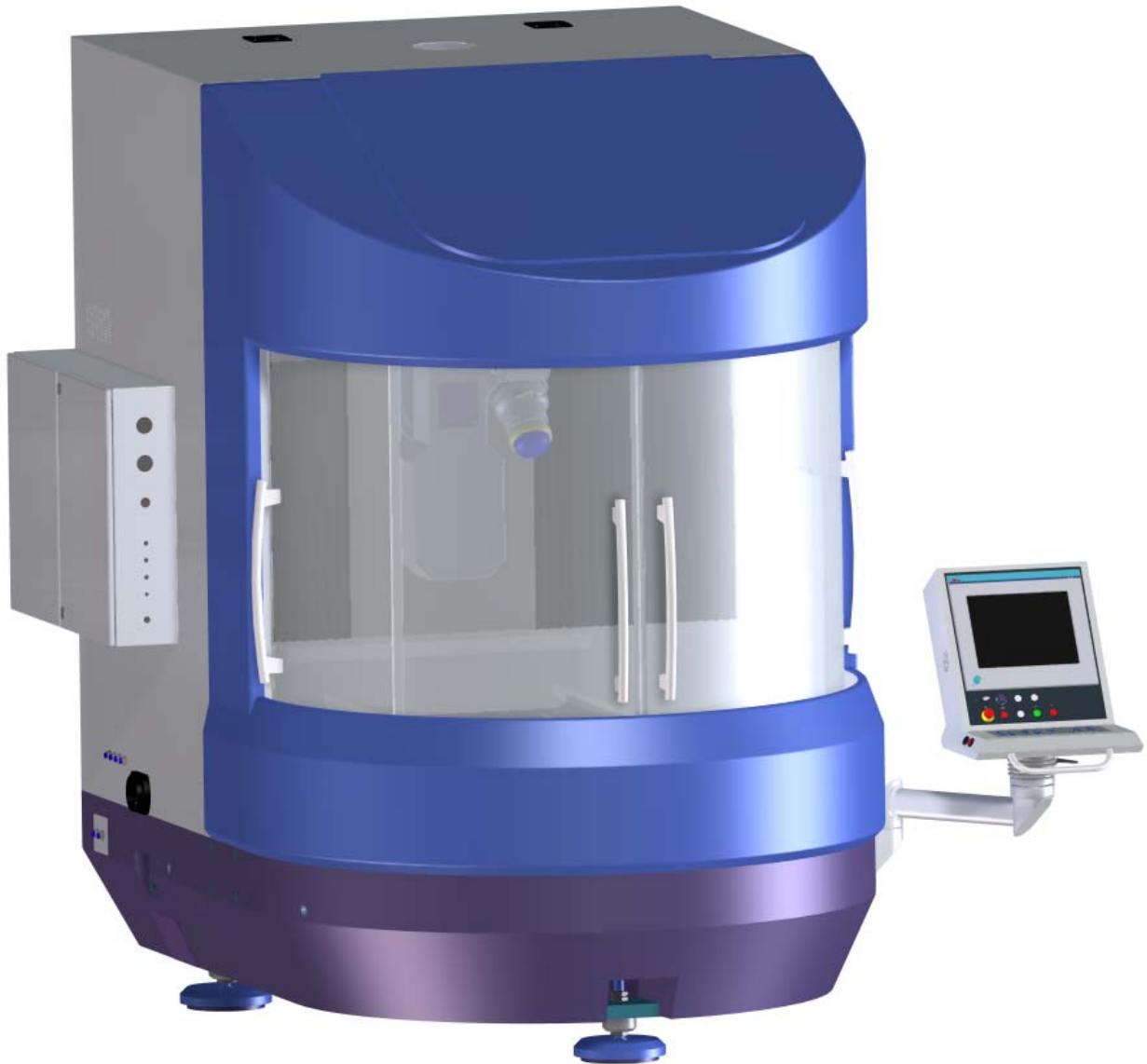




ZEEKO^{Ltd}



IRP600 X

Table of Contents

1	Specification Summary	2
---	-----------------------------	---

1 Specification Summary

General	Description
System Configuration	7 Axis CNC Optical Polishing Machine constructed on Polymer Quartzite Machine Base, capable of producing ultra-precise surfaces on a variety of optical materials and surface forms.
Work piece Capacity (1)	Nominal polishing envelope of 800x500x250mm. (Specify Plano & F3 CVX & F3 CCV)
Base Structure	Polymer Quartzite
Control System	Bosch MTX
Dimensions (No Accessories) WxDxH	2450mm x 2350mm x 2850mm
Suggested Install Dimensions	4450mm x 4350mm x 3850mm
Weight	8000Kg
Floor Load Requirements	Minimum loading 3000Kg/m ² Floor must be even to <3mm/m ²
Environmental Requirements Min/Max Operating Temp. Max Operating Humidity Min/Max Storage Temp. Max Storage Humidity	15°C - 35°C (<2°C/hour Temperature Gradient) 75% RH Non Condensing -15°C - 50°C 80% RH Non Condensing
Power Supply Requirements	3Phase+N+E, 200/220/240/420/480VAC 50/60Hz 15KVa 1200BTU
Services Requirements	Clean dry air at 100L/min with minimum pressure of 6bar
Noise Level	<50dB(A) Continuous
Safety	In accordance with EC Directives 98/36/EC, 2004/108/CE (EMC) and 2006/198/CE (Low Voltage)

Description	X	Y	Z
Slide Type	THK SNS 25C Linear Motion Rails	THK SNS 25C Linear Motion Rails	THK SNS 25C Linear Motion Rails
Drive Type	Servo Driven Ø35-5 precision ground ballscrew	Servo Driven Ø35-5 precision ground ballscrew	Servo Driven Ø35-5 precision ground ballscrew
Feedback Type	Absolute Rotary Encoder (std) Heidenhain LC481 Absolute Linear Encoder (optional)	Absolute Rotary Encoder (std) Heidenhain LC481 Absolute Linear Encoder (optional)	Absolute Rotary Encoder (std) Heidenhain LC481 Absolute Linear Encoder (optional)
