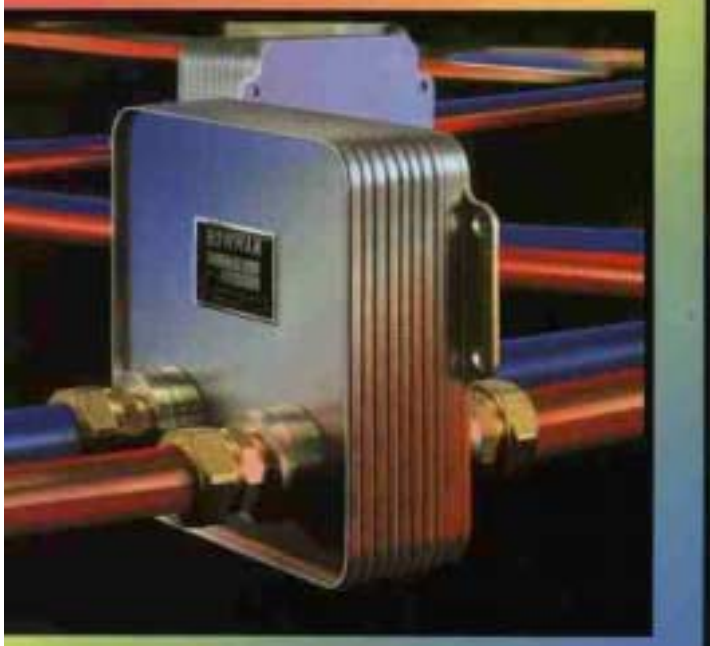
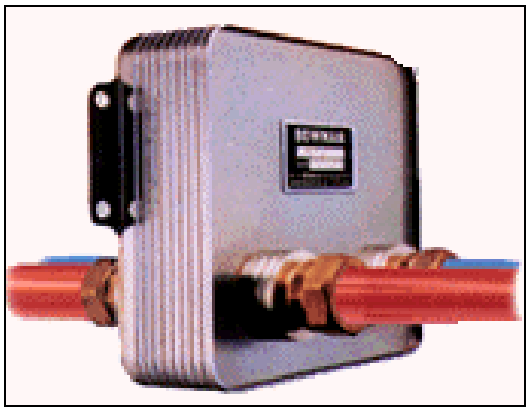


BOWMAN

IN LINE PLATE HEAT EXCHANGERS

BLANK PAGE

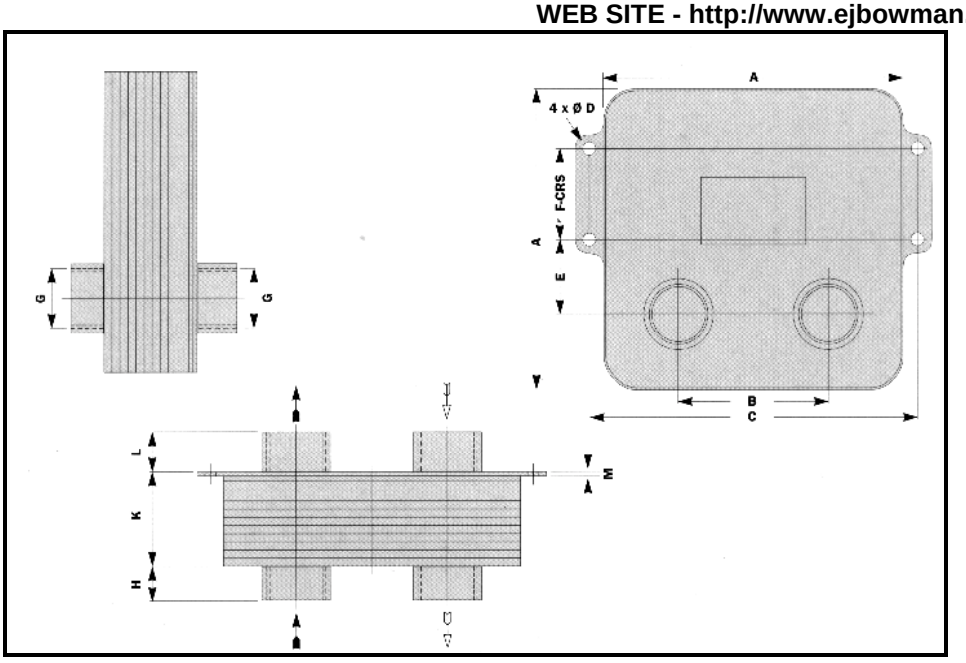


2. IN LINE PLATE HEAT EXCHANGERS

Bowman In Line ***Plate Heat Exchangers*** have been designed as a low-cost alternative to our shell and tube types. They consist of numerous 316 stainless steel heat transfer plates, two outer covers and four connections copper vacuum-brazed together to form an integral unit.

