



CHALMERS & KUBECK

# HYDRO DIVISION

**Prepared For :**  
Melissa Philpott

**Ballard Marine  
Construction**

727 S 27th Street  
Washougal, WA 98671

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## ABOUT C&K

Chalmers & Kubeck is a leader in manufacturing maintenance and repair with a hard-earned reputation for quality, services and complete customer satisfaction. Our state-of-the-art, three-acre facility is an authorized repairs center with ISO 9001:2015 registration for complete quality assurance.

Our Hydro Division now allows us to fully enter an industry that we have serviced for many years. Our newly acquired team brings extensive experience in field disassembly, field installation, unit maintenance, shop repair, full Kaplan and Francis rehabilitation, technical direction, project management, and craft labor support. Combined with Chalmers & Kubeck's extensive machining capabilities, makes our Hydro Division a one-stop-shop for customers unlike any competitor in the industry.

# C&K HYDRO

# TEAM EXPERIENCE



## LAY DAM U6-MACHINING

CLANTON, AL - ONGOING

C&K Hydro Division was contracted to perform machining services on the U6 Inner Headcover and Operating Ring, which includes cavitation repair, line boring, and cleanup. The Packing Box refurbishment includes spray welding and machining of wearing surfaces.



## RANCHO-FRANCIS INSTALLATION

SAN DIEGO, CA - ONGOING

C&K Hydro Division was contracted to perform the preliminary powerhouse site work, as well as the installation of a new Horizontal Francis Turbine, Generator, and two new Valves. C&K Hydro was also tasked to provide the project and site management.



## IDAHO FALLS-KAPLAN OVERHAUL

IDAHO FALLS, ID - 2022

Our team was contracted to perform a full inspection and overhaul of an 8.3 MW Horizontal Voest Alpine four-blade Kaplan. The rehabilitation included an overhaul of all internal components including new bushings, piston rings, seal design, and the machining of the servo cylinder.



## TOWNSEND-KAPLAN OVERHAUL

BEAVER FALLS, PA - 2022

Our team was contracted to perform a full inspection and overhaul of a 5.2MW three-blade Horizontal Kaplan Runner. The rehabilitation included repairing severe cavitation damage on the Runner and Discharge Ring as well as Wicket Gate repair. The Kaplan refurbishment included the replacement of all bushings, seals, and minimal machining on worn mating surfaces.

**C&K HYDRO****TEAM EXPERIENCE****BROADWATER-GENERATOR REHAB**

TOTSON, MT - 2021

Our team was contracted to perform an inspection of the Broadwater facility, which led to the coordinated removal and full rehabilitation of the unit Stator, Rotor, and Bearings. The Stator and Rotor were electrically tested, cleaned, baked, and painted.

**SNOWDEN U5 - ROTATING PARTS**

CITY OF BEDFORD, VA - 2020

Our team was contracted to perform a full inspection and overhaul of a 2.5MW four-blade Horizontal Kaplan Runner. The rehabilitation included the replacement of bushings, links, and pins. The rocker arms and blade stems received minimal machining cleanup. The unit also received static balancing, and a full alignment during reinstallation.

**LOWLINE-COMPLETE OVERHAUL**

TWIN FALLS, ID - 2020

Our team was contracted to perform a full inspection and overhaul of a 2.8MW Horizontal five-blade "S" Kaplan Turbine. The refurbishment included brushless excitation conversion and Generator cleaning. The Kaplan refurbishment included new bushings, piston rings, seals, links, pins, and light machining on the Stub Shaft.

**WILLIAMS FORK-FRANCIS REHAB**

PARSHALL, CO 2019

Our team was contracted to perform a complete overhaul of three separate 3MW vertical Leffel Turbines. The overhaul included the demolition and replacement of the existing penstock fixed wheel gate, replacement of the existing U1 Generator excitation system, and replacement and modifications of the U1 Draft Tube dewatering system. The Francis runners were machined for cavitation damage before being reinstalled.

**OTHER HYDRO EXPERIENCE**

C&K has partnered with various Hydro Turbine OEM's to complete machining and rehabilitation for over 20 Years.

