Data sheet for Bio-fuel dedusting system

Projects and Customer's Information:

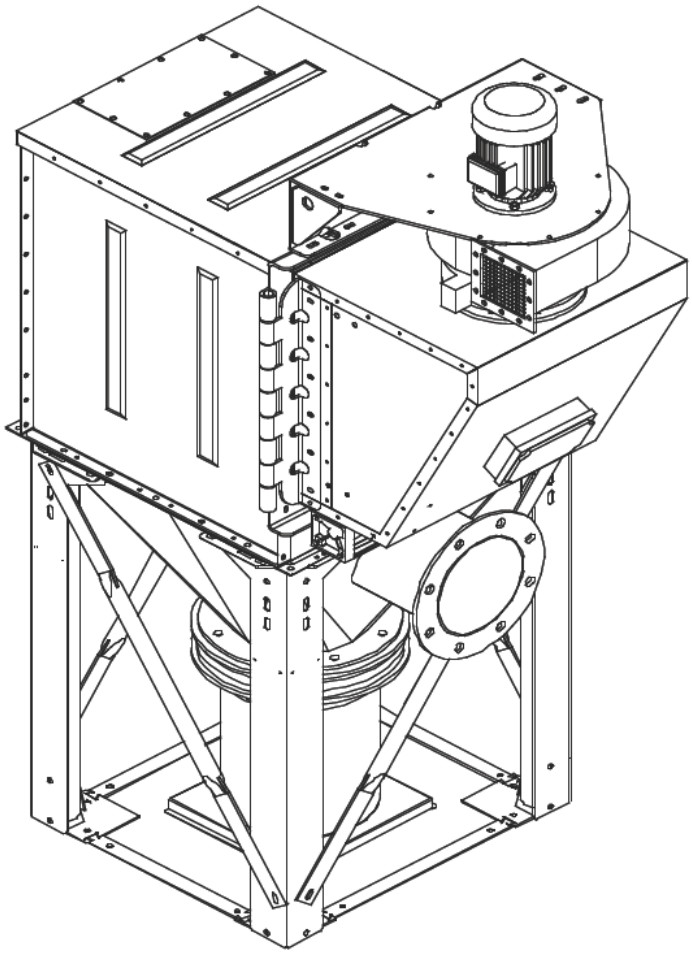
NARVA POWER STATION

ESTONIA

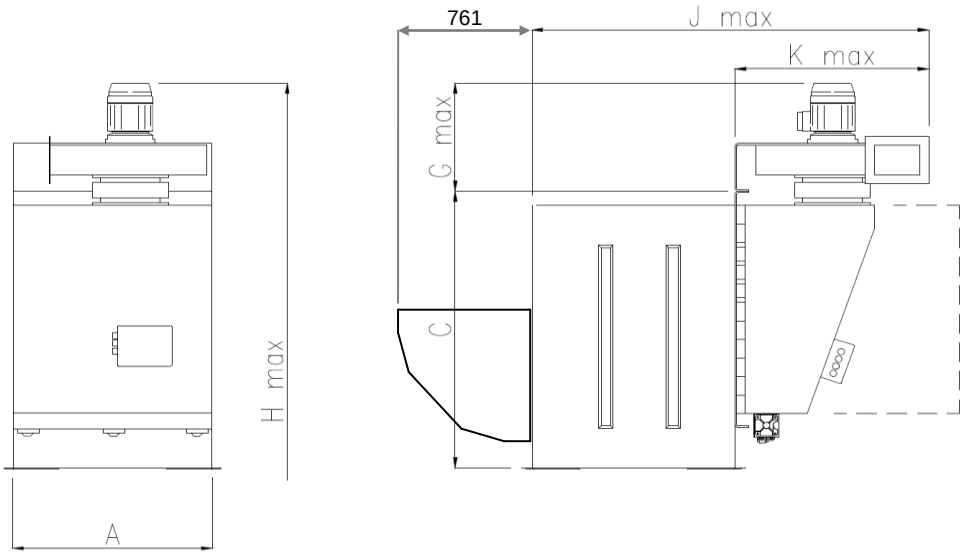
Space for Stamping (Review and Validation status - if needed)

Table of Contents:

