

**QUASER**

*we cut faster*

# MV154APC SERIES

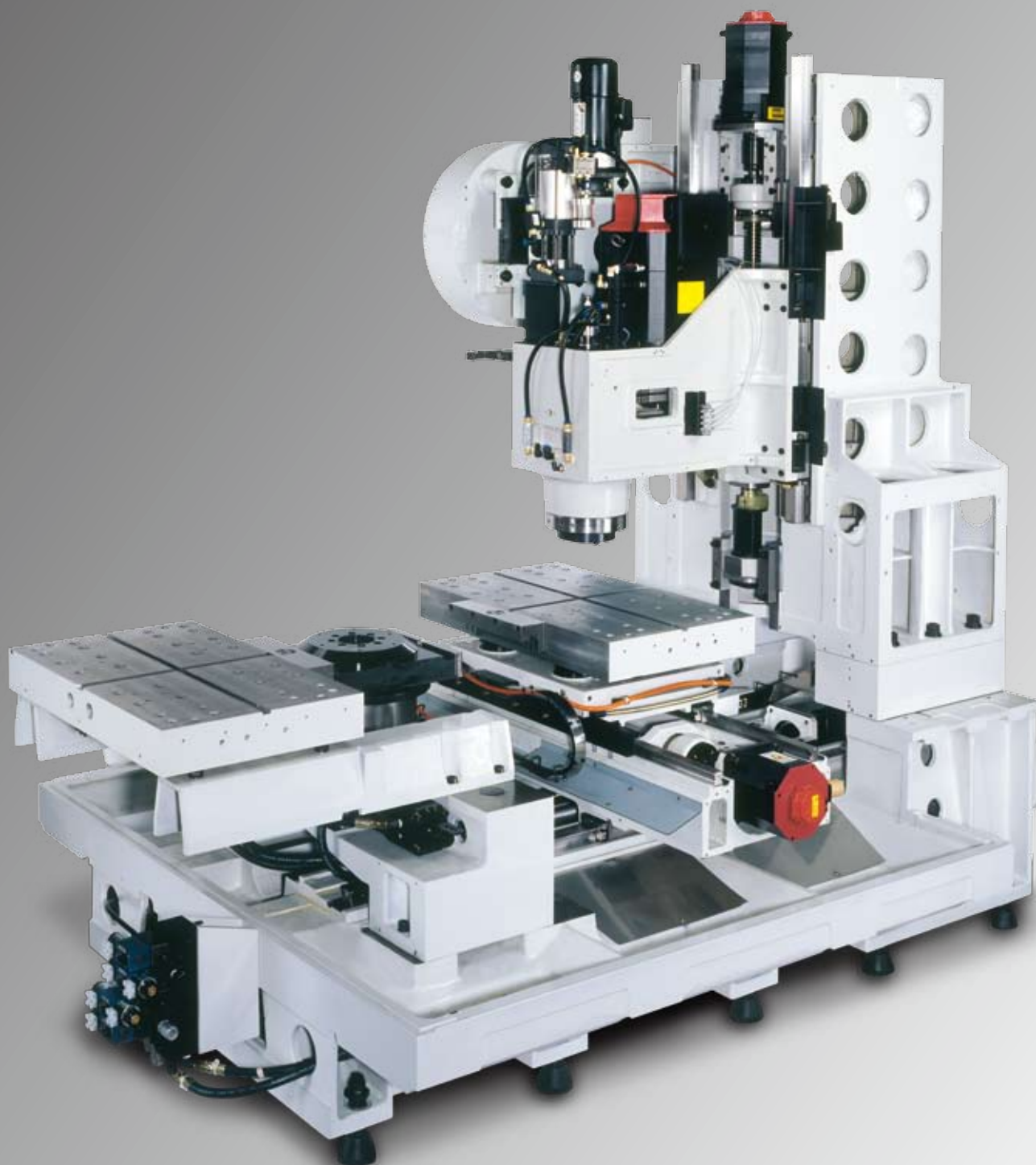
# High speed VMC with automatic pallet changer for series production



(Front stainless steel for /HS model only)

