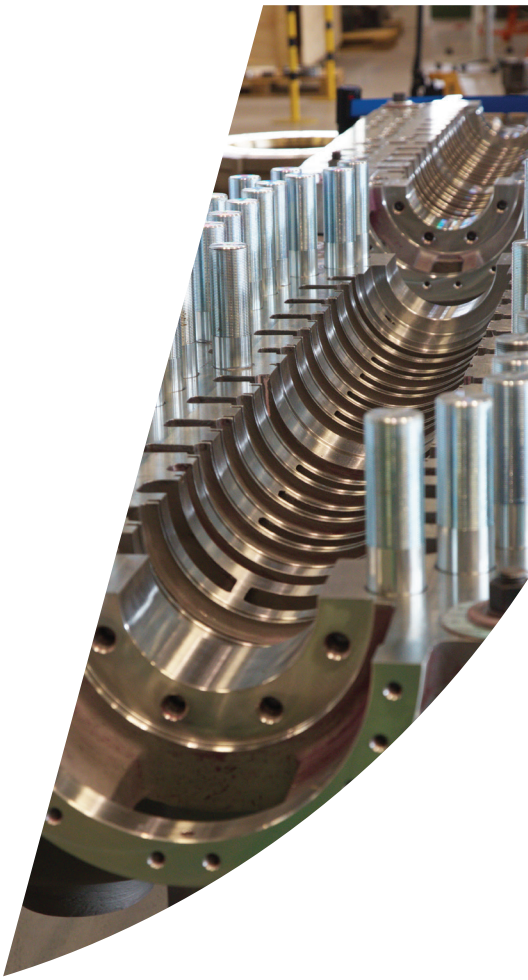
WEMCO®
HYDROGRITTER



TRILLIUM FLOW TECHNOLOGIES™

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WEMCO® HYDROGRITTER® GRIT REMOVAL SYSTEM

A high-performance solution providing consistent, long-term grit removal with low operating and maintenance costs. The Hydrogritter® grit removal system can process from 220 to 1570 GPM. per cyclone at a pressure of 5 to 20 psi, which allows for a grit withdraw rate of ¾ to 8½ tons per hour at a one-percent grit concentration. Typical Hydrogritter® configurations have one to four cyclones per classifier, allowing for maximum flexibility to meet grit removal needs.

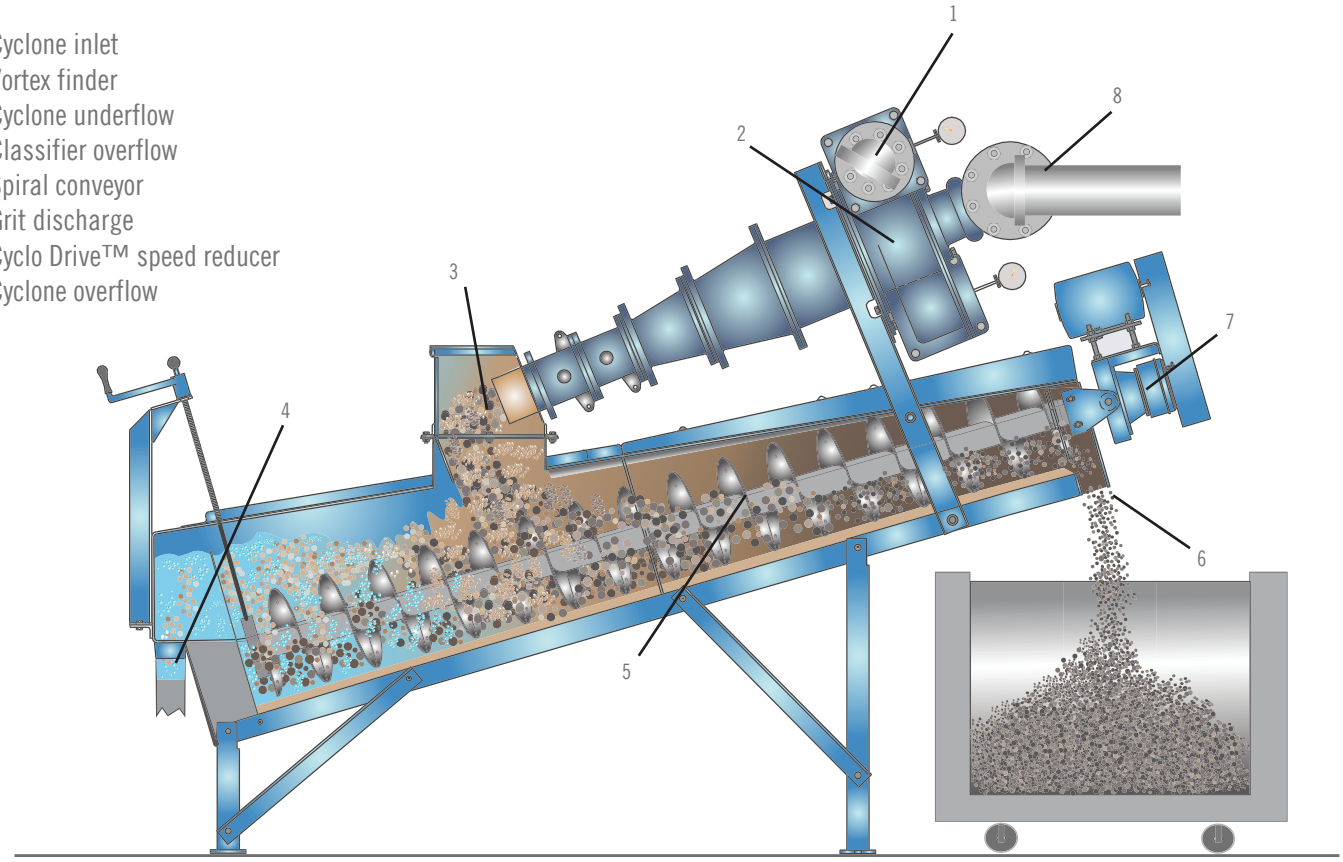
HOW IT WORKS:

