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# Aqua-Swirl™ - Grit Separator



A DESCRIPTION AND INTRODUCTION TO THE  
AQUASHIELD INDUSTRIAL GRIT SEPARATOR



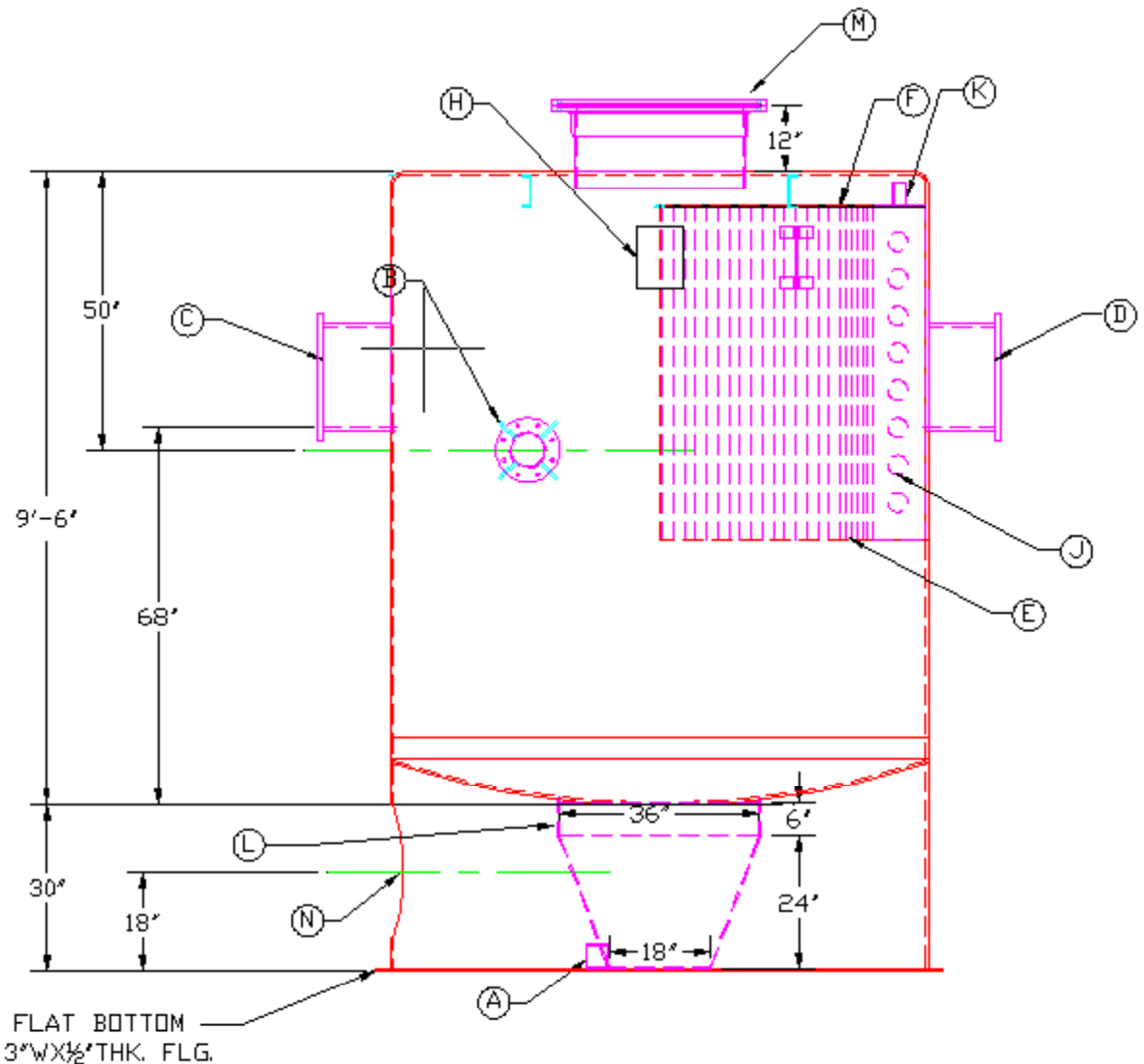
# Description

- Enters via tangential pipe.
- Utilizes gravitational & hydrodynamic drag forces.
- Solids collect in grit sump.
- High flow rates.
- Scum port allows floatable debris and oil to exit.

# GS-8 Profile View

N	2	24"DIA. ACCESS CUTOUTS
M	2	30" DIA. MANWAY ASSEMBLIES W/ BLIND, GASKET & Z.P. BOLTS
L	1	36"DIA. FRP SUMP
K	1	2"DIA. SCH40 PVC VENT PIPE
J	1	BAFFLE SPACER
H	1	AQUASHIELD INFO LABEL
G	4	GALV. STL. LIFTING LUGS
F	1	FRP BAFFLE CAP
E	1	FRP BAFFLE
D	1	18"DIA. X SDR35 PVC STUB.
C	1	18"DIA. SDR35 PVC STUB.
B	1	6"DIA.FRP F.F.FLG.W/BLADE GUS.
A	1	4"DIA. FRP THRD. HALF CPLG.
ITEM QTY. DESC.		

