

# GET TO KNOW Springs fabrication, LLC

#### CONTENTS

ABOUT US

2. CAPABILITIES & CORE COMPETENCIES

**3.** QUALITY MANAGEMENT SYSTEMS

4. CYBERSECURITY

5. PRODUCTS/PROJECTS



# **ABOUT US**



-

#### NATIONAL LEADER IN FABRICATION

TC-300 Flotation Cells, Bagdad AZ / Outotec

# **ABOUT US**

Over 100,000 square feet of industry leading high bay manufacturing facilities.

Approximately 125 employees.

With the **capabilities to manufacture** products from simple weldments and custom pressure vessels to fully engineered skidded systems and large CNC machine capacity for industrial sized weldments.

# SPRINGS FABRICATION

Since 1986, Springs Fabrication has been serving the needs of companies nationwide with quality machining and fabrication services.

Our focus and commitment towards delivering complex, high-end engineered metal products across a wide range of industries has been the cornerstone of our continued success.

Through our responsiveness, quality, performance and value-added services, Springs Fabrication is able to enjoy mutually successful relationships with our customers.



## FACILITIES

15 TON

# FABRICATION FACILITY COLORADO SPRINGS, CO

- Modern 105,000 square foot facility on 11 acres
- Large 100 ft. x 450 ft. fabrication bay
- (2) 100 ft. span, 40-ton double trolley bridge crane
  x 32 ft. under hook height servicing large fabrication bay
- Assembly bay 50 ft. x 100 ft. with (2) 15-ton cranes
  x 55 ft. under hook height

- Precision floor imbeds in multiple locations allow us to accurately fixture and align large fabrications.
- Indoor reclaim blast booth, 20 ft. x 24 ft. x 70 ft. with inlaid track
- Climate controlled paint booth, 16 ft. x 18 ft. x 75 ft. with inlaid track



# CAPABILITIES

#### **CORE COMPETENCIES**

#### CAPABILITIES & CORE COMPETENCIES

- Engineering and Design Services
- Project Management
- Commercial and Contract Manufacturing
- Material Processing
- Code Welding Program
- Large Machining Capabilities Lathes / Mills
- Finishing and Assembly
- Inspection and Testing



# ENGINEERING + DESIGN

FABRICATION

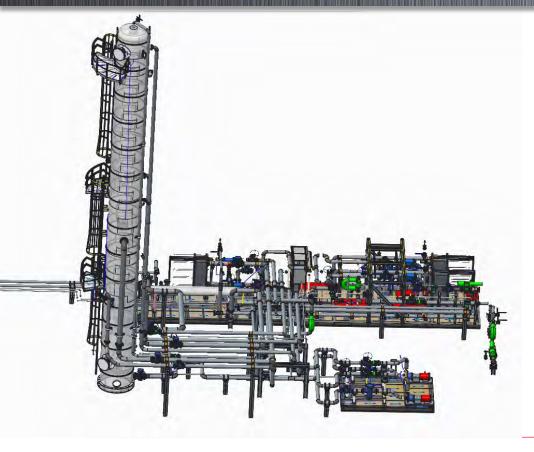
#### ENGINEERING + DESIGN

Springs Fabrication has a diverse range of experience from the design of simple parts to engineering complex equipment and systems.



DESIGN + ENGINEERING: Coil Stacking Tool – ITER / General Atomics

#### **ENGINEERING + DESIGN**



KEYS TO PROVIDING TIMELY, QUALITY PRODUCTS:

- Design to our manufacturing capabilities
- Engineer and perform analysis to support the design
- Manufacture, assemble and test to validate the design

In the early phases of each project, our experienced design team conducts a comprehensive design review, laying the groundwork for a seamless transition from engineering to manufacturing.

#### **DESIGN & ENGINEERING**

#### OUR DESIGN PROCESS SHORTENS LEAD TIME + IMPROVES ACCURACY

- SolidWorks 3D Modeling software used to construct scaled, 3D models and manufacturing drawings.
  - Designs optimized to reduce cost and shorten lead time
  - Drawings generated directly from the 3D Modeling software
  - Part geometry, metadata, is exported from the design software directly to our post processing software and machining centers.
- 2D drawing software is used for:
  - schematics
  - diagrams
  - P&IDs
- Codeware Compress software used to perform ASME BPVC Section VIII, Div. 1 pressure vessel calculations.