Unlike other plate heat exchangers, they have a unique internal flow arrangement, which enables the inlet and outlet connections to be axially in line. This means that they can be installed directly in pipework without any change of direction. Each fluid stream flows in series through alternate plates. As a consequence, the plate spacing is larger and internal velocities are higher than is normally the case with this type of heat exchanger, thus rendering them less prone to fouling.

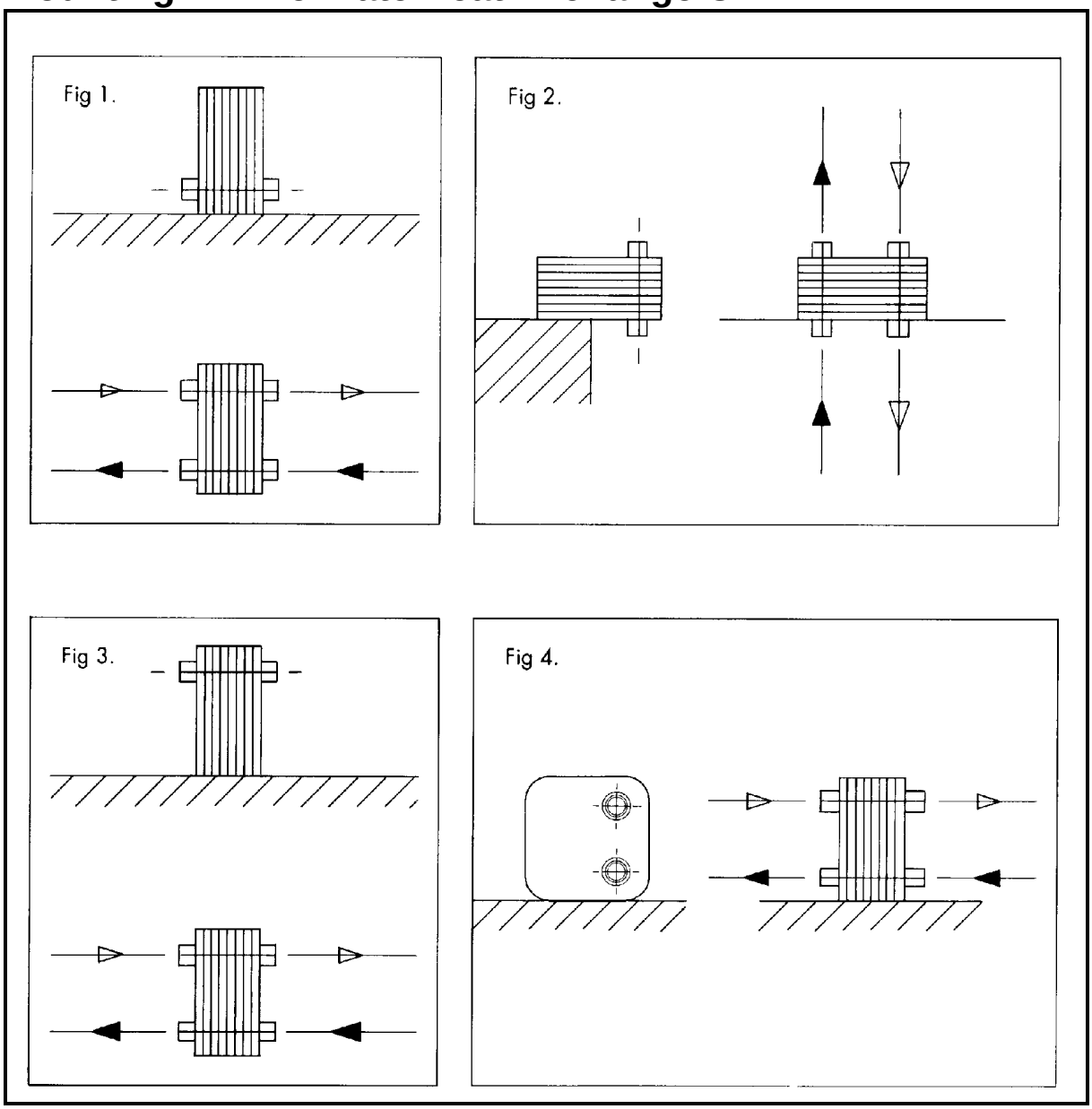
These heat exchangers are suitable for *heating*, *cooling*, *evaporating* or *condensing* any fluids compatible with the materials of construction, the optimum unit for any duty can be computer selected by telephone in a matter of minutes.



