



20 SERIES SWISS TYPE CNC AUTOMATIC LATHE



20 / 20B / 20CS / 20CSB

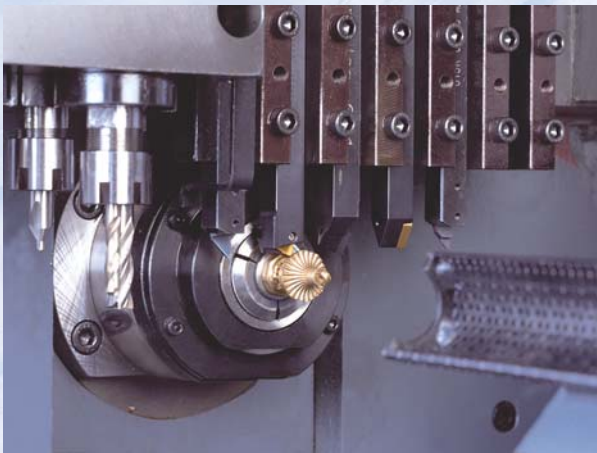
DIAMOND 20 Series

Swiss-Type Automatic Lathe 20 / 20B / 20CS / 20CSB

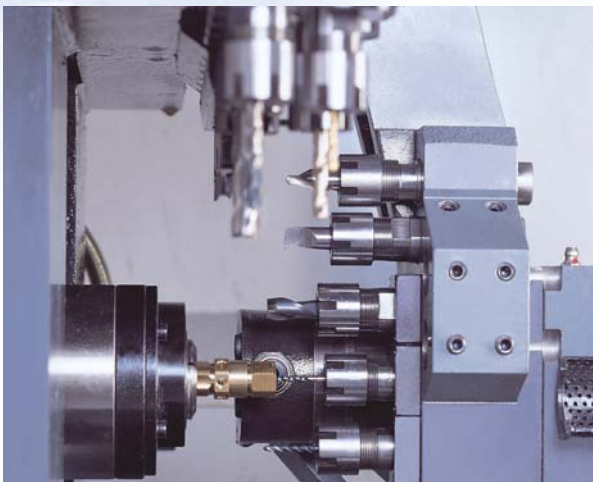


Key Features:

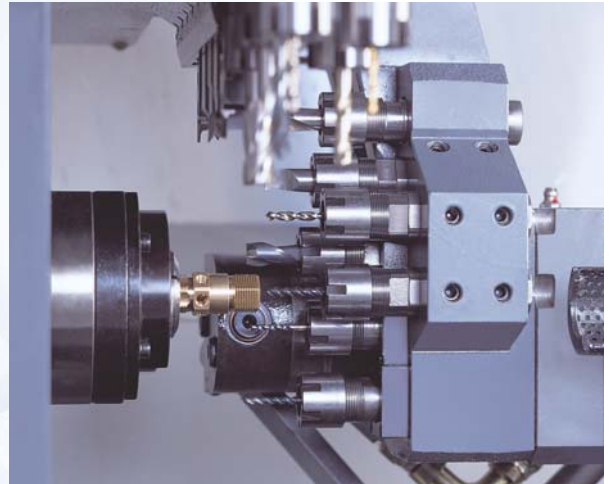
- **High productivity, low cost:** Maximum tooling versatility for easy set up and faster production to meet today's demanding working environment.
- **Modular Design:** The 20 series automatic lathes can be tailor made to include sub spindle and cross milling unit for even wider range of applications.
- **Spindle Indexing:** 5° spindle indexing comes standard with brake for drilling, milling and tapping applications.
- **Remaining Stock:** The remnant material can be controlled to as little as 5.9" to save cost.
- **Rough Material Bushing:** Rough material bushing can be used for bar stock with larger tolerance.



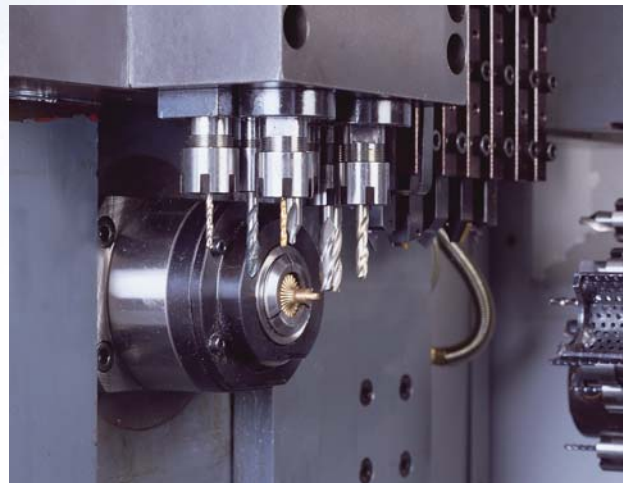
- ▲ Maximum of 6 OD turning tools on overhead cross slide.



- ▲ Maximum of 3 driven tools for off-center machining application.



- ▲ Maximum of 4 fixed ID Turning tools for front side machining.