Step 1: A rugged, abrasion-resistant WEMCO® pump pulls grit slurry from the grit source and feeds it into the cyclone separator.

Step 2: The grit slurry enters the cyclone of the Hydrogritter® system where approximately 95 percent of the grit is captured and processed through the cyclone. The grit is concentrated into the cyclone underflow, yielding a flow of approximately five percent of feed. The balance of the de-gritted flow exits the top of the cyclone through the vortex finder for further treatment.

Step 3: The grit concentrate from the cyclone underflow discharges to the spiral classifier where the grit is allowed to settle. The settled grit travels up the spiral conveyor where it is de-watered and then discharged as a low moisture product ready for final disposal. The balance, containing light organics and grit finer than 150 mesh, flows over the classifier overflow at the end of the classifier where it can be piped for further treatment.

1. Cyclone inlet
2. Vortex finder
3. Cyclone underflow
4. Classifier overflow
5. Spiral conveyor
6. Grit discharge
7. Cyclo Drive™ speed reducer
8. Cyclone overflow

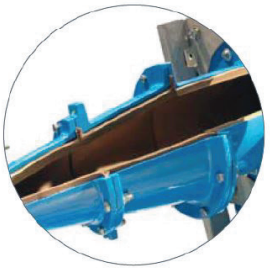


COMPONENTS DESIGNED AS A SYSTEM TO OPTIMIZE EACH PIECE OF EQUIPMENT MECHANICALLY AND HYDRAULICALLY

- Protect downstream equipment from grit damage
- No grit build-up in digesters
- Downtime and grit removal expense minimized
- Proven ability to remove fine (+150 mesh) grit
- Designs available from ½ to 200+ MGD.
- Provisional option for airtight cover/vented exhaust
- No tank wear, spiral runs on bed of sand
- Extensive working life

HYDROGRITTER® CYCLONE - EFFICIENT GRIT SEPARATION AND CONCENTRATION

- The cyclone interior consists of heavy-sectioned natural rubber or neoprene liners for maximum abrasion resistance
- The efficient involute inlet head requires only low-pressure feed from the pump minimizing eddies and turbulences
- A quick disconnect on the apex discharge assembly allows easy and rapid access for inspection or maintenance



HYDROGRITTER® CLASSIFIER - OPTIMUM GRIT CAPTURE AND DEWATERING

- Heavy-walled spiral shaft, with protective wear shoes, up to ¾ inch thick Ni-Hard in larger sizes
- No tank wear. Spiral is suspended between two bearings, operating with a bed of sand between the screw and the tank, improving dewatering and eliminating tank wear common with shaftless conveyors
- Reliable power train
- Grit-proof lower bearing requires only yearly inspection
- Cyclo Drive™ roller reducer, provides excellent reliability and overload/shock tolerance requiring only yearly inspection

