### Company Overview



# HISTORY

MarTech started in 1993 and has grown to be one of the largest specialized industrial service companies in Northern California. Today MarTech has the experience and expertise needed to perform all of your facilities service requirements. From daily maintenance support, full plant turnarounds, equipment repair and emergency call out response for all services, MarTech is ready to support your plant. INDUSTRIES SERVED

## CUSTOMER BASE

- Power Generation
  - Hydro
  - Biomass
  - Combined Cycle
  - Geothermal
- Manufacturing
  - Paper
  - Lumber
  - Drywall & Gypsum
  - Food & Wine
- Utilities
- Elevator Motor & Gearing
- Surface Mines

- PG&E
- CCWD
- EBMUD
- Stockton East Water Dist.
- City of Oakland
- City of Roseville
- City of San Jose
- City of Stockton
- City of Sacramento
- Modesto Irrigation Dist.
- Turlock Irrigation Dist.
- Oakdale Irrigation Dist.
- El Dorado Irrigation Dist.

- Air Products
- Air Gas
- Linde Air
- UC Davis Med Center
- Cal Paper
- Sierra Pacific
- Georgia Pacific
- ETHOS Energy
- CalPine Energy
- PRO Energy
- DTE Energy
- U.S. Coast guard
- Granite
- Teichert





## COMPANY CAPABILITIES

- Mechanical & Electrical Analysis & Repair
- Machine Work & Welding Shop & Field
- Electrical Maintenance & Repair Shop & Field
- Turn-Key Projects (Self Perform)
- Supplemental Man Power
- Technical & Analytical Services
- Health & Safety (Confined Space & Rescue)
- Computerized "Cloud Data basing" Maintained "in-house"
- Full Time Health & Safety Coordinator
- Blasting & Coatings
- Contractor License # C10 C61 D21 B A

# MACHINING – CAPABILITIES Shop & Field



## CAPABILITIES

- CNC & Manual Machining
- VTL
- Mill
- Lathe
- Balancing (Hard / Soft Bearing)
- EXAMPLES
  - WKM Valve Bore Weld / Line Bore
  - Finished Piston
  - Oil Pump Gear-Set
  - CNC Trunnion Support





