



**PRECISION UNIVERSAL CYLINDRICAL GRINDING MACHINE
MODEL "MICROTEK UCG 260/350 x 500/ 630/ 800/ 1000/ 1200"**

TECHNICAL SPECIFICATIONS			FEATURES
CAPACITY			MACHINE BED
Swing over table	mm	260 / 350	High rigidity and stability through box structure adequately ribbed design.
Grinding length / ABC	mm	500/ 630/ 800/ 1000/ 1200	TABLE
Max. weight of job between centers	kg	80	Table moves on precision hand scrapped 'V' & Flat guide ways with continuous lubrication for guaranteed straightness.
Max. weight of job including Chuck	kg	50	WORK HEAD
WHEEL HEAD			The machine has a rigid universal work head. It has an alloy steel running in special multi-point hydro-dynamic bearings for roundness and surface finish. Very easy to convert live to dead center or dead to live centers. Spindle clearance can be adjusted for different speeds. Work Head with Anti friction bearings also offered.
Grinding wheel size (ODxIDxWidth)	mm	400[500] x 127[203.2] x50 [80]	WHEEL HEAD
Min. usable size of Grinding Wheel	mm	300 [360 with 500 mm wheel]	The spindle runs on high precision multipoint hydrodynamic bearings which give very high rigidity and excellent surface finish. The spindle is made of Alloy Steel, specially heat treated to achieve very high dimensional stability, accuracy and long life.
Spindle speed	rpm	1430-1870 for 400mm wheel 1250-1650 for 500mm wheel	TAIL STOCK
Spindle motor power	kW	3.7 [5.5]	The quill is carried in high precision special graded spieth couplings, in which radial play can be adjusted within microns. Dresser block is also mounted on the tailstock body only.
Peripheral (surface) speed	m/sec	33 [45]	Optional features are Hydraulic actuation and Micro taper correction.
Rapid approach	mm	50	INTERNAL GRINDING HEAD
Infeed with handwheel	mm	20	This unit with its independent drive motor can be quickly brought into the grinding position.
Max. Plunge feed on Dia. (auto)	mm	1.7 [3.4]	INFEED SYSTEM
Minimum increment on diameter	mm	0.001	The Infeed System moves on pre-loaded linear guide ways. This guarantees high repetitive accuracy and stick-slip free fine movement of the slide. Infeed through hardened & precision ground cam.
infeed rate on diameter(coarse/fine)	mm/min	0.015 - 6 / 0.015 - 3	FOR AUTOMATIC MODELS
spark off time	sec	0 - 60	Grinding allowance and the required variable coarse and fine feed rates can be pre-selected. Spark out timer 0-60 seconds. PLC & Interfacing with any automatic in-process gauges (Optional)
TABLE			AUTOMATIC GRINDING CYCLE
Table speed	m/min	0.1 - 5	Single lever operates the grinding cycles automatically as follows: * Rapid Approach-Coarse feed, fine feed, spark out, Rapid retraction of the wheel head. * The Infeed hand wheel to the starting position. * Starts and stops work head and Coolant motors automatically.
Table stroke	mm	550/ 680/ 850/ 1050/ 1250	LUBRICATION
Minimum automatic travel	mm	2	The infeed slide and internal slide is grease packed for life and the table slide is provided with automatic continuous lubrication.
Maximum swivel of table	deg.	-3° to 12/ -2° to 10°/ -3° to 9° / -2° to 8°/ -1° to 7°	HYDRAULIC, ELECTRICAL & COOLANT UNIT
WORKHEAD			These units are housed outside the machine as separate units to provide easy maintenance.
Taper bore	mm	MT - 5	
Spindle speed	rpm	56 - 630 (8 - steps)	
Spindle motor power (In 2 Steps)	kw	0.25 / 0.5	
TAILSTOCK			
Centre taper	no.	MT - 4	
Quill travel	mm	40	
Taper Correction Range(Optional)	mm	[±0.04]	
Quill diameter	mm	50	
HYDRAULIC UNIT			
Tank capacity	Litre	70	
Motor power	kw	0.75	
Pump Capacity	lpm	10	
INTERNAL GRINDING			
Spindle Size - Dia x Length	mm	80 x 250	
Spindle speed	rpm	18000 max.	
Motor power	kw	1.1	
GENERAL			
Operation voltage	volts	415+/-10% AC 3 Phase	
Total power requirement	kw	6.5 [8.5]	
Floor space Including Std. coolant tank (LxW)	mm	(2500x2000) / (2900x2000) / (3500x2000) / (4100x2000) / (4500x2000)	
Machine weight	kg	2600/ 2800/ 3200/ 3800/ 4000	
Machines are offered in three versions:			
(a) Universal - (UCG) (b) External - (ECG) (c) Internal - (ICG)			

Semi automatic "S" model is available in all above three versions i.e., Infeed is manual but rapid stroke & table travel remains hydraulic.

Manufactured By:

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