VictorTaichung

Management System
ISO 9001:2008
ISO 14001:2004
www.tuv.com
ID 0091003197

Art of Precision & Performance

Vturn-NP16

New & Narrow Lathe with High Performance

- Machine width 1.5 meters
- Turning length 250 mm
- Rapid feeds 30/30 m/min
- Roller guideways
- Servo turret
- One-piece slant bed
- Rear / Right chip disposal
- Ready for unmanned operation

Victor Taichung - an established ISO-9001 & 14001 company

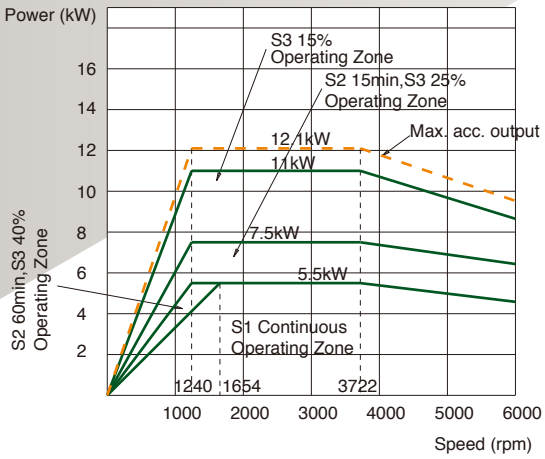
Pursuit of Productivity

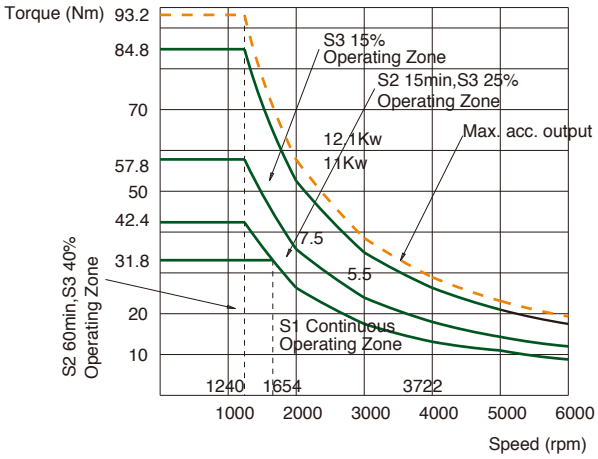
New & Narrow Lathe

- Machine width only
- Z-travel 250 mm
- High rapid feed 30 m/min
- 6" power chuck
- Rear chip disposal

Victor Taichung's own spindle

- Spindle output 11 kW (S3-15%)





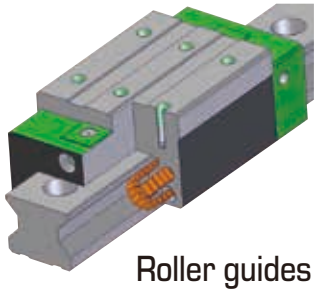
Strong structure

- One piece slant bed
- High rapid feeds 30/30 m/min
- Roller type guideways
- Meehanite casting

Certificated Casting

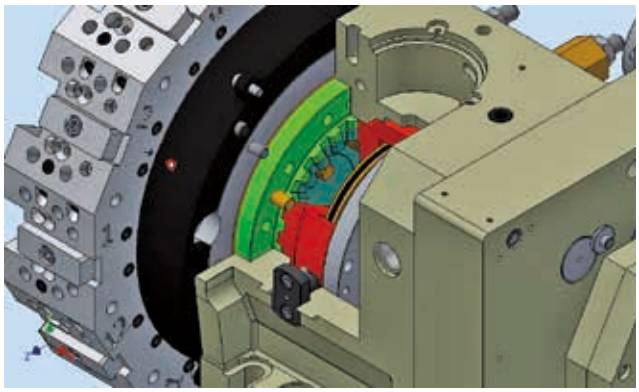
GM400

GA350



Roller guides

35 mm (X/Z)

