

Major Service Report

This document contains an overview of our maintenance checks and an outline of machine functionality - highlighting any areas that may need attention.

Technician



Machine Model

Serial Number

Date

Minor Service

Minor Service complete
(see Minor Service Checklist for reference)

Table and Gantry

Integrity of tabletop OK
(no delaminating, no obtrusive cuts)

Machine squaring OK

XYZ scaling OK

Missing or damaged warning stickers replaced

All covers correctly secured

Paintwork cleaned and polished with penetrating oil

Dust Extraction and Vacuum Hold Down

Integrity of dustfoot OK
(condition of skid plate, bristles intact)

Integrity of extraction hose OK

Antistatic earth connected

Vacuum filters clean

Vacuum motors free from swarf

Seals on vacuum filter drum lid intact

Vacuum hold down pressure OK

Pressure Sensor Calibration OK
(Pressure = 100psi, Vacuum = -90KPA)

Electrical

Integrity of emergency stop system OK

Integrity of spindle OK
(electrical cables and wiring intact and functioning)

Integrity of cabletracks and wiring OK
(any loose ends wrapped and/or secured)

Major Service Report

Z Axis

Z Axis ballscrews cleaned

(with abrasive pad and penetrating oil)

No grease and dirt buildup around ballnut

Linear rails cleaned

(with abrasive pad and penetrating oil)

Grubscrews and Loctite on ballscrew motor timing pulley tight

Tension of timing belt on ballscrew motor OK

Both Z-Axis linear bearing blocks greased

Z Axis ballnuts greased

Integrity of linear bearings OK

(seals intact, smooth operation, grease nipple present)

All nuts and bolts tightened where needed

No excessive wear or backlash in ballscrew bearings

No excessive wear or backlash in ballnuts

Z Axis travels full stroke freely

X Axis

X Axis ballscrews cleaned

(with abrasive pad and penetrating oil)

No grease and dirt buildup around ballnut

Linear rails cleaned

(with abrasive pad and penetrating oil)

Grubscrews and Loctite on ballscrew motor timing pulley tight

Tension of timing belt on ballscrew motor OK

All X-Axis linear bearing blocks greased

X Axis ballnuts greased

Integrity of linear bearings OK

(seals intact, smooth operation, grease nipple present)

All nuts and bolts tightened where needed

X Axis travels full stroke freely

No excessive wear or backlash in spinning nut bearings

No excessive wear or backlash in ballnuts

Y Axis

Y Axis ballscrews cleaned

(with abrasive pad and penetrating oil)

No grease and dirt buildup around ballnut

Linear rails cleaned

(with abrasive pad and penetrating oil)

Grubscrews and Loctite on ballscrew motor timing pulley tight

Tension of timing belt on ballscrew motor OK

Major Service Report

Y Axis (continued)

Both Y-Axis linear bearing blocks greased

Y Axis ballnuts greased

Integrity of linear bearings OK
(seals intact, smooth operation, grease nipple present)

All nuts and bolts tightened where needed

Y Axis travels full stroke freely

No excessive wear or backlash in ballscrew bearings

No excessive wear or backlash in ballnuts

Pneumatics

Integrity of air supply OK
(water trap empty, pressure setting 100PSI, air supply is dry and moisture free)

No air leaks on air cylinders or connections

Pneumatic sensors operation OK

Dustfoot lifting/lowering speed OK

Tool Rack lifting/lowering speed OK

Tool Length Sensor

Tool Length Sensor Operation OK
(removed, cleaned debris under sensor plate & lubricated)

Spindle

Spindle cooling fan functioning

Spindle bearings OK
(sound and tension checked)

Gripper release cylinder travels freely

Operation of gripper open and tool present sensors OK

Lubricate gripper & gripper cylinder

Spindle taper cleaned
(with abrasive pad and penetrating oil)

Control System

Brush length on servo motors OK

Frequency inverter cooling fins cleaned
(blown clean with compressed air)

Control box interior is clean

Major Service Report

Tool Holders

Integrity of tool holders, collets and collet nuts OK

Tool holder pull studs tight

Computer and Firmware

Backup of TMS file made

ProfileLab LCF and Cuttmpl.mdb backup made

TekMov version

Total machine hours

Major Service Report

Machine Functionality

Poor - Requires attention before the next Major Service

Adequate - May need further attention at next Major Service

Excellent - No attention required

A summary of machine wear. Please see notes below for further details.

Component	Poor	Adequate	Excellent
Emergency stop system			
Tool length sensor plate			
Dust foot skid plate			
Vacuum filters			
Vacuum filter foam seal			
Dust extractor foam seal			
Dust extractor bag			
Z Brake ratchet			
Motor Brushes	N/A Brushless (Delta Motors)	Electrocraft	MAE Pittman
X Axis			
Y Axis			
Z Axis			
Linear bearings	ABBA	TBI	HiWin
X Axis			
Y Axis			
Z Axis			
Ballscrews	GTen	TBI	THK ComTop (ABBA)
X Axis			
Y Axis			
Z Axis			
Timing Belts			
X Axis			
Y Axis			
Z Axis			

Service Notes

Service Completion

Company representative present at completion:

Service completed by:

Technician



Date

Signature

Please print name

Tekcel CNC Routers are proudly made in Perth, Western Australia by Tommotek. For servicing, spare parts, upgrades, training or other enquiries please contact us at:

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