



STATEMENT OF QUALIFICATIONS

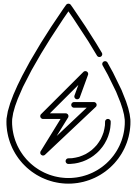
Chalmers & Kubeck
Hydro Division

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www.candk.com

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.



C&K HYDRO

Hydropower generation is one of the oldest forms of renewable energy, with many turbines from the early 1900s still in operation today. At Chalmers & Kubeck, we see the demands of this industry and offer solutions that your operation can rely on for a steady flow of energy at your Hydropower plant.

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.

TEAM EXPERIENCE



16
TURBINE
MANUFACTURERS



50+
CUSTOMERS
SERVICED



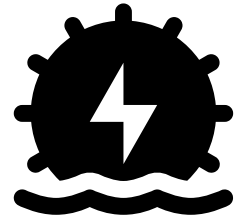
27
STATES



82
COMPLETED
JOBS



ABOUT SERVICE



C&K Hydro can offer every facet of Hydro service, ranging from full facility overhauls to advisory services. Our experience and extensive shop capabilities make us a resource for customers of all sizes, and of all needs.



FIELD SERVICE

- Nationwide Mobilization
- Disassembly
- Reassembly
- Weld Repairs
- Discharge Ring Repairs
- Limited Field Machining



INSPECTIONS

- Non-Rotating Components
- Rotating Components
- Bearing Housings
- Kaplan Runner Internals
- NDE/NDT
- Runout Testing



SHOP/MACHINING

- Cavitation Repair
- Skim Cuts
- Buildup and Machining
- Full Kaplan Rehabilitation
- Full Francis Rehabilitation



MAINTENANCE

- Annual Maintenance
- Weekly Operations
- Blasting/Painting
- Oil Pressure Testing
- Preventative Maintenance



SOURCING

- Custom Parts Sourcing
- Third Party Resources
- Engineering
- Seals
- Bearings
- Hardware



ADVISORY/TRAINING

- Facility Upgrades
- Basic Hydro Trainings
- Consulting
- Safety Audits

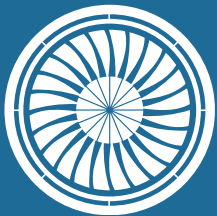


SHAFTS

- Coupling Faces
- Turbine/Generator Shafts
- Intermediate Shafts
- NDE/NDT
- Runout
- Size Capabilities
 - 30' Length/91.5" Swing
 - 100,000 lbs.

ABOUT HYDRO MACHINING

Chalmers & Kubeck is a leader in manufacturing maintenance and repair with our state-of-the-art, three-acre facility. Our full service capabilities allow C&K Hydro to repair most rotating components. This page lists most of our capabilities as it relates to Hydro specific machining. All questions regarding machining can be directed to Corey Snell 717-858-2663.



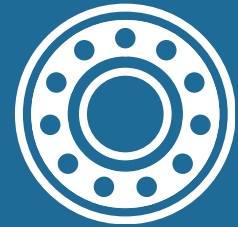
FRANCIS RUNNERS

- Bucket Repairs
- Cavitation Repair
- NDE/NDT
- Turning Bands/Crown Area
- Weld Repairs
- Size Capabilities
 - 32' Diameter/10.5" Height



KAPLAN RUNNERS

- Blade Stem Machining
- Disassemble/Reassemble
- Blade Periphery Machining
- NDE/NDT
- Trunnion Sealing Surface Machining
- Refurbishment
- Size Capabilities
 - 32' Diameter/10.5" Height



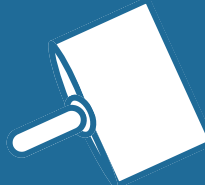
HEADCOVER/BOTTOM RING

- Blast/Paint
- Buildup and Machining
- Bushing Install/Removal
- Bushing Removal
- Cavitation Repair
- NDE/NDT
- Skim Cuts
- Size Capabilities
 - 32' Diameter/10.5" Height



LINE BORING

- Coupling Shafts Line Boring
- Headcover to Bottom Ring
- Hub Trunnion Bushing Line Boring
- Shafting Coupling Faces



WICKET GATES

- Sealing Surfaces
- Sleeve Installation
- Wicket Gate Replacement
- Wicket Gate Turning



FABRICATION SERVICES

- Bushings
- Concentric Pins
- Discharge Ring
- Draft Tube
- Eccentric Pins
- Eye Bolts
- Sealing Rings

ABOUT PROJECTS



GENERATOR DISASSEMBLY PELTON UNIT 2

We provided pricing, clarifications, and a project schedule for the refurbishment of Unit 2 at the Pelton Hydro Plant. Our scope included partial disassembly/reassembly, removal/reinstallation of Rotor Poles, installation of an owner-supplied high-pressure lift system, and a temporary shelter for the Generator Rotor when stored on the Rotor Pedestal.



