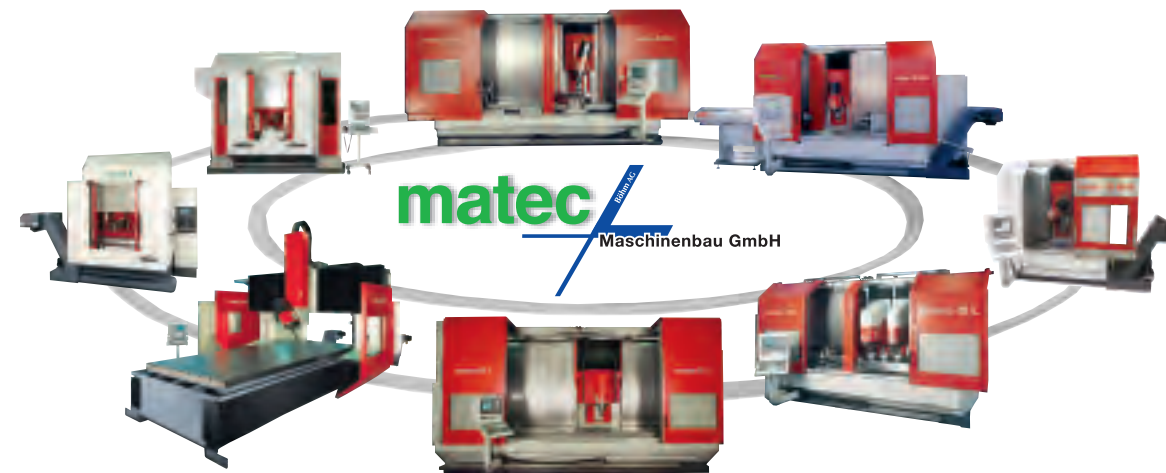


We are in the center



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Please see [www.matec.de](http://www.matec.de) for  
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program. On request we gladly  
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Update: September 2008 · Subject to technical changes



Traveling Column Series

# Traveling Column Series

Flexibility in single-part and series production



## Standard specifications

Full cladding of the machining area incl. electrically protected sliding doors

Digital main spindle drive, motor spindle, oriented spindle stop

Linear guides in all axes

Feed rate/rapid feed with digital AC servo motors in all axes

Motor spindle  $\varnothing$  80 mm, tool clamping 12.000 N

Tool magazine traveling in X-axis (protectively installed in the traveling column)

Working area coding variable

Automatic lag compensation for high speed milling of contours

Chip conveyor

### Controls

Rexroth IndraMotion MTX

Heidenhain iTNC 530

Siemens 840D



## Options

Additional tool magazine with up to 200 pcs

Pick-up stations for oversized tools or angle drilling and milling heads

CTS with pressure 20/40/70 bar

Micro lubrication system

Coolant cleaning units with different filter system

Coolant temperature control

Coolant tank with volume capacity 450/900/2000 l

Oil suction units

Automatic doors

1-axis rotary table with conventional or direct drives

2-axis tilting rotary table

Lathe spindle vertical/horizontal, size A8 and A11

High speed rotary table with direct drive up to 4000 rpm (turning/positioning)

Additional tool magazine only for turning tools with separate tool changer

Separate fixed tool holder on the headstock for turning tools (option: with interrupted cut especially for heavy turning operations)

CNC-carriage unit for tail-stock, steady rest and opposed spindle

Integrated quick change pallet systems

Clamping hydraulics or pneumatics

Rotary distributor for hydraulics and pneumatics

3-D probe

Tool measuring or tool breaking control

Loading automation / NC-gripper



Traveling column series

The traveling column series has been conceived for single-part and series production. Whether used for twin table machining with rotary table or tail stock, multiple clamping or single-part manufacturing of voluminous parts, this machine group covers nearly all fields of application. Stability, precision and high speed are characteristics of these machines.

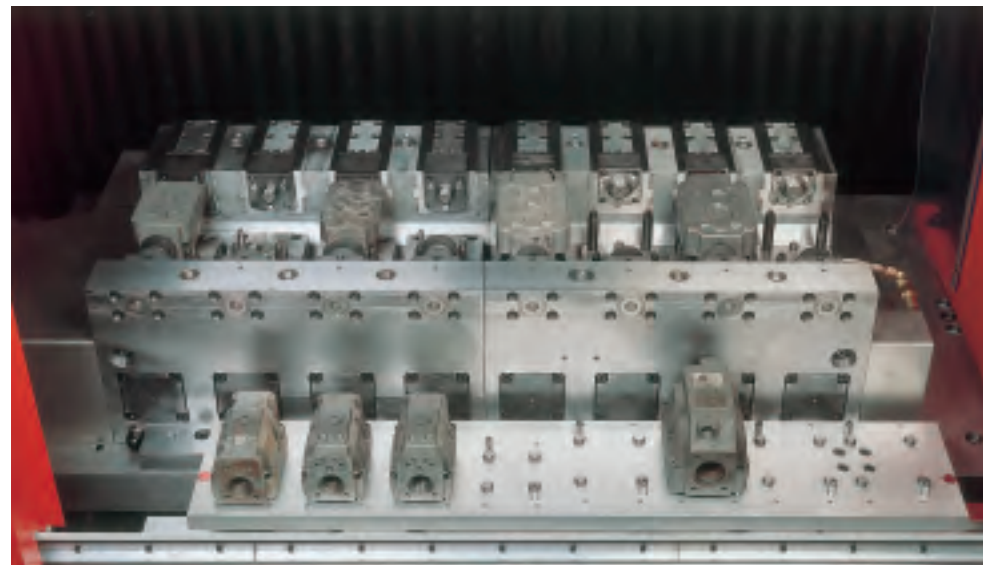
Outstanding features of the traveling column series are long traverse paths, horizontally and vertically swiveling machine spindles, easy mounting of clamping units as well as automatic loading by means of external loading systems.

The basic machine of this series is the long-bed machine matec-30 L. This milling center is available in various configurations, e.g. with 2 traveling columns or double motor spindle. A swivel head for five-side horizontal and vertical machining as well as for three dimensional machining distinguishes the HV-series. These machines are also available in different configurations.

The matec "tailor-made" system with its extensive service package gives way to a multitude of machine concepts which provide an optimal manufacturing solution for every customer, securing a competitive advantage.



matec-30 L special clamping devices for aluminium profiles

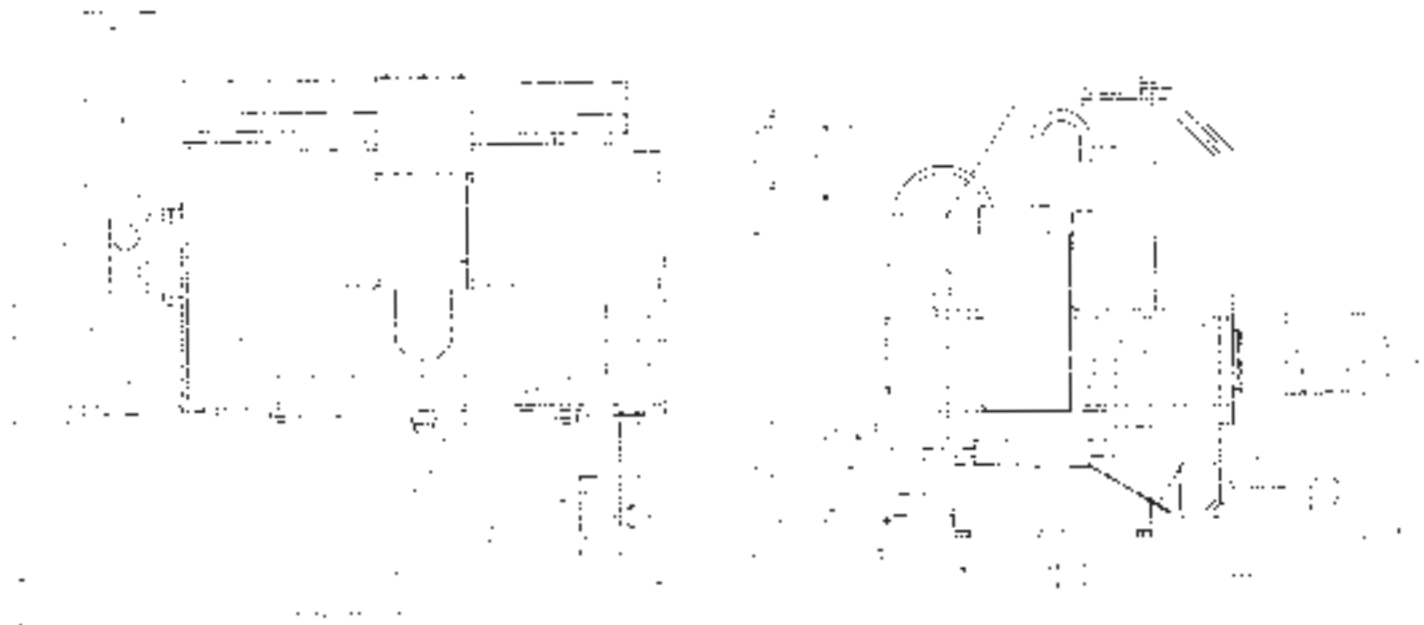


Multiple clamping by means of hydraulics and linear transporting unit for machining of castings



The machining center matec-30 L has been developed for single-part and series production. Whether used for twin table machining with a rotary table or tail stock, multiple clamping or single-part machining of voluminous parts, this machine group covers nearly all fields of application.

Stability, precision and high speed are characteristics of these machines. On the basis of a great variety of traverse paths in X-axis up to 12000 mm, Y-axis up to 1200 mm and Z-axis up to 900 mm we provide the best solution to the customer for his machining task.



### Specifications

Working area X-axis	1300 - 12 000 mm
Working area Y-axis	600 (800/1000/1200) mm
Working area Z-axis	700 (900) mm
Distance spindle nose/table	100-800 (100-1000) mm
Machine table width	635 (835/1035/1235) mm
T-slots	18 H8
Spindle	SK40 - DIN 69871 (HSK 63 A)
Speed	9000 (12000/15000/18000/24000/42000) rpm
Power	16 (30) kW - 40% DC
Torque, max.	100 (190) Nm - 40 % DC
Rapid feed	30 (48/100 with linear drive) m/min
Drilling performance in steel	40 (60) mm
Tapping in steel	M22 (M30)
Milling capacity in steel	400 (500) cm <sup>3</sup> /min
Tool magazine	36 (48 up to 128) pcs
Tool diameter, max.	70 (130) mm
Tool length, max.	340 (450) mm
Tool change time	approx. 2,5 sec
Chip-to-chip time	approx. 4,5 sec

Specifications valid for Y-axis=600 mm

Traverse paths X-axis	mm	1300	2000	3000	4000	5000	up to 12000
Machine table length	mm	1800	2500	3500	4500	5500	12500
Twin table mach. max. vert.	mm	-	2x720	2x1220	2x1720	2x2220	2 x 5720
Machine length approx.	mm	4910	5870	7150	8460	9740	18700
Weight, approx.	t	7	8,7	9,9	11,1	12,3	24,5

Subject to technical changes



Left-sided working area with clamping device

Right-sided working area with tilting table and clamping device

The machining center matec-30 L duo is a long-bed machine with two traveling columns. This concept allows various machining strategies: for one thing, the double spindle machining of identical parts with tooling correction in 2 x 3 axes; for another thing, the independent simultaneous machining of one work part by means of both spindles. Integrated turning spindles, vertical or horizontal, transform matec-30 L duo into a double spindle milling/turning centre.

