DE BOER
MACHINES NEDERLAND B.V.

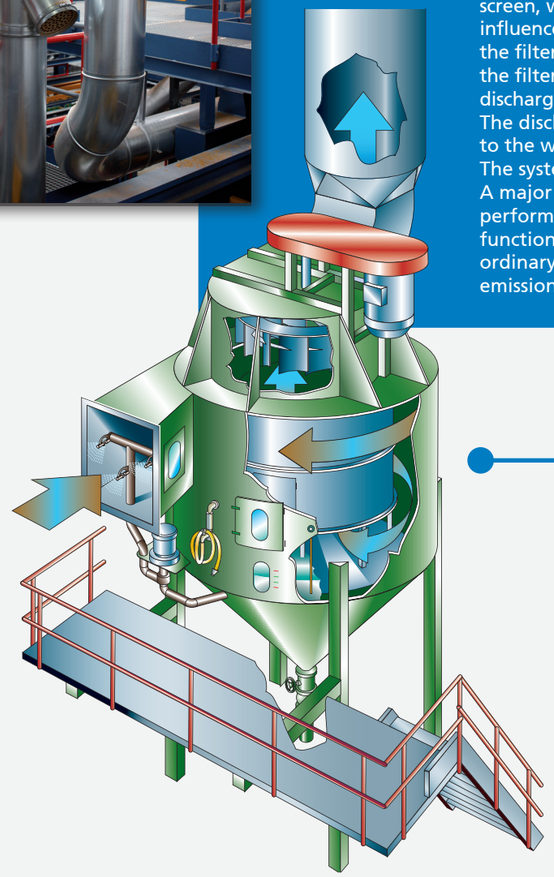
WETFILTER

DUST EXTRACTION SYSTEM

- Highly efficient low-noise operation
- Compact dimensions, high performance
- Low maintenance and energy costs

WETFILTER

A wetfilter can effectively purify large volumes of air. De Boer Machines supply wetfilters whose capacities range from 1,000 to 100,000 m³/hour.
The function of the wetfilter is based on the principle of centrifugal separation.
Particles of dust floating in the air are sucked through a water screen, where the dust adheres to the water drops. Under the influence of the centrifugal force these drops are thrown against the filter wall. The water and dust accumulate at the bottom of the filter. The dust cannot settle as part of the water is regularly discharged and replaced by clean water.
The discharged water can be reused for clay preparation or passed to the water purification installation.
The system water level control is fully automatic.
A major advantage of this system is that it guarantees optimum performance during its entire service life, with no loss in suction function. Wetfilters are virtually maintenance-free. The extra ordinary filtering ensures a discharge below the prescribed emission directives.

