Metso

Metso SonicSparger™ Jet for ColumnCells

Aeration is one of the most important aspects of pneumatic flotation, aerated leaching tanks and other processes that require air/gas dispersion.

SonicSparger™ Jet
With an advanced control system developed by Metso, the SonicSparger™ Jet promotes an intense air injection that generates the most appropriate size distribution of energetic microbubbles for flotation particle collection and gas reaction, enhancing process performance and efficiency.

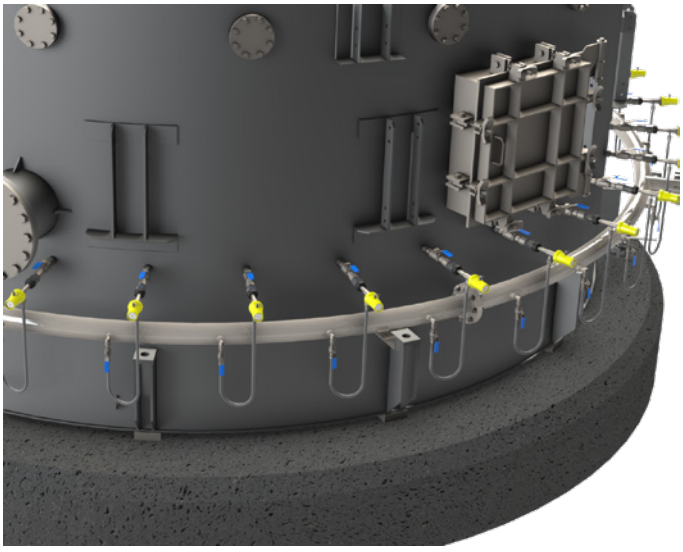
For good sparger operation, it is essential to guarantee that the air will flow with an adequate volumetric flow rate and pressure. Metso SonicSparger Jet operates with inlet air pressures between 5-7 bar and the maximum flowrate of each sparger is determined by the size of the outlet ceramic nozzle orifice, which is changeable.

Metso offers five nozzle sizes: 2.0, 2.5, 3.0, 4.0 and 5.0 mm; each one allowing a different flow rate. The nozzle size and the number of spargers are calculated by Metso to suit the specific application, guaranteeing the best process performance.

SonicSparger Jet has up to three different lengths and, in large tanks/columns, they are alternately distributed to provide even air injection through the cross section area.

Easy maintenance
General maintenance is easy, fast and safe. Typically in preventive maintenance, only the nozzle of the SonicSparger Jet needs to be replaced.

The sparger can be removed from the column by a single operator, without interrupting the operation and without slurry spillage, due to the design of connections and valve used in the column inlet.



Sparger systems for enhanced recovery in column cells

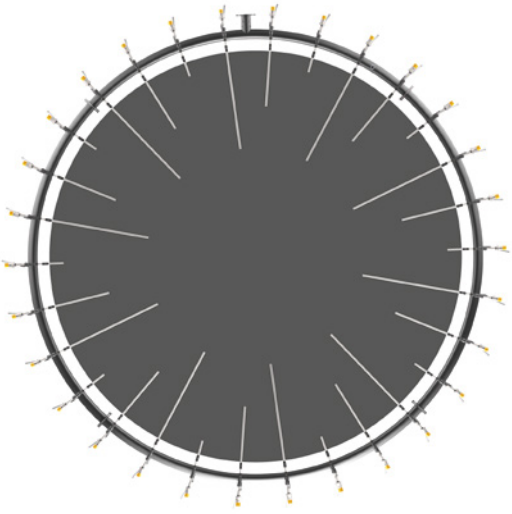
Reliable operation
SonicSparger Jet is reliable and easy to control. It is designed to close automatically in case of an unexpected shutdown of the main air source, avoiding backflow of slurry into the sparger.

Differently from other similar systems, SonicSparger Jet has an exclusive back pressure chamber that uses compressed air to guarantee that the sparger outlet will open only when the main air flow reaches a pressure higher than 2 bar, which is enough to avoid slurry backflow. A gauge indicates this control pressure in the chamber.

The control chamber can be connected to a control air manifold (apart from the main air) or can be closed with a check valve. When it is connected to a control air manifold, this back pressure can be controlled remotely, from the control room. When it is closed with a check valve, the back pressure can be verified with the sparger gauge in the field. The system is able to keep this pressure for long periods and the gauge allows an immediate identification of pressure loss in the chamber.

Benefits

- The most appropriate size distribution of energetic microbubbles
- Reliable operation with advanced control system
- Easy to handle, assemble and disassemble
- Easy to calibrate and maintain



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