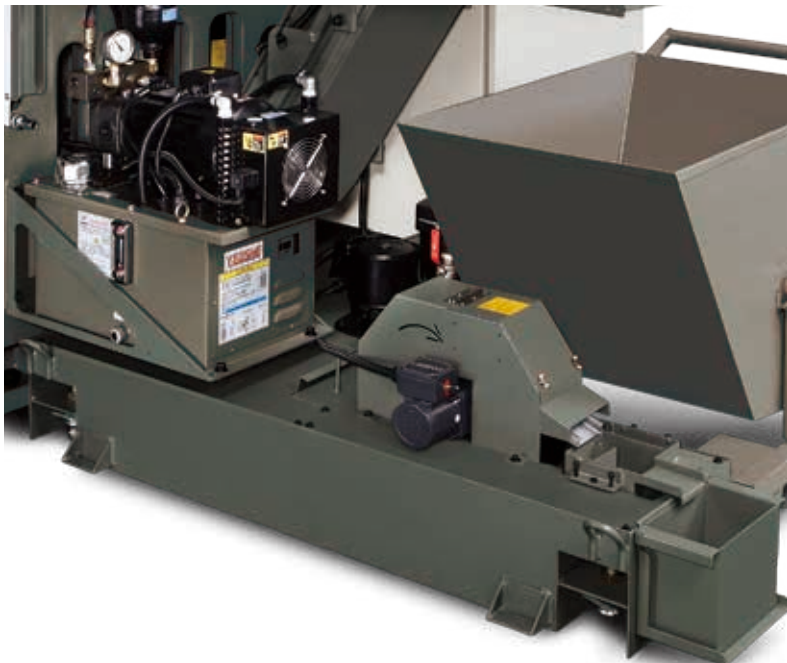


Servo driven Turret

- 3-piece coupling design without turret disk up/down affords high pressure coolants without leakage during indexing.
- Turret indexing time 0.9 (T-T, opposite).
- C-axis option is available with BMT-45 milling turret.

Coolants & chips disposal

- Coolant flush on Z-axis covers.
- Cliff design minimizes chip built-up.
- Rear disposal chip conveyor minimizes machine width.



Standard & Optional Accessories

Fanuc 0i-TF (10.4") control + Manual Guide I (MGI)

- **Right side for easy operation**
- **Manual Guide I for easy programming**
- **Inverter type hydraulic tank reduces the temperature rise**

Fanuc 0i-TF (10.4")

Coolant flush onto covers

Inverter hydraulic tank

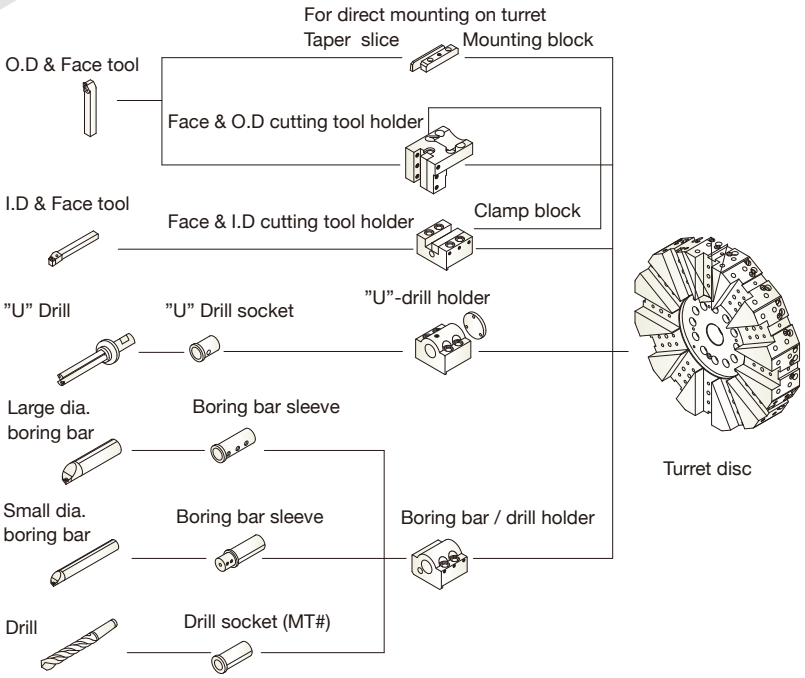
Manual MT#3 tailstock (opt.)

Tool presetter & Part catcher (opt.)

Oil skimmer (opt.)

