

Specifications

Item		Unit	UPZ315Li	UPZ52Li
Capacity	Work table size	mm	450x170	550x220
	Table travel distance	mm	500	600
	Distance from table surface to under wheel	mm	12.5~395	12.5~395
	Chuck size (LengthxWidthxHeight)	mm	350x150x80	500x200x80
	Maximum weight of table (including chuck)	kg	60 (28)	60 (41)
Table feed (X-axis)	Feed rate	m/min	0.1~25 (Average)	0.1~25 (Average)
	Maximum travel movement	mm	500	600
	Rapid feed (Jog feed)	mm/min	5000	5000
	Minimum increment	mm	0.0001	0.0001
	Manual feed amount (M.P.G)	Graduation	mm	0.0001 / 0.001 / 0.01 / 0.05
Revolution		mm	0.01 / 0.1 / 1.0 / 5.0	0.1 / 0.1 / 1.0 / 5.0
Cross feed (Z-axis)	Feed rate	m/min	1~2000	1~2000
	Maximum travel movement	mm	180	230
	Rapid feed (Jog feed)	mm/min	2000	2000
	Minimum increment	mm	0.0001	0.0001
	Manual feed amount (M.P.G)	Graduation	mm	0.0001 / 0.001 / 0.01 / 0.05
Revolution		mm	0.01 / 0.1 / 1.0 / 5.0	0.01 / 0.1 / 1.0 / 5.0
Vertical feed (Y-axis)	Feed rate	m/min	1~2000	1~2000
	Maximum travel movement	mm	382.5	382.5
	Rapid feed (Jog feed)	mm/min	2000	2000
	Minimum increment	mm	0.0001	0.0001
	Manual feed amount (M.P.G)	Graduation	mm	0.0001 / 0.001 / 0.01
Revolution		mm	0.01 / 0.1 / 1.0	0.01 / 0.1 / 1.0
Grinding wheel	Grinding wheel size (O.D.xWxI.D)	mm	φ205x13xφ31.75	φ205x13xφ31.75
	Speed	min ⁻¹	0~3600	0~3600
Motor	Wheel spindle	kW	3.7/2 Fluid Cooling Motor	3.7/2 Fluid Cooling Motor
	Vertical feed (AC servo motor)	kW	1.3	1.3
	Cross feed (AC servo motor)	kW	0.85	0.85
	Table feed (Linear motor)	kW	3.0x2	3.0x2
Power	Electric power	kVA	25.5 (Different by specifications)	25.5 (Different by specifications)
Floor space	LengthxWidthxHeight	mm	2100x2340x2237	2300x2340x2237
Weight	Machine weight (approx)	kg	4000	4500

*Electrical Power Consumption, Floor Space will be changed by Specifications

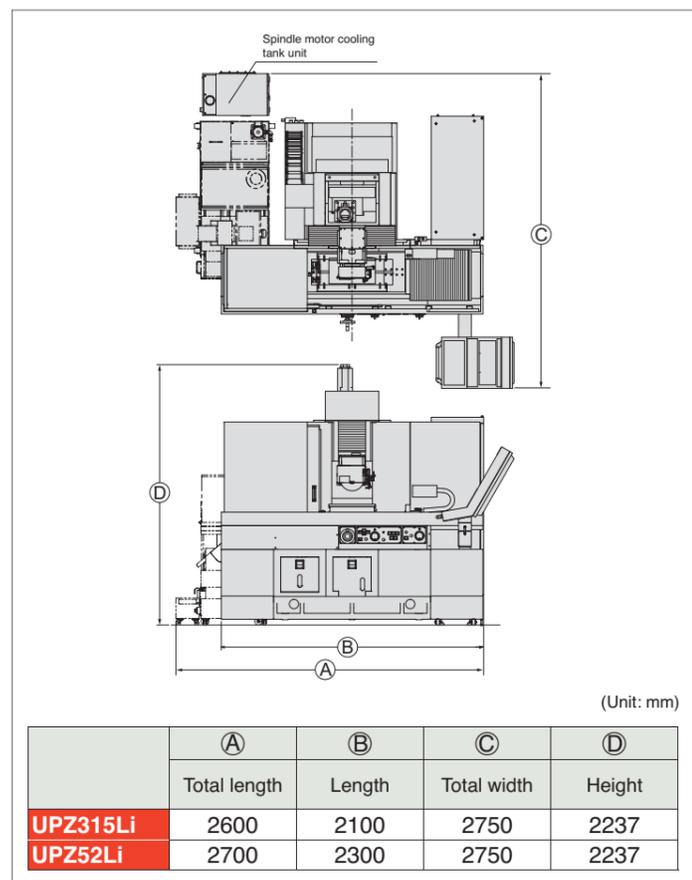
Standard accessories

Grinding wheel (15X60H2G)
Wheel adaptor
Fluid coolant type build-in motor
Spindle inverter 2.2kW (High. Low speed set up function)
Oil cooling type spindle head (co-use with Table Linear Motor)
3 axis full closed loop feedback
Circuit breaker
3-Direction type Table Dresser
Flexible type Coolant nozzle
Spindle Taper is the same with AZZ450DX
Table splash cover (Right side box, Left side Nil, 1pc Door)
Manual Interruption
Interruption dress function
Necessary tools & tool box
Levering bolts & Plate