TYPICAL HYDROGRITTER® INSTALLATION

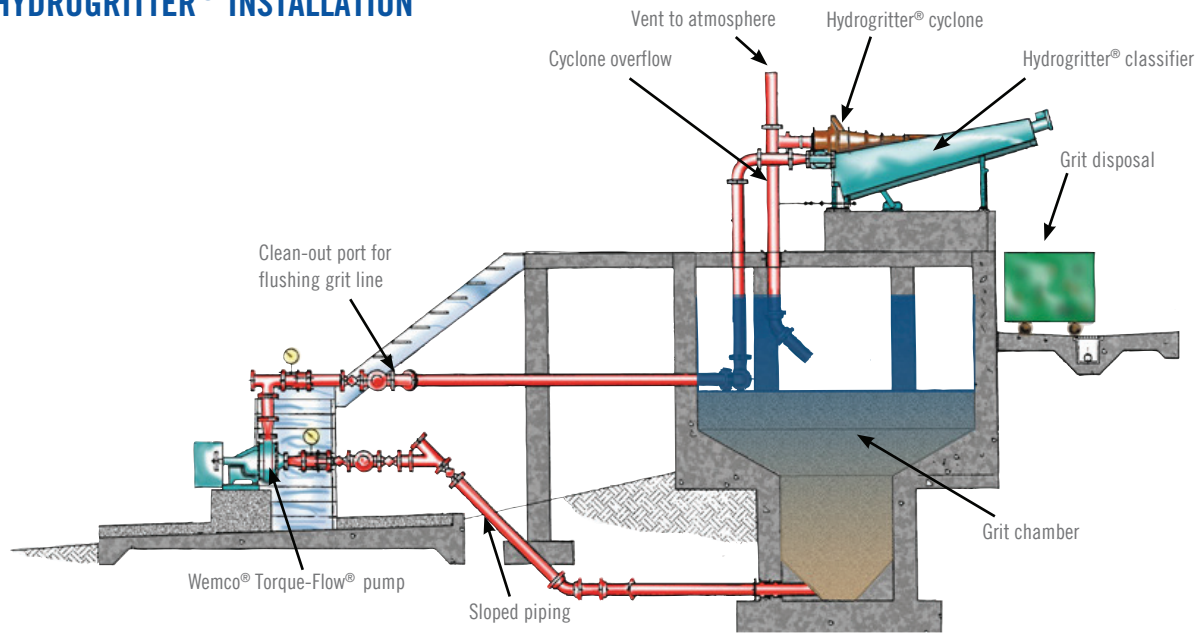


CHART I - CYCLONE SELECTION

INLET PRESSURE PSI (FT)	MODEL 1000C		MODEL 1500CA		MODEL 2000CA	
	INLET GPM	U'FLOW GPM	INLET GPM	U'FLOW GPM	INLET GPM	U'FLOW GPM
5 (11.5)	220	15	420	32	700	60
10 (23.1)	305	16	600	28	960	50
15 (34.6)	375	18	730	28	1280	50
20 (46.2)	435	20	840	28	1570	60
Vortex Finder	4 inch		6 inch		7.5 inch	
Apex	2 inch		3 inch		4 inch	
Inlet/Overflow	4x6 inch		6x8 inch		8x10 inch	

Specific applications may require different apex/vortex finder combinations.
Consult Trillium Pumps USA for details.

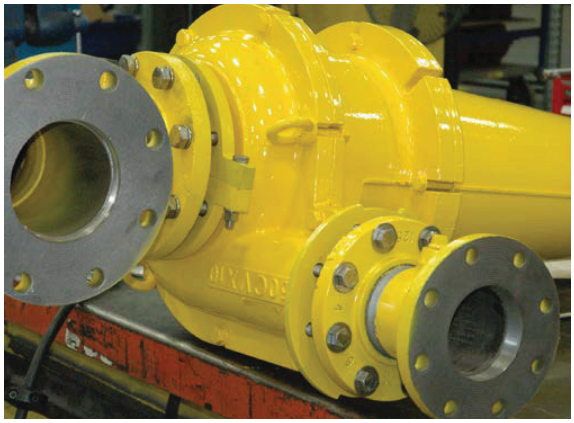
CHART 2 - CLASSIFIER SELECTION

CLASSIFIER SIZE & TANK TYPE	HP	CYCLONE UNDERFLOW GPM			MAXIMUM RAKING		MINIMUM POOL AREA SQ. FEET	WEIR LENGTH FEET
		65 MESH GPM	100 MESH GPM	150 MESH GPM	RPM	TPH		
12 in S	½	25	17	15	12	¾	6	1.1
F		49	32	24			8.3	2.4
18 in S	1	57	37	28	8	2	13.8	1.7
F		107	70	52			19.9	3.7
24 in F	2	190	125	94	6	4	36	5.0
30 in F	3	310	202	140	4	5	54	6.2

