

A Subsidiary of JASH ENGINEERING LTD.



# **PROCESS EQUIPMENT** FOR MUNICIPAL & INDUSTRIAL WATER & WASTE WATER TREATMENT PLANTS



# **VORTEX GRIT MECHANISM**

Accredited with ISO 9001:2015, ISO 14001:2015 & BS OHSAS 18001:2007







The screened influent enters tangentially and flows around the upper chamber. Rotating paddles augment the spiraling flow to create a mechanically induced Vortex which settles the grit, pass it to the center opening of the fixed floor plate for collection in the lower chamber.

Equipment for

Waste Water Industry



The grit solids are removed from the lower chamber by an air lift or recessed impeller pump for further washing and dewatering. Driving unit consists of an internal toothed bearing, pinion and gearmotor enables reduction in motor speed to the desired level. Heavy duty central shaft coupled to the toothed bearing, complete with properly shaped rotating paddles.

# **GRIT CLASSIFIER**

Grit Classifiers are used to remove grit from water. Shaftless Screw Conveyor is provided with a sedimentation hopper to create cyclonic effect, including inlet / outlet flanged spouts. Grits flows through the Vortex hopper, and the settled grit is separated by the screw and conveyed to the discharge point. The excess sewage flows through the tangential exit back to the main stream.









# **TECHNICAL SPECIFICATION**

JASH Vortex mechanism has consistent grit removal efficiency as specified in below table.

PARTICLE SIZE	GRIT REMOVAL EFFICIENCY	Constant rotational velocity is maintained inside the JASH			
200 μ	>95%	Vortex chamber by the rotating paddle for providing consistent Grit removal Efficiency.			
150 μ	>90%	JASH Vortex Mechanism designed to promote solid migration to			
100 μ	>75%	the centre and finally to the Grit Collection Chamber, while lighter materials are float upwards.			

# **FEATURES**

- Efficient design with typical flow pattern JASH vortex mechanism minimizes the power requirement.
- Compact/robust design, simple in operation.
- Short circuiting is eliminated by tangential flow pattern which allows media to flow 270 degree. \*
- Conical hopper design helps to achieve faster grit settling rate & higher grit discharge rate. \*
- \* Wide-spread manhole design at top of hopper helps to clean and maintain the unit easily.
- \* Smooth & energy efficient JASH vortex drive is built to serve for years.
- Carefully engineered air lift mechanism helps to displace grit from Vortex chamber to grit hopper. \*
- We also supply energy efficient grit pump in place of air lift mechanism as an alternative technology. \*
- Suitable VFD for vortex drive shall be selected and supplied separately if demanded.

Model JV Series	JV-40	JV-100	JV-150	JV-250	JV-350	JV-500	JV-750	JV-1200
Max Flow m <sup>3</sup> /Day	4000	10,000	15,000	26,500	35,000	45,000	75,000	1,20,000
Grit Chamber Diameter (m)	1.9	2.2	2.5	3	3.4	3.7	5	6.5
Power (HP)	0.5	0.5	0.75	1	1	1.5	2	3

## **JASH VORTEX SERIES – JV**







#### **Quality Through Manufacturing Excellence**

Jash has invested in a modern & diversified manufacturing facility to enable it to manufacture all its products in-house. With almost 450,000 square feet of built up area under cranes, Jash has the capability to cast products up to 18 tonnes in weight, machine components up to  $10m (32') \times 5m (16') \times 2m (6')$  size & fabricate products weighing 60 tonnes using qualified welders & processes.

Availability of such an extensive and diversified manufacturing facility ensures reliable quality, timely delivery and ability to meet specific needs of our customers.

With over 75 engineers and 450 employees spread across India, USA, Australia & Hong Kong, Jash is well positioned to meet the varied needs of its clients in various markets worldwide.

Installation in over 35 countries are a testimony to our manufacturing excellence and ability to meet quality expectation of our clients.

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