

DUGARD

Expertise with Imagination

**DUGARD
VMCS**

Dugard Vertical Machining Centres
Incredible performance & value for money

A wide choice of machine sizes



DUGARD

www.dugard.com | sales@dugard.com | 01273 732286

Incredible value for money with a comprehensive choice of bed sizes, compact footprint and heavy cast iron construction



Dugard 550

- X/Y/Z travel - 550/440/460mm
- 7.5/10kW spindle drive
- 20~11,000rpm speed range
- 36/36/30 m/min rapids
- 16 station drum type ATC (20 station twin arm opt)
- BT40 spindle (CAT flange opt)
- 1900 x 1935 x 2500mm dimensions (L x W x H)
- Weight 2850kg



Dugard 760

- X/Y/Z travel - 762/440/460mm
- 7.5/10kW spindle drive
- 20~11,000rpm speed range
- 36/36/30 m/min rapids
- 16 station station ATC (20 station twin arm opt)
- BT40 spindle (CAT flange opt)
- 2596 x 1935 x 2500mm dimensions (L x W x H)
- Weight 3500kg



Dugard 1000

- X/Y/Z travel - 1050/540/560mm
- 11/15kW spindle drive
- 20~11,000rpm speed range
- 32/32/24 m/min rapids
- 24 station drum type ATC (24 and 28 station twin arm ATC opt)
- BT40 spindle (CAT flange opt)
- 3370 x 2240 x 3130mm dimensions (L x W x H)
- Weight 5800kg



Dugard 1350

- X/Y/Z travel - 1350/640/660mm
- 11/15kW spindle drive
- 20~11,000rpm speed range
- 30/30/25 m/min rapids
- 24 station drum type ATC (24 and 28 station twin arm ATC opt)
- BT40 spindle (CAT flange opt)
- 3870 x 2495 x 3450mm dimensions (L x W x H)
- Weight 8110kg

Pre-Tensioned Twin Nut Ballscrew



- Double-anchored ballscrews with twin pre-loaded ball nut giving superior high speed cutting rigidity and accuracy with high speed cutting
- Full laser calibration and ball bar testing to ensure squareness and accuracy



Cartridge Belt Drive Spindle

Simple design giving high torque and durability through a timing belt suitable for most machining applications.

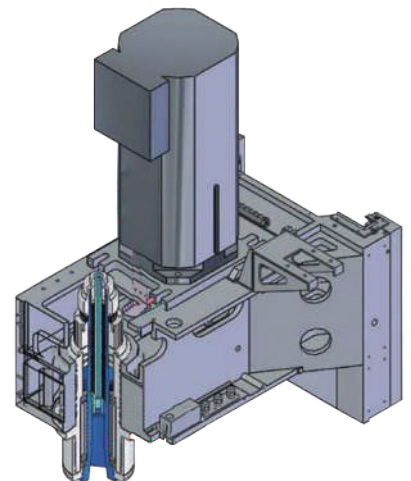
- Impressive spindle speeds with low friction design for efficient acceleration and deceleration
- High tool clamping force secures tool holder for high speed rotation
- Labyrinth seal with positive air pressure prevents spindle contamination



Stable Thermal Control

Both spindle cartridge and head casting are cooled to maintain thermal stability and spindle life. Physical rigidity is guaranteed by the use of digital FEA (Finite Element Analysis).

This, combined with high quality Meehanite castings and Japanese THK NR-Type high load linear ways, ensures accuracy and cutting performance.



Choice of digital controls

meeting all your requirements, each one features user-friendly operation, powerful functions and maximum reliability



Fanuc 0iMF Alpha Package

- 10.4" TFT LCD colour monitor
- Background edit
- Manual Guide i
- AICC with 200 block look ahead (opt)



