PLATE HEAT EXCHANGER TECHNICAL SPECIFICATION

CUSTOMER	Výměníky Ostrava	DATE	27-II-2016
PROJECT		ITEM	Stibor Miroslav ing.
PHE MODEL	A4S-P10-101-H L=1000 AISI 316L 0.4 EPDM HT		

REV NO		HOT SIDE		COLD SIDE
HEAT EXCHANGED	kW		2 000,00	
MASS FLOWRATE	kg/s	23,84		23,88
VOLUMETRIC FLOWRATE	m³/h	85,98		86,14
INLET TEMPERATURE	°C	90,00		60,00
OUTLET TEMPERATURE	°C	70,00		80,00
PRESSURE DROP	bar	0,59		0,59

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	0,00		0,00
OVERSURFACE FACTOR			3,97	
INLET PORT		F1		F3
OUTLET PORT		F4		F2

DESIGN AND MECHANICAL SPECIFICATION

HOT SIDE FLOW ARRANGEMENT		50 × 1 + 0 × 0
COLD SIDE FLOW ARRANGEMENT		50 × 1 + 0 × 0
TOTAL NUMBER OF PLATES		101
CHANNEL MIXING (NUMBER/TYPE)		100 H
EFFECTIVE HEAT TRANSFER AREA	m²	23,76
CLEAN U-VALUE	W/(m².°C)	8 765,69
SERVICE U-VALUE	W/(m².°C)	8 417,51
LMTD	°C	10,00
PLATE THICKNESS / MATERIAL		0.40 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	59,40
MAX. NUMBER OF PLATES		144
NET WEIGHT	kg	481,09
FLOODED WEIGHT	kg	540,49
CONNECTION HOT		DN100 Flange St.37 PN10
CONNECTION COLD		DN100 Flange St.37 PN10