SAVELLI POLYGONAL Screen SP

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SAVELLI POLYGONAL SCREEN SP

In a modern sand preparation plant, the polygonal screen is thypically the first machine in the return sand circuit after shake-out.

The SAVELLI SP polygonal screen is used in an automatic sand preparation plant to treat the hot and dishomogeneous sand coming from the shake-out. The machine breaksthe green sand lumps and separates the sand from the hard lumps (i.e. cores residues) and the residual metal particles, that get discharged into a waste bin.

The machine si made by a rotating octagonal drum, with a special profile mesh, made of an anti-wear steel. The rotative action of the drum mixes the sand and breaksthe lumps, allowing the the sand to drop into the the hopper below the polygonal screen and before the sand cooler. Additionally, the polygonal screen is also performing a preliminary homogeneization and cooling action on the sand, thanks to the mixing action and to the aspiration system that extracts the humid, hot air from thru the hood on top of the polygonal screen.

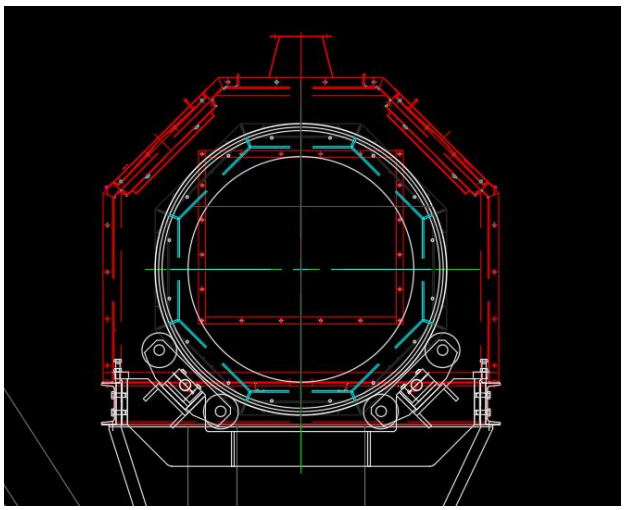
The octagonal drum is divided into sections with grids made of special profiled manganese steel nets. The grids are easily removable in order to replace them in a short time, reducing the down time of the machine.

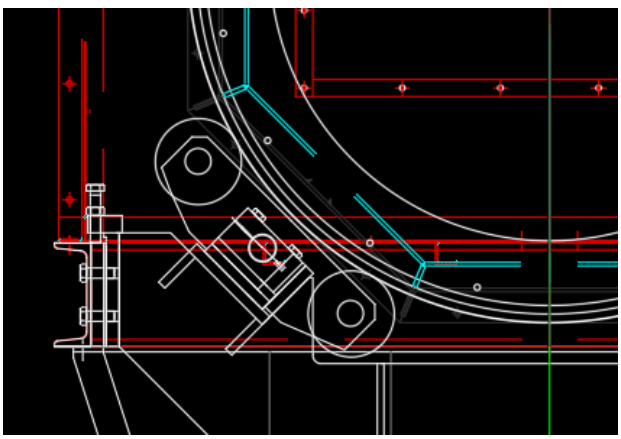
The special mesh comes in different dimensions (generally 10, 15 or 20 mm square) according to customer needs.

The supporting structure is manufactured of steel.

A motor shaft is connected to one edge of rotating drum by a bolt connection, while the gearbox is fixed directly to the motor shaft and it is supported by rolling bearings.

On the other edge, the drum has a rolling ring made of wear proof steel which is supported by four steel wheels (2+2).