1. POLYGONAL DUST COLLECTORS FOR POTENTIALLY EXPLOSIVE ATMOSPHERES



2. DIMENSIONS OF DUST COLLECTOR WITH POCKETS



Filter type *Filtertyp* Type filtre *Tipo filtro*	Filter surface *Filterfläche* Surface filtrante *Superficie filtrante* m²	Nbr. of elements *Anzahl Elemente* Nombre d'éléments *N° di elementi filtranti*		Lenght filter elements *Länge Filterelemente* Longueur éléments *Lunghezza elementi filtranti*	A	C	G max	J max	K max	Weight*** *Gewicht**** Poids*** *Peso****
		Total *Total* Total *Totale*	Nbr. of row *Reihen* Files *N° file*							
FPXHT 8 09	9	9	1	1000	845	825	693	2197	997	270
FPXHT D 12	12	12	2	1000	570	1320	693	2197	997	330
FPXHT E 15	15	12	2	1250	570	1320	693	2447	997	360
FPXHT M 22	22	18	2	1250	845	1320	720	2563	1113	470
FPXHT S 30	30	24	2	1250	1065	1320	810	2563	1113	560
FPXHT T 36	36	24	2	1500	1065	1320	810	2813	1113	610
FPXHT Y 45	45	36	3	1250	1065	1815	810	2563	1113	720
FPXHT U 54	54	36	3	1500	1065	1815	810	2813	1113	780

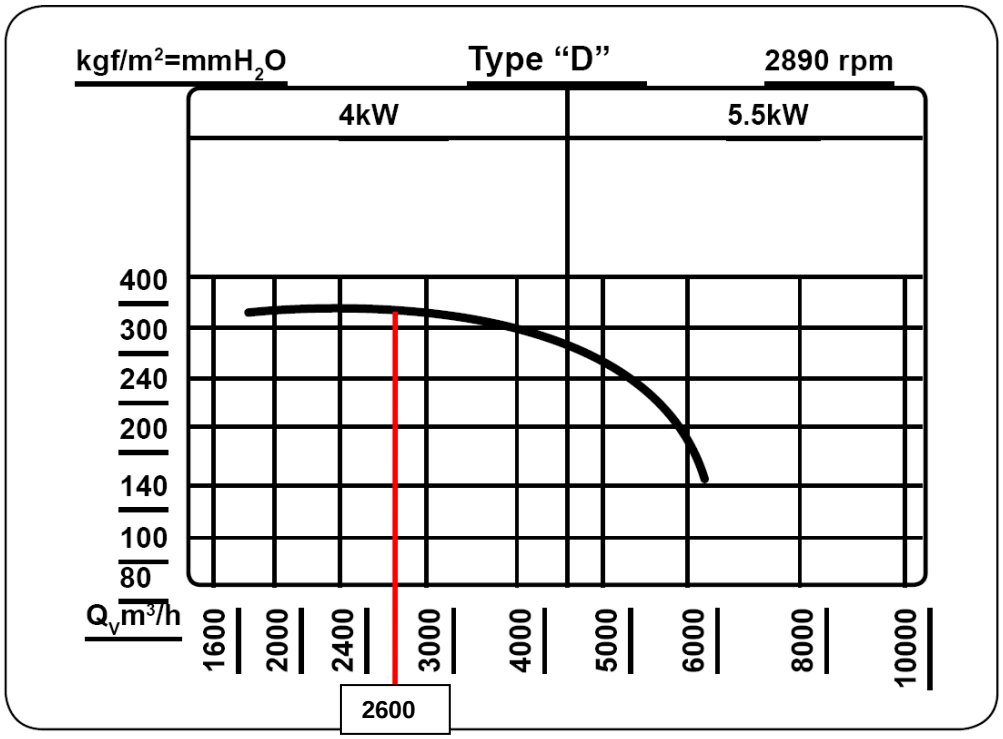
SILO FILTER →

CONVEYOR FILTER →

3. FAN TYPE

Filter volume index *Volumenindex* Indice de cubage du filter *Indice di cubatura filtro*	Fan - *Ventilator* - Aspirateur - *Aspiratore* Type										
	A		B		C		D		E		
	0.75 kW	1.1 A kW	1.1 B kW	1.5 kW	2.2 kW	3.0 kW	4.0 kW	5.5 kW	7.5 kW	9..2 kW	11.0 kW
8	X	X	X	X	X	X	X	X			
D	X	X	X	X	X	X	X	X			
E	X	X	X	X	X	X	X	X			
M	X	X	X	X	X	X	X	X	X		
S			X	X	X	X	X	X	X	X	X
T			X	X	X	X	X	X	X	X	X
Y						X	X	X	X	X	X
U						X	X	X	X	X	X

