

SAPHEX HEAT EXCHANGERS CALCULATION SHEET



Ref Online Discount Offer
 Value £461.00 + VAT Delivery £65.00 (UK Mainland)
 Prepared by/Date 06.08.2020
Heat Exchanger Type SPX-04

Total No. of Units 1
 No. of Units in Series/Parallel 1/1

HEAT EXCHANGER SELECTION:

	Side 1	Side 2	
Heat Load		100.0	kW
LMTD		20.0	°C
Min. Oversizing		10	%
Fluid	Water	Water	
Inlet Temperature	80.0	40.0	°C
Outlet Temperature	60.0	60.0	°C
Mass Flow	1.19	1.19	kg/s
Inlet Volume Flow	1.23	1.20	l/s
Outlet Volume Flow	4.36	4.36	m ³ /h
Max. Pressure Drop	30.0	30.0	kPa

PROJECT DATA SHEET:

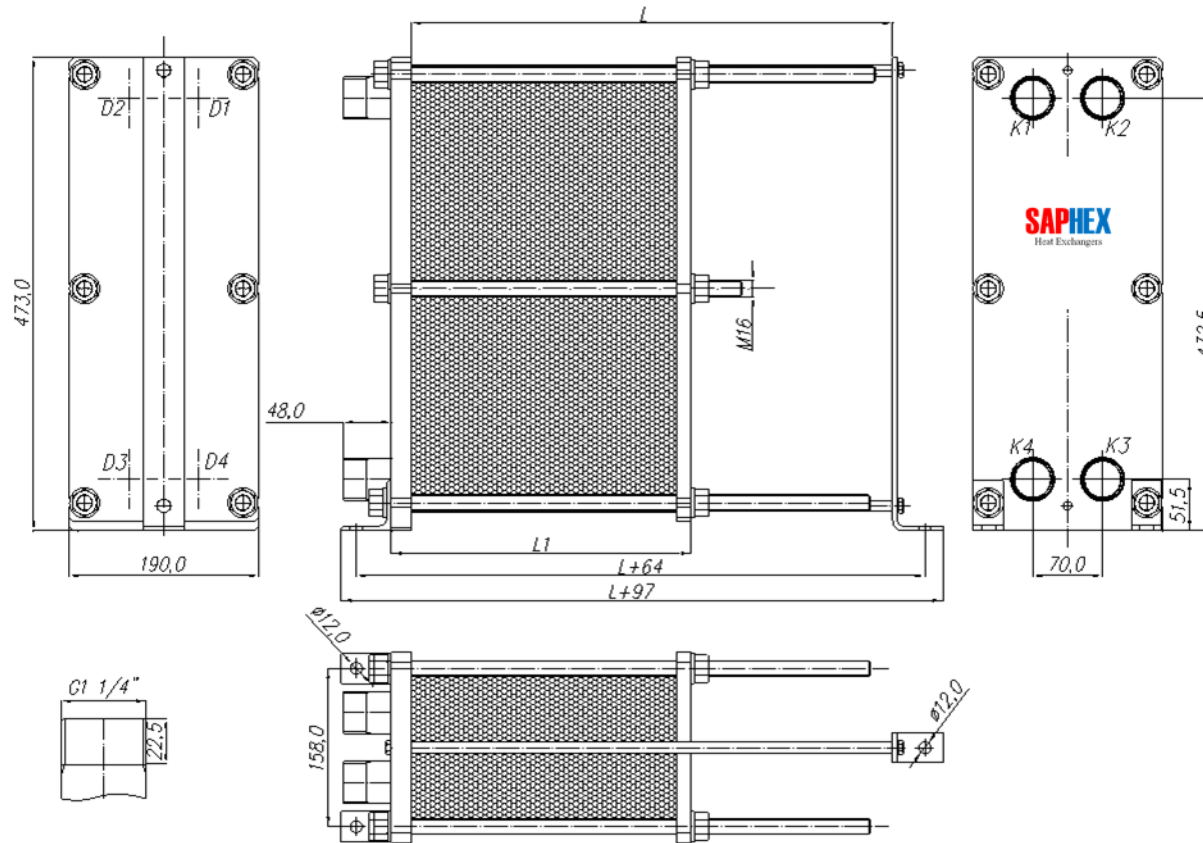
(Standard Calculation)

	Side 1	Side 2	
Heat Transfer Area		0.8	m ²
Fouling Factor		0.0541	m ² K/kW
OHTC Clean		9180.3	W/m ² K
OHTC Fouling		6134.9	W/m ² K
Oversize		50	%
Calc. Pressure Drop	27.0	27.4	kPa
Connections Velocity	2.13	2.11	m/s
Internal Velocity	0.51	0.51	m/s
Reynolds No.	589	4381	[-]
Heat Transfer Coefficient	25003.	22385.2	W/m ² K

PHYSICAL PROPERTIES:

	Side 1	Side 2	
Fluid	Water	Water	
Ref. Temperature	70.0	50.0	°C
Density	979.8	990.49	kg/m ³
Heat Capacity	4.19	4.19	kJ/kgK
Thermal Conductivity	0.65	0.632	W/mK
Dynamic Viscosity	0.000	0.0006	Ns/m ²
Prandtl No.	2.63	3.65	[-]

SAPHEX HEAT EXCHANGERS TECHNICAL DRAWING SHEET



HEAT EXCHANGER SPX-04

**0.5 mm PN16 316L
EPDM HT**

DIMENSIONS:

L1 95.1 mm
L 250.0 mm

CONNECTIONS TYPE:

4 x External Thread 1 1/4" Stainless Steel

STANDARD OF CONNECTIONS LOCATION: (Counter Flow)

K1 - Inlet Hot Side
K2 - Outlet Cold Side
K3 - Inlet Cold Side
K4 - Outlet Hot Side

