

SOFTWARE

CATIA V5-6 2018 FIVE AXIS MACHINING SOFTWARE

Modules include:

Advanced Part Design and Detailing
Manufacturing Infrastructure
Prismatic Machining Programmer
Surface Machining Programmer
Multi-axis Machining

OPENMIND HYPERMILL

Multi-axis Machining
2.5D and 3D Milling modules
5 axis milling modules
Mill-Turn module
Catia v5 Import License

VERICUT VERIFICATION SOFTWARE

Fully integrated with Catia to provide complete verification capability
Auto diff

ICAM POST PROCESSOR

Development Builder - Post writing capability

PC-DMIS INSPECTION SOFTWARE

Full curves and surfaces facility
Direct Cad Interface (DCI) link to Catia
SPC

SYSPRO ERP 7 build 20

Management information system
Shopfloor scheduling & data collection - MOM

CNC MACHINING CENTRES

4 No. DST ECOSPEED F2035 6 AXIS AIRCRAFT HORIZONTAL MACHINING CENTRE

Twin Pallets 3500mm x 2000mm
129 tool capacity
Travel X = 3800mm, Y = 2500mm, Z = 670mm
Spindle speed = 30,000rpm, Power = 120Kw

1 No. DST ECOSPEED F HT 1010 5 AXIS HORIZONTAL MACHINING CENTRE

Twin Pallets 1000mm X 1000mm
80 Tool Capacity
Travel X = 1250mm, Y = 1350mm, Z = 670mm
Spindle speed = 30,000rpm, Power = 80kW

1 No. STARRAG STC 800 5 AXIS HORIZONTAL HIGH DYNAMIC MACHINING CENTRE

Twin pallets 800mm x 800mm.
204 tool capacity
Travel X = 1420mm, Y = 1200mm, Z = 1300mm
Spindle speed = 30,000rpm, Power = 120kW

1 No. STARRAG STC 800 5 AXIS HORIZONTAL HIGH DYNAMIC MACHINING CENTRE

Twin pallets 800mm x 800mm.
204 tool capacity
Travel X = 1420mm, Y = 1200mm, Z = 1300mm
Spindle speed = 18,000rpm, Power = 80kW

1 No. STARRAG STC 800 5 AXIS HORIZONTAL HIGH DYNAMIC MACHINING CENTRE

Twin pallets 800mm x 800mm.
204 tool capacity
Travel X = 1420mm, Y = 1200mm, Z = 1300mm
Spindle speed = 5,600rpm, Power = 37kW

1 No. SNK HPS-120B 5 AXIS HORIZONTAL MACHINING CENTRE

Twin pallets 3048mm x 1220mm
40 tool capacity
Travel X = 3150mm, Y = 1320mm, Z = 762mm
Spindle speed = 15,000rpm, Power = 37kW

3 No. GROB G550 (PSSL) 5 AXIS HORIZONTAL UNIVERSAL MACHINING CENTRE

FMS Automation pallet storage system - PSSL - 69 pallets
630mm x 630mm
140 tool capacity
Travel X = 800mm, Y = 1020mm, Z = 1020mm
Spindle speed = 30,000rpm, Power = 53kW

1 No. GROB G550 (PSSR-10) 5 AXIS HORIZONTAL UNIVERSAL MACHINING CENTRE

Automated 10 pallet system - PSSR-10
Cell Controller Grob 4 pilot
630mm x 630mm.
120 tool capacity
Travel X = 800mm, Y = 1020mm, Z = 1020mm
Spindle speed = 30,000rpm, Power = 53kW

1 No. GROB G550 (twin pallet) 5 AXIS HORIZONTAL UNIVERSAL MACHINING CENTRE

Twin pallet system - 1 machine tool
630mm x 630mm
120 tool capacity
Travel X = 800mm, Y = 1020mm, Z = 1020mm
Spindle speed = 30,000rpm, Power = 53kW