NEW FRANCIS INSTALLATION NORTHWATER

Our team was contracted to install a new Gilkes Francis Hydroelectric Turbine, Hitzinger Synchronous Generator, HPU, Turbine Inlet Valve (TIV), and associated process piping. Tasks include offloading and inspecting equipment, staging for installation, and installing various components including the Turbine, Generator, inlet valve, piping, and Shaft Seal.



MAINTENANCE AGREEMENT CITY OF ASPEN

In this project, we provided a comprehensive scope of work for the customer's Hydro plants on a weekly/monthly/annual basis. Our team conducted regular on-site visits for inspection, created form documents for data cataloging, and performed safety audits. We also managed spare parts inventory, conducted training sessions, and completed annual maintenance tasks.



GATE BARREL REBUILD GREAT FALLS UNIT 2

Our team inspected and repaired an 11' diameter Gate Barrel with 16 gate assemblies. We weld repaired the Barrel housings, skim cut machine faces, and restored the surface profile. Additionally, we fabricated new bearing housing, linkage, and bushings after reverse engineering the previous components.



OIL HEAD REMOVAL/COLLECTOR RING FOOTHILLS

C&K successfully addressed Collector Ring issues by removing and reinstalling the Oil Head assembly. We collaborated with the customer to record and secure Runner Blade positions and inspect components. Our tasks included removing speed sensing equipment, supporting Blade balance weight, and documenting components for defects.



ABOUT PROJECTS



KAPLAN OVERHAUL TOWNSEND

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.



TURBINE INLET VALVE INSTALL WILLIAMS FORK

Removed old 30" Turbine Inlet Valve (TIV) and downstream piping, replaced TIV with owner-furnished triple offset butterfly valve. Reinstalled all piping connections with new gaskets, hardware. Installed new Rotork Actuator for valve operations, enhancing efficiency and reliability. Project completed efficiently, minimizing downtime. New valve system expected to improve overall performance and equipment longevity.



GENERATOR REHAB BROADWATER

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.



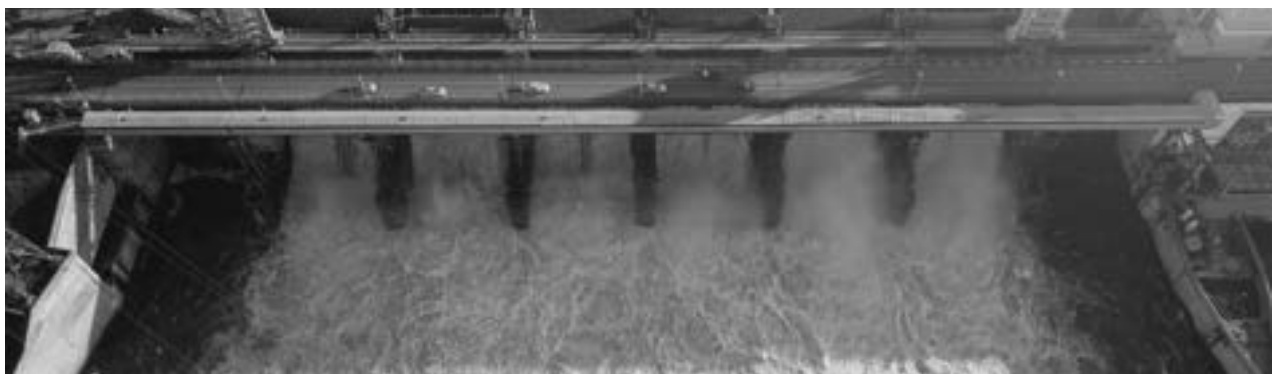
COMPLETE OVERHAUL LOWLINE

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.



HYDRO MACHINING LAY DAM U6

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.





