Eumach

Always Step Ahead

FBE-1500 / 2000 / 2600 / 3000 / 4000

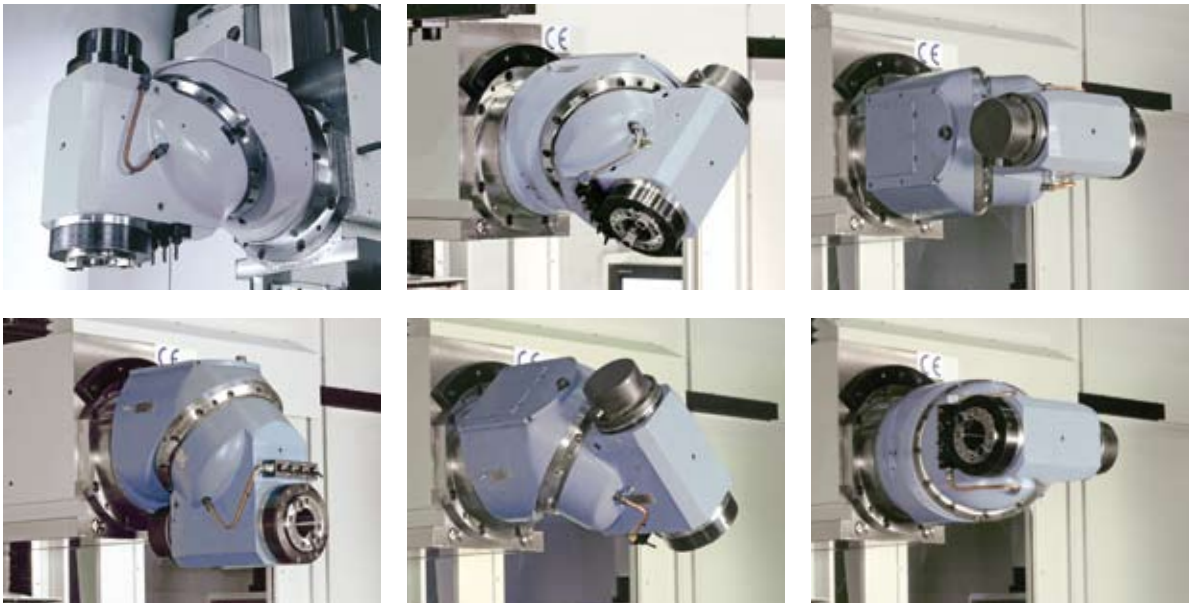
Bed Type Universal Milling Machine

EMC / CE / ISO 9002 CERTIFIED

A PROFESSIONAL CNC MACHINES MANUFACTURER

The newest EUMACH bed type univ
innovations in rigidity, accuracy,

- *Ideal for large molds, forging dies, and heavy work pieces up to 8000kg weight.*
- *Machine multi-sides of workpiece with a single set-up. (with optional milling head & rotary table)*
- *Universal multi angle universal milling head with hydraulic tool clamping.*
- *Hydraulic counterbalance on vertical movement.*
- *Hardened & ground guideways with sliding surfaces coated with turcite anti-friction material.*
- *Precision large diameter ball scerws on X-Y-Z, rigid mounted.*



▶ FBE-2000 with 2000mmx1000mmx950mm(1500mm) travel, 2100mmx1050mm table

ersal milling machine, with further versatility and performance!

▶ FBE-1500 with 1500mmx1000mmx950mm(1500mm) travel, 1600mmx1050mm table

▶ FBE-2600 with 2600mmx1000mmx950mm(1500mm) travel, 2700mmx1050mm table

The newest FBE families has been designed to enhance 3D surface and versatility; various multi-functioned milling heads all can acc machining at same time once the work piece is being fixed on table. significantly through done in one operation !