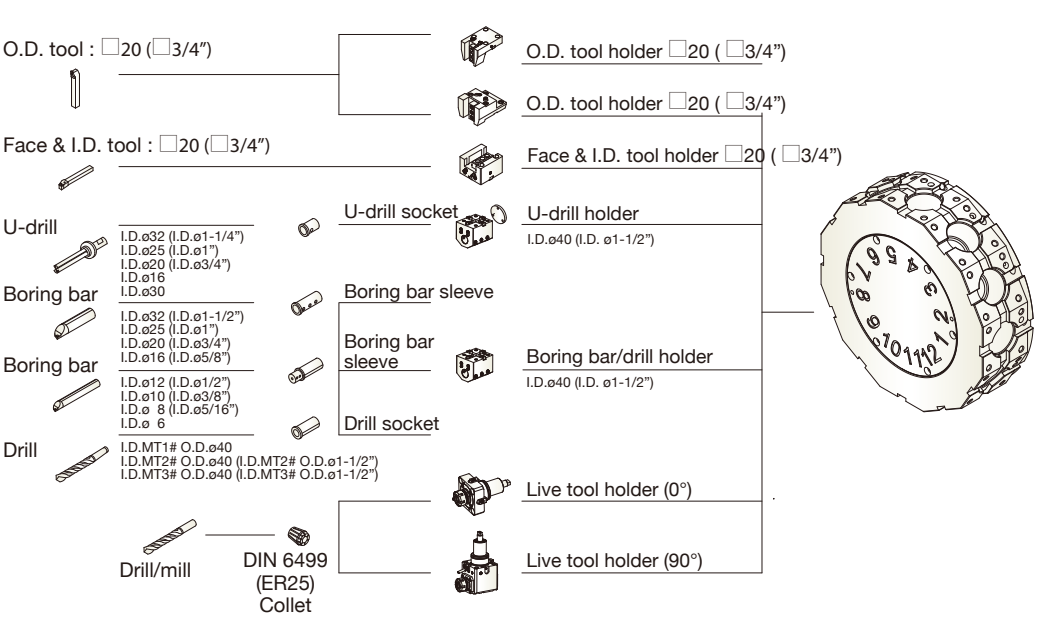
Tooling accessories (Excl. BMT Turret)

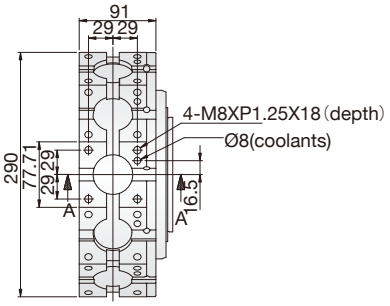
TOOLS \ MODEL	Vturn-NP16
Tool shank for turret disk	20 mm (3/4")
Maximum boring bar Dia.	32 mm (1 1/4")
Face + OD cutting tool holder	2
Face + ID. cutting tool holder	1
Boring bar holder	
32 mm (1 1/4")	6
40 mm (1 1/2")	-
Boring bar sleeve	
8 mm (5/16")	1
10 mm (3/8")	2
12 mm (1/2")	2
16 mm (5/8")	2
20 mm (3/4")	2
25 mm (1")	2
32 mm (1 1/4")	-
Drill socket	
MT1	Opt.
MT2	1
MT3	Opt.
U drill holder	
32 mm (1 1/4")	1
40 mm (1 1/2")	-
U drill socket	
20 mm (3/4")	1
25 mm (1")	1
32 mm (1 1/4")	-

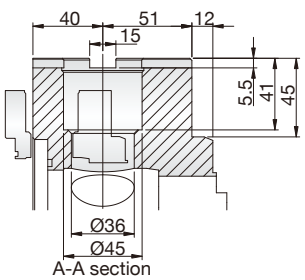


C-axis Application

Vturn-NP16CM with BMT-45 Milling Turret (Optional)





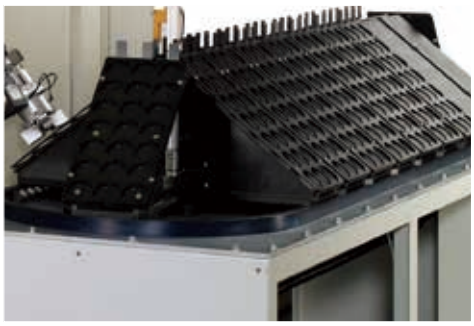


Built for Unmanned Operation

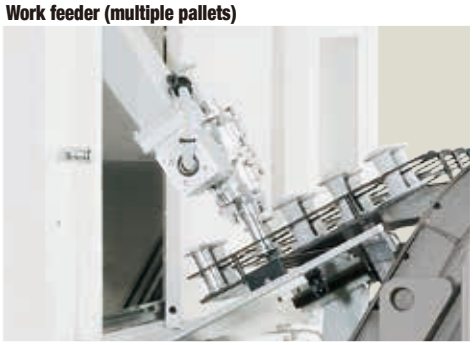
Built in articulated robot EWR-03

- Maximum part weight: 3 kg
- Maximum part size: Ø120 x L.100 mm
- Part loading/unloading time along chuck: 7 seconds.
- Flexible work feeders for unmanned operation.