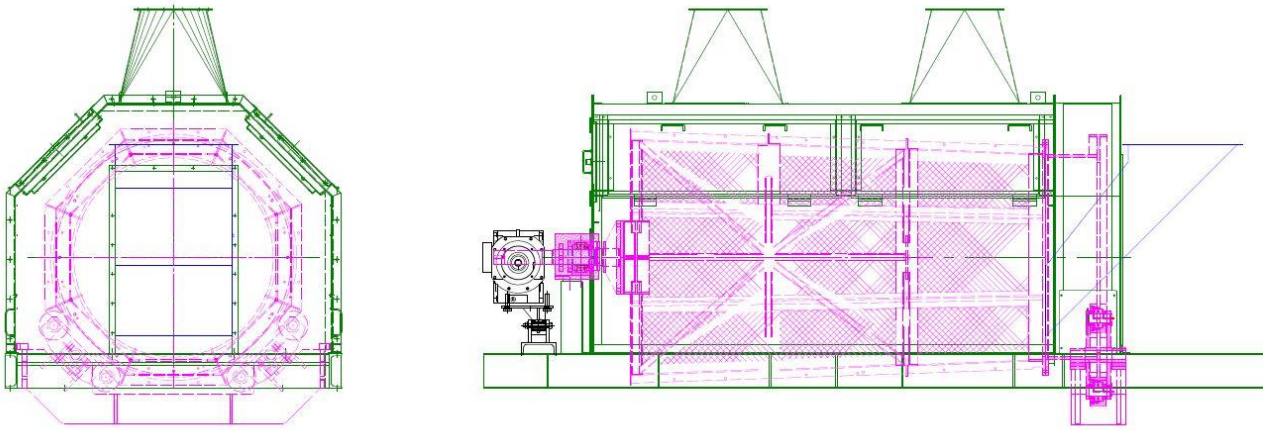
Both wheels groups are adjustable in order to guarantee the perfect concentricity between the ring and motor shaft. Underneath the wheels groups an anti-vibration material is positioned, in order not to transmit vibrations to the supporting structure.

The screen feeding hopper is made of wear-proof steel. The machine's hood is fixed to the supporting structure and is completed with doors for inspection and maintenance. Besides that, the hood of the machine is completed with two flanged openings for the connection to the exhaust system.