### Special features

- Two separate traveling columns for adjustment of tool length, tool radius and clamping



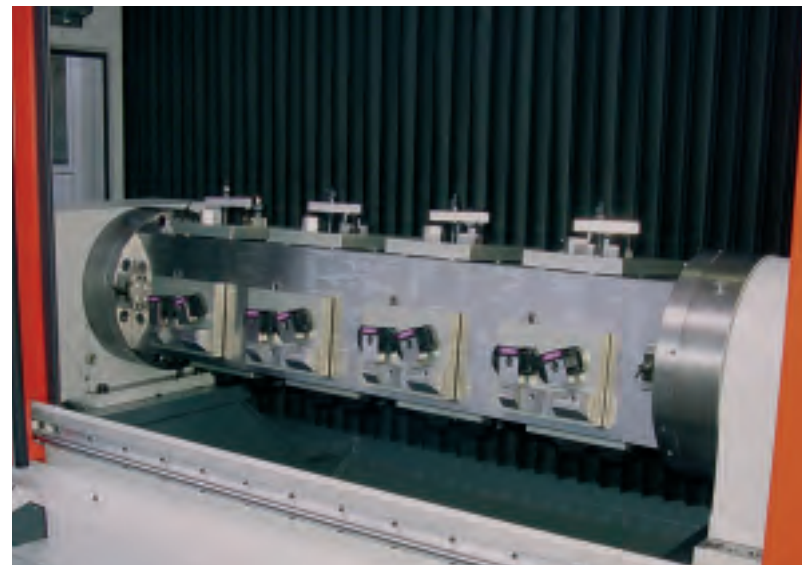
### Specifications

Working area X-axis	3550 mm
Working area Y-axis	600 mm
Working area Z-axis	700 mm
2 spindles, spindle distance	800 mm
Distance spindle nose/table	100-800 mm
Machine table size	3500 x 635 mm
T-slots	5 x 18 H8 / D=125 mm
Spindle	SK40 - DIN 69871 (HSK 63 A)
Speed	9000 (12000/15000/18000/24000/42000) rpm
Power	16 (30) kW - 40% DC
Torque, max.	100 (190) Nm - 40 % DC
Rapid feed	30 (48/100 with linear drive) m/min
Drilling performance in steel	2 x 40 (54) mm
Tapping in steel	2 x M22 (M30)
Milling capacity in steel	2 x 180 (360) cm <sup>3</sup> /min
Tool magazine	2 x 24 (36/48) pcs
Tool diameter, max.	70 (130) mm
Tool length, max.	340 mm
Tool change time	approx. 3,5 sec
Chip-to-chip time	approx. 6,5 sec
Machine weight	18 t

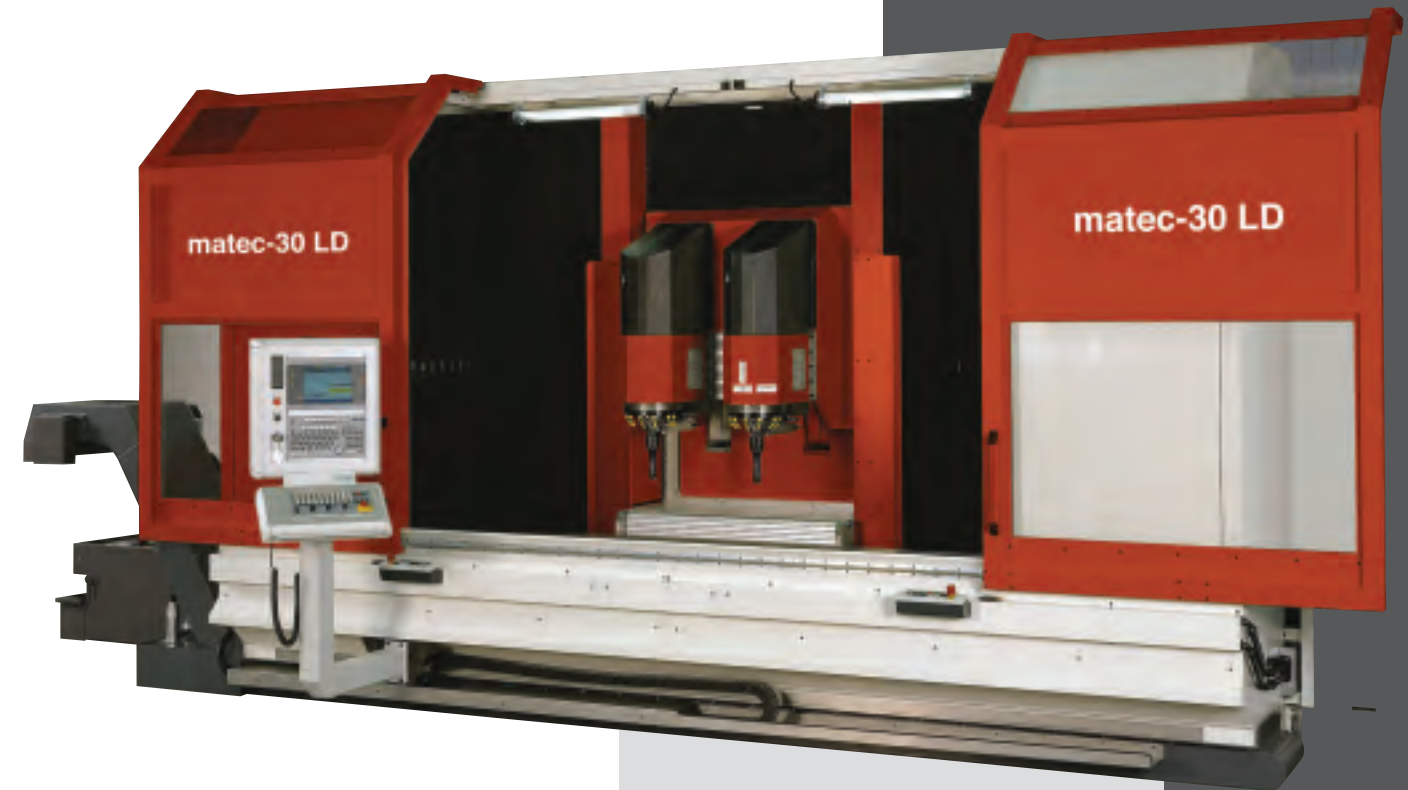
Subject to technical changes



Double spindle with tilting table



Tilting table with clamping device



matec-30 LD is a double spindle machining center, designed as a long-bed machine for twin table machining. It has been developed for the manufacturing of voluminous and challenging work parts and demanding materials. Its strength lies in the robust basic construction that possesses necessary power reserves to solve most difficult chipping tasks.

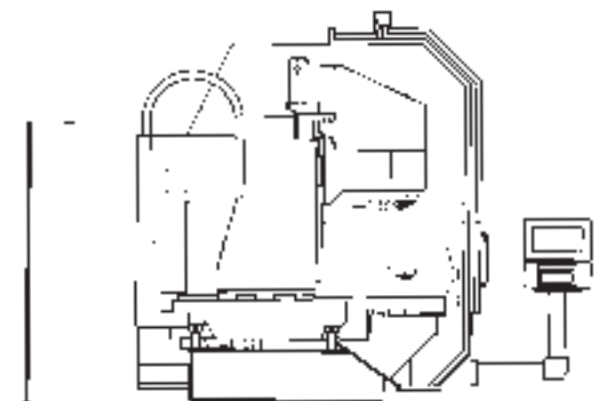
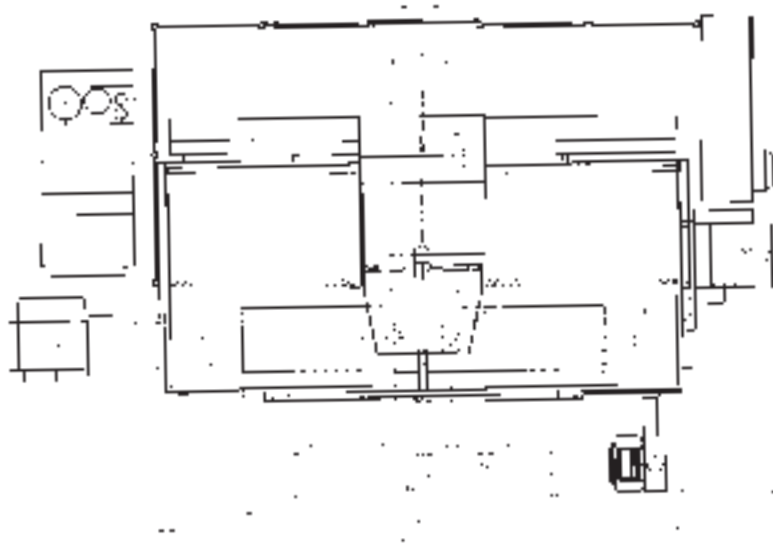
### Special features

- 2 motor spindles, spindle distance 400 (550) mm. Right spindle adjustable  $\pm 5$  mm in Z-axis (opt.)
- Double production with only 30% extra costs

### Specifications

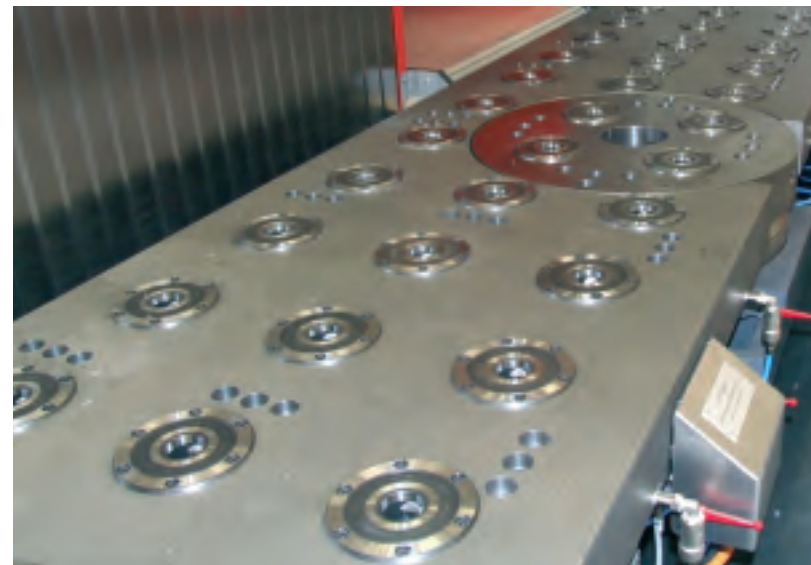
Working area X-axis	2600 mm
Working area Y-axis	600 mm
Working area Z-axis	600 mm
2 spindles, spindle distance	400 (550) mm
Distance spindle nose/table	100-800 mm
Machine table size	3500 x 635 mm
T-slots	5 x 18 H8 / D=125 mm
Spindle	SK40 - DIN 69871 (HSK 63 A)
Speed	9000 (12000/15000/18000/24000/42000) rpm
Power	16 (30) kW - 40% DC
Torque, max.	100 (190) Nm - 40 % DC
Rapid feed	30 (48/100 with linear drive) m/min
Drilling performance in steel	2 x 40 (54) mm
Tapping in steel	2 x M22 (M30)
Milling capacity in steel	2 x 180 (360) cm <sup>3</sup> /min
Tool magazine	2 x 24 (36/48) pcs
Tool diameter, max.	70 (130) mm
Tool length, max.	340 mm
Tool change time	approx. 3,5 sec
Chip-to-chip time	approx. 6,5 sec
Machine weight	16 t

Subject to technical changes





Working area with integrated rotary table and mounted jaw chuck



Machine table with integrated rotary table and mounted quick change pallet system



matec-40 L is based on matec-30 L principle and features the same characteristics in the range of speed, precision and flexibility. The robust basic construction, the tooling system SK 50 / HSK 100 A and power capacity up to 48 kW convert this machine into a power package for heavy machining.