## PG&E - TSV ACTUATORS

• Machining / Removal







**Finished Dimension** 

٠

- PG&E *TSV ACTUATORS* 
  - PISTON MACHINING



Raw Material

• "Roughed-Out" Piston



## PG&E – PISTON BODY / PRV

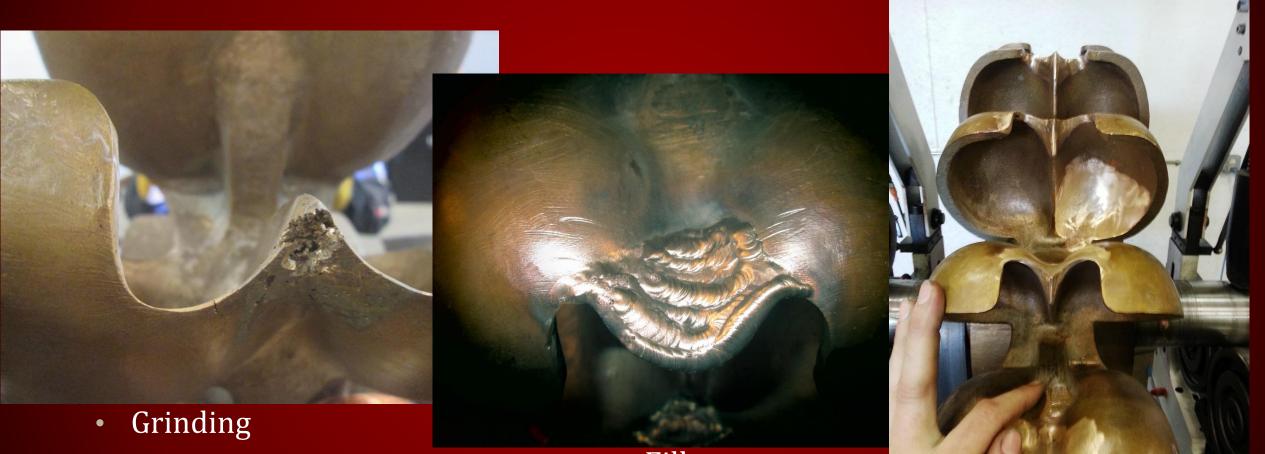
MarTec MECHANICAL ANALYSIS / REPAIR,

#### Fully Refurbished Actuator

- Removal
- Tear Down & Inspect
- As Found Dimensioned Drawing



## PELTON WHEEL REPAIR



• Filler

### Re-profiling



• OEM ASSEMBLIES REPAIR & REPLACE



Needle Assembly



Hydro Controller

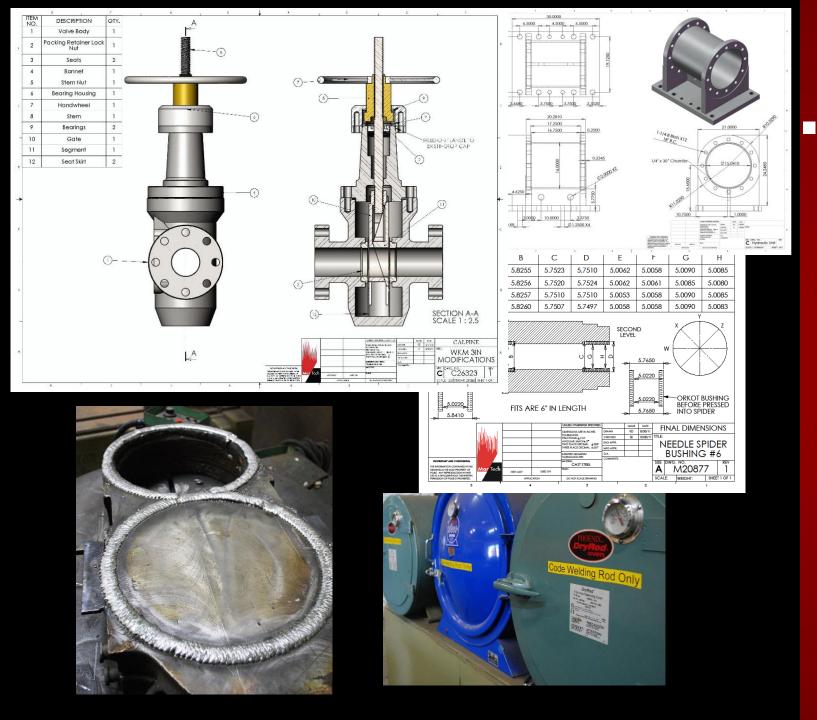


• Drum "As Found"



Drum "As Repaired"







## DRAFTING & DESIGN

- Prototype
- Reverse Engineer
- Production
- One Off Prototypes

















## CNC MACHINING

- Prototyping
- Reverse engineering
- Sand & Media Blasting
- Specialized Coatings

## MOBILE MACHINE & WELDING

- CLIMAX Mobile Equipment
  - Lathe / Journal Squirrel
  - Line Boring
  - Key Mill
  - Flange Facer
  - Bore Welder



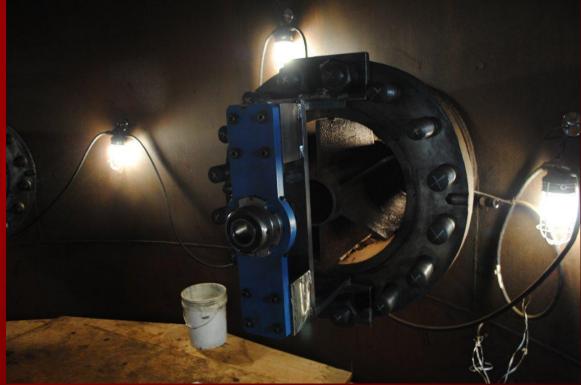
• PG&E – Boring Needle Shaft Bushings



UC Davis Elevator – Journal Repair

۲





PG&E – Boring Needle Shaft Bushings







#### FLANGE FACER – HOUSING REPAIR



## Mobile Machining







## CNC - CAPABILITY / CAPACITY

Water Jetting

- 13'W x 10'L x 6"W
- Minimal Kerf
- No Heat Affected Zone
- Plasma Cutting
  - 10'W x 5'L x ¾"W
- CNC Milling
  - 22" x 44"
  - 5 Axis
- Welding Semi Automatic
  - Rotary Positioning Table
  - Buggo Automated Welder
  - Climax Bore Welder





