



**DUGARD
EAGLE**

VMC
series

1500/3200

**High Speed Cutting
Technology**



VMC

series

High Speed Cutting Technology

High-Rigidity Structure:

Made of high-quality Meehanite cast iron with durable ribbed frame, the Dugard Eagle VMC-series provides the most rigid structure for heavy cutting.

Precision Guide-ways:

Made of thermal-treated guide-way and equipped with Turcite-B wear resistant, the Dugard Eagle VMC-series realises consistent accuracy and effectively prolongs machine life.

Multiple Boxways on the Base:

The Dugard Eagle VMC-series equips with multiple boxways on the base to provide better heavy-cutting performance and longer machine life.

Double Thrust Ball Bearings with Automatic Lubrication System:

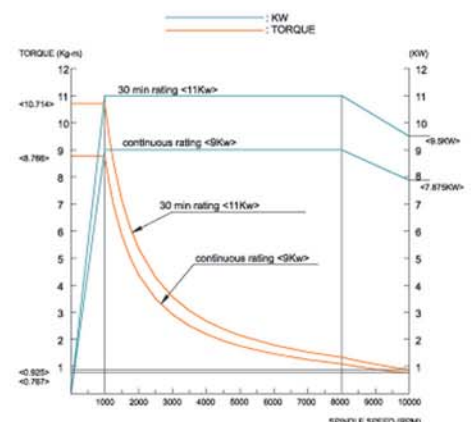
Equipped with double thrust ball bearings and tailor-made automatic lubrication system, the Dugard Eagle VMC-series delivers heavy-loading capability and substantially extends the bearing life.

Ball Screws at Accuracy Grade C3

Installed with ball screws at accuracy grade C3 with tailor-made lubrication system and pre-tensioned nuts and pre-loaded ball screws, the Dugard Eagle VMC-series ensures consistent accuracy, and effectively reduces the backlash and the thermal growth during operation.



BT40/Belt/10000rpm
1500





Multiple ATC Options

- 16Tool/Geneva Type ATC Smooth tool change and easy maintenance
- 24Tool/Arm Type ATC Simplified CAM type structure enables, to the least extend, 4.8 second tool-to-tool change.
- 32Tool/Arm Type ATC

Million Times of Stability and Durability Tests on ATC
 Laser System Inspection
 Ball-bar Diagnosis

