

HYDRO EXECUTION

ENGINEERING | REFURBISHMENT | SPARE PART SERVICE

COMPANY PRESENTATION

HYDRO EXECUTION is a consulting and engineering service provider with over 30 years of experience in mechanical engineering, specializing in **hydropower and pump technology**. We offer a broad range of **technical services** and **supply spare parts and technical equipment** according to the specific requirements of our clients.

CONSULTING SERVICES

We provide expert consulting for the **refurbishment, retrofitting, and replacement** of hydropower plant systems.

- **Mechanical Systems**: Turbines, governors, and generators
- **Auxiliary Systems**: Hydraulic power units (HPU), cooling water systems, compressed air systems, and emergency power generators
- **Electrical Systems**: Low and medium voltage systems, DC/battery systems
- **Upgrading and retrofitting** of existing or outdated components
- **Replacement** of defective or worn-out parts

ENGINEERING SERVICES

Our engineering services support the **refurbishment and modernization** of hydropower plant components.

- **Concept development** and preparation of **3D layout designs**

- **Selection and integration** of retrofitted components and instruments
- **Measurement and assessment** of existing components for precise replacements
- **Re-design of outdated components** for enhanced performance
- **Creation of detailed 3D drawings** for manufacturing, assembly and installation

SPARE PARTS SERVICES

We are specialized in the **supply and global delivery** of spare parts and technical equipment.

- A comprehensive range of **spare parts** (see enclosed **spare sparts list**)
- Original spare parts sourced from **OEM manufacturers**
- Standard and **off-the-shelf components**
- **Custom-designed components** from high-quality manufacturers
- Identification and sourcing of **substitute products** for discontinued parts, including necessary adaptations
- **Worldwide delivery**, with a focus on **Asia, Africa, and the Balkans** (see enclosed **customer list**)

Consulting | Engineering | Spare Part Service
Mechanical Systems - Hydro Power
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List of spare parts for Hydro Power Plants and other systems supplied by HYDRO EXECUTION

System	Spare part/category	Supplier/manufacturer/brand	Remarks
MECHANICAL COMPONENTS -Turbines -Pumps -Inlet Valves -Generators	Pelton/Francis/Pump Runners	various manufacturing companies & workshops in Central Europe	manufacturing according customer drawing & specification/ITP
	Parts for Kaplan Runners		
	Wicket Gates		
	Parts for Wicket Gate Mechanism		
	Parts for Turbine/Generator Bearings		
	Parts for Shaft Seals		
	Parts for Pelton Nozzles/Deflectors		
	Parts for Inlet Valves		
	Generator Slip Rings		
	Coupling Bolts		
	Servomotors		
	Bearing Bushes & Liners	SANKYO OILLESS & others	
	Elastomer Seals (all types)	various suppliers	
MECHANICAL AUXILIARIES -Hydraulic Power Units (HPU) -Cooling water systems -Drainage systems -High air pressure systems -Pump systems -Other piping systems	Oil Pumps inkl. Motor & Coupling	BOSCH REXROTH, LEISTRITZ, HYDAC, PARKER, STASTO, DANFOSS & others	according customer specification & requirement
	Hydraulic Cylinders/Motors		
	Accumulators		
	Control/Pilot/Solenoid Valves		
	Proportional/Servo Hydraulic Valves		
	Filters& Strainers		
	Motor Valves	AUMA, DANFOSS & others	
	Ball/Gate/Check/Safety Valves	various suppliers	
HYDRO STEEL COMPONENTS -Radial Gates -Power & Stop Log Gates	Drive Components for Hoists & Cranes	DEMAG & others	
	Cable Reel Units	VAHLE	
	Hydraulic Hoses	various suppliers	
	Profile Seals		

Note:
The extent of the mentioned spare parts is not limited with this list.
Other spare parts or techn. equipment upon request of the client is possible.

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System	Spare part/category	Supplier/manufacturer/brand	Remarks
INSTRUMENTATION	Temperature/Pressure Gauges & Switches	WIKA, IFM, TRAFAG & others	according customer specification & requirement
	Flowmeters	BUERKERT, KROHNE & others	
	Flow Measurement Systems	RITTMEYER, KROHNE & others	
	Level Sensors	RITTMEYER, ENDRESS+HAUSER	
	Speed Sensors	TURCK, JAQUET	
	Position Transducers	BALLUF, TR-ELECTRONICS	
	Vibration Sensors	BRÜEL, EMERSON & others	
	Limit/Proximitiy Switches	PEPPERL+FUCHS & others	
ELECTRICAL AUXILIARIES	Circuit Breakers	SIEMENS, SCHNEIDER ELECTRIC, ABB	
	Contactors, Protection Relays		
	Rectifiers & Converters	BENNING, STATRON	
	Selector Switches	KRAUS+NAIMER	
	Sychronizing Devices	ABB	
	Current/Surge Arresters	DEHN	
	Special Cables incl. Accessoirs	HELUKABEL	
AUTOMATION COMPONENTS	Control Units	SIEMENS, ABB	
	Touch Screen Panels		
	Input/Output Modules		
	Network Interfaces		
	Power Supply Moduls	PULS	
	Voltage Monitoring		
	Power Measurement/Energy Meters	CAMILLE BAUER, SECURE METERS (CEWE)	