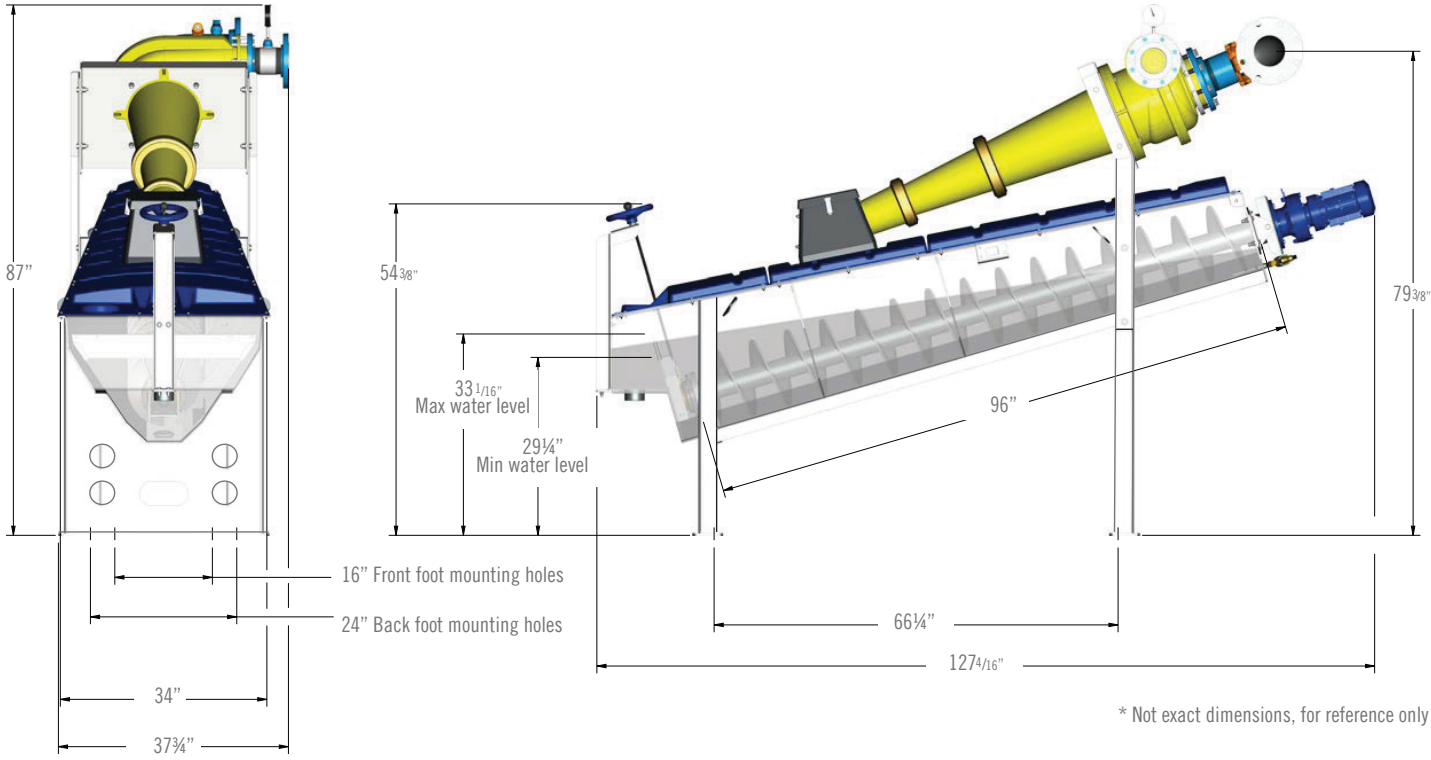
Refer selection of larger unit to the factory.

WEMCO HYDROGRITTER® II
THE NEXT GENERATION OF GRIT REMOVAL

The next generation of grit removal with the performance you expect, the WEMCO® Hydrogritter® II grit removal system removes grit larger than 150 mesh (105 micron) with a specific gravity of 2.65 or greater. It is also capable of removing up to ¾ tons of grit per hour.