- ▲ Maximum of 6 driven tools for OD machining.

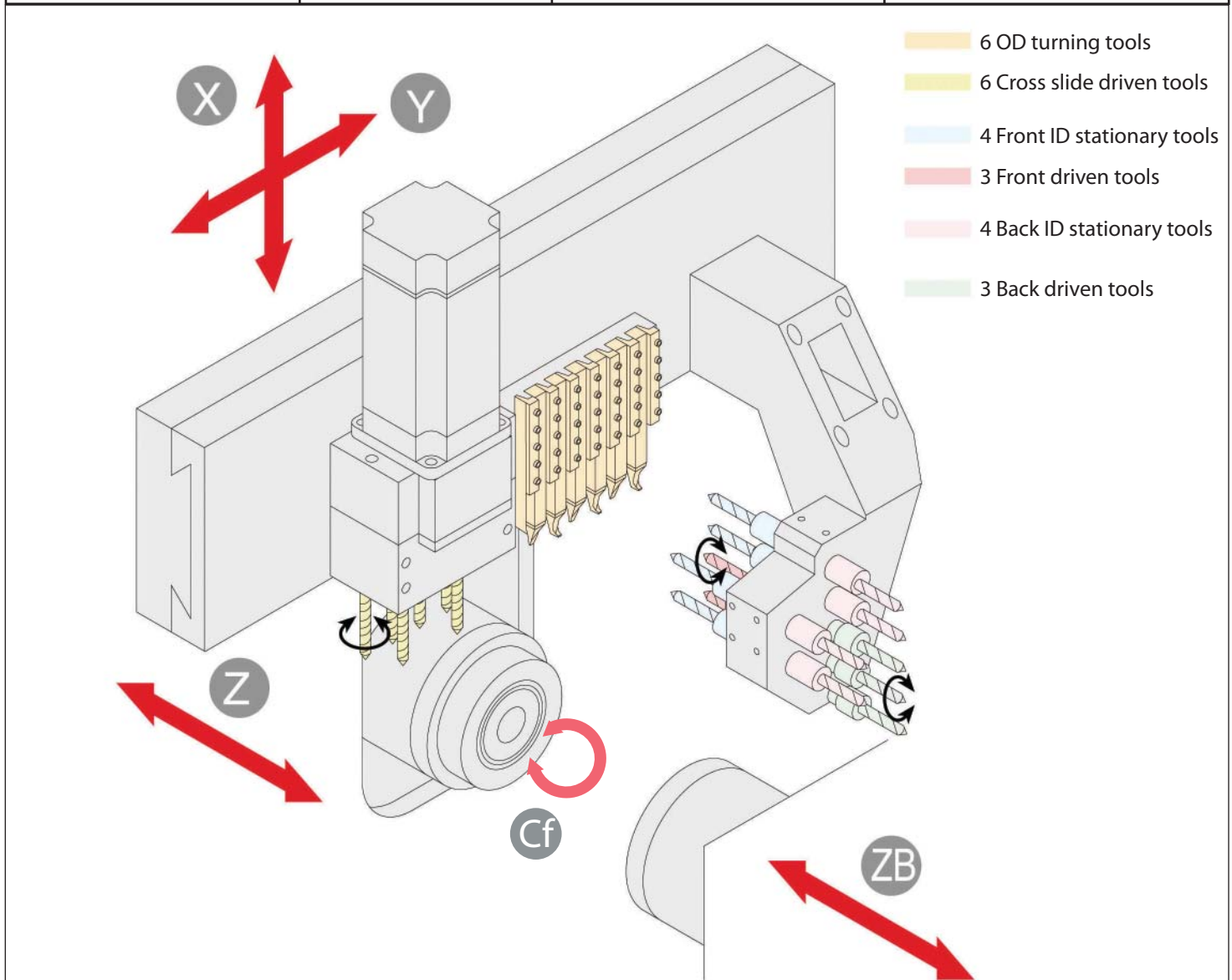


Wide variety of tooling arrangements with maximum of 26 tool positions.



● OD turning tools
 ● Cross slide driven tools
 ○ Front ID stationary tools
 ○ Front driven tools
 ○ Back ID stationary tools
 ○ Back driven tools
 ○ Front + Back ID stationary tools
 ○ Front + Back driven tools

DIAMOND 20	DIAMOND 20B	DIAMOND 20CS	DIAMOND 20CSB
6 OD turning tools 4 Front ID stationary tools	6 OD turning tools 4 Front ID stationary tools 4 Back ID stationary tools	6 OD turning tools 4 Front ID stationary tools 6 Cross slide driven tools 3 Front driven tools (Op)	6 OD turning tools 4 Front ID stationary tools 6 Cross slide driven tools 3 Front driven tools 4 Back ID stationary tools 3 Back driven tools