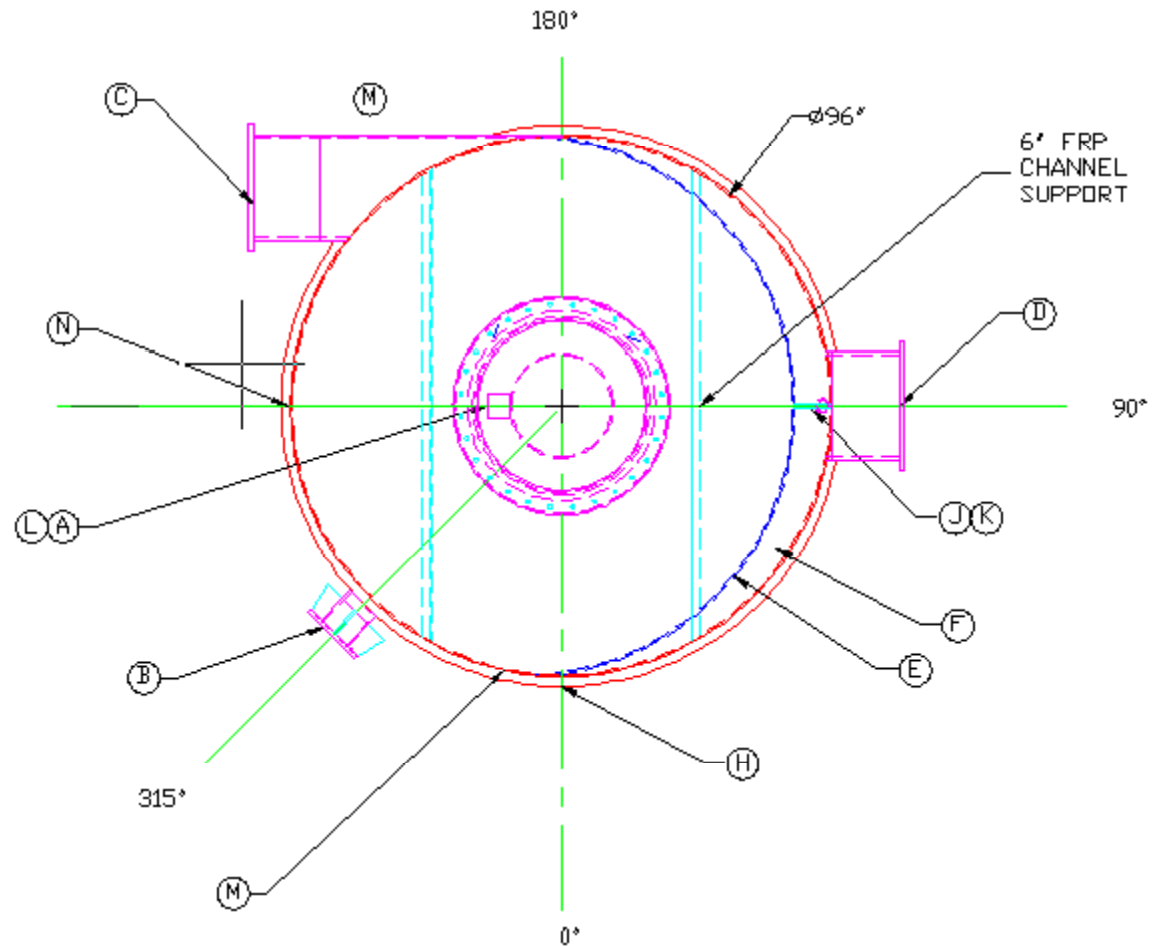
Model	ID (ft)	Treatment Flow (MGD)	Peak Flow (MGD)
GS-8	8.0	1.8	7.2



