



4. TECHNICAL DATA

4.1 FUNDA®/MAVADISC® Horizontal Disc Filter

4.1.1 General Data

<input type="checkbox"/> Reference drawing		727 695 rev2
<input type="checkbox"/> Filter surface	nominal	15 m ²
<input type="checkbox"/> hazardous area	internal	no classification
	external	zone 2 / 22
<input type="checkbox"/> resources	internal	no classification
	external	II 3GD EEx ib IIC T4

4.1.2 Filter Vessel

<input type="checkbox"/> Vessel diameter		1'000 mm
<input type="checkbox"/> Cylindrical height	ca.	1'610 mm
<input type="checkbox"/> Vessel volume	total (approx)	1'680 ltr
<input type="checkbox"/> Jacket volume		120 ltr
<input type="checkbox"/> Vessel design pressure	vessel	-1 / 6 barg
<input type="checkbox"/> Vessel design temperature	vessel	-20/150 °C
<input type="checkbox"/> Jacket design pressure		na
<input type="checkbox"/> Jacket design temperature		na
<input type="checkbox"/> Heating jacket		na
<input type="checkbox"/> Insulation	option	100 mm
<input type="checkbox"/> heat transfer fluid		na
<input type="checkbox"/> total weight ¹⁾	empty	2'800 kg
<input type="checkbox"/> total weight ¹⁾	filled (water)	4'800 kg

¹⁾ preliminary data; to be confirmed in case of order

4.1.3 Nozzles

<input type="checkbox"/> slurry/cake outlet	A	1	DN300	PN 16	EN 1092-1 11B
<input type="checkbox"/> feed suspension inlet	B	1	DN80	PN 16	EN 1092-1 11B
<input type="checkbox"/> filtrate outlet	C	1	DN80	PN 16	EN 1092-1 11B
<input type="checkbox"/> heel volume outlet	D	1	DN80	PN 16	EN 1092-1 11B
<input type="checkbox"/> collector nozzle	E	1	DN50	PN 16	EN 1092-1 11B
<input type="checkbox"/> heel volume inlet	F	1	DN40	PN 16	EN 1092-1 11B
<input type="checkbox"/> jacket	G/H	2	DN25	PN 16	EN 1092-1 11B
<input type="checkbox"/> pressure gauge	N	1	DN25	PN 16	EN 1092-1 11B
<input type="checkbox"/> control opening / sight glass	O	1	DN100	PN 16	DIN 28120
<input type="checkbox"/> sight glass	P	1	DN100	PN 16	DIN 28120
<input type="checkbox"/> bursting disk	Q	1	DN 50	TC	ISO 2852
<input type="checkbox"/> drive flange	R	1			MAVAG
<input type="checkbox"/> temperature probe	S	1	½"		MAVAG
<input type="checkbox"/> level switch	T	1	½"		MAVAG
<input type="checkbox"/> handhole	U	1	DN 100		MAVAG
<input type="checkbox"/> handhole	V	1	DN 100		MAVAG



4.1.4 Filter Nest

<input type="checkbox"/> disc type		circular blank sheet
<input type="checkbox"/> number of discs		33
<input type="checkbox"/> disc diameter		800 mm
<input type="checkbox"/> disc spacing		40 mm
<input type="checkbox"/> cake volume	(effective) max.	400 ltr
<input type="checkbox"/> filter medium		TC 110 (PTFE)
<input type="checkbox"/> cake breaker		included

4.1.5 Upper Bearing and Seal

<input type="checkbox"/> reference drawing		
<input type="checkbox"/> bearing		roller bearing in mech seal and gearbox
<input type="checkbox"/> seal type		double mechanical seal, wet lubricated, make John Crane
<input type="checkbox"/> buffering system		thermosyphon sytem on baseplate comprising - 8 ltr-vessel - sightglass for level control min/max - thermometer TIAH - pressure gauge PIAL - level switch LSL - manual feeding pump
<input type="checkbox"/> buffer fluid		H1 oil

4.1.6 Lower Bearing and Seal

<input type="checkbox"/> seal type		PTFE sleeve (TC 110) and double PTFE lip seal
<input type="checkbox"/> bearing type		bushing with PTFE cladding

4.1.7 Drive Unit

<input type="checkbox"/> type		Parallel shaft helical gear motor
<input type="checkbox"/> installed power		11 kW
<input type="checkbox"/> output speed		300 1/min
<input type="checkbox"/> power supply		400 V / 3 phase
<input type="checkbox"/> frequency		50 Hz
<input type="checkbox"/> explosion proofness		EEx-de-IIC-T4
<input type="checkbox"/> protection class		IP 55
<input type="checkbox"/> speed control		frequency inverter
<input type="checkbox"/> torque limitation		by frequency inverter

4.1.8 Construction Materials

<input type="checkbox"/> product wetted parts		2.4602
<input type="checkbox"/> vessel flange		1.4571
<input type="checkbox"/> heating jacket		na
<input type="checkbox"/> insulation sheathing		1.4301 option
<input type="checkbox"/> other vessel materials		1.4301
<input type="checkbox"/> C-clamps		21 CrMo V57
<input type="checkbox"/> insulation		mineral wool option
<input type="checkbox"/> sight glass		borosilicate
<input type="checkbox"/> filter disks		PTFE



<input type="checkbox"/> filter plate rim, tension ring	PTFE
<input type="checkbox"/> drain mesh	PTFE
<input type="checkbox"/> mechanical seal	SiC/SiC process side SiC/SiC atmosphere
<input type="checkbox"/> gaskets	PTFE
<input type="checkbox"/> O-Rings static	EPDM
<input type="checkbox"/> O-Rings dynamic	FFKM
<input type="checkbox"/> other materials	manufacturer's standard

Steel according **AFNOR** or **ASTM**.

All product wetted polymers (cloth, seals etc) in compliance with CFR regulations.

It is customer's obligation to verify chemical resistance of the materials to the products used.

4.1.9 Surface Treatment

<input type="checkbox"/> product wetted surfaces	mill plate, weld seams ground flush, Ra 0.8 µm
<input type="checkbox"/> external surfaces	weld seams brushed and passivated vessel glass bead blasted
<input type="checkbox"/> carbon steel parts	primed, two coats of two-component resin RAL 5015 blue
<input type="checkbox"/> other parts	manufacturer's standard

4.1.10 Pressure Vessel Codes and Certification

<input type="checkbox"/> Pressure Equipment Directive	EN 97/23 EC (PED)
<input type="checkbox"/> PED Class	IV Fluid Group 1 Module G
<input type="checkbox"/> Pre-approval and Inspection	notified body