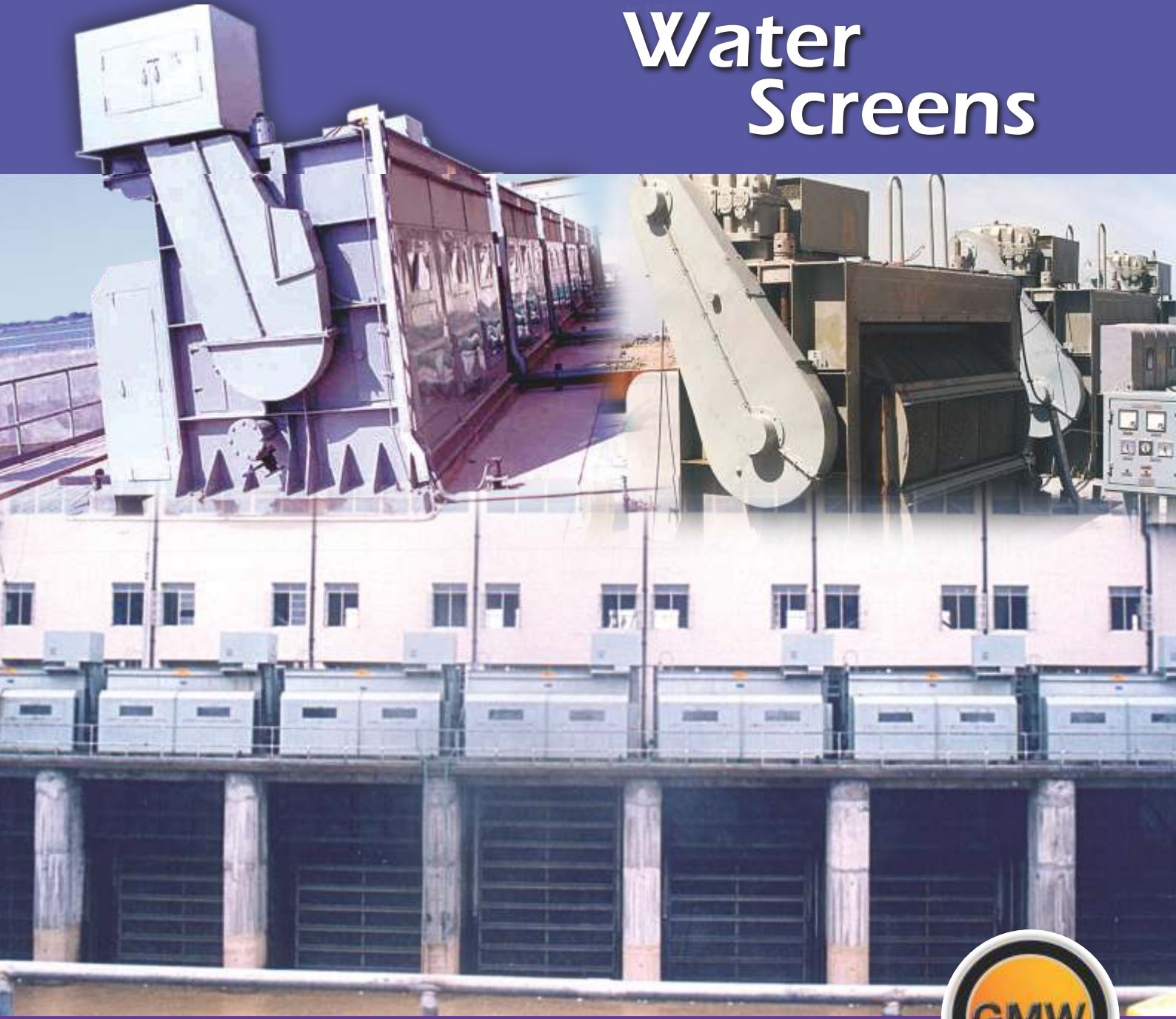


Water Screens



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GENERAL MECHANICAL WORKS PVT. LTD.

