

EQUIPMENT AND SYSTEMS FOR FAST, EASY SITE DEVELOPMENT

## COMPLETE MODULAR SYSTEMS

SYSTEM	APPLICATION
Kinetic-Hydro System	Hydrokinetic applications <10 kW
PROPEL-Hydro System	Powering non-powered dams
nCONDUIT-Hydro System	Adding power to existing conduits such as pressure-reducing valves
MOD-Hydro System	Powering medium and high-head new stream reach sites

## WATER-TO-WIRE TURBINE PACKAGES

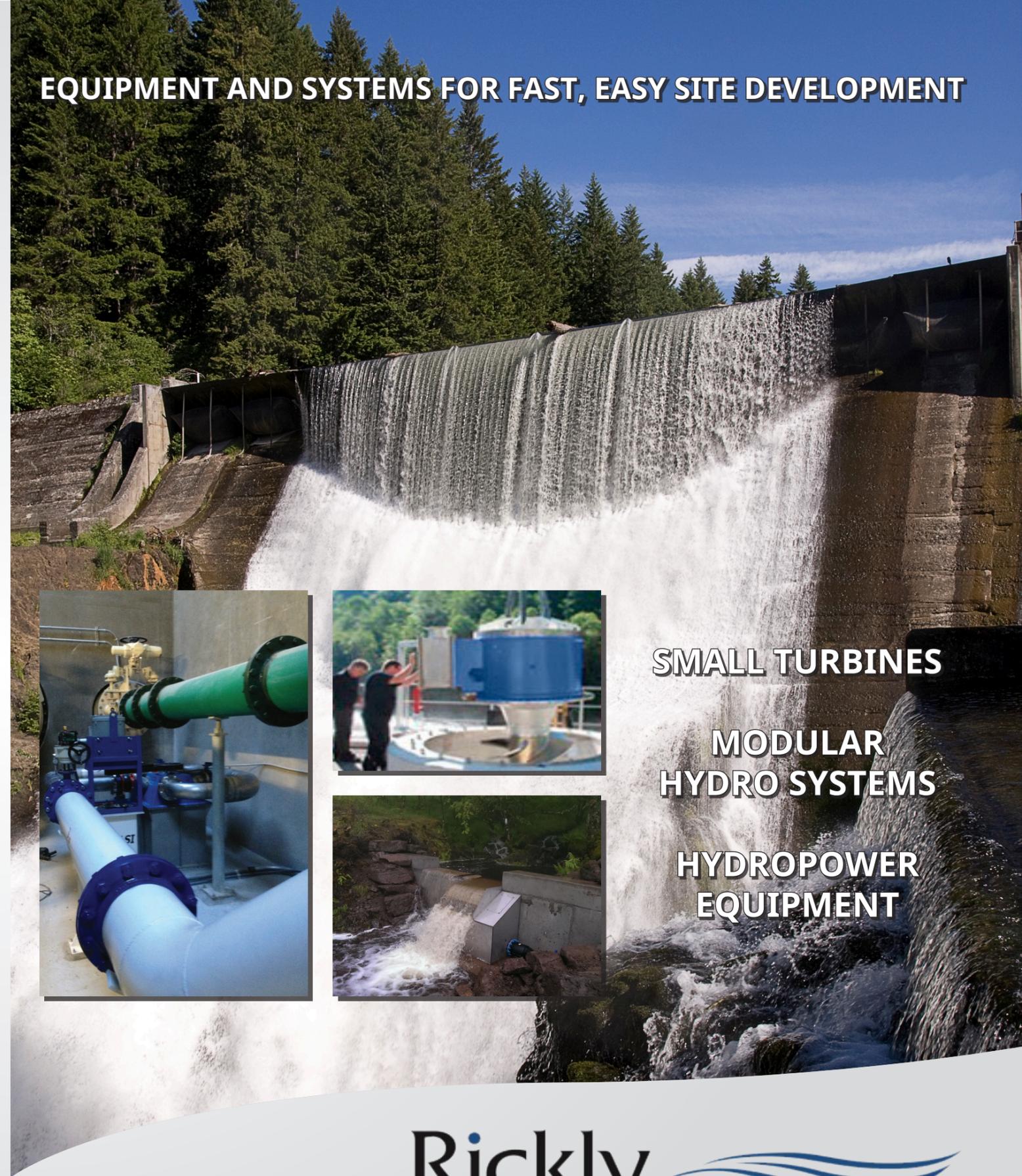
Crossflow | Kinetic  
Nautilus | Turgo | PROPEL

## HYDROPOWER EQUIPMENT

Coanda Intakes | Control Systems | Gates  
Feasibility Studies | Fish Passage Systems | Spear Valves



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SMALL TURBINES

MODULAR  
HYDRO SYSTEMS

HYDROPOWER  
EQUIPMENT



# TURBINES

## TURGO-TURBINE

**Efficient, scalable, flexible turbine**

Flow: 0.04-1.25 m<sup>3</sup>/s | Head: 25m-110 m | Power: 1-500 kW

The Turgo-Turbine combines a custom machined runner and optimized nozzles to deliver high efficiency and precise control for medium and high head sites.



