

Hutchinson Manufacturing, LLC Equipment, Machinery, and Technology List – 2018

(Revised 10/12/2018)

PO BOX 487
720 MN-7 W
Hutchinson, MN 55350
PH: (320) 587-4653
FAX: (320) 587-3620
www.hutchmfg.com

CAD/CAM EQUIPMENT

CAD:

SolidWorks Premium 2018

CAM:

MasterCAM X3 machine programming software

Optimation laser cutting programming software

ProNest plasma & oxy cutting programming software

QUALITY ASSURANCE MEASUREMENT EQUIPMENT

(1) Faro Arm Fusion Series accurate to $\pm .104$ mm with spherical working volume of 12'

(1) Faro Arm Titanium Series accurate to $\pm .074$ mm with spherical working volume of 10'

(1) Faro Arm Platinum Series accurate to $\pm .043$ mm single point with spherical working volume of 10'

(1) Romer Arm accurate to $\pm .080$ mm with spherical working volume of 13'

(1) Minitab Software – Capability Study & Histograms

HEAT TREAT

(1) Stress Relieve Oven

1300°F max. Temperature

Effective Work Zone 3'W x 6'D x 3'6"H

Yokogawa Programmable Cascade Controller

Honeywell 9-Channel Temperature Recorder

NDT EQUIPMENT

Ultrasonic Test Equipment

(2) Olympus, Epoch 600: Conventional UT Instrument

(1) Olympus, Epoch 4B: Conventional UT Instrument

(1) Olympus, MG2: Digital Thickness Gauge

PAUT

(1) Olympus, Omniscan MX2: Phased Array UT Instrument

Magnetic Particle Test Equipment

(2) Parker Research, B-300: AC Yoke

(1) Magnaflux, Y-1: AC Yoke

(1) Magne-Tech, 6000 AMP: Mobile Magnetic Particle Unit

Penetrant Test Equipment

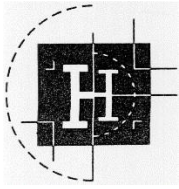
(1) Level 3 Sensitivity Fluorescent Penetrant Inspection System

Hardness Test Equipment

(2) King Portable Brinell Tester

Positive M Metal Identification "PMI"

(1) Olympus, DS-2000-CC: XRF PMI Analyzer



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CMM EQUIPMENT

- (1) CMM Zeiss Eclipse 4064 DCC
Work Area of X Travel 40", Y Travel 64", Z Travel 20"
Calypso Software
RDS Touch Probe

LASER CUTTING EQUIPMENT

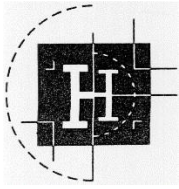
- (1) 2000 Tanaka LMXIII, 4000 watt sheet & plate cutting system
Cutting Area: 120" x 360"
Material thickness capabilities: up to 3/4"

FLAME/THERMAL CUTTING

- (1) 2009 Retro Systems Mega Hornet 3000 sheet & plate cutting system
400a Hypertherm Hi-Definition Plasma w/True-Hole Technology
CNC Oxygen Cutting System up to 12" thick
Cut Area: 120" x 480" downdraft table
Nitrogen capable plasma cutting for stainless and aluminum
Plasma material thickness capabilities: up to 2 1/2"

HORIZONTAL MACHINING CENTERS

- (1) 2013 Toshiba 6" BP-150 R22 – 60 HP
60 Tool ATC 5.9" Spindle
2,500 max RPM
X Table 160", Y Table 120", Z Table 60"
W (Quill Stroke) 28"
Table Size 70.8" x 86.6"
RMP60 Renishaw Probe (repeatability of .25 microns)
Part Probing Software
Table Capacity 44,000 lbs.
Right Angle Heads: Toshiba, Cat 50 Taper
- (1) 2013 Doosan NHM8000 – 46 HP
8,000 max RPM
Table Size 31.5" x 31.5"
X Table 55", Y Table 41", Z Table 47"
Automated Pallets – 4,400 lbs. Table Load Capacity
OMP60 Renishaw Probe (repeatability of 1 micron)
Part Probing Software
- (1) 2012 Doosan HM 8000 Horizontal Machining Center – 35 HP Spindle
90 Tool ATC Twin 800MM square Pallets
Travels: X= 49.2", Y =39.3", Z= 39.3"
Automated Pallets – 3,750 lbs. Table Load Capacity



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- (1) 2012 Toshiba BTH-130 R18 Horizontal Boring Mill – 60 HP Spindle
38 Tool ATC 5.1" Spindle
Table Size 55" x 70.8"
X Table 100", Y Table 52.5", Z Table 60"
W (Quill Stroke) 27.5"
B Axis 360 degree – Fully Programmable
Table Capacity 22,000 lbs.
RMP60 Renishaw Probe (repeatability of .25 microns)
Part Probing Software
ITS/Cogsdill Tooling Capable

