



Energy Recovery Hydropower

208 kW Variable Flow IRT12
Palmdale, California

Generate Power from New and Existing Water Delivery Networks

Canyon Hydro offers complete hydroelectric equipment packages for in-conduit energy recovery applications.

Potential generation sites may be found in any raw, drinking, or waste water network. The electricity generated can be used on-site to offset facility needs or sold to local utilities for profit.

Common applications are at flow or pressure control locations. Standard equipment packages include all components required to recover lost energy.



256 kW Variable Flow ILT12
Sheridan, Wyoming

Complete Customizable Systems

Canyon Hydro's In-Line Turbines Systems are specifically engineered for conduit energy recovery applications. With variable flow capabilities and an extremely compact footprint they integrate seamlessly into both new and existing water delivery networks.

Simplified Integration

- All Required Components Included
- Compatible with Any Existing SCADA System
- Controls Configured to Customer Specification
- Multiple Turbine Sizes for Standard Pipe Diameters
- Interconnection for Local Utility Requirements

Worry Free Operation

- Water Delivery Always Prioritized
- Smooth Startup and Shutdown
- Gentle Transitions between Flow Rates
- Adjustable Variable Flow Capacity
- Precision Pressure Differential Control
- Secure Remote and Local Operation
- Utility Grade Controls and Interconnection
- Double Fail-Safe Configuration Standard
- System Battery Backup Available

Available System Services

- Mechanical Installation by Canyon Hydro Millwrights
- Equipment Start-up, Testing, Commissioning and Training
- Ongoing Phone Support and Troubleshooting *
- Standard 1-Year Equipment Warranty *
- Optional 2-Year Equipment Warranty
- Maintenance Contracts