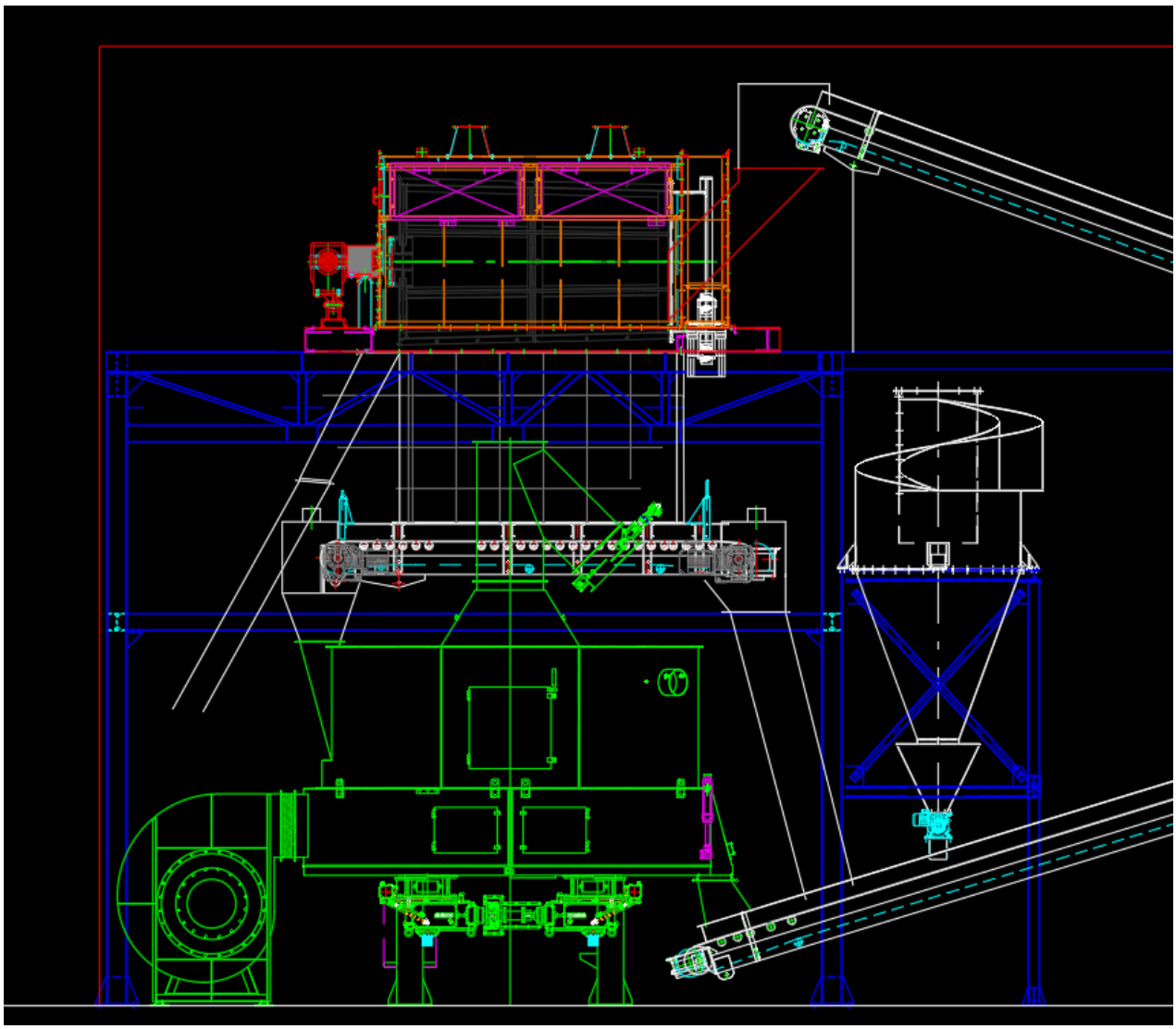
In order to guarantee a good operation of the polygonal screen, it is advisable to install a burner on the exhaust piping line.

The mechanic and electric components of the machine are of top brands, commercial components, in order to simplify the finding of the spare parts if necessary.

A special version of Polygonal Screen in stainless steel is also available.



Schematic view of the SAVELLI SP Polygonal screen.

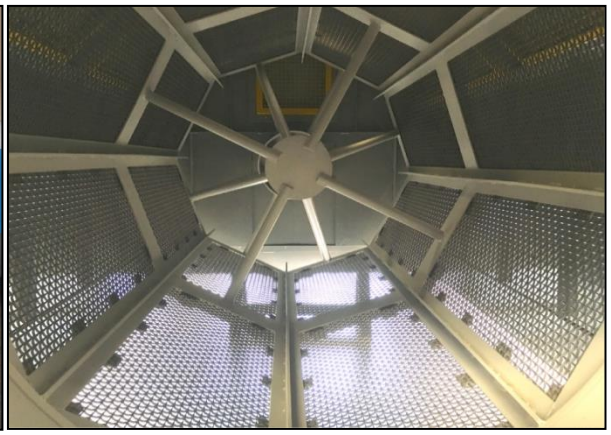


Typical application of a polygonal screen on top of a sand cooler.

Polygonal screens – Models and sizes

TYPE	Capacity t/h	Installed Power KW	Exhaust Nm³/h
SP 60	60	5,5	5.000 x 1
SP 100	100	7,5	5.000 x 2
SP 150	150	9,2	6.000 x 2
SP 200	200	11,0	7.500 x 2
SP 300	300	18,5	10.000 x 2
SP 350	350	18,5	10.000 x 2

View of main structure of polygonal screen



Internal view of the drum with the special mesh

View of the supporting wheels and rolling ring of the drum

Finished polygonal screen covered with aspiration hood, showing motor, gear box and inspection doors