

CE TÜV
Rheinland



VICTOR®

**SUPER HEAVY-DUTY
MACHINING CENTER**

Victor-40



Victor-65



DESIGN FEATURES:

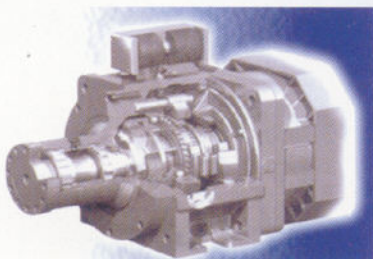
- Massive over-ribbed cast iron construction
- High dampening box type sideway
- Oversized direct-coupled servo motors
- High precision C-3 double-nut preloaded ballscrews
- Wide Range spindle motor arm type Auto Tool Changer
- Oil-cooled high mount arm type Auto Tool Changer
- Spindle oil cooler
- Rigid tapping
- Floating type tool unclamp mechanism

Victor-85



OPTIONAL FEATURES: (Complete list on back)

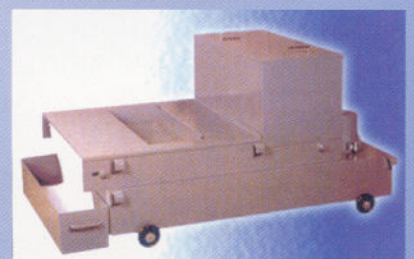
1. ZF Gear Box



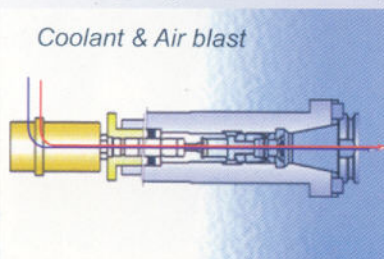
2. Base Coolant Swift System



3. High pressure Coolant / Filtration System



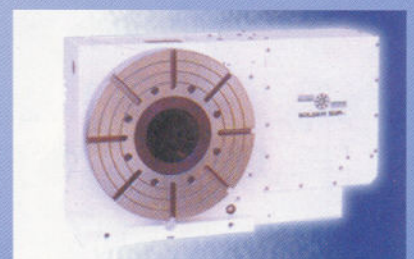
4. Through Spindle Coolant (Form A)



5. Automatic Tool Length Measuring



6. 4th Axis Package



PRECISION SPINDLE HEAD



The cartridge type spindle is installed with ABEC-7 class bearings to provide accuracy and high rigidity in both axial and radial directions. The cooling jackets are designed in the spindle cartridge surrounding the front and rear bearing locations to isolate heat transfer and minimize thermal growth of the spindle column. This design promotes accuracy during heat intensive heavy-load machining.

OVER-SIZED SERVO MOTORS



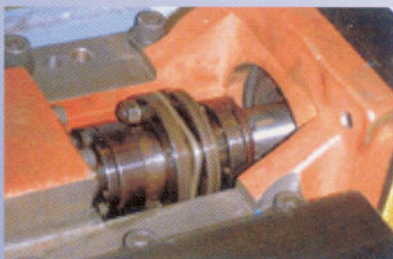
Over-sized servo motors not only increase the work-load capacity of the machine, and also drastically improve the machine's acceleration / deceleration characteristics. This design allows the machine to make smoother cuts during contouring and run at a lower servo load to increase the life time of the motor.

HIGH QUALITY BALLSCREWS



Only the highest quality C-3 precision class ballscrews are used. These ballscrews are precision ground and finished and then installed with a pre-loaded double nut. These premium-quality ballscrews are of higher quality than the C-5 class rolled finish. The high precision ballscrews guarantee that the accuracy will be maintained during fast and heavy cuts.

DIRECT COUPLED DRIVING SYSTEM



The servo motors are direct coupled to the ballscrews using zero-backlash steel couplings to eliminate wind-up, even under severe loading. As a result, contouring interpolation is smoother, corners cutting is sharper, and hole drilling is more precise. The ballscrews are also pretensioned to minimize the effects of heat expansion during high duty cutting cycles.

ALL COMBINED WITH AN INCREDIBLY SOLID FOUNDATION

EXTREMELY STABLE BASE

The wide stance of the base insures maximum stability of the machine regardless of the table position. A super-wide 6-slideway base is used on the Victor-85 while a 4-slideway base is used for all the other sizes.