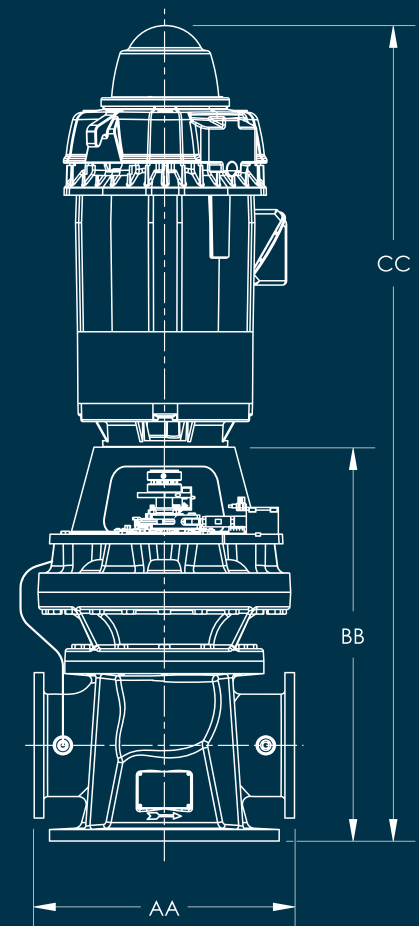
* Included with purchase



Standard In-Line Turbines

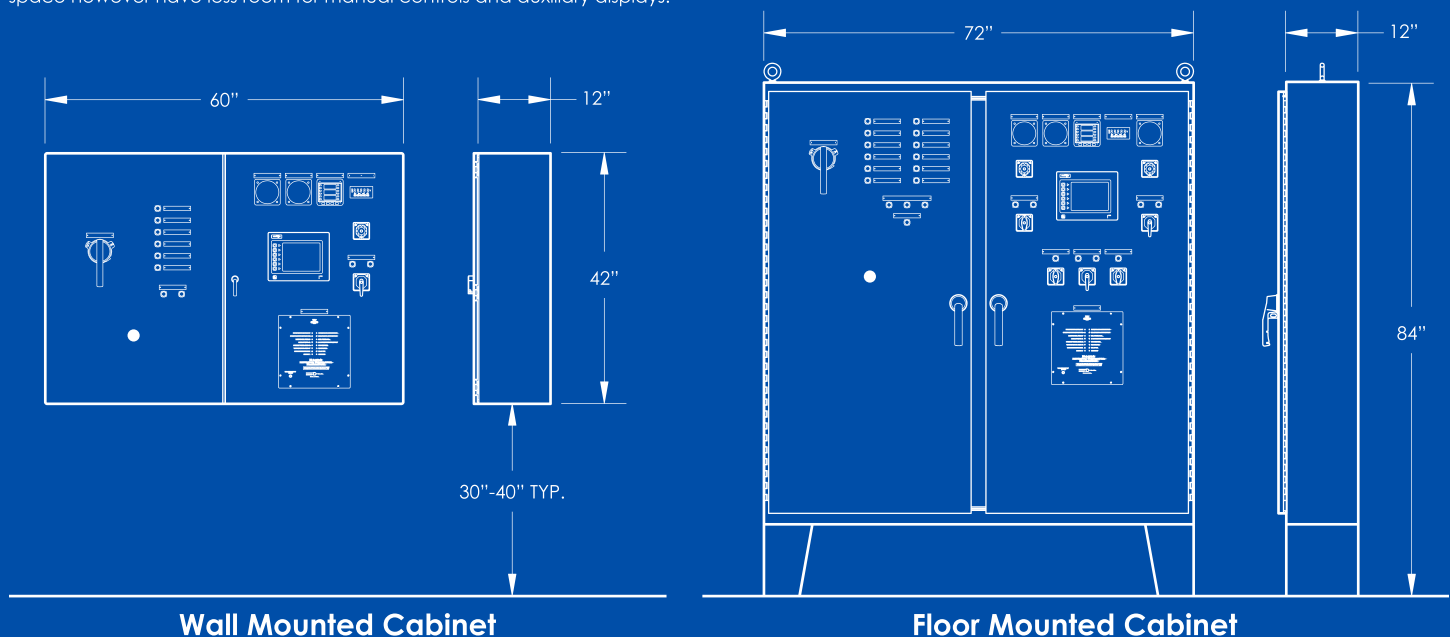
Turbine Model	ILT06	ILT08	ILT12	ILT16	ILT24
Pipe Diameter	6"	8"	12"	16"	24"
Max Head (ft)	575	575	575	575	575
Min Flow (CFS)	1.0	1.8	4.0	10	22
Max Flow (CFS)	3.1	5.3	17	28	56
Max Power (kW)	100	200	600	900	2,000
Lay Length - AA	20"	27"	34"	47"	61"
Turbine Height - BB	21.8"	29.0"	51.5"	58.3"	63.0"
Overall Height - CC	45-80"	50-90"	84-120"	95-160"	110-195"

NOTE: Dimensions given are for reference only and not for construction.
Lay length (AA) given for class 150 flange applications however others are available.
Overall height (CC) depends on generator size and power output requirements.



Control and Interconnection Equipment

Standard control systems are available for most systems in either a wall or floor mounted configuration. Wall mounted configurations require less space however have less room for manual controls and auxillary displays.



NOTE: Dimensions given are for reference only and not for construction.
MCCs and Custom configurations are available for any application.

In-Line Turbine Technology

Manufactured at Canyon facilities within the USA, the In-Line Turbine is a traditional Francis turbine reconfigured to have in-line flanges for ease of installation.

A set of adjustable wicket gates manipulate the flow rate and pressure differential across the turbine giving operators precise control. These wicket gates also ensure the highest possible efficiency is maintained over the entire flow range of the turbine.

When properly implemented in clean water applications the In-Line Turbines have an expected life cycle of 30+ years with minimal routine maintenance. When rebuild is necessary all bushings, bearings and seals are engineered to be completely servicable.



207 kW Variable Flow ILT2
Fort Collins, Colorado

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