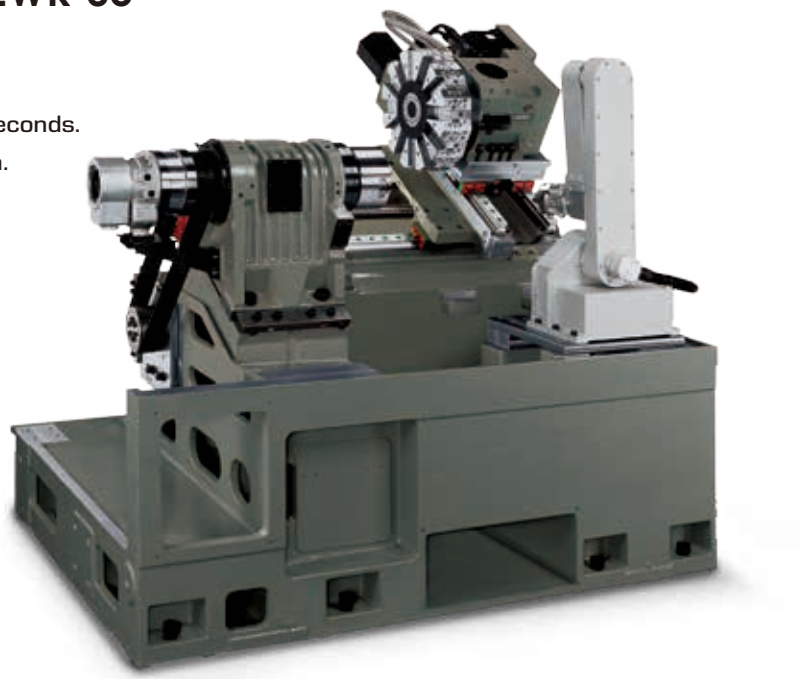
Robot with grippers



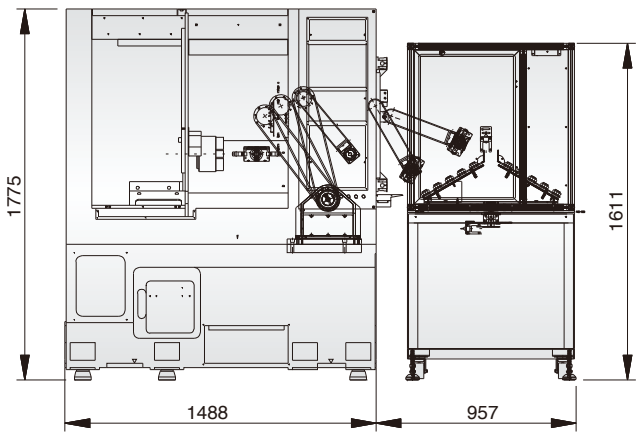
Work feeder (multiple pallets)

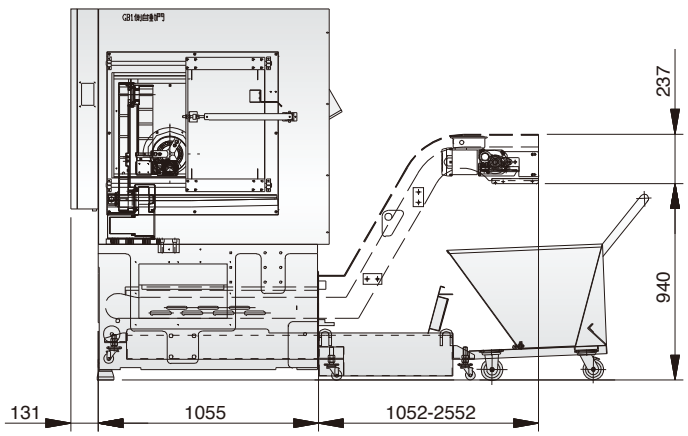


Work feeder (single pallet)