### Special features

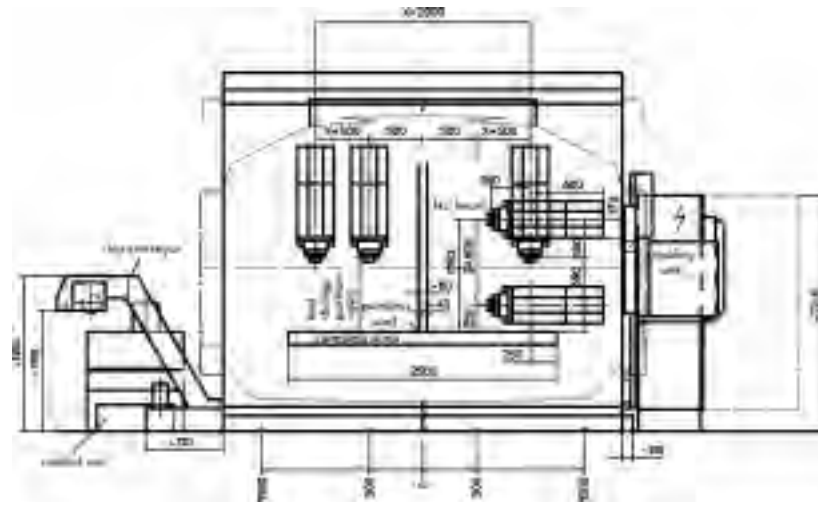
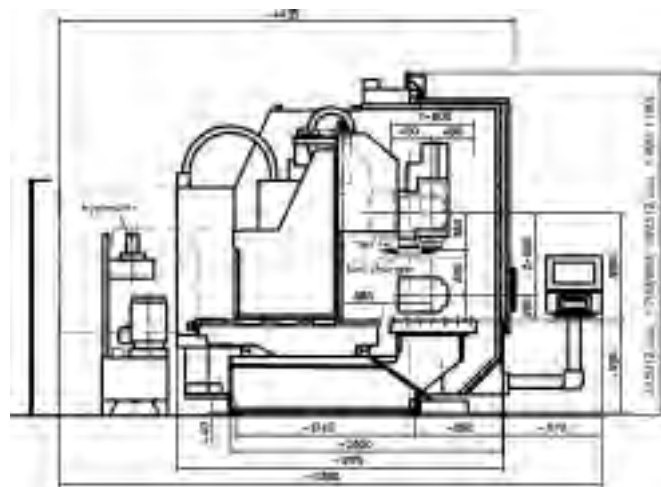
- Tool system SK 50/HSK 100 A
- Power capacity up to 48 kW

### Specifications

Working area X-axis	2000 - 12 000 mm
Working area Y-axis	800 mm
Working area Z-axis	700 (900) mm
Distance spindle nose/table	100-800 (100-1000) mm
Machine table width	835 mm
T-slots	18 H8
Spindle	SK50 - DIN 69871 (HSK 100 A)
Speed	8000 (12000) rpm
Power	44 (68) kW - 20% DC
Torque, max.	350 (460) Nm - 20 % DC
Rapid feed	30 (48/80 with linear drive) m/min
Drilling performance in steel	80 (100) mm
Tapping in steel	M30 (M36)
Milling capacity in steel	1000 (1100) cm <sup>3</sup> /min
Tool magazine	40 (60 up to 200) pcs
Tool diameter, max.	104 (200) mm
Tool length, max.	460 mm
Tool change time	approx. 8,5 sec
Chip-to-chip time	approx. 9,5 sec

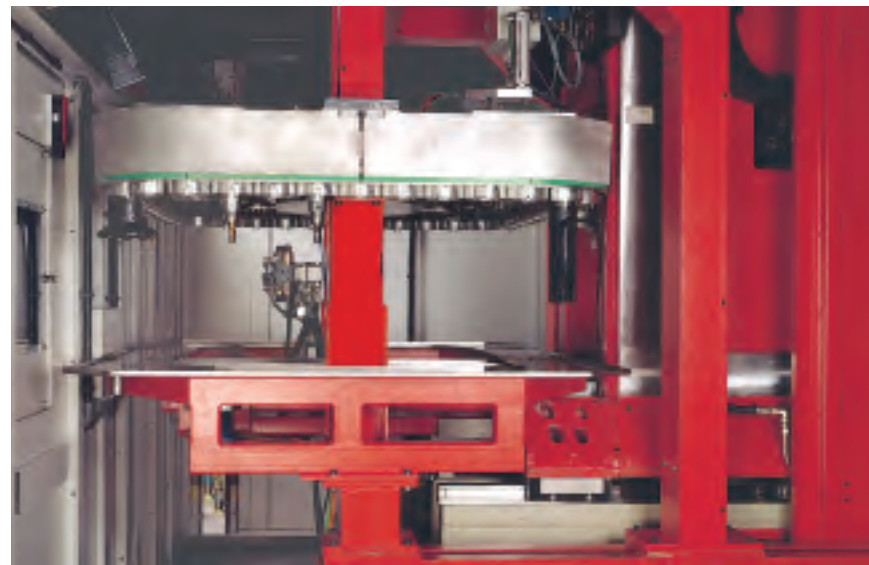
Traverse paths X-axis	mm	2000	3000	4000	5000	6000	up to 12000
Machine table length	mm	2500	3500	4500	5500	6500	12500
Twin table mach. max. vert.	mm	2x 500	2x 1000	2x 1500	2x 2000	2x 2500	2 x 5500
Machine length approx.	mm	5870	7150	8460	9740	11020	18700
Weight, approx.	t	14	17	22	25	30	65

Subject to technical changes

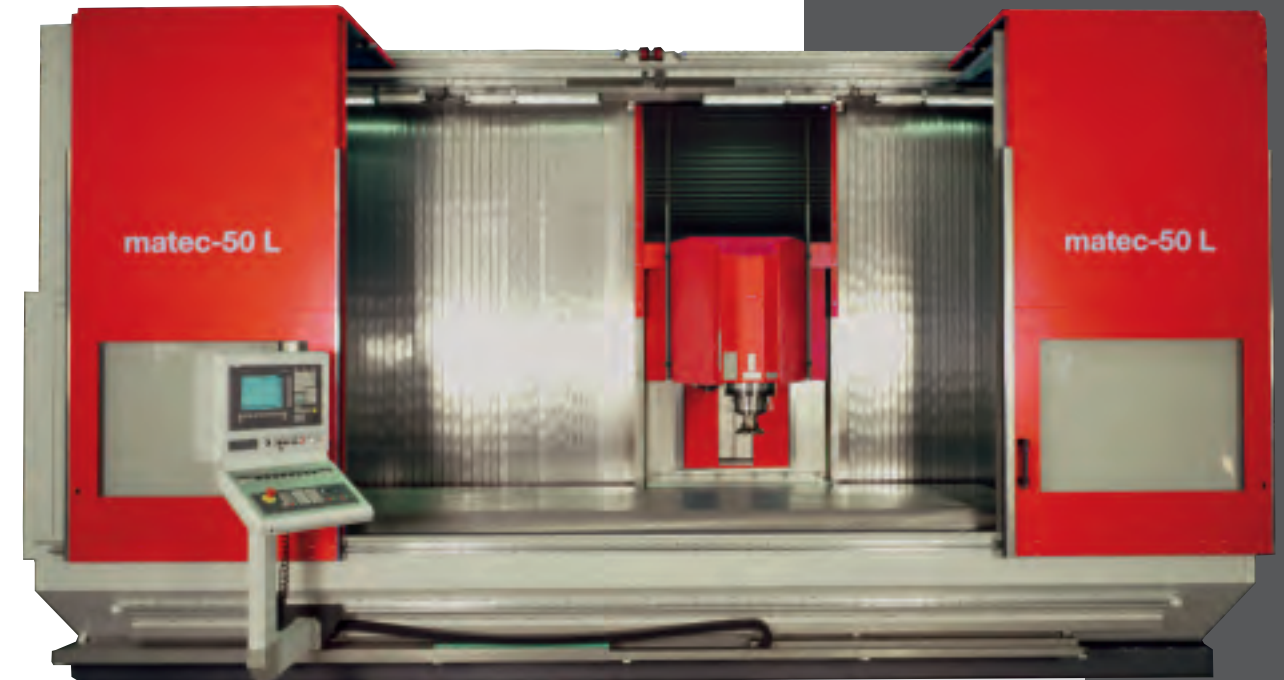




Tool changer



Tool magazine in the traveling column for up to 60 tools



The machining center matec-50 L is the largest and the most powerful machine of the L-series. Similar to matec-30 L and matec-40 L, matec-50 L possesses long traverse paths in all axes: X-axis up to 12000 mm, Y-axis up to 1200 mm and Z-axis up to 1100 mm. A tool changer constructed especially for matec-50 L provides for quick and secure change of heavy tools.

