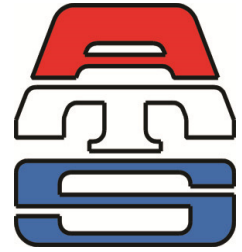


AMJET Turbine Systems, LLC

THE ATS-8 MICRO LOW-HEAD TURBINE/GENERATOR



ATS-8 turbine/generator with 8 inch internal diameter

- Power Range Selectable from 3 to 40 kW
- Head (net) 7 to 42 ft and Flows from 7 to 16cfs
- 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 Less than a Day
- Low Cost, Fast Installation; No Cofferdam
- Simple Civil Works; Delivery by Standard Truck

Description

The *ATS-8* 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 full scale model was tested and validated by the University of Iowa, confirming the basic approach and performance capability of the *ATS-8*.

Installation

The *ATS-8* series hydro turbine/generator, because of its compact size and low weight, can be lifted to move the unit from the operating position to a maintenance position in which any part or the complete unit can be serviced or replaced in half a 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.

<i>ATS-8</i> series	Power (kW)	Net Head		Flow		ID		OD		Length		Weight	
		(ft)	(m)	(CFS)	(m3/s)	(in)	(m)	(in)	(m)	(in)	(m)	(lb.)	(kg)
8-3	3	7	2.2	6.5	0.18	8	0.21	15	0.38	36	.91	140	63.5
8-5	5	12	3.7	7.9	0.23	8		15		36		140	63.5
8-10	10	17.2	5.3	9.5	0.27	8		15		36		140	63.5
8-15	15	21.9	6.7	11.0	0.31	8		15		36		155	70.3
8-20	20	26.0	7.9	12.6	0.36	8		15		36		155	70.3
8-25	25	31.3	9.6	13.3	0.38	8		15		36		166	75.3
8-30	30	34.9	10.7	13.9	0.40	8		15		36		166	75.3
8-35	35	38.0	11.6	14.5	0.42	8		15		36		166	75.3
8-40	40	42.0	12.8	15.2	0.43	8		15		36		166	75.3

(all data are approximate and subject to change)

AMJET Turbine Systems, LLC (*ATS*) has a manufacturing facility in Keokuk, Iowa to produce the *ATS-8* series hydro turbine/generator. Detailed specifications are available on request; please provide detailed application data such as head and flow conditions.

AMJET Turbine Systems, LLC

AFFORDABLE, RENEWABLE POWER

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