

Searle LF flatbed dry cooler

LF RANGE PRODUCT PROFILE

1 CASEWORK

Through innovative design Kelvion successfully managed to reduce the number of components within the unit, maximising strength, easy assembly and creating a fully weather-proofed unit suitable for a wide variety of applications. The improved casework design has also contributed in reducing the total energy required to manufacture.

Each side plate is cold formed from a single piece of pre-galvanised sheet steel and powder coated RAL7032 (Pebble Grey) on the outside with an Interlock construction creating an 'I' frame structure. This special form, which can be manufactured up to 12m long, gives tremendous strength and forms an integral part of the heat exchanger support structure.

3 FANS

Kelvion offer three phase AC or EC axial fans for use as standard. The fan sets have been optimised for the range of module options, with the latest innovations such as AxiTop, ZA Plus and Flow grid all available through our selection program.

- 6, 8, 12 and EC pole 3 phase
- 800mm, 900mm and 910mm diameter fan set options
- 1 to 20 fans
- Motor rating: IP54
- Rated Frequency: 50/60 Hz
- All fan sets are ErP2015 compliant
- Guard: Metal Wire (Black)
- Temperature Range: -30°C to +80°C (+50 for star or 230V)
- Temperature Range: -40°C to +70°C (+60 for 60Hz)

LF fan data

Fan type & Pole	Diameter	Module	Speed (rpm)		FLC (Amp)		SC (Amp)	
			Δ	Y	Δ	Y	Δ	Y
0806 N6 Pole	800mm	A,B,C,D	920	730	4.2	2.3	14.0	4.0
0808 N8 Pole		A,B,C,D	650	480	2.3	1.1	11.0	4.0
091 H6 Pole	900mm	A,B,C,D	910	710	5.5	3.5	28.0	10.0
091 N6 Pole	910mm	A,B,C,D	905	640	5.7	3.3	19.0	6.2
091 N12 Pole		A,B,C,D	440	340	0.85	0.4	2.0	1.0
091 E - EC Technology		A,B,C,D	865-115	-	3.5	-	4.9	-
091 P - EC Technology		A,B,C,D	930-90	-	3.2	-	4.2	-
091 M - EC Technology		A,B,C,D	940-100	-	3.0	-	4.2	-