▶ FBE-3000 with 3000mmx1000mmx950mm(1500mm) travel, 3100mmx1050mm table

▶ FBE-4000 with 4000mmx1000mmx950mm(1500mm) travel, 4100mmx1050mm table

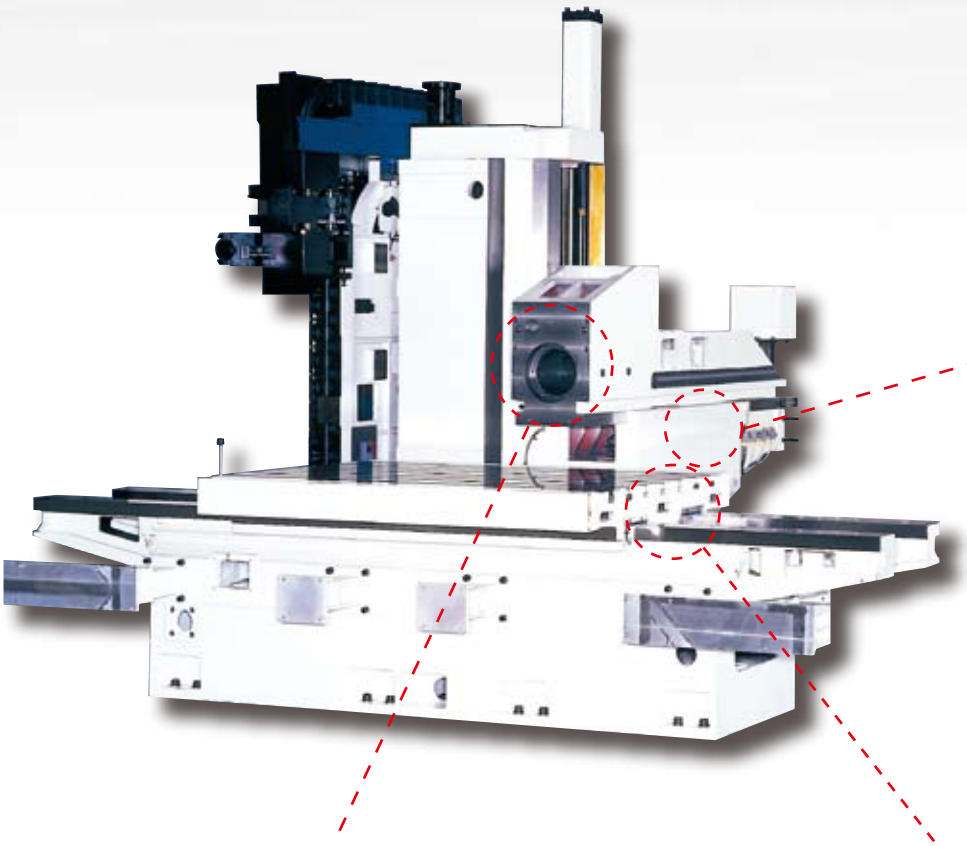
finishing together with highest rigidity
omplish with both vertical & horizontal
This definitely & greatly increase

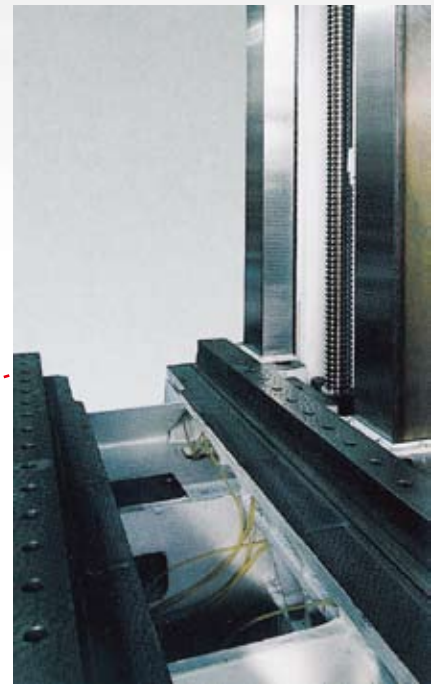
▶ FBE-3000 with optional top closed full guard.

▶ Super wide interior space for standard top open machines.

▶ Super wide interior space for optional top closed machines.