## • BALANCING - SHOP

- ENTEK Soft Bearing
  - Smaller capacity Rotors etc
- SCHENCK Hard Bearing
  - Large / High Speed

# FIELD SERVICE - MILLWRIGHT Shop Mechanical – Maintenance & Repair



## PG&E - HAT CREEK

Marte MECHANICAL ANALYSIS / RE

- New ?" Nut
- Re-Machine all Wear Parts
- Blasted & Epoxy Coated
- Reassembled
- Delivered
- Installed
- Commissioned





## <u>CRANE SERVICES</u>

#### Self Perform - Capacity

- 28 Ton
- 106' of Stick

#### Sub Contracted – Capacity

• 750 Ton



# ANALYTICAL

# MECHANICAL & ELECTRICAL





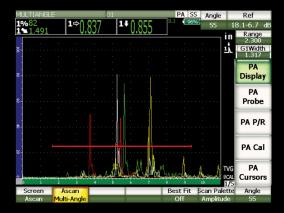














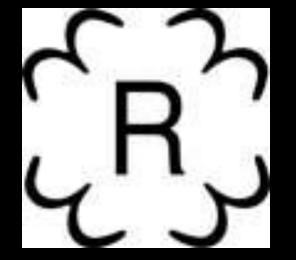
#### RELIABILITY - NDT / NDE

- Vibration Analysis
  - Routes
  - R.C.A. / R.C.F.A
- Ultrasound & Ultrasonic
  - Airborne & Contact
  - Thickness & Flaw Detection
- On / Off -Line Motor Circuit Analysis
  - Rotating Equip. Electrical Condition
- Infrared Thermography
  - Switchgear Inspections
  - Water Intrusion / Moisture
- Oil Lube Analysis Tribology
  - Gearboxes Etc.
- Acceptance Testing
  - Pressure Vessels
  - Valves













### ASME / ASNT

- <u>Credentials / Capabilities</u>
- ASME "R" Stamp Certified pressure Vessel Repair.
  Material Groups P-1 thru P-15E.
- ASME / ASNT Penetrant Testing (PT) Level II
- ASME Hydrostatic Pressure Testing to 10,000 psi.
- ASME Sec V. UT Inspection & Testing
- ASME Mag Particle Testing (MT)

#### Meters & Equipment

- PMI (Positive Material Identification) NITON XL2 GLD
- Olympus EPOCH 1000 R UT testing device
- Hardness Tester



#### MarTech Mechanical analysis / repair, inc.

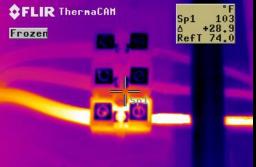
### ULTRASOUND & ULTRASONIC

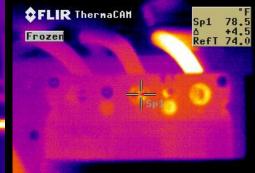
- Airborne & Contact
- Lubrication
- Leak Detection
- Valve Inspection
- Steam Trap
- Electrical Inspection
- Mechanical Inspection