Spindle Power & Torque



BT40/Belt/12000rpm
1500

BT50/Gear/6000rpm
1500/1800

BT50/Gear/6000rpm
2000/2200/2600/3200

— KW
— TORQUE

— KW
— TORQUE

— KW
— TORQUE

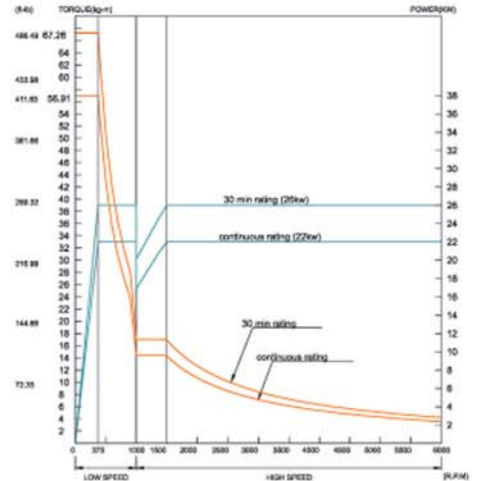
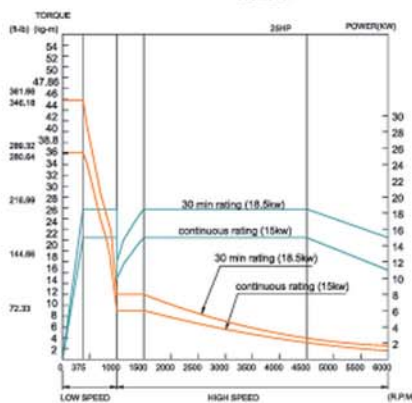
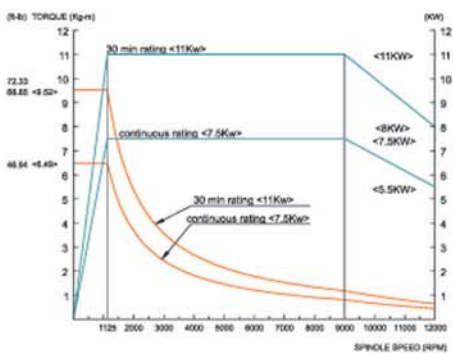
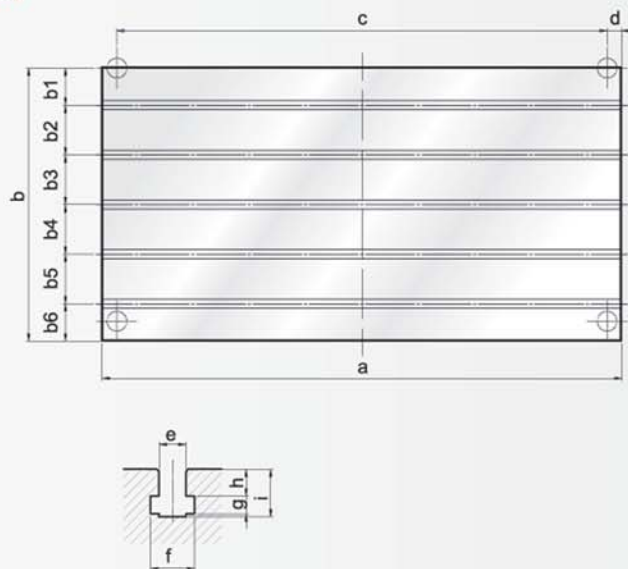




Table & T-slot Dimension (mm)

	1500	1800
a	1600	1900
b	760	850
b1	80	125
b2	150	150
b3	150	150
b4	150	150
b5	150	150
b6	80	125
c	1524	1800
d	38	50
e	22 ^{+0.033} ₋₀	22 ^{H8}
f	37	37
g	16	16
h	22	22
i	39	43



The Embodiment
of High Speed Heavy Cutting

1500/1800

Machine Dimension (mm)

	1500	1800
A	4638	4766
A1	3653	3793
A2	2234	2520
A3	745	653
B	3835	4440
C	3251	3200
C1	3241	2980
C2	2778	2830
D	1400	1495
D1	150~870	200~950
D2	920	900
D3	820	920
E	2979	3930
E1	2465	2655