# Beam Shutter MACS – NIST / Merrick & Co.

# PROJECT MANAGMENT SPRINGS FABRICATION Co Kelly Ludwig 4

#### PROJECT MANAGEMENT

#### **UPON AWARD AND ACCEPTANCE**

the project is assigned to a project management team responsible for all coordination and execution.

#### **PROJECT MANAGEMENT TEAM INCLUDES**

- Project manager
- Project/Manufacturing engineer
- Quality, welding engineering, and procurement are shared resources and support the project as required

#### THE PROJECT MANAGER IS

- responsible for the project and providing updates, correspondence, project submittals, and scheduling updates
- responsible for defining the Project Execution Plan
- the primary point of contact with the customer

Water Jet Peening Bridge System - Wolf Creek Nuclear Operating Corporation and Mitsubishi Heavy Industries subsidiary, Mitsubishi Nuclear Energy Systems (MNES) / AZZ

# SOLUTION



# COMMERCIAL / CONTRACT MANUFACTURING

#### COMMERCIAL / CONTRACT MANUFACTURING

Recognized as one of the leading and most capable metal fabricators in the Rocky Mountain region, Springs Fabrication offers over 30 years of design and manufacturing excellence.

As the supplier-of-choice for several leading industrial companies, Springs Fabrication has a track record of forming strong, productive partnerships with our customers. Our experienced team ensures that the products meet all your specifications.

#### **INDUSTRY EXPERIENCE**

New & Existing Energy | Mining & Remediation | Aerospace Infrastructure | General Industry | Railroad Top 10 Engineering Firms | National Laboratories | Nuclear Department of Defense (DOD) | Department of Energy (DOE)



#### MATERIAL PROCESSING



#### MATERIAL PROCESSING

#### **EQUIPMENT HIGHLIGHTS**

- Mazak tube laser w/ tapping: Pipe, Tube, Angle, Beam, etc. up to 8.63" diameter
- Mazak flat laser: 78" x 157" travel shuttle table
- Kinetic 4000: 8' x 20' table, 260A HD plasma, Oxy Fuel, Machining Head
- Kinetic 2500: 10' x 24' table, twin-head 260AHD plasma
- Saws: up to 24" x 24"
- Rolling: Plate/Sheet Up to 1-5/8" thick x 12' wide A36, up to 3" thick depending on width
- Forming: Press Brake Up to 320-ton x 12' wide

#### A CLOSER LOOK 6-AXIS TUBE LASER CAPABILITY | Precision without machining



Round Tube/Pipe



Square & Rectangular Tube



Angle





Weld Prep



Slot and Tab (Self-fixturing)



And more.





#### WELDING PROGRAM

Our welding program is a mature and robust program administered in accordance with the requirements set forth in Section IX of *the ASME Boiler and Pressure Vessel Code* and the *AWS construction codes*.

#### WELDING PROGRAM

Administered by in-house **welding engineers** with weld inspections performed by our AWS CWIs (Certified Welding Inspectors).

Qualified for use in welding of ASME Section VIII, Division 1 pressure vessels and ASME B31 series piping.



#### WELDING PROGRAM

#### WELDING PROCESSES GMAW, FCAW, GTAW and SAW

#### **COMMON MATERIALS**

Carbon steel, 300 series stainless steel, aluminum and nickel alloys.