Rigid & robust casting frame :

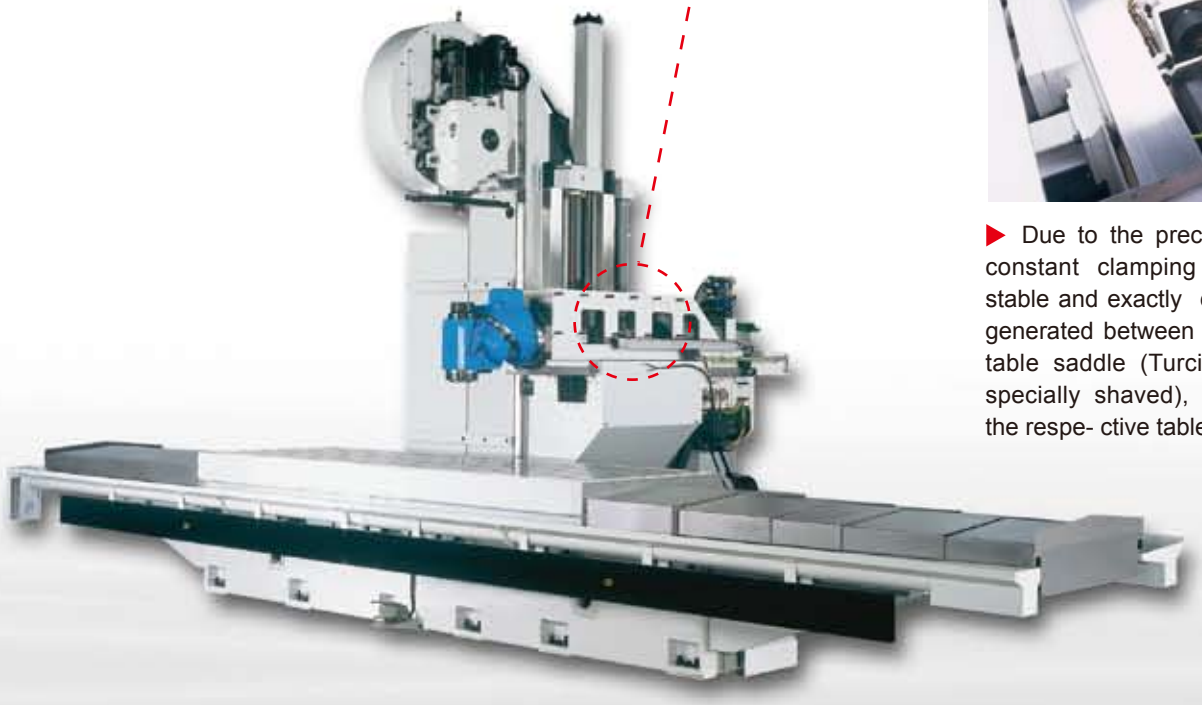


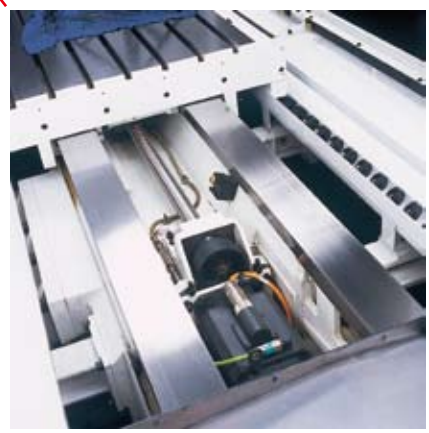


▶ The generously dimensioned gui- deways ensure a high permanent precision supported by specially hardened vertical and horizontal guideways at column and milling carriage, while the counter-guide- ways are coated with Turcite-B.

1.Standard version with horizontal spindle inside, for standard manual head or optional VH-2, VH-90 heads.

2.Direct coupling for optional ORT-2.5, VH-2.5, VH-1 automatic heads. No more horizontal spindle.



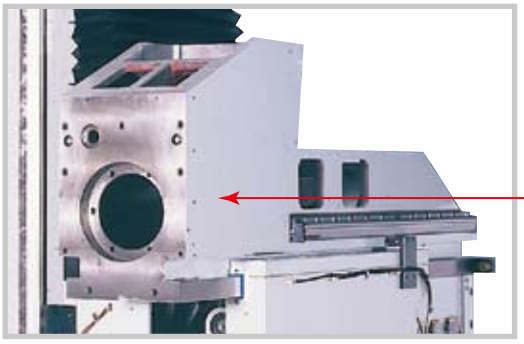


▶ Due to the precisely defined and constant clamping of the guide, a stable and exactly defined gap size is generated between bed guideway and table saddle (Turcite-B coated and specially shaved), independently of the respe- ctive table load.