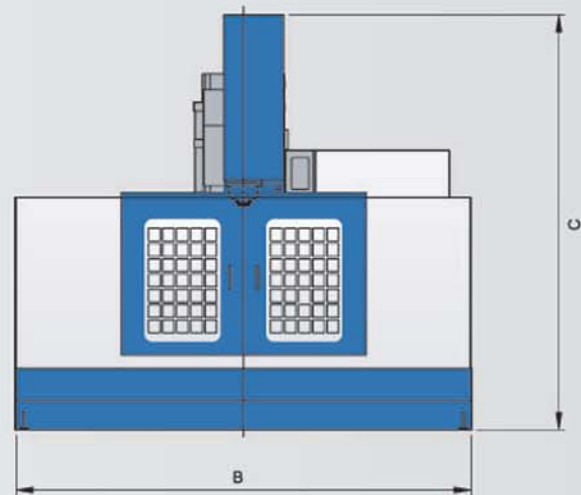
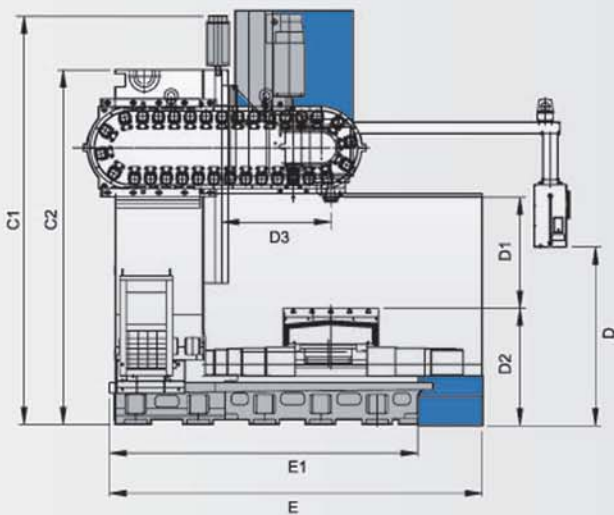
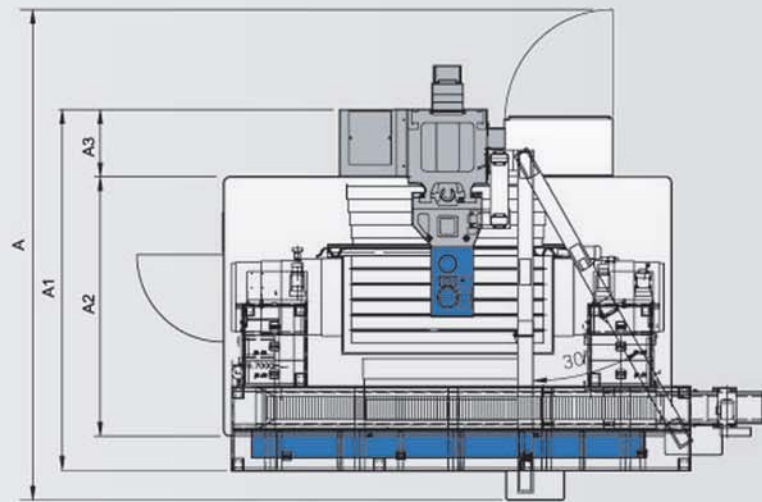
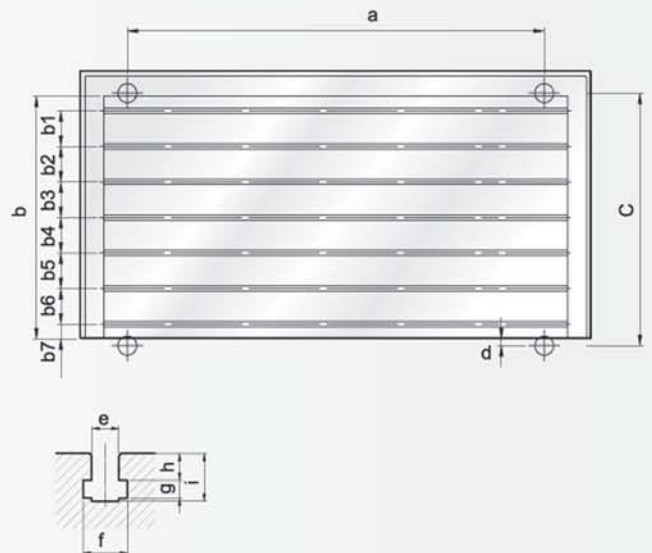




Table & T-slot Dimension (mm)

	2000	2200	2600	3200
a	2000	2200	2600	3200
b	1025	1025	1025	1025
b1	150	150	150	150
b2	150	150	150	150
b3	150	150	150	150
b4	150	150	150	150
b5	150	150	150	150
b6	150	150	150	150
b7	62.5	62.5	62.5	62.5
c	1066	1066	1066	1066
d	30	30	30	30
e	22 ^{HB}	22 ^{HB}	22 ^{HB}	22 ^{HB}
f	37	37	37	37
g	16	16	16	16
h	27	27	27	27
i	43	43	43	43