#### Springs Fabrication has dedicated stainless steel fabrication bays for the mitigation of cross-contamination



#### MACHINING - LATHES

. 8

0

1

and in the

(inter

SPRINGS FABRICATION



0.00

ON G P

K--

# EQUIPMENT HIGHLIGHTS

Samsung CNC with live tool & steady rest, 30" x 130"

Haas SL30 with servo 800 bar feeder, 17" x 34"

Mazak Integrex 200s, 5-Axis

HNK VTL with live tool, 78" Table with 98" swing

Adapter, 5MW Dynamometer Facility / NREL National Wind Technology Center

dill

-



#### MACHINING - MILLS

Coil Support Frame, ITER / General Atomics



#### EQUIPMENT HIGHLIGHTS MILLS

**G&L Horizontal:** 360" x 96" x 48", 120" sq. rotary infeed table **Femco Horizontal:** 78" x 70" x 66", 4<sup>th</sup> Axis available Mazak Horizontal: 52" x 48" x 48", 4<sup>th</sup> Axis, dual pallet **TOS Horizontal:** 137" x 98" x 63", 4<sup>th</sup> Axis, right angle head Feeler Bridge: 205" x 94" x 47", right angle head **Chevalier Bridge:** 162" x 101" x 39", right angle head Haas VF6: 64" x 32" x 30", 4<sup>th</sup> Axis available

Hass VF4SS: 50" x 20" x 25", 4<sup>th</sup> Axis available

#### **INSPECTION AND TESTING**

SPRINGS FABRICATION 0

ASWE

12 di

#### INSPECTION + TESTING HIGHLIGHTS MEASURING AND TEST EQUIPMENT

Our M&TE is calibrated, documented and traceable to NIST Standards.

In addition to a large variety of standard metrology available for use, we have the following equipment:

FARO 3D laser tracker – 250 ft Cube

FARO Arm, Platinum – 6 ft Cube w/ leaping capability Bruker XRF PMI (Positive Material Identification) analyzer Vacuum Pump System and Helium tester Olympus 38DL UT Thickness instrument Sonatest Wave UT shear wave instrument Digital Psychrometer (environmental conditions)



#### **INSPECTION + TESTING HIGHLIGHTS**

#### CERTIFICATIONS



In-House capabilities:

Level II SNT-TC-1A Examiners

- VT Visual
- MT Magnetic Particle
- PT Liquid Penetrant
- BLT Bubble Leak Testing
- UT Ultrasonic Shear Wave

AWS QC1 Certified Welding Inspectors (CWI)



帮.



N

Paint Booth: Viking climate controlled 18ft x 20ft x 75ft

# EQUIPMENT HIGHLIGHTS

#### **BLAST BUILDING**

24ft x 20ft x 70ft with recovery floor Available spray to waste system for virgin and specialty media

#### PAINT BOOTH

Viking climate controlled 18ft x 20ft x 75ft In-floor rails for transferring product from blast building to and through paint booth



ITER Coil Support & Lifting Frame (CSLF) / General Atomics

NI III

a main



# ASSEMBLY

Ethanol Tower, Budweiser, Ft. Collins CO / Merrick & Co.

## EQUIPMENT HIGHLIGHTS ASSEMBLY

#### MECHANICAL

50ft x 100ft x 55ft under hook height Assembly bay serviced by (2) 15 MT cranes and (1) 40T crane

#### ELECTRICAL

Termination, Conduit Runs, Ring-Out, Panel Install Larger projects and/or licensed electricians subcontracted



# QUALITY MANAGEMENT SYSTEMS

### QUALITY MANAGEMENT SYSTEMS

Springs Fabrication operates three Quality Assurance Programs:

### QT-1 ISO 9001 Certified QMS

Current edition certified through Orion Registrar, Inc.

### QT-2 ASME NQA-1:2008 Compliant QMS

Meets or exceeds the requirements of ASME NQA-1, 2008; Title 10, U.S. Code of Federal Regulations 830.122; DOE Order 414.1C; and Title 10, U.S. Code of Federal Regulations Part 50, Appendix B.