### Special features

- Tool system SK 50/HSK 100 A
- Power capacity up to 68 kW

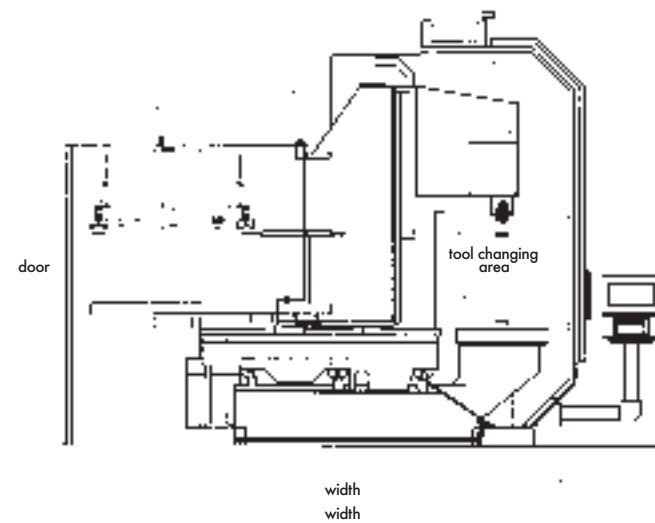
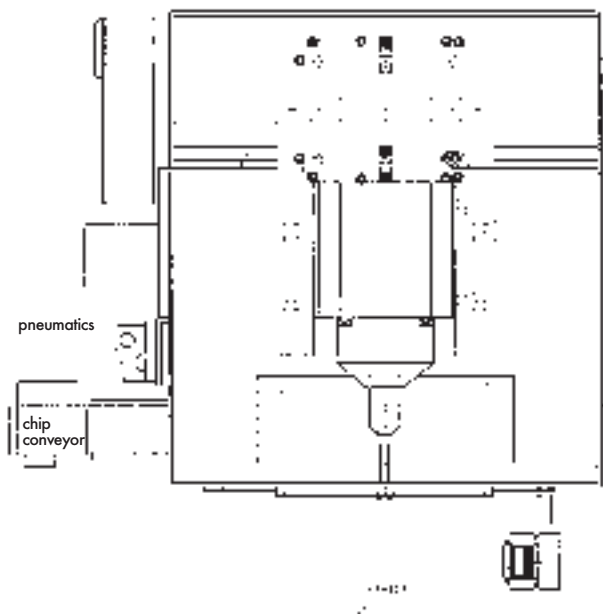
### Specifications

Working area X-axis	2000 - 12 000 mm
Working area Y-axis	1000 (1200) mm
Working area Z-axis	900 (1100) mm
Distance spindle nose/table	100-1000 (100-1200) mm
Machine table width	1035 (1235) mm
T-slots	18 H8
Spindle	SK50 - DIN 69871 (HSK 100 A)
Speed	8000 (12000) rpm
Power	44 (68) kW - 20% DC
Torque, max.	350 (460) Nm - 20 % DC
Rapid feed	30 (40 with linear drive) m/min
Drilling performance in steel	80 (100) mm
Tapping in steel	M30 (M36)
Milling capacity in steel	1000 (1100) cm <sup>3</sup> /min
Tool magazine	40 (60 up to 200) pcs
Tool diameter, max.	104 (200) mm
Tool length, max.	460 mm
Tool change time	approx. 8,5 sec
Chip-to-chip time	approx. 9,5 sec

Specifications valid for Y-axis=1000 mm

Traverse paths X-axis	mm	2000	3000	4000	5000	6000	up to 12000
Machine table length	mm	2500	3500	4500	5500	6500	12500
Twin table mach. max. vert.	mm	2x 500	2x 1000	2x 1500	2x 2000	2x 2500	2 x 5500
Machine length approx.	mm	5870	7150	8460	9740	11020	18700
Weight, approx.	t	24	32	39	46	53	95

Subject to technical changes





matec-30 HV with integrated rotary table 1450 mm

matec-30 HV with two traveling columns and 9 CNC axes

The machine concept of matec-30 HV is based on the long-bed machine matec-30 L. The machine is equipped with a swivel head. Various CNC rotary tables in connection with the swivel head enable to perform 5-side or three dimensional machining of work parts. The long X-axis and the swivel head swiveling 105° to both sides guarantee multilateral machining of long profiles or shafts in multiple clamping.

### Special features

- Tool system SK 40 / HSK 63 A
- Swivel head +/- 105° continuously variable as CNC axis for horizontal and vertical machining, indexing precision +/- 5 angular seconds
- Optionally available as milling/turning center with turning diameters up to 2200 mm

### Specifications

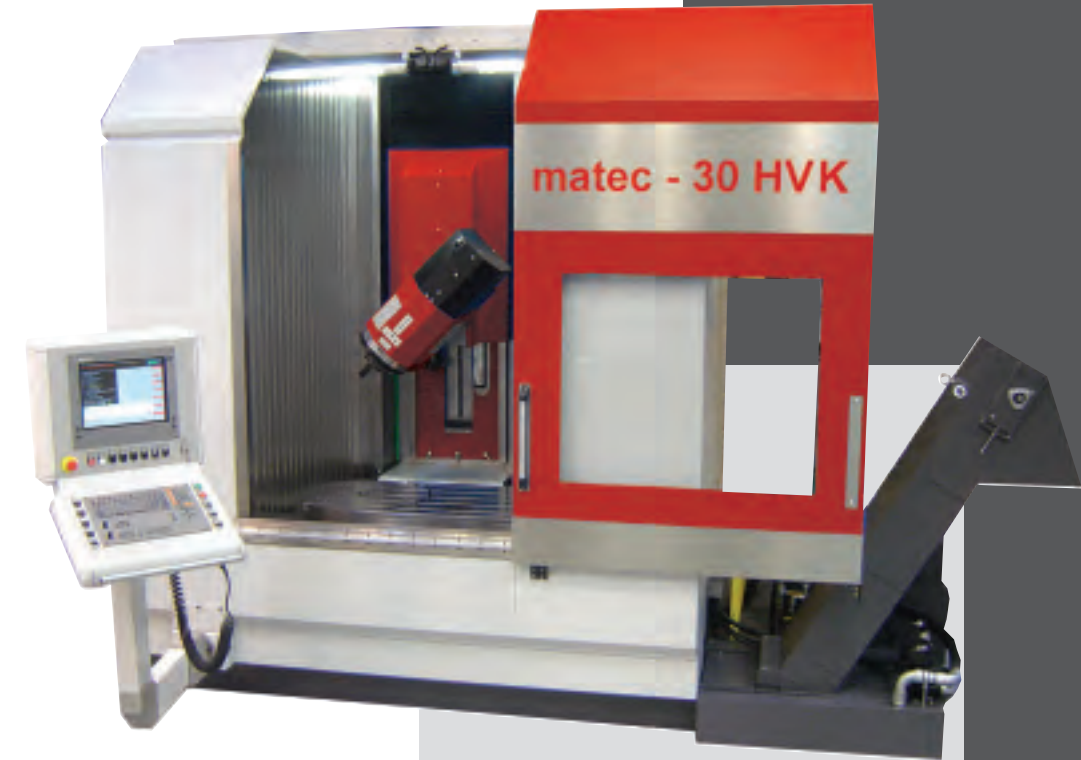
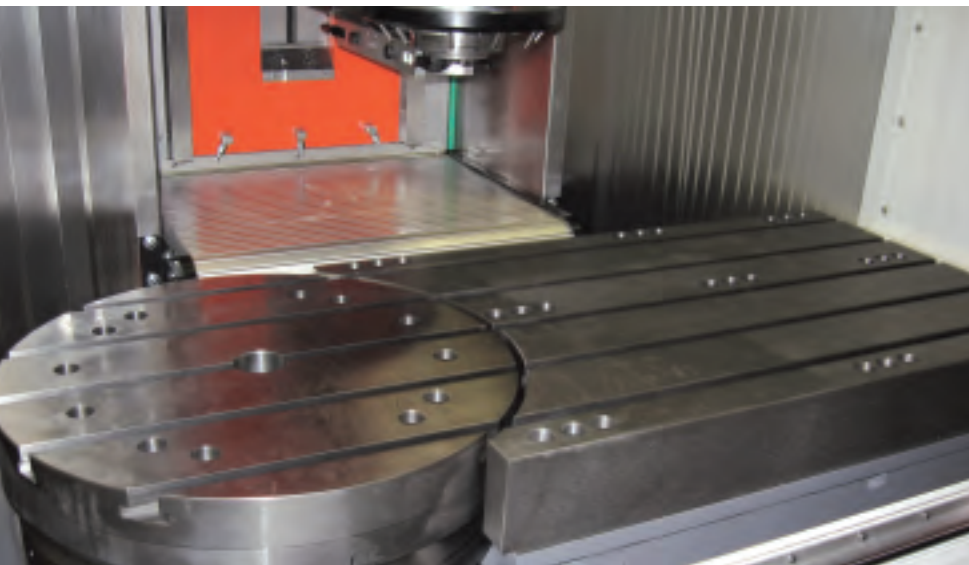
Working area X-axis	1300 - 12 000 mm
Working area Y-axis	600 (800/1000/1200) mm
Working area Z-axis	vert. 700 (1000/1200)/hor. 800 (1100/1200) mm
Distance spindle nose/table	vert. 0 - 700 (1000/1200)/hor. 150-950 (1250/1350) mm
Machine table width	635 (835/1035/1235) mm
T-slots	18 H8
Spindle	SK40 - DIN 69871 (HSK 63 A)
Speed	9000 (12000/15000/18000/24000/42000) rpm
Power	16 (30) kW - 40% DC
Torque, max.	100 (190) Nm - 40 % DC
Rapid feed	30 (48/100 with linear drive) m/min
Drilling performance in steel	40 (60) mm
Tapping in steel	M22 (M30)
Milling capacity in steel	400 (500) cm <sup>3</sup> /min
Tool magazine	36 (48 up to 120) pcs
Tool diameter, max.	70 (130) mm
Tool length, max.	340 (450) mm
Tool change time	vertical approx. 3,5 sec / horizontal approx. 6,5 sec
Chip-to-chip time	vertical approx. 5,5 sec / horizontal approx. 8,5 sec

Specifications valid for Y=600 mm and swivel head with serration 1°

Traverse paths X-axis	mm	1300	2000	3000	4000	5000	up to 12000
Machine table length	mm	1800	2500	3500	4500	5500	12500
Twin room mach. max. vert.	mm	-	2x720	2x1220	2x1720	2x2220	2 x 5720
Machine length, approx.	mm	4910	5870	7150	8460	9740	18700
Weight, approx.	t	7,5	9,2	10,4	11,8	12,8	25

Subject to technical changes





Working area with rotary table and fixed machine table

Machining of a work part

The universal machining center matec-30 HVK is the perfect solution for complex machining tasks in three dimensional domain and 5-side machining. The longer Z-axis extends the machinable range of work parts in the height. Work parts with a swing diameter of up to 940 mm can be loaded on the rotary table. The machine is also available as milling /turning center.

