

REFLEX HEATEXCHANGERS CALCULATION SHEET



Thinking solutions.

Prepared by/Date 03.09.2020
Heat Exchanger Type RHB-31-60-P30
Article Number 8024000

DATA SHEET:

	Side 1	Side 2	
Heat Load	120		kW
LMTD	10		K
Min. Oversizing	0		%
Fluid	Water	Water	
Inlet Temperature	80	50	°C
Outlet Temperature	60	70	°C
Mass Flow	1.43	1.43	kg/s
Inlet Volume Flow	5.3	5.21	m³/h
Outlet Volume Flow	5.24	5.27	m³/h
Max. Pressure Drop	25	25	kPa
Design Pressure	30	30	bar
Design Temperature	230	230	°C

HEAT EXCHANGER SELECTION: (Standard Calculation)

	Side 1	Side 2	
Heat Transfer Area	2		m²
Fouling Factor	0.0372		m²K/kW
OHTC Clean	7937.4614		W/m²K
OHTC Fouling	6128.962		W/m²K
Oversize	29.5		%
Calc. Pressure Drop	14.3	13.7	kPa
Connections Press. Drop	0	0	kPa
Connections Velocity	1.82	1.81	m/s
Internal Velocity	0.23	0.22	m/s
Reynolds No.	2188	1832	[-]
Heat Transfer Coefficient	19856.3	18384.4	W/m²K

PHYSICAL PROPERTIES:

	Side 1	Side 2	
Fluid	Water	Water	
Ref. Temperature	70	60	°C
Density	979.82	985.57	kg/m³
Heat Capacity	4.186	4.185	kJ/kgK
Thermal Conductivity	0.6535	0.6432	W/mK
Dynamic Viscosity	0.0004	0.0005	Ns/m²
Prandtl No.	2.63	3.09	[-]

Reflex Heatexchanger Tool

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