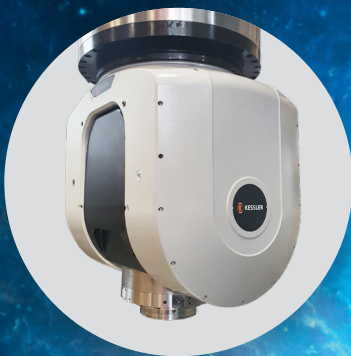


GANTRY MACHINING CENTRES

MODULAR AND INNOVATIVE FOR HIGHEST STANDARDS

Moving Table | Automation with Pallet Changer |
Table Version | Floor-Running



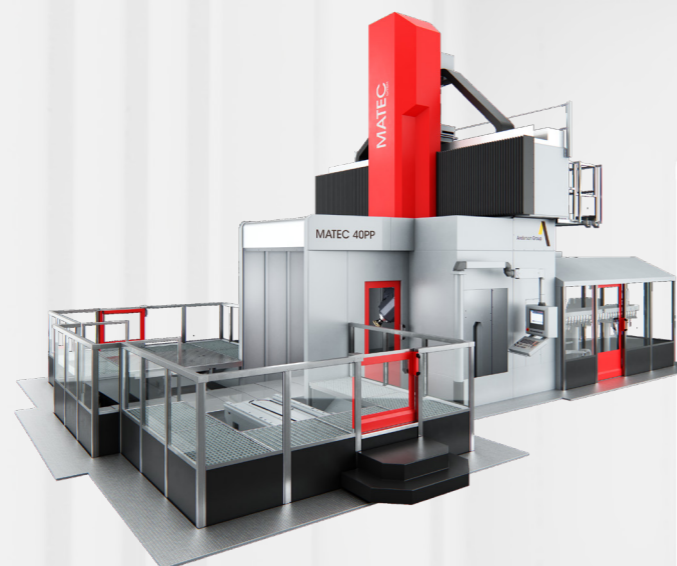
MATEC Gantry Machining Centres

OVERVIEW

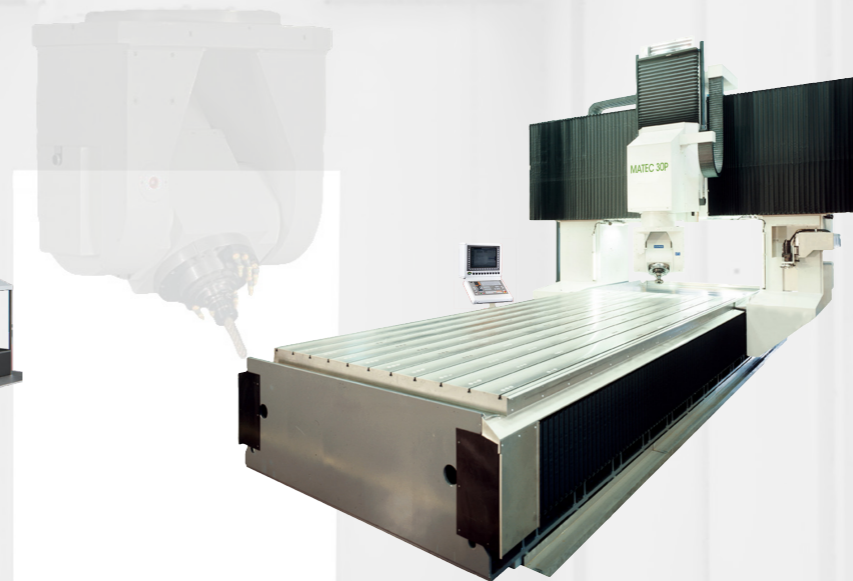
Pages 4 – 11
Compact Centre
 Stationary Gantry | Moving Table



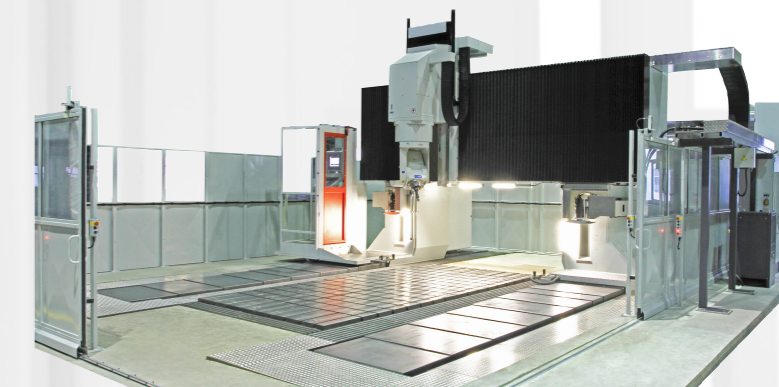
Pages 12 – 13
Pallet Changer
 Stationary Gantry | Pallet Changer
 2 or 4 Pallets



Pages 14 – 17
Model with Stationary Table
 Moving Gantry | Stationary Table



Pages 18 – 21
Floor Plate
 Moving Gantry | Floor-Running
 Floor-Plate Table on Shopfloor Level



The perfect head for every production task



2-Axis CNC Fork Head

- infinitely variable
- with worm drive
- clampable axes
- high torque rates
- C-axis: 360°
- A-axis: +/- 105°
- HSK63 or HSK100



