

PLATE HEAT EXCHANGER TECHNICAL SPECIFICATION

CUSTOMER	Výměníky Ostrava	DATE	27-II-2016
PROJECT		ITEM	Stibor Miroslav ing.
PHE MODEL	A1S-P10-81-H L=400 AISI 316L 0.5 EPDM HT		
REV NO		HOT SIDE	COLD SIDE
HEAT EXCHANGED	kW	50,00	
MASS FLOWRATE	kg/s	1,19	1,19
VOLUMETRIC FLOWRATE	m ³ /h	4,29	4,30
INLET TEMPERATURE	°C	90,00	75,00
OUTLET TEMPERATURE	°C	80,00	85,00
PRESSURE DROP	bar	0,04	0,04
FLUID PROPERTIES			
MEDIUM		Water	Water
DENSITY	kg/m ³	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	(m ² .°C)/kW	0,00	0,00
OVERSURFACE FACTOR		0,04	
INLET PORT		F1	F3
OUTLET PORT		F4	F2
DESIGN AND MECHANICAL SPECIFICATION			
HOT SIDE FLOW ARRANGEMENT		40 × 1 + 0 × 0	
COLD SIDE FLOW ARRANGEMENT		40 × 1 + 0 × 0	
TOTAL NUMBER OF PLATES		81	
CHANNEL MIXING (NUMBER/TYP)		80 H	
EFFECTIVE HEAT TRANSFER AREA	m ²	3,32	
CLEAN U-VALUE	W/(m ² .°C)	3 014,96	
SERVICE U-VALUE	W/(m ² .°C)	3 013,86	
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	13,63	
MAX. NUMBER OF PLATES		88	
NET WEIGHT	kg	38,20	
FLOODED WEIGHT	kg	51,83	
CONNECTION HOT		DN32 Threaded BSP AISI 316	
CONNECTION COLD		DN32 Threaded BSP AISI 316	