

DUGARD

Machine Tools Since 1939

Dugard ECO Range Vertical Machining Centres



www.dugard.com

Big Cutting Capacity at a Competitive Price



- Fully enclosed with removable side doors
- Heavy duty box ways on all the axes
- Large fully ground table with 4 T-slots
- ISO 40 spindle taper - BT or CAT
- Spindle speed 8,000rpm (standard)
- All axes box ways are hardened and precision ground, all bearing surfaces of guide ways & gibs are precision scraped and plated with Turcite B
- Direct drive axis movement gives fast feed rates
- Large diameter and double pretensioned high precision ball screws on all three axes

Controls Available

Choice of various controls to meet your requirements. Each one features user-friendly operation, powerful functions and maximum dependability



Fanuc 0iMD

- 8.4" TFT LCD colour monitor
- New D series high speed
- PC flash card storage
- Industry standard programming



Heidenhain iTNC 530

- 18" TFT LCD colour monitor
- Super high speed
- Huge programme storage
- Conversational programming



Fagor 8055i Plus

- 11" TFT LCD colour monitor
- High speed function
- Conversational programming



Siemens 828D

- 10.4" TFT LCD colour monitor
- Shopmill conversational programming
- Super high speed
- USB/PC card storage

Various interfaces for programme saving, loading and software updating including:



- CF memory card
- RS-232C
- Ethernet

Structure and Components

Casting

Fine grain Meehanite cast iron offers high tensile strength, as well as long term wear resistance



Model shown
Dugard Eco 1000

Transmission

Direct drive axis movement gives fast feed rate



Spindle

Class P4 preloaded angular contact high precision bearings to guarantee rigidity and speed up to 8000rpm (10,000rpm available on request)



Automatic Tool Changer

Random selection Automatic Tool Changer. The cutting tool is kept clean by built in air blast function in the main spindle performed during tool change

Standard 20 station drum type ATC



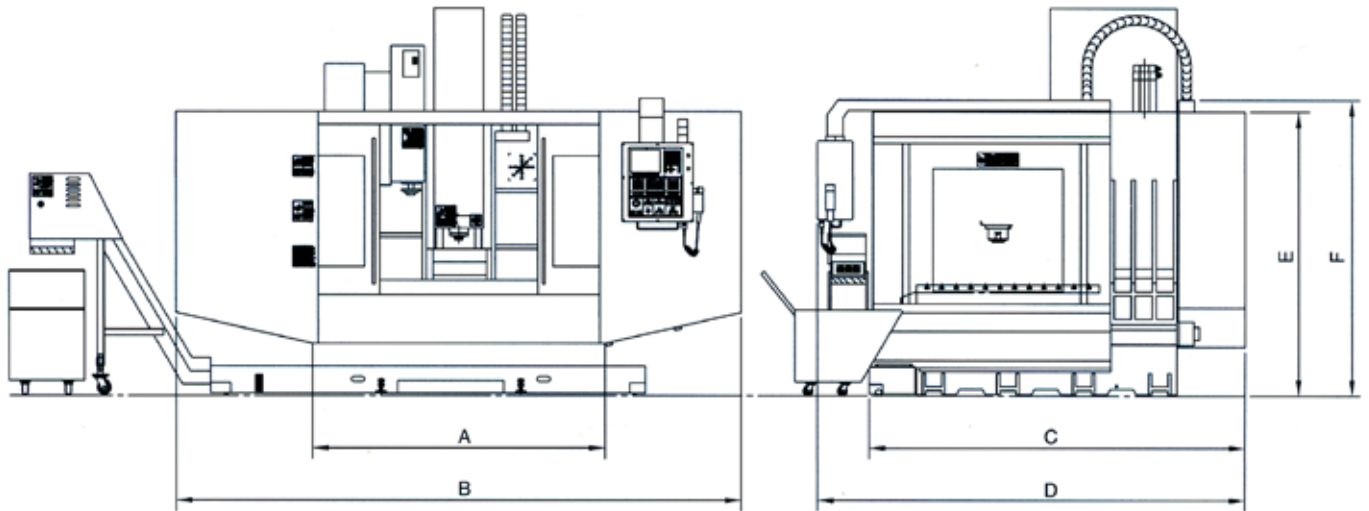
Optional 24 station twin arm ATC



The machines' electrical components and wiring systems are all fully CE compliant. Component locations are labeled for easy maintenance