**One piece base and rigid frame structure to meet 60 m/min rapid with 1 G acc/dec.**

**Large tool capacity up to 60**



## **HIGH PRODUCTIVITY M / C**

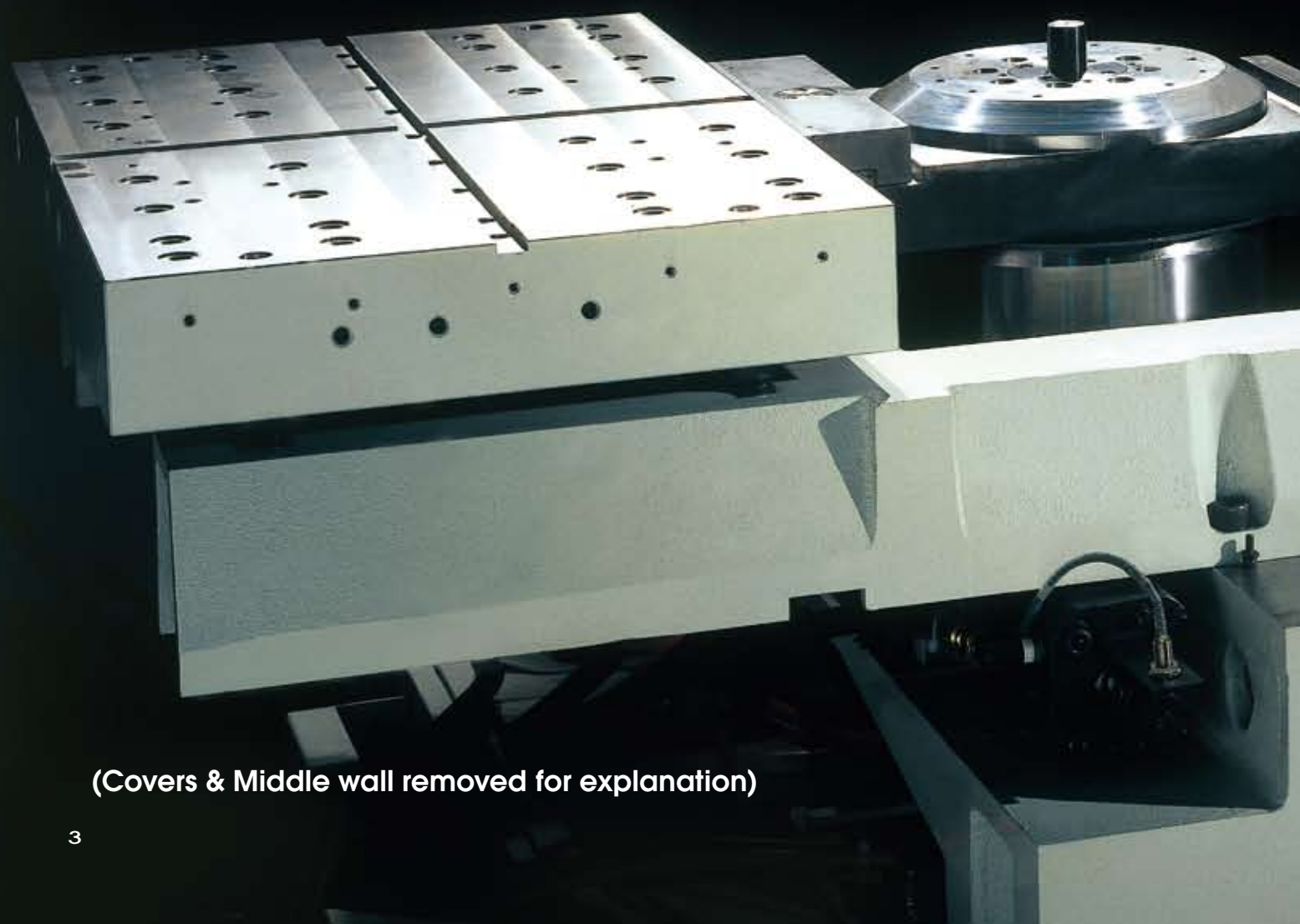
**Rapid : 60 m/min**

**Axes acc / dec : 7 / 7 / 6 m/s<sup>2</sup>**

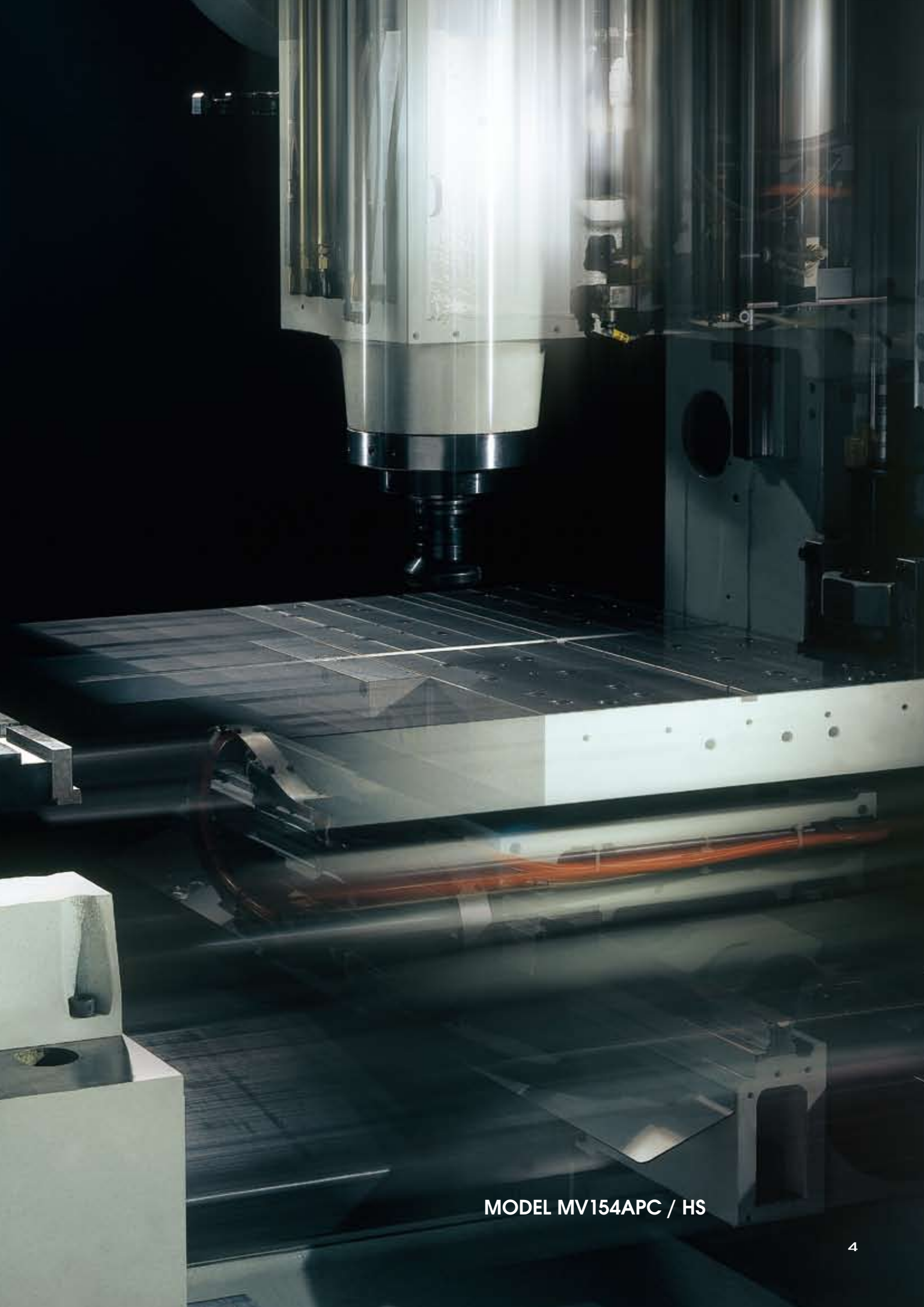