RUGGEDLY CONSTRUCTED THROUGHOUT

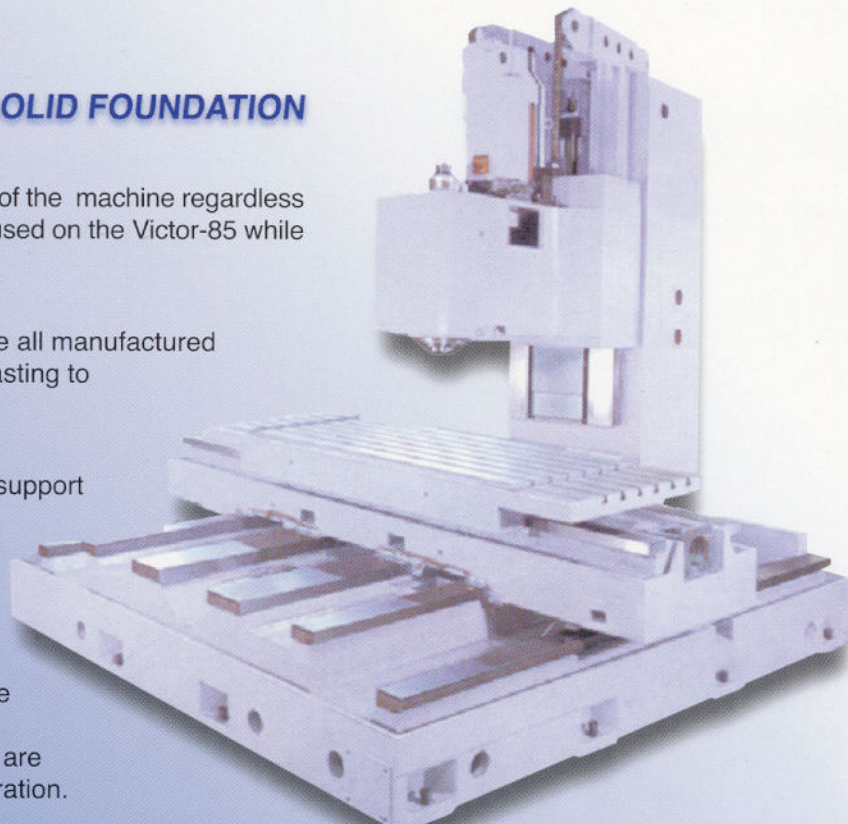
The base, column, spindle head, saddle, and table are all manufactured from high quality rib reinforced fine-grain Meehanite casting to maximize the rigidity of the individual components.

FULL STROKE SUPPORT FOR CROSS TRAVEL

The specially designed table slideway base provides support for the table across the entire travel. This eliminates the suspension problem found on other machines when the table is heavily loaded and at its outer travel range.

PYRAMID CONSTRUCTION FOR RIGIDITY

The sloping profile at the front and side of the machine creates a pyramid structure that optimizes the rigidity of the machine. Maximum number of foundation bolts are used to completely secure the base and eliminate vibration.