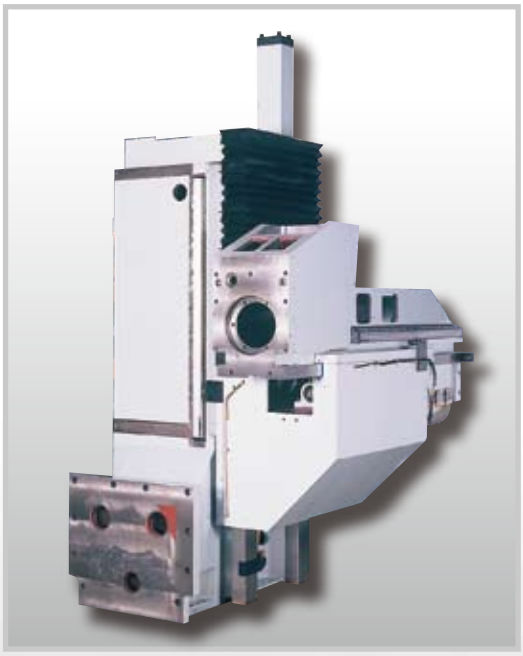
Versatile & flexible spindle solution :

Removes head

to be



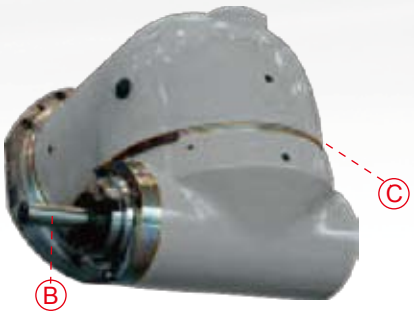
Remove the standard manual milling head (or opt. VH-2 head), a standard horizontal milling spindle is inside of the sliding ram it increases minimum 500mm working distance from such horizontal spindle to work piece by just removing universal milling head !



Heavy cutting operation is possible; its 17kw/22kw spindle motor plus a 1:4 gearbox then an additional pulley ratio, spindle torque can be up to more than 1000 Nm at 200RPM.

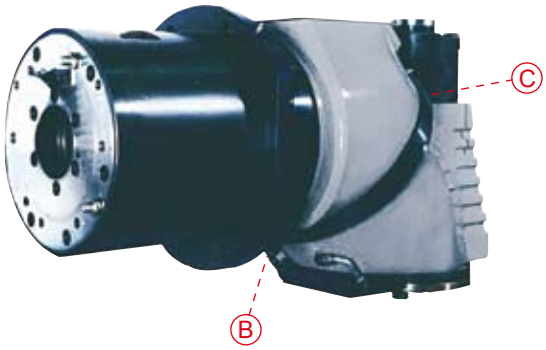
Versatile various milling heads :

Standard manual head
B axis : manual
C axis : manual



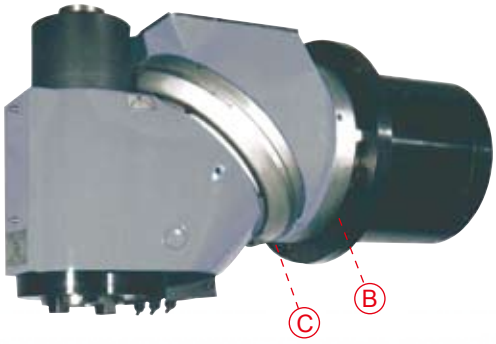
Optional ORT-2.5 head
B axis : automatic 2.5 x 144 positions
C axis : automatic 2.5 x 144 positions

Optional VH-2 head
B axis : manual
C axis : automatic 2 positions vertical & horizontal



Optional VH-2.5 head
B axis : automatic 2.5° x 144 positions
C axis : automatic 2.5° x 144 positions

Optional VH-90
B axis : manual



Optional VH-1 head
B axis : automatic 1° x 360 positions
C axis : automatic 1° x 360 positions

Above 3 heads are attachment type, the horizontal spindle is inside of sliding ram; ISO 50 spindle taper and maximum 25KW/650Nm/3500RPM.

Above 3 heads are built-in ram type, no more horizontal spindle Inside of the ram; ISO 50 spindle taper and maximum 25KW/650Nm/3500RPM.

