



Wet Drum Separator WDS



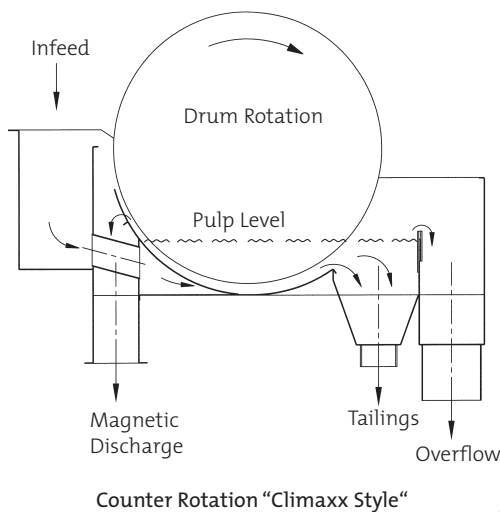
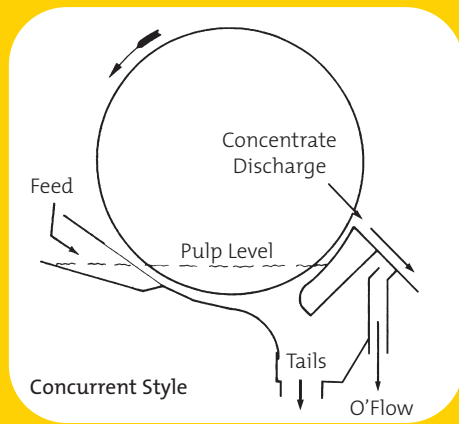
Heavy media • Ore • Beneficiation

Highly functional – easy handling: the wet drum separator manufactured by **Steinert Sturton-Gill** can guarantee, due to its efficient alternating internal pole system, maximum recovery of magnetics in heavy media circuits. WDS permits the recycling of water, magnetite or ferro-silicon. The specific density as well as the magnetic recovery can be adjusted

individually. Other benefits include strongest magnetic fields, maximum field gradients, low maintenance cost, different diameters and working lengths are available, together with maximum economic efficiency. The wet drum separators by **Steinert Sturton-Gill** have been operating worldwide for many years; they are continually optimised and adapted to changing market conditions.

Applications

WDS has been developed to remove very fine magnetic particles from low-concentrated liquid solutions. They are found in ore treatment (mineral beneficiation) and in the treatment of heavy media from coal washeries.



Working principle:

The lower part of a rotating drum manufactured from stainless steel is immersed in a tank passing heavy media. The series of permanent magnets arranged inside the drum generate a high gradient magnetic field, which

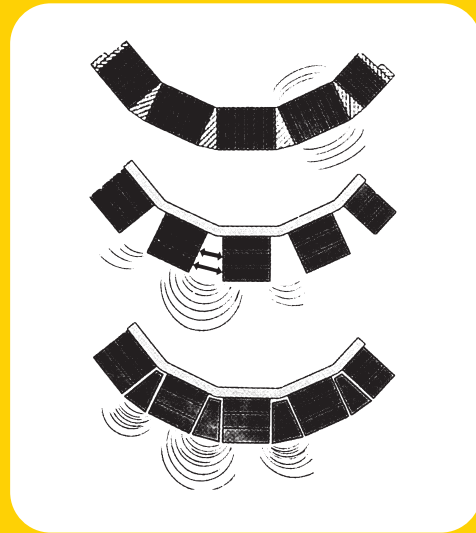
attracts the fine, suspended ferrous particles to the drum surface. As the drum rotates, these particles "flip flop" from pole to pole cleaning the magnetics from non magnetics before discharging at the discharge chute.

The result:

Maximum economic efficiency – optimum results! WDS separates all magnetics from solutions containing solid particles.

Technology

The **Steinert Sturton-Gill** WDS is manufactured from strontium ferrite permanent magnets arranged with alternating poles in a solid drum shell. Its extremely high performance is based on the specific arrangement of the magnets with alternating poles and field-amplifying cross magnets. This construction of alternating cross magnet (ACM) provides maximum field gradients and maximum separation results. This has been proven in hundreds of applications.