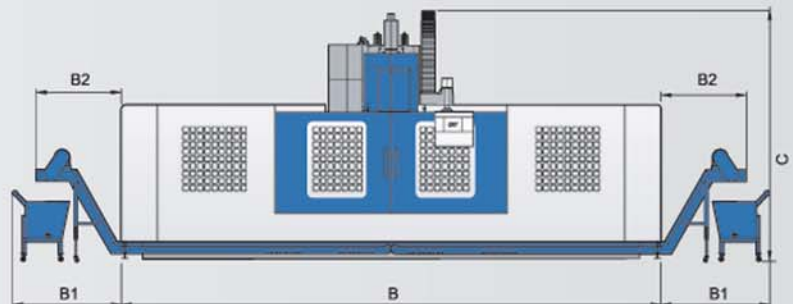
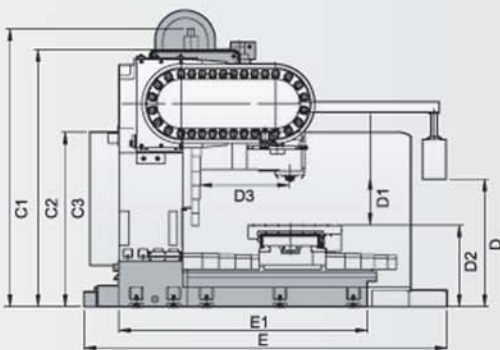
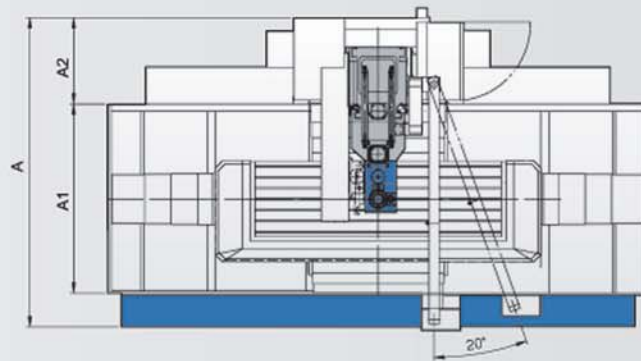


The Embodiment
of High Speed Heavy Cutting

2000/2200/2600/3200

Machine Dimension (mm)

	2000	2200	2600	3200
A	4575	4575	4275	4275
A1	2780	2780	2780	2780
A2	1200	1200	1200	1200
B	5100	5100	6000	7500
B1	1500	1500	1500	1500
B2	1171	1171	1171	1171
C	3550	3550	3550	3550
C1	3340	3340	3340	3340
C2	3090	3090 <td 3090	3090	
C3	2100	2100	2100	2100
D	1490	1490	1490	1490
D1	200~950	200~950	200~950	200~950
D2	980	980	980	980
D3	1120	1120	1120	1120
E	4045	4045	4405	4405
E1	3025	3025	3025	3025