**Chip to chip : 2.9 sec**

**Spindle 0~15,000 min<sup>-1</sup> : 2.9 sec**

**Magazine rotation #1~#31 : 9.8 sec**



**(Covers & Middle wall removed for explanation)**

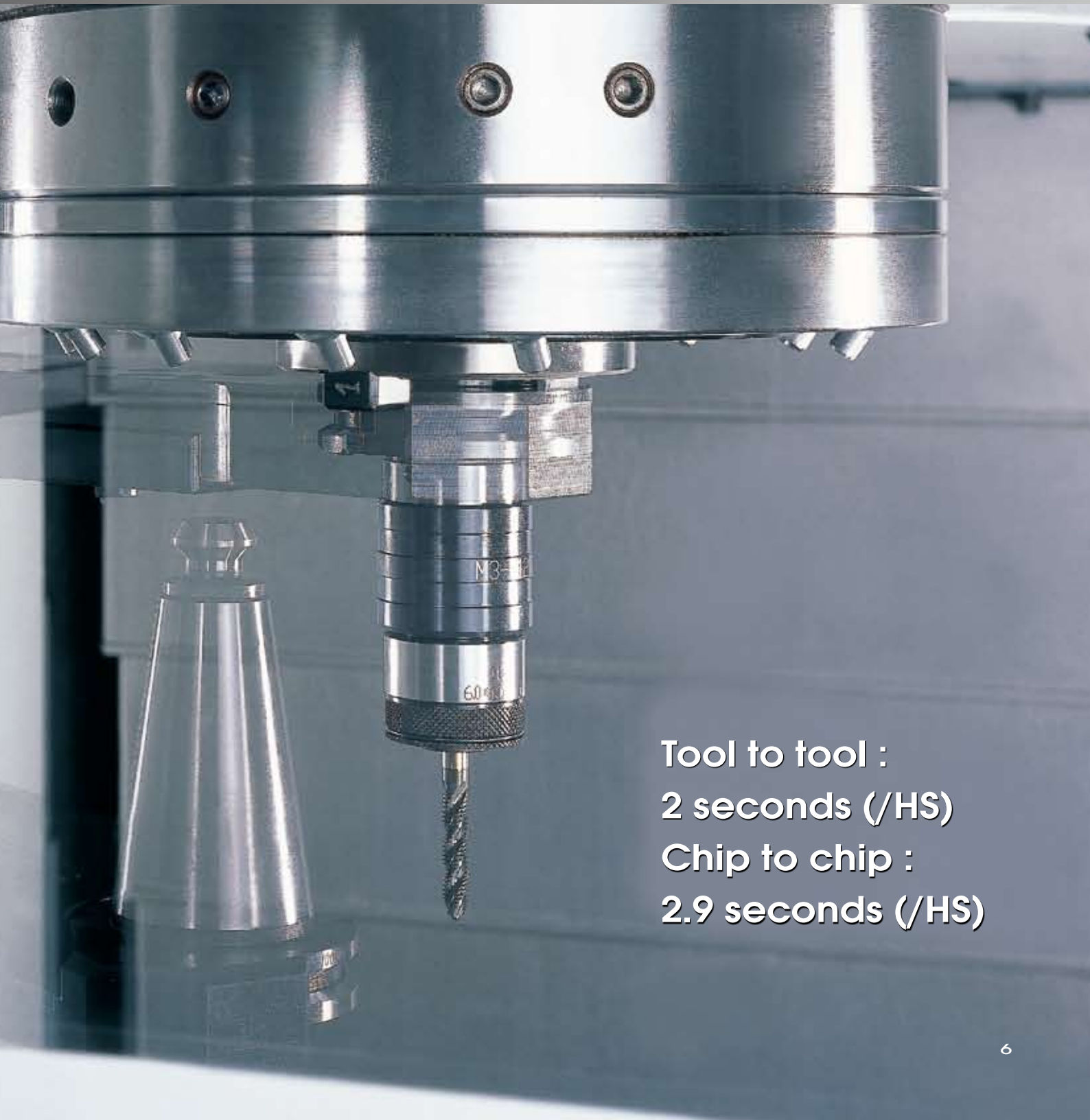


MODEL MV154APC / HS

60 ATC (opt.)



48 ATC (std.)

