customer address:	
Order number:	
Serial number:	

Important hardware changes

Check if the new Load relay board in installed if not update to the new relay board E639104 6002	☐
Check if the new Spindle cable is monted, if not update the new cable version E639104 01280	☐
Check the A-axis cable in the milling chamber if it´s damaged, if yes change it 639104 0160	☐
Check the spindle head „bottom open“, if not update to the new spindle head version E639102 588060	☐

Preparation

Visual inspection - take pictures of machine location and machine condition (also back and machine inside)! Note abnormalities:_____	☐
Main function test (power button, emergency stop, cover, power, touch screen, door lock).	☐
Dismantle the cover and check the maintenance unit for moisture, replace the filter if necessary.	☐

Axes and actuators

Cleaning the inside of the machine (rear side).	☐
Pull – pushtest (axes: X, Y und Z).	☐

Check the backlash of the X, Y and Z axes. The backlash must not exceed 0.02 mm!
The actual values are to be recorded below.

Actual value X-axis:

Before: mm After : mm

Actual value Y-axis:

Before : mm After : mm

Actual value Z-axis:

Before : mm After : mm

Align A-axis.	☐
Clean und lubricate all mechanical guides and Ball-Nuts (axes: X, Y and Z).	☐
Clean tooth belt pulley and check the screws for tightness axes Z. and change the axis Belt	☐
Listen to all axes for strange noises.	☐
Check the reference switches and change the reference switches if there are not good anymore. Latest after 5 years	☐
Replace the extraction hose in the machine.	☐

Spindle

Clean the spindle collet, grease it and mount it back	☐

Spindle turning speed

Measured at 10.000 rpm.	min.9.700U/min max.10.300U/min	rpm
Measured at 30.000 rpm.	min.29.100U/min max.30.900U/min	rpm
Measured at 50.000 rpm..	min.48.500U/min max.51.500U/min	rpm

Check Spindle concentricity

The tolerance is 0,02mm at 40mm down.

Measured at the collet:	mm
Measured at 40mm dictance to the collet:	mm
Check the solenoid valves and tubing for functionality and leaks (audio and visual check).	☐
Check the function from the tool sensor probe and a just the position	☐

Air pressures are set at 2.5bar inlet pressure

Spindle sealing air

Nominal value:	0,4 bar	Actual value:	bar

Blow-off during machining

Nominal value:	0,1 bar	Actual value:	bar

Blow-off during tool change

Nominal value:	1,5 bar	Actual value:	bar

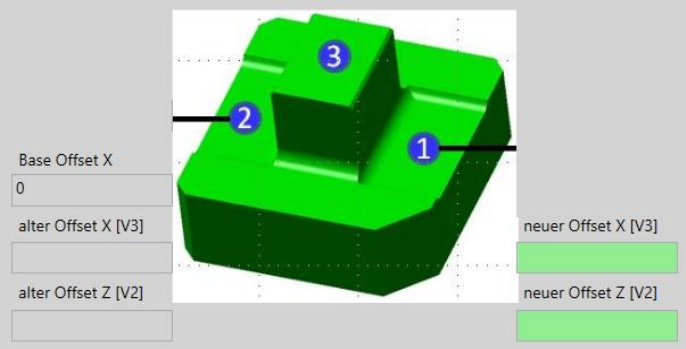
Measurement and calibration

Teach from the X axis zero point	☐
Mill a Calibration Body 3 + 12, measure, calculate and save in TK-Zero Point. When calculating and saving the values, Remote must be closed!	☐

Position	Y-Side (long)	Y-Side (short)	Lid thickness
TK 3			
TK12			

Mill 5x-Calibration Body, enter in TK-Zero Point and give it also in the CAM	☐

1. Measurement	mm
2. Measurement	mm
3. Measurement	mm



Calibrate the Pre-milled abutment holder, measure and if CAM from imes-icore, then request correction values (subject to charge).	☐

Tool Magazine

Clean tool magazine and replace worn tool holders.	☐
Adjust all positions of the tool holder and also check the springs	☐

Cooling lubricant and extraction system and spindle cooling unit

Check the cooling lubricant circuit for function and tightness. If the hoses are porous and damaged, they must be replaced	☐
When processing glass ceramics, the spray nozzles must be set at 50,000 rpm with the milling cutter T21 (two nozzles must hit the milling cutter)!	☐
Check the function of the suction system.	☐

Final Tasks

Clean the machine	☐
Check and clean fan / air filter	☐
All hoses and cables properly connected to or in the machine and to the control PC?	☐
The electrical security check	☐
Assembling the machine / final visual inspection.	☐
Clean the machine inside and out.	☐

Software

Check for software update	☐
Backup the Software and take the Backup with you	☐
Save pictures from machine to USB stick with the backup	☐
Attach the maintenance sticker to the machine and reset the maintenance counter	☐
Final function test with customer handover.	☐

Additional work (subject to a charge!)

Calibrate Medentika / Pre-Milled Abutments		amount
Machine was not freely accessible.		☐
Machine had to be cleaned additionally		☐

Place, Date	Signature of client	Signature contractor