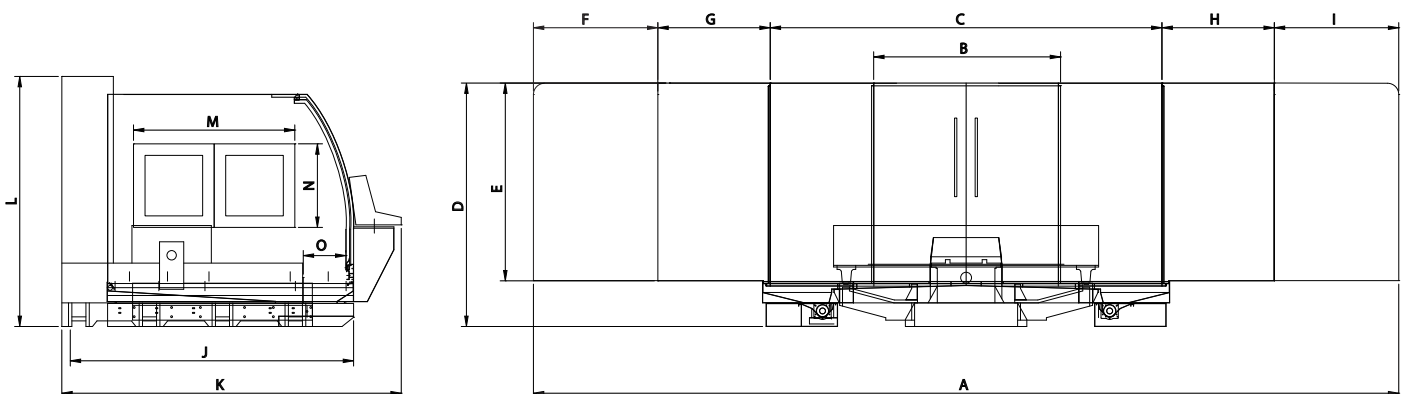
Layout Drawings

Dugard ECO 1000 / 1500 Models



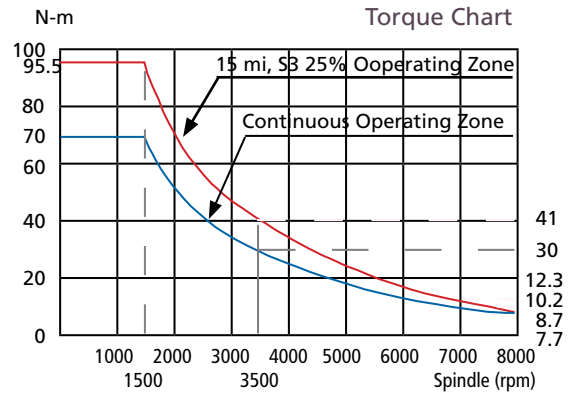
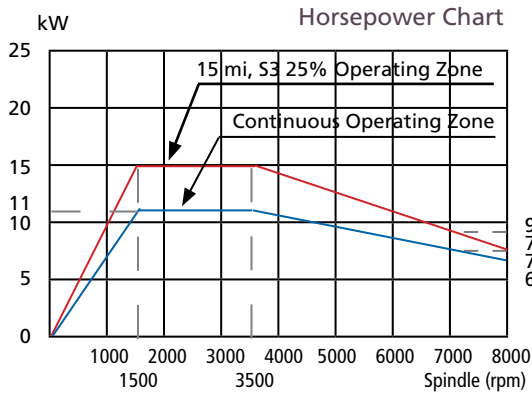
| Dimensions (mm) | A | B | C | D | E | F |
|-----------------|------|------|---|------|---|------|
| ECO 1000 | - | 3370 | - | 2650 | - | 2800 |
| ECO 1500 | 2200 | 4260 | - | 3400 | - | 2820 |

Dugard ECO 2000 Model

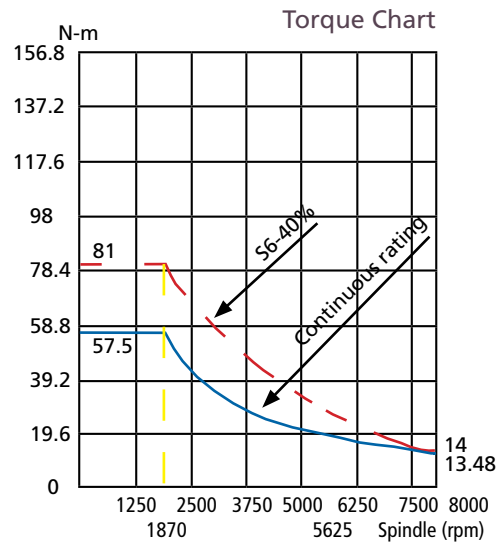
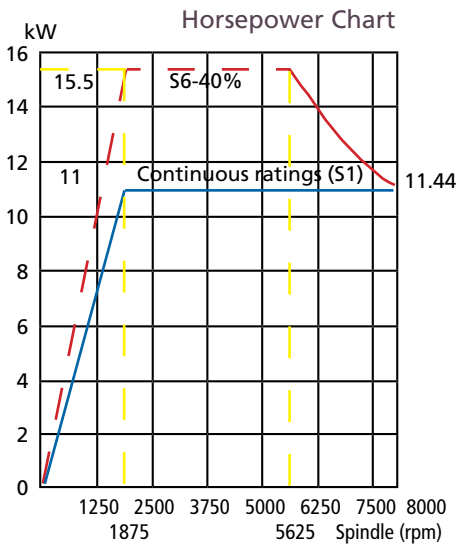


