

## FLUID SEPARATION LINE

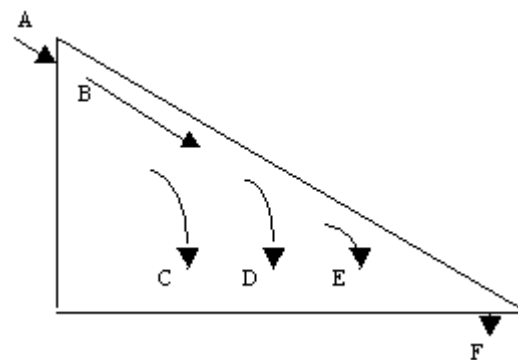
The line contains a pneumatic fluid table, a vibration conveyor and an industrial extractor. The pneumatic fluid table is developed for sorting cohesionless dry mixtures, which contain particles with different mass density.

Examples of use:

- separation of metal from copper or aluminum cables and conductors
- metal separation from crushed chipboards
- removal of textile from crushed tires
- sorting of rock mixtures



The rectangular triangle sorting surface is excited by periodic oscillations with simultaneous airflow purging. The sorted mixture enters the sorting surface at point A.



It moves in direction B by the effect of oscillation. Particles with low mass density are lifted by airflow; consequently they are affected by oscillation to a lesser extent. Particles with varying mass density are sorted to the separate components to specific mass of the individual elements due to the action of these two factors. Separated components leave the sorting surface through the output nozzles (C, D, E, and F) placed along the longer edge.

AQUATEST a.s. currently produces and supplies two types of fluid separation lines. Both have a working frequency of 16,6 Hz, which can range from 13,3-19,5 Hz using a frequency converter. The oscillation amplitude is 1-3 mm. Electricity supply is 3x400/230V, 50 Hz, TN-S.

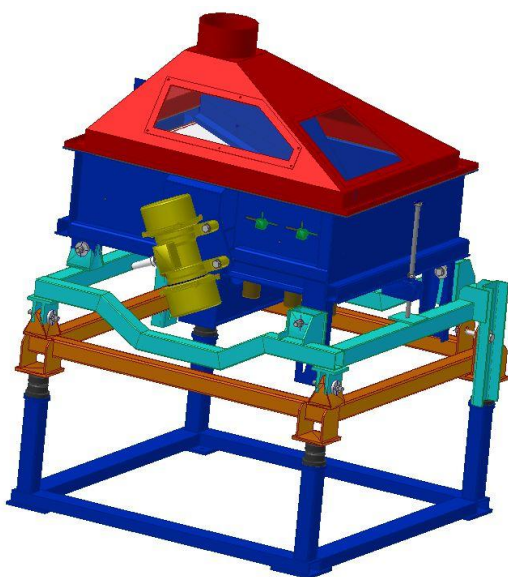
TYPE	FS - 1	FS - 2
mixture granulometry	0,2 - 7 mm	0,2 - 7 mm
flat of the sorting surface	0,34 m <sup>2</sup>	0,6 m <sup>2</sup>
output	approx. <b>150 - 400</b> kg/h	approx. <b>350 - 650</b> kg/h
electricity input	0,9 kVA	1,4 kVA
weight	370 kg	545 kg
dimensions	1350x1370x1560 mm	1742x1768x1710 mm

**The equipment is patented**

The pneumatic fluid table comprises the supporting case where the sorting surface is placed and two rotation surface vibrators with unbalanced elements for provision of controlled oscillations of the supporting case and sorting surface. The vector of exciting force of the rotation surface vibrators forms a 30<sup>0</sup> angle with the sorting surface.

The supporting case and the sorting surface are covered with an extraction cover and suction socket to connecting the exhauster with the regulation of air passing through the sorting surface based on the type of sorted mixture. The sorting surface is provided with adjustable flaps and output nozzles.

Two rotation surface vibrators with unbalancing elements are used for oscillation. The amplitude of the oscillation trajectory can be changed by adjusting the unbalancing elements.



The pneumatic fluid table is completed with an industrial extractor for exhausting the sorting surface with adjustable constant airflow depending on the sorted mixture type. The air mass from the extractor can be released back to the machine working area.

Material is fed on the sorting surface by a regulation conveyor, which is part of the supplied product. The conveyor is fitted with a 100 l hopper whose construction prevents sticking and build up.

<b>Technical parameters</b>	<b>POC 20/POC 30 Extractors</b>
Volume of air	2000/3000 m <sup>3</sup> /h
No. of filter cartridges	2/2
Electricity input	2,2/3,0 kW
Electrical energy	3 x 400 / 230 V, TN-S
Dimensions (l x w x h)	750x850x2920 mm/ 750x850x3170 mm
Weight	220/270 kg

**AQUATEST a.s.**

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