- (1) 2011 Milltronics HBM 4 Horizontal Boring Mill – 30 HP Spindle
60 Tool ATC Table Size 47" x 59"
Travels: X= 86", Y =63", Z =60"
W (Quill Stroke) 20"
B Axis 360 Degree 1 Degree Increment Programmable Table Capacity 13,000 lbs.
ITS/Cogsdill Tooling Capable

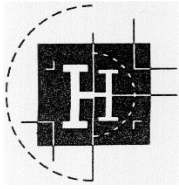
- (1) 2005 Daewoo ACE 100 Horizontal Machining Center – 35 HP Spindle
Equipped with Fanuc CNC Control 2 – 38" Square Automated Pallets
Full 4th Axis capability
Travels: X=71.5" Y=49.5" Z=49.5"

- (1) 1981 2K WOTAN CNC Horizontal Mill 1997 Retrofit w/Fanuc CNC Control
Travels: X= 233" Y= 76" Z= 31" W= 20"
8' x 20' Floor Plate
61" X 61" 5th Axis 360 Degree 1 Degree Increment Programmable Rotary Table

- (1) 1968 Giddings & Lewis Horizontal Mill Machine Center
1996 Retrofit w/GE Fanuc CNC Control
2014 Refurbish with 360° Turntable and Spindle Upgrade
Travels: x= 179" y= 90" z= 36" 6' x 21' Floor Plate

ITS Tooling

- (1) ES20, 2" thru 4.80" Travel/Diameter Change
- (1) S20 Seat Pocket Boring Bar, 2" thru 4.80" Travel/Diameter Change
- (2) S40 Seat Pocket Boring Bar, 3.937" thru 9.7" Travel/Diameter Change
- (1) S50 Seat Pocket Boring Bar, 5.11" thru 10.7" Travel/Diameter Change
- (1) CH16 Contouring Head, 0.001-8.11" Total Diameter Change



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VERTICAL MACHINING CENTERS

- (1) 2006 Vision Bridge Mill
x= 121.5" y= 62.5" z= 31"
4th Axis Rotary Chuck
Table Surface 54½" x 125½"

- (1) 2006 Sharp Manual Mill
x= 42" y= 16" (Quill Travel) z= 6" Knee Travel= 12"

- (1) 2005 Haas CNC VF3 Milling Machine
x= 40" y= 20" z= 25"
4th Axis 12" Diameter 3" through hole
Table Surface 18" x 40"

- (1) 2005 Haas CNC VF3-YT Milling Machine
x= 40" y= 26" z= 25"
Thru-spindle coolant
Table Surface 24" x 54"

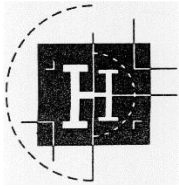
- (1) 2005 Haas CNC VF3-YT Milling Machine
x= 40" y= 26" z= 25"
Thru-spindle coolant
4th Axis
Table Surface 28" x 84"

- (1) 1997 Haas CNC VF-2 Vertical Machining Center
Equipped with Haas CNC Control
x= 30" y= 16" z= 16"
Table Surface 21" x 46"

- (1) 1996 Haas CNC VF-6 Vertical Machining Center
Equipped with Haas CNC Control
x= 64" y= 32" z= 30"
Table Surface 28" x 64"

TURNING CENTERS

- (1) 2015 Toshiba TUE-150 VTL – 50 HP w/25 HP 2500 RPM live tooling
400 max RPM (Table)
Table Size 57.09" Diameter
78" Max Cutting Diameter
61" Max Part Length
X = 45"
17,600 lbs. Max Table Load



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Ram 9.84" x 9.06"

(1) 2012 Doosan Puma 400 MB Turning Center
12 Position 15 HP 3000 PRM Live Tool Turret
21" Chuck
6.5" diameter thru bore
Programmable Tail-Shock 4.7 travel
Full wrap Steady Rest 1.5" – 18" capacity

(1) 2005 Haas SL30 CNC Lathe with Haas CNC control
17" max cutting diameter
32" max part length
3" spindle bore
10" chuck
12 position turret

SAWS

- (1) Marvel 380A; Minus 60 to Positive 60 degree tilt 15" x 20" Capacity with Automatic Feeder
- (1) Grob 18 Vert. Band Saw 55
- (1) FMB "Major" 60° cut capability
- (1) Hem Saw H110A; 16" X 16" Capacity with Automatic Feeder
- (1) Ellis Drop Saw
- (1) Peppless Vertical Band Saw