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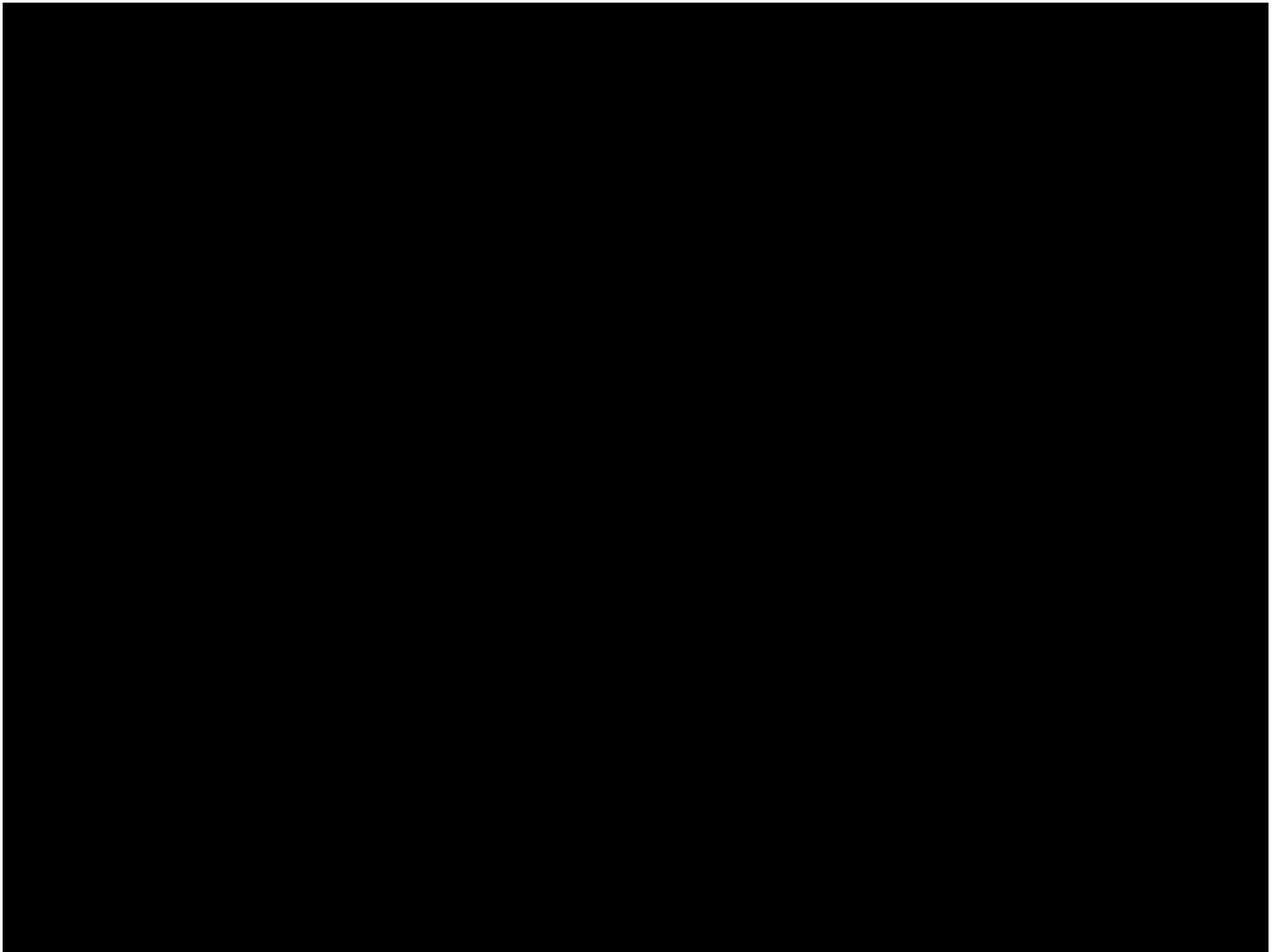
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PLAN VIEW

# OVERVIEW OF AQUA-SWIRL™ GRIT SEPARATOR SYSTEM

- Protects downstream mechanical equipment.
- Reduces heavy deposits in pipelines & conduits.
- Reduces frequency of digester cleaning.
- Provides increased performance of system
- Lowers maintenance costs
- Provides cleaner effluent discharge



# Benefits



## **Each Aqua-Swirl™ is constructed of Fiberglass Reinforced Plastic (FRP)**

### •**Modular**

- Each system is customized and fabricated for the specific project

### •**Lightweight**

- The system can be installed without the need for heavy lifting equipment
- Easier and safer to handle while complying with ASTM-3753

### •**Durable**

- No moving parts
- FRP structures should last about 20 – 30 years if properly installed and operated.
- The structures contain a UV inhibitor in the gel coat
- The structure will not have to be relined during the life of the structure
- The deterioration rate of fiberglass, under the most severe conditions, is one tenth of 1 percent in 30 years

### Aqua-Swirl™ Grit Separator Sizing Chart

Model	Chamber Ø (ft)	Chamber Depth (ft)	Inlet/Outlet Ø (in)	*Treatment Flow (MGD)	**Peak Flow (MGD)
GS-2	2.5	3	8	0.2	0.5
GS-3	3.5	7	10	0.3	1.0
GS-4	4.5	7	12	0.6	1.9
GS-5	5.0	7.5	12	0.6	2.5
GS-6	6.0	7.5	14	1.0	4.0
GS-7	7.0	7.5	16	1.4	5.5
GS-8	8.0	7.7	18	1.8	7.2
GS-9	9.0	8.5	20	2.3	9.2
GS-10	10.0	9.3	22	2.8	11.3
GS-12	12.0	10.8	24	4.1	16.3

**\*80% removal of 140 mesh particles.**

**\*\*80% removal of 70 mesh particles.**

# Conclusion



- **MODULAR**

- Each system custom fabricated for the specific project

- **LIGHTWEIGHT**

- System can be installed without the need for heavy lifting equipment

- **DURABLE**

- FRP structures will last 20 – 30 years if properly installed and operated.

- **DEPENDABLE**

- Documented 80% removal of 140 mesh grit.