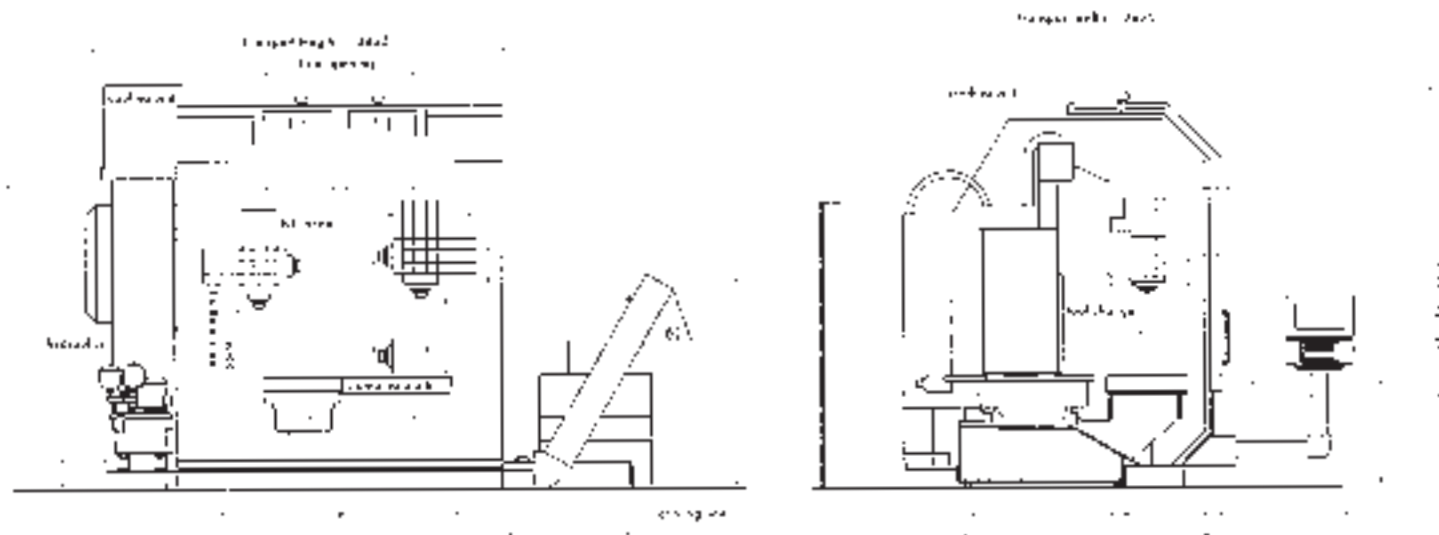
### Special features

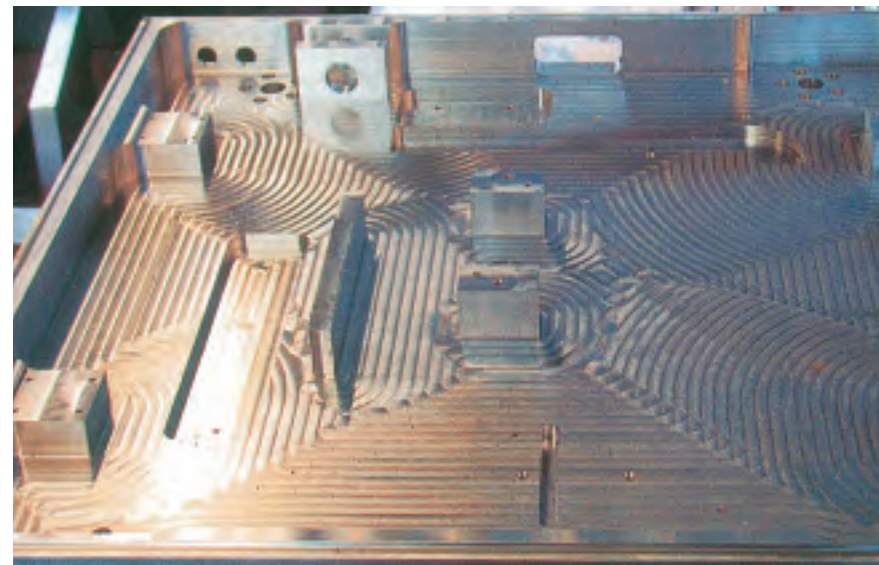
- Integrated rotary table Ø 630 mm, with swing diameter max. 940 mm
- Direct drive in rotary table and swivel head

### Specifications

Working area X-axis	1300 (1500) mm
Working area Y-axis	600 (800) mm
Working area Z-axis	vert. 675 (975)/hor. 800 (1100 - Y=800) mm
Distance spindle nose/table	vertical 0-675 (975)/horizontal 175-975 (1275) mm
Spindle	SK40 - DIN 69871 (HSK 63A)
Speed	9000 (12000/15000/18000/24000/42000) rpm
Power	16 (30) kW - 40% DC
Torque, max.	100 (190) Nm - 40 % DC
Rapid feed	30 (48/100 with linear drive) m/min
Drilling performance in steel	40 (54) mm
Tapping in steel	M22 (M30)
Milling capacity in steel	400 (500) cm <sup>3</sup> /min
Machine table	1515 x 635 (1715 x 835)
T-slots DIN 650	18 H8
CNC rotary table with direct drive Ø	630 (800) mm
Swing diameter max.	940 mm
Speed	0-80 (0-1000) rpm
Torque, max.	800 Nm
Table load capacity max.	1000 kg
Tool magazine	36 (48 up to 128) pcs
Tool diameter, max.	70 (130) mm
Tool length, max.	340 (450) mm
Tool change time	vertical approx. 3,5 sec / horizontal approx. 6,5 sec
Chip-to-chip time	vertical approx. 5,5 sec / horizontal approx. 8,5 sec
Machine weight	9,5 (11,5) t

Subject to technical changes





Spacious working area with perfect chip-flow

Aluminium work part for the chip industry, machined in one clamping

matec-30 HVC is ideal for five-side machining of voluminous and heavy parts, e.g. turbine blades (free-form surface parts) or gear housings. The longer Z-axis extends the machinable range of work parts in the height. Crane loading from the top is possible.

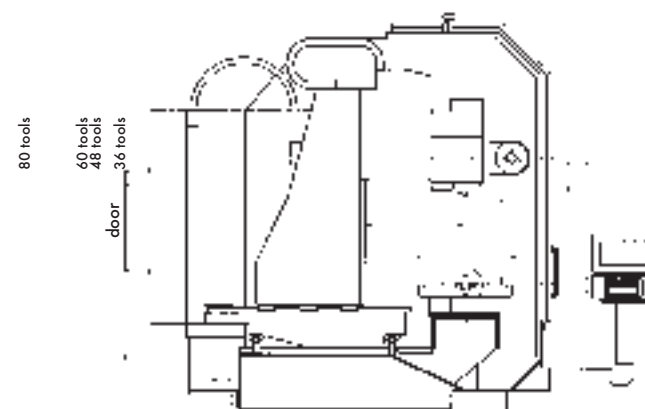
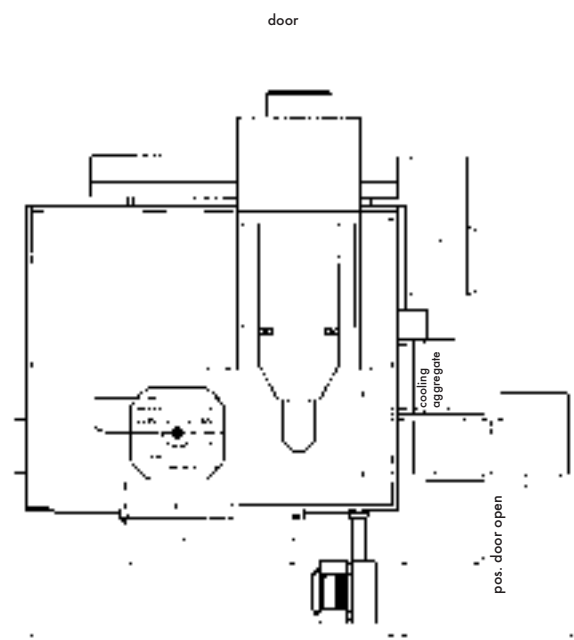
### Special features

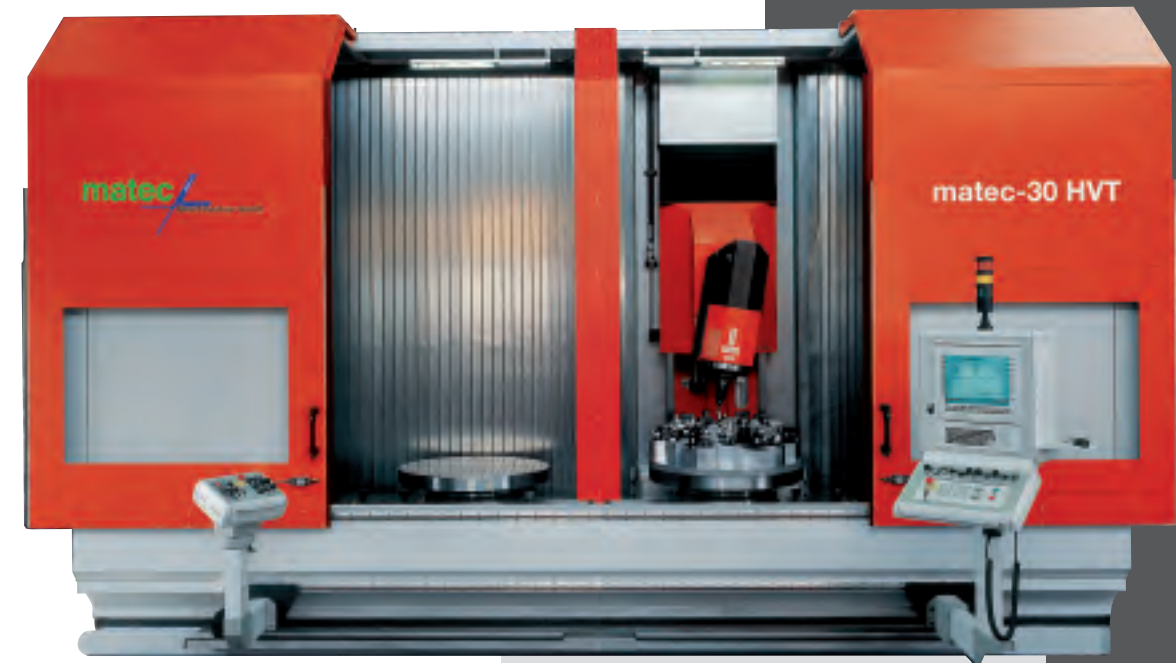
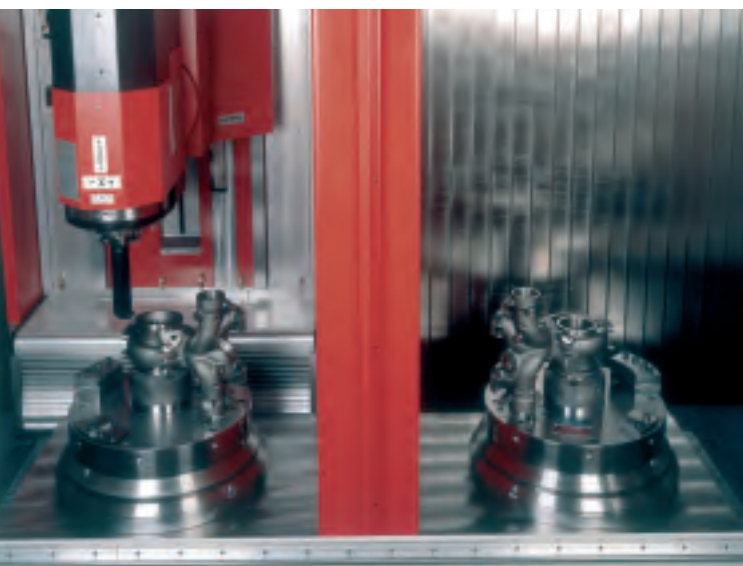
- 1-axis CNC swivel head  $\pm 105^\circ$  continuously variable for five-side machining
- Fixed CNC rotary table with swing diameter max. 940 mm