PRESS BRAKE

- (1) 220 Ton x 14' Amada w/8 Axis CNC Control, 2001

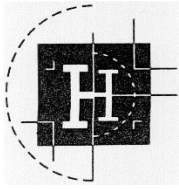
WELDING EQUIPMENT

Miller:

- (10) Axxess 450
- (8) Miller CP 300
- (3) DeltaWeld 302 with dual feeders
- (1) MillerMatic 130 XP
- (2) Miller Dynasty 350 Tig welder
- (4) Miller XMT 350 CC/CV
- (4) Miller XMT 450 CC/CV

Lincoln:

- (3) CV400
- (3) PowerWave 455



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- (1) PowerWave 455 STT
- (6) Paowerwave Flex S350
- (1) Weldwire Sub-Arc with Lincoln Idealarc DC 600 Power Source

OTC

- (6) Welbee P400

HBS Welder:

- (1) Arc 650-2 stud welders

Ultra Arc:

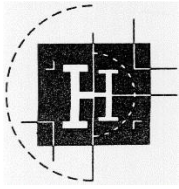
- (1) WA1800 stud welder

POSITIONING EQUIPMENT

- (1) Vanguard Manipulator
- (1) Set Vanguard 20,000Kg Turning Rollers
- (2) Sets Pandjiris Powered Turning Rolls - 4,000# Capacity
- (1) Welding Positioner - 2,000# Capacity
- (1) Roundo - 17,600# Capacity
- (1) Aronson - 3,000# Capacity
- (1) Pandjiris - 3,000# Capacity
- (1) Pandjiris – 6,000# Capacity (white)
- (2) MBC Fixture Rack - 200# Capacity, small turn tables
- (2) Teledyne Readco 4,000# Capacity

CLADDING EQUIPMENT

- (2) ARC 5P + L Arm
 - Fixed position heads
 - Work Envelope 40” Tall by 60” in Diameter
 - Max weight 5,500 lbs
- (1) ARC 5P
 - Fixed torch
 - Rotary table
 - Work Envelope 84” Tall by 96” in Diameter w/ Dual Turn Table Capability
 - Fully adjustable manipulator
 - 17,000 lbs load capacity
- (1) ARC 5R
 - Rotating torch
 - Programmable Y & XA axis for ovals; race ways, and Bonnet Faces
 - Fully adjustable manipulator
 - Work Envelope 96” Tall by 96” in Diameter
- (2) PDS – BarTech
 - PCE-630 Six Zone “Fully Automated” w/ Preheat and stress relief equipment
- (1) Miller ProHeat 35 - Induction Heater



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(3) Jetline 8020 - Magnetic Arc Control w/ Oscillators

GRITBLAST FACILITIES

Room 1: Hoffman Grit Blast w/Recovery, 15'11" Wide x 17' Tall x 60' Long, 1991

Room 2: Clemco Grit Blast w/Recovery, 12' Wide x 12' Tall x 30' Long

PAINING FACILITIES

Booth 1: 15'4" Wide x 17' Tall x 60' Long, 1991

Product moves through the booth manually with a 1400 lb. monorail system. Paint applications include; air-assist pump, HVLP guns and a small pressure pot system and gravity feed cup guns for smaller applications. Able to apply multiple coatings of liquid epoxies, industrial urethanes, and some select enamels.

PTFE (Xylan™) Paint Facility:

We are an approved Xylan™ applicator, have capability of doing parts up to 1200 lbs. with a working envelope of 4.5 ft. width by 4.5 depth by 4 ft. high.

BUILDINGS

Fabrication & Machining Bay:

60' x 210'

Hoists: (2) 3-Ton & (1) 5-Ton, 12' Hook Height

Welding Bay A:

60' x 240'

Hoists: (1) 10-Ton, (4) 2 ½-Ton, (2) 5-Ton, (1) 10-Ton, 16' Hook Height

Welding Bay B:

72' x 192'

Hoists: (4) 2 ½-Ton, 14 ½' Hook Height

Blast/Paint/Assembly Area A:

70' x 340'

Hoists: (4) 5-Ton, 21' Hook Height

Saw Building:

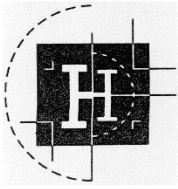
40' x 70'

Hoists: (1) ½-Ton, 11' Hook Height

Material Storage:

(4) 40' x 80' Metal Pole Sheds

Securely enclosed w/concrete floors



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TOTAL SQUARE FOOTAGE - 127,000 Square Feet

LAND - 10 Acres