2-Axis CNC Universal Head

- infinitely variable
- C-axis with worm drive
- A-axis with direct drive
- clampable axes
- high torque rates
- C-axis: +/- 180°
- A-axis: +/- 180°
- HSK63 or HSK100



2-Axis CNC Fork Head

- infinitely variable
- direct drive in both axes
- clampable axes
- high torque rates
- C-axis: 360°
- A-axis: +/- 120°
- HSK63 or HSK100

Precision and Dynamics in 5-Axis and 3D

MATEC 30PT | 40PT

5-Axis Gantry Series | 2-Axis Fork Head

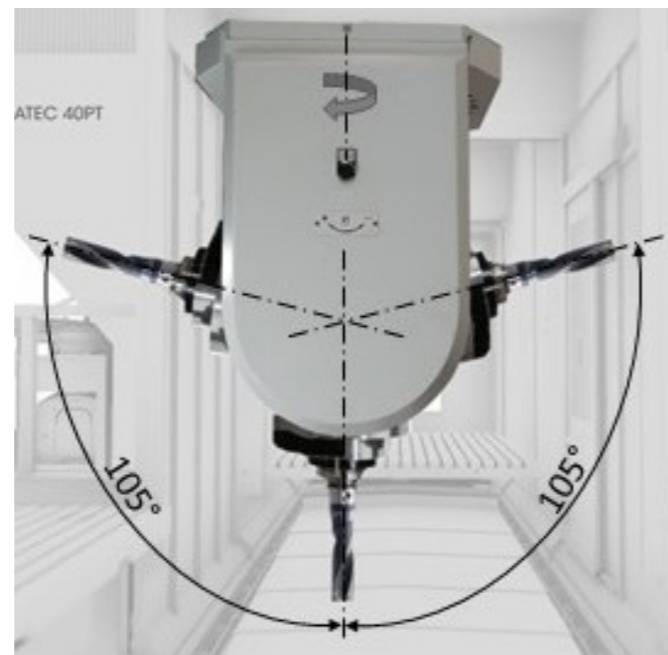
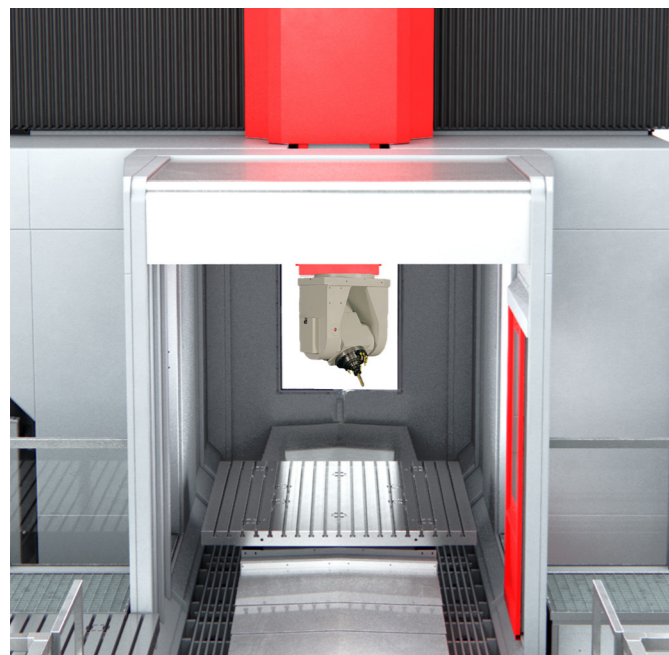
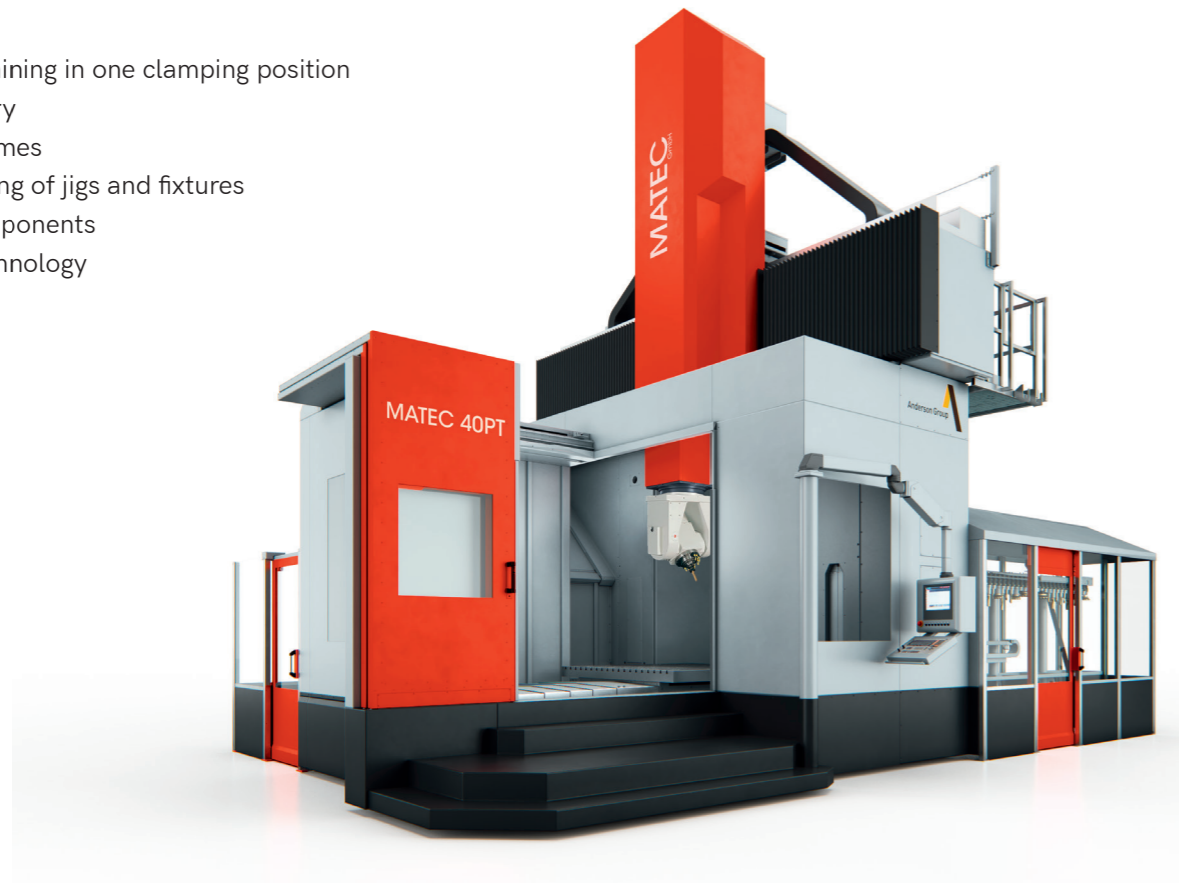
Stationary Gantry | Moving Table