Specifications	1500				1800		2000	
Travels and Range								
X-axis(mm/inch)	1524 / 60				1800 / 70.9		2000 / 78.7	
Y-axis(mm/inch)	762 / 30				850 / 33.5		1066 / 42	
Z-axis(mm/inch)	720 / 28.3				750 / 29.5		750 / 29.5	
Dist.between spindle nose & table surface(mm/inch)	150~870 / 5.9~34.3				200~950 / 7.9~37.4		200~950 / 7.9~37.4	
Dist.between spindle center & column cover(mm/inch)	820 / 32.3				920 / 36.2		1120 / 44.1	
Table								
Size(X*Y)(mm/inch)	1600X760 / 63X30				1900X850 / 74.8X33.5		2200X1025 / 86.6X40.4	
Load capacity(Kg/lb)	1500 / 3307				2000 / 4409		3000 / 6614	
T-slot(mm/inch)	22mmX5 / 0.8inchX5				22mmX5 / 0.8inchX5		22mmX7 / 0.8inchX7	
Spindle								
Spindle speed(rpm)	10000/12000 (Belt)		6000 (Gear)		6000 (Gear)		6000 (Gear)	
Spindle drive motor(kw)	11		18.5		18.5		26	
Spindle taper hole	N.T.No.40		N.T.No.50		N.T.No.50		N.T.No.50	
ATC								
Tool shank	BT40/CAT40/DIN40		BT50/CAT50/DIN50		BT50 / CAT50 / DIN50		BT50 / CAT50 / DIN50	
Magazine capacity	16T	24T	24T	32T	24T	32T	24T	32T
Magazine type	Geneva	Arm	Arm	Arm	Arm	Arm	Arm	Arm
Max.tool diameter(mm/inch)	∅100 ∅3.9	∅90 ∅3.5	∅110 ∅4.3	∅125 ∅4.9	∅110/∅4.3	∅125/∅4.9	∅110/∅4.3	∅125/∅4.9
Max.tool length(mm/inch)	250 / 9.8	250 / 9.8	300 / 11.8	350 / 13.8	300 / 11.8	350 / 13.8	300 / 11.8	350 / 13.8
Max.tool diameter (no adjacent tools)(mm/inch)	N/A	∅160 ∅6.3	∅200 ∅7.9	∅225 ∅8.9	∅200/∅7.9	∅225/∅8.9	∅200/∅7.9	∅225/∅8.9
Max.tool weight(kg/lb)	7 / 15.4		15 / 33		15 / 33		15 / 33	
Feedrates								
Rapid traverse(X/Y/Z)(m/min)(inch/min)	16X16X12 / 630X630X472				15X15X12 / 591X591X472		12X12X12 / 472X472X472	
Cutting feed(m/min)(inch/min)	5 / 197				5 / 197		5 / 197	
Motors(X/Y/Z)(kw)	3.5 / 4.5 / 3.5				3.5 / 4.5 / 3.5		4.5 / 4.5 / 4.5	
Machine Size								
Dimension(L*W*H)(mm/inch)	3835X3653X3241 / 151X144X128				4486X4213X3200 / 177X166X126		5100X4405X3550 / 200.8X173.4X139.8	
Weight(kg/lb)	13000 / 28660				16000 / 35274		17200 / 37919	
Misc.								
Pneumatic source(kg/cm ²)(bar)	6 / 5.88				6 / 5.88		6 / 5.88	
Power consumption(kVA)	35				45		50	
CNC**								
	Fanuc				Fanuc		Fanuc	
	Mitsubishi				Mitsubishi		Mitsubishi	
	Heidenhain				Heidenhain		Heidenhain	

Standard Accessories	1500	1800	2000
Disposal-Chip Tank	●	●	●
Fully Enclosure Splash Guard	●	●	●
Spindle Oil Cooler	●	●	●
X,Y Axes Cooled Ball Screw	●	●	●
Tri-Color Indication Light	●	●	●
Movable MPG Box	●	●	●
Air Blower&RS-232C Interface	●	●	●
Tool Box	●	●	●
User's Manual	●	●	●
CE Compliant(CE Area Only)	●	●	●
One-Year Machine Warranty	●	●	●
Two-Years Controller Warranty	●	●	●
Heat Exchanger On Electrical Cabinet	●	●	●
Optional Equipment			
Coolant Through Spindle	●	●	●
X,Y Axes Cooled Ball Screw	●	●	●
Coolant Through Tool Adapter	●	●	●
Link Type Chip Conveyor	●	●	●
Scrape Type Chip Conveyor	●	●	●
Tool Length Measuring System	●	●	●
The Fourth Axis	●	●	●
Linear Scale	●	●	●
Tapping Lubrication Device	●	●	●
Transformer	●	●	●
Oil Skimmer	●	●	●