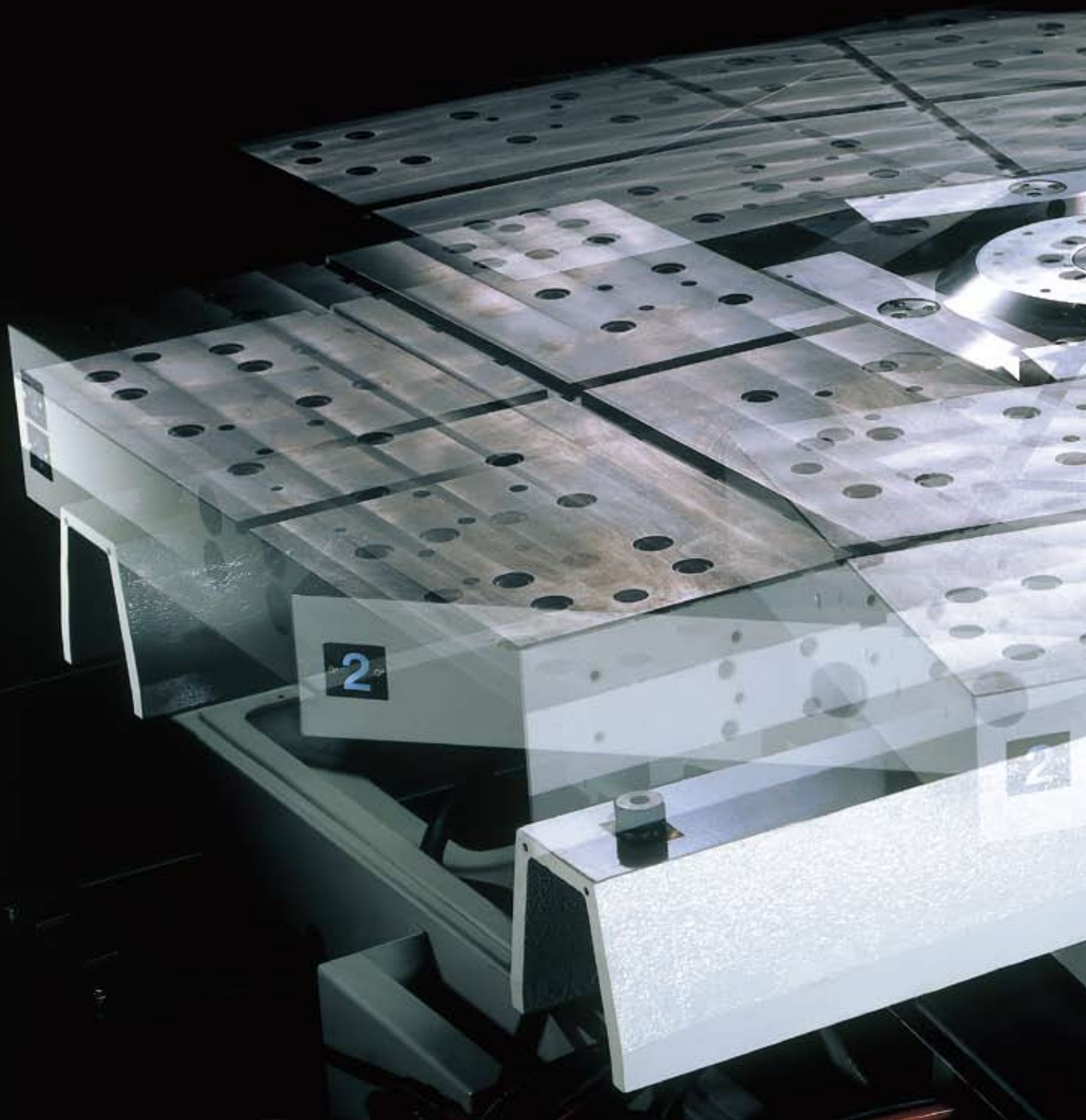


Tool to tool :  
2 seconds (/HS)  
Chip to chip :  
2.9 seconds (/HS)

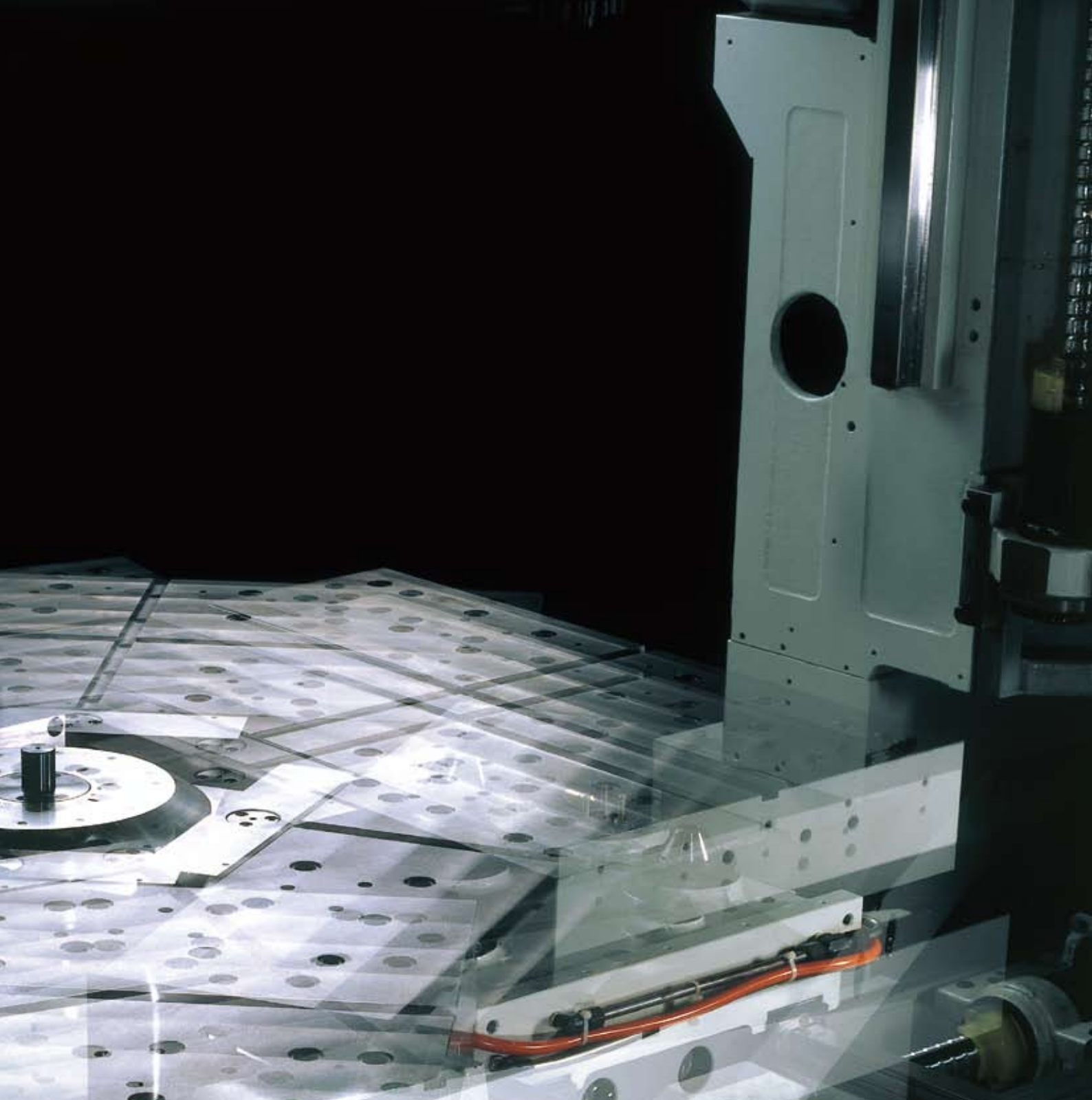
**45,000 N hydraulic clamping force through four taper cones which use the same mechanism from our long proven horizontal center.**