Optional accessories

Coolant & mist collector	Coolant system with magnetic dust separator
	Coolant system with magnetic dust separator, auto-paper filter and temperature control unit
Chuck	Mist collector
	Electro-magnetic chuck with chuck controller
Dresser & others	Electro-permanent chuck with chuck controller
	Chuck back side datum plate
	Graphic digital process system CCD camera, optical auto retract plate
	2-point rotary dresser + Single point dresser (GRIND-X products)
	Twin rotary dresser (GRIND-X) with measurement
	Punch grinding index device (GRIND-X)
	Additional 1-axis for NC index device
	Cylindrical grinding device (GRIND-X)
	Vertical type rotary dresser (GRIND-X)
	Rectangular rotary dresser (GRIND-X)
	Full enclosure type table cover
	Work light (LED-flat type, water proof type)
	Table water supply for swarf cleaning and temperature control
Accumulate machine operation meter	
Calender timer	
Auto power shutdown device	

Machine overview and layout



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CAUTION

*When and before using our products, you are requested to well go through the articles on danger, warning and attention for the sake of safety described in operation manual attached to the machine and also in the warning plates mounted on the machine.

*When a product manufactured at our factory comes under the Foreign Exchange And Foreign Trade Control Law and is exported or carried overseas, it is necessary to receive permission or approval of the Japanese Government.

*Specifications subject to change without notice.

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GRIND-X

OKAMOTO PRECISION SYSTEMS

Okamoto

UPZ-Li SERIES

Ultra Precision Form Grinder



Okamoto

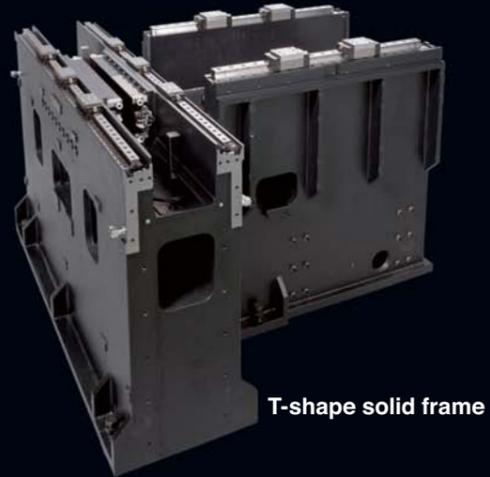
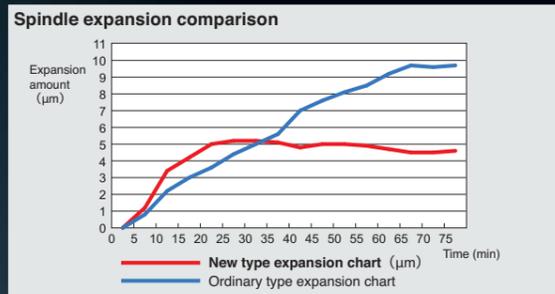
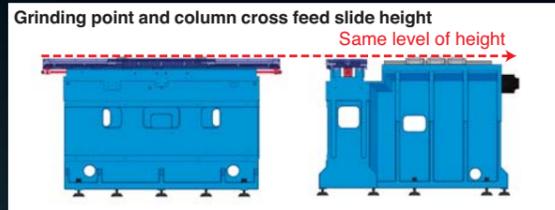
Highest performance • highest rigidity • speed up with table linear motor drive • easy to use
Next generation's profile grinder

