

**PLATE HEAT EXCHANGER TECHNICAL SPECIFICATION**

CUSTOMER	Výměníky Ostrava	DATE	27-II-2016
PROJECT		ITEM	Stibor Miroslav ing.
PHE MODEL	A1L-P10-47-H L=300 AISI 316L 0.5 EPDM HT		
REV NO		<b>HOT SIDE</b>	<b>COLD SIDE</b>
HEAT EXCHANGED	kW	150,00	
MASS FLOWRATE	kg/s	1,79	1,79
VOLUMETRIC FLOWRATE	m <sup>3</sup> /h	6,45	6,46
INLET TEMPERATURE	°C	90,00	60,00
OUTLET TEMPERATURE	°C	70,00	80,00
PRESSURE DROP	bar	0,19	0,20
<b>FLUID PROPERTIES</b>			
MEDIUM		<b>Water</b>	<b>Water</b>
DENSITY	kg/m <sup>3</sup>	968,98	974,52
SPECIFIC HEAT	kJ/(kg.°C)	4,20	4,19
THERMAL CONDUCTIVITY	W/(m.°C)	0,66	0,66
VISCOSITY - MEAN	mPa.s	0,36	0,41
VISCOSITY - WALL	mPa.s	0,41	0,41
FOULING FACTORS	(m <sup>2</sup> .°C)/kW	0,05	0,05
OVERSURFACE FACTOR		37,89	
INLET PORT		F1	F3
OUTLET PORT		F4	F2
<b>DESIGN AND MECHANICAL SPECIFICATION</b>			
HOT SIDE FLOW ARRANGEMENT		23 × 1 + 0 × 0	
COLD SIDE FLOW ARRANGEMENT		23 × 1 + 0 × 0	
TOTAL NUMBER OF PLATES		47	
CHANNEL MIXING (NUMBER/TYP)		46 H	
EFFECTIVE HEAT TRANSFER AREA	m <sup>2</sup>	3,78	
CLEAN U-VALUE	W/(m <sup>2</sup> .°C)	6 389,49	
SERVICE U-VALUE	W/(m <sup>2</sup> .°C)	3 968,25	
LMTD	°C	10,00	
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	9,65	
MAX. NUMBER OF PLATES		65	
NET WEIGHT	kg	51,86	
FLOODED WEIGHT	kg	61,51	
CONNECTION HOT		DN32 Threaded BSP AISI 316	
CONNECTION COLD		DN32 Threaded BSP AISI 316	