2 No. GROB G350 (PSSR-15) 5 AXIS HORIZONTAL UNIVERSAL MACHINING CENTRE

With automatic pallet storage system for 15 pallets - PSSR-15
Cell controller Grob 4 pilot
117 tool capacity
Travel X = 600mm, Y = 855mm, Z = 750mm
Spindle speed = 30,000rpm, Power = 53kW

3 No. GROB G550 5 AXIS HORIZONTAL UNIVERSAL MACHINING CENTRE

Single pallet 600mm dia
110 tool capacity
Travel X = 600mm, Y = 855mm, Z = 750mm
Spindle speed = 16,000rpm, Power = 32kW

1 No. CME-SAL FCM 6000 CNC TRAVELLING COLUMN BED MILL

Universal Multi-angular head
Table Size 6500mm x 1200mm
Travel X = 6000mm, Y = 1200mm, Z = 2000mm with 4th axis 1200mm dia rotary table
30 tool capacity
Spindle speed 45 - 3,000 rpm

3 No. MATSUURA H-PLUS 630 4-AXIS HORIZONTAL MACHINING CENTRE

Twin pallets 630mm sq. - 4th axis rotary table
80 tool capacity
Travel X = 1050mm, Y = 920mm, Z = 870mm
Spindle speed 45 - 12,000 rpm

1 No. HELLER MCH280 4-AXIS HORIZONTAL MACHINING CENTRE

Twin pallets 630mm sq. - 4th axis rotary table
100 tool capacity
Travel X = 1000mm, Y = 800mm, Z = 800mm
Spindle speed 45 - 12,500 rpm, Power = 72kW

1 No. MAZAK FH-6800 HORIZONTAL MACHINING CENTRE

Twin pallets 630mm sq. - NC position table 0.001°
80 tool capacity
Travel X = 1050mm, Y = 800mm, Z = 880mm
Spindle speed 36 - 7000 rpm

1 No. MATSUURA MAM-700 4-AXIS HG HORIZONTAL MACHINING CENTRE

Twin pallets 500mm sq. - 4th axis rotary table
60 - tool capacity
Travel X = 750mm, Y = 600mm, Z = 625mm
Spindle speed 30 - 10,000 rpm

1 No. MORI SEIKI SV 500/50 VERTICAL MACHINING CENTRE

Table Size 1,100mm x 600mm
Travel X = 800mm, Y = 510mm, Z = 510mm
Spindle speed 0 - 10,000 rpm

1 No. MORI SEIKI MV65 VERTICAL MACHINING CENTRE

Table Size 1700mm x 650mm
Travel X = 1524mm, Y = 650mm, Z = 650mm
Spindle speed 0 - 4000rpm

1 No. MAZAK 530C VERTICAL MACHINING CENTRE

Table Size 1300mm x 550mm
Travel X = 1050mm, Y = 530mm, Z = 586mm
Spindle speed 0 - 12000 rpm

1 No. MORI SEIKI MV 40/40 VERTICAL MACHINING CENTRE with AUTOMATIC PALLET CHANGER

Table Size 1100mm x 450mm
Travel X = 800mm, Y = 410mm, Z = 510mm
Spindle speed 0 - 8000 rpm

1 No. MORI SEIKI MV JUNIOR VERTICAL MACHINING CENTRE

Table Size 900mm x 450mm
Travel X = 560mm, Y = 410mm, Z = 460mm
Spindle speed 0 - 8000 rpm

3 No. XYZ DPM-5000 BED MILL

Table Size 1930mm x 355mm
Travel X = 1500mm, Y = 508mm, Z = 584mm
Spindle speed 70 - 3660 rpm

1 No. XYZ VM 4000 BED MILL

Table Size 1500 x 356mm
Travel X = 1016mm, Y = 596mm, Z = 584mm
Spindle speed = 200-6000 rpm

CNC MILL / TURN MACHINING CENTRES

1 No. MAZAK INTEGREX i500ST

Multi-tasking machining centre with true 5-axis contouring capability
12"/305mm chuck - 3,300rpm - Power - 37Kw
Milling Spindle - 10,000 rpm - Power 37kW
Tooling Magazine - 72 No. - Captop C8
Travel X=845mm, Z=3126mm, Y=430mm, B=240°, C=360°
With long drill stocker, automatic steady rest and NC tailstock