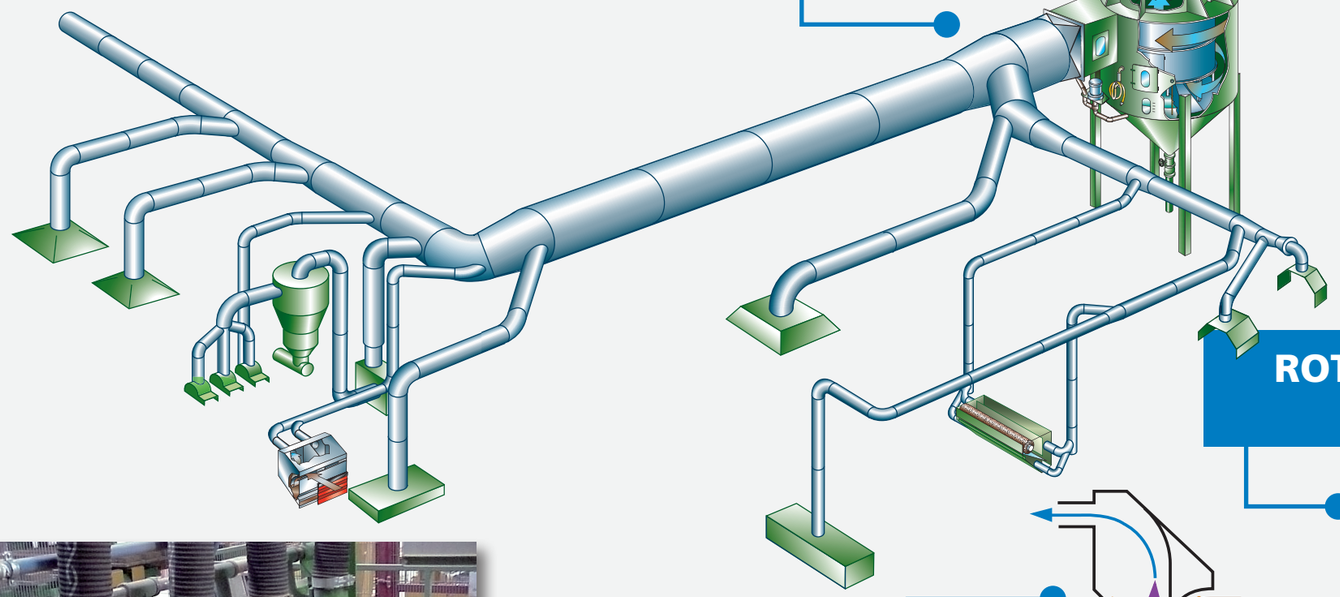


DUST

Very small particles of dust are released during the manufacturing process of ceramic products; and unfortunately natural human respiratory filters in the nose, mouth and throat cannot catch these particles. This dust enters the lungs, and extensive inhalation can increase the chance of illness. Employees should therefore be protected against exposure to excessive amounts of dust in the workplace. Innovative solutions are required to meet the increasingly strict statutory requirements of Health and Safety at Work (MEL) and directives on emissions into the atmosphere. The experience of De Boer Machines in the design, manufacture and installation of extraction installations over the years guarantees a perfect solution. In the ceramics industry we have installed an overall capacity of well over 3.300.000 m³/hour, which makes De Boer Machines the leading supplier of extraction installations in this branch of the industry.

EXTRACTION INSTALLATION

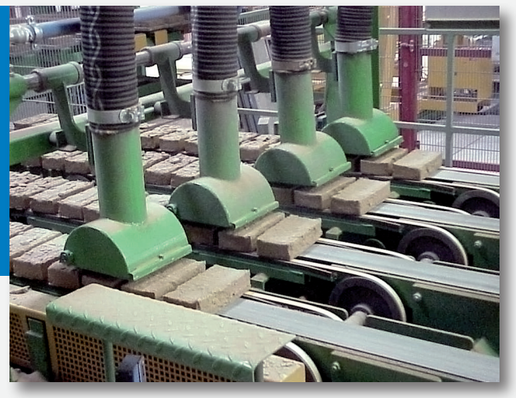
The extraction of dust in the workplace of employees in a brickyard requires an installation with a capacity ranging from 10,000 m³/hour for a small yard to over 100,000 m³/hour for an average large yard. Determining this capacity on the basis of specific operating conditions such as concentration of dust, source of dust and the method of extaction is the work of specialists. The dust is extracted at its source. The type of hood that causes the least hindrance is selected in consultation with the operators. If necessary, this can be combined with noise reducing measures. The pipe system that connects the hoods with the wet filter is tailor made for each application. A De Boer Machines dust extraction system with wetfilter can also be used for cleaning the air from sand extraction installation or for filtering the hot and moist exhaust gases coming from the rotary drum dryer. The design of this wetfilter with its own water purification system minimises the production of waste water, which makes the installation also highly suitable for applications outside the ceramics industry.

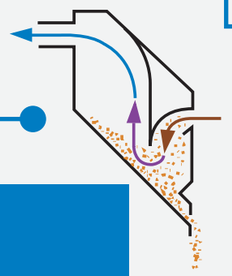


ROTARY DRUM DRYER

MOULDS EXTRACTION

Using the mould extraction unit, any excess sand and dust can be removed from moulds with or without frog.
Compressed air is used in the case of moulds with frog.
Pre-separation is effected with the aid of a cyclone.
The exhaust hoods, the bends and the cyclone are provided with a hardwearing lining. The exhaust hoods are adjustable to height and easy to remove.



