PLATE HEAT EXCHANGER TECHNICAL SPECIFICATION

CUSTOMER	Výměnky Ostrava	DATE	27-II-2016
PROJECT		ITEM	Stibor Miroslav ing.
PHE MODEL	A1L-P10-31-H L=300 AISI 316L 0.5 EPDM HT		

REV NO		HOT SIDE		COLD SIDE
HEAT EXCHANGED	kW		100,00	
MASS FLOWRATE	kg/s	1,19		1,19
VOLUMETRIC FLOWRATE	m³/h	4,30		4,31
INLET TEMPERATURE	°C	90,00		60,00
OUTLET TEMPERATURE	°C	70,00		80,00
PRESSURE DROP	bar	0,18		0,18

FLUID PROPERTIES

MEDIUM		Water		Water
DENSITY	kg/m³	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	(m².°C)/kW	0,04		0,04
OVERSURFACE FACTOR			36,53	
INLET PORT		F1		F3
OUTLET PORT		F4		F2

DESIGN AND MECHANICAL SPECIFICATION

HOT SIDE FLOW ARRANGEMENT		15 × 1 + 0 × 0
COLD SIDE FLOW ARRANGEMENT		15 × 1 + 0 × 0
TOTAL NUMBER OF PLATES		31
CHANNEL MIXING (NUMBER/TYPE)		30 H
EFFECTIVE HEAT TRANSFER AREA	m²	2,44
CLEAN U-VALUE	W/(m².°C)	6 468,16
SERVICE U-VALUE	W/(m².°C)	4 105,09
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	6,22
MAX. NUMBER OF PLATES		65
NET WEIGHT	kg	45,78
FLOODED WEIGHT	kg	52,00
CONNECTION HOT		DN32 Threaded BSP AISI 316
CONNECTION COLD		DN32 Threaded BSP AISI 316