

PLATE HEAT EXCHANGER TECHNICAL SPECIFICATION

CUSTOMER	Výměníky Ostrava	DATE	27-II-2016
PROJECT		ITEM	Stibor Miroslav ing.
PHE MODEL	A1L-P10-67-H L=500 AISI 316L 0.5 EPDM HT		
REV NO		HOT SIDE	COLD SIDE
HEAT EXCHANGED	kW	100,00	
MASS FLOWRATE	kg/s	2,38	2,38
VOLUMETRIC FLOWRATE	m³/h	8,59	8,60
INLET TEMPERATURE	°C	90,00	75,00
OUTLET TEMPERATURE	°C	80,00	85,00
PRESSURE DROP	bar	0,19	0,20
FLUID PROPERTIES			
MEDIUM		Water	Water
DENSITY	kg/m³	966,06	968,98
SPECIFIC HEAT	kJ/(kg.°C)	4,20	4,20
THERMAL CONDUCTIVITY	W/(m.°C)	0,67	0,66
VISCOSITY - MEAN	mPa.s	0,33	0,36
VISCOSITY - WALL	mPa.s	0,36	0,36
FOULING FACTORS	(m².°C)/kW	0,06	0,06
OVERSURFACE FACTOR		41,99	
INLET PORT		F1	F3
OUTLET PORT		F4	F2
DESIGN AND MECHANICAL SPECIFICATION			
HOT SIDE FLOW ARRANGEMENT		33 × 1 + 0 × 0	
COLD SIDE FLOW ARRANGEMENT		33 × 1 + 0 × 0	
TOTAL NUMBER OF PLATES		67	
CHANNEL MIXING (NUMBER/TYP)		66 H	
EFFECTIVE HEAT TRANSFER AREA	m²	5,46	
CLEAN U-VALUE	W/(m².°C)	6 314,92	
SERVICE U-VALUE	W/(m².°C)	3 663,00	
LMTD	°C	5,00	
PLATE THICKNESS / MATERIAL		0.50 mm AISI 316L	
GASKET MATERIAL / TYPE		EPDM HT	
DESIGN TEMPERATURE	°C	120,00	
WORKING PRESSURE	bar	10,00	
TEST PRESSURE	bar	13,00	
DESIGN CODE		PED 97/32/EC	
LIQUID VOLUME	L	13,94	
MAX. NUMBER OF PLATES		88	
NET WEIGHT	kg	60,46	
FLOODED WEIGHT	kg	74,40	
CONNECTION HOT		DN32 Threaded BSP AISI 316	
CONNECTION COLD		DN32 Threaded BSP AISI 316	