## CONTACT

970-699-0929

KHOSTLER@CANDK.COM

KHOSTLER@GRACONLLC.COM

## EXPERIENCE

34 years of industry  
experience

## EDUCATION

Electric Power  
Technology  
Williamson, College  
of the Trades

## TRAINING AND INVOLVEMENT

Hydraulic Power  
Committee

NHA Member

OSHA 10

Fall Prevention

First Aid/CPR/AED

## SKILLS

Technical Advisory

Customer Relations

Team Leadership

Project Management

Partnerships

Business

Development

## KEN HOSTLER DIRECTOR OF HYDRO

As one of the most experienced Hydro professionals in the industry, Ken Hostler has built a technical skill set that has allowed him to successfully build Hydroelectric units all over the world. Ken has run the gambit at every level in the industry, having spent time working for an OEM, field service representative, project manager, business development advisor, and over a decade as a Hydro service company owner. The only thing more important to Ken than keeping Hydro units in service, is keeping customers happy and keeping relationships as healthy as the Turbines his teams return to service.

## KEY HYDRO EXPERIENCE

### Rancho Penasquitos Hydroelectric Facility, San Diego, CA

\$4.2M / Replacement of Turbine and Generator for the Rancho Penasquitos facility. Work involves installation of a new Francis Turbine, Generator, controls, and Turbine shutoff valves.

### Idaho Falls, Idaho Falls, ID

\$804,720.78 / 8.3 MW Horizontal Voest Alpine four-Blade Kaplan Runner full rebuild.

### Townsend, Beaver Falls, PA

\$592,391 / 5.2 MW three-Blade Horizontal Kaplan Runner full rebuild. Also included Discharge Ring and Wicket Gate repair.

### Broadwater, Totson, MT

\$597,275 / Coordinated the removal, full rehabilitation, and reinstallation of the Broadwater Generator, Stator, and Bearings.

### Lowline Turbine Inspection and Overhaul, Kimberly, ID

\$1.4M / Overhaul of 2.8 MW Horizontal five-Blade "S" Kaplan Turbine and generator, including brushless excitation conversion, Turbine parts refurbishment, and generator cleaning.

### Roberts Tunnel East Portal Hydro Upgrades, Denver, CO

\$10.5M/ Maintenance and Hydro upgrades. Includes Hydroelectric Turbine and Generator maintenance, electrical Turbine and Generator maintenance, electrical utility interconnection, and Turbine-Generator-powerhouse auxiliary systems.

### Williams Fork Dam, Parshall, CO

\$2.3M/ Complete Overhaul of three 3MW Vertical Leffel Francis Turbines. Includes the disassembly, refurbishment, and reassembly of the units, and the Penstock Gate.

### Snowden U-5 Wicket Gate Bearing Replacement and Gate Binding, City of Bedford, VA

\$908,000 / Work included recording gate and blade timing and stroke, replace wicket gate bearings, record wicket gate readings, and record Turbine Blade clearance readings.

## **EXPERIENCE**

28 years of industry experience

## **EDUCATION**

Four-year Millwright Apprenticeship

Portland Community College

## **TRAINING**

OSHA 10

Fall Prevention

Confined Space

US Army Corp of Engineers CQM

Environmental Protection Plan Training

## **SKILLS**

Quality Control

Customer Relations

Precision Readings

Rigging

Documentation

Planning

Project Execution

Scheduling

## **TYSON MUNDY SITE SUPERINTENDENT**

Tyson's track record in mechanical craftsmanship surpasses three decades of meticulous service. Though relatively new to Hydro, Tyson is calm under pressure, and always goal oriented at the start of each workday. Tyson's daily responsibilities leading and managing a site crew, executing scope of work, troubleshooting mechanical problems in the field, and managing of customer/client/employee expectations.

## **KEY HYDRO EXPERIENCE**

### **Headgate Rock, Parker, AZ**

Contract Ongoing / After a 5 Meter Horizontal Allis Chalmers Kaplan Unit failed, the crew restored Bearings, Brake Discs, and performed general maintenance.

### **Idaho Falls, Idaho Falls, ID**

\$804,720.78 / 8.3 MW Horizontal Voest Alpine four-Blade Kaplan Runner full rebuild.

### **Hailesboro Hydro, Hailesboro, NY**

\$78,691 / Two (2) 1.4 MW Horizontal Kaplans were inspected and relocated. Hardware was replaced and Wet Bearing was repaired.

### **Townsend, Beaver Falls, PA**

\$592,391 / 5.2 MW three-Blade Horizontal Kaplan Runner full rebuild. Also included Discharge Ring and Wicket Gate repair.

### **Broadwater, Totson, MT**

\$597,275 / Coordinated the removal, full rehabilitation, and reinstallation of the Broadwater Generator, Stator, and Bearings.