3 No. MAZAK INTEGREX i200ST (1500U) with MATRIX CONTROL

8" Twin Spindles "C" axis 0.0001° increment.
Mill/Turn Rotary-Tool spindle 12,000rpm 22kW
9 Station Bottom Turret – 72 No. Tool Magazine(Capto)
Travel X = 615mm, X2 (Lower Turret) = 230mm
Y = 250mm, Z = 1565mm, B = 210°, C = 360°
True 5-axis contouring capability
Spindle speeds 35 – 5000rpm. Power = 22kW

1 No. MAZAK INTEGREX 200 – IVST 1500U with MATRIX CONTROL

8" Twin Spindles "C" axis 0.0001° increment
Mill/Turn Rotary-Tool spindle 12,000rpm 18.5kW
9 Station Bottom Turret – 40No. Tool Magazine(Capto)
Travel X=580mm, X2 (Lower Turret)=150mm
Y = 160mm, Z = 1545mm, B = 225°, C = 360°
True 5-axis contouring capability
Spindle speeds 35 – 5000rpm

1 No. MAZAK INTEGREX 200 – IIIST SERIES with MATRIX CONTROL

8" Twin Spindles "C" axis 0.0001° increment
Mill/Turn Rotary-Tool spindle 12,000rpm 18.5kW
9 Station Bottom Turret – 40No. Tool Magazine(Capto)
Travel: X = 580mm, X2 (Lower Turret) = 150mm
Y = 160mm, Z = 1045mm, B = 225°, C = 360°
True 5-axis contouring capability
Spindle speeds 35 – 5000rpm

1 No. MAZAK QTN 350MY MATRIX CONTROL, Chuck Dia 300MM

Max Machining Dia = 420MM
Max Machining Length = 1538mm
Travel: X=260mm, Y=150MM, Z=1605mm, C=360°
Main Spindle Speed: 3300rpm
Milling Spindle Speed: 4000rpm

1 No. MAZAK QTN 200MY MATRIX CONTROL, Chuck Dia 200MM.

Max Machining Dia = 380mm
Max Machining Length = 538mm
Travel: X=230mm, Y=100mm, Z=575mm, C=360°
Main Spindle Speed: 5000rpm
Milling Spindle Speed: 4500rpm

1 No. MAZAK INTEGREX 35 TURNING CENTRE with INTEGRATED MILL CENTRE

Y-axis, T-Plus Control and Power Tooling (40 tool capacity)
Maximum cutting diameter 575mm
Travel X = 245mm, Y = 90mm, Z = 1545mm
C-axis = 0.001' x 360,000 positions
Spindle speed 35 - 3000 rpm

1 No. MAZAK SUPER QUICK TURN 28MS with INTEGRATED MILL CENTRE and SUB SPINDLE

Bar Feed
T-Plus Control & Power Tooling (12 tool capacity)
Maximum cutting diameter 410mm
Travel X = 245mm, Z = 1545mm
Spindle Speed 35-3500 rpm
Sub Spindle Speed 35-3500 rpm

1 No. MAZAK SUPER QUICK TURN I8M with INTEGRATED MILL CENTRE

T-Plus Control and Power Tooling (12 tool capacity)
Maximum cutting diameter 300mm
Travel X = 180mm, Z = 590mm
Spindle Speed 180-4000rpm

CNC LATHES

1 No. MAZAK QUICK TURN SMART 200

Bar Feed/Parts Catcher
Maximum swing diameter 660mm
Maximum cutting diameter 212mm.
Maximum cutting length 538mm
Spindle Speed 0-5000 rpm

1 No. MAZAK QUICK TURN 20 LATHE with T PLUS CONTROL

Bar Feed/Parts Catcher
Maximum swing diameter 400mm
Maximum cutting diameter 240mm.
Maximum cutting length 500mm
Spindle Speed 0-5000 rpm

1 No COLCHESTER COMBI-4000 LATHE with CNC FANUC CONTROL

Swing over bed = 554mm. Swing in gap = 830mm
Distance between centres = 2000mm
Spindle speed 18 -1,800 rpm

