



DONALD BENETEAU CENTRE OF EXCELLENCE

2025

The Donald Beneteau Centre of Excellence, named after our founder, is a working welding lab and training facility used to develop skills in various metal joining technologies, including resistance welding, fastener welding, and GMAW. This site is also used for robotics and automation programming training, weld process development, and pre-production prototype part welding.

GAS METAL ARC WELDING CELL

Process:
Automated GMAW

Equipment Description:

- KUKA KR-16 L6-2 – 7 axis robot
- Lincoln R500 Power Source
- Powerwave Pulse Modes

Features:

- Consistent welds for a variety of metals
- 2.4 m adjustable fixture base for a variety of part geometries and sizes

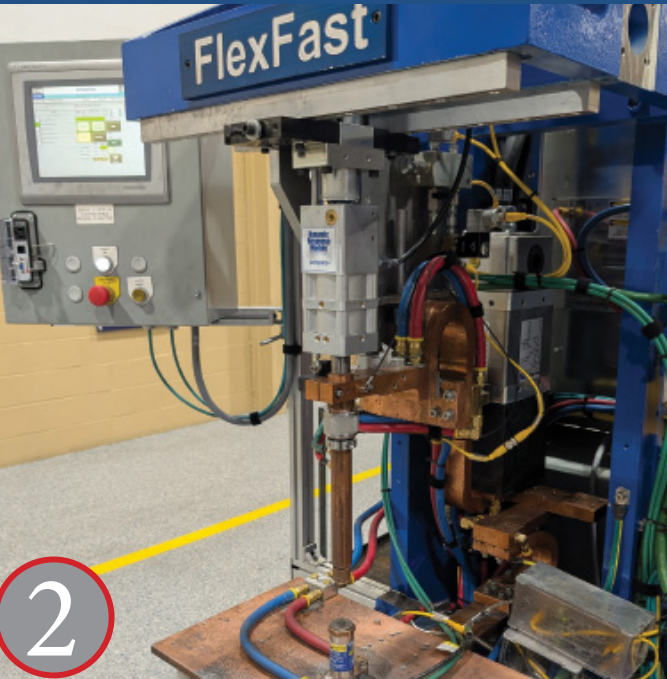


FLEXFAST™ CPRW WELDER

Process:
Controlled Pulse Resistance Welding – Projection Welding

Equipment Description:

- CPRW w/ 260 kVA fast rise transformer, 20.3 V
- 63 mm Bore – Dynamic Response Module (DRM™), for proper follow up
- 2700 lbs max. gun force
- 1600A Bosch 7400 series inverter
- Bosch 7000 weld control software for advanced processing

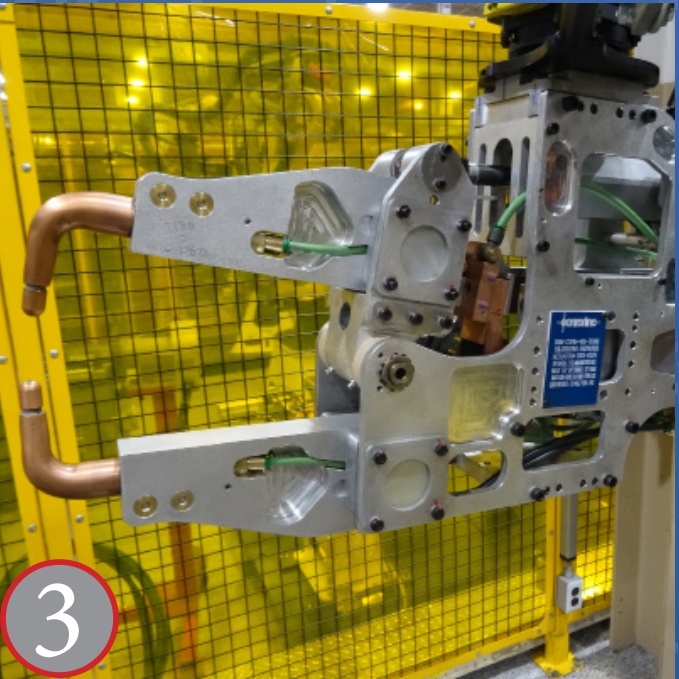


RESISTANCE WELDING ROBOTIC CELL

Process:
Automated Resistance Spot Welding

Equipment Description:

- 1 Fanuc R-2000iA robot – 165 kg load rating, 7 axis
- 1 Fanuc R-1000iA 100F robot – 100 kg load rating, 7 axis
- 2 MEDWELD 6000S weld controllers
- CenterLine FlexGun™ RA #CLSG-5029-17 modular style
- CenterLine Pinch Gun: 137mm opening, 1200 lbs force, Servo Actuator, MFDC Transformer
- CenterLine FlexGun™ #CTSPIH-420-79386, Modular style Pinch Gun: 121 mm opening, 8.0kN force, 70 kg weight, servo activation, MFDC Transformer, 1 KUKA KR120R1800 Nano – 120 kg load rating
- 2 KUKA KR16L6-2 – 6 kg load rating

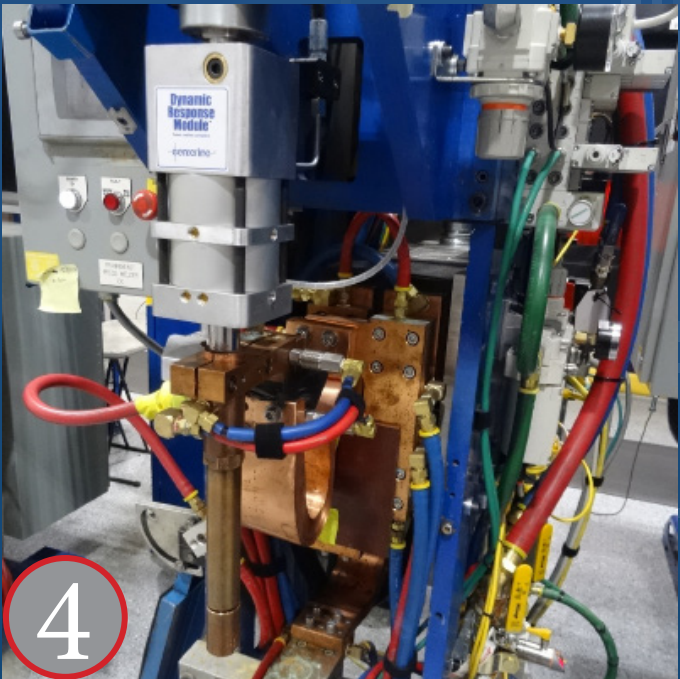


HEAVY PRESS STYLE WELDER DC

Process:
Projection Welding

Equipment Description:

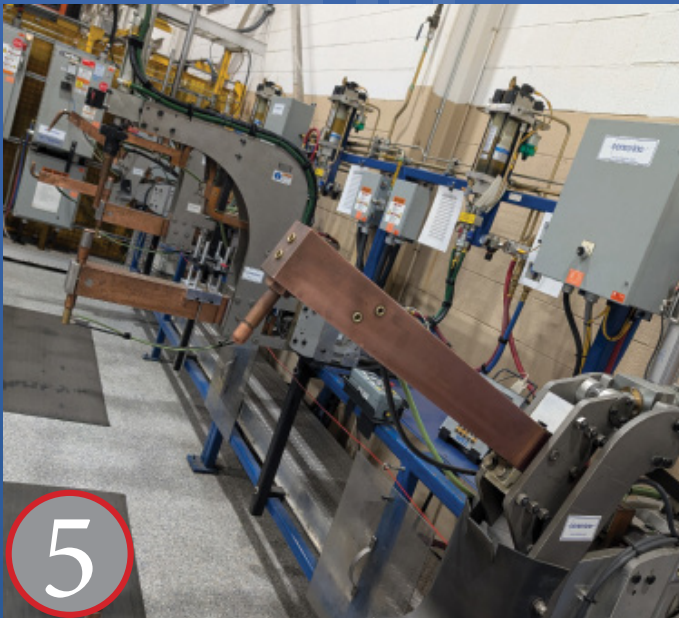
- Higher current output for welding of large fasteners
- 260 kVA fast rise transformer, 20.3 V
- 80 mm Bore – Dynamic Response Module (DRM™)
- x2 1800A Inverters
- WTC 6000 Weld Controller
- 5500 lbs max. gun force
- Approximately 80 kA max. welding current



WELD TEST BENCH AREA

Process:
Resistance Welding
This area includes a range of CenterLine resistance welding guns for use in process development work, custom part builds and training.