Siemens 828D

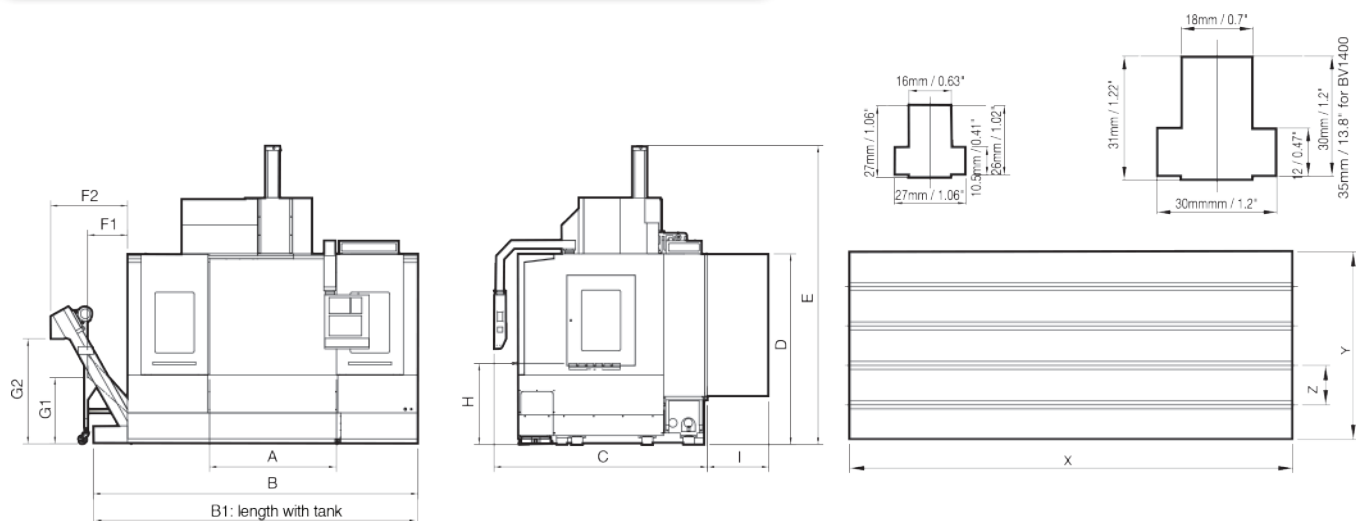
- 10.4" TFT LCD
- Shopmill conversion
- Super high speed
- USB/PC card storage

Pneumatic Counter Balanced Head



Z-axis pneumatic counter balance system, replacing the more common counter balance weight system. These pneumatic cylinders are directly mounted to the column and vertically moving head casting, this simple and directly mounted system reduces the need for weights and chains within the column, and can react to the machines vertical movements quickly with lower friction and vibration levels.

Machine Dimensions



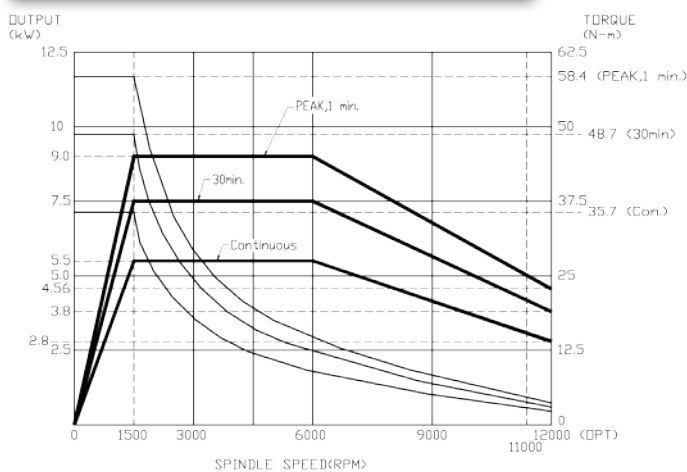
	A	B	B1	C	D	E	F1	F2	G1	G2	H	I	T	X	Y	Z
550	700	1900	1900	1935	1770	2500	500	945	748	800	820	550	16	560	380	80
760	880	2100	2100	1935	1770	2500	500	945	748	800	830	550	16	910	380	80
1000	1260	2900	3300	2240	2120	3130	470	800	755	850	930	750	18	1450	480	80
1350	1460	3400	3800	2495	2210	3450	470	800	770	850	955	750	18	1500	600	100