Ken Hostler

Director of Hydro

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HYDRO EXPERIENCE

Turbine Type

- Crossflow
- Francis (Horizontal & Vertical)
- Horizontal Kaplan (Bulb, Pit, S, TUBE)
- Pelton
- Pump
- Vertical Kaplan

Turbine Manufacture

- Allis-Chalmers
- American Hydro
- Axel Johnson
- Baldwin Lima Hamilton
- Canadian Hydro Components
- Fugi
- Gilkes
- Hitachi
- IP Morris
- Litoströj
- Mavel
- Newport News
- Norcan
- Ossberger
- Voest Alpine
- Voith

KEY PROJECT HIGHLIGHTS

Holtwood Expansion Project - Holtwood

New installation of 65MW Vertical Kaplans

Oberaudorf - Osterreich Bayern Kraftwerk

New Installation of a 6.1M Bulb Turbine

Waddell Dam - Central Arizona

New installation of 10MW Pump Turbines

Mitchell Dam - Alabama Power

New Installation of a Vertical Kaplan unit, 50 MW

NOTABLE CUSTOMERS

- AEP
- Alabama Power
- Alcoa
- Beaver Falls Municipal
- Boralex
- Brookfield
- Bureau of Reclamation
- Central Arizona Project
- Central VT Public Services
- City of Columbus
- City of N. Little Rock
- City of St. Cloud
- Corps of Engineers
- Denver Water
- Eagle Creek Renewable
- Enduring Hydro
- Georgia Power
- Green Mt. Power
- International Paper
- Kaukuana Utilities
- Niagara Mohawk
- PA Power & Light
- SDCWA
- USBR

UNIQUE TEAM STRENGTHS

- 35 years of industry experience
- Detailed understanding of various Turbine types and functionality
- Has been employed as every kind of stakeholder in a Hydro project
- Created and maintained many relationships within the industry

SUMMARY

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.

EDUCATION

Electric Power Technology

Williamson, College of the Trades
1982

SKILLS

- Business Development
- Customer Relations
- Project Management
- Strategic Partnerships
- Team Leadership
- Technical Advisory
- Turbines Refurbishment

AFFILIATIONS

- Hydraulic Power Committee - Chair
2015-2016
- NHA Member



Mark Springer

Hydro Operations

Phone: 970-631-6816

Email: mspringer@candk.com

HYDRO EXPERIENCE

SUMMARY

For over 15 years, Mark has gained a very strong understanding of heavy civil construction on dams including outlet works piping, water control/regulating gates, large valve installs and replacements as well as full overhauls of Hydroelectric Turbines. Rebuilding, repairing, maintenance, and knowledge of mechanical operations of Turbines.

TRAINING

- Crane Rigging
- Carbon/SS Welding
- Forklift Operation
- Overhead Crane Operation
- Scaffolding

SKILLS

- Conflict Resolution
- Crane Work
- Customer Relations
- Documentation
- Field Supervision
- Project Management
- Scheduling
- Subcontracts
- Submittals

NOTABLE CUSTOMERS

- Denver Water
- Kewitt
- PGE

Turbine Type

- Francis (Horizontal & Vertical)
- Horizontal Kaplan (Bulb, Pit, S, TUBE)
- Pelton
- Pump
- Vertical Kaplan

Turbine Manufacturer

- Allis-Chalmers
- Axel Johnson
- Gilkes
- Mavel
- Voest Alpine
- Voith

KEY PROJECT HIGHLIGHTS

Reudi Hydro, Aspen CO

2023-2024

Ongoing / Performed annual inspection, including lockout/tagout for inspections in water passage and Runner. Also conducted Generator testing and cleaning, Turbine Bearing inspections, and replaced oil in all Bearing housing.

Pelton, Madras, OR

2023-2024

Completed the refurbishment of Unit 2 at the Pelton Hydro Plant. Our scope included partial disassembly/reassembly, removal/reinstallation of Rotor Poles, installation of an owner-supplied high-pressure lift system, and a temporary shelter for the Generator Rotor when stored on the Rotor Pedestal.

Northwater, Golden, CO

2023

Installation of a new Gilkes 550 G150 Francis Hydroelectric Turbine and Hitzinger synchronous Generator at the Northwater Treatment Plant for Denver Water

Roberts Tunnel East Portal Hydro Upgrades, Grant, CO

2020-2022

\$10.5M / Complete facility upgrades including, hydroelectric Generator maintenance, new hydroelectric runner, Generator inspection/overhaul, new switchyard, electric utility interconnection, 15KV switchgear, site power distribution, Turbine electric governor system, Generator control panel (GCP), 56" penstock piping for flowmeter installation, Turbine/Generator auxiliary systems

Williams Fork Dam Overhaul, Parshall, CO

2019

\$2.3M / Decommissioning of existing outlet works intake structure, construction of new concrete outlet works upstream of the existing intake structure, installation of 66" knife gate intake valve and 66" stainless steel liner piping along with new hydraulic pressure unit (HPU), refurbishment of existing 4'x5' slide gate, install new hydraulic line.

