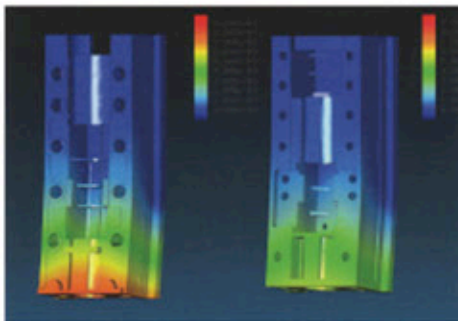


CINCINNATI MACHINES



**4 & 5 Axis
CNC
High-Speed
Precision
Die/Mold
Center**



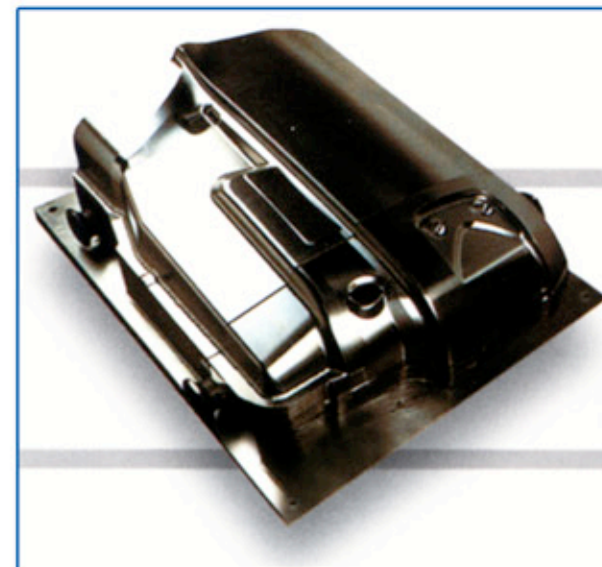


Cincinnati Machines SMART Series High-Speed Precision Die/Mold Centers are engineered and manufactured from the ground up to provide many years of very precise, consistent, and reliable machining of dies, molds, jigs, tooling, and fixtures. From the very start of the process, extensive use of CAD (Computer Aided Design) insures maximum casting design stability. All castings are naturally seasoned before being subjected to state-of-the-art annealing processes to provide maximum thermal stability. All slide way systems are precision hand fitted to insure maximum accuracy. All completed machines must then undergo 168 hours of normal machine load testing and runoff to confirm stability and accuracy.

- *COMPUTER AIDED DESIGN
- *NATURALLY SEASONED CASTINGS
- *HIGH-TECH ANNEALING SYSTEM
- *ROBUST MACHINE TESTING
- *FANUC CNC AS STANDARD

SMART

- *VERY PRECISE AND CONSISTANT
- *VERY FINE SURFACE FINISH
- *RUGGED HIGH-SPEED SPINDLE
- *90 MILLIONTHS REPEATABILITY XYZ
- *AVAILABLE AS 4 OR 5 AXIS MACHINE

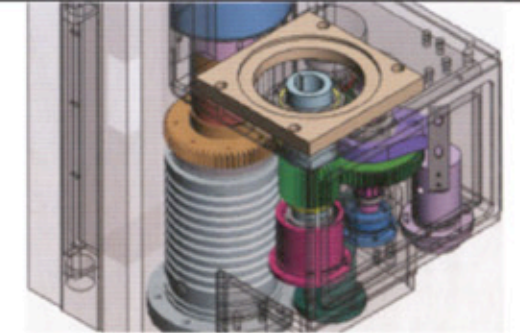


4 & 5 Axis High-Speed Precision Die/Mold Center

Optional Features and Accessories



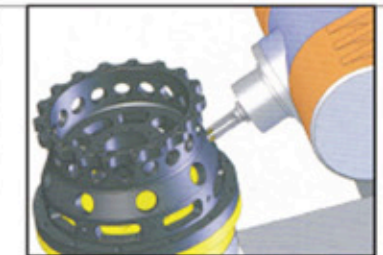
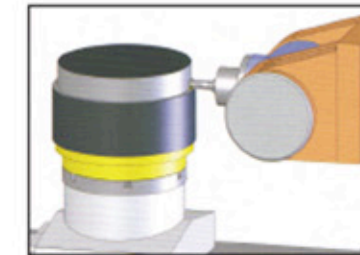
CAT 50
90 Degree
Milling Head