D
LCD colour monitor
conversational programming
h speed
rd storage

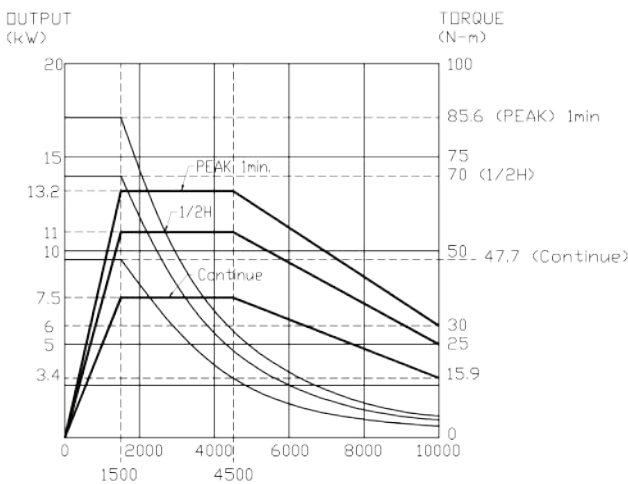


- Mitsubishi M80**
- 10.4" TFT LCD touch screen
 - Industry standard G code
 - 32GB data server programme memory
 - Block processing speed 2250/sec
 - Look ahead 1350 blocks

