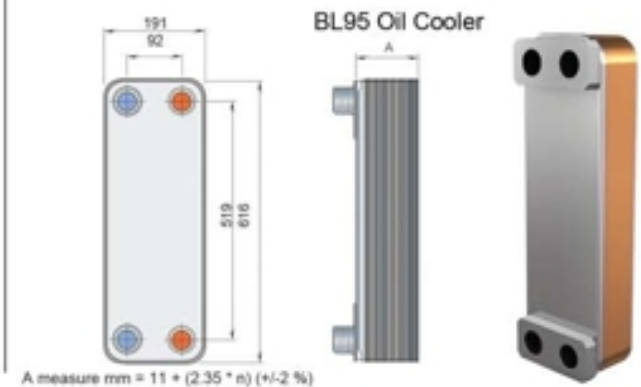
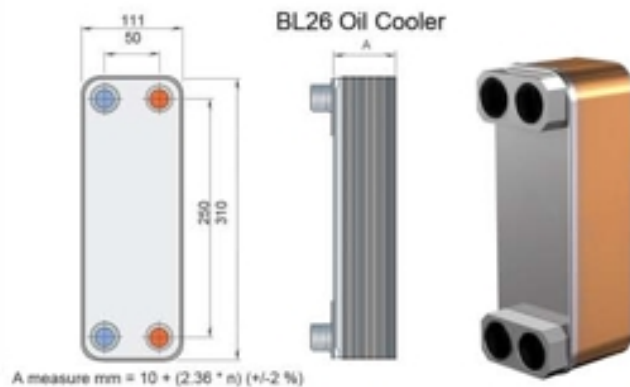
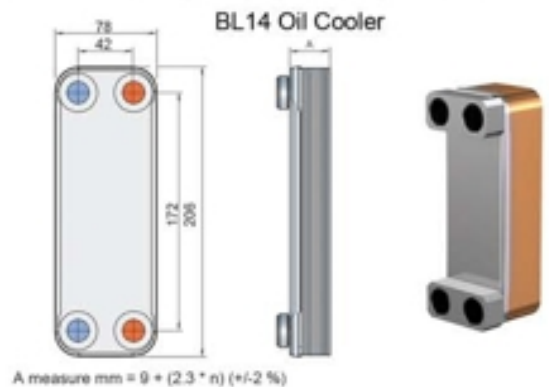
- By the evaporator cooling, the refrigerated air dryers separate humidity from compressed air. This cooling effect comes from the evaporation of the refrigerant. As the air cools, it loses its ability to hold moisture. Then use the separator to collect the condensate.
- A heat recovery air to air heat exchanger that reheats the air to ambient temperature in the air dryer for optimal efficiency.



Hydraulic Oil Coolers Quick Select Form

Power Capacity		Model	Connection Description		ISO VG68 Oil				Water				Dry Weight	
Btu/hr	KW		Oil Inlet / Outlet (D1,D2)	Water Inlet / Outlet (D3,D4)	Flowrate		Pressure Drop		Flow Rate		Pressure Drop			
					GPM	Liter/m	Psi	Kpa	GPM	Liter/m	Psi	Kpa	lbs	Kgs
15,000	4.40	BL14- 14D	3/4" Male Thread	3/4" Male Thread	8	30.32	7.5	52	4	15.16	1.7	12	3	1.36
25,000	7.33	BL14- 20D	3/4" Male Thread	3/4" Male Thread	14	53.06	11.3	78	7	26.53	2.4	17	3.7	1.68
34,000	9.96	BL14- 28D	3/4" Male Thread	3/4" Male Thread	18	68.22	10.3	71	9	34.11	2.1	14	4.5	2.04
25,000	7.33	BL26- 10D	1" Male Thread	1" Male Thread	8	30.32	13.5	93	4	15.16	3.4	23	5.5	2.49
44,000	12.90	BL26- 18D	1" Male Thread	1" Male Thread	12	45.48	10.3	71	6	22.74	1.9	13	7.8	3.54
56,000	16.41	BL26- 24D	1" Male Thread	1" Male Thread	14	53.06	8.7	60	7	26.53	1.4	10	9.5	4.31
82,000	24.03	BL26- 34D	1" Male Thread	1" Male Thread	20	75.8	8.9	61	10	37.9	1.4	10	12.4	5.62
108,000	31.65	BL26- 44D	1" Male Thread	1" Male Thread	26	98.54	9.2	63	13	49.27	1.4	10	15.3	6.94
125,000	36.63	BL26- 50D	1" Male Thread	1" Male Thread	30	113.7	9.5	65	15	56.85	1.5	10	17	7.71
150,000	43.96	BL26- 60D	1" Male Thread	1" Male Thread	36	136.44	9.8	68	18	68.22	1.6	11	19.9	9.03
172,000	50.41	BL26- 70D	1" Male Thread	1" Male Thread	40	151.6	9	62	20	75.8	1.5	10	22.7	10.30
237,000	69.46	BL26- 100D	1" Male Thread	1" Male Thread	54	204.66	10.1	70	27	102.33	1.8	12	31.3	14.20
160,000	46.89	BL95- 20D	2" Male Thread	2" Male Thread	22	83.38	8.9	61	11	41.69	1.2	8	34.8	15.79
262,000	76.78	BL95- 30D	2" Male Thread	2" Male Thread	36	136.44	9.9	68	18	68.22	1.3	9	44.5	20.19
363,000	106.38	BL95- 40D	2" Male Thread	2" Male Thread	50	189.5	10.5	72	25	94.75	1.4	10	54.2	24.59
452,000	132.47	BL95- 50D	2" Male Thread	2" Male Thread	60	227.4	10	69	30	113.7	1.3	9	63.9	28.99
570,000	167.05	BL95- 60D	2" Male Thread	2" Male Thread	80	303.2	11.7	81	40	151.6	1.6	11	73.6	33.38
670,000	196.36	BL95- 70D	2" Male Thread	2" Male Thread	94	356.26	11.9	82	47	178.13	1.6	11	83.3	37.78
748,000	219.22	BL95- 80D	2" Male Thread	2" Male Thread	100	379	10.9	75	50	189.5	1.4	10	93	42.18
836,000	245.01	BL95- 90D	2" Male Thread	2" Male Thread	110	416.9	10.7	74	55	208.45	1.4	10	102.7	46.58
925,000	271.09	BL95- 100D	2" Male Thread	2" Male Thread	120	454.8	10.6	73	60	227.4	1.4	10	112.4	50.98

Oil to Water flow rate 2:1, oil outlet temp. 120°F (50 °C), Water inlet temp. 80°F (27 °C) .





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