Heavy-Duty
Multiple-Step
Gear-Box

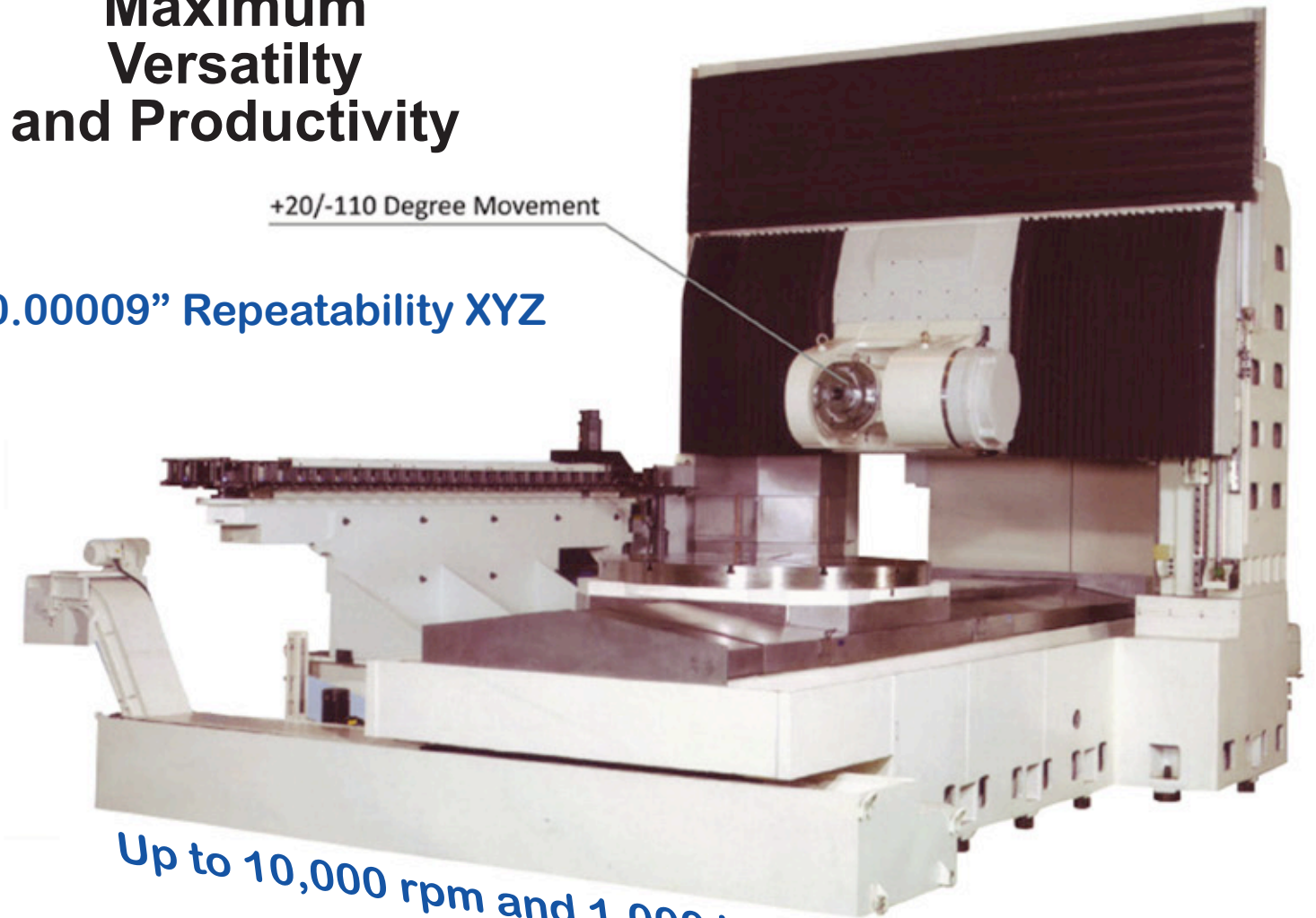
V-Series Machines include Tilting-Head 5th Axis Providing Maximum Versatility and Productivity

5 Axes - make quick work of any job



+20/-110 Degree Movement

0.00009" Repeatability XYZ



Up to 10,000 rpm and 1,000 ipm

Specification



CNC High-Speed Precision Die/Mold Center

	Item	Unit	<i>SMART-800</i>	<i>SMART-1000</i>	<i>SMART-1200</i>	<i>SMART-1650</i>
Travel	X-Axis	mm	1000	1200	1400	1800
	Y-Axis		1200	1200	1400	1850
	Z-Axis		700	800	800	1000
Feedrate	X-Axis	m/min	24	20	15	15
	Y-Axis		24	20	15	15
	Z-Axis		24	20	15	15
Table	Diameter	mm	800	1000	1200	1650
	Max Load	kgs	1500	3500	5000	8000
	Max Rotation	Degree	360	360	360	360
	Minimum Input Increment'	Degree	0.001	0.001	0.001	0.001
	Rotation Speed	rpm	5.5	5.5	2.08	2.08
	Torque	kgm	200	300	400	2200
	Accuracy	+/- Arc. Sec.	4	4	4	4
Positioning Accuracy	X-Axis	mm	0.004 (linear Scale)	0.004 (linear Scale)	0.004 (linear Scale)	0.004 (linear Scale)
	Y-Axis	mm	0.004 (linear Scale)	0.004 (linear Scale)	0.004 (linear Scale)	0.004 (linear Scale)
	Z-Axis	mm	0.004 (linear Scale)	0.004 (linear Scale)	0.004 (linear Scale)	0.004 (linear Scale)
Repeatability Accuracy	X-Axis	mm	0.002.5 (linear Scale)	0.002.5 (linear Scale)	0.002.5 (linear Scale)	0.002.5 (linear Scale)
	Y-Axis	mm	0.002.5 (linear Scale)	0.002.5 (linear Scale)	0.002.5 (linear Scale)	0.002.5 (linear Scale)
	Z-Axis	mm	0.002.5 (linear Scale)	0.002.5 (linear Scale)	0.002.5 (linear Scale)	0.002.5 (linear Scale)
Spindle	Type	CAT	50 (Direct Drive)	50 (Direct Drive)	50 (Direct Drive)	50 (Direct Drive)
	Speed	rpm	6000/10000 (built in)	6000/10000 (built in)	6000/10000 (built in)	6000/10000 (built in)
	Drive	kw	30	37	37	37
	Torque	N.m.	250	235	235	235
	runout at taper	mm	0.005	0.005	0.005	0.005
A-Axis (V Series Only)			<i>SMART-800V</i>	<i>SMART-1000V</i>	<i>SMART-1200V</i>	<i>SMART-1650V</i>
	Spindle	rpm	10000 RPM	10000 RPM	10000 RPM	10000 RPM
	A-Axis Degree	min	0.001	0.001	0.001	0.001
	A-Axis Degree	Degree	-20/+110	-20/+110	-20/+110	-20/+110
	A-Axis Speed	rpm	15	15	15	15
General	Weight	tons	15	20	23	25

Technology, Precision, Stability, Consistency, Simplicity, Reliability, Productivity