



Surface & Profile Grinders (NH/BW/CF)

Description:

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In our NH family, we have separated all movements in X, Y, and Z directions. Our objective is to attain a precision of $90^{\circ} \pm 0^{\circ}$ in all 3 axes and to preserve this precision at all times. This provides superior stability even at extreme ends of the working range.

The spindle runs in super-precision angular contact preloaded bearings with optimum concentricity and balance characteristics.

The spindle head travels in the vertical column in hand-scraped guideways with power elevation and manual infeed.

The transverse carriage carrying the column traverses firmly on the base on hand-scraped guideways via electromechanical drive. This provides intermittent cross-infeed.

The table carries out longitudinal traverse only so that the entire grinding area is at all times fully supported by the slideways of the front base, even when the table is in its end position.

The column carries out cross traverse only. This ensures the transverse guiding system is always uniformly supported by the rear base slideways regardless of column position. The spindle head only carries out vertical traverse, hence the grinding wheel is always at the same distance from vertical guideways regardless of working height, which in turn ensures absolute parallelism between the grinding wheel and the worktable.

For large working areas, high table loads, and very high rates of material removal we offer our BW Series which distinguishes itself by its

heavy-duty construction. The spindle head, as well as vertical cross traverse and table guideways, are specially designed for heavy-duty cycles.

The Alex low-pressure hydraulic unit is located inside the base which establishes a defined thermal state in the machine frame.

Optional: All models are available with CNC controls for automatic grinding cycles including wheel dressing and compensation.

All models can be customized for specific applications to suit customer needs.

For Creep feed applications we offer our CF Series. These series focus on individual production solutions. All 3 axes X, Y, and Z are powered by servo motors and drive through precision ball screws. Feed rates start from a few millimeters to a very wide range on the upper end.

The spindle is of superior rigid construction to handle the heavy full-cut grinding load.

The coolant system is of very robust design to ensure adequate dissipation of heat.

The dressing system is designed to suit individual applications. (Fully automatic cycle to include rapid approach creep feed grinding, auto dressing, compensation, and return to the home position.)

Standard Equipment:

Grinding wheels (2): grinding wheel flange unit, wheel balancing mandrel; table guard; set of wrenches; hydraulic system; electric motors; all internal wiring and control gear

Optional Equipment:

Plain vice; Swivel vice; Universal vice; Sine vice; Wheel balancing stand; Radius & Angular wheel truing attachment; Head Wheel dresser; Wet grinding attachment; Magnetic Separator and/or Paperband filter; a Dust control unit; Demagnetizer – platen or aperture type; Nonelectric magnet; Electromagnetic chuck with or without built-in demagnetizer; dressing diamond; Machine lamp; Workpiece handling system; Spare grinding wheels; Re-circulating Ball Screws (free from backlash).

CNC & PLC Controls Options Available:

All machines can be provided with

- CNC control for automatic grinding cycle including wheel dressing and compensation.
- PLC control with Servo motor for Auto Down feed.



Technical Specifications:



Model			NH-500	NH-600	NH-750	NH-8040	NH-1000
Machining Range	Grinding Length*Width (Max)	MM (IN)	500*250 (20*10)	600*300 (24*12)	750*300 (30*12)	800*400 (32*16)	1000*250 (40*10)
	Distance between table spindle centre (Max)	MM (IN)	400 (16)	400 (16)	400 (16)	400 (16)	400 (16)
	Working Surface	MM (IN)	500*250 (20*10)	600*300 (24*12)	750*300 (30*12)	800*400 (32*16)	1000*250 (40*10)
	Weight Carrying Capacity of table (Max.)	KG (LB)	200 (440)	250 (500)	400 (880)	600 (1320)	500 (1100)
Table	Max. Longitudinal movement	MM (IN)	550 (22)	650 (26)	800 (22)	850 (22)	1050 (22)
	Max. Cross movement	MM (IN)	280 (11)	330 (13)	330 (13)	430 (17)	280 (11)
	T-slots (number*width)	MM (IN)	1*14 (1*0.55)	1*14 (1*0.55)	1*14 (1*0.55)	1*14 (1*0.55)	1*14 (1*0.55)
Longitudinal Movement	Max. Table Speed	m/min (ft/min)	20 (65)	20 (65)	20 (65)	20 (65)	20 (65)
Cross Movement	Auto cross feed at each Table reversal	MM/stroke (inch/stroke)	0.25-6 (0.01-0.24)	0.25-6 (0.01-0.24)	0.25-6 (0.01-0.24)	0.25-6 (0.01-0.24)	0.25-6 (0.01-0.24)
	Manual feed rate / turn	MM (IN)	1 (0.04)	1 (0.04)	1 (0.04)	1 (0.04)	1 (0.04)
	Least count of hand wheel	MM (IN)	0.01 (0.0004)	0.01 (0.0004)	0.01 (0.0004)	0.01 (0.0004)	0.01 (0.0004)
Vertical Movement	Manual feed rate / turn	MM (IN)	0.2 (0.0008)	0.2 (0.0008)	0.2 (0.0008)	0.2 (0.0008)	0.2 (0.0008)
	Least count of hand wheel	MM (IN)	0.002 (0.0001)	0.002 (0.0001)	0.002 (0.0001)	0.002 (0.0001)	0.002 (0.0001)
	Power elevation	MM (IN)	100 (4)	100 (4)	100 (4)	100 (4)	100 (4)
Grinding Wheel	Diameter*Thickness*Bore	MM (IN)	200*20*50.8 (8*0.75*2)	200*20*50.8 (8*0.75*2)	250*25*76.2 (10*1*3)	300*25*76.2 (12*1.5*3)	300*25*76.2 (12*1*3)
Motors	Speed	RPM	2800	2800	1400	1400	1400
	Grinding Spindle	HP (KW)	2 (1.5)	2 (1.5)	5 (3.75)	5 (3.75)	5 (3.75)
	Vertical Up Down	HP (KW)	0.25 (0.18)	0.25 (0.18)	0.25 (0.18)	0.25 (0.18)	0.25 (0.18)
	Cross Feed	HP (KW)	0.25 (0.18)	0.25 (0.18)	0.35 (0.26)	0.35 (0.26)	0.35 (0.26)
	Coolant Pump	HP (KW)	0.12 (0.1)	0.12 (0.1)	0.12 (0.1)	0.12 (0.1)	0.12 (0.1)
Machine Size	Length*Width*Height	MM (IN)	1250*1450* 1650 (50*57*65)	1350*1640* 1650 (57*81*65)	1450*2050* 1650 (57*81*65)	1600*2150* 1700 (63*85*67)	1450*2300* 1650 (57*90*65)
Weight	Net Weight	KG (LB)	1200 (2640)	1500 (3300)	2800 (6160)	3200 (6600)	4000 (8800)
	Gross Weight	KG (LB)	1600 (3520)	1900 (4180)	3600 (7920)	3800 (8360)	4800 (10560)

