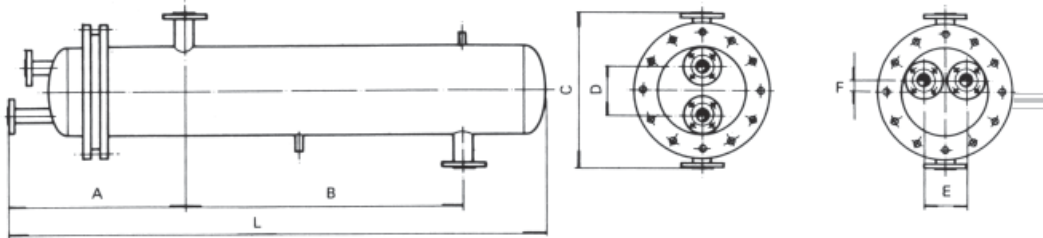


Shell & Tube Heat Exchangers - Series FS04-07

Serialised Units designed according to TEMA Code and in conformity with applicable Pressure Vessel Rules. These series are of U-Bundle floating type and bolted headers which allow for an easy plant maintenance. These series are ideal for heating or hot water generation with two phase fluids in a number of applications such as condensate recovery, hot water generation, steam flash recovery, tank heating, process heating, cooling of main and auxiliary lube circuits.



Dimensions

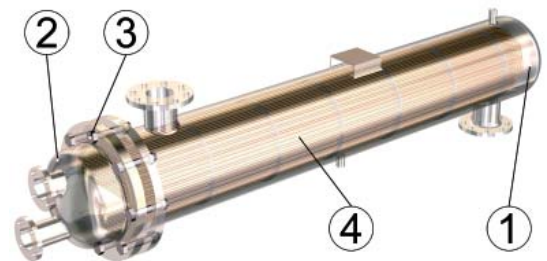


Model	L (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Connections		Weight
								Primary	Secondary	
FS-04	1.305	345	820	410	-	95	28	DN-32	DN-65	68
FS-05	1.800	345	1.320	410	-	95	28	DN-32	DN-65	83
FS-06	1.900	345	1.420	410	105	-	-	DN-40	DN-65	87
FS-07	2.100	345	1.620	410	105	-	-	DN-40	DN-65	96

Standard Design Pressure is PN 16 on the shell side and PN 6 on the tube side * Pressure Testing to 1.5 times Design Pressure. Standard Flanges according to DIN 2502 PN 16 – welded to the shell. Other flange standards can be provided on request. Wall thickness refer to Design Pressure.

Parts and Materials

Part	Name	Material
1	Shell	Steel UNE / ISO 36011 – Galvanised finishing
2	Header	Steel UNE / ISO 36011 – Galvanised finishing
3	Fasteners	Steel B7
4	Tube Bundle	Seamless Steel tubes, mechanically expanded Stainless Steel 304, 316, 316L / Copper



Performance Graphs

The suitable Heat Exchanger is determined by the following factors: Power (Kcal/h), Inlet and outlet temperatures and Pressure Drop. The following table provides average performances of the standardised FS Series in typical application of heating and Hot Water Generation. It provides the performance in Kcal/h or Volume in L/hrs given the indicated parameters of the primary and secondary circuits.

HEATING (70°C / 90°C and 80°C / 90°C) in kcal/h.

Fluids	Water - Water								Steam - Water				
	Secondary Circuit 70° / 90°				Secondary Circuit 80° / 90°				70° / 90°		80° / 90°		
	180° 120°	170° 110°	150° 120°	130° 110°	120° 100°	180° 120°	150° 120°	130° 110°	120° 100°	1,5 (kg/cm2)	5 (kg/cm2)	1,5 (kg/cm2)	5 (kg/cm2)
FS-04	110.600	96.400	87.300	48.700	41.300	121.300	93.400	56.300	38.600	-	-	-	-
FS-05	170.800	145.600	135.000	72.500	60.500	180.700	134.300	81.200	73.200	-	-	-	-
FS-06	187.500	163.200	157.000	-	-	200.400	156.700	-	-	142.800	252.000	130.700	175.000
FS-07	204.300	176.500	170.000	92.100	78.500	223.500	188.200	98.500	86.400	170.400	295.000	148.000	220.000

HOT WATER GENERATION in lts/h

Models	10° - 60°			10° - 55°			10° - 50°			10° - 45°		
	90° / 80°	90° / 70°	85° / 70°	90° / 80°	90° / 70°	85° / 70°	90° / 80°	90° / 70°	85° / 70°	90° / 80°	90° / 70°	85° / 70°
FS-04	730	640	580	950	760	590	1.340	1.200	950	1.930	1.750	1.520
FS-05	1.180	1.020	940	1.380	1.120	990	2.050	1.850	1.530	2.870	2.500	2.100
FS-06	1.310	1.230	1.100	1.590	1.450	1.180	2.260	2.080	1.740	3.360	3.200	2.680
FS-07	1.530	1.340	1.250	1.820	1.550	1.300	2.450	2.400	2.060	3.750	3.480	2.850

Pressure Drop Graphs for primary and secondary circuits are available at our Technical Dept. Please consult your nearest PILAN distributor.

Other units to comply with different performances on request.