Work feeder (vibrator)

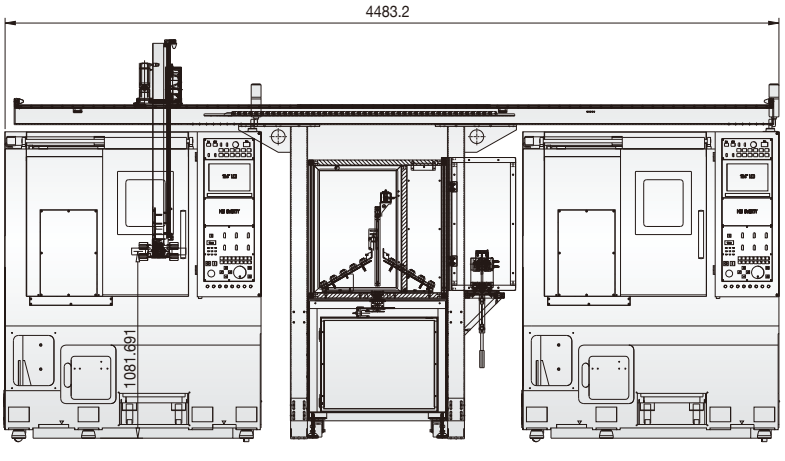


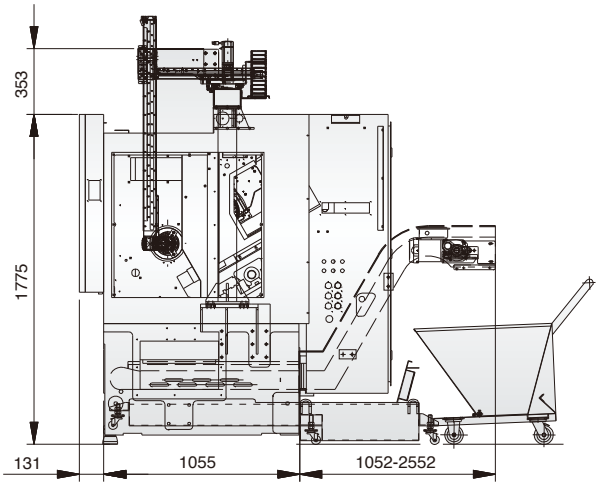


Gantry Robot

VICTOR-TAICHUNG

- Mounted on machine base composes a compact cell
- Heavier parts (> 3 kg) can be loaded
- Part changeover time: 15 seconds (including door open/close time)
- One robot can take care two lathes.
- Two robots for two lathes increase production for the parts with short cutting time.





VICTOR Taichung's FANUC 0i-TF 10.4" Control (Type I) Specifications

Standard

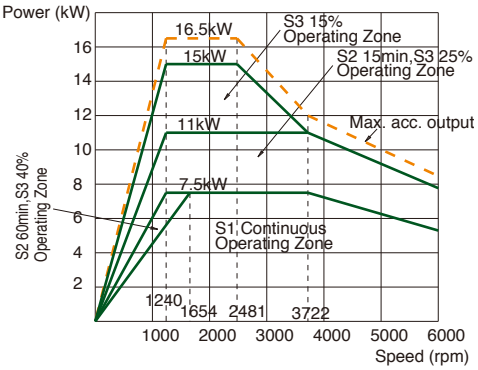
ITEM\SPECIFICATION		DESCRIPTION
Controlled Axes:		
1.	Controlled axes	2 Axes (X, Z)
2.	Simultaneous controlled axes	2 Axes
3.	Least input increment	0.001mm
4.	Least command increment	0.0005mm (X) / 0.001mm (Z)
5.	Command system	Incremental / Absolute
6.	HRV Control	HRV3+
7.	Unexpected disturbance torque detection (AIR-BAG)	Std.
8.	Backlash compensation	Std.
9.	Stored pitch error compensation	Std.
Operation & Program Input:		
1.	Input / Output interface	RS-232, PCMCIA Card, USB
2.	Tool offset	99 sets
3.	Sequence number	N5-Digit
4.	Program number	O8-Digit
5.	Program name	31-characters
6.	M code function	M3-digit
7.	S code function	S4-digit
8.	T code function	T4-digit
9.	Positioning	G00
10.	Linear interpolation	G01
11.	Circular interpolation	G02, G03
12.	Programmable data input	G10
13.	Plane selection	G17~G19
14.	Inch / Metric conversion	G20 / G21
15.	Reference position return	G28, G30
16.	Thread cutting	G32, G34
17.	Threading retract	Std.
18.	Tool nose radius compensation	G40~G42
19.	Work piece coordinate system	G52~G59
20.	Macro, Sub program call	G65, M98, M99 (10 folds nested)
21.	Multiple repetitive cycle I & II	G70~G76
22.	Canned cycle for drilling	G80~G89
23.	Canned cycles	G90, G92, G94
24.	Program stop / end	M00~M02 / M30
25.	Rigid tapping (Spindle)	M29
26.	Manual Guide I	Std.
27.	Optional blocks skip 2-9	Std.