ULTRA PRECISION FORM GRINDING MACHINE UPZ-Li SERIES

Particular design to achieves less than 1 μm of ultra precision forming

Special machine structure to hold heat displacement

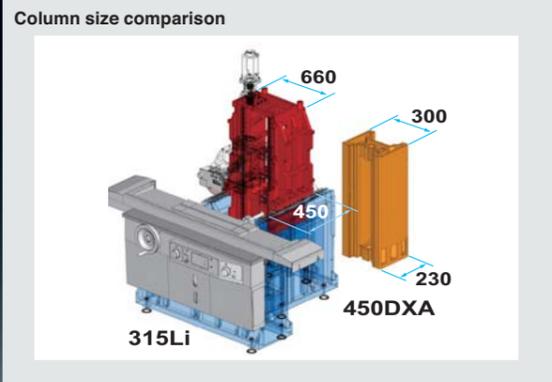
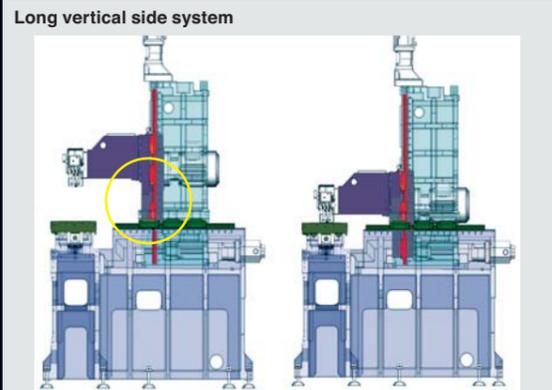
- Oil cooling type grinding head
- Fluid coolant type build-in motor
- Column cross feed slide-way design come close grinding point to avoid and minimize heat displacement
- Hydraulic cylinder less table drive method
- Specific spindle design for shortest saturate by heat expansion and prevent expansion of thrust direction
- 3-axes scale feed back control, accurate positioning



T-shape solid frame

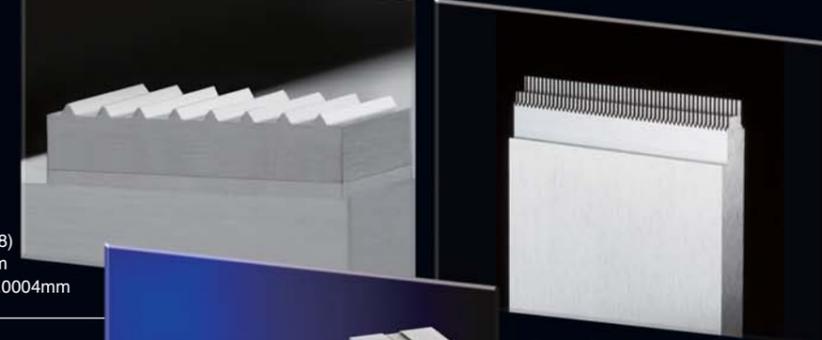
Highest rigidity machine design

- Column traveling type
- T-shape solid frame
- Long slide and sink under than table
- Table no overhung from frame
- Increase column size for more rigidity



Work sample

Parts : Optic fiber
Material : ASP60 (HRc 67~68)
Profile accuracy : ±0.0015mm
Accumulate pitch : 3.5231 ±0.0004mm



Parts : Connector
Material : SKD 11 (HRc 56~58)
Slot depth : 32 ±0.0011mm
Accumulate pitch : 25.05 ±0.0012mm
Number of slot : 52 pcs

Advantage of table linear motor drive

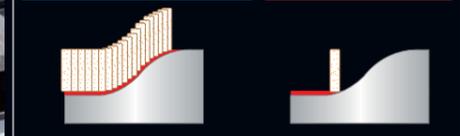
- High speed reciprocation (500SPM by 10mm stroke)
- Multi-position suitable for various kinds and small lot production
- Stopping accuracy with in 1μm (by shoulder grinding)
- Shift plunge save cycle time
- High speed contouring grinding available
- Accurate positioning suitable for on machine measuring



Multi-grind-position table

Shift plunge grinding + Traverse grinding

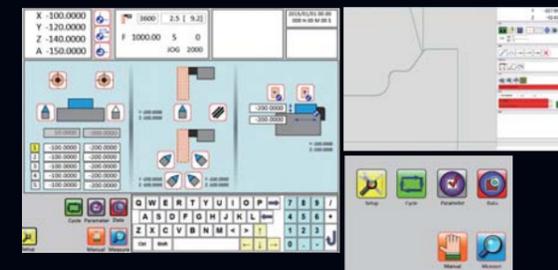
Course grinding by shift plunge Fine grinding by traverse



Original software support easy to use

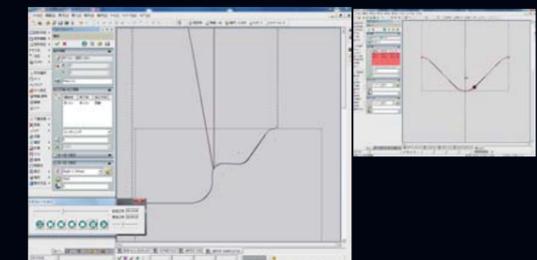
Original Software

Original software can use immediately without know how



i-CAM

Convert grinding software from DXF data



Various option

On machine profile measuring by CCD camera



NC index for punch



2-point rotary dresser + single point dresser



On machine height measuring by touch probe



Swing type forming dresser



Rectangular rotary dresser



UPZ315Li GRIND-X Okamoto

UPZ315Li

* Machine equipped options