4. FANS PERFORMACE CURVES



Fan speed = 2890 rpm

Fan nominal flow rate = 2600 m^3/h

Motor power = 4 kW

5. MOTOR DETAILS

CE Ex II 3 D T100°C IP65

Frame size	Rated Power (KW)	Freq. (Hz)	VOLTAGE (V)	CURRENT (A) (230V)	CURRENT (A) (400V)	poles	Speed (rpm)	COS j	Cs/Cn Locked rotor torque rated torque	Is/In Locked rotor current rated current	Cmax/Cn Breakdown torque rated torque	weight (Kg)
80A	0,75	50	230/400	3,29	1,9	2	2850	0,83	2,2	7,0	2,2	16
80B	1,1	50	230/400	4,50	2,6	2	2850	0,84	2,2	7,0	2,2	16
90S	1,5	50	230/400	5,72	3,3	2	2850	0,83	2,2	7,0	2,2	22
90L	2,2	50	230/400	7,79	4,5	2	2850	0,87	2,2	7,0	2,2	27
100L	3,0	50	230/400	10,74	6,2	2	2870	0,87	2,2	7,0	2,3	37
112M	4,0	50	230/400	13,86	8,0	2	2870	0,89	2,3	7,0	2,3	47
132S	5,5	50	230/400	17,67	10,2	2	2870	0,92	2,2	7,0	2,3	68
132S	7,5	50	230/400	25,98	15,0	2	2890	0,92	2,0	7,0	2,0	74
132M	9,2	50	230/400	31,18	18,0	2	2870	0,88	2,0	7,0	2,1	78
160M	11,0	50	400/690	36,37	21,0	2	2930	0,88	2,0	7,0	2,2	120