Performance Class HSK63 | HSK100

CNC Control Unit: SIEMENS | HEIDENHAIN

Applications:

- 5-Side machining in one clamping position
- Steel industry
- Machine frames
- Manufacturing of jigs and fixtures
- Railway components
- Defence technology



Basic Data

Work Area	Unit	MATEC 30PT	MATEC 40PT
X-axis	mm	3,750 4,750 5,750 6,750	
Y-axis	mm	3,400 4,400	
Z-axis	mm	1,500 1,800 2,100	
Machine table length	mm	2,000 3,000 4,000 5,000	
Machine table width	mm	2,000 3,000	
Axis drives X Y Z standard		Ball screw drive	
Rapid traverse and feed rate max.	m/min	30	
Linear drive		○	
Rack and pinion drive		○	
2-Axis fork head			
Swivel radius (<i>pivot point towards spindle nose</i>)	mm	250	
Swivelling angle C-axis	Degrees	±180°	
Dividing accuracy C-axis	arcsec.	± 6"	
Torque C-axis max., unclamped	Nm	3,000	
Torque C-axis max., clamped	Nm	7,000	
Rotation speed C-axis	1/min	16	
Swivelling angle A-axis	Degrees	±105	
Dividing accuracy A-axis	arcsec.	± 5"	
Torque A-axis max., unclamped	Nm	650	
Torque A-axis max., clamped	Nm	4,800	
Rotation speed A-axis	1/min	12.5	
Direct position measuring system in A- and C-axis			
Main spindle motor spindle (standard)			
Tool holder		HSK63	HSK100
Speed	1/min	10,000	10,000
Power at 25 40 100 % duty cycle	kW	50 46 30	86 70 50
Torque at 25 40 100 % duty cycle	Nm	217 200 130	690 560 400
Refrigeration system: liquid-cooled		✓	✓
Bearing lubrication: grease relubrication		✓	✓
Heat compensation		✓	✓
Flatness positioning control		✓	✓
Options motor spindle			
Speed rates	1/min	12,000 15,000 24,000	12,000 15,000
Power	Kw	50 46 30	96 84 74
Torque max.	Nm	217	535
Additional sensor technology, dep. on application		○	○
Hydraulic clamping for turning operations		○	○
Variable bearing preload		○	○
Tool magazine			
Tool places	Pcs.	48	40
Optional tool places up to	Pcs.	680	680
Tool length max.	mm	450	450
Tool Ø	mm	70	104
Tool weight	kg	3 10	20