MODEL		DIAMOND 20	DIAMOND 20B	DIAMOND 20CS	DIAMOND 20CSB
Cutting Range	Max. Machining Diameter	0.78" (20mm)	0.78" (20mm)	0.78" (20mm)	0.78" (20mm)
	Max. Machining Length (per chucking)	9.8" (250mm)	9.8" (250mm)	9.8" (250mm)	9.8" (250mm)
	Max drilling diameter	25/64" (10mm) with ER16	25/64" (10mm) with ER16	25/64" (10mm) with ER16	25/64" (10mm) with ER16
	Max tapping diameter	M8	M8	M8	M8
OD Turning Tools	Number of Tools Max.	6	6	6	6
	Tool Size	12mm X 12mm X 100mm	12mm X 12mm X 100mm	12mm X 12mm X 100mm	12mm X 12mm X 100mm
Front ID Stationary Tools	Number Tools Max.	4	4	4	4
	Tool Size	25/64" or 10mm (ER16)	25/64" or 10mm (ER16)	25/64" or 10mm (ER16)	25/64" or 10mm (ER16)
Cross Slide Driven Tools	Number Tools Max.	-	-	6	6
	Tool Size	-	-	25/64" or 10mm (ER 16)	25/64" or 10mm (ER 16)
	Max RPM	-	-	200 ~ 6000	200 ~ 6000
Front Driven Tools	Number Tools Max.	-	-	3	3
	Tool Size	-	-	25/64" or 10mm (ER16)	25/64" or 10mm (ER16)
	Max Tool RPM	-	-	3000	3000
Back ID Stationary Tools	Number Tools Max.	-	4	-	4
	Tool Size	-	25/64" or 10mm (ER 16)	-	25/64" or 10mm (ER 16)
Back Driven Tools	Number Tools Max.	-	-	-	3
	Tool Size	-	-	-	17/64" or 7mm (ER 11)
	Max Tool RPM	-	-	-	3000
Main Spindle	ID	0.78" (20mm)	0.78" (20mm)	0.78" (20mm)	0.78" (20mm)
	RPM	20 ~ 10000	20 ~ 10000	20 ~ 10000	20 ~ 10000
Back Spindle	ID	-	0.78" (20mm)	-	0.78" (20mm)
	RPM	-	7500	-	7500
	Max. Length for Front Ejection	-	8.6" (220mm)	-	8.6" (220mm)
Rapid Traverse		709 IPM (18M/min)	709 IPM (18M/min)	709 IPM (18M/min)	709 IPM (18M/min)
Motor Size	Main Spindle Motor	5 HP (3.7KW)	5 HP (3.7KW)	5 HP (3.7KW)	5 HP (3.7KW)
	Back Spindle Motor	-	2 HP (1.5 KW)	-	2 HP (1.5 KW)
	X / Y / Z Servo Motor	0.67 HP (0.5 KW)	0.67 HP (0.5 KW)	0.67 HP (0.5 KW)	0.67 HP (0.5 KW)
	Coolant Pump	0.24 HP (0.18 KW)	0.24 HP (0.18 KW)	0.24 HP (0.18 KW)	0.24 HP (0.18 KW)
	Lubrication Pump	4W	4W	4W	4W
	Driven tool Spindle	-	-	0.74 HP (0.55 KW)	0.74 HP (0.55 KW)
	Power Requirement	4.4 KW	5KW	5KW	5.5 KW
Machine Size	Spindle Center Height	37.8" (960mm)	37.8" (960mm)	37.8" (960mm)	37.8" (960mm)
	Weight	4740 lbs (2150 kg)	5842 lbs (2650 kg)	4780 lbs (2168 kg)	5882 lbs (2668 kg)
	Machine Dimension	63" x 39" x 62" (1588 x 988 x 1568mm)	70" x 39" x 62" (1788 x 988 x 1568mm)	63" x 39" x 62" (1588 x 988 x 1568mm)	70" x 39" x 62" (1788 x 988 x 1568mm)
Pneumatic	Air Pressure	71 psi (5kg/cm ²)	71 psi (5kg/cm ²)	71 psi (5kg/cm ²)	71 psi (5kg/cm ²)
	Air Capacity	0.35 cfm (10L/min)	0.35 cfm (10L/min)	0.35 cfm (10L/min)	0.35 cfm (10L/min)

ACCESSORIES

(Std: Standard Op: Optional NA: Not Available)

Item	20	20B	20CS	20CSB
Main Spindle 5° Indexing	Std	Std	Std	Std
Part Off Detection Sensor	Std	Std	Std	Std
Coolant System	Std	Std	Std	Std
Worklight	Std	Std	Std	Std
Parts Catcher	Std	Std	Std	Std
Fixed Bushing	Std	Std	Std	Std
Live Bushing	Op	Op	Std	Std

Item	20	20B	20CS	20CSB
Cross Slide Driven Tools	NA	NA	Std	Std
Back Spindle	NA	Std	NA	Std
Front Driven Tools	NA	NA	Op	Std
Back Driven Tools	NA	NA	NA	Std
Cf Axis	NA	NA	Op	Op
Rough Material Bushing	Op	Op	Op	Op
Chip Conveyor/Chip Bucket	Op	Op	Op	Op



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