	A mm	B mm	C mm	D mm	E mm	F mm	G BSP	H mm	K mm	L mm	M mm	Weight kg	Volume per side litre
10-5	106	50	-	-	25	-	½"	11	24	16	3	0.8	0.05
10-9	106	50	-	-	25	-	½"	11	37	16	3	0.9	0.11
10-13	106	50	-	-	25	-	½"	11	50	16	3	1.1	0.16
10-17	106	50	-	-	25	-	½"	11	63	16	3	1.3	0.21
10-21	106	50	-	-	25	-	½"	11	76	16	3	1.5	0.26
10-25	106	50	-	-	25	-	½"	11	90	16	3	1.7	0.32
10-29	106	50	-	-	25	-	½"	11	103	16	3	2.0	0.37
15-5	159	75	165	6	37.5	45	¾"	16	34	20	4	2.5	0.18
15-9	159	75	165	6	37.5	45	¾"	16	54	20	4	2.4	0.36
15-13	159	75	165	6	37.5	45	¾"	16	74	20	4	2.8	0.54
15-17	159	75	165	6	37.5	45	¾"	16	94	20	4	3.2	0.72
15-21	159	75	165	6	37.5	45	¾"	16	112	20	4	3.6	0.90
15-25	159	75	165	6	37.5	45	¾"	16	132	20	4	4.0	1.09
15-29	159	75	165	6	37.5	45	¾"	16	152	20	4	4.5	1.27
20-5	212	100	220	6	50	60	1"	19	45	24	5	5.4	0.44
20-9	212	100	220	6	50	60	1"	19	71	24	5	6.1	0.88
20-13	212	100	220	6	50	60	1"	19	97	24	5	6.8	1.32
20-17	212	100	220	6	50	60	1"	19	123	24	5	7.6	1.76
20-21	212	100	220	6	50	60	1"	19	149	24	5	8.4	2.20
20-25	212	100	220	6	50	60	1"	19	175	24	5	9.2	2.64
20-29	212	100	220	6	50	60	1"	19	201	24	5	10.0	3.08
25.5	265	125	275	8	62.5	75	1¼"	21	57	28	6	9.7	0.86
25-9	265	125	275	8	62.5	75	1¼"	21	89	28	6	11.0	1.72
25-13	265	125	275	8	62.5	75	1¼"	21	121	28	6	12.4	2.58
25-17	265	125	275	8	62.5	75	1¼"	21	153	28	6	13.8	3.44
25-21	265	125	275	8	62.5	75	1¼"	21	185	28	6	15.2	4.30
25-25	265	125	275	8	62.5	75	1¼"	21	217	28	6	16.6	5.16
25-29	265	125	275	8	62.5	75	1¼"	21	249	28	6	18.8	6.02
30-5	318	150	330	8	75	90	1½"	24	69	32	8	18.5	1.47
30-9	318	150	330	8	75	90	1½"	24	107	32	8	21.4	2.93
30-13	318	150	330	8	75	90	1½"	24	145	32	8	24.3	4.40
30-17	318	150	330	8	75	90	1½"	24	183	32	8	27.2	5.87
30-21	318	150	330	8	75	90	1½"	24	221	32	8	30.1	7.34
30-25	318	150	330	8	75	90	1½"	24	259	32	8	33.0	8.80
30-29	318	150	330	8	75	90	1½"	24	297	32	8	35.9	10.27