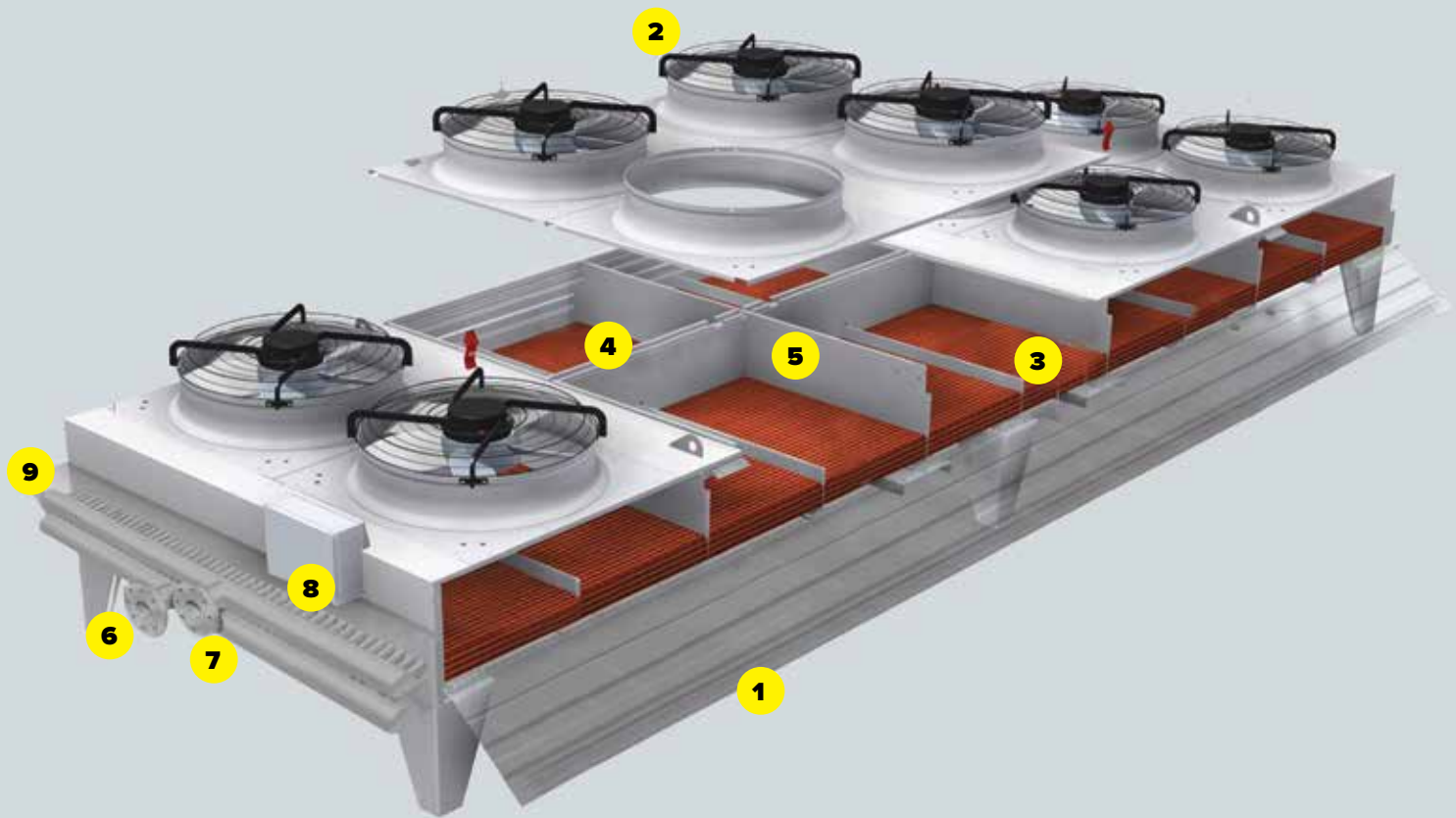
AxiTop and ZAplus are available options.

3 Coil

The LF range utilises 2 configurations for most applications the standard EL (12FPI) incorporates 3/8" (9.5mm) tube diameter and the T-Fin (11FPI) incorporates 12mm tube. The coil is fully supported, through its length and depth, by tube sheets and internal fan baffles secured to the continuous one piece side plates creating an 'H' frame construction for strength. Positioning the tube equilaterally it achieves a good balance of reduced refrigerant charge whilst maintaining appropriate thermal load to achieve good system stability.

OPTIONS

- **Legs Extended** - 250mm, 500mm (Standard), 750mm, 1000mm
- **Isolators** - Fan Mounted isolators
- **Sub cooling/Multi sections** - 7K at 15K ΔT, 5K at 15K ΔT
- **Packing** - Open crate, Closed boarded crate, Pallet, Hardboard coil protection
- **Alternative Fin Material** - Epoxy coated Aluminium, Copper, Blygold, Electro-tinned, Aluminium Magnesium
- **Stacking** - Flatbed units can be stacked to reduce costs
- **Special Paint** - Alternative unit colours or C5M Marine coating
- **Adiabatic System** - Copper or PCC piping
- **Terminal Box** - Terminal box for customer control
- **Control Box** - AC or EC fan motors using pressure or temperature control
- **Mounted Receivers & frames** - Receiver /frame mounting and piping
- **Customised Housing** - housings supplied separately or integrated with the air cooled condenser



- 4** Centre Baffle
- 7** Outlet Header
- 5** Centre Plate
- 8** Control Box Optional
- 6** Inlet Header
- 9** Header Cover