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Photographs of supplied spare parts











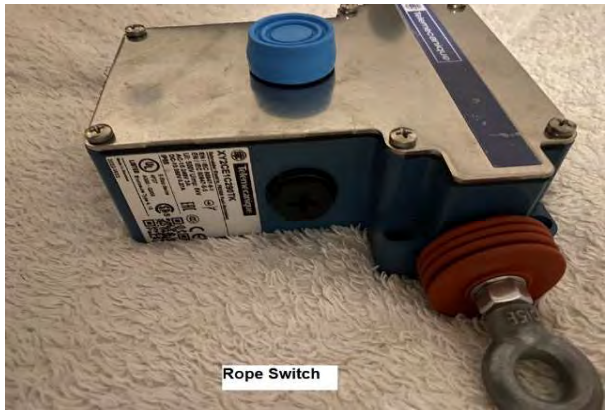


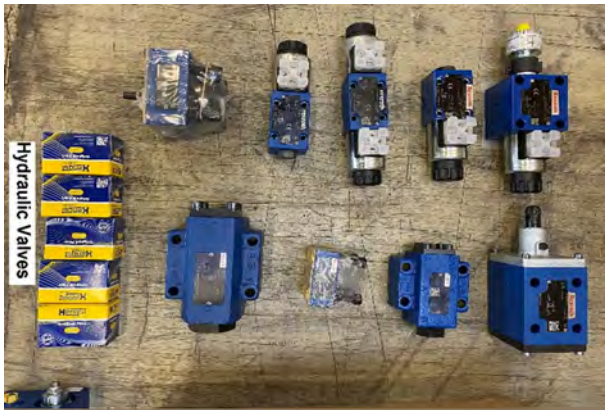




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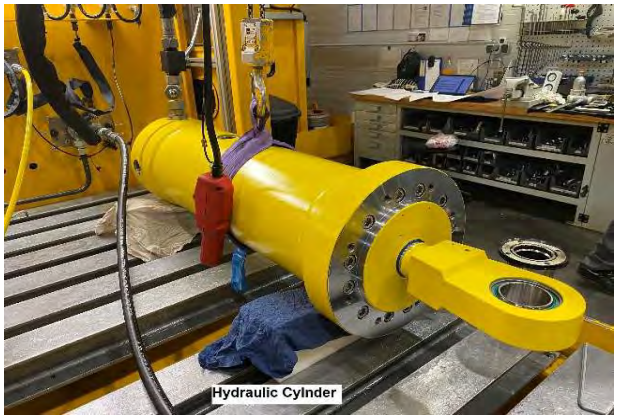




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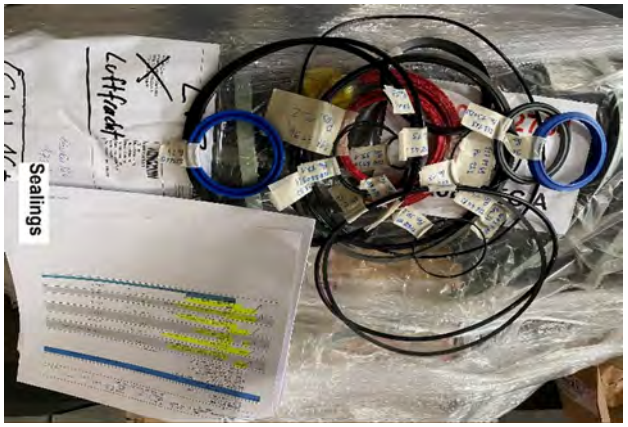