Equipment Description:
Four (4) bench mount guns, which include:

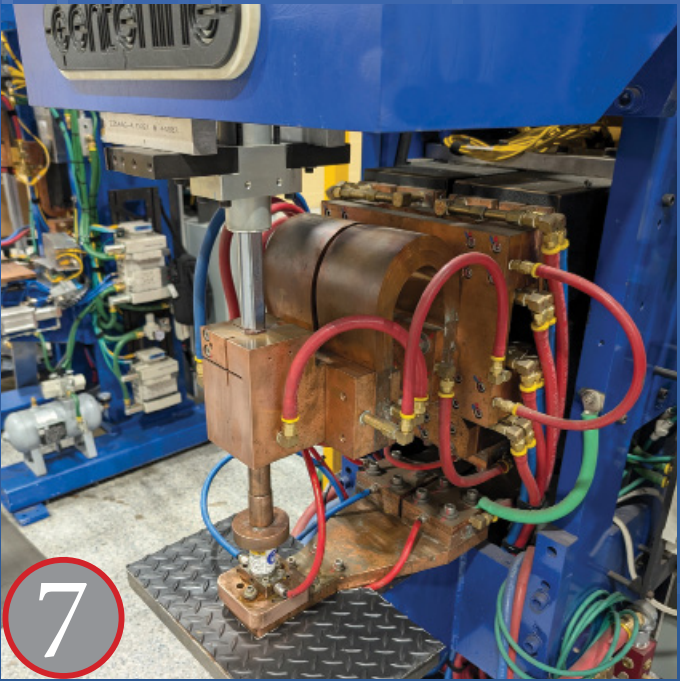


Model Number	Type	Actuator	Transformer	Opening	Max. Weld Force
# CFOPIN-020-060-122	Pinch	Air/Oil	AC-136KVA	237mm	2000lbs
# CFOB9N-140-185-006	Press Welder	Air/Oil	AC-65KVA	140mm	2600lbs
#CFOB9N-200-185-005	Press Welder	Air/Oil	DC Size 3.5	200mm	2600lbs
# CFOPIN-080-060-013	Pinch	Air/Oil	DC Size 3	235mm	2000lbs

HEAVY PRESS STYLE WELDER DC

Process:
Heavy Duty Projection Welding

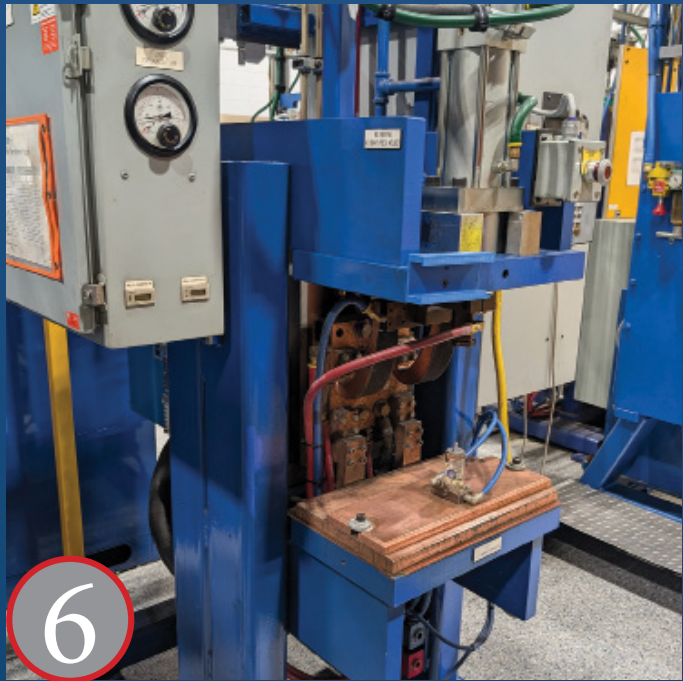
- Equipment Description:**
- 12000 lbs max. gun force
 - Approx. 120 kA max. welding current
 - X4 Class 6 transformers



HEAVY PRESS STYLE WELDER AC

Process:
Heavy Duty Projection Welding

- Equipment Description:**
- CenterLine: High Force Press Welder
 - 12000 lbs weld force
 - 100 kA welding current (approx.)
 - Designed for R&D applications



OTHER EQUIPMENT

Heavy Duty Punch Press
Ability to punch holes (7-17 mm in dia.) in a variety of materials and thicknesses.