Specifications	2200	2600	3200
Travels and Range			
X-axis(mm/inch)	2200 / 86.6	2600 / 102.4	3200 / 126
Y-axis(mm/inch)	1066 / 42	1066 / 42	1066 / 42
Z-axis(mm/inch)	750 / 29.5	750 / 29.5	750 / 29.5
Dist.between spindle nose & table surface(mm/inch)	200-950 / 7.9-37.4	200-950 / 7.9-37.4	200-950 / 7.9-37.4
Dist.between spindle center & column cover(mm/inch)	1120 / 44.1	1120 / 44.1	1120 / 44.1
Table			
Size(X*Y)(mm/inch)	2200X1025 / 86.6X40.4	2600X1025 / 102.4X40.4	3200X1025 / 126X40.4
Load capacity(Kg/lb)	3000 / 6614	3500 / 7716	4500 / 9920.8
T-slot(mm/inch)	22mmX7 / 0.8inchX7	22mmX7 / 0.8inchX7	22mmX7 / 0.8inchX7
Spindle			
Spindle speed(rpm)	6000 (Gear)	6000 (Gear)	6000 (Gear)
Spindle drive motor(kw)	26	26	26
Spindle taper hole	N.T.No.50	N.T.No.50	N.T.No.50
ATC			
Tool shank	BT50 / CAT50 / DIN50		BT50 / CAT50 / DIN50
Magazine capacity	24T 32T	24T 32T	24T 32T
Magazine type	Arm Arm	Arm Arm	Arm Arm
Max.tool diameter(mm/inch)	∅110/∅4.3 ∅125/∅4.9	∅110/∅4.3 ∅125/∅4.9	∅110/∅4.3 ∅125/∅4.9
Max.tool length(mm/inch)	300 / 11.8 350 / 13.8	300 / 11.8 350 / 13.8	300 / 11.8 350 / 13.8
Max.tool diameter (no adjacent tools)(mm/inch)	∅200/∅7.9 ∅225/∅8.9	∅200/∅7.9 ∅225/∅8.9	∅200/∅7.9 ∅225/∅8.9
Max.tool weight(kg/lb)	15 / 33	15 / 33	15 / 33
Feedrates			
Rapid traverse(X/Y/Z)(m/min)(inch/min)	12X12X12 / 472X472X472	10X10X10 / 393.7X393.7X393.7	10X10X10 / 393.7X393.7X393.7
Cutting feed(m/min)(inch/min)	5 / 197	5 / 197	5 / 197
Motors(X/Y/Z)(kw)	4.5 / 4.5 / 4.5	4.5 / 7.3 / 4.5	4.5 / 7.3 / 4.5
Machine Size			
Dimension(L*W*H)(mm/inch)	5100X4405X3550 / 200.8X173.4X139.8	6000X4405X3550 / 236X173.4X139.8	7500X4405X3550 / 295.3X173.4X139.8
Weigh(kg/lb)	19700 / 43431	20100 / 44313	23850 / 52580
Misc.			
Pneumatic source(kg/cm ²)(bar)	6 / 5.88	6 / 5.88	6 / 5.88
Power consumption(kVA)	50	50	50
CNC**			
	Fanuc	Fanuc	Fanuc
	Mitsubishi	Mitsubishi	Mitsubishi
	Heidenhain	Heidenhain	Heidenhain

Standard Accessories			
Disposal-Chip Tank	●	●	●
Fully Enclosure Splash Guard	●	●	●
Spindle Oil Cooler	●	●	●
X,Y Axes Cooled Ball Screw			
Tri-Color Indication Light	●	●	●
Movable MPG Box	●	●	●
Air Blower&RS-232C Interface	●	●	●
Tool Box	●	●	●
User's Manual	●	●	●
CE Compliant(CE Area Only)	●	●	●
One-Year Machine Warranty	●	●	●
Two-Years Controller Warranty	●	●	●
Heat Exchanger On Electrical Cabinet	●	●	●
Optional Equipment			
Coolant Through Spindle	●	●	●
X,Y Axes Cooled Ball Screw	●	●	●
Coolant Through Tool Adapter	●	●	●
Link Type Chip Conveyor	●	●	●
Scrape Type Chip Conveyor	●	●	●
Tool Length Measuring System	●	●	●
The Fourth Axis	●	●	●
Linear Scale	●	●	●
Tapping Lubrication Device	●	●	●
Transformer	●	●	●
Oil Skimmer	●	●	●



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