



MINNESOTA EQUIPMENT LIST

CNC Machining Centers

Enshu model EV 650 Vertical Machining Center
25"x71" table 30 station automatic tool changer 50 taper tooling
full splash enclosure 4th axis Enac control

Enshu model 650 VX Vertical Machining Center
30 station automatic tool changer 50 taper tooling 4th axis
Low splash enclosures Fanuc 11M control

Enshu model 430 CNC Vertical Machining Center
20 station automatic tool changer 40 taper tooling 4th axis Fanuc 11M control

Enshu model E-130 Drilling/Tapping Center
4th axis indexers

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Kia model V25P Vertical Machining Center
pallet shuttle

Matsuura model 1000 VDC5 Twin Spindle Vertical Machining Center
4th axis indexers

Matsuura model MC 500V with indexer Vertical Machining Center

CNC Turning Centers

Daewoo model Lynx 210GL/Gantry Loading Turning Center
with part turn around option

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Puma 200 MSA with live tooling with subspindle
8" chuck/collet SMW 12.65 auto load bar feed
2.500 diameter bar capacity

Daewoo model Puma 8 CNC Turning Center
8" chuck with tail stock

Emco Turn model 360 CNC Turning Center
8" chuck/collet SMW space saver 2000
2.500 diameter bar capacity

Emco Turn model 342 CNC Turning Center
6" chuck/collet

Emco Turn model 342 CNC Turning Center
6" chuck/collet with tail stock

Kia model Kit 30A CNC Turning Center
gang style machine

Takisawa model TP-3 CNC Turning Center
8" chuck with tail stock

Nissin NK-4
10" chuck with tail stock

Takisawa model TS-25 CNC Turning Center
10" chuck with tail stock

Kitako model Variant Turn 65 CNC Turning Center
10" chuck with tail stock

Spline Rolling

Michigan Roto-Flo model 1525 Spline Roller (24" racks)

Laser Marking

Control Laser Corporation (CLC) model Icon LS 900 Laser Marking Maching
12" x 12" 360° loading station

Machining Accessories/2nd Operation Equipment

(4) Bridgeport Series with readouts

(4) Hardinge 2nd op lathes

(1) Marvel model V10 A Verticle Automatic Band Saw

(4) Schmidt Roll Stamping Machine model 365

(1) Okuma Engine Lathe 22.5" x 60"

(4) Horizontal 2nd op Mills Cincinnati/Nichols

Precision Inspection Equipment

Mitutoyo model BHN 706 CNC Coordinate Measuring Machine
Renishaw probe with computer, monitor and printer

(2) Trimos-Fowler 24"
computerized vertical height gage

Scherr-Tumico 30" Optical Comparitor
model 22-5600

Quadra-Check 2000 digital readout

Rockwell Hardness Tester model 40 UR

All Ness Ring Gages, Pins, Micrometers, etc.
electronic height gaging

Precision Devices Surfrest
model PDD-1