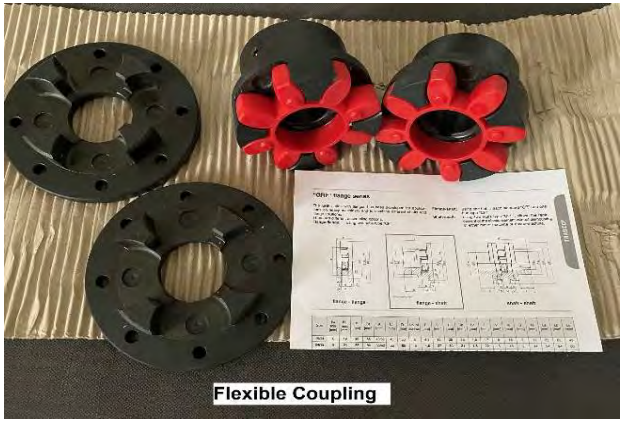


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Customer list

Customer		Hydro Power Plant	Country	Offered / supplied equipment
	DAGACHHU HYDRO POWER CORPORATION LIMITED	Dagachhu	Bhutan	- Oil Pump Motor Sets, Hydraulic Valves & Filters - Gear Motor & Drive Unit for Cranes - Hydraulic Cylinders for Pelton Nozzles - Synchronizer Device & Power Modules - Level-/Position Sensors, Pressure-/Limit Switches, Selector Switches - Various Automation Components
	DRUK GREEN POWER CORPORATION LIMITED	Basochhu	Bhutan	- Bladder Accumulator - Gear & Screw Oil Pumps - Tie Rod Hydraulic Cylinders - Profile Seals for Gates - Slide Bearings for Guide Vanes - Pressure Gauges
	PRATAP SUPPLIERS **NEPAL ELECTRICITY AUTHORITY**	Kulekhani – I & II Chatara	Nepal	- Gear Oil Pump-Motor Unit - Variable Vane Oil Pumps - Hydraulic & Control Valves (special design) - Facing Plates & Bearing Bushes/Liners for Guide Vanes - Governor Actuators
	CHILIME HYDROPOWER LTD.	Chilime	Nepal	- Seals & Bearings for Cooling Water Pumps - Seals for Pelton Nozzles
	RSP ENTERPRISES	various Power Plants	Sri Lanka	- Mobile Oil Filtration Plants - Automatic Synchronizer Relay and Synchro-Check Relay - SIEMENS-Control Cards - DC-Contactors - Partial Discharge Monitoring System - Gate Valves & Butterfly Valves
	VALLIBEL POWER ERATHNA PLC	Kiriwaneliya	Sri Lanka	- Locking Assembly / Runner Coupling

Customer		Hydro Power Plant	Country	Offered / supplied equipment
serengeti	**SERENGETI ENERGY AFRICA EMS MPANGA LTD.**	Mpanga	Uganda	- Thermal Relays - Modbus Converter - Speed Rotation Monitor & Level Sensors
SAEMS	**SAEMS ENGINEERING LTD. AFRICA EMS NYAMWAMBA LTD.**	Nyamwamba I & II	Uganda	- Mobile Oil Filter Unit - Level Sensors
UEGCL	**UGANDA ELECTRICITY GENERATION COMPANY LTD.**	Nalubaale & Kiira Power Station	Uganda	- Globe Valves - Shaft Seal Components
Bujagali ENERGY	**BUJAGALI ENERGY LIMITED**	Bujagali	Uganda	- Radial Gate Hydraulic Cylinder - Radial Gate Profile Seals - Various Instruments & Electr. Spares - Hydraulic Valves
የኢትዮጵያ ኤሌክትሪክ ኃይል ETHIOPIAN ELECTRIC POWER	**ETHIOPIAN ELECTRIC POWER**	Gellgelgibe I & II	Ethiopia	- Ball Valves & Solenoid Valves - Synchronizer Device - Temp. Monitoring Units & Linear Transducers - DC & AC-Converters & Current Transformers - Voltage Regulator & various Automation Components
ZESCO	**ZESCO LIMITED**	Kafue Gorge Upper	Zambia	- Flow Measurement System for penstock - Hydraulic Cylinders
APC	**AGUSAN POWER CORPORATION**	Agusan	Philippines	- Controller Module - Automatic Air Valves - ICU Input Coupling - Transducer for Active/Reactive Power - Flow Measurement System
CBK Power Company Limited	**CBK POWER COMPANY LTD.**	Caliraya	Philippines	- Pneumatic Valves - Water Swelling Rubber Seals - Ramie Packings & O-Ring Chords

Customer		Hydro Power Plant	Country	Offered / supplied equipment
	PAKHTUNKHWA ENERGY	Pehur Hydropower Complex	Pakistan	- Phase Controller & Control Unit - Power Supply Unit - Speed Detector / Controller
	LARAIB ENERGY LIMITED	various Power Plants	Pakistan	- Circuit Breaker - Ground Fault Locator/Tester - Carbon Brushes & Holders
	STAR HYDRO POWER LIMITED	Patrind	Pakistan	- Electrical spares for Excitation System - Electronic modules for Generator Partial Discharge
	HESPAK PRIVATE LIMITED	various Power Plants	Pakistan	- Electrical Actuator for Power Transformer - Directional Servo Valves
	TADAM ENERGY CONSULTING	XE-Pian XE-Namnoy	Laos	- Electrical spares for Excitation System - Softstart-Module for HPU - Various Valves & Instruments for Turbine, MIV & Generator
	HYDROPOWER EVOLUTIONS	PT. Hasang	Indonesia (North Sumatra)	- Carbon Brushes & Double Brush Holders - Shielded Cables - Communications and Processing Cards
	KLEDIA-06 LLC	various Power Plants	Albania	- Screw Oil Pump-Motor Units - Energy Meters
	PROITEC DOO	Zvornik	Serbia	- Processing Board/Cards for Excitation System/Voltage Regulating - Gate Pulse Amplifier