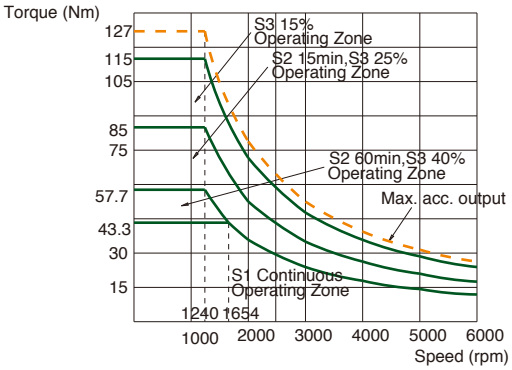
Feed Function:		
1.	Manual handle feed rate	X1, X10, X100
2.	Rapid traverse rate	F0, 25%, 50%, 100%
3.	Cutting feed rate	0~150%
4.	Spindle override	50~120%
5.	Feed er Minute / Revolution	G98 / G99
Edit Operation:		
1.	Part Program Storage Length (in total)	1280m / 512kB (0i / 32iB)
2.	Number of Registerable programs (in total)	400.
3.	Part Program Editing	Std.
C Axis Function:		
1.	Polar coordinate interpolation	G112, G113
2.	Cylindrical interpolation	G107
3.	CS contouring control	Std.
4.	Spindle control with servo motor	G96.4
5.	Coordinate System Rotation	Std.

OPTIONS

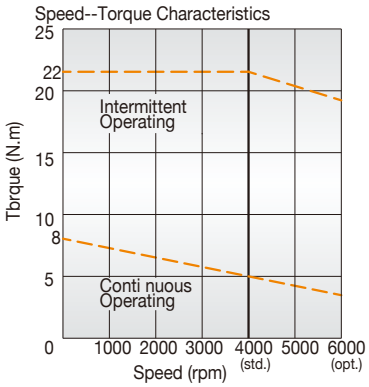
With hardware included		**0i-TF**
1.	Tool life management	□
2.	Program restart	□
3.	Data server (with PCB and ATA card)	□
4.	Fast Ethernet (100Mbps, available in Data server)	□
5.	CC Link (included Robot)	□
6.	PROFIBUS slave	□
Without hardware included		
7.	Part program storage length (5120m/2MB)	□
8.	Number of registerable programs 1000	□
9.	Circular thread cutting (G35,G36)	□
10.	AICC-1 (G5.1 Q1, 40 blocks)	□
11.	AICC-2 (G5.1 Q1, 200 blocks)	□
12.	Helical interpolation (C-axis only)	□
13.	Arbitrary speed threading	□

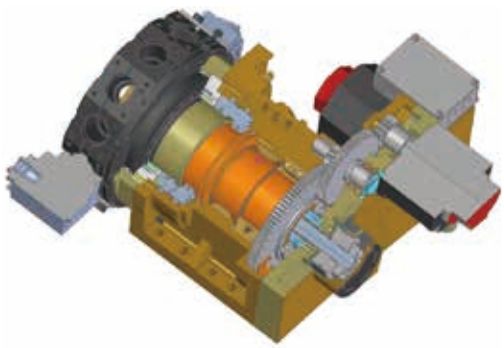
Optional Spindle Output (15 kW, S3-15%)