**Special cares against swarfs have been built-in include:**

- Air blasting at cones connection**
- Air pressure monitor against swarf envision**







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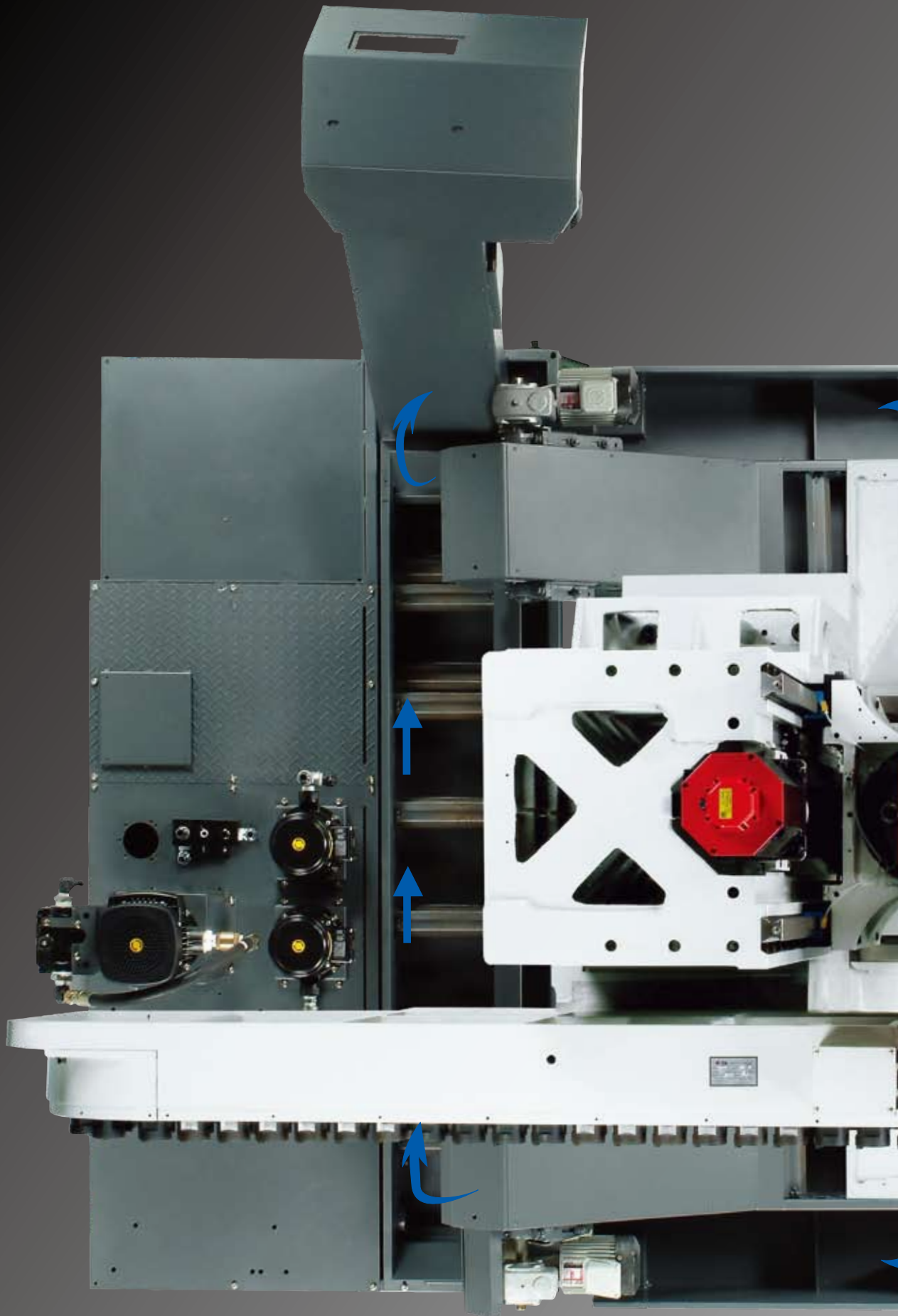
we cut faster