### Specifications

Working area X-axis	1500 mm
Working area Y-axis	800 mm
Working area Z-axis	vertical 780 / horizontal 1100 mm
Distance spindle nose/table	vertical 0-780 / horizontal 0-1100 mm
Spindle	SK40 - DIN 69871 (HSK 63A)
Speed	9000 (12000/15000/18000/24000/42000) rpm
Power	16 (30) kW - 40% DC
Torque, max.	100 (190) Nm - 40 % DC
Rapid feed	30 (48/80 with linear drive) m/min
Drilling performance in steel	40 (60) mm
Tapping in steel	M22 (M30)
Milling capacity in steel	400 (500) cm <sup>3</sup> /min
CNC rotary table	800 x 800 mm
Speed	0-15 rpm
Torque at circular milling, max.	3000 Nm
Torque with clamping	6000 Nm
Table load capacity, max.	2500 kg
T-slots DIN 650	7 x 18 H8 / D=100 mm
Tool magazine	36 (48 up to 128) pcs
Tool diameter, max.	70 (130) mm
Tool length, max.	340 (450) mm
Tool change time	vertical approx. 3,5 sec / horizontal approx. 6,5 sec
Chip-to-chip time	vertical approx. 5,5 sec / horizontal approx. 8,5 sec
Machine weight	11,5 t

Subject to technical changes





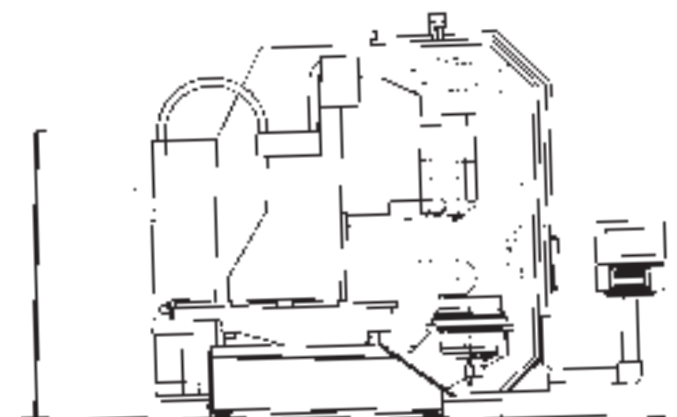
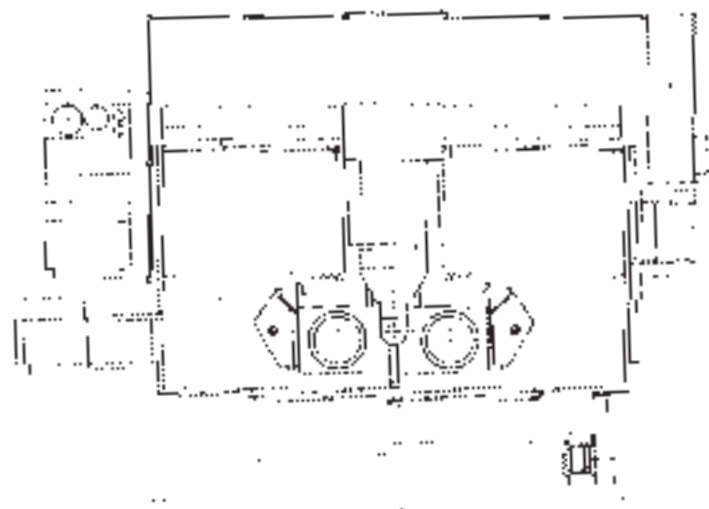
Left-sided and right-sided working area with mounted rotary tables

Lathe spindles

matec-30 HVT is a milling/turning center for series production. If work parts are best manufactured by complete machining this can be done on the matec-30 HVT in max. two clampings. The vertical lathe spindles are able to turn and to position depending on the machining task. The swivel head provides for five-side machining during drilling and milling processes and during the turning process it allows the application of multifunctional lathe tools in all angles.

### Special features

- High-speed rotary tables with direct drive, Ø 300 up to 2200 mm
- Speed of lathe spindle from 100 up to 6000 rpm (depending on spindle type and turning device)
- Separate tool magazines for turning tool holder
- Swivel head +/- 90° with serration catching in steps of 1°



### Specifications

Working area X-Axis	1300 - 12 000 mm
Working area Y-Axis	600 (800/1000/1200) mm
Working area Z-Axis	vert. 700 (1000/1200)/hor. 800 (1100/1300) mm
Distance spindle nose/table	vert. 0 - 700 (1000/1200)/hor. 150-950 (1250/1450) mm
Machine table width	635 (835/1035/1235) mm
T-slots	18 H8
Spindle	SK40 - DIN 69871 (HSK 63 A)
Speed	9000 (12000/15000/18000/24000/42000) rpm
Power	16 (30) kW - 40% DC
Torque, max.	100 (190) Nm - 40 % DC
Rapid feed	30 (48/100 with linear drive) m/min
Drilling performance in steel	40 (60) mm
Tapping in steel	M22 (M30)
Milling capacity in steel	400 (500) cm <sup>3</sup> /min
Lathe spindle	motor spindle - spindle head DIN 55026 A8 (A11)
Speed	0-6000 (0-2500) rpm
Power	30 (73) kW
Torque max.	191 (1000) Nm
Swing diameter max.	600 mm
Hollow shaft diameter	60 (120) mm
Tool magazine	36 (48 up to 128) pcs
Tool diameter, max.	70 (130) mm
Tool length, max.	340 (450) mm
Tool change time	vertical approx. 3,5 sec / horizontal approx. 6,5 sec
Chip-to-chip time	vertical approx. 5,5 sec / horizontal approx. 8,5 sec

See matec-30 HV sheet for the specifications concerning machine length, table length, etc.

Subject to technical changes



Work part machining on the main spindle

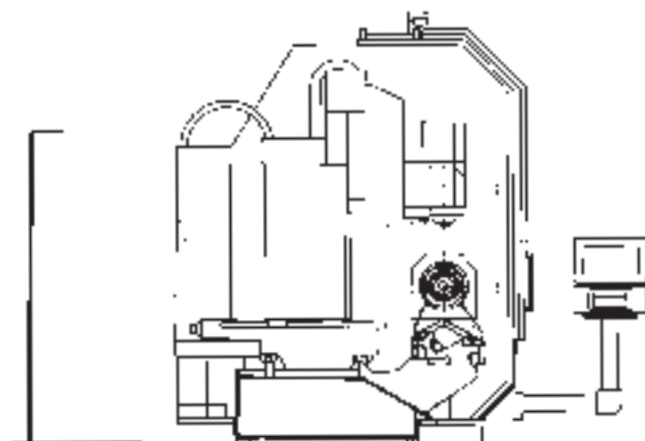
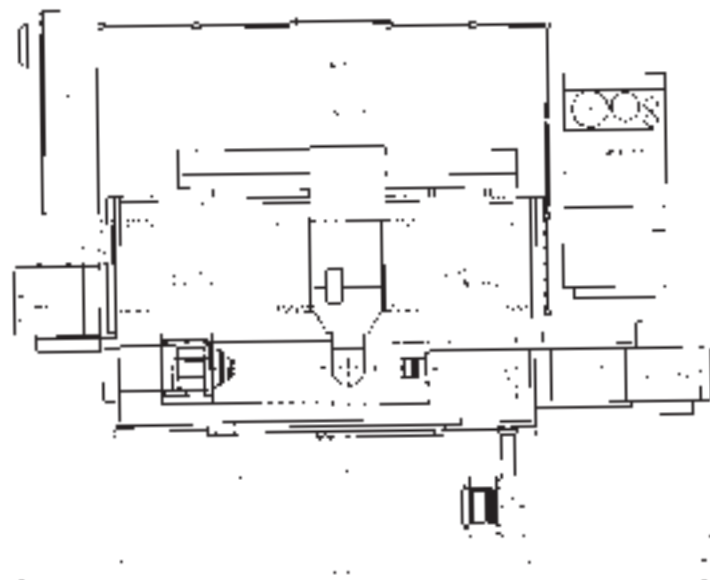
Work part transfer into the opposed spindle



matec-30 HVTH is a machining centre with a rotary table and opposed spindle for complete machining (front and back sides) of work parts from a bar in single-part or series production with a loading and unloading automation unit. The range of forms machined on matec-30 HVTH extends from profiles, round material, square and rectangular cross-sections up to diagonals of 120 mm. Optionallly with 2-axes saw unit to crosscut the part from the bar.

### Special features

- Lathe spindles A8 or A 11
- Automation unit with roboter or NC-gripper / discharge belt
- U-axis with opposed spindle
- Bar feeder



### Specifications

Working area X-axis	2000 mm
Working area Y-axis	600 mm
Working area Z-axis	800 mm
Distance spindle nose/lathe spindle	vertical 400 / horizontal -100/+400 mm
Spindle	SK40 - DIN 69871 (HSK 63A)
Speed	9000 (12000/15000/18000/24000/42000) rpm
Power	16 (30) kW - 40% DC
Torque, max.	100 (190) Nm - 40 % DC
Rapid feed	30 (48/100 with linear drive) m/min
Drilling performance in steel	40 (54) mm
Tapping in steel	M22 (M30)
Milling capacity in steel	400 (500) cm <sup>3</sup> /min
Lathe spindle and opposed lathe sp.	motor spindle - spindle head DIN 55026 A8 (A11)
Speed	0-6000 (0-2500) rpm
Power	30 (73) kW
Torque max.	191 (1000) Nm
Swing diameter max.	600 mm
Hollow shaft diameter	60 (120) mm
CNC-Schlitteneinheit Gegenspindel	1710 mm
Tool magazine	36 (48 bis 128) pcs
Tool diameter, max.	70 (130) mm
Tool length, max.	340 (450) mm
Tool change time	vertical approx. 3,5 sec / horizontal approx. 6,5 sec
Chip-to-chip time	vertical approx. 5,5 sec / horizontal approx. 8,5 sec
Machine weight	13 t

Subject to technical changes



Working area with 2 traveling columns, opposed spindle vs. CNC rotary table and saw unit