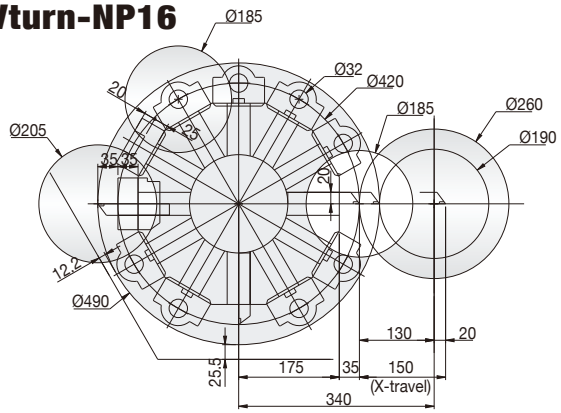
Milling Motor Output (2.2 kW)

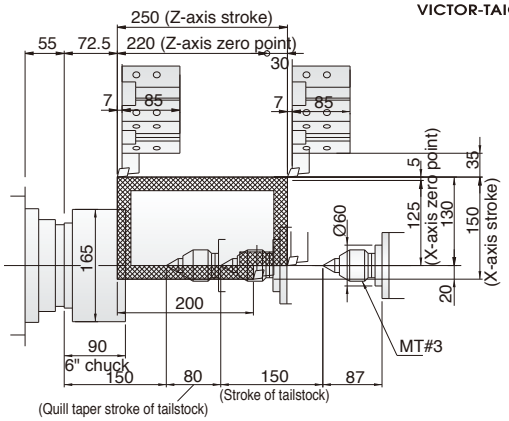




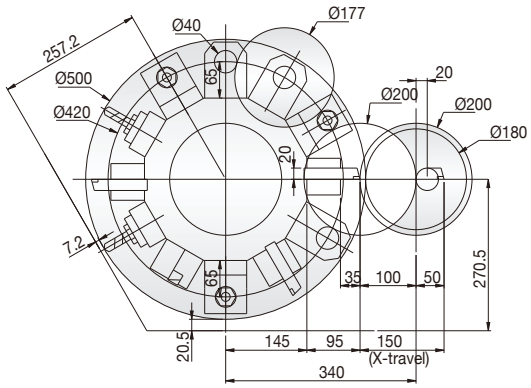
Interference Chart / Operating Range

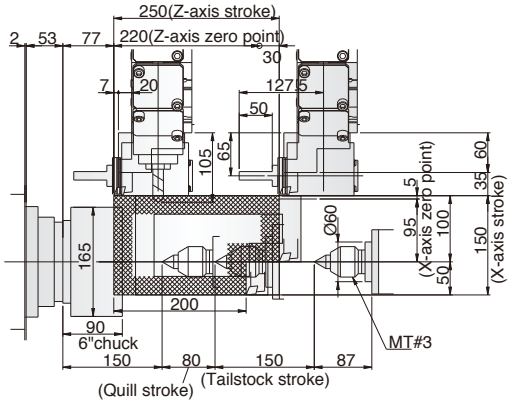
Vturn-NP16



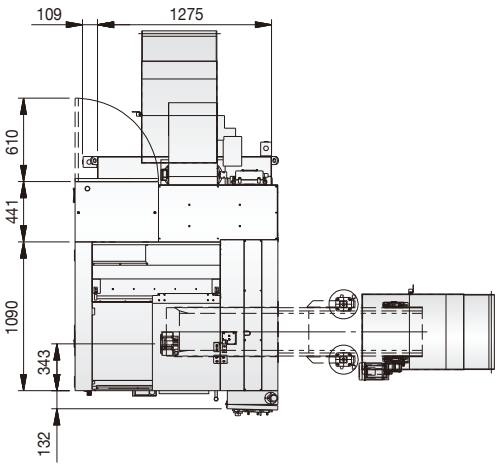


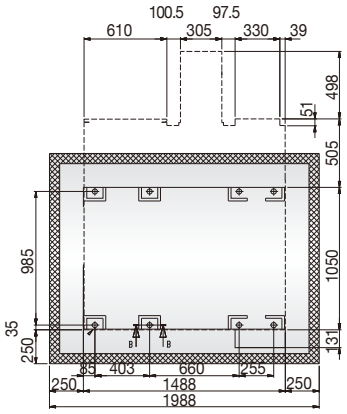
Vturn-NP16CM

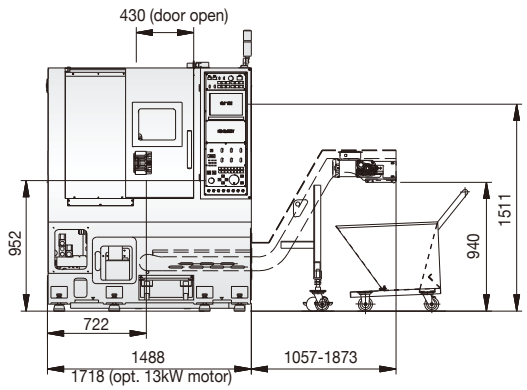


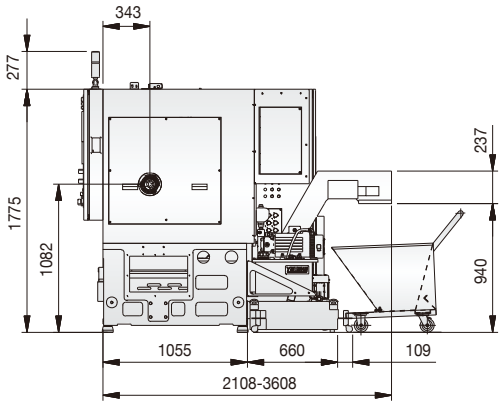


Machine Layout









Machine Specifications

Item	Unit	Vturn-NP16 (CM)
Capacity		
Swing over bed dia.	mm	Ø570
Standard turning dia.	mm	Ø185 (Ø200)
Maximum turning dia.	mm	Ø260 (Ø200)
Swing over carriage dia.	mm	Ø325
Between centers	mm	270
Bar capacity (Hole thru draw bar)	mm	Ø42
Axis Feeds		
X axis travel	mm	20+130 (50+100)
Z axis travel	mm	250
Rapid feed - X / Z axis	m/min	30 / 30
Feed motor - X / Z axis	kW	1.8 / 1.8
JOG feed	m/min	X/Z: 0~1260
Ball screw dia. x pitch	mm	Ø25 x P10 (X) Ø40 x P10 (Z)
Guideway width - X / Z axis	mm	35 / 35
Spindle		
Spindle speed	rpm	6000
Spindle nose (chuck)	inch	A2-5 (6")
Spindle motor power (cont./30min/15%)	kW	5.5 / 7.5 / 11 (opt. 7.5 / 11 / 15)
Spindle bearing inside dia.	mm	Ø90
Spindle taper		1/20
Turret		
No. of tools (live)		12 (12)
Tool shank size	mm	□20
Max. boring bar dia.	mm	Ø32 (BMT-45)
Exchange time (T-T)	sec	0.9 (opposite)
Milling speed	rpm	4000 (opt. 6000)
Milling motor	kW	2.2
Tailstock (Optional)		