✓ Standard ○ Option

MATEC 30PTU | 40PTU

5-Axis Gantry Series | 2-Axis Universal Head

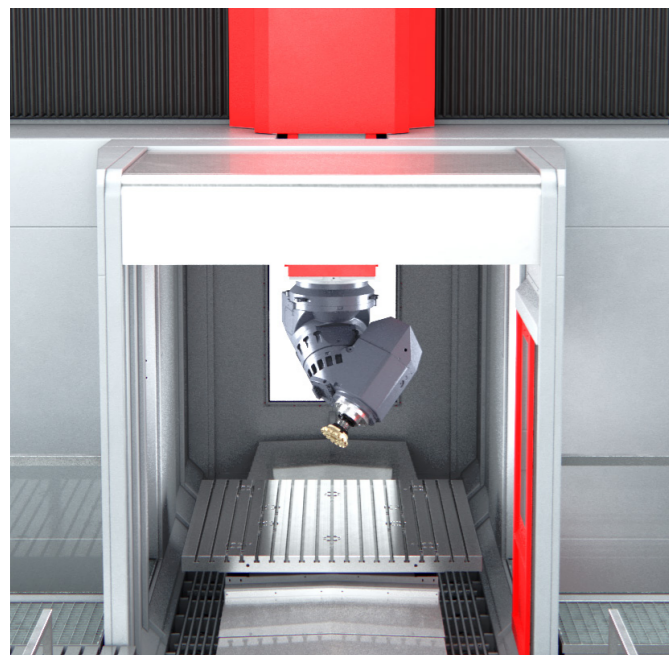
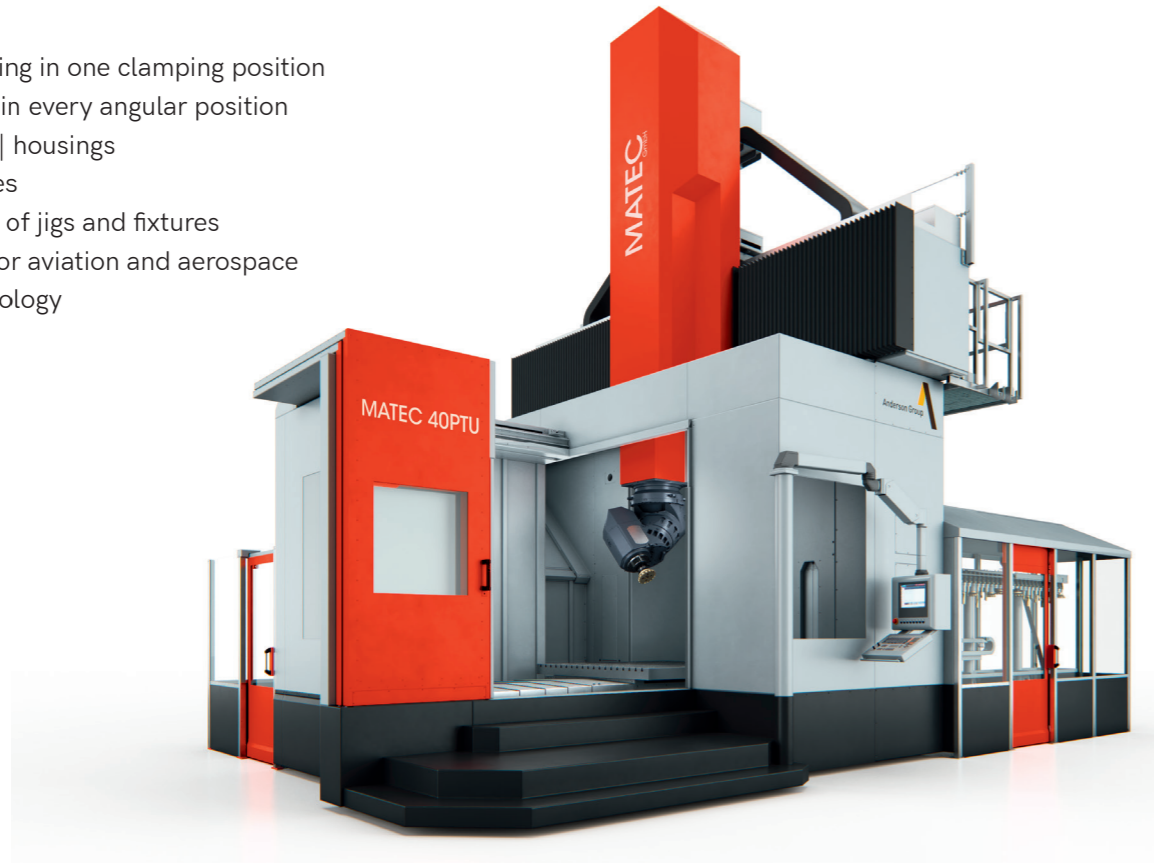
Stationary Gantry | Moving Table

Performance Class HSK63 | HSK100

CNC Control Unit: SIEMENS | HEIDENHAIN

Applications:

- 5-Side machining in one clamping position
- 3D-machining in every angular position
- Steel industry | housings
- Machine frames
- Manufacturing of jigs and fixtures
- Components for aviation and aerospace
- Defence technology



