



VT1000EX

Large Vertical CNC Lathe

**Achieving heavy-duty, long and continuous cutting
of large, difficult-to-cut workpieces.**

**Dramatically improving productivity in turning applications for the
aerospace and other industries.**

**For heavy cutting
of large,
difficult-to-cut parts**

■ Reinforced spindle

- Spindle motor output: 55 kW
- Spindle nose: ø380 flat
- Spindle dia: ø260 mm (spindle speed: 10 to 800 min⁻¹)

■ Structural reinforcement

- Highly rigid box slide guideways
- Stronger clamp coupling for the turning-dedicated H1 turret

■ Stronger axial thrust

- X-axis: 30 kN, Z-axis: 30 kN

**Achieving continuous
long-run operation**

■ With ATC

- Tool shank: BT50
- Tool magazine storage: 36 tools

■ Chip discharge

- Large chip drop opening, stainless steel chute
- Large flow chip flusher

OPEN POSSIBILITIES

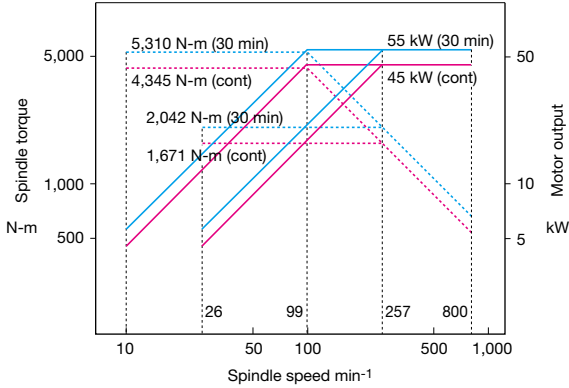
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■ Cutting capacity: Inconel 6.7 mm² (actual data)

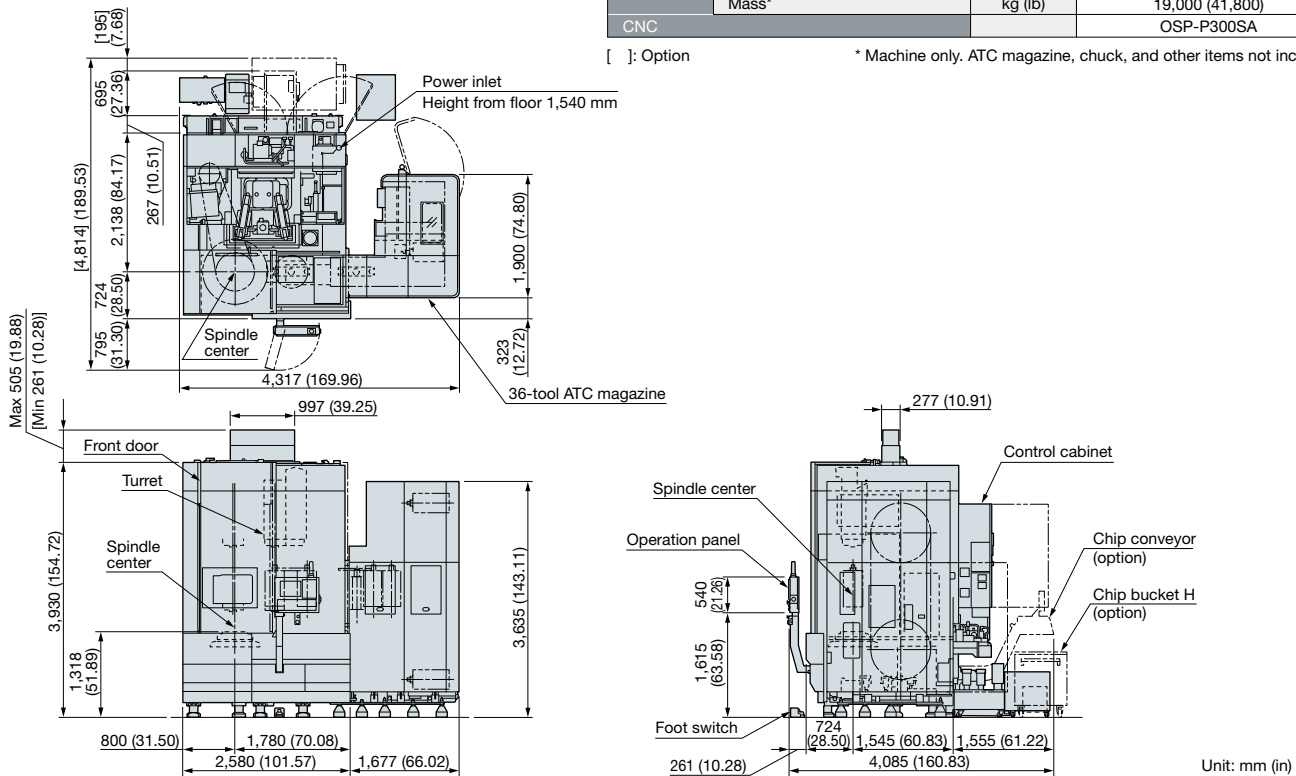
Note: The "actual data" referred to above for this brochure represent examples, and may not be obtained due to differences in specifications, tooling, cutting condition, and others.

■ Spindle output/torque diagram

- Speed 800 min⁻¹
- Max output 55/45 kW (30 min/cont)
- Max torque 5,310/4,345 N·m (30 min/cont)



■ Dimensional/Installation Drawing



[] : Option

* Machine only. ATC magazine, chuck, and other items not included.

■ Machine Specifications

Item	Unit	VT1000EX	
Capacity	Max turning diameter	mm (in)	ø1,000 (39.37)
	Max swing diameter	mm (in)	ø1,000 (39.37)
	Max work length (height)	mm (in)	1,000 (39.37)
	Max workpiece mass (w/ chuck)	kg (lb)	2,000 (4,400)
	Height from floor to spindle nose	mm (in)	1,318 (51.89)
Travel	X-axis	mm (in)	650 (25.59)
	Z-axis	mm (in)	1,000 (39.37)
Spindle	Speed	min ⁻¹	10 to 800
	Speed range		Auto 2-speed (2 gears)
	Nose type		ø380 flat
	Bore diameter	mm (in)	ø110 (4.33)
	Front bearing diameter	mm (in)	ø260 (10.24)
Turret	Turret type		Turning-dedicated H1 ATC
	No. of tools	tools	1
	OD tool shank dimension	mm (in)	□25, □32 (1, 1-1/4)
	ID tool shank diameter	mm (in)	ø40, ø50 (1.57, 1.97)
ATC	Tool shank		BT50 [CAPTO C8, HSK-A100]
	Magazine capacity	tools	36
	Tool selection		Fixed address type
	Max tool diameter	mm (in)	ø170 (6.69) (with adjacent tool) ø290 (11.42) (w/o adjacent tool)
	Max length	mm (in)	500 (19.69) (from gauge line)
Feed rate	Rapid traverse X, Z-axis	m/min	X: 16, Z: 16
	Motor		
Motor	Spindle drive	kW (hp)	55/45 (75/60) (30 min/cont)
	Axis drive motor	kW (hp)	X: 6.4 (8.53), Z: 4.6 (6.13)
	Coolant pump motor	kW (hp)	Turret: 1.5 (2)
	(50 Hz/60 Hz)		In-machine wash: L1.1 (1.5)/R1.1 (1.5)
Machine size	Height	mm (in)	4,435 (174.61)
	Floor space (length × width)	mm×mm (in)	4,317 × 4,085 (169.96 × 160.83)
	Mass*	kg (lb)	19,000 (41,800)
CNC			OSP-P300SA



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