An ISO 9001 : 2008 Certified Company



Water Screens

Travelling Water Screens are usually employed where large volumes of water must be screened to remove floating and suspended materials that can damage downstream pumps and equipment.

Due to vertical construction, the Travelling Brand Screen requires only a small installation area. Hence, placed where the total construction length of cleaning installation is to be restricted.

Since 1983, we have installed screening equipment for a variety of applications including power plants, water treatment plants and irrigation projects.

Irrespective of raw water conditions, environmental requirements or other site specific conditions we provide customized designs offering the greatest fit to specific application.

These screens have found extensive application in power plants, chemical plants, desalination plants, irrigation channels, raw water intakes and make-up water plants.

Equipment engineered for reliable, economical and efficient duty at intake.

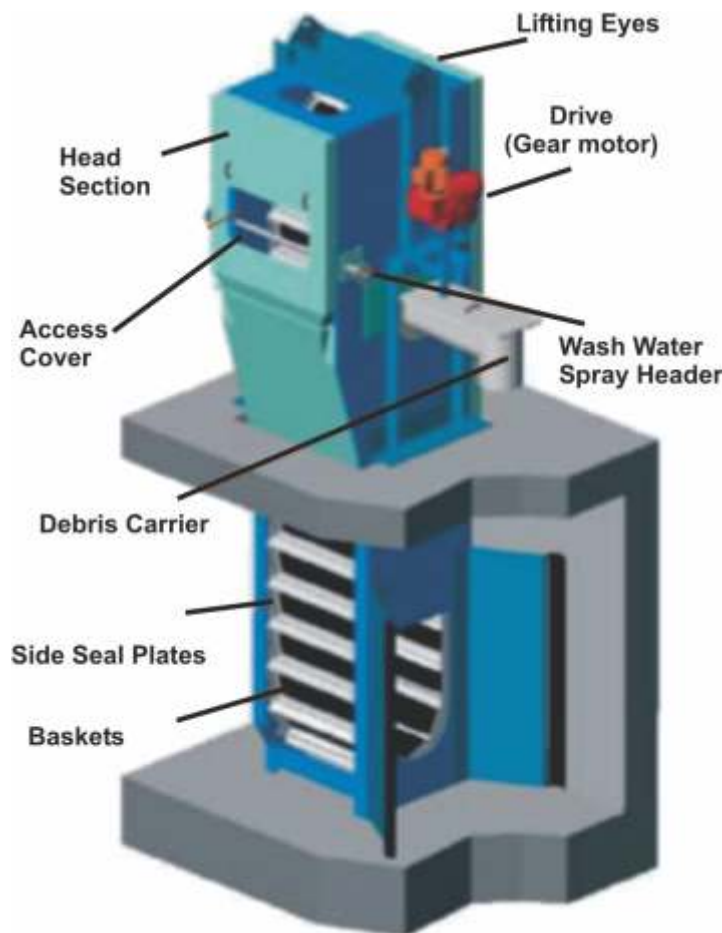
Thru Flow Screens

Rugged equipment placed with submerged screening surface perpendicular to flow of water. Baskets are mounted on two endless strands of chains. As raw water passes through the baskets on ascending side, debris are filtered out. On activating the machine, baskets travel upwards and are washed with high pressure water jets and debris are washed into a deris through.

Baskets have broader lower member to support more amount of debris hence improves efficiency.

Flexible neoprene rubber seals are provided for finer mesh to prevent debris passing through the screen.

Depending upon requirement of screen, mesh can be made from fine screen of 2 x 2 mm to 10 x 10 mm.