Specifications	Unit	Victor-40	Victor-55	Victor-65	Victor-75	Victor-85
Table						
Table size	inch (mm)	47x20 (1,200x510)	67x24 (1,700x600)	75x26 (1,900x660)	94x31 (2,400x800)	94x37 (2,400x950)
T-slots	inch (mm)	0.7 (16) x 6 slots	0.8 (22) x 4 slots	0.8 (22) x 5 slots	0.8 (22) x 5 slots	0.8 (22) x 5 slots
Max. load capacity	lb. (kg)	4,500 (2,045)	5,500 (2,500)	6,000 (2,727)	9,500 (4,318)	12,000 (5,454)
Travel						
X axis travel	inch (mm)	40 (1,020)	55.1 (1,400)	63 (1,600)	74.8 (1,900)	86.6 (2,200)
Y axis travel	inch (mm)	20 (510) 3-slideway base	23.6 (600) 4-slideway base	27.5 (700) 4-slideway base	31.5 (800) 4-slideway base	37.4 (950) 6-slideway base
Z axis travel	inch (mm)	22 (560)	25.5 (650)	25.5 (650)	27.5 (700)	27.5 (700)
Spindle nose to table surface	inch (mm)	6-28 (150-710)	5-31.5 (150-800)	6-31.5 (150-800)	9.5-37 (240-940)	9.5-37 (240-940)
Spindle center to column	inch (mm)	22.5 (570)	26.5 (670)	28.5 (730)	33.5 (850)	39.5 (1,000)
Spindle						
Spindle taper	---	No. 40	No. 50	No. 50	No. 50	No. 50
Spindle speed	rpm	8,000 (Option 10,000/12,000)	45-4,500 (Option 6,000/ 8,000)	45-4,500 (Option 6,000/8,000)	45-4,500 (Option 6,000/ 8,000)	45-4,500 (Option 6,000/8,000)
ZF Gear box (Option)	Hi/Lo rpm	8,000/2,000	4,500/1,125	4,500/1,125	4,500/1,125	4,500/1,125
Feed rate						
Rapid traverse (X/Y/Z)	inch/min (m/min)	600 (15)	X, Y: 600 (15) Z: 470 (12)	X: 600 (15) Y, Z: 470 (12)	400 (10)	400 (10)
Cutting feed rate	Inch/min (mm/min)	200 (5,080)				
ATC						
Arm type (standard)						
Tool holder	---	CAT-40 (BT-40)	CAT-50 (BT-50)	CAT-50 (BT-50)	CAT-50 (BT-50)	CAT-50 (BT-50)
Tool magazine capacity	---	24	24	24	32	32
Max. tool diameter (No adjacent tool)	Inch (mm)	Ø3" (Ø7") (Ø76 (Ø180))	Ø4.3" (Ø7.8") (Ø110 (Ø200))	Ø4.3" (Ø7.8") (Ø110 (Ø200))	Ø5" (Ø7.8") (Ø127 (Ø200))	Ø5" (Ø7.8") (Ø127 (Ø200))
Max. tool length	inch (mm)	9.8 (250)	11.8 (300)	11.8 (300)	11.8 (300)	11.8 (300)
Tool to tool	sec.	3.5	4	4	5	5
Chip to chip	sec.	7	8	8	10	10
Max. tool weight	lb. (kg)	15 (7)	33 (15)	33 (15)	33 (15)	33 (15)
Tool selection	---	Random Bi				
Motor						
Spindle (Cont/30min)	HP (kw)	10/12 (7.5/9) Wide range motor	15/20 (11/15) Wide range motor	15/20 (11/15) Wide range motor	20/25 (15/18.5) Wide range motor	25/30 (18.5/22) Wide range motor
X/Y/Z Digital Servo	HP (kw)	2.8x2.8x4.0 (2.1x2.1x3.0)	4.0x4.0x4.4 (3.0x3.0x3.3)	4.0x4.4x4.4 (3.0x3.3x3.3)	4.4x4.4x4.4 (3.3x3.3x3.3)	6.7x7.8x7.8 (5.0x5.9x5.9)
Other						
Air source	PSI	More than 80	More than 80	More than 80	More than 80	More than 80
Machine height	inch (mm)	106 (2,685)	119 (3,030)	119 (3,030)	132 (3,355)	132 (3,355)
Floor space (W x L)	inch (mm)	118x128 (3,000x3,245)	169x122 (4,300x3,100)	177x126 (4,500x3,200)	204x116 (5,184x2,940)	204x116 (5,184x2,940)
Coolant tank capacity	Gal. (liter)	50 (190)	50 (190)	50 (190)	95 (360)	95 (360)
Machine weight	lb. (kg)	15,400 (7,000)	26,400 (12,000)	28,700 (13,500)	41,800 (19,000)	48,400 (22,000)
CNC controller	---	FANUC	FANUC	FANUC	FANUC	FANUC

• Specifications are subject to change without notice for further design improvements.

STANDARD ACCESSORIES:

1. Spindle oil cooler	5. Air system with alarm	9. Leveling bolts & pads
2. Rigid tapping	6. Remote pendant	10. Alarm light
3. Heat exchanger	7. M30 automatic power off	11. Work light
4. Automatic lubrication system with alarm	8. DNC function & RS-232C interface	12. Operational & maintenance manual

OPTIONAL ACCESSORIES:

1. Spindle speed 10,000/12,000 rpm (Victor-40) Spindle speed 6,000/8,000 rpm (Victor-55 to Victor-85)	5. CAT/DIN tooling system	9. Rotary table ready
2. Rotary table with 4 th axis control	6. Chain-type chip conveyor & bucket	10. Base coolant swift system
3. Automatic tool length measurement	7. Full enclosure cover	11. ZF gear box
4. Through hole drill kits	8. Touch probe	12. High pressure coolant / filtration system



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