Nomenclature

L F - P A 2 04 T 2 H - 080 N 06 D

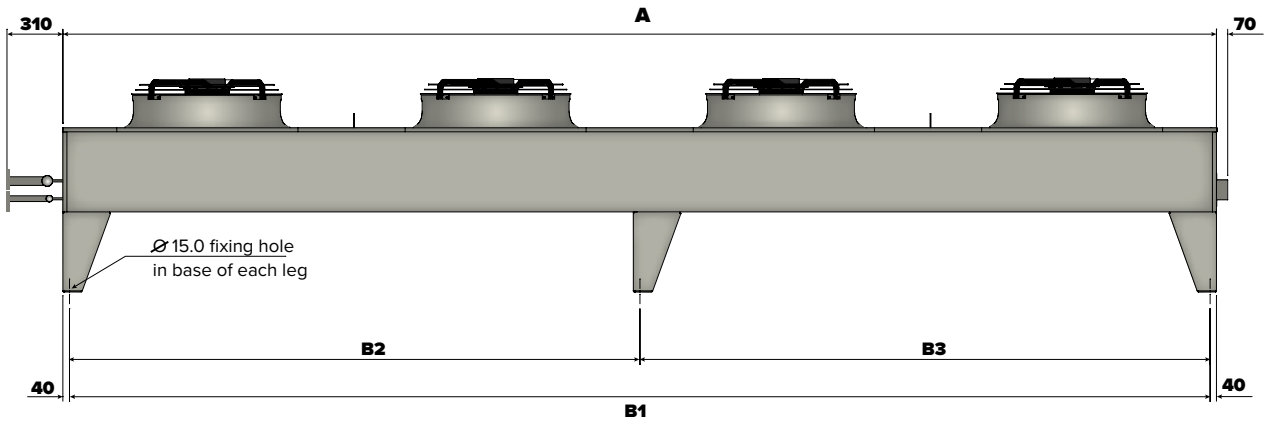
- Product series:** L = Dry cooler
- Unit form:** F = Flatbed
- Module width:** M = Narrow, N = Medium, P = Wide
- Module length:** A = 1200mm, B = 1500mm, C = 1800mm, D = 2100mm
- Fan rows:** 1 or 2
- Fans per row:** 1 - 10
- Fin type:** L = 3/8" (9.5mm) tube, T = 12mm tube
- Coil rows:** 2, 3, 4
- Orientation:** H = Horizontal, V = Vertical
- Fan Diameter:** 080 = 800mm, 090 = 900mm, 091 = 910mm
- Fan type:** N = AC Normal, E = ebm EC, H = AC High power, P = Ziehl EC, M = EC Higher power ebm
- Speed options:** 6, 8, 12, EC
- Motor wiring:** Delta, Star