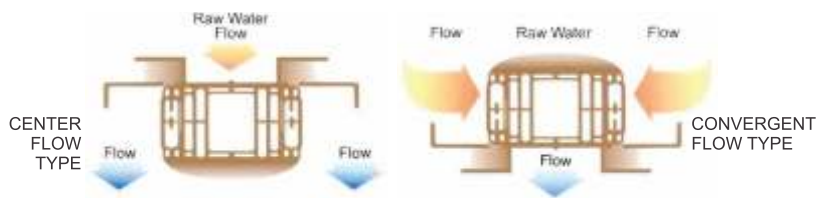
TYPICAL PULL OUT TYPE TBS

High safety

Fully Automated machines with controller for chain tension, head loss conditions or alarms operation can be either timer based or differential based. All components above water level are covered by FRP covers, eliminating exposure to moving parts. Overload protection is provided for motor, to prevent damage due to overload.

Debris Removal

Special wash water system, along with spray nozzles for creating high velocity jet of water, is effective for cleaning of baskets. Self cleaning filters are provided to prevent clogging of nozzels. Larger flow for each nozzle, to remove jelly fishes and other difficult to remove debris.



Dual Flow Machines

The machine is placed parallel to direction of flow of water. Some of the salient features are:

- ▶ High capacity per width ratio
- ▶ Carry over prevented
- ▶ Screen width upto 4 mts. & depth 20 mts.
- ▶ Easy removable of panels for ease of maintenance
- ▶ Highly efficient sealing to prevent screening transfer down- stream.

In **Center Flow Machines**, water enters from one end of the unit and then passes in outward direction through all the submerged baskets.

Debris collected in mesh are raised to deck level and washed by backwash water system into a debris through.

In **Convergent Type Machine**, water passes from outside inwards and exits from the opening provided in the wall.

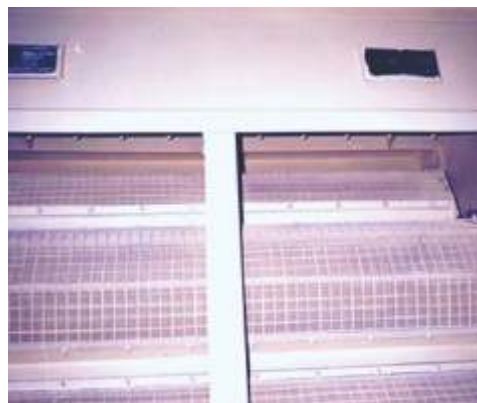
Utilizing the above concept all the baskets submerged in water are used for screening of water.

Hence for same chamber of certain width, much larger screening area is available.

Also with this design, only one side is exposed to raw water and other side is always clean, eliminating the problem of debris carry over.



Specially Designed Baskets



This arrangement provides larger screening area along with maximum basket volume for debris collection and removal, hence maximizing efficiency of system. Also has

inherent advantage of protecting those living organism that enter intake area as it lifts them out with its special basket shape elements.

Jelly Fish Handling

- ▶ Specially designed continuous chain raked bar screens provided
- ▶ Ideal solutions for handling colonies of jelly fishes
- ▶ Rigid construction for better performance and maintenance free life
- ▶ complete stainless steel construction for longer life

Ancillary Equipment

We supply all the equipment needed for complete screening solutions:

- ▶ Coarse / Bar Screen
- ▶ Continuous chain raked bar screens
- ▶ Local or Centralized control systems
- ▶ Washwater Pumps and Pipework
- ▶ Automatic raking mechanism
- ▶ Manual or Automatic Strainers
- ▶ Isolating Stoplog Gates



WE ALSO EXECUTE ON EPC BASIS

INTAKE EQUIPMENT	: Travelling Water Screens, Trash Racks, Bar Screens, Stoplog Gates, Mobile Cleaning Machines.
PIPING SYSTEM	: Piping Systems of Low Pressure, Fire Protection System, F.O. and Large Dia Piping for Thermal and Hydro Electric Projects.
STRUCTURAL STEEL	: Fabrication and Erection of Heavy Steel Structures for Station Building, Coal Bunker, Switchyard etc. of Power Plants.
TANKS	: Floating roof and fixed roof Storage Tanks for Fuel Oil, D.M. Water, Lube Oil, etc.
HYDROMECHANICAL EQUIPMENT	: Vertical Lift Fixed Wheel Gates, Radial Gates with Rope Drum Operated or Hydraulically Operated Hoists for Barrages, Dams, Power Houses.
BALANCE OF PLANT (BOP)	: Design, Supply and Installation of BOP Systems for Power Plants.