Tailstock quill dia.	mm	Ø60
Quill stroke	mm	80
Quill taper		M.T. #3
Machine		
NC controller	Fanuc	0i-TF (10.4")
Coolant tank capacity	L	160
Power requirement	kVA	23.8
Machine dimension L x W x H(with chip conveyor)	mm	1488 x 1956 (2108) x 1775
Net weight	kgs	2800

* Machine and controller specifications are subject to change without notice.

Standard accessories:

- Fanuc 0i-TF (10.4") with Manual Guide i
- Hydraulic chuck with soft jaws
- Chip conveyor (rear disposal)
- Fully enclosed splash guarding
- Tool holders (only for standard turret)
- Coolant flush on Z-axis cover
- 3 step warning light

Optional accessories:

- Manual tailstock with power quill
- Chip conveyor (right disposal)
- Manual tool presetter
- Auto tool presetter
- Parts catcher (swing type)
- KITAGAWA® power chuck
- Air conditioner for electrical cabinet (Panel cooler)
- Higher pressure coolants
- Bar feeder interface
- Air blow
- Oil skimmer
- Oil mist collector
- Hard jaws
- Tailstock center
- Auto door
- Separable chip conveyor (to save floor space when drawn out)
- C-axis (Vturn-NP16CM)
- Robot system

VictorTaichung profile:
Sales turnover: USD 138 mil's (in 2015)*
No. of employees: 831
*Exchange rate: 1 USD=30 TWD.

HTL VTL VMC HMC XMT PIM

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VictorTaichung was also marketed under the brand names VICTOR (outside North America) and FORTUNE

16080401 MacIS. TEL: 04-24733326