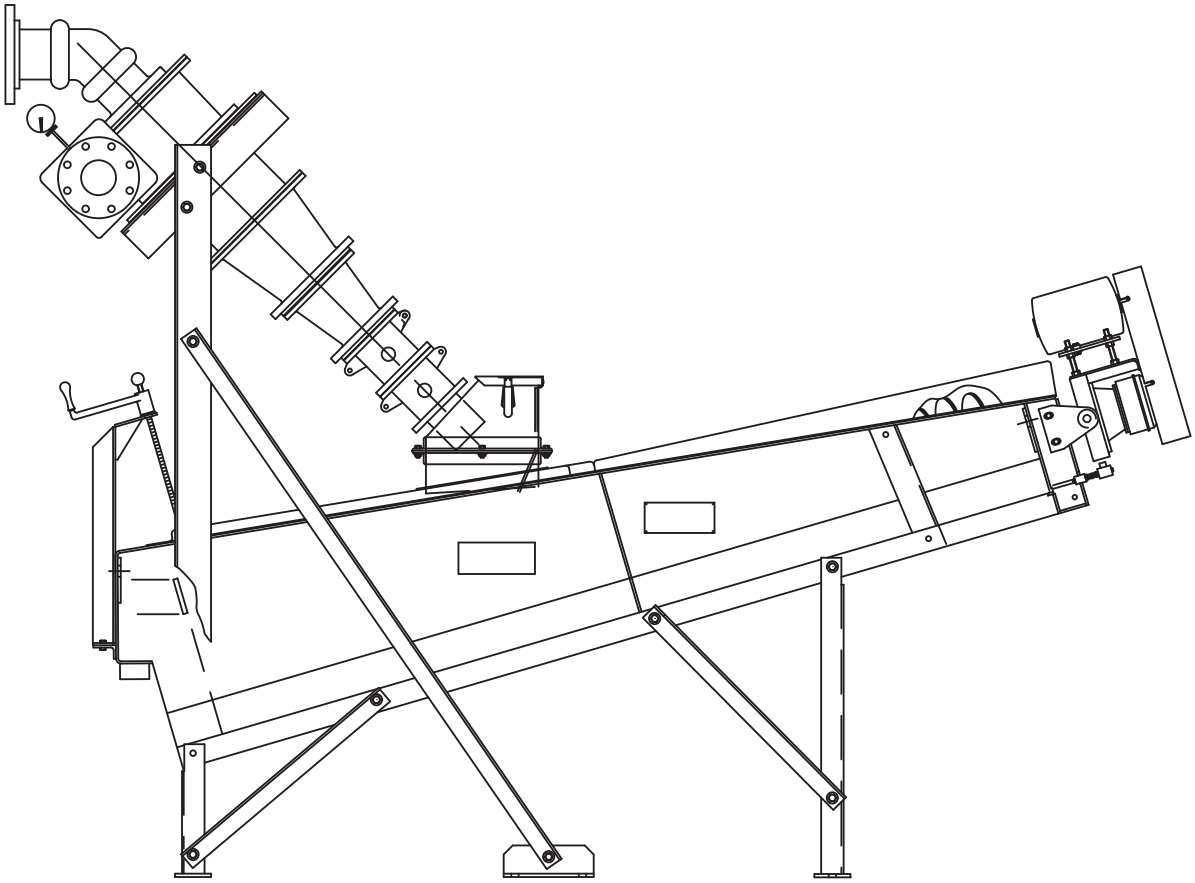


- Improved tank design delivers proven Hydrogritter equipment performance
- Featuring a standard 12-inch diameter, 3/8-inch thick heavy duty steel spiral
- Three piece lightweight cover improves inspection capability
- Tank and spiral available in steel or stainless steel
- Meets seismic Zone 4 specification
- Integrated Cyclo Drive™ motor eliminates the need for belts
- Improved hand wheel design simplifies spiral and lower bearing inspection
- Cyclone interior consists of heavy-sectioned natural rubber liners for maximum resistance (replacement liners available)
- Grit or classifier overflow end configuration available
- Standard design eliminates engineering and improves delivery times
- Cyclone requires 250 gpm at 10 psi inlet pressure



* Not exact dimensions, for reference only

WEMCO® HYDROGRITTER® II
THE NEXT GENERATION OF GRIT REMOVAL



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