Mitsubishi Power Charts

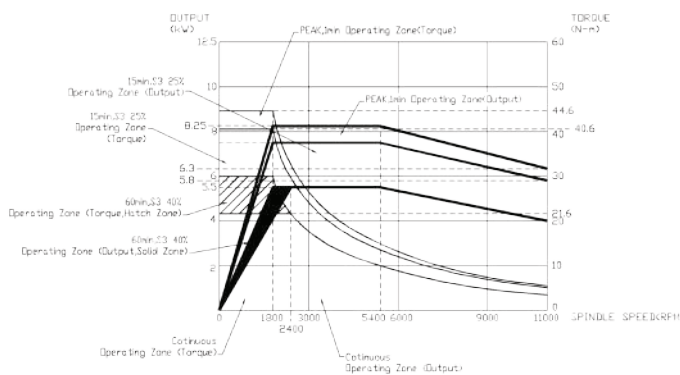


550 / 760 models

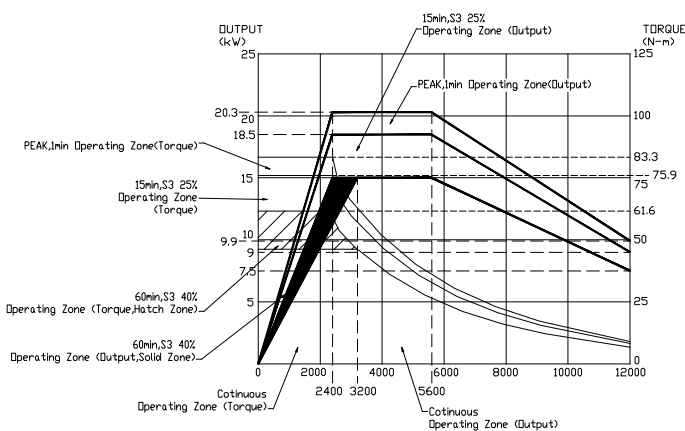


1000 / 1350 models

Fanuc Power Charts

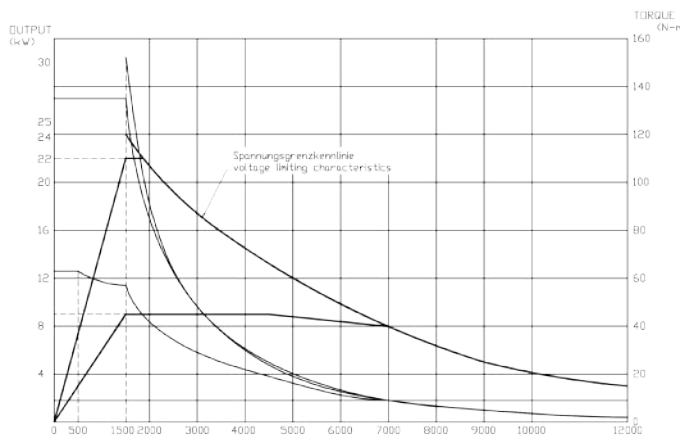


550 / 760 models

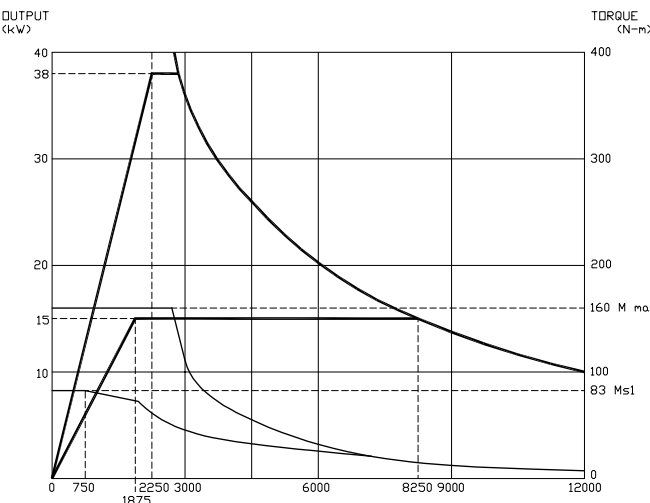


1000 / 1350 models

Siemens Power Charts



550 / 760 models



1000 / 1350 models

	Specification	Dugard 550	Dugard 760	Dugard 1000	Dugard 1350
Travel	X axis travel	550mm	762mm	1050mm	1350mm
	Y axis travel	440mm		540mm	640mm
	Z axis travel	460mm		560mm	660mm
	Spindle nose to table	75~535mm		75~635mm	100~760mm
	Spindle centre to column	420mm		550mm	670mm
Table	Table size	560 x 380mm	910 x 400mm	1200 x 480mm	1500 x 600mm
	T slot	16 x 80 x 4 slots		18 x 80 x 5 slots	18 x 100 x 5 slots
	Table load	432kg	792kg	1176kg	1800kg
Spindle	Taper size	BT40/CAT40			
	Speed	20~11,000rpm			
	Max motor power output	7.5/10kW Fanuc		11/15kW Fanuc	
Feed	Rapid feed X/Y/Z	36/36/30 m/min		30/30/25 m/min	
	Cutting feed X/Y/Z	12/12/12 m/min			
Accuracy	Positioning	0.01mm			
	Repeatability	± 0.003mm			
ATC	Tool storage capacity	16 station - drum type		24 station - drum type	
	Tool max diameter	75mm		80mm	
	Tool max length (mm)	250mm			
	Tool max weight (mm)	7kg			
	Tool to tool change time	2.2 sec			
General	Tank capacity	150L		350L	400L
	Air source requirement	7kg			
	Power requirement	25KVA			30KVA
	Measurement space (W x L)	1900 x 1935mm	2100 x 1935mm	3370 x 2240mm	3870 x 2495mm
	Weight	2850kg	3650kg	5800kg	8110kg

*Specifications are subject to change without prior notice

Standard Equipment

- 24 station drum type ATC (1000 / 1350)
- 16 station drum type ATC (550 / 760)
- Rigid tapping
- Pneumatic counterbalanced head
- Helical interpolation
- Heavy duty high quality cast iron frame
- Fully enclosed guarding
- High power cooling system
- Set of pull studs
- Automatic lubrication

Machine Options

- Belt type swarf conveyor and bin
- Scrapper type swarf conveyor and bin
- Fanuc data server
- 20 bar filter type through spindle coolant
- 16 station twin arm tool changer (550)
- 20 station twin arm tool changer (760)
- 24 or 28 station twin arm tool changer (1000 / 1350)
- 4th axis interface with servo board and plug
- Coolant chip flushing and wash gun
- 170mm dia 4th axis head with motor, c/w 7" 3 jaw chuck and tailstock
- 210mm dia 4th axis head with motor, c/w 7" 3 jaw chuck and tailstock
- Additional 4/5th axis table (170/210/320mm)
- Kawata Touchdex 200mm dia mechanical indexer, c/w tailstock unit and 3 jaw chuck
- Renishaw spindle probe
- Renishaw tool setting probe

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