Technical Specifications:



Model			BW-800	BW-1000	BW-1200	BW-1500
Machining Range	Grinding Length*Width (Max)	MM (IN)	800*500 (32*20)	1000*500 (30*12)	1200*600 (32*16)	1500*700 (40*10)
	Distance between table spindle centre (Max)	MM (IN)	450 (18)	450 (16)	450 (16)	450 (16)
	Working Surface	MM (IN)	800*500 (32*20)	1000*500 (30*12)	1200*600 (32*16)	1500*700 (40*10)
	Weight Carrying Capacity of table (Max.)	KG (LB)	800 (1760)	1000 (880)	1200 (1320)	1500 (1100)
Table	Max. Longitudinal movement	MM (IN)	850 (34)	1050 (22)	1250 (22)	1550 (22)
	Max. Cross movement	MM (IN)	550 (21.65)	555 (11)	655 (11)	800 (11)
	T-slots (number*width)	MM (IN)	1*14 (1*0.55)	1*14 (1*0.55)	3*14 (1*0.55)	3*14 (1*0.55)
Longitudinal Movement	Max. Table Speed	m/min (ft/min)	20 (65)	20 (65)	20 (65)	20 (65)
Cross Movement	Auto cross feed at each Table reversal	MM/stroke (inch/stroke)	1-10 (0.01-0.24)	1-10 (0.01-0.24)	1-10 (0.01-0.24)	1-10 (0.01-0.24)
	Manual feed rate / turn	MM (IN)	1 (0.04)	1 (0.04)	1 (0.04)	1 (0.04)
	Least count of hand wheel	MM (IN)	0.01 (0.0004)	0.01 (0.0004)	0.01 (0.0004)	0.01 (0.0004)
Vertical Movement	Manual feed rate / turn	MM (IN)	0.2 (0.0008)	0.2 (0.0008)	0.2 (0.0008)	0.2 (0.0008)
	Least count of hand wheel	MM (IN)	0.002 (0.0001)	0.002 (0.0001)	0.002 (0.0001)	0.002 (0.0001)
	Power elevation	MM (IN)	100 (4)	100 (4)	100 (4)	100 (4)
Grinding Wheel	Diameter*Thickness*Bore	MM (IN)	350*50*127 (14*2*5)	350*50*127 (14*2*5)	350*50*127 (14*2*5)	350*100*127 (14*4*5)
Motors	Speed	RPM	1440	1440	1440	1440
	Grinding Spindle	HP (KW)	10 (3.75)	10 (3.75)	10 (3.75)	10 (3.75)
	Vertical Up Down	HP (KW)	0.75 (0)	0.75 (0)	0.75 (0)	0.75 (0.26)
	Cross Feed	HP (KW)	0.75 (0)	0.75 (0)	0.75 (0.26)	0.75 (0.26)
	Coolant Pump	HP (KW)	0.12 (0.1)	0.12 (0.1)	0.12 (0.1)	0.12 (0.1)
Hydraulic System	Working Pressure	Kg/cm2	10	10	10	10
	Power of Hydraulic Pump Motor	HP (KW)	3 (11)	3 (11)	3 (11)	3 (11)
	Tank Capacity	litres	200	200	200	200
Machine Size	Length*Width*Height	MM (IN)	1350*1640* 1650 (57*81*65)	1890*2900* 1890 (57*81*65)	2290*3500* 2090 (63*85*67)	2290*4100* 1890 (57*90*65)
Weight	Net Weight	KG (LB)	1500 (3300)	4800 (6160)	5500 (6600)	7000 (8800)
	Gross Weight	KG (LB)	1900 (4180)	5500 (7920)	7000 (8360)	8000 (10560)



India:
8, Gaiwadi Industrial Estate, S.V. Road,
Goregaon (W), Mumbai - 400 062. INDIA.
+91 7045291771, +91 22 - 67425121 / 22 / 23
contact@alexmachinetools.com

USA:
+1 832 331 9955
contact@alexmachinetools.com