Maximum working pressure 20 bar **Maximum working temperature 185°C**

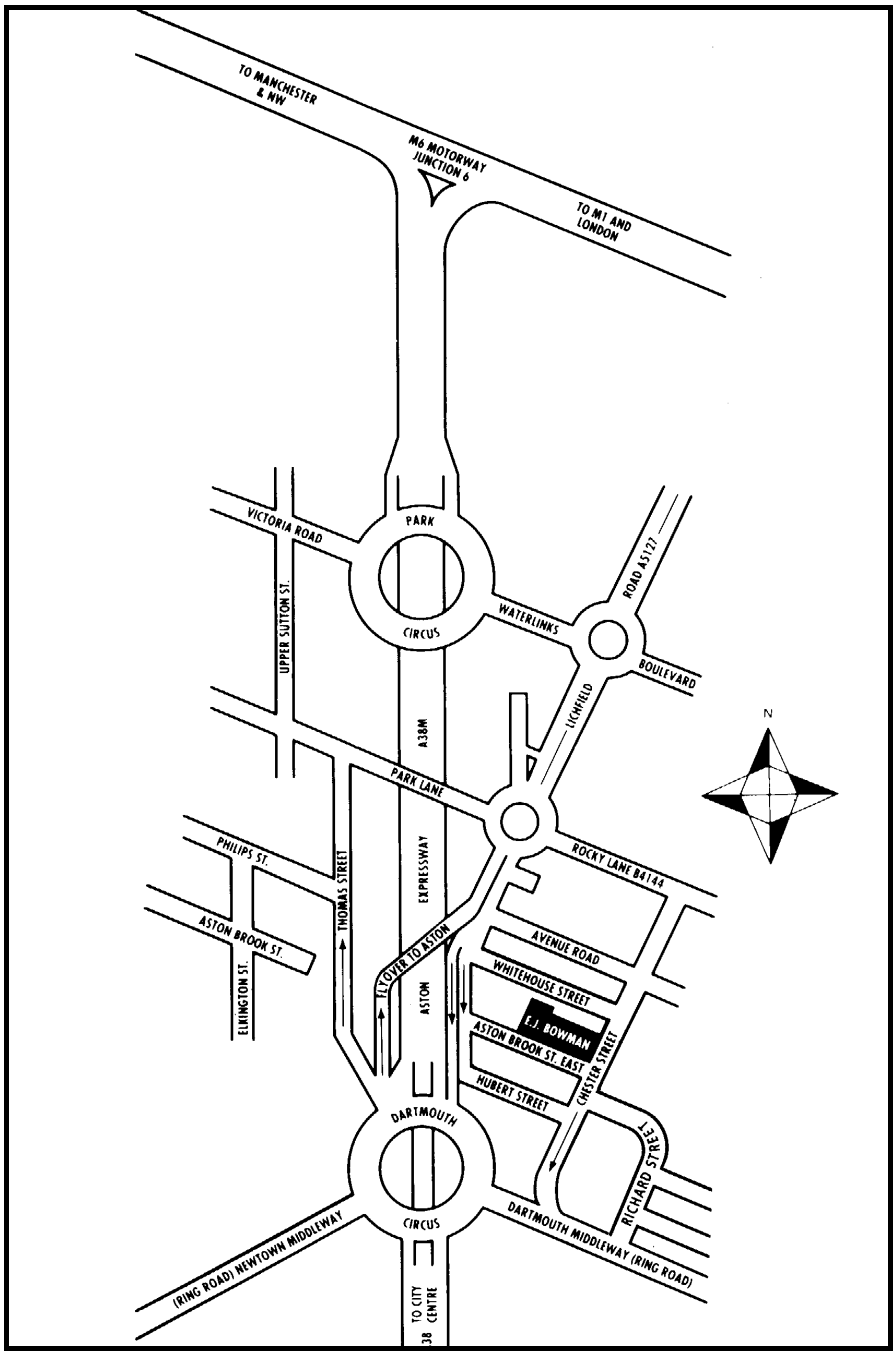
Mounting In Line Plate Heat Exchangers



The in line plate heat exchangers should be mounted as shown above. The direction and side through which any fluid flows does not matter, but they must be connected for counter flow. However, for condensing the arrangement shown in figure 2 must be used with the vapour entering at the top and the condensate leaving at the bottom and with the cooling fluid in counter flow.

BLANK PAGE

BLANK PAGE



E. J. Bowman® (Birmingham) Limited
Chester Street, Birmingham. B6 4AP England
Tel: +44 (0) 121 359 5401 Fax: +44 (0) 121 359 7495
Email: info@ejbowman.co.uk Web site: www.ejbowman.co.uk