SOME OF THE MACHINES INSTALLED

Sr. No.	Name of Customer	Brief Description of Work and Name of Project	Consultant
01	ITT Corporation India Pvt.Ltd.	5 Nos. Travelling Water Screens for Coastal Energen Project (Under Execution)	TCE
02	Kirloskar Brothers Ltd. Pune.	Intake Water Screening Equipment System for Pump House of CCW & ASW at IGCAR BHAVANI Project at Kalpakkam.	Fichtner
03	Bharat Heavy Electricals Ltd. Noida	i) (2) Sets of Travelling Band Screens for KOSTI SUDAN TPP. ii) (2) Sets of Travelling Band Screens for Pipavav CCPP. iii) (2) Sets of Travelling Band Screen for 1 x 500 MW UKAI TPS. iv) (2) Sets of Travelling Band Screens for 2 x 270 MW For Sikka TPS.	BHEL TCE TCE TCE
04	Andhra Pradesh Power Generation Corporation Ltd., Hyderabad	3 Nos. Travelling Water Screens, 1 No. Suspended Monorail Trash Rack Cleaning System at Vijeswaram- GTPS - Stage - II.	TCE
05	Andhra Pradesh Power Generation Corporation Ltd., Hyderabad.	7 Nos. Travelling Water Screens with auxiliaries for Vijayawada TPS Cooling Water System Augmentation.	Desein
06	Larsen & Turbo Ltd., Chennai	12 Nos. Travelling Water Screens & 24 Nos. Coarse Screens at TAPP 3 & 4, Tarapur of NPCIL.	NPCIL
07	Navayuga Engineering Co.Ltd. Visakhapatnam	Stop Log Gates, Trash Racks, Travelling Water Screens and Automatic Cleaning Device for Simhadri TPP Stage-I (2 x 500 MW) of NTPC.	Fichtner
08	Navyuga Engg. Co. Ltd Hyderabad	Travelling Water Screens, Stop Log Gates, Trash Rack & Mobile Trash Rack Cleaning Machine with Spares, Tools & Tackles, etc. for CPCL.	--
09	Andhra Pradesh State Elect. Board Hyderabad	4 Nos. Travelling Water Screens for Vijayawada Thermal Power Project Stage-I.	APSEB
10	Lanco Industries Ltd. Tirupati	3 Nos. Travelling Water Screens, Trash Racks, Stoplog Gate & Coarse Screen for 355 MW (ISO) CCPP Kondapalli Power Ltd.	Fichtner
11	Nuclear Power Corp. of India Ltd., Mumbai	2 Nos. Travelling Water Screens for Tarapur Atomic Power Station Tarapur.	NPCIL
12	Andhra Pradesh State Elect. Board Hyderabad	8 Nos. Travelling Water Screens for Vijayawada Thermal Power Project Stage - III.	Desein



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VADODARA (HQ)

885, GIDC Industrial Estate, Makarpura, Vadodara - 390 010, India.

Ph.: +91-265-2642077, 2643453, 2645451, Fax: +91-265-2638791, E-mail: gmw@gmw.in

BRANCHES

- **Noida:** +91-120-4211323-25 / gmwd@gmw.in
- **Chennai:** +91-44-42253333 / gmwc@gmw.in
- **Bangalore:** +91-80-41317224 / gmwb@gmw.in
- **Hyderabad:** +91-40-65174207 / bsr@gmw.in
- **Pune:** +91-93-70187475 / gmw@gmw.in
- **Siliguri, West Bengal:** +91-94-75534931 / sk@gmw.in
- **Bhutan:** 00975-17666258 / gmw@gmw.in
- **Ahmedabad:** +91-99-74088373 / gmw@gmw.in