Optional accessories :

1. Automatic tools changing :

Vertical tool change with 24 stations swing arm type

Horizontal tool change whth 32, 40 or 60 stations swing arm rail type

2. Full guarding (top closed sliding roof) :

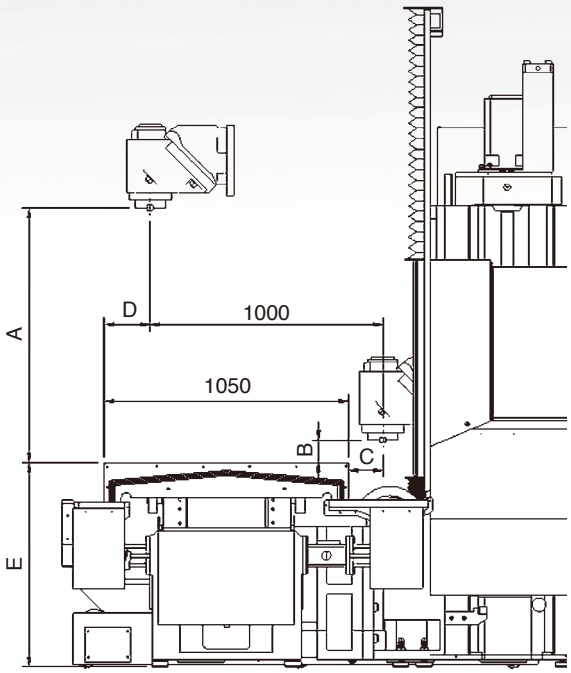
3. Pure horizontal long nose spindle, no more standard universal milling heads, speed up to 6000, 8000 or 10000RPM, direct coupling.

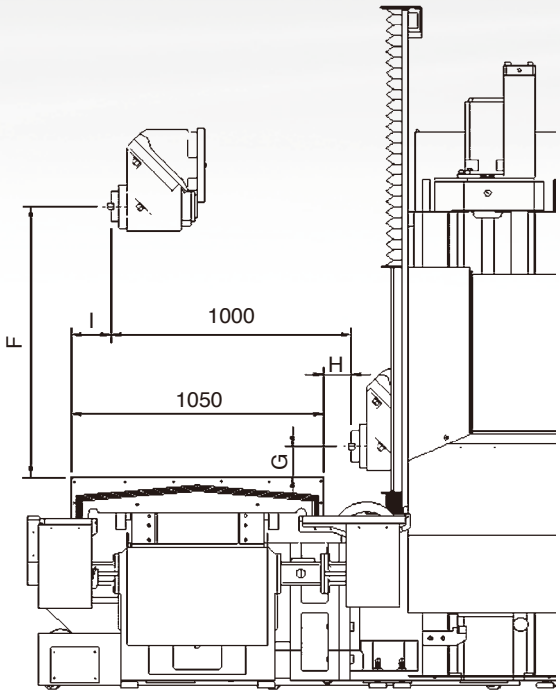
4. YZC machine :

Engineering adapted to satisfy customer requirement.

Based on 25 years milling machine engineering experience, Eumach has been successfully delivering many machines for Customers' specified jobs and always oriented towards high Productivity such as following example - a machining unit with controlled Y/Z/C (rotary table) for machining large bearing ring and steel disk etc. large round parts.

Universal head related dimensions :





Unit : MM

Milling heads	Model	A	B	C	D	E	F	G	H	I
Standard manual head	FBE1500	1046 (1606)	96 (106)	147	197	870	1078 (1638)	128 (138)	115	165
	FBE2000									
	FBE2600	1016 (1576)	66 (76)			900	1048 (1608)	98 (108)		
	FBE3000									
	FBE4000									

Optional Automatic VH-2	FBE1500	1001 (1561)	51 (61)	27	77	870	1051 (1611)	101 (111)	-23	27
	FBE2000									
	FBE2600	971 (1531)	21 (31)			900	1021 (1581)	71 (81)		
	FBE3000									
	FBE4000									

Optional Automatic VH-1	FBE1500	964 (1524)	14 (24)	104	154	870	993 (1493)	43 (53)	74	124
	FBE2000									
	FBE2600	934 (1494)	-16 (-6)			900	963 (1523)	13 (23)		
	FBE3000									
	FBE4000									

Optional Automatic VH-2.5	FBE1500	985 (1545)	25 (35)	125	175	870	1015 (1575)	65 (75)	95	145
	FBE2000									
	FBE2600	955 (1515)	5 (15)			900	985 (1545)	35 (45)		
	FBE3000									
	FBE4000									

