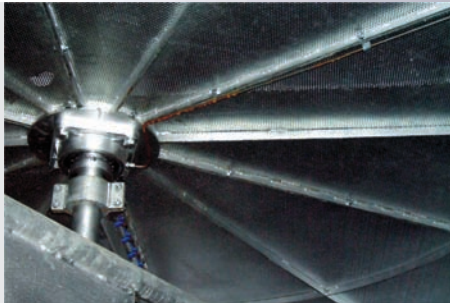


Air Grader Installations

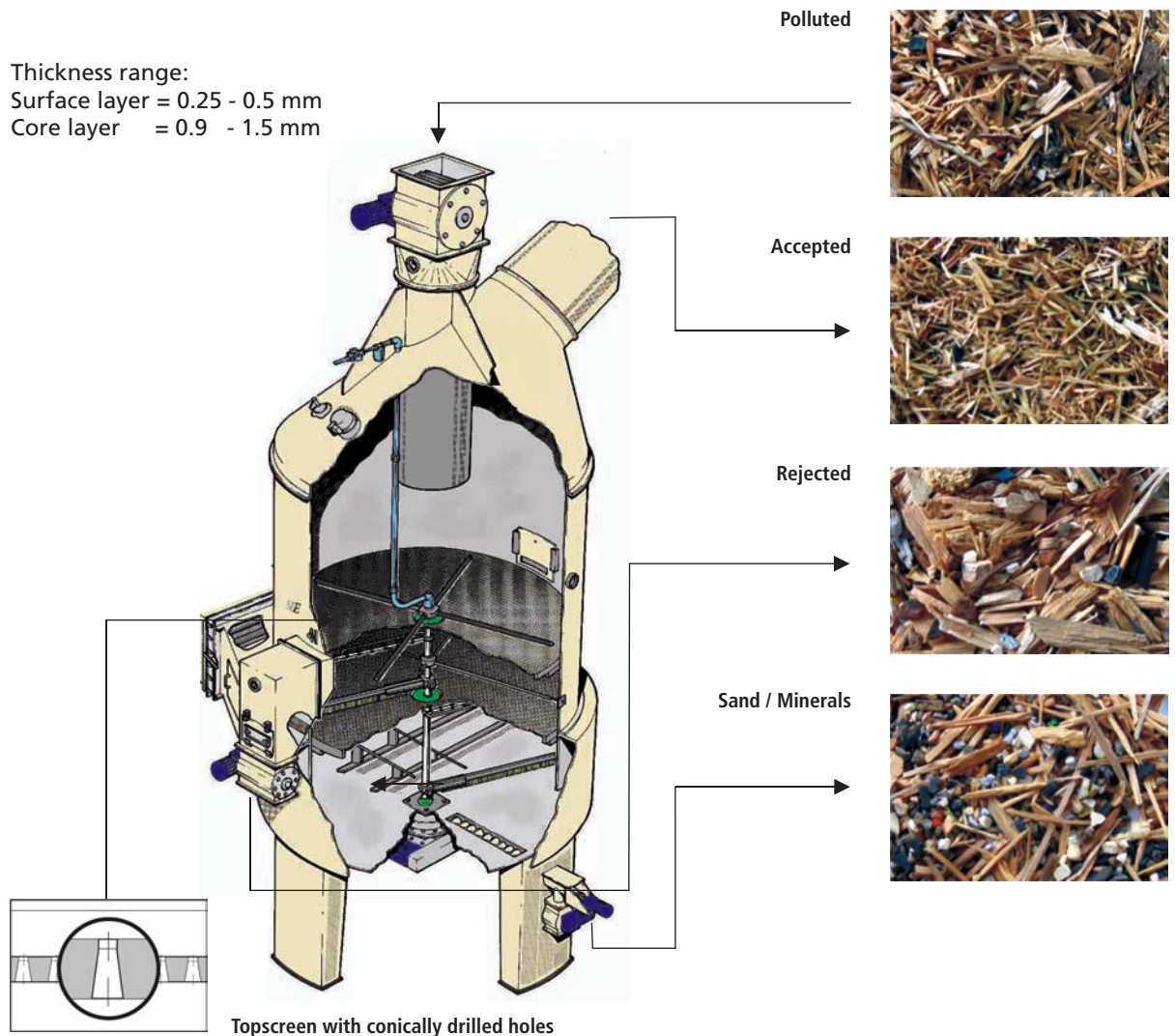


SPE

DIEFFENBACHER GROUP

Air Grader for the particleboard industry

Thickness range:
 Surface layer = 0.25 - 0.5 mm
 Core layer = 0.9 - 1.5 mm

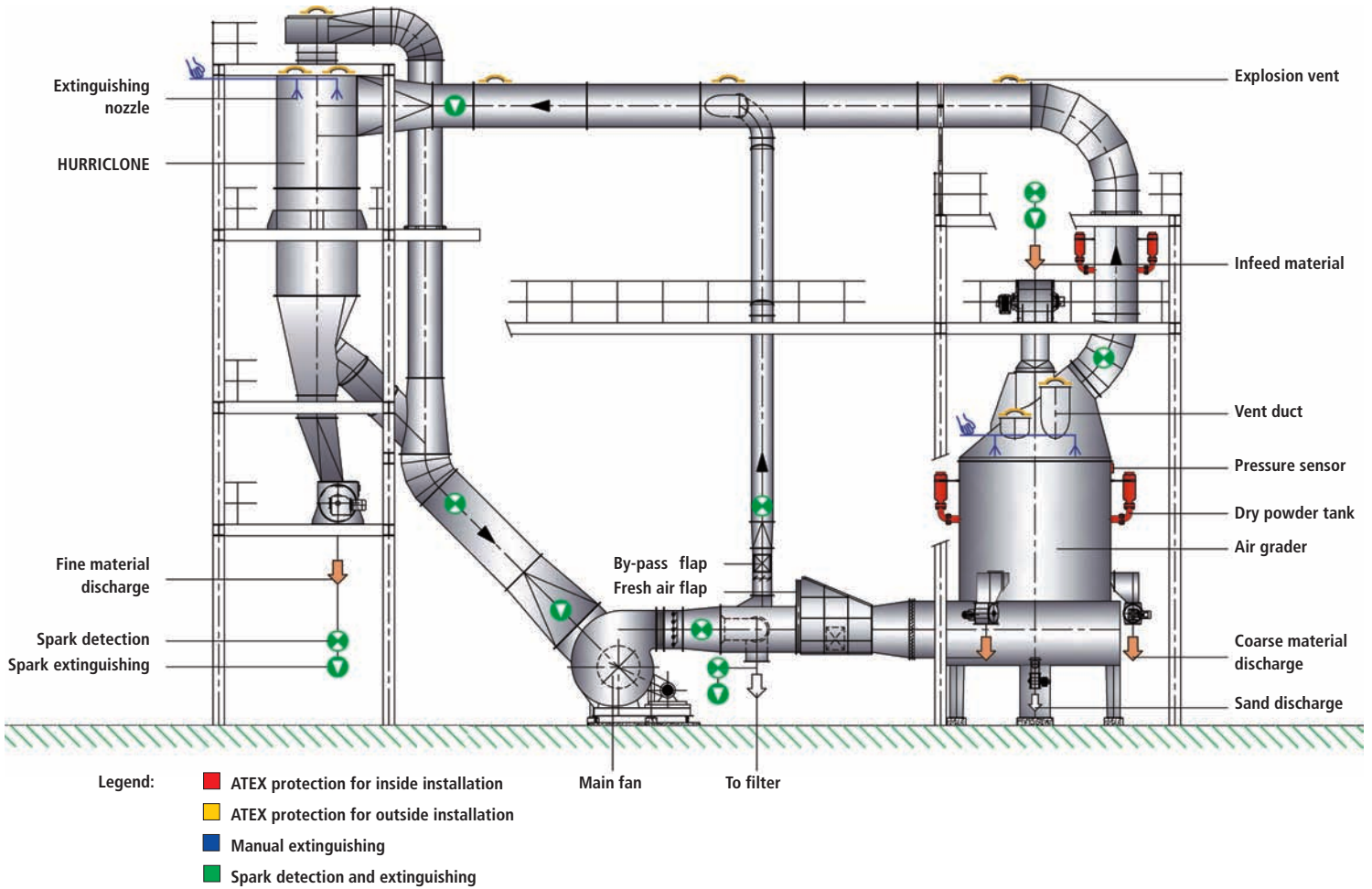


The air grader splits the incoming material into two fractions, acceptable and rejects this including high density contaminants and wood particles of undesirable geometry (needles, etc). 85% of the air used is circulated whereby the remaining volume is cleaned before vented into atmosphere. The product enters the suspension chamber of the air grader via a rotary valve and a central tube. Rotary arms distribute the material uniformly over the perforated plate through which air is drawn. Different grades of separation are achieved by varying the air velocity. The heavy fraction is moved to the outside of the grader and leaves the suspension chamber via a rotary valve. The lighter fraction is suspended in the air stream and separated from the air in high efficiency cyclones (HURRICLONES).