1 No COLCHESTER COMBI-K2 LATHE WITH CNC FANUC CONTROL

Swing over bed = 400mm. Swing in gap = 585mm
Distance between centres = 1270mm
Spindle speed 6 -2,500 rpm

1 No. XYZ VL 425 CNC LATHE

Swing over bed = 480mm
Swing over gap = 700mm
Distance between centres = 1250mm
Spindle speed = 25 – 2500 rpm

INSPECTION

1 No. GLOBAL CNC CORDINATE MEASURING MACHINE

PC DMIS measuring software
Stroke X = 3300, Y = 2000, Z = 1500
Measuring Accuracy = 4.7 + 3L/1000mm

1 No. HEXAGON GLOBAL SILVER ADVANTAGE CNC CORDINATE MEASURING MACHINE

PC DMIS measuring software
Stroke X = 3000, Y = 1200, Z = 1000
Measuring Accuracy = 2.7 + 3L/1000mm

3 No. HEXAGON S CHROME CNC CORDINATE MEASURING MACHINE

PC DMIS measuring software
Scanning heads
Stroke X = 2000, Y = 900, Z = 800
Measuring Accuracy = 1.3 + 3L/1000mm

1 No. HEXAGON GLOBAL EVO CNC CORDINATE MEASURING MACHINE

PC DMIS measuring software
Stroke X = 1500, Y = 900, Z = 800
Measuring Accuracy = 1.3 + 3L/1000mm

1 No. SCIROCCO CNC CORDINATE MEASURING MACHINE

PC DMIS measuring software
Stroke X = 1500, Y = 1000, Z = 860
Measuring Accuracy = 4.5 + 5L/1000mm

1 No. TESA MICRO-HITE 3D 474 Manual CMM

1 No. TESA MICRO-HITE 700

1 No. MICRO-HITE 600

1 No. OPTICAL PROJECTOR

1 No. ROCKWELL HARDNESS TESTER

2 No. ELECTRONIC SURFACE FINISH TEST-ERS

Full range of calibrated measuring equipment and gauges traceable to NAMAS standards

CNC ELECTRO-DISCHARGE MACHINERY

1 No. FANUC EDM WIRE CUT MACHINE

Automatic wire feed
Five axis movement with taper cut
Travel X=750mm Y=450mm Z=300mm
U=60mm V=60mm

CONVENTIONAL TURNING LATHES

4 No CONVENTIONAL LATHES

All with digital readouts
Max Swing 535mm Max Length 2000mm
Max Spindle Bore 90mm diameter

CONVENTIONAL MILLING MACHINES

5 No. CONVENTIONAL MILLERS

(All with digital readouts)

2 No. UNIVERSAL MILLERS

2 No. VERTICAL MILLERS

2 No. TURRET MILLERS

Max Longitudinal Travel 1500mm
Max Cross Travel 700mm
Max vertical travel 550mm

CONVENTIONAL GRINDING MACHINES

1 No. JONES AND SHIPMAN UNIVERSAL CYLINDRICAL GRINDER

Max. Between Centres 450mm Max. Swing Diameter 200mm

3 No. JONES AND SHIPMAN SURFACE GRINDERS

Max. Table Movements X = 24", Y = 8", Z = 11"

1 No. DEDTRU PRECISION CENTRELESS GRINDER

Capacity 100mm long x 95mm diameter

1 No. FROMAG CNC E32-425 KEYSEATING & PROFILE MACHINE

Keyway Width = 2-32mm
Keyway Length = 425mm
Bore Size = 10-130mm

1 No. DELAPENA SPEED HONER

Capacity 0.045" diameter - 3.125" diameter

SAWING

1 NO. BEHINGER HORIZONTAL AUTOMATIC BAND SAW

Automatic Bar Feed, Capacity 260mm diameter

1 No. JAESPA HORIZONTAL BANDSAW

Capacity 300mm diameter

2 No. STARTRITE VERTICAL BAND SAW

36" Throat Capacity