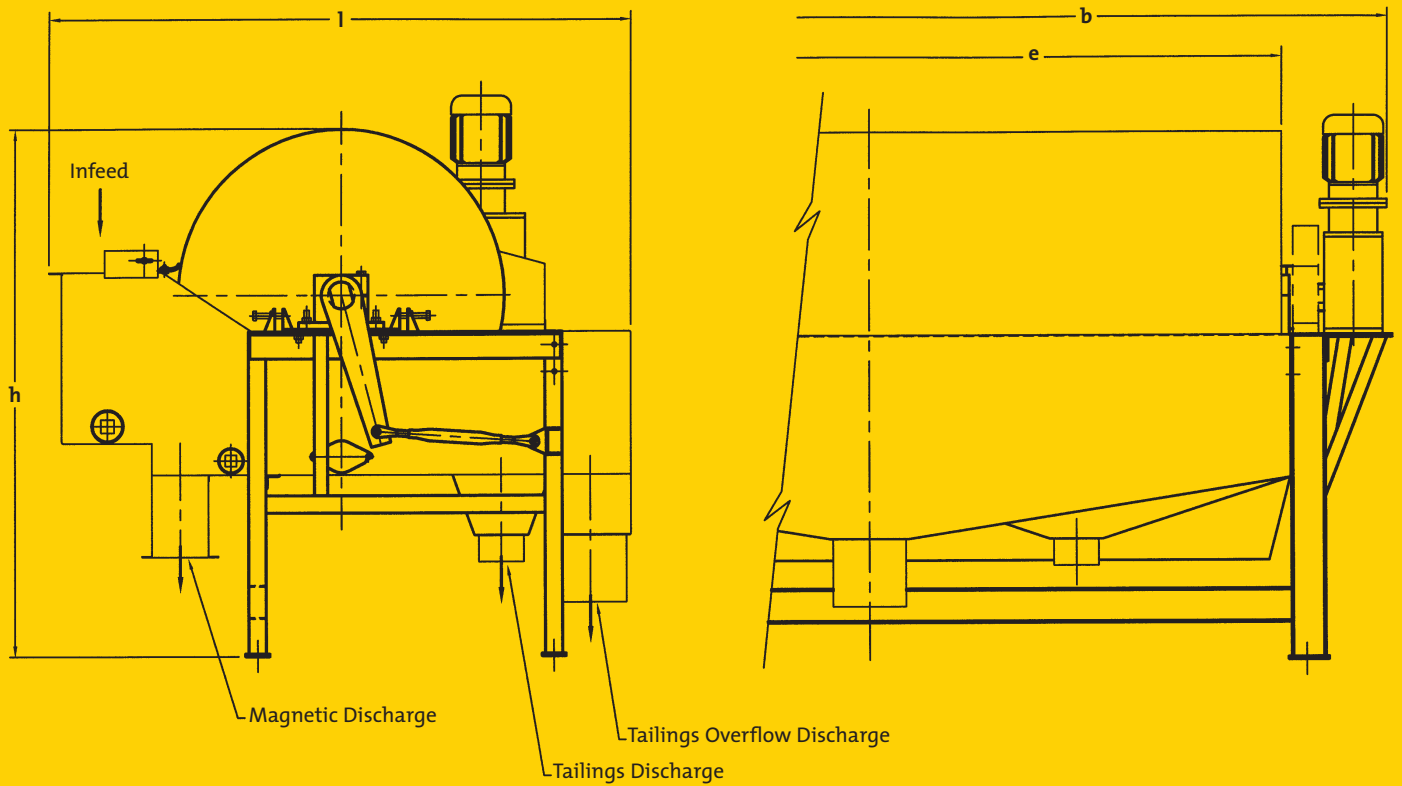
All WDS are provided with an adjustable magnetic element and a solid stainless steel flow-optimised heavy media tank with support frame and discharge chute.

The WDS by **Steinert Sturton-Gill** is available with drum diameters of either 0.915 metres (36") or 1.220 metres (48") and a working length of up to three metres (120"). They are manufactured either in concurrent or counter-rotation design.



Concurrent models are used for general treatment purposes of heavy media, whereas counter-rotation models provide a highly concentrated magnetic product and are commonly used in heavy media coal washing plants. By combining either separators in a back-to-back design or one on top of the other, feed volumes and functioning can be adjusted to individual conditions.

Models



Suspension Magnet



Magnetic Drum



Eddy Current Separator



Induction Sorting System



High Gradient Magnetic Filter



Wet Drum Separator



High Gradient Magnetic Separator



X-Ray Sorting System

Main Dimensions		diameter 915 mm	diameter 1220 mm
Nom Width e	Total Width b	Weight	Weight
mm	mm	kg	kg
3050	3815	2820	4130
2745	3510	2640	3660
2440	3205	2340	3130
2135	2900	2040	2770
1830	2595	1890	2240
1525	2290	1670	2060
1220	1985	1400	1770
915	1680	1180	1540
760	1375	1070	1420
610	1070	960	1300
Counter Rotation			
Total Length l	mm	1918	2185
Vessel Height h	mm	1220	1430
Concurrent			
Total Length l	mm	1640	2015
Vessel Height h	mm	1168	1430

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We conduct tests with your material
 in our R&D department