**MV154**  
**APC/HS**

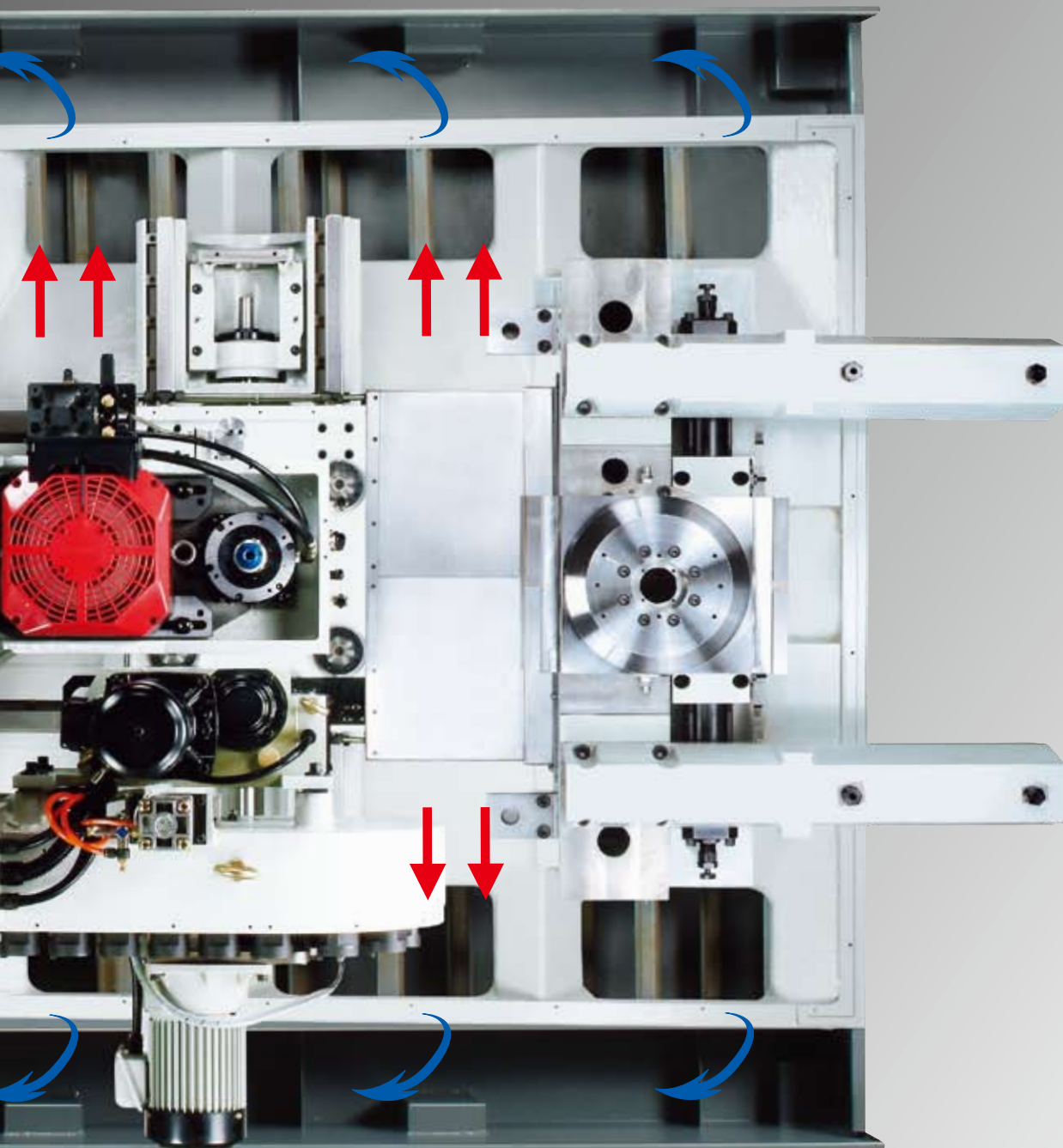


**Large side operation door offers easy workpiece & tool checking;  
The 920 mm width loading / unloading doors with top free design for heavy work piece.**





Dual side conveyors + main conveyor at the back for large volume swarf management.



**Options:**

- **Dual rotary table**
- **Dual tool length measurement plus work probe by single optical interface**
- **Dual hydraulic fixture preparation**





# Technical data

Technical data	MV154APC/E			MV154APC/P			MV154APC/HS	
	Economic			Performance			Super high speed	
	/9B	/12B	/15B	/9B	/12B	/15B	/15C	
<b>Work range</b>								
Table size (mm)	800 x 500							
Travel	X (mm)	700						
	Y (mm)	500						
	Z (mm)	560						
Spindle nose to table surface (mm)	150 ~ 710							
Max. work piece size X / Y / Z (mm)	800 x 500 x 370							
Table load capacity (kg)	250							
Feed force	X (N)	6,283		4,712			6,912	
	Y (N)	6,283		8,639			9,425	
	Z (N)	11,519		11,519			9,425	
Rapid movement X / Y / Z (m/min)	32			40 / 40 / 32			60	
Acceleration X / Y / Z (m/s <sup>2</sup> )	5 / 5 / 5			6 / 6 / 5			7 / 7 / 6	
Dia. & pitch of the ball screw	Ø45 / P=12 / 12 / 12			Ø45 / P=16 / 16 / 12			Ø45 / P=20 / 20 / 20	
<b>Position accuracy</b>								
ISO 230-2 / JIS	w/o scale	0.015 / 0.008						-
	w scale	0.008 / 0.004						
<b>Main spindle</b>								
Spindle taper	BBT40							
Max. spindle speed	9,000	12,000	15,000	9,000	12,000	15,000	15,000	
Spindle base speed	938	1,250	1,563	1,125	1,500	1,875	1,400	
Spindle output kW (S6-40%)	15*			22*			22	
Spindle output torque Nm (S6-40%)	153*	115*	92*	187*	140*	112*	150	
Spindle transmission	Belt						Coupling	
Spindle diameter (mm)	Ø70							
<b>Tool changer</b>								
Tool selection	Random							
Magazine positions	48 (std.) / 60 (opt.)							
Max. tool diameter (mm)	76.2							
w/o adjacent tool (mm)	125							
Max. tool length (mm)	280							
Max. tool weight (kg)	7							
CTC time – ISO 10791-9 (sec.)**	5			4			2.9	
<b>Pallet changer</b>								
Number of pallet	2							
APC method	Swing type							
APC cycle time (sec)**	10							

Note:\*(S3-25%)