### **QT-3** ASME Section VIII, Division 1 Certified QMS

ASME Certificate of Authorization "U" / NBIC Certificate of Authorizations "NB" & "R"



# **CYBERSECURITY**

## CYBERSECURITY COMPLIANCE

#### In support of Cybersecurity compliance requirements for the handling of Controlled Unclassified Information (CUI) and Covered Defense Information (CDI):

- > We hold a medium level of assurance (MLOA) hardware digital certificate.
- > Our information system is compliant with the requirements of FAR 52.204-21 "Basic Safeguarding of Covered Contractor Information Systems".
- Our information system is compliant with the requirements of DFARS 252.204-7012 "Safeguarding Covered Defense Information and Cyber Incident Reporting".
- We have implemented all 110 controls of National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171 on our relevant information system.
- We have conducted a basic self-assessment of the 110 NIST 800-171 controls and submitted resulting scores to the Department of Defense (DoD) Website "Supplier Performance Rating System (SPRS)" (Ref DFARS 252.204-7019 and DFARS 252.204-7020 for additional information.)
- > We have implemented Level 1 and 2 controls of Cybersecurity Maturity Model Certification (CMMC), Version 2.0.



# PRODUCTS

Water Jet Peening Bridge System - Wolf Creek Nuclear Operating Corporation and Mitsubishi Heavy Industries subsidiary, Mitsubishi Nuclear Energy Systems (MNES) / AZZ

SPRINGS FABRICATION

# INDUSTRIAL PRODUCTS

## INDUSTRIAL PRODUCTS KEY INDUSTRIES

- New and Existing Energy
- Mining and Remediation
- Aerospace (Non-Flight)
- Infrastructure
- General Industry
- Railroad

- Top 10 Engineering Firms
- National Laboratories
- Department of Defense (DOD)
- Department of Energy (DOE)
- Nuclear

## INDUSTRIAL PRODUCTS KEY PRODUCTS

- Custom, High Specification Fabrication
- Skidded / Packaged Systems
- ASME Pressure Vessels / Heat Exchangers
- Atmospheric Tanks
- Pipe Spools / Piping Systems

- Industrial Rotary Equipment
- Vacuum Chambers
- Large Machined Weldments
- Ground Support Equipment (GSE) / Fixturing
- Dam Bulkheads / Gates / Trash racks

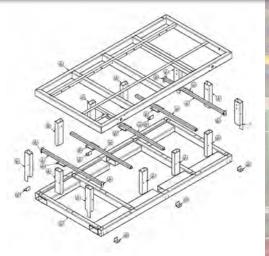


### ORIGINAL EQUIPMENT MANUFACTURER (OEM)



Temporary Sound Mitigation Walls / Urban Solutions Group

### OEM KEY INDUSTRIES



Machine Frame Kit / Oliver Manufacturing

#### **Small-Med Run Parts/Assemblies**

Focused on early-stage product development partnerships

### **Design for Manufacturability**

Value-added / New to Market

### SPRINGS FABRICATION

Epicenter Sculpture – Switchbacks Football Club / Weidner Apartment Homes Weidner Field – Downtown Colorado Springs, CO

### WEIDNER FIELD

**ARTS + ENTERTAINMENT** 

Flor De La Alma – Emanuel Martinez / Housing Authority, City of Denver, CO

00

# ARTS + ENTERTAINMENT KEY INDUSTRIES

### Metal Art Sculptures

Providing manufacturability and engineering development

### **Custom Venue Features**

Focused on early-stage product development partnerships



# PROJECTS

SEE PROJECT SHEET FOR ADDITIONAL INFORMATION

### **BIO REMEDIATION PLANT**

Functional Acceptance Test (FAT) at Springs Fabrication Facility

Pueblo Chemical Agent-Destruction Pilot Plant (PCAAP) U.S Army Pueblo Chemical Depot (PCD), Pueblo,CO Bioreactor System/ Golder Associates

### **STABILIZATION TOWER**

Loaded for Shipment

Stabilizer Tower 6ft x 82ft / Anadarko Petroleum Corp.

### Ground Support Equipment (GSE)



## ETHANOL PLANT

Waste Beer Ethanol Plant – Coors, Golden CO / Merrick and Company THEFT

# Rail Car Adapters





## **THANK YOU**

### SPRINGS FABRICATION, LLC

850 Aeroplaza Drive, Colorado Springs, CO 80916

(719) 596.8830 – Main Office springsfab.com