- Load Tester**
- Pushout Tester – projection fasteners (weld nuts, studs, clinch nuts, etc.)
 - Tensile Tester – can perform tensile load test on a variety of coupon sizes w/ digital readout for recording

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GAS METAL ARC WELDING CELL
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FLEXFAST CPRW WELDER
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RESISTANCE WELDING ROBOTIC CELL
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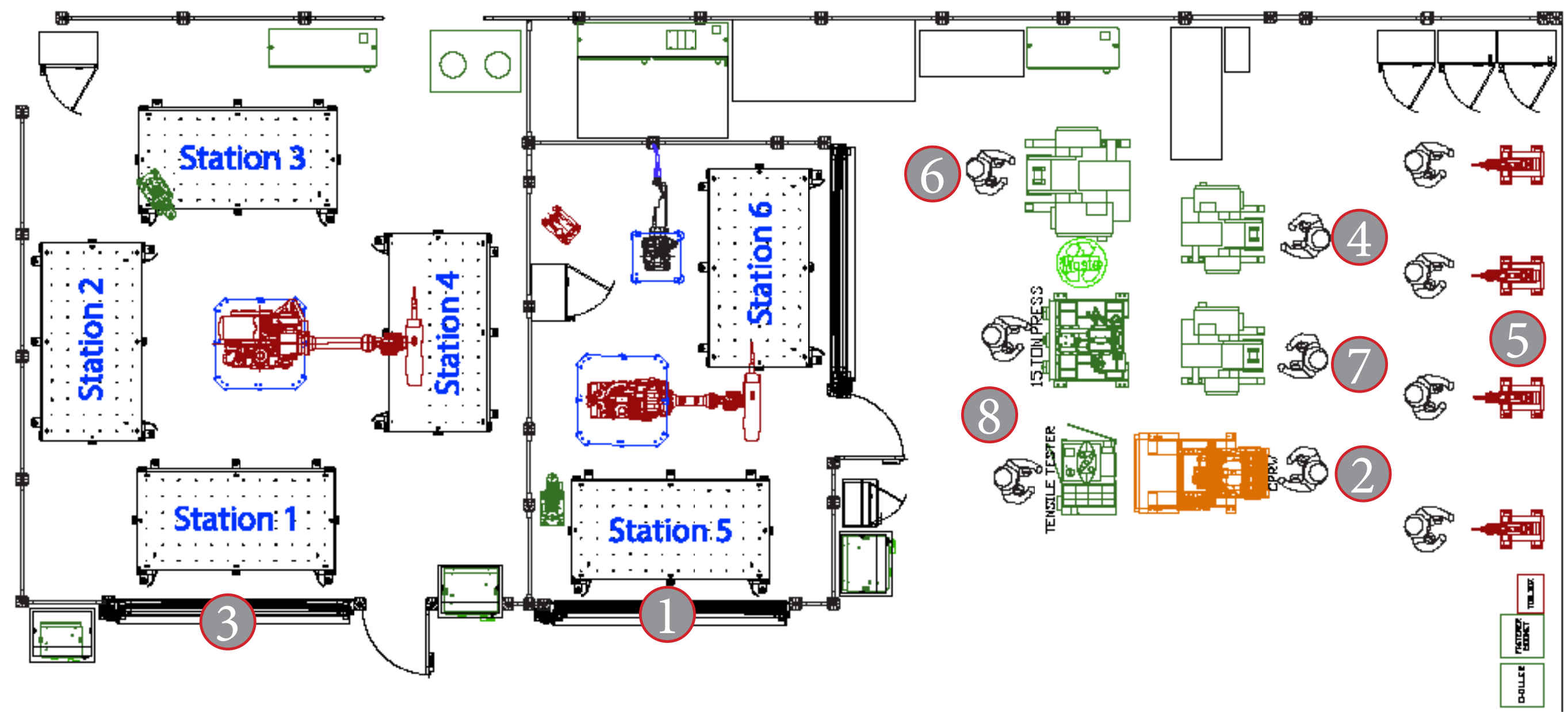
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WELD TEST BENCH AREA
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OTHER EQUIPMENT





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