



- 1 - density sensor
- 2 - nozzle plate bottom
- 3 - outlet nozzles
- 4 - fluidised bed
- 5 - valve rod with disc
- 6 - inlet chamber
- 7 - splitter plate
- 8 - hydraulic cylinder
- 9 - overflow nozzles
- 10 - rising current water apparatus
- 11 - flow meter with electric signal converter
- 12 - electric reducing slide
- 13 - rising current water
- 14 - displacement bracket

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Heavy media separator

ASTRO 3000

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Heavy media separator produced by WIMA: For the production of first class concrete, the aggregate must be absolutely free from organic pollution. As the usable sand and gravel deposits are often polluted with materials such as lignite and timber, this machine will be applied for the removal of organic pollution.

With the heavy media separator ASTRO 3000 produced by WIMA organic materials with densities up to 1.8 g/cm^3 can be removed. The capacity of sand varies between 40 and 90 t/h according to the quantity of the pollution. The function of the heavy media separator is based on the density separation. The rising water will be pressed through the nozzle plate bottom. Thus, an optimal distribution of the rising water over the cross section of the upper part will be guaranteed. The by rising water built heavy media causes float of the specific light weight parts which will be discharged together with the overflow.

The heavy media separator ASTRO is equipped with a hot galvanized nozzle plate bottom with approx. 1,800 nozzle units. These nozzle units consist of one PU piece and one fitted rubber membrane. These nozzle units permit an optimal distribution of the rising current water over the entire rising current water bottom. Hereby, the water consumption (between 60 - 80 m³ fresh water per hour) for the rising current water will be reduced and the loss of fine sand will be minimised. Further advantages are the simple substitution and low spare part costs.

The control of the parameters in the separator will be carried out by density sensors. An electric evaluation unit controls the hydraulic operated outlet valves upon achievement of particular limits. A low-wear, fail-safe operation is possible with the help of valves out of wear-resistant Ni-Hard. All parameters can be read off the display and can be regulated via keyboard.

The controller is installed on-site which simplifies the regulation of the parameters considerably.

We can deliver the heavy media separator with 3 or 4 outlets; a construction with pneumatic cylinders is also possible.

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