\*\* At 60 Hz



## Main spindle

## Control

Belt spindle -9,000 / 12,000 / 15,000 min<sup>-1</sup>  
 Coupling spindle -15,000 min<sup>-1</sup>

(F) : QUASER mill i (For E type)  
 FANUC 18iMB (For P / HS type)

Technical data	MV154APC/E			MV154APC/P			MV154APC/HS
	Economic			Performance			Super high speed
	/9B	/12B	/15B	/9B	/12B	/15B	/15C
<b>Coolant system</b>							
Coolant tank capacity (Liter)	500						
Pump capacity	60 L / min., 2.0 bar						
- Nozzle coolant	25 L / min., 20 bar						
- Through spindle coolant	60 L / min., 2.0 bar						
- Wash down							
<b>Machine size</b>							
Height (mm)	2,992						3,061
Shipping height (mm)	2,470						
Floor space W x D (mm)	2,710 x 3,980						
Weight (kg)	8,500						
<b>Connections</b>							
Main power	220V / 60 Hz, 400 V / 50 Hz						
Power consumption (KVA)	25		30			35	

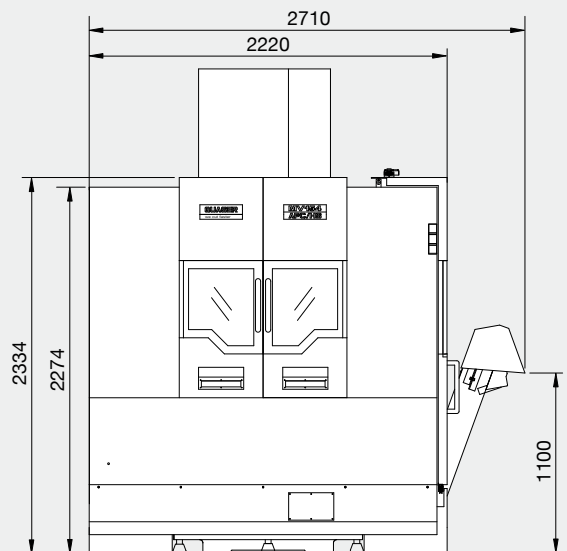
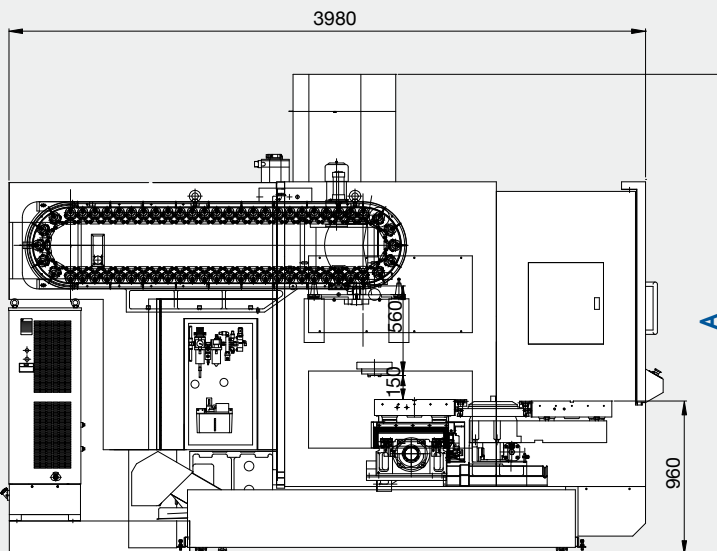
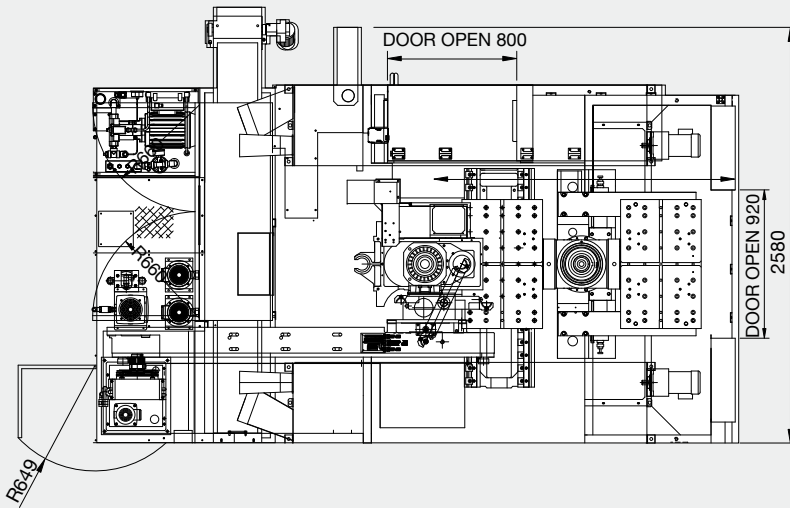
● = Standard ○ = Option ✕ = N / A