### **Port Leyden Dam, Port Leyden, NY**

\$567,038 / 2.2 MW Four-Blade horizontal Axel Johnson Kaplan runner full rebuild. Also included Main Shaft, Servo Tube, and Bearing refurbishment.

## CONTACT

717-858-2663

CSNELL@CANDK.COM

## EXPERIENCE

8 years of Hydro  
experience

27 years procurement  
experience

## TRAINING

OSHA 10

Fall Prevention

Confined Space

First Aid/CPR

## SKILLS

Procurement

Expediting

Sourcing Parts/Labor

Project Management

Vendor Relations

## COREY SNELL PROJECT MANAGER

Corey has a very strong background in the Mid-Atlantic with machine shops from small to large capabilities. He also has strong relationships with many of the vendors who support the hydro industry. Corey brings eight years of hydro project management experience and eight years of experience in sourcing, procuring, and managing on-time delivery of all parts for turbine rebuilds.

## KEY PROJECT EXPERIENCE

### Lay Dam U6 Machining, Clanton, AL

\$147,690 / Performed machining services on the U6 Inner Head Cover which includes cavitation repair, line boring, and cleanup as well as refurbishment of the Packing Box.

### Flood Gate Replacement, Upstate, NY

\$540,000 / Supplied a new carbon steel Flood Gate for New York Dam. Included design, fabrication, coatings, and removal of existing gate

### Lowline Turbine Inspection and Overhaul, Kimberly, ID

\$1.4M / Overhaul of 2.8 MW Horizontal five-Blade "S" Kaplan Turbine and generator, including brushless excitation conversion, turbine parts refurbishment, and generator cleaning

### Snowden U-5 Wicket Gate Bearing Replacement and Gate Binding, City of Bedford, VA

\$908,000 / Work included recording gate and blade timing and stroke, replace wicket gate bearings, record wicket gate readings, and record turbine blade clearance readings

### Cascade Hydro, Berlin, NH

\$800,000 / Work included refurbishment of a horizontal Francis unit. Repairs include cavitation repair and additional specialized coatings application.

### City of Radford

\$2.8M / This project entailed the removal of an old Kaplan style turbine for the City of Radford. New Kaplan Turbine was installed following the removal of the older components

### Reusens Dam

\$1.5M / The rehabilitation of Reusens Dam included an overhaul of four total units. This included the replacement of key components on wicket gates, turbine shafts, and bearings.

## CONTACT

717-781-0228

AKRAFT@CANDK.COM

## EDUCATION

Pennsylvania State  
University – B.A. in  
Communication Arts  
and Sciences

## EXPERIENCE

7 years of industry  
experience

## TRAINING

OSHA 10  
Fall Prevention  
Confined Space  
First Aid/CPR

## SKILLS

Project Management  
Documentation  
Budget Management  
Internal Audits  
Proposal Writing  
Inspection Reporting  
Customer Relations

## AARON KRAFT PROJECT MANAGER

Aaron's abilities are proven each time he works on a project. He is efficient and flexible, with exemplary skills in productivity, maintaining partnerships, and project management. Aaron's daily responsibilities include creating the project plan, construction plan, financial plan, schedules, close-out data, reporting, and change orders.

## KEY HYDRO EXPERIENCE

### Rancho Penasquitos Hydroelectric Facility, San Diego, CA

\$4.2M / Replacement of Turbine and Generator for the Rancho Penasquitos facility. Work involves installation of a new Francis Turbine, Generator, controls, and Turbine shutoff valves.

### Idaho Falls, Idaho Falls, ID

\$804,720.78 / 8.3 MW Horizontal Voest Alpine four-Blade Kaplan Runner full rebuild.

### Townsend, Beaver Falls, PA

\$592,391 / 5.2 MW three-Blade Horizontal Kaplan Runner full rebuild. Also included Discharge Ring and Wicket Gate repair.

### Broadwater, Totson, MT

\$597,275 / Coordinated the removal, full rehabilitation, and reinstallation of the Broadwater Generator, Stator, and Bearings.

### Black River Plant, Port Leyden, NY

\$567,038 / 2.2 MW Four-Blade horizontal Axel Johnson Kaplan runner full rebuild. Also included Main Shaft, Servo Tube, and Bearing refurbishment.

### Lowline Turbine Inspection and Overhaul, Kimberly, ID

\$1.4M / Overhaul of 2.8 MW Horizontal five-Blade "S" Kaplan Turbine and generator, including brushless excitation conversion, turbine parts refurbishment, and generator cleaning. Served as an assistant PM on this project.