Travel	± 350mm	± 350mm	0-500mm
Max Velocity	0.05m/sec	0.05m/sec	0.05m/sec
Max Acceleration	0.25m/sec ²	0.25m/sec ²	0.25m/sec ²
Positioning Accuracy	<50µm over full travel	<50µm over full travel	<15µm over full travel
Bi-direction Repeatability	<5µm	<5µm	<5µm
Straightness: Horizontal: full travel over 100mm Vertical: Full travel over 100mm	<30µm over full travel <5µm over 100mm <30µm over full travel <5µm over 100mm	<30µm over full travel <5µm over 100mm <30µm over full travel <5µm over 100mm	<30µm over full travel <5µm over 100mm <30µm over full travel <5µm over 100mm
Squareness	<50µ/m	<50µ/m	<50µ/m
Circularity	<50µm	<50µm	<50µm

Rotary Axes	A	B	H (Tool)	C (Workpiece)
Mounting	X Axis Carriage	A Axis Arm	Virtual Pivot Assembly	Z Axis Carriage
Spindle/Axis	Axis	Axis	Spindle	Spindle & Axis
Cooled	Not Req'd	Not Req'd	Yes	Yes
Drive	Servo drive via Harmonic CHA-58A with enhanced radial stiffness	Servo drive via Harmonic FHA-25C with enhanced radial stiffness		
Feedback Type	Motor Encoder	Motor Encoder	Rotary Encoder, 5000lines min	Absolute Encoder
Speed Range	0-25rpm	0-30rpm	5-2000rpm	0-1000rpm (Schunck) 0-300rpm (table)
Max Angular Acceleration	20rads/secs ²	20rads/secs ²	3000rads/secs ²	20rads/secs ²
Load Capacity	-	-		200Kg
Positional Accuracy	±1min	±1min	-	±1min
Working Range	+45°, -90°	±180°	Continuous- bi directional	Continuous- bi directional
Radial Run-Out	Rotation of VP Setting ball mounted in H Axis Chuck and rotated about the Virtual Pivot < 40µm			<5µm
Radial Stiffness				>500N/µm
Axial Run-out				<20µm
Axial Stiffness				>500N/µm