| Dimensions (mm) | A | B | C | D | E | F | G |
|-----------------|------|------|---------|------|------|------|-----|
| ECO 2000 | 7634 | 1800 | 3534 | 2113 | 1717 | 1080 | 975 |
| H | I | J | K | L | M | N | O |
| 975 | 1080 | 2459 | 2945.43 | 2170 | 1200 | 800 | 370 |

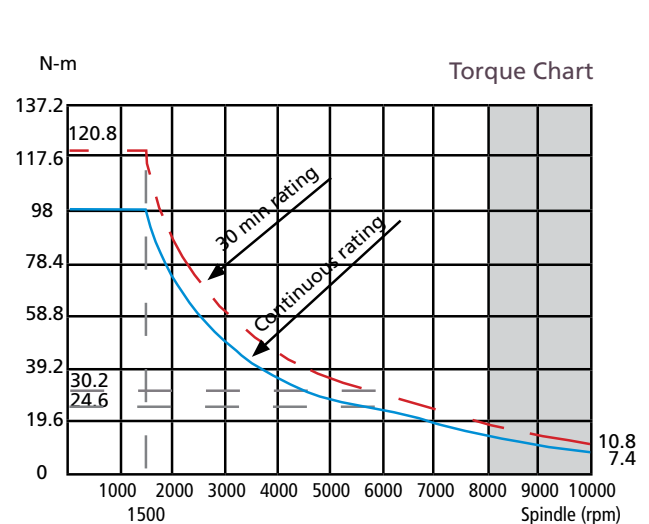
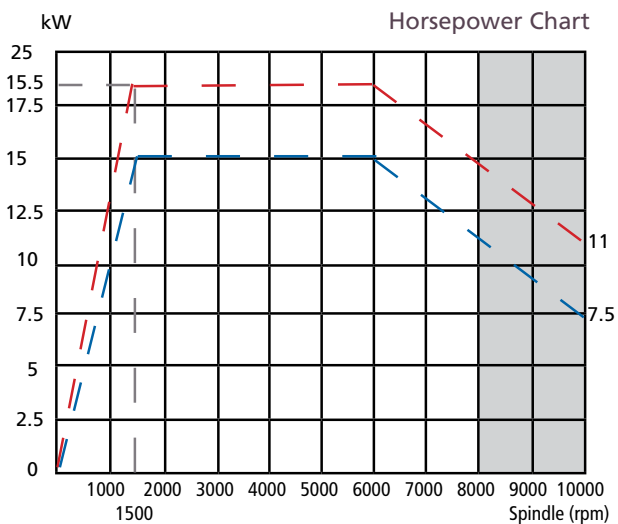
Fanuc 11/15kW - Dugard ECO 1000 Model



Fagor 11/15kW - Dugard ECO 1000 Model



Fanuc 15/18.5kW - Dugard ECO 1500 / 2000 Models



Dugard ECO VMC Accessories

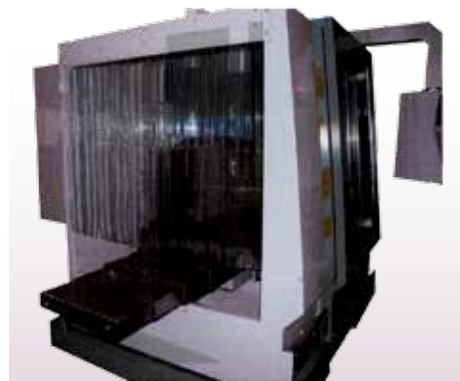
Standard Accessories

- Coolant system
- Automatic lubrication system
- Portable MPG for 3 axes
- Pneumatic power draw bar
- Work light
- CE certified
- Telescopic way cover for Y axis
- Chip flushing

