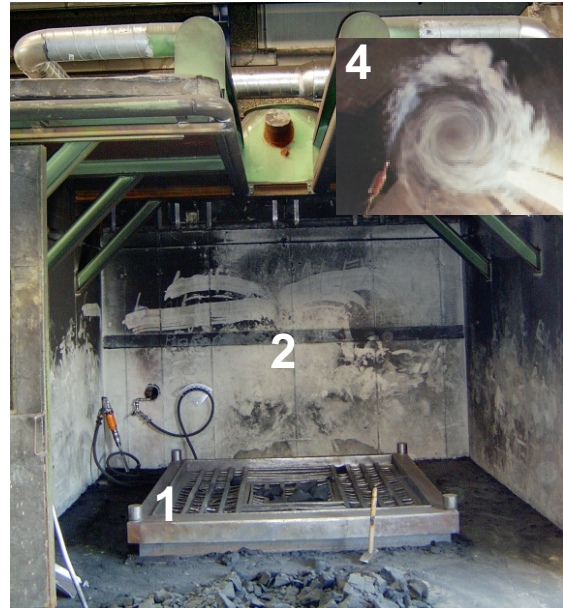


■ Process: Extraction of molding sand in a foundry



■ The Task

For the safety of both man and machine, fine dust generated when cast aluminium parts are removed from the mold requires extracting.

Once the liquid aluminium has cooled, the molding box, molding sand and the cast part are to be set down by a runway crane in a booth (2) on a shaking table (1). The molding box is removed by the operators and the molding sand then broken up by hand where required.

When the shaking table (1) is switched on the coarse constituents of the molding sand drop into a hopper and are processed. Fine dust which can penetrate the lungs rises upwards and has to be extracted.

To enable the parts to be brought in and out of the booth (2) by runway crane the booth has a large slot in the ceiling.

For space reasons the filter system (3) is to be installed outdoors.