## PROPEL-TURBINE

**Efficient, flexible easy-to install turbine**

Flow: 0.04-750m<sup>3</sup>/s | Head: 1m-30m | Power: 1-3,000 kW

The PROPEL-Turbine combines an efficient axial flow propeller with advanced speed controls. The result is an efficient, flexible, easy to install solution that lowers the installed cost of developing small hydro.

## NAUTILUS-TURBINE

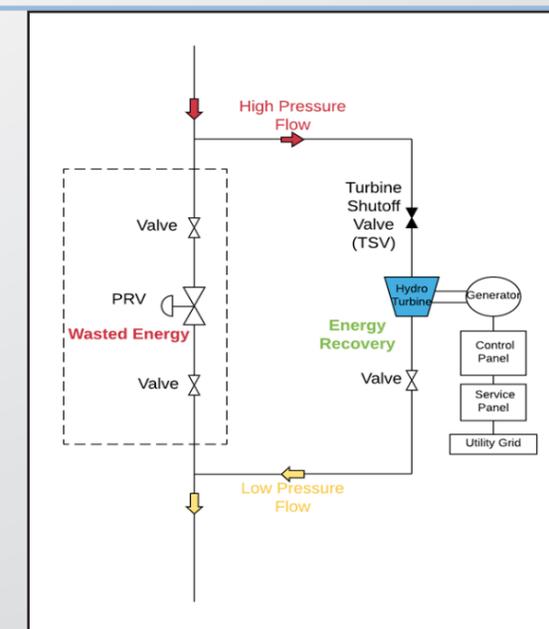
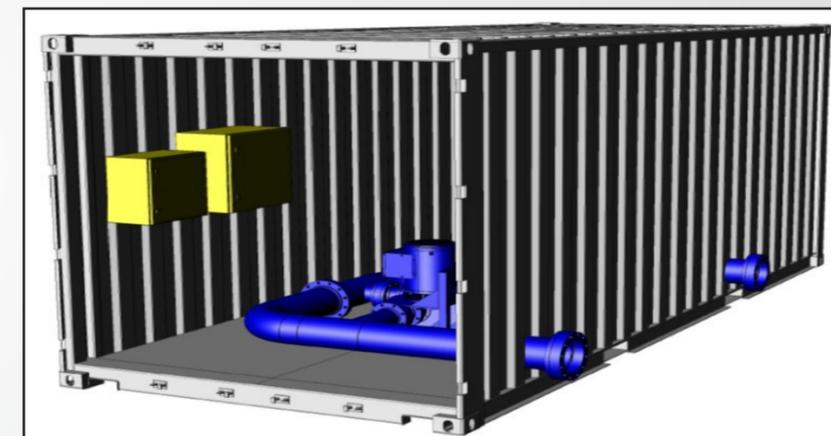
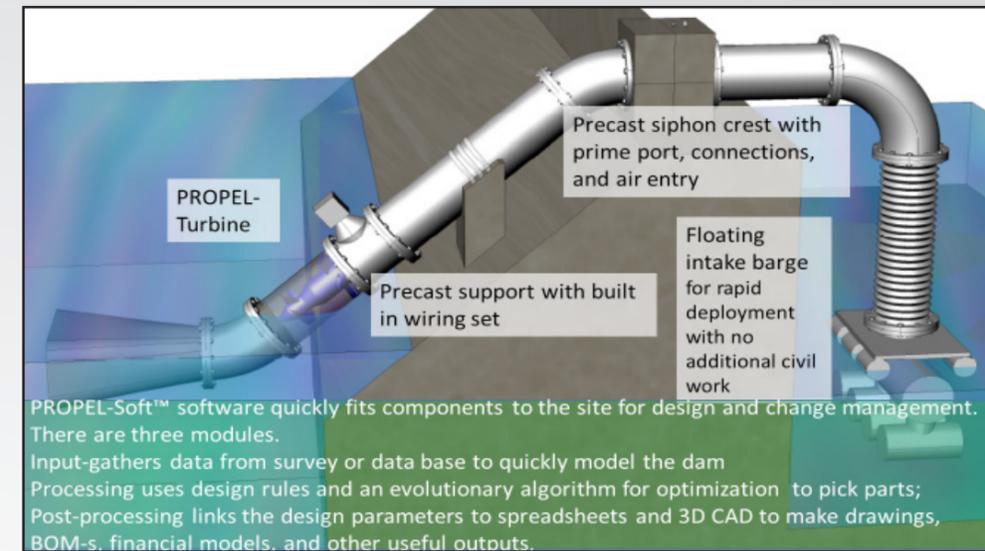
**Flexible, reliable, durable Francis Turbine**

Flow: 0.01-1.25 m<sup>3</sup>/s | Head: 1 m-90 m | Power: 1-1,000 kW

The Nautilus Turbine is a Francis turbine designed around a custom built runner and optimized nozzles to deliver high efficiency and precise control for medium and high head sites.