Basic Data

Work Area	Unit	MATEC 30PTU	MATEC 40PTU
X-axis	mm	3,750 4,750 5,750 6,750	
Y-axis	mm	3,400 4,400	
Z-axis	mm	1,500 1,800 2,100	
Machine table length	mm	2,000 3,000 4,000 5,000	
Machine table width	mm	2,000 3,000	
Axis drives X Y Z standard		Ball screw drive	
Rapid traverse speed and feed rate max.	m/min	30	
Linear drive		○	
Rack and pinion drive		○	
2-Axis universal head			
Swivelling radius (<i>pivot point towards spindle nose</i>)	mm	440	
Rotation angle C-axis	Degrees	±180°	
Dividing accuracy C-axis	arcsec	± 1.9"	
Torque C-axis max., unclamped	Nm	4,200	
Torque C-axis max., clamped	Nm	12,000	
Rotation speed C-axis	1/min	16	
Swivelling angle A-axis	Degrees	±180	
Dividing accuracy A-axis	arcsec	± 1.7"	
Torque A-axis max., unclamped	Nm	5,000	
Torque A-axis max., clamped	Nm	5,600	
Rotation speed A-axis	1/min	12.5	
Direct position measuring system in A- and C-axis			
Main spindle motor spindle (standard)			
Tool holder		HSK63	HSK100
Speed	1/min	10,000	10,000
Power at 25 40 100 % duty cycle	kW	50 46 30	86 70 50
Torque at 25 40 100 % duty cycle	Nm	217 200 130	690 560 400
Refrigeration system: liquid-cooled		✓	✓
Bearing lubrication: grease relubrication		✓	✓
Heat compensation		✓	✓
Flatness positioning control		✓	✓
Options motor spindle			
Speed rates	1/min	12,000 15,000 24,000	12,000 15,000
Power	Kw	217 217 130	96 84 74
Torque max.	Nm	217	535
Additional sensor technology, dep. on application		○	○
Hydraulic clamping for turning operations		○	○
Variable bearing preload		○	○
Tool magazine			
Tool places	Pcs.	48	40
Optional tool places up to	Pcs.	680	680
Tool length max.	mm	450	450
Tool Ø	mm	70	104
Tool weight	kg	3 10	20

✓ Standard ○ Option

MATEC 30PTT | 40PTT

5-Axis Gantry Series | 2-Axis Fork Head Torque

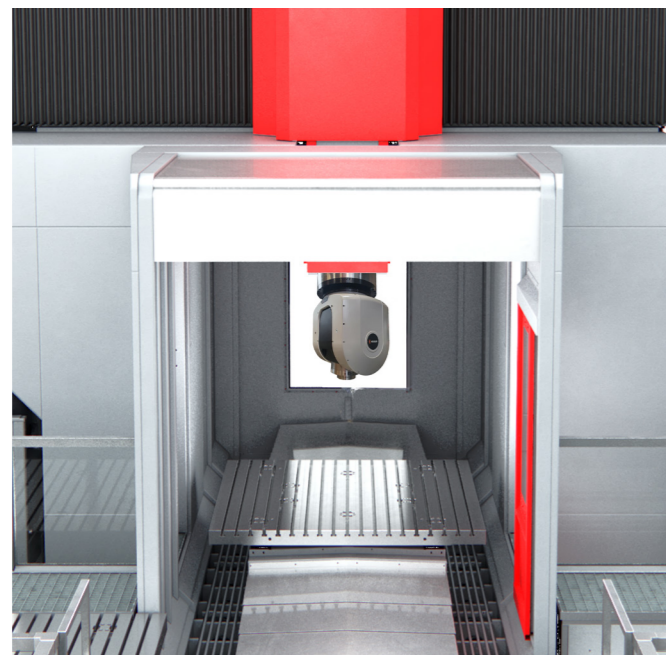
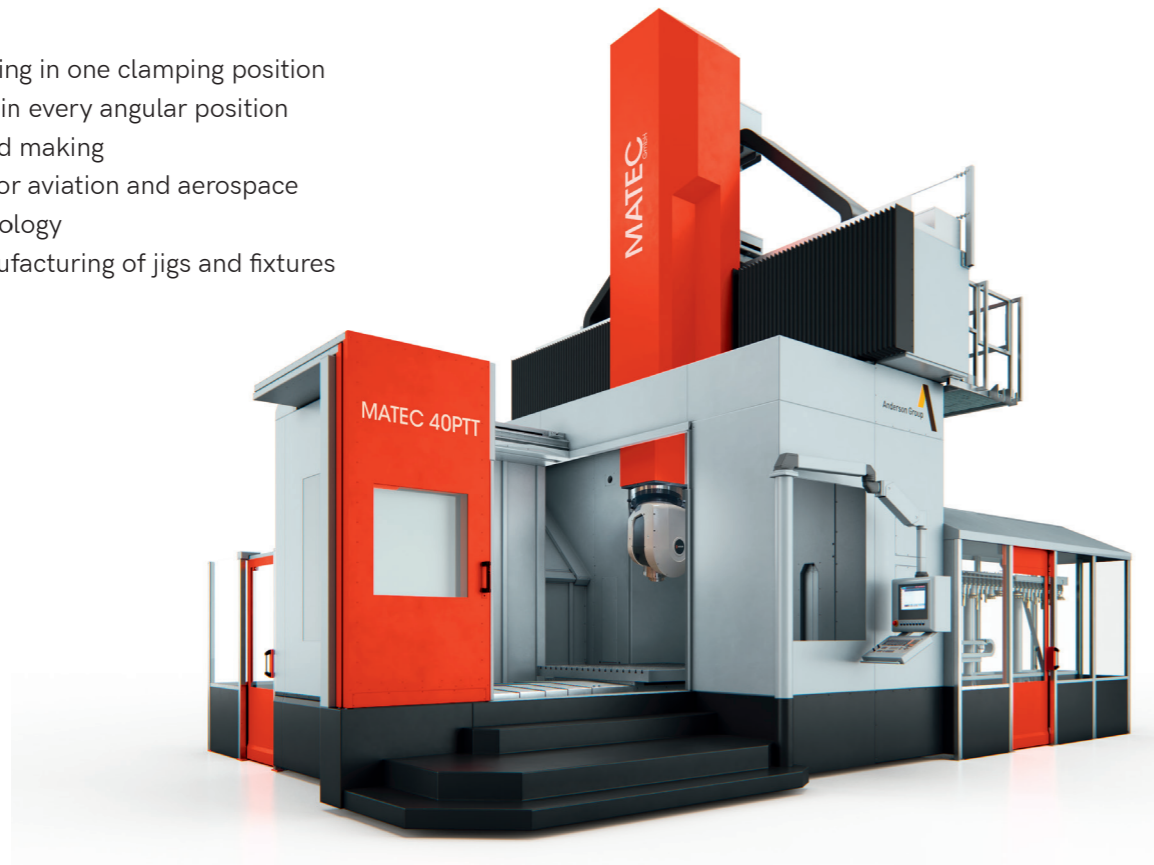
Stationary Gantry | Moving Table