Capacities: 21 kW - 1290 kW

LF- Dimensions

Unit	Module	Fan per banks	Dim A	Dim B1	Dim B2	Dim B3	Total Unit Dry Weight (Approx)							
							M*		N*		P1*		P2*	
							Al	Cu	Al	Cu	Al	Cu	Al	Cu
							kg	kg	kg	kg	kg	kg	kg	kg
LF_A_01T2	1200	1	1203	1123			214	239	258	294	315	366	365	416
LF_A_01T3	1200	1	1203	1123			226	265	276	330	340	416	390	466
LF_A_01T4	1200	1	1203	1123			239	290	293	366	365	467	415	517
LF_A_02T2	1200	2	2403	2323			369	421	454	526	552	655	649	752
LF_A_02T3	1200	2	2403	2323			394	471	489	597	685	756	699	853
LF_A_02T4	1200	2	2403	2323			419	522	524	669	652	857	749	954
LF_A_03T2	1200	3	3603	3523			525	602	650	758	790	944	934	1088
LF_A_03T3	1200	3	3603	3523			562	678	702	865	865	1095	1009	1239
LF_A_03T4	1200	3	3603	3523			600	753	755	972	939	1247	1083	1391
LF_A_04T2	1200	4	4803	4723			574	676	738	883	921	1126	1112	1316
LF_A_04T3	1200	4	4803	4723			624	777	808	1025	1020	1328	1211	1518
LF_A_04T4	1200	4	4803	4723			673	878	879	1168	1120	1529	1310	1720
LF_A_05T2	1200	5	6003	5923			695	823	900	1081	1124	1381	1362	1618
LF_A_05T3	1200	5	6003	5923			758	950	988	1259	1249	1633	1486	1871
LF_A_05T4	1200	5	6003	5923			820	1076	1075	1437	1373	1885	1611	2123
LF_A_06T2	1200	6	7203	7123	3562	3561	827	971	1061	1278	1328	1635	1613	1920
LF_A_06T3	1200	6	7203	7123	3562	3561	891	1122	1167	1492	1477	1938	1762	2223
LF_A_06T4	1200	6	7203	7123	3562	3561	966	1273	1272	1706	1626	2241	1911	2525
LF_A_07T2	1200	7	8403	8323	3562	4761	969	1149	1254	1507	1562	1921	1895	2254
LF_A_07T3	1200	7	8403	8323	3562	4761	1056	1325	1376	1756	1736	2274	2069	2607
LF_A_07T4	1200	7	8403	8323	3562	4761	1143	1502	1499	2005	1910	2627	2243	2960
LF_A_08T2	1200	8	9603	9523	4762	4761	1091	1296	1415	1705	1766	2176	2146	2555
LF_A_08T3	1200	8	9603	9523	4762	4761	1190	1497	1555	1989	1964	2579	2344	2959
LF_A_08T4	1200	8	9603	9523	4762	4761	1289	1699	1696	2274	2163	2982	2543	3362
LF_A_09T2	1200	9	10803	10723	4762	5961	1212	1443	1577	1902	1969	2430	2396	2857
LF_A_09T3	1200	9	10803	10723	4762	5961	1324	1670	1734	2223	2193	2884	2619	3311
LF_A_09T4	1200	9	10803	10723	4762	5961	1436	1897	1892	2543	2416	3338	2843	3765
LF_A_10T2	1200	10	12003	11923	5962	5961	1334	1590	1738	2100	2173	2685	2646	3159
LF_A_10T3	1200	10	12003	11923	5962	5961	1458	1842	1913	2456	2421	3189	2895	3663
LF_A_10T4	1200	10	12003	11923	5962	5961	1582	2094	2089	2812	2669	3694	3143	4167
LF_B_01T2	1500	1	1503	1423			233	265	281	327	353	417	405	469
LF_B_01T3	1500	1	1503	1423			248	296	303	371	384	480	436	532
LF_B_01T4	1500	1	1503	1423			264	328	326	416	415	543	467	595
LF_B_02T2	1500	2	3003	2923			408	472	500	591	629	757	729	857
LF_B_02T3	1500	2	3003	2923			439	535	544	680	691	883	791	983
LF_B_02T4	1500	2	3003	2923			470	598	588	769	753	1009	853	1110
LF_B_03T2	1500	3	4503	4423			454	550	591	727	776	968	925	1117
LF_B_03T3	1500	3	4503	4423			501	645	657	861	870	1158	1019	1307
LF_B_03T4	1500	3	4503	4423			547	740	723	994	963	1347	1112	1496
LF_B_04T2	1500	4	6003	5923			616	744	797	978	1039	1295	1237	1493
LF_B_04T3	1500	4	6003	5923			678	870	885	1156	1163	1548	1361	1745
LF_B_04T4	1500	4	6003	5923			740	997	973	1334	1288	1800	1485	1998
LF_B_05T2	1500	5	7503	7423	2962	4461	748	908	974	1200	1272	1592	1519	1839