■ The Solution

Herding® filter system Type HSL 1500-20/18 SB

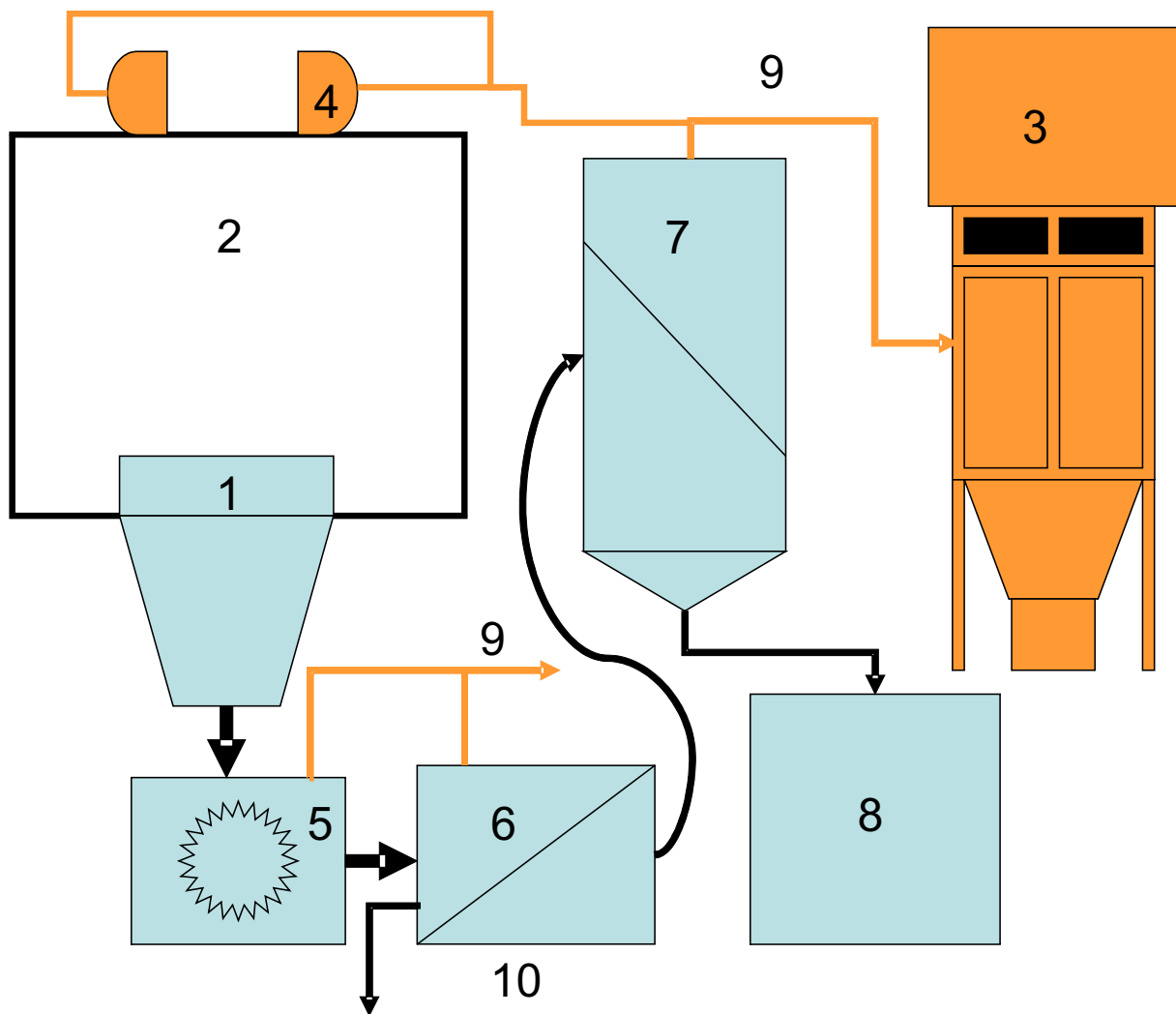
Air rate: 13,000 m³/h

Sound pressure level: < 75dB(A)

Advantages:

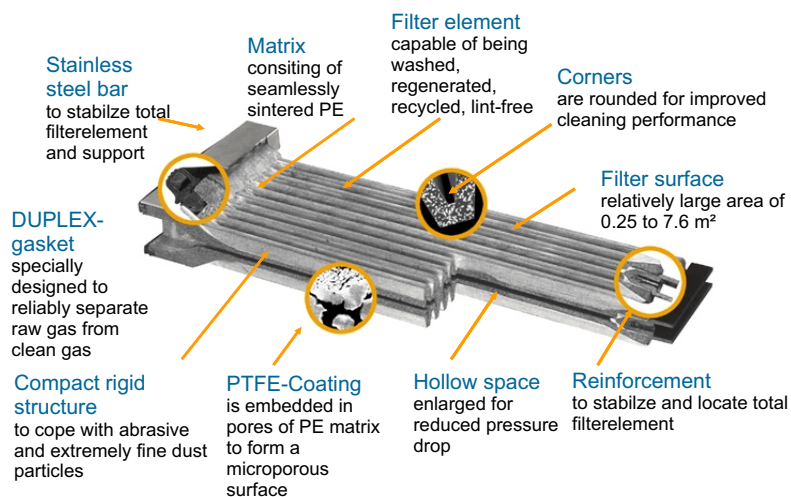
- ⇒ Reliable and economical dust separation thanks to the Herding® sinterplate filter
- ⇒ Long guaranteed filter medium service life thanks consistent surface filtration
- ⇒ Constant air extraction rate thanks to sequential cleaning of the filter elements during extraction
- ⇒ Imtech swirl hood (4) for optimum dust collection on the booth ceiling
- ⇒ This extraction system can also be used for the reliable sealing of very large openings as well. Virtually all rising fine dust is collected and therefore prevented from reaching the work area.

Extraction of molding sand in a foundry



- 1 Shaking table
- 2 Work booth
- 3 Filter system
- 4 Swirl hood for dust collection
- 5 Crusher

- 6 Sieve unit
- 7 Air separator
- 8 Sand hopper
- 9 Extractor pipe
- 10 Coarse grains / Waste



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