Lakewood Hydro Plant Inspection, Boulder, CO

2016

disassembled 3.0 MW Horizontal Pelton Turbine and Generator, inspected, tested, cleaned, and reassembled Generator, bearings, and Turbine. Performed startup and testing.

UNIQUE TEAM STRENGTHS

- 15 years of industry experience
- Estimation of potential projects using prior experience directing field work
- Able to manage logistics of the entire hydro team, including labor and tools
- Has led projects from both the office and the field



Corey Snell

Project Manager

Phone: 717-858-2663

Email: csnell@candk.com

HYDRO EXPERIENCE

SUMMARY

Corey has a very strong background in the Mid-Atlantic with machine shops from small to large capabilities. He also has relationships with many of the vendors who support the hydro industry.

Corey brings 9 years of Hydro project management experience and an additional two decades of experience in sourcing, procuring, and supplying parts for customers all over the East coast.

Currently, Corey is leading the charge behind the Hydro division's machining initiative; working directly with the OEMs to refurbish parts back to industry standard.

SKILLS

- Customer Relations
- Expediting
- Machining Quoting
- Procurement
- Project Management
- Resources Management
- Sourcing Parts
- Turbine Refurbishment
- Vendor Management

NOTABLE CUSTOMERS

- Andritz
- Litostroj
- Voith

Turbine Type

- Francis (Horizontal & Vertical)
- Horizontal Kaplan (Bulb, Pit, S, TUBE)
- Pelton
- Pump
- Vertical Kaplan

Turbine Manufacturer

- Allis-Chalmers
- Axel Johnson
- Voest Alpine
- Voith

KEY PROJECT HIGHLIGHTS

Lay Dam U6 Machining, Clanton, AL

2022-2023

\$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

2021-2022

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

Lowline Turbine Inspection and Overhaul, Kimberly, ID

2019-2020

\$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 U5 Wicket Gate Bearing Replacement, Bedford, VA

2019-2020

\$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

UNIQUE TEAM STRENGTHS

- 9 years of industry experience
- 25 years of experience coordination of supply chain management
- Ability to negotiate terms with positive outcomes
- Building long-lasting fruitful relationships with vendors and customers



Aaron Kraft

Project Manager

Phone: 717-781-0228

Email: akraft@candk.com

HYDRO EXPERIENCE

SUMMARY

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.

EDUCATION

Communication Arts & Sciences
Pennsylvania State University
 2006-2011 B.A.

SKILLS

- Budget Management
- Customer Relations
- Documentation
- Inspection Reporting
- Internal Audits
- Project Management
- Proposal Writing
- Technical Writing
- Turbines Refurbishment

NOTABLE CUSTOMERS

- City of Broadwater
- City of Idaho Falls
- San Diego County Water Authority

Turbine Type

- Horizontal Francis
- Horizontal Kaplan (Bulb, Pit, S, TUBE)
- Pelton
- Pump
- Vertical Kaplan

Turbine Manufacturer

- Allis-Chalmers
- Axel Johnson
- Mavel
- Voest Alpine
- Voith

KEY PROJECT HIGHLIGHTS

Great Falls Unit 2, Paterson, NJ

2023-2024

Ongoing / Complete overhaul of a 3 MW five-Blade vertical Kaplan Turbine. Work included overhaul of the Turbine, Generator, HPU, Discharge Ring, and various other components for the Great Falls facility.

Rancho Penasquitos Hydroelectric Facility, San Diego, CA

2022-2023

\$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.

Townsend, Beaver Falls, PA

2021-2022

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

Broadwater, Totson, MT

2021

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

Black River Plant, Port Leyden, NY

2020-2021

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

UNIQUE TEAM STRENGTHS

- 8 years of industry experience
- Ability to create detailed job tracking documents, allowing for high levels of organization
- Creating detailed reports following inspections and disassemblies
- Writing detailed manuals/SOPs for internal and external use
- Assembling of documentation to support customers