Performance Class HSK63 | HSK100

CNC Control Unit: SIEMENS | HEIDENHAIN

Applications:

- 5-Side machining in one clamping position
- 3D-machining in every angular position
- Tool and mould making
- Components for aviation and aerospace
- Defence technology
- High-end manufacturing of jigs and fixtures



2-Axis Fork Head Torque

Direct drive in both axes.

Perfectly suitable for high-volume machining of high strength light metals or for tool and mould making with high exigencies on precision and surface quality.



Basic Data

Work Area	Unit	MATEC 30PTT	MATEC 40PTT
X-axis	mm	3,750 4,750 5,750 6,750	
Y-axis	mm	3,400 4,400	
Z-axis	mm	1,500 1,800 2,100	
Machine table length	mm	2,000 3,000 4,000 5,000	
Machine table width	mm	2,000 3,000	
Axis drives X Y Z standard		Ball screw drive	
Rapid traverse speed and feed rate max.	m/min	30	
Linear drive		○	
Rack and pinion drive		○	
2-Axis fork head torque			
Swivelling radius (pivot point towards spindle nose)	mm	250	
Rotation angle C-axis	Degrees	360°	
Dividing accuracy C-axis	arcsec,	± 6"	
Torque C-axis max., unclamped	Nm	3,000	
Torque C-axis max., clamped	Nm	7,000	
Rotation speed C-axis	1/min	16	
Swivelling angle A-axis	Degrees	±120	
Dividing accuracy A-axis	arcsec,	± 5"	
Torque A-axis max., unclamped	Nm	650	
Torque A-axis max., clamped	Nm	4,800	
Rotation speed A-axis	1/min	12.5	
Direct position measuring system in A- and C-axis			
Main spindle motor spindle (standard)			
Tool holder		HSK63	HSK100
Speed	1/min	10,000	10,000
Power at 25 40 100 % duty cycle	kW	50 46 30	86 70 50
Torque at 25 40 100 % duty cycle	Nm	217 200 130	690 560 400
Refrigeration system: liquid-cooled		✓	✓
Bearing lubrication: grease relubrication		✓	✓
Heat compensation		✓	✓
Flatness positioning control		✓	✓
Options motor spindle			
Speed rates	1/min	12,000 15,000 24,000	12,000 15,000
Power	Kw	217 217 130	96 84 74
Torque max.	Nm	217	535
Additional sensor technology, dep. on application		○	○
Hydraulic clamping for turning operations		○	○
Variable bearing preload		○	○
Tool magazine			
Tool places	Pcs.	48	40
Optional tool places up to	Pcs.	680	680
Tool length max.	mm	450	450
Tool Ø	mm	70	104
Tool weight	kg	3 10	20

✓ Standard ○ Option

MATEC 30PTR | 40PTR

5-Axis Gantry Series | 2-Axis Fork Head

Stationary Gantry | Moving Table | Integrated CNC Rotary Table

Performance Class HSK63 | HSK100

CNC Control Unit: SIEMENS | HEIDENHAIN

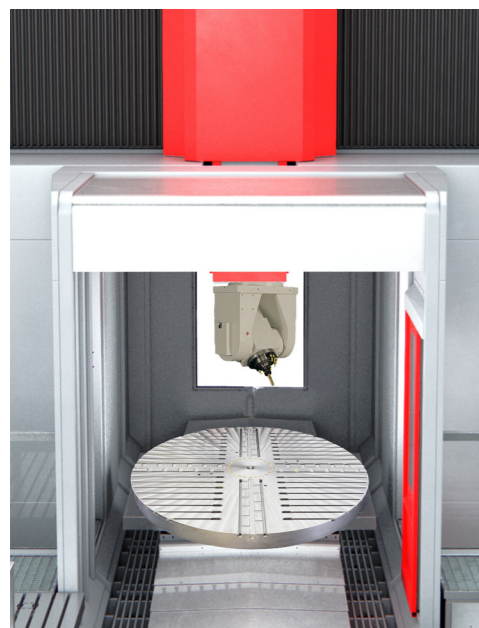
Applications:

- Turning operation on cylindrical workpieces
- 5-Side machining in one clamping position
- 3D-machining in every angular position
- Tool and mould making
- Components for aviation and aerospace
- Defence technology
- High-end manufacturing of jigs and fixtures



Standard:

2-Axis Fork Headf



Option:
2-Axis Universal Head



Option:
2-Axis Fork Head Torque



Basic Data

Work Area	Unit	MATEC 30PTR	MATEC 40PTR
X-axis	mm	3,750 4,750 5,750 6,750	
Y-axis	mm	3,400 4,400	
Z-axis	mm	1,500 1,800 2,100	
CNC rotary table Ø	mm	1,800 2,200	
Speed	1/min	200 200	
Torque rotary table, unclamped	Nm	3,840 6,000	
Torque rotary table, clamped	Nm	26,000 55,000	
Axis drives X Y Z standard		Ball screw drive	
Rapid traverse speed and feed rate max.	m/min	30	
Linear drive		○	
Rack and pinion drive		○	
2-Axis fork head			
Swivelling radius (pivot point towards spindle nose)	mm	250	
Rotation angle C-axis	Degrees	±180°	
Dividing accuracy C-axis	arcsec.	± 6"	
Torque C-axis max., unclamped	Nm	3,000	
Torque C-axis max., clamped	Nm	7,000	
Rotation speed C-axis	1/min	16	
Swivelling angle A-axis	Degrees	±105	
Dividing accuracy A-axis	arcsec.	± 5"	
Torque A-axis max., unclamped	Nm	650	
Torque A-axis max., clamped	Nm	4,800	
Rotation speed A-axis	1/min	12.5	
Direct position measuring system in A- and C-axis			
Main spindle motor spindle (standard)			
Tool holder		HSK63	HSK100
Speed	1/min	10,000	10,000
Power at 25 40 100 % duty cycle	kW	50 46 30	86 70 50
Torque at 25 40 100 % duty cycle	Nm	217 200 130	690 560 400
Refrigeration system: liquid-cooled		✓	✓
Bearing lubrication: grease relubrication		✓	✓
Heat compensation		✓	✓
Flatness positioning control		✓	✓
Options motor spindle			
Speed rates	1/min	12,000 15,000 24,000	12,000 15,000
Power	Kw	50 46 30	96 84 74
Torque max.	Nm	217	535
Additional sensor technology, dep. on application		○	○
Hydraulic clamping for turning operations		○	○
Variable bearing preload		○	○
Tool magazine			
Tool places	Pcs.	48	40
Optional tool places up to	Pcs.	680	680
Tool length max.	mm	450	450
Tool Ø	mm	70	104
Tool weight	kg	3 10	20