LF_B_05T3	1500	5	7503	7423	2962	4461	826	1066	1083	1422	1428	1908	1674	2154
LF_B_05T4	1500	5	7503	7423	2962	4461	903	1224	1193	1645	1583	2223	1829	2469
LF_B_06T2	1500	6	9003	8923	4462	4461	880	1073	1150	1421	1505	1890	1800	2185
LF_B_06T3	1500	6	9003	8923	4462	4461	913	1262	1282	1688	1692	2268	1987	2563
LF_B_06T4	1500	6	9003	8923	4462	4461	1066	1451	1413	1956	1878	2646	2173	2941
LF_B_07T2	1500	7	10503	10423	4462	5961	1043	1267	1357	1674	1769	2218	2114	2562
LF_B_07T3	1500	7	10503	10423	4462	5961	1152	1488	1511	1985	1987	2659	2331	3004
LF_B_07T4	1500	7	10503	10423	4462	5961	1260	1709	1664	2297	2204	3100	2549	3445
LF_B_08T2	1500	8	12003	11923	5962	5961	1175	1431	1534	1895	2002	2515	2396	2908
LF_B_08T3	1500	8	12003	11923	5962	5961	1299	1684	1709	2251	2251	3019	2664	3413
LF_B_08T4	1500	8	12003	11923	5962	5961	1423	1936	1884	2607	2499	3524	3413	3917
LF_C_01T2	1800	1	1803	1723			252	290	305	359	357	433	410	487
LF_C_01T3	1800	1	1803	1723			271	328	331	413	394	509	447	562
LF_C_01T4	1800	1	1803	1723			289	366	358	466	431	585	485	638
LF_C_02T2	1800	2	3603	3523			446	523	547	656	636	790	740	893
LF_C_02T3	1800	2	3603	3523			483	599	600	763	711	941	814	1045
LF_C_02T4	1800	2	3603	3523			521	674	652	869	785	1093	889	1196
LF_C_03T2	1800	3	5403	5323			486	601	636	798	762	992	916	1146
LF_C_03T3	1800	3	5403	5323			542	715	715	959	874	1219	1027	1373
LF_C_03T4	1800	3	5403	5323			598	828	794	1119	985	1446	1139	1600
LF_C_04T2	1800	4	7203	7123	3562	3561	659	812	857	1074	1020	1327	1224	1531
LF_C_04T3	1800	4	7203	7123	3562	3561	733	964	962	1287	1169	1630	1373	1834
LF_C_04T4	1800	4	7203	7123	3562	3561	807	1115	1067	1501	1318	1933	1522	2137
LF_C_05T2	1800	5	9003	8923	3562	5361	801	993	1048	1319	1248	1633	1502	1887
LF_C_05T3	1800	5	9003	8923	3562	5361	894	1182	1179	1586	1435	2011	1689	2265
LF_C_05T4	1800	5	9003	8923	3562	5361	987	1372	1311	1853	1621	2389	1875	2643
LF_C_06T2	1800	6	10803	10723	5362	5361	974	1204	1269	1594	1507	1968	1811	2272
LF_C_06T3	1800	6	10803	10723	5362	5361	1085	1431	1426	1915	1730	2421	2034	2726
LF_C_06T4	1800	6	10803	10723	5362	5361	1197	1658	1584	2235	1953	2875	2258	3180
LF_D_01T2	2100	1	2103	2023			271	316	328	454	395	484	450	539
LF_D_01T3	2100	1	2103	2023			293	360	359	454	438	573	493	628
LF_D_01T4	2100	1	2103	2023			404	404	390	516	482	661	537	716
LF_D_02T2	2100	2	4203	4123			365	454	474	601	593	772	699	879
LF_D_02T3	2100	2	4203	4123			408	542	536	725	350	949	786	1055
LF_D_02T4	2100	2	4203	4123			631	631	597	850	767	1125	873	1232
LF_D_03T2	2100	3	6303	6223			577	712	740	930	910	1179	1069	1338
LF_D_03T3	2100	3	6303	6223			643	844	832	1117	1041	1444	1199	1602
LF_D_03T4	2100	3	6303	6223			977	977	924	10304	1171	1709	1330	1861
LF_D_04T2	2100	4	8403	8323	4162	4161	731	910	946	1199	1168	1527	1378	1737
LF_D_04T3	2100	4	8403	8323	4162	4161	818	1087	1068	1448	1342	1880	1552	2090
LF_D_04T4	2100	4	8403	8323	4162	4161	1263	1263	1191	1697	1516	2233	1726	2443
LF_D_05T2	2100	5	10503	10423	4162	6261	884	1108	1152	1468	1426	1874	1688	2136
LF_D_05T4	2100	5	10503	10423	4162	6261	993	1329	1305	1780	1643	2316	1905	2578
LF_D_05T3	2100	5	10503	10423	4162	6261	1549	1549	458	2091	1861	2757	2122	3019