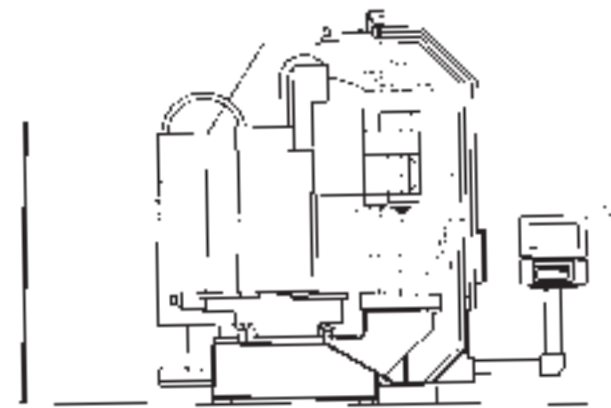
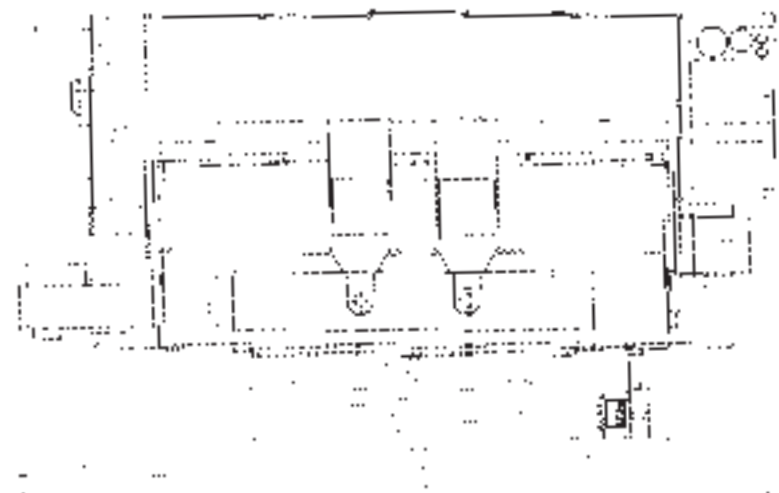
Machining at opposite spindle

NC-gripper depositing a work part

matec-30 HV duo is a long-bed machine based on matec-30 L duo. The center has 2 independent traveling columns with swivel head (2 x 4 axes), which makes separate machining of 2 x 3 sides of the work part possible by transferring the work part to the opposed spindle. When the machine process is finished, an automation unit with NC-gripper deposits the work part on a discharge belt.

### Special features

- 2 independent traveling columns with swivel head
- Rotary table, tail stock, opposed spindle
- Bar feeder and automation unit
- 2-axes saw unit (opt.)



### Specifications

Working area X-axis	4000 mm
Working area Y-axis	600 mm
Working area Z-axis	vertical 700 / horizontal 800 mm
Distance spindle nose/lathe spindle	vertical 425 / horizontal -125/+725 mm
2 traveling columns	spindle distance min. 1160 mm
2-axis saw unit (opt.)	X=900 mm Y=500 mm saw blade Ø 490 mm
Arbeitsspindel	SK40 - DIN 69871 (HSK 63A)
Speed	9000 (12000/15000/18000/24000/42000) rpm
Power	16 (30) kW - 40% DC
Torque, max.	100 (190) Nm - 40 % DC
Rapid feed	30 (48/100 with linear drive) m/min
Drilling performance in steel	2 x 40 (54) mm
Tapping in steel	2 x M22 (M30)
Milling capacity in steel	2 x 180 (360) cm <sup>3</sup> /min
Tool magazine	2 x 36 (48) pcs
Tool diameter, max.	70 (130) mm
Tool length, max.	340 mm
Tool change time	vertikal approx. 3,5 sec / horizontal approx. 6,5 sec
Chip-to-chip time	vertikal approx. 5,5 sec / horizontal approx. 8,5 sec
Machine weight	22 t

Subject to technical changes



Swivel head +/- 105° continuously variable



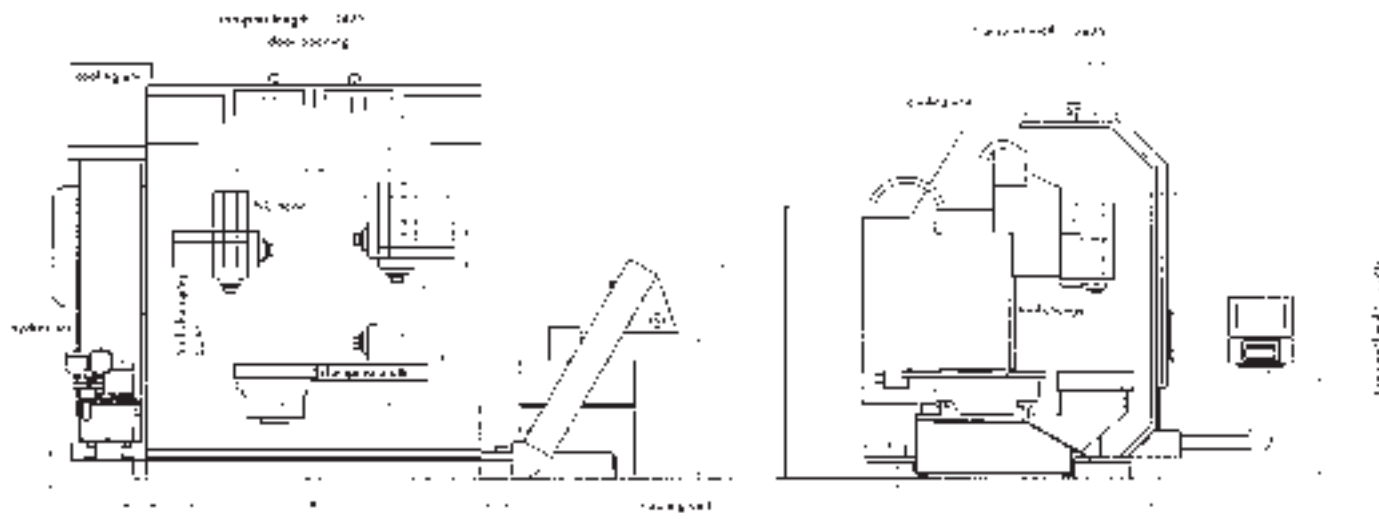
Integrated rotary table with direct drive, max. speed = 500 rpm



matec-40 HV is based on the concept of the long-bed machine matec-40 L. One of the particular machine features is a swivel head. A variety of CNC rotary tables in connection with the swivel head allow 5-side or three dimensional machining of work parts. The long X-axis and the swivel head swivelling 105° to both sides guarantee multilateral machining of long profiles or shafts in multiple clamping.

### Special features

- Tool taper SK 50 / HSK 100 A
- Swivel head +/- 105° continuously variable as CNC-axis for horizontal and vertical machining, indexing precision +/- 5 angular seconds
- Optionally available as milling/turning center with turning diameters up to 2200 mm

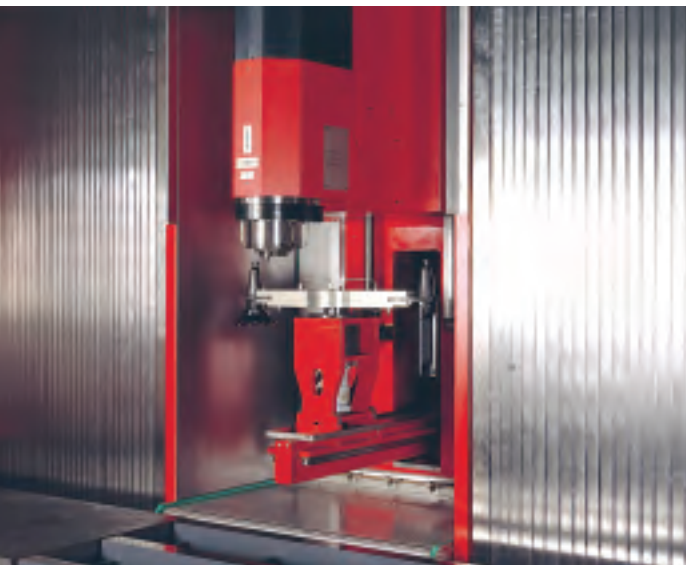


### Specifications

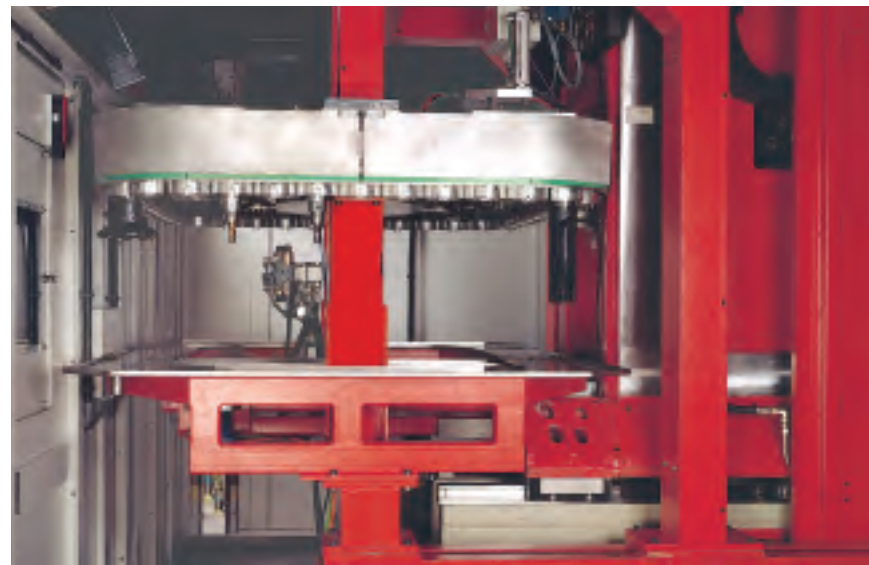
Working area X-axis	2000 - 12 000 mm
Working area Y-axis	800 mm
Working area Z-axis	vertical 690 (990) / horizontal 800 (1100) mm
Distance spindle nose/table	vertical 0 - 690 / horizontal 250-1050 (1350) mm
Machine table width	835 mm
T-slots	18 H8
Spindle	SK50 - DIN 69871 (HSK 100 A)
Speed	8000 (12000) rpm
Power	44 (68) kW - 20% DC
Torque, max.	350 (460) Nm - 20 % DC
Rapid feed	30 (48/80 with linear drive) m/min
Drilling performance in steel	80 (100) mm
Tapping in steel	M30 (M36)
Milling capacity in steel	1000 (1100) cm <sup>3</sup> /min
Tool magazine	40 (60 up to 200) pcs
Tool diameter, max.	104 (200) mm
Tool length, max.	460 mm
Tool change time	vertical approx. 8,5 sec / horizontal approx. 8,5 sec
Chip-to-chip time	vertical approx. 9,5 sec. / horizontal approx. 9,5 sec

Traverse paths X-axis	mm	2000	3000	4000	5000	6000	up to 12000
Machine table length	mm	2500	3500	4500	5500	6500	12500
Twin table mach. max. vert.	mm	2x 500	2x 1000	2x 1500	2x 2000	2x 2500	2 x 5500
Machine length approx.	mm	5870	7150	8460	9740	11020	18700
Gewicht ca.	t	14	17	22	25	30	65

Subject to technical changes



Tool changer



Tool magazine in the travelling column for up to 60 tools



matec-50 HV is based on the concept of the long-bed machine matec-50 L. One of the particular machine features is a swivel head. A variety of CNC rotary tables in connection with the swivel head allow the 5-side or three dimensional machining of work parts. The long X-axis and the swivel head swivelling 105° to both sides guarantee multilateral machining of long profiles or shafts in multiple clamping.