6. CLEANING EQUIPMENT DETAILS

PRESSURE DIFFERENTIAL MEASURING DEVICE – MDPE TYPE

Activation pressure	90 mm H_2O
Deactivation pressure	40 mm H_2O

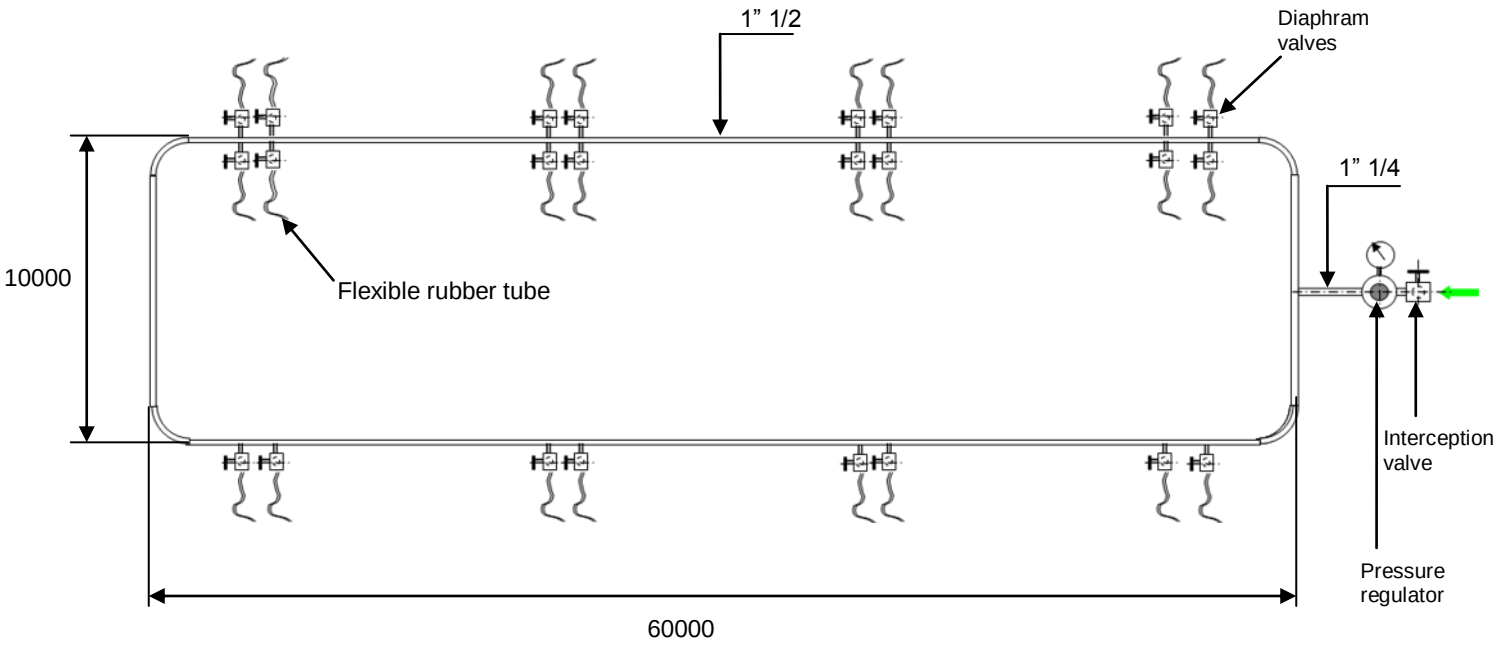
PROGRAMMABLE CLEANING SEQUENCE

The function of the controller board is sequential control of the cleaning cycle of filtering elements using compressed air, with the possibility of changing the blowing time and pause time between one blowing cycle and the next.
Pause time is 28 sec., operating time is 210 milliseconds. The board is provided with a timer fixed at 10 minutes to allow further cleaning of the filter at the end of the operating cycle.
The WAM® controller board can be powered at 24V÷260V AC/DC, 50/60 Hz and is installed inside a box which guarantees protection degree IP66

ELECTRICAL CARD CONSUMPTION

Input voltage *Steuerspannung* Tension d'alimentation *Tensione di alimentazione* (Vac)	**Electrical Input** *Stromaufnahme* Absorption *Assorbimento* (A)	**Power** *Leistung* Puissance *Potenza* (W)
24	0.220	5.3
115	0.090	10.4
230	0.050	11.5
260	0.045	11.7

PRELIMINARY COMPRESSED AIR DISTRIBUTION SYSTEM



Number of diaphragm valves installed 24

COMPRESSED AIR PRESSURE / CONSUMPTION AND AIR CYLINDER SIZE

Volume index *Baumassenzahl* Indice de volume *Indice di cubatura*	Air tank volume *Volumen Druckluftspeicher* Volume reservoir *Volume serbatoio* (l)	P_{MAX} (bar)	Cleaning inteval* *Abreinigungsintervall** Interval entre jets* *Intervallo di sparo**	Pulse duration *Luftstoßdauer* Duree jet *Tempo di sparo*	Nm³/h
D - E	4	6	28 sec	100 msec	4.5
				210 msec	9.0
8 - M	6.2			100 msec	4.5
				210 msec	9.0
S - T - Y - U	7.9			100 msec	4.5
				210 msec	9.0

7. FILTER MATERIAL DETAILS

WAM®

Code FB

GB

- Treatment ..... Heat set, glazing, hydrophobic, oleophobic, antistatic
- Weight gr./m² 550
- Thickness mm 1,5
- Permeability l/dm²/min. .. 100
- Temperature max° C 150

Media GB
Felt /Polyester

- **Resistance to:**

Acid..... Fairly Good
Alkali ..... **Poor**
Solvent ..... Fairly Good
Hydrolysis ..... Insufficient

- To Avoid ..... Sulphuric acid, Phenol, Mononitrobenzene
- Application ..... Chemical and pharmaceutic industry, Cereals processing industry, Food and sugar industry, Explosive industry
- B.I.A. rating ..... U.S.G.

Note from the Manufacturer:

