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AS 9100D
 ISO 9001
 ITAR Registered

Equipment

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CNC MILLING MACHINES — VERTICAL

- 2 Matsuura ES1000V**
 - 8" full 4th axis rotary table
 - Part probing (Renishaw)
 - 40" x 22" x 20" travel
 - 12,000 rpm spindle
 - High-pressure through-spindle coolant
- 1 ES 800 PC2**
 - 8" full 4th axis rotary table
 - Part probing (Renishaw)
 - 32" x 22" x 20" travel
 - 20,000 rpm spindle
 - High-pressure through-spindle coolant
 - Two-pallet changer
- 2 Matsuura MC510VG**
 - 8" full 4th axis rotary table
 - Part probing (Renishaw)
 - 20" x 14" x 16" travel
- 2 Fanuc 200 iC Robot**
 - In-feed / Out-feed conveyors
 - Part probing
- 2 Fanuc Robodrill T21 Fa**
 - 8" full 4th axis rotary table
 - 20" x 16" x 13" travel
 - 10,000 rpm spindle
 - High-pressure through-spindle coolant
- 1 Fanuc Robodrill D21 LiB**
 - 8" full 4th axis rotary table
 - 28" x 16" x 13" travel
 - 10,000 rpm spindle
 - High-pressure through-spindle coolant
- 1 Fanuc Robodrill T21 FI**
 - 28" x 16" x 13" travel
 - 24,000 rpm spindle
 - High-pressure through-spindle coolant
- 1 Fanuc Robodrill T21 FI**
 - 8" full 4th axis rotary table
 - 28" x 16" x 13" travel
 - 10,000 rpm spindle
 - High-pressure through-spindle coolant

CNC MILLING MACHINES — HORIZONTAL

- 1 DMG MORI NHX 4000 2nd Generation**
 - 15,000 rpm spindle
 - Twin pallet changer
 - Part and tool probing
 - DDM full 4th axis
 - High pressure through spindle coolant
- 1 Kiwa KH 41**
 - 12,000 rpm spindle
- 1 Kiwa KNH 400**
 - 12,000 rpm spindle
 - Twin-pallet changer
 - Part probing
- 1 Kiwa KNH 426**
 - 12,000 rpm spindle
 - Six-pallet changer
 - Part probing

CNC TURNING CENTERS

1 Nakamura-Tome NTY3-250

Twin spindle (6,000 rpm)
Three turret (36 live tools; 6,000 rpm)
13 axis
8" diameter x 36" length capacity

3 Nakamura-Tome NTY3

Twin spindle (6,000 rpm)
Three turret (36 live tools; 6,000 rpm)
13 axis
6.5" diameter x 23" length capacity

1 Nakamura-Tome WT100

Twin spindle (6,000 rpm)
Twin turret (24 live tools; 6,000 rpm)
8 axis
6.5" diameter x 19" length capacity

1 Nakamura-Tome SC 150 M

Single spindle (6,000 rpm)
Single turret (12 live tools; 6,000 rpm)
3 axis
6.5" diameter x 10" length capacity

3 Nakamura Tome TMC 15

6" x 15"

1 Okuma Cadet

8" x 24"

3 Okuma Crown L-1060

8" x 24"

2 Cubic GT Mini Plus

5" x 6" CNC gang turning center

1 DMG Mori NLX 2500Y-1250

Single spindle (4,000 rpm)
Live turret (12 tools; 10,000 rpm)
4 axis
12" diameter x 48" length capacity
Programmable steady rest

Ganesh Gen Turn 52-BY2

9 axis mill / turn lathe with 12-angle tools
52mm / 2" diameter bar capacity
Twin 15hp, 6,000 rpm opposed spindles
36 tool positions, 18 live tools

Tsugami B0325-II

Enhanced 5-axis Swiss-style lathe
32mm / 1.26" diameter bar capacity
8' bar feeder
8,000 rpm main and sub-spindles
6,000 rpm live tools
26 tool positions, 8 live tools
Robotic unload and mitutoyo Quick Visions
Apex CNSC vision measuring system

ELECTRIC DISCHARGE MACHINES (EDM)

3 Accutex HP-350 CNC (hole popper)

12" x 14" table travel
6" programmable indexer

MANUAL EQUIPMENT

3 Model 2J Bridgeports w/digital readout

1 Clausing, 17" x 48" Engine lathe

GRINDERS

1 Kellenberger Kel-Vista UR175/1000 Universal CNC grinding machine

12" x 40"
220 pounds maximum between centers

2 Harig hydraulic surface grinders

6" x 18" travel

1 Sunnen Model MBC 1804 automatic production honing machine

PRECISION INSPECTION

QC lab

Temperature controlled

Calibration system

Compliant to ANSI Z 540-1 Part 2

Keyence IM-7010 Image Dimension Measuring System

7.87" x 7.87" wide field measurement area

4.92" x 4.92" high-precision measurement area

Coordinate Measuring Machines (CMMs)

2 Zeiss Contura G2 1000/1600/600

40" x 63" x 24" measuring range

Calypso software

Freeform software

Vast XXT scanning probe

RDS articulating probe holder

2 Zeiss Duramax

20" x 20" x 20" measuring range

Vast XXT scanning probe

Calypso software

QC-Calc SPC

Other Precision Equipment

3 Digital Electronic height gauges

3 Hawkeye® Borescopes

with video and digital imaging system

COMPUTER AND CAD CAM CAPABILITIES

Mastercam version 2020

Mill Level 3, Lathe, Solids, Design, Multi Ax 3D, contouring CAD CAM software

Receive and translate ASCII, IGES, STEP, DXF, PARASLD, STL, SLDPRT, SAT, ACAD, files

Esprit 2011 CAD/CAM

SolidWorks 2019 Professional x64 Edition



Other Precision Equipment continued

2 Federal Air Gauge System

with micro-inch increments

2 Federal Electronic Amplifier Gauges

4 Surface Profilometers

4 Mantis Vision Scopes —4x-10x

6 Stereo Scopes — 10x-30x

3 Starrett® HB400 Optical Comparators

16" screen

1 Zeiss Surfcom 2000SD

Surface roughness and contour

Motorized probe

4" stroke

1 Zeiss Rondcom 41C

Form tester

300mm height

1 Mitutoyo HR-430MR Hardness Tester

1 Mitutoyo CNC Vision Measuring Machine

Quick Vision Apex with probing

Model QV-X302PIL-D

12" x 8" x 8"

OTHER EQUIPMENT

Parts Cleaning

1 JRI FL500 Parts Washer

2 Branson Ultrasonic Cleaners

4 Hornady Magnum Sonic Cleaners

Surface Finishing

1 UltraMatic Portaburr 3

1 Hammond Roto-Finish ST-1 CLT

1 Bel Air Vibratory Tumbler

1 Sand Blaster

4' x 3'

Heat-Treating Ovens and Furnaces

1 Paragon Model HT14

14" x 14" x 14"

Laser Marking Machine

1 Tykma ZXE 20