

PLANT FACILITY LISTINGS



USA

HYDROMAT ROTARY TRANSFER CNC MACHINES

3 Full CNC 12 station horizontal rotary transfer machines

CNC TURN/MILL W/ OFF-LINE CAD/CAM PROGRAMMING SOFTWARE

- 8 CNC turn/mill machines: Main & Sub Spindle, multi turret, Y axis, live tooling: Multiple brands
- 5 CNC robotic load/unload w/ live tool and Y axis: Wasino
- 8 Swiss CNC Lathes ranging from 20 mm to 38 mm up to 10 axis; Star

CNC MACHINING CENTERS OFF-LINE CAD/CAM PROGRAMMING SOFTWARE

- 11 CNC vertical mill/drill/tap machining centers: Brother
- 4 CNC vertical machining centers: Makino, Haas w/ live 4th axis
- 2 CNC horizontal Machining Center 11 station pallet pool: Tsugami FMA3
- 3 CNC horizontal Machining Center w/ 7 station pallet pool: Haas EC400 7 CNC Horizontal Machining Center: Makino A51nx
- MMC2 Makino cellular system w/ integrated 60 station pallet pool feeding (5) A51nx machines

LASER MARKING

Tykma ZetaLase marking system

MULTI-SPINDLE SCREW MACHINES

- 12 Multi-spindle screw machines from 1" to 2 1/4" bar capacity:
 - · High Pressure oil
 - · Pick-Off

GRINDING

- 3 Centerless grinders
- 1 Lapping Center

BROACHING

- 1 Five-Ton vertical broach 24" 1 Ten-Ton vertical broach 36"

STAMPING

- 4 OBI punch presses
- 3 Hydraulic presses
- 3 Ton Smart Coining presses

SAWING

2 Automatic horizontal bandsaws

DEBURRING/FINISHING

- Vibratory finishing/burnishing Barrel finishing
- Sand & bead blasting, shot peening
- Specialty deburring
- Rust prevention coating

SPECIALTY PARTS CLEANING EQUIPMENT

- 1 Durr Ecoclean vapor degreaser; programable w/ultrasonics, submersible, rotation controls; zero emission
- 1 Ramco water based cleaner with Ultrasonics; clean and rinse cycles

INSPECTION EQUIPMENT

- Full service inspection department
- FAI, PPAP, APQP, C/A, & formal problem solving
- Programmable CMM Helmel Microstar
- Zeiss CMM
- Robotic inspection sorting system:
 - 1 camera surface finish

 - Robot load unload
 - Integrated computer
- Laser vision measurement systems: OGP, Oasis
- 8 Optical Comparators
- Material analuzer Nikon

GLOBAL SUPPLY CHAIN

Fully managed global and domestic value-added supply chains

CHINA

CNC TURNING

W/OFF-LINE CAD/CAM PROGRAMMING SOFTWARE

- 34 CNC slant bed lathes 2 axis
- 4 CNC flat bed lathe 2 axis
- 10 Swiss CNC lathes: Tsugami, Star
- 5 CNC Gang Tool lathes 2 axis

CNC MACHINING CENTERS

have 4th Axis)

W/OFF-LINE CAD/CAM PROGRAMMING SOFTWARE

- 1 CNC Drilling and Tapping Center UT420 w/4th Axis 2 CNC Vertical Machining Center VX400 w/4th Axis 2 CNC Vertical Machining Center (One of the devices
- 3 CNC Vertical Machining Center VF-4 HaaS w/4th
- 1 CNC Horizontal Machining Centre NHP5550
- 1 CNC Vertical Machining Center F400 w/4th Axis
- 5 CNC Fanuc Machining Center Robodrill w/4th Axis

- 2 CNC Cylindrical Grinder
- 1 Surface Grinding Machine

WIRE ELECTRICAL DISCHARGE MACHINING W/OFF-LINE CAD/CAM PROGRAMMING SOFTWARE

2 Wire FDM

SPECIALTY PARTS CLEANING EQUIPMENT

1 Ultrasonic Cleaning Machine

WICKMAN MULTI-SPINDLE SCREW MACHINES

2 Multi-spindle screw machines 1" bar capacity with high pressure oil

BONDED WAREHOUSING SUPPORT EQUIPMENT

- 6 Automatic Horizontal cut off saw
- 1 Drill press
- 5 Bench grinders
- 5 Sanders 1 Hand screw lathe

- 3 Tapping machines
- 2 Drilling and tapping machines

DEBURRING AND FINISHING

- Vibratory finishing/burnishing
- Barrel finishing
- Sand blasting
- Passivating
- Specialty deburring
- Rust prevention coating

MECHANICAL ASSEMBLY INSPECTION EQUIPMENT

- CMM Hexagon
- CMM Zeiss Profilometer Accretech
- Film thickness tester
- Optical comparator-Seven Ocean & Keyence

- Roughness checker
- Rockwell hardness tester Roundness tester
- Height gage
- Thread gage
- Caliper Micrometer
- Air gage
- Concentricity gage
- Full service inspection department
- FAI, PPAP, APQP, C/A, & formal problem solving

OUTSOURCING

- Plating
- Heat treating
- Painting Welding
- Forming
- Machining
- Stamping
- Casting
- Deep hole drilling
- Low-speed WEDM Straightening
- Shot blasting