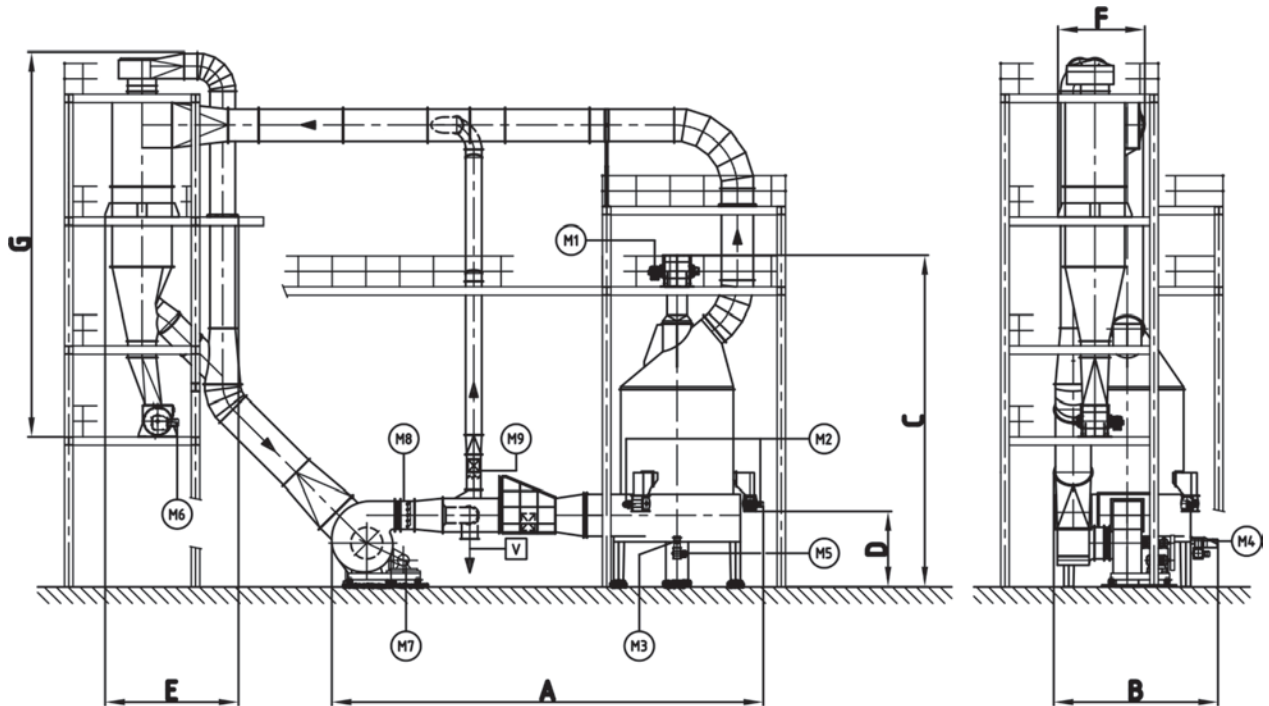
Standard Installation Atex conform



Capacities

Thickness of acceptables	0.25 mm	0.4 mm	0.9 mm	1.2 mm	1.5 mm
	SURFACE LAYER CAPACITY			CORE LAYER CAPACITY	
Type	[kg b.d./h]	[kg b.d./h]	[kg b.d./h]	[kg b.d./h]	[kg b.d./h]
3.0 R	3,000	3,400	4,100	5,350	5,500
5.5 R	6,800	8,000	9,800	13,000	14,000
7.0 R	9,500	12,000	14,500	19,000	21,000
8.0 R	11,000	14,000	17,000	23,000	26,000
10.0 R	14,000	18,000	22,000	28,000	33,000
12.5 R	20,000	22,500	27,000	36,000	40,000
16.0 R	25,600	28,800	35,200	44,800	52,000

Standard Installation Layout Dimensions and Technical Data



Standard Application SURFACE LAYER Thickness of acceptables = 0.25 mm

Type	Overall dimensions							Installed power [kW]	Exhaust air [am ³ /h]
	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]		
3.0 R	10,690	3,100	6,100	1,525	2,500	1,500	8830	40.0	4,800
5.5 R	11,850	3,900	7,130	1,750	3,500	1,900	11,660	75.0	8,700
7.0 R	13,000	4,800	7,880	1,850	3,800	4,500	12,760	95.0	11,100
8.0 R	13,700	5,400	8,450	2,050	6,100	2,600	14,060	100.0	12,600
10.0 R	15,820	5,800	9,550	2,140	4,450	2,500	15,230	130.0	15,800
12.5 R	17,370	6,200	11,250	2,440	4,500	3,100	16,040	160.0	19,700
16.0 R	18,620	6,100	13,140	2,990	5,450	3,500	17,770	195.0	25,200

Standard Application CORE LAYER Thickness of acceptables = 1.20 mm

Type	Overall dimensions							Installed power [kW]	Exhaust air [am ³ /h]
	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]		
3.0 R	10,390	4,000	6,330	1,525	3,300	2,000	11,230	70.0	4,900
5.5 R	12,050	4,800	7,300	1,750	4,450	2,500	14,730	110.0	9,000
7.0 R	13,200	5,200	8,500	1,850	4,500	3,100	15,340	135.0	11,400
8.0 R	13,800	5,600	8,900	2,050	5,150	3,400	16,470	160.0	13,000