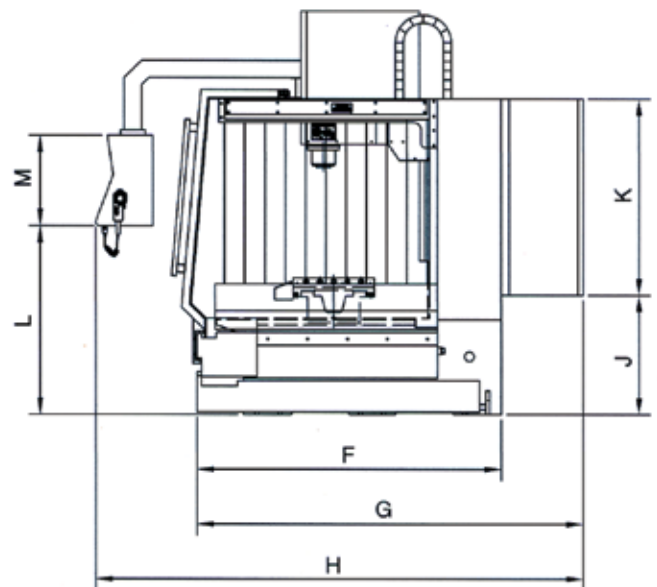
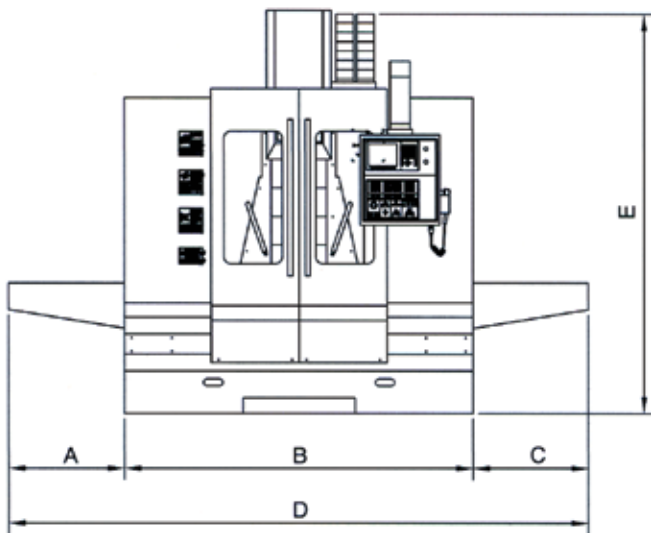
Optional Accessories

- Top enclosure for full guarding roof (for CTS use)
- Coolant through spindle with high pressure pump
- 4th axis

Semi Guarding Option - sold in UAE / CIS only



Curtain type semi guarding with extension chip trays provides easily loading/unloading of long workpieces



| Dimensions (mm) | A | B | C | D | E | F | G | H | J | K | L | M |
|-----------------|------|------|------|------|------|------|------|------|-----|------|------|-----|
| ECO 1000 | 723 | 2180 | 723 | 3626 | 2545 | 1910 | 2416 | 3050 | 759 | 1250 | 1201 | 574 |
| ECO 1500 | 1400 | 2180 | 1400 | 4980 | 2590 | 2368 | 2878 | 3540 | 692 | 1495 | 1217 | 574 |

| Specification | ECO 1000 | ECO 1500 | ECO 2000 |
|--|-------------------------------|----------------|----------------|
| Table | | | |
| Table size | 1300 x 600mm | 1950 x 610mm | 2336 x 762mm |
| T-slots (no x wid x dis) | 5 x 18 x 80mm | 5 x 18 x 100mm | 5 x 18 x 120mm |
| Table load | 800kg | 1500kg | 1800kg |
| Travel | | | |
| X axis | 1000mm | 1510mm | 2000mm |
| Y axis | 600mm | 740mm | 889mm |
| Z axis | 600mm | 670mm | 710mm |
| Spindle | | | |
| Spindle motor | 11/15kW | | |
| Spindle nose to table | 110~710mm | 120~790mm | 100~810mm |
| Spindle centre to column | 675mm | | |
| Spindle taper | BT40 (CAT/Din opt) | | |
| Spindle speed | 8000rpm (10,000rpm opt) | | |
| Spindle diameter | 150mm | | |
| Feedrates | | | |
| Rapids on (X / Y / Z) axes | 24m/min | | 20m/min |
| Cutting feedrate | 10 / 10 / 10 m/min | | |
| Accuracy | | | |
| Positioning | ±0.005/300 | | |
| Repeatability | 0.005 | | |
| Tool Changer | | | |
| Tool capacity | 20 carousel (24 twin arm opt) | | |
| Tool shank | BT40 (CAT/Din opt) | | |
| Pull stud | MAS P40T | | |
| Maximum tool diameter with adjacent tool | 90 / 75mm | | |
| Maximum tool weight | 8kg | | |
| Motor | | | |
| Drive motor X, Y, Z digital | 1.8 / 1.8 / 2.5kW | | |
| Coolant pump | 850W | | |
| General | | | |
| Power required | 20kVA | | |
| Air required | 400L/min | | |
| Floor space (L x W x H) | 5230 x 3295mm | 4250 x 4200mm | 6900 x 4340mm |
| Machine weight | 5000kg | 6000kg | 7500kg |

* Specifications are subject to change without notice

European headquarters for Dugard CNC Machine Tools

DUGARD.com

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