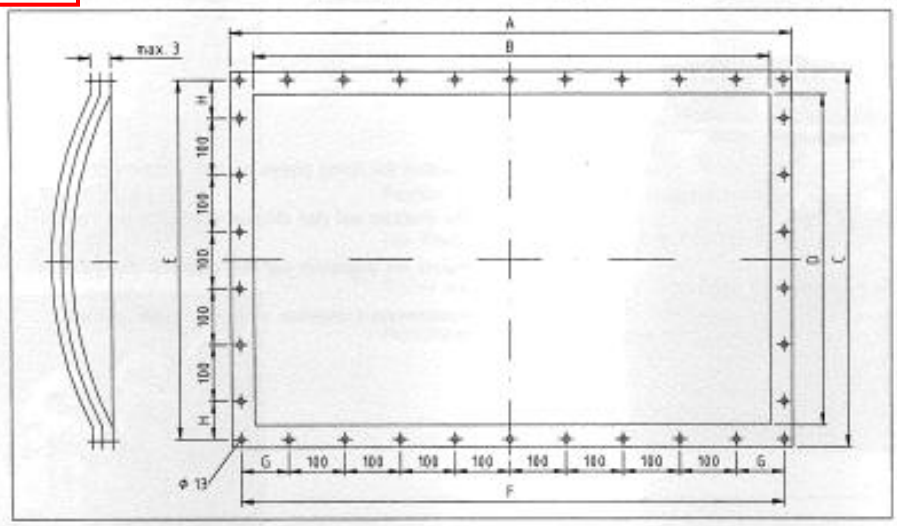
Hydrofobic treatment of filtering media has the purpose to prevent that materials containing a high percentage of moisture remain stuck on the filter surface, thus fostering the cleanliness of the filter and the detachment of material particles, during automatic cleaning. Then we confirm that the filtering media supplied is suitable for the material to be filtered and that the hydrofobic treatment helps to prevent the formation of condensate on the filter surface.

Otherwise the direct contact of filtering material with water cause a deterioration of the material itself.

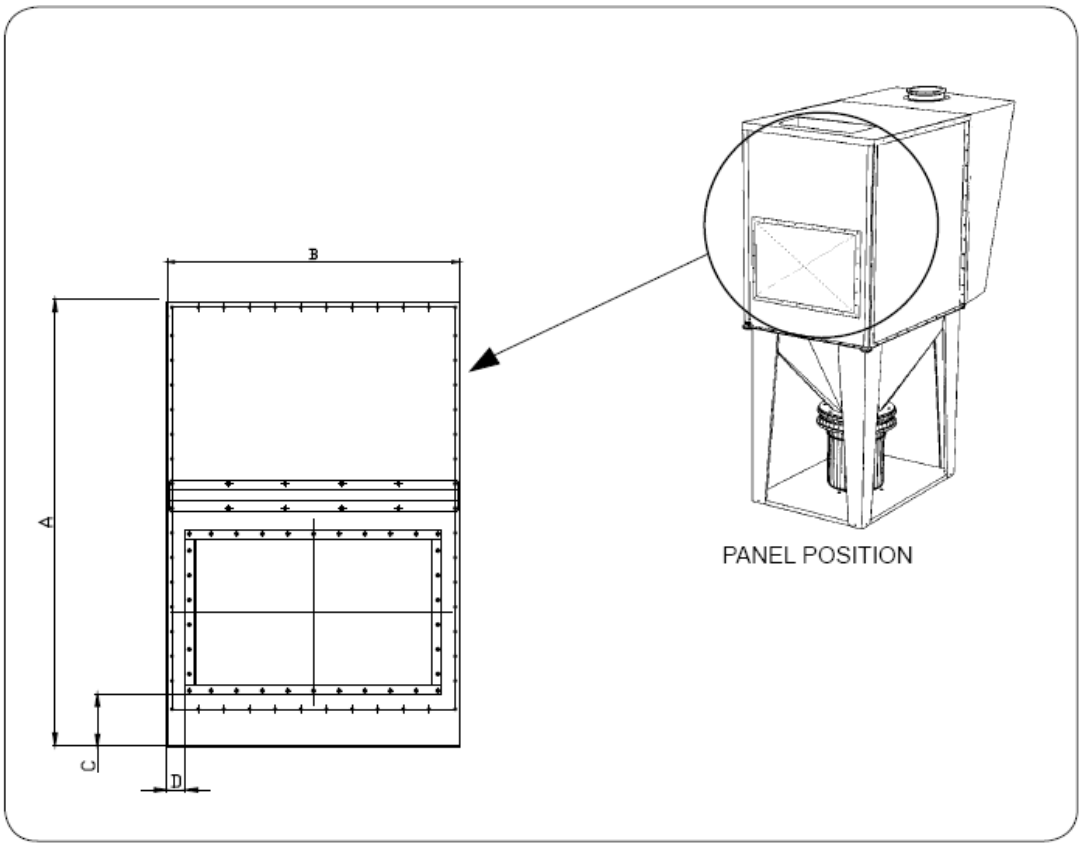
This is the reason why the filtering material is indicated to be not sufficiently resistant to hydrolysis.