Standard / Option accessories	MV154APC/E			MV154APC/P			MV154APC/HS
	Economic			Performance			Super high speed
	/9B	/12B	/15B	/9B	/12B	/15B	/15C
■ QUASER mill i	●	●	●	✕	✕	✕	✕
■ FANUC 18i MB	✕	✕	✕	●	●	●	●
■ FANUC 3 "O" package (RISC, Data servo, AI nano HPCC)	✕	✕	✕	○	○	○	○
■ 9,000 min <sup>-1</sup> spindle (Belt)	●	✕	✕	●	✕	✕	✕
■ 12,000 min <sup>-1</sup> spindle (Belt)	✕	●	✕	✕	●	✕	✕
■ 15,000 min <sup>-1</sup> spindle (Belt)	✕	✕	●	✕	✕	●	✕
■ 15,000 min <sup>-1</sup> spindle (Coupling)	✕	✕	✕	✕	✕	✕	●
■ BBT spindle attachment	●	●	●	●	●	●	●
■ 48 position tool magazine	●	●	●	●	●	●	●
■ 60 position tool magazine	○	○	○	○	○	○	○
■ Linear encoder absolute 0.05 μm	○	○	○	○	○	○	●
■ Remote manual pulse generator	●	●	●	●	●	●	●
■ Dual tool length measurement	○	○	○	○	○	○	○
■ Work probe	○	○	○	○	○	○	○
■ Hydraulic fixture preparation	○	○	○	○	○	○	○
■ Ø250 rotary table, 1 unit (factory mount only)	○	○	○	○	○	○	○
■ Ø250 rotary table, 2 units (factory mount only)	✕	✕	✕	○	○	○	○
■ Coolant system	●	●	●	●	●	●	●
■ Chip conveyor	●	●	●	●	●	●	●
■ Cutter air blast	●	●	●	●	●	●	●
■ Dust extraction	○	○	○	○	○	○	○
■ Documentation & hand tools shelf	●	●	●	●	●	●	●
■ Foundation bolts & blocks	●	●	●	●	●	●	●
■ Tools with tool box	●	●	●	●	●	●	●
■ Work light	●	●	●	●	●	●	●
■ Machine status light	●	●	●	●	●	●	●
■ CE & EMC	●	●	●	●	●	●	●

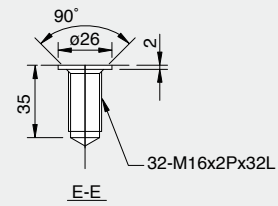
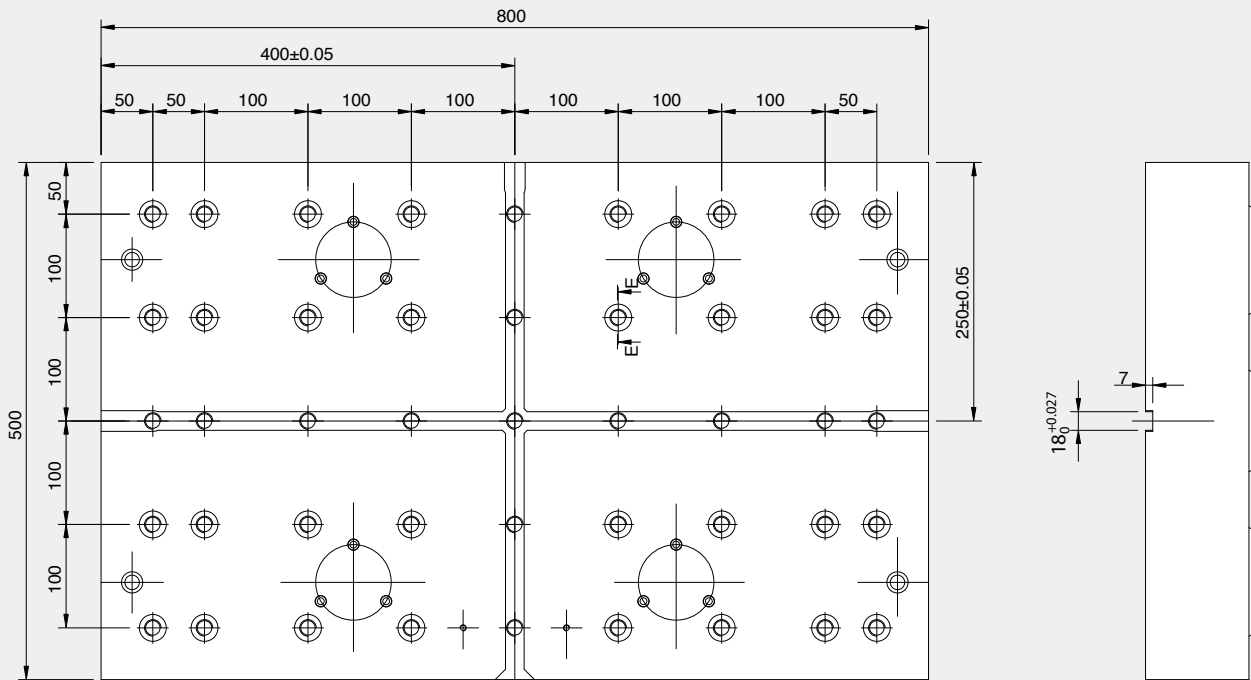
# MV154APC

## Installation dimension

	A
MV154APC/E	2,992
MV154APC/P	2,992
MV154APC/HS	3,061

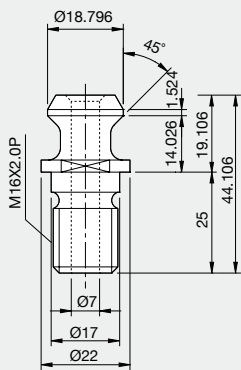


## Table dimension

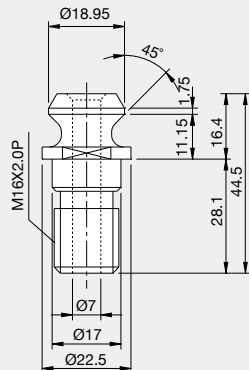


## Pull stud and applicable tools

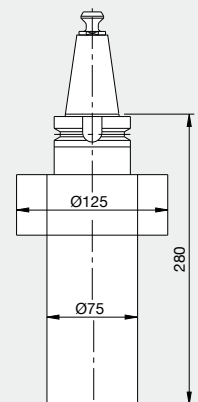
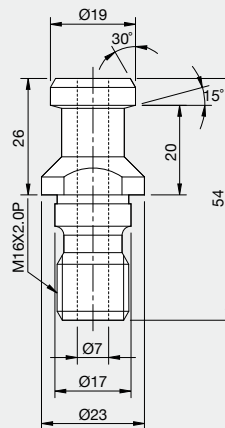
BT 40 (QUASER SUPPLY)



ISO (7388-B)



DIN (69872-A)





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