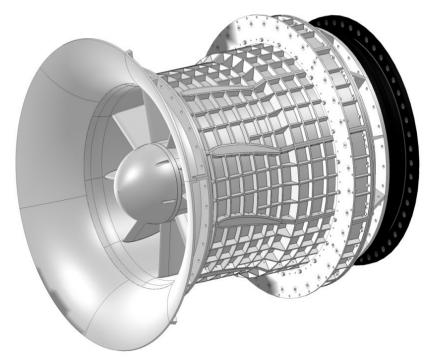
AMJET Turbine Systems, LLC THE ATS-63 LOW-HEAD TURBINE/GENERATOR





ATS-63 turbine/generator with 63-inch diameter intake

- Power Range Selectable from 200 to 2,500 kW
- Net Heads from 8 42 ft; Flows from 310 925 cfs
- Light Weight, Composite, Modularized, Mass-Produced
- Corrosion-Free Materials, Operates Under Water
- One Moving Part -- No Mechanical Controls
- Electronic Flow Control Efficient Over Operating Range
- Overhaul or Replacement in One Day
- Low Cost, Fast Installation; No Cofferdam
- Simple Civil Works
- Delivery by Standard Truck or Container

Description

The ATS-63 series hydro turbine/generator combines the turbine and generator functions in a single housing, thereby producing an in-line unit that can be suspended in a conduit or placed on a bulkhead. The unit is made of high-strength, engineered composite components, reducing weight and eliminating corrosion. The resilient water-contact surfaces diminish erosion and reduce damage from small objects passing through the system. Power generation is by a brushless DC rim generator providing a very power-dense, low-weight, compact unit. Mechanical flow control surfaces are eliminated. Flow control is obtained electronically in a more efficient manner, producing efficient performance over a wide range rather than just the "sweet spot" of conventional systems. A 1/8-scale model was tested and validated by the University of lowa, confirming the basic approach and performance capability of the ATS-63.

Installation

The ATS-63 series hydro turbine/generator, because of its compact size and low weight, has its own lifting mechanism to move the unit from an operating position to a maintenance position in which any part or the complete unit can be serviced or replaced in one day. In-line placement avoids the need for foundations, and a small footprint allows installations in locations otherwise impossible. Power delivery to the grid is done through an inverter specially adapted to operate in conjunction with the DC generator. The unit includes a control system that integrates operational data and accepts control commands for maintaining the pool level. ATS will maintain a central control station via the internet which monitors all ATS units in operation and includes automated early-warning signals and controls to alert local operators.

ATS-63	Power Net Head		ad	Flow		Dim. ID		Dim. OD		Dim. Length		Weight	
Series	kW	Ft m	1	cfs	m3/s	in.	m	in.	m	in.	m	Lb.	kg
63-200	200	8 2.4	4	395	11.19	63	1.60	90	2.30	64	1.63	3960	1797
63-400	400	13.5 4	.11	500	14.16	63		90		64		4550	2064
63-600	600	16 4.	88	580	16.42	63		90		64		5250	2382
63-900	900	21 6.	40	660	18.69	63		90		64		5940	2695
63-1200	1,200	25.5 7.	.77	725	20.53	63		90		64		6680	3030
63-1500	1,500	30 9.	14	780	22.09	63		90		64		7960	3611
63-2000	2,000	36 10	.97	860	24.35	63		90		64		9300	4219
63-2500	2,500	42 12	.80	925	26.19	63		90		64		11,850	5375

(all data approximate and subject to change)

AMJET Turbine Systems, LLC (ATS) has a manufacturing facility in Keokuk, lowa to produce the ATS-63 series hydro turbine/generator. Detailed specifications are available on request; please provide detailed application head and flow data.

AMJET Turbine Systems, LLC

AFFORDABLE, RENEWABLE POWER

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