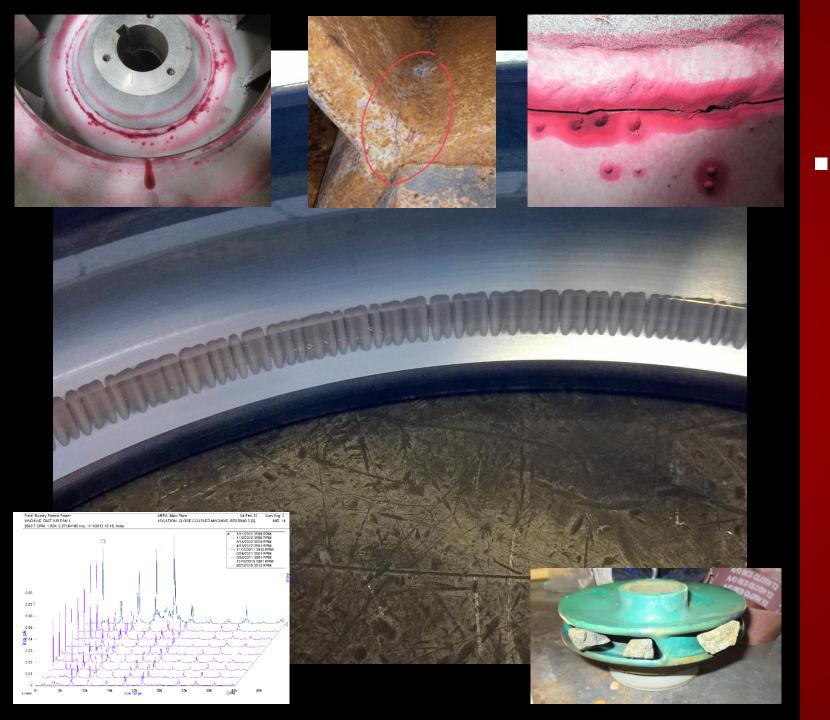
## INFRARED

#### Thermography

- Switchgear Inspection
- Electrical Connections
- Water intrusion / Moisture

Martech Mechanical analysis / Repair, INC.

- Steam Traps
- Refractory





## **RCFA** - ROOT CAUSE FAILURE ANALYSIS

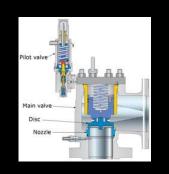
-MECHANICAL & ELECTRICAL

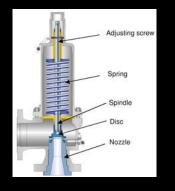
- Premature Bearing Failures
- Gear-Box / Gear-Set
- On-going / re-occurring issues
- Lubrication Audits



## **Maintenance, Repair and Sales**

 MarTech repairs and maintain all types of Valves. With vast Experience in numerous industries including power, chemical, Hydro, food process, oil and gas.





 MarTech is a "VR" certified repair facility for Pressure Relief Valves. ASME and NBIC audits performed by the National Board every 3 years.





 MarTech is an Authorized Repair Center (LARC) for Leser Safety Valves. LESER is the largest manufacturer of <u>Pressure Relief Valves</u> in Europe.



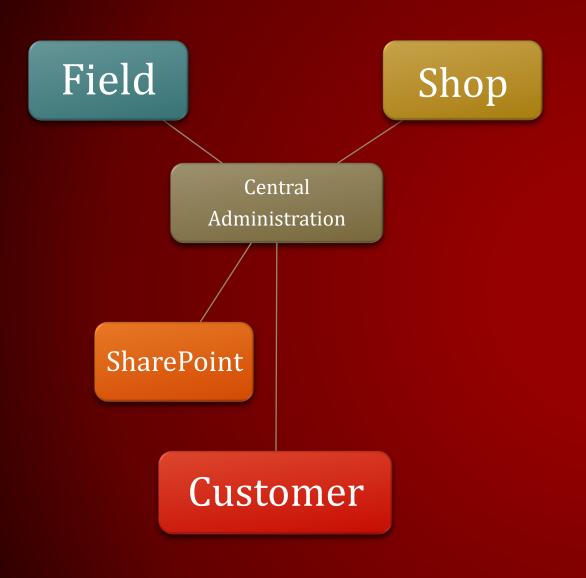


### VALVE

#### MAINTENANCE, REPAIR, SALES

- We offer:
- PM's, full inspection
- Qualified/ Certified test and repair of your existing valves in our shop or in the field.
- Troubleshooting and testing for the field or in shop
- Planning, installation and delivery of new or repaired valves.
- Sales and supply of new valves and spare parts
- Retrofits & Redesigns
- Reverse Engineering





## Competitive Advantages

- Active Owner Involvement (Expedited Decision Making)
- Single Source / Self Perform
- Complete Turn-Key Projects
- Supplemental (Cross trained) Manpower
- In-House Confined Space & Rescue
- Databased Administration
  - In House IT Staff
- Customer Portal Sites
  - Progress (Updates)
  - Online Access
  - Fully Configurable
  - Interactive



<u>http://portal.mar-tech.com/SitePages/Home.aspx</u>



#### IN-DEPTH EXPERIENCE WITH ALL FACETS OF INDUSTRIAL EQUIPMENT



**ELECTRA PACKING CHANGES** 



UC DAVIS – ELEVATOR EQUIP







US COAST GUARD – GEAR MOTOR R&R



• CCWD – PUMP SITE INSTALLS



CCWD – PUMP R&R





• Service – installation – Analysis - Repair

## SHOP VIEW





















## SHOP VIEW