### Special features

- Tool system SK 50 / HSK 100 A
- Swivel head +/- 105° continuously variable as CNC-axis for horizontal and vertical machining, indexing precision +/- 5 angular seconds
- Optionally available as milling/turning center with turning diameters up to 2200 mm

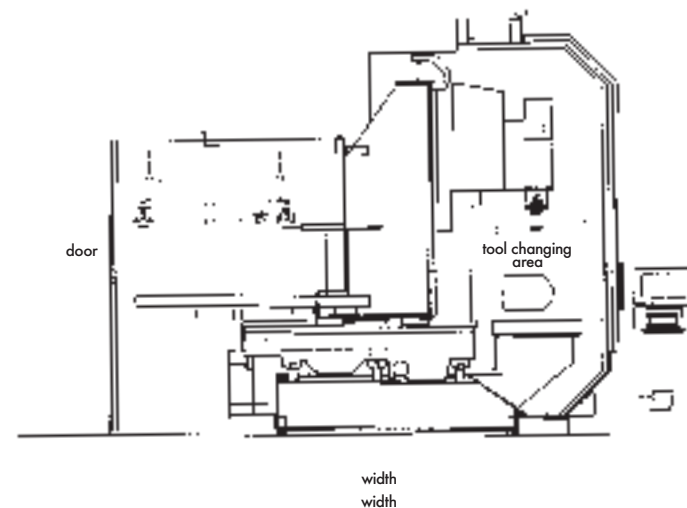
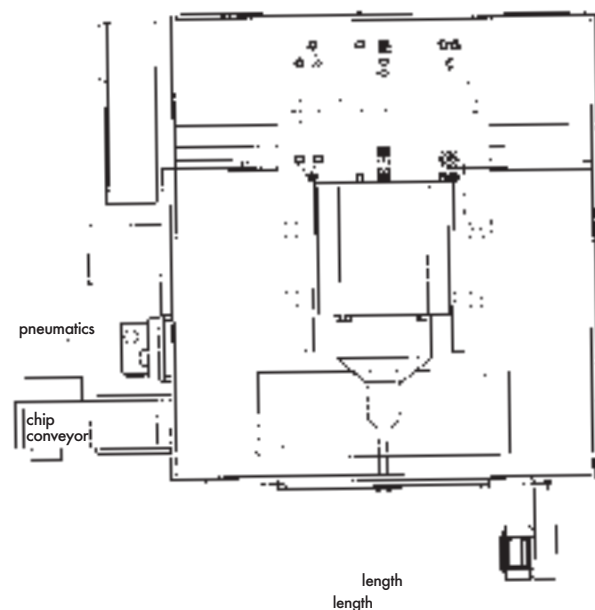
### Specifications

Working area X-axis	2000 - 12 000 mm
Working area Y-axis	1000 (1200) mm
Working area Z-axis	vertical 1000 (1200) / horizontal 1100 (1300) mm
Distance spindle nose/table	vertical 0 - 1000 / horizontal 250-1350 (1550) mm
Machine table width	1035 (1235) mm
T-slots	18 H8
Spindle	SK50 - DIN 69871 (HSK 100 A)
Speed	8000 (12000) rpm
Power	44 (68) kW - 20% DC
Torque, max.	350 (460) Nm - 20 % DC
Rapid feed	30 (40 with linear drive) m/min
Drilling performance in steel	80 (100) mm
Tapping in steel	M30 (M36)
Milling capacity in steel	1000 (1100) cm <sup>3</sup> /min
Tool magazine	40 (60 up to 200) pcs
Tool diameter, max.	104 (200) mm
Tool length, max.	460 mm
Tool change time	vertical approx. 8,5 sec / horizontal approx. 8,5 sec
Chip-to-chip time	vertical approx. 9,5 sec / horizontal approx. 9,5 Sek.

Specifications valid for Y-axis=1000 mm

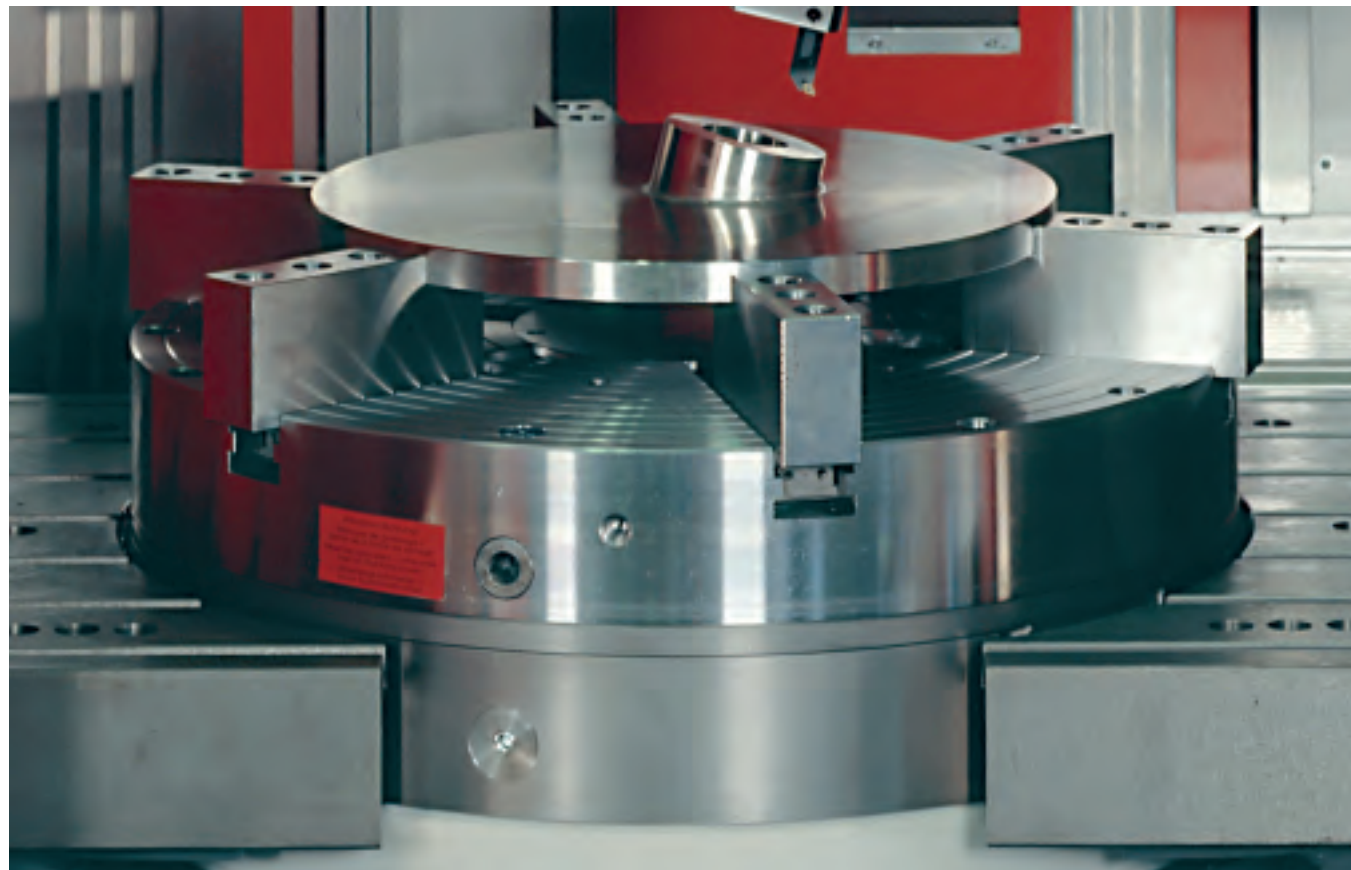
Traverse paths X-axis	mm	2000	3000	4000	5000	6000	up to 12000
Machine table length	mm	2500	3500	4500	5500	6500	12500
Twin table mach. max. vert.	mm	2x 500	2x 1000	2x 1500	2x 2000	2x 2500	2 x 5500
Machine length, approx.	mm	5870	7150	8460	9740	11020	18700
Weight, approx.	t	24	32	39	46	53	95

Subject to technical changes



Most machining centers of the traveling column series can be additionally equipped with a lathe spindle or high-speed rotary table with direct drive. In connection with a CNC swivel head we have developed a universal milling/turning center especially for supplier companies in single-part and small-part production.

Complex parts can be machined economically on such machines in one or two clampings in demanded tolerance and surface quality. Designed correspondingly our machines allow controlled boring of even the inner contours in slant borings.



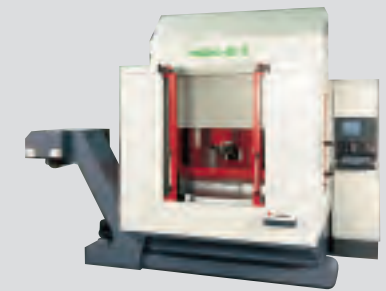
The advantage is evident: two machining processes united in one machine – the work part machined either on the face or on the perimeter and in every angular position – that saves time and costs. Last but not least, on the basis of the modular system matec offers a wide range of various options to satisfy every customer's need.

## Swivel table series

Highly productive machines for series production

matec-30 SH  
matec-30 S  
matec-30 SG

matec-30 SD  
matec-30 SHV



## Traveling column series

Highly flexible machines for single and series production

matec-30 L  
matec-30 L duo  
matec-30 LD  
matec-40 L  
matec-50 L  
matec-30 HV  
matec-30 HVK

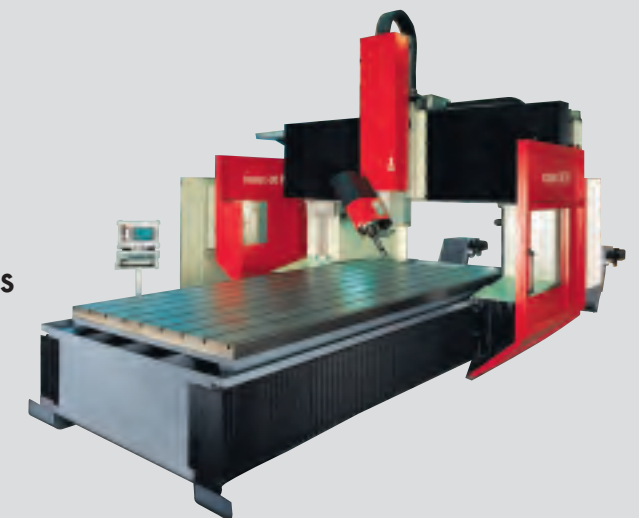
matec-30 HVC  
matec-30 HVT  
matec-30 HVTH  
matec-30 HV duo  
matec-40 HV  
matec-50 HV



## Gantry series

The specialists for the machining of voluminous and heavy work parts

matec-30 P with motor spindle vertical  
matec-30 P with 1-axis swivel head  
matec-30 P with 2-axis swivel head  
matec-50 P with 2-axis swivel head



Based on our standard machine series we develop custom-made machines and complete solutions