8. EXPLOSION VENT PANEL

TYPE OF PANEL *MEMBRANTYP* TYPE DE MEMBRANE *TIPO MEMBRANA*	EFFECTIVE SURFACE *WIRKSAME OBERFLÄCHE* SURFACE EFFICACE *SUPERFICE EFFICACE*	P_{stat}	LOAD-FREE RESISTANCE *WIDERSTAND IM LEERZUSTAND* RÉSISTANCE A VIDE *RESISTENZA A VUOTO*	A	B	C	D	E	F	G	H	kg
ODV 490x590 - REMBE	0.26 m²	0.1 bar	800mm H_2O	670	590	570	490	540	640	70	70	3
ODV 586x920 - REMBE	0.5 m²	0.1 bar	500mm H_2O	1000	920	666	586	636	970	85	68	8

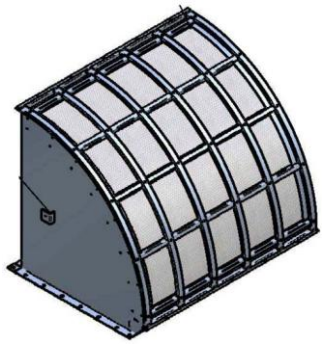


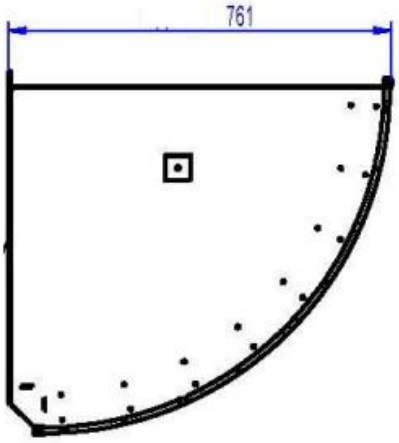
VOLUME INDEX *VOLUMEN INDEX* INDEX DE CUBATURE *INDICE DI CUBATURA*	ANTIBURST PANEL REMBE - *BERSTPLATTE REMBE* PANNEAU ANTI-DEFLAGRANT REMBE - *PANNELLO ANTISCOPPIO REMBE*	
	St 1	St 2
8	ODV 490x590	ODV 490x590
D	ODV 490x590	ODV 490x590
E	ODV 490x590	ODV 490x590
M	ODV 490x590	ODV 586x920
S	ODV 490x590	ODV 586x920
T	ODV 490x590	ODV 586x920
Y	ODV 586x920	ODV 586x920
U	ODV 586x920	ODV 586x920

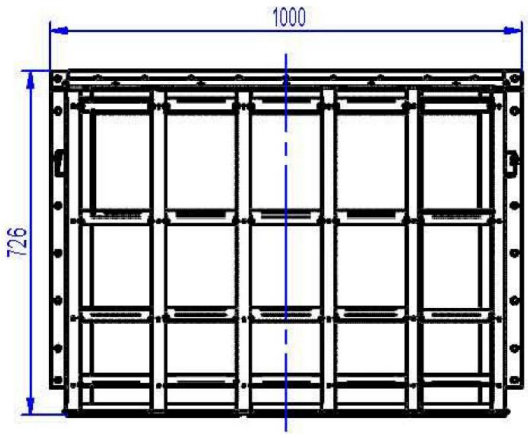


			490x590		586x920	
CUBIC VOLUME INDEX	A	B	C	D	C	D
8	805	915	118	122.5	/	/
D	1300	640	215	35	/	/
E	1300	640	215	35	/	/
M	1300	915	215	122.5	23	124.5
S	1300	1135	215	232.5	215	67.5
T	1300	1135	215	232.5	215	67.5
Y	1795	1135	/	/	215	67.5
U	1795	1135	/	/	215	67.5

9. FLAME ABSORBER DETAILS







Technical data

DN	586x920	
Fcm^2	3500	
Type	Q-Box-II	
Batch	QB130513	
Material	stainless steel	
Weight	105kg	
Burst pressure at 22°C	nom	0,100 barg
	min	0,080 barg
	max	0,120 barg
Bursting panel type	SKDEP	
Batch No. Bursting panel	1305213	
Max allow. temp. signalling unit	200 °C	