Note: M*, N*, P1* = 1 bank of fans. P2* = 2 banks of fans.

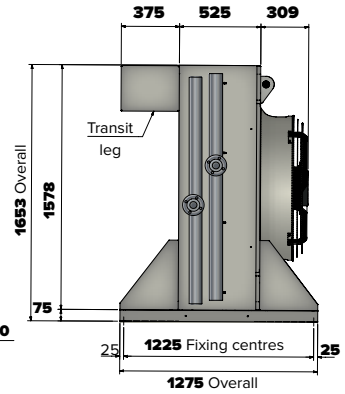
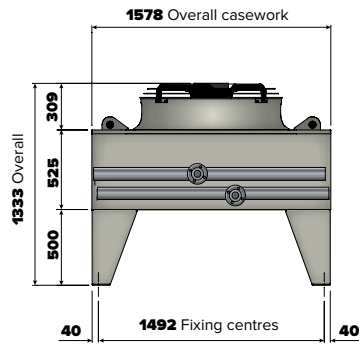
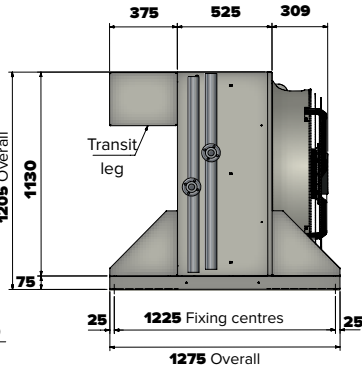
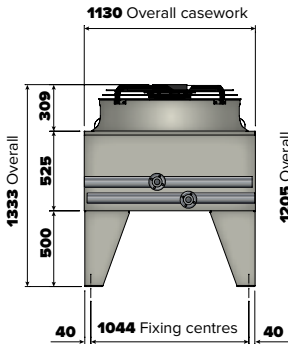


M

M Vertical

N

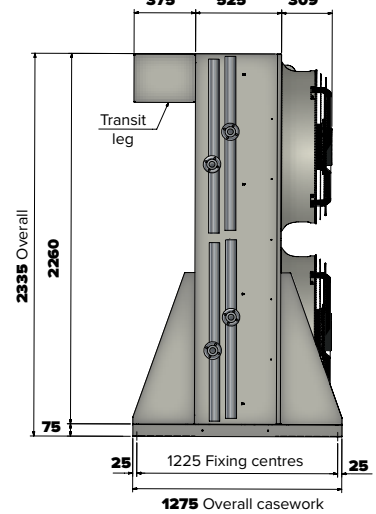
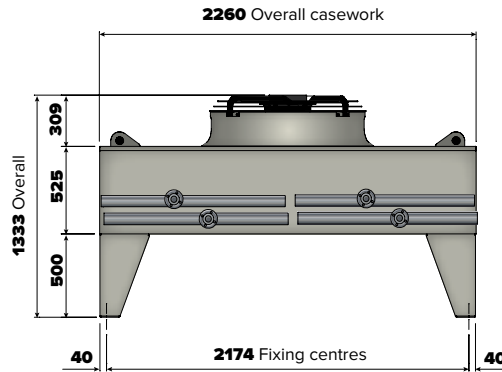
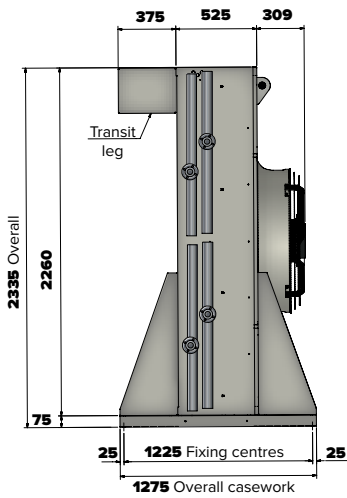
N Vertical



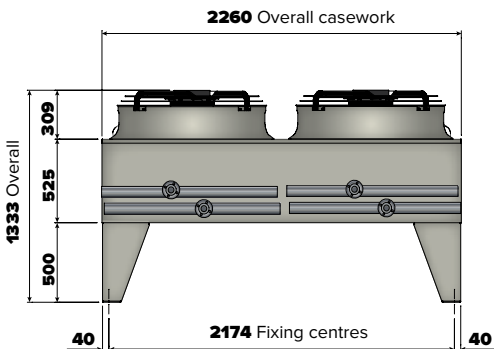
P-1 Vertical

P-1

P-2 Vertical



P-2



Note: All dimensions in mm. Common junction box will vary in size and position depending on the control option required.