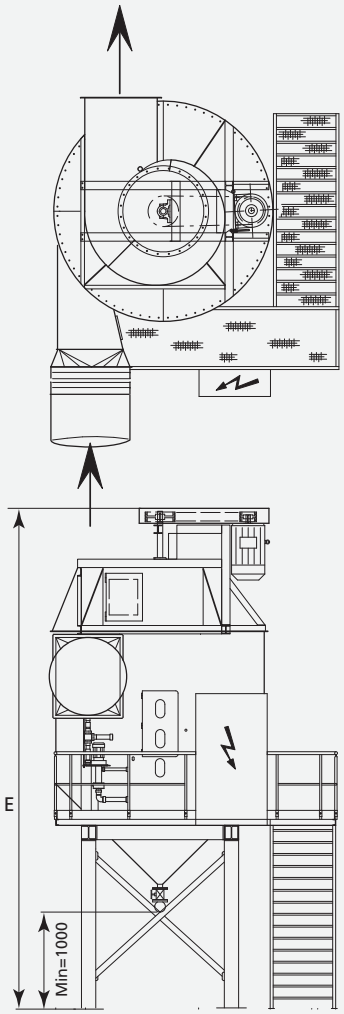


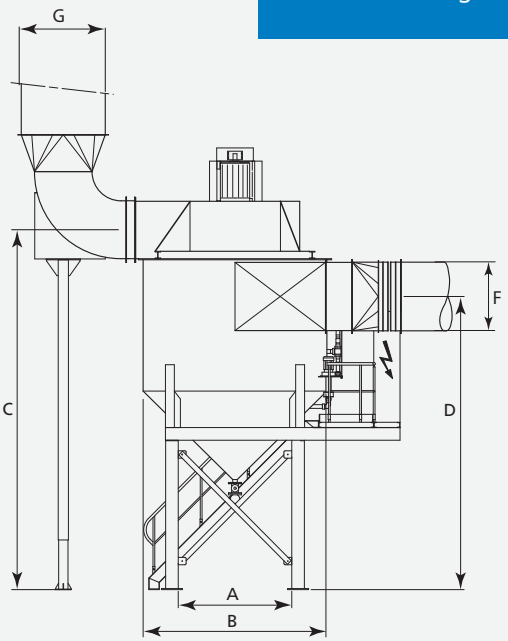
ADVANCED EXHAUST HOODS

Maximum extraction, with minimum air consumption. Preseparation in exhaust hood possible. Minimum obstruction to vision by well-planned arrangement.

TYPE	CAPACITY	P FAN	P PUMP	DIMENSIONS IN MM							WEIGHT	WATER
NFD	m³/hour	kW	kW	A	Bø	C	D_{min}	E_{min}	Fø	Gø	Empty/Kg	Volume/L
1,5	1.000 -1.800	4,0	1,5	650	630	2.200	2.000	2.700	250	250	980	130
2,7	1.800 - 3.000	5,5	1,5	650	830	2.800	2.500	3.300	250	300	1.150	240
5,4	3.000 - 6.000	11,0	1,5	650	1.100	2.950	2.600	3.450	350	400	1.420	510
7,2	6.000 - 9.000	15,0	1,5	750	1.350	3.550	3.000	4.050	400	500	1.680	825
9	9.000 - 11.000	18,5	1,5	890	1.520	3.650	3.100	4.150	450	550	2.160	1.060
11	11.000 - 15.000	22,0	1,5	950	1.680	3.660	3.160	4.460	550	650	2.280	1.260
15	15.000 - 19.000	30,0	1,5	1.055	1.755	3.925	3.235	4.100	600	700	2.540	1.550
21	19.000 - 23.000	37,0	4,0	1.205	2.000	4.050	3.330	4.800	650	750	3.000	2.150
28	23.000 - 32.000	45,0	4,0	1.340	2.300	4.555	3.760	5.300	750	900	4.050	3.050
40	32.000 - 46.000	55,0	4,0	1.740	2.700	5.145	3.850	5.600	900	1.100	5.070	4.580
60	46.000 - 60.000	75,0	4,0	2.300	3.000	5.235	4.180	6.300	1.100	1.200	5.490	6.000
80	60.000 - 80.000	110,0	4,0	2.150	3.300	5.735	4.500	7.000	1.200	1.400	7.000	7.700
96	80.000 - 96.000	132,0	4,0	2.165	3.500	6.815	5.550	8.300	1.300	1.600	7.500	8.500

Dimensions in mm. Dimensions subject to change





OPTIONS:

- A direct drive with frequency control
- Frost protection
- Own small water purification system
- Noise-reducing devices on the outlet

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