# SYSTEMS

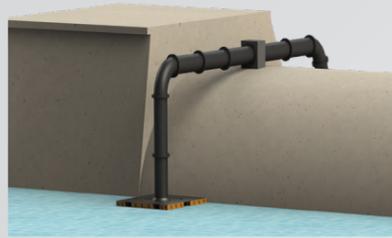


# SYSTEMS

## PROPEL-HYDRO SYSTEM

Power non-powered dams

Power Range: 10-10,000 kW



The PROPEL-Hydro System uses a set of modular components for the intake, penstock, turbine, and draft tube to quickly fit and install at a site.

## MOD-HYDRO SYSTEM

Easy to install small hydro plants

Power: 20-1,000 kW

The MOD-Hydro System uses modular sub-assemblies for the intake structure, powerhouse, and controls to allow rapid installation of a small hydro facility.



## nCONDUIT-HYDRO SYSTEM

Capture wasted energy

Power Range: 10-1,000 kW



The nConduit-Hydro System is a "Pipe-to-Power" (P2P) family of hydropower equipment intended to capture wasted energy at existing sites.

# TURBINES

## CROSSFLOW-TURBINE

Flexible, durable, efficient turbine

Flow: 0.02-6.0m<sup>3</sup>/s | Head: 1m-32m | Power: 1-1,500 kW



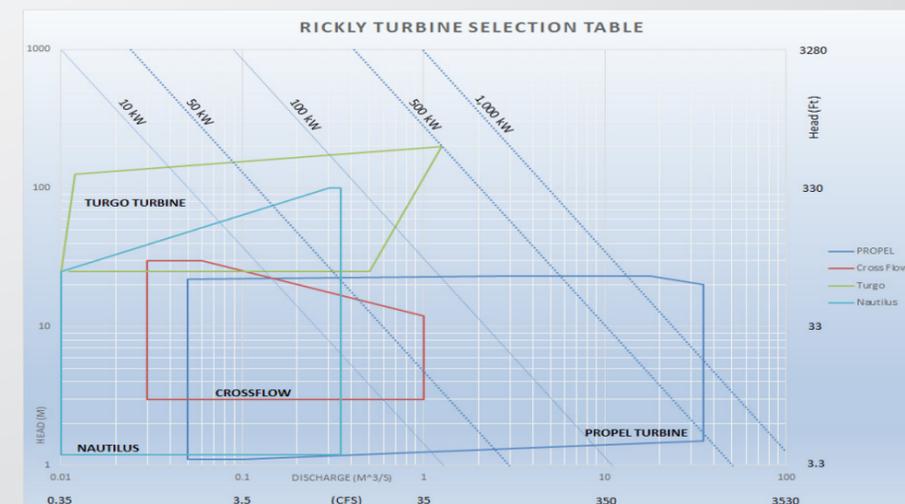
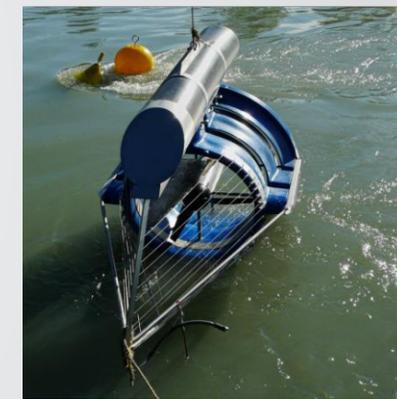
The Rickly Crossflow combines a simple and robust design with optimized blade and guide vane features to deliver a turbine at the right price and efficiency for small sites.

## KINETIC-TURBINE

Small hydrokinetic that works

Flow: 1.0-5.0 m/s/s | Power: Up to 10 kW per unit

The Kinetic-Turbine uses a combination of an efficient axial flow propeller and advanced controls to deliver efficient power at economically viable rates.



Note: This chart shows our typical recommendation. For complete operating envelope see our data sheets.

# HARNESSING THE WORLD'S WATER

## COLORADO



At the Beaver Park dam, our nCONDUIT Hydro System captures wasted energy and powers the site.

## SCOTLAND



A small Nautilus unit captures water pouring to a mountain stream and uses it to produce 4.5 Kw on 25 ft of head.

## NEW HAMPSHIRE



Rickly provided a PROPEL-Turbine to improve the operation of an existing site.

## TANZANIA



The MOD-Hydro System allows for fast design and installation to develop several MW of small hydro in Tanzania.

## MEXICO



A PROPEL-Turbine is used to harness the potential of irrigation canals in central Mexico to generate reliable, clean power.

-  **Rickly Headquarters**  
34,000 SF ISO 9001 Compliant Facility
-  **Rickly Sales Offices**
-  **Installations**