Specifications :

UMT:MM

MODEL	UNIT	FBE-1500	FBE-2000	FBE-2600	FBE-3000	FBE-4000
TABLE:						
WORKING AREA	MM	1600×1050	2100×1050	2700×1050	3100×1050	4100×1050
T SLOTS(SIZE×NO)	MM	22H8×7 SLOTS				
TOP TO FLOOR DISTANCE	MM	870		900		
LOAD (EVENLY DISTRIBUTED)	KG	3000	5000	6000	8000	9000
TRAVEL:						
X AXES	MM	1500	2000	2600	3000	4000
Y AXES	MM	1000				
Z AXES	MM	950 (1500)				
HORIZONTAL SPINDLE: (NO MORE IF WITH VH-2.5, VH-1 HEAD)						
TAPER		DIN 69871 #50				
SPEED	RPM	3500 (5000)				
OUTPUT 40% DUTY CYCLE	KW	25				
CONSTANT OUTPUT	KW	17				
MAXIMUM TORQUE S1	Nm	650				
UNIVERSAL MILLING HEAD:						
TAPER		DIN 69871 #50				
SPEED	RPM	3500				
OUTPUT 40% DUTY CYCLE	KW	25				
CONSTANT OUTPUT	KW	17				
MAXIMUM TORQUE	Nm	650				
FEEDRATE :						
CUTTING	MM/MIN	1- 5000				
RAPID	MM/MIN	10000				
BALLSCREWS:						
X AXIS DIA. × PITCH	MM×MM	Ø50×10	Ø50×10	Ø63×10	Ø63×10	Ø80×10
Y AXIS DIA. × PITCH	MM×MM	Ø50×10				
Z AXIS DIA. × PITCH	MM×MM	Ø50×10				
PRECISION CLASS	MM/300MM	0.008 / 300				
ACCURACY:						
POSITIONING	±MM/300MM	JIS 6338 : ±0.005MM / 300MM VDI 3441: P0.014MM				
REPEATABILITY	MM	JIS 6338 : ±0.003MM VDI 3441: PS0.01MM				
ROUNDNESS	MM/DIA.	JIS 6338 : ±0.01MM / 300MM DIAMETER				
GENERAL:						
MACHINE NET WEIGHT	KG	11000	14000	15000	18000	23600
PHNEUMATIC REQUIRED	KG/CM^2	6				
HYDRAULIC REQUIRED	KW	3.5				
POWER REQUIRED	KVA	30KVA	30KVA	35KVA	35KVA	40KVA

STANDARD FEATURES & ACCESSORIES ( ) OPTION

1. 3500RPM UNIVERSAL MANUAL MILLING HEAD.
2. PROGRAMMABLE COOLANT SYSTEM.
3. AUTOMATIC LUBRICATION SYSTEM.
4. WORKING LAMP.
5. ALARM LAMP FOR ABNORMAL SITUATION.
6. INDICATION LAMP FOR DWELL & END OF JOB.
7. LEVELLING BOLTS & PADS.
8. RS-232 TERMINAL INTERFACE PORT
9. MACHINE & CONTROL MANUALS
10. TOOLBOX WITH SPANNERS & WRENCHES.
11. 3 AXIS LINEAR SCALES, WITH AIR BLAST.
12. HEIDENHAIN OR SIEMENS CONTROL.

EUMACH FAMILIES

- **VMC-2150**
  Vertical machine center
  400MM ~ 3200MM X axis travel

- **TVMC-2000 / 3000**
  Moving column machine center
  2320MM & 3320MM X axis travel

- **LBM-1500**
  High speed bridge type machine center
  1100MM ~ 2200MM X axis travel

- **MH-500**
  Horizontal machine center
  720MM x 650MM x 650MM travel

- **EBM-2150**
  5 Face machine center
  1400MM ~ 3200MM X axis travel

- **MB-1500**
  Moving column horizontal machine center
  1100MM ~ 2200MM X axis travel

- **DVM-4025**
  5 Face & double column machine center

- **HSM-5X**
  1020 / 610 / 810MM, BT#40,
  14000RPM

- **UMC-1000**
  5 Axis machine center
  1000MM x 800MM x 700MM travel

FMS-A2070304 886-4-2235-2288

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★Specifications subject to change without notice.

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