10.0 R	15,470	6,000	9,900	2,140	5,300	3,500	18,130	195.0	16,200
12.5 R	16,920	6,500	11,450	2,440	6,650	3,100	20,020	235.0	20,300
16.0 R	19,770	6,650	13,390	2,990	5,150	6,800	17,120	355.0	26,000

Air Grader for the particleboard industry



- Capacity:**
- Core particles up to 52,000 kg/h
 - Surface particles up to 29,000 kg/h
- Range of application:**
- Separation of foreign matter such as sand, stones, metal or bark, especially from recycled wood
 - For the separation of core and surface particles
- Airgrading suspension chamber with:**
- Infeed rotary valve
 - Agitating device with pneumatic cleaning system
 - Fast modular and changeable screens
 - Discharge screw and rotary valve for coarse material
 - Discharge screw and rotary valve for sand
- High efficiency cyclone(s) type CS or HURRICLONE:**
- Main fan
 - Connecting ducts with dampers and flaps
 - Fire extinguishing system
 - Explosion protection system conform to atex regulations
- Options:**
- Pre heating of grading air
 - Air flow control system
- Benefits:**
- Exact separation according to particle thickness and infinite thickness control
 - Continuous and consistent separation regardless of stop/start operation and variable material flow
 - Excellent removal of heavy pollutants
 - Maximal accuracy of accepted particles
 - High capacity in one unit
 - Maximal efficiency
 - Low maintenance because of pneumatic/mechanical cleaning system
 - Energy and steel structure savings due to cyclone type hurriclone
 - Small required floor space due to flexible plant layout
 - Short replacement time for wear parts



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