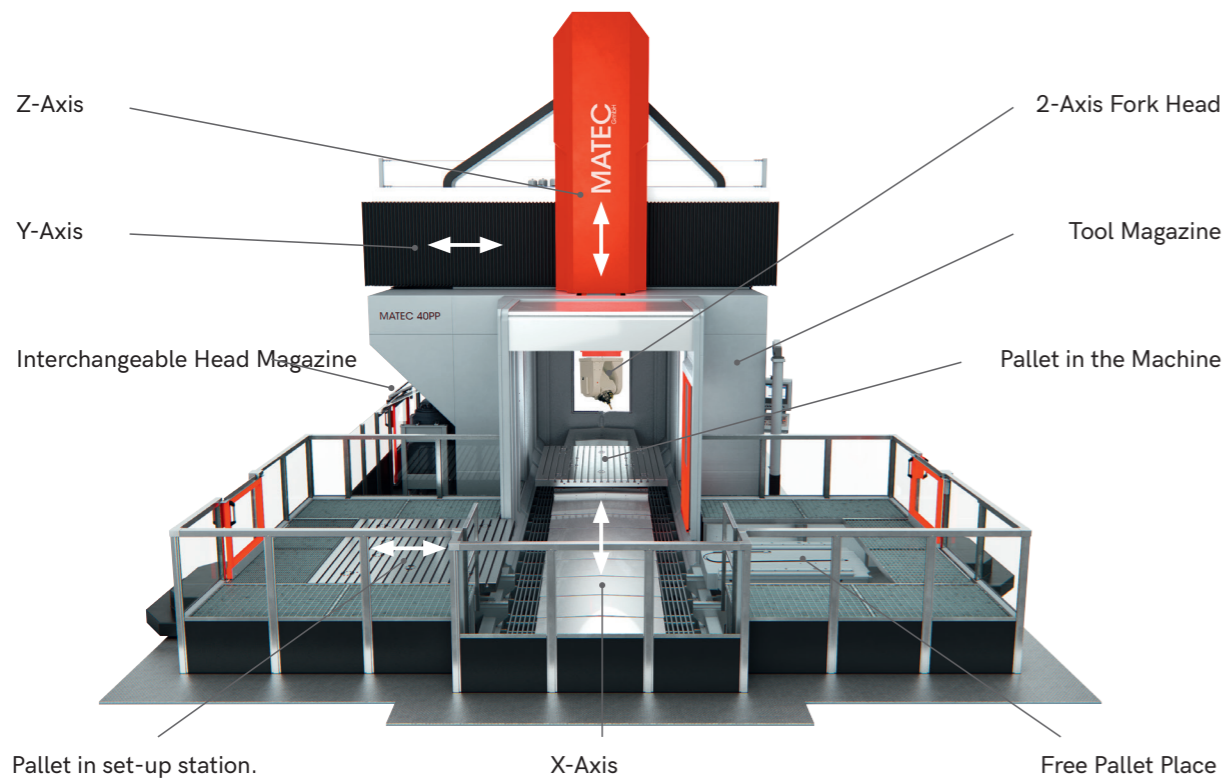
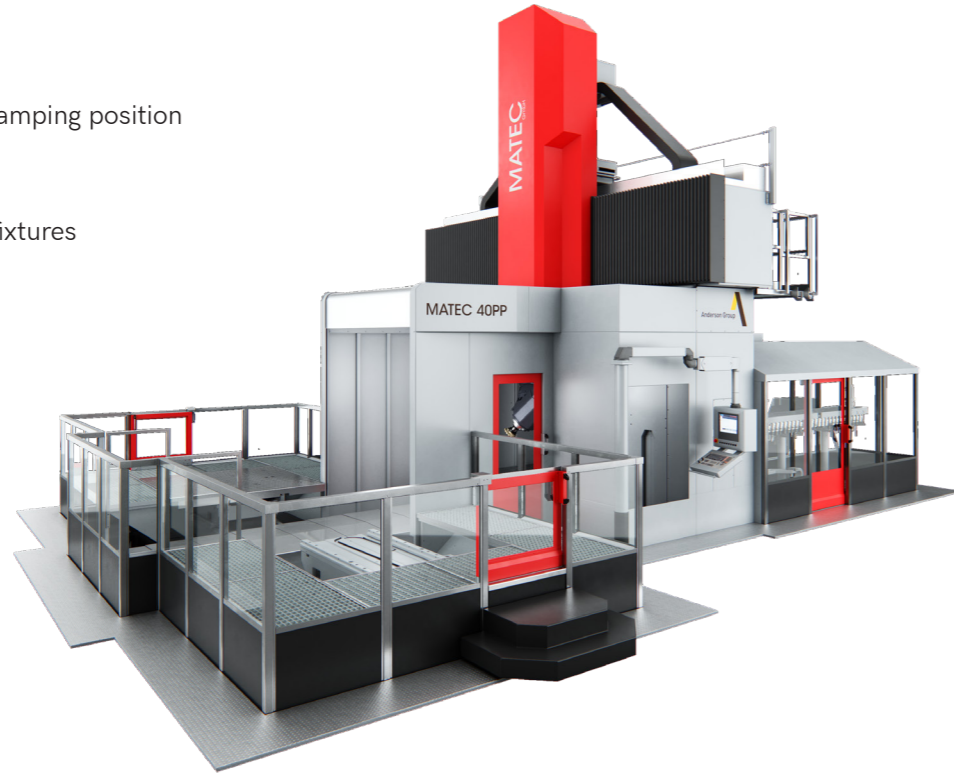
✓ Standard ○ Option

MATEC 30PP | 40PP

5-Axis Gantry Series | 2-Axis Fork Head
 Stationary Gantry | Moving Table with Pallet Changer
 Performance Class HSK63 | HSK100
 CNC Control Unit: SIEMENS | HEIDENHAIN

Applications:

- Main time parallel set-up
- 5-Side machining in one clamping position
- Steel industry
- Machine frames
- Manufacturing of jigs and fixtures
- Railway components
- Defence technology
- Aviation and aerospace



Pallet in set-up station.
 Loading and unloading of the machine during production.

Basic Data

Work Area	Unit	MATEC 30PP	MATEC 40PP
X-axis	mm	3,750 4,750 5,750 6,750	
Y-axis	mm	3,400 4,400	
Z-axis	mm	1,500 1,800 2,100	
Pallet length	mm	2,000 3,000 4,000 5,000	
Pallet width	mm	2,000 3,000	
Axis drives X Y Z standard		Ball screw drive	
Rapid traverse speed and feed rate max.	m/min	30	
Linear drive option			
Rack and pinion drive option			
2-Axis fork head			
Swivelling radius (<i>pivot point towards spindle nose</i>)	mm	250	
Rotation angle C-axis	Degrees	±180°	
Dividing accuracy C-axis	arcsec.	± 6"	
Torque C-axis max., unclamped	Nm	3,000	
Torque C-axis max., clamped	Nm	7,000	
Rotation speed C-axis	1/min	16	
Swivelling angle A-axis	Degrees	±105	
Dividing accuracy A-axis	arcsec.	± 5"	
Torque A-axis max., unclamped	Nm	650	
Torque A-axis max., clamped	Nm	4,800	
Rotation speed A-axis	1/min	12.5	
Direct position measuring system in A- and C-axis		✓	
Main spindle motor spindle (standard)			
Tool holder		HSK63	HSK100
Speed	1/min	10,000	10,000
Power at 25 40 100 % duty cycle	kW	50 46 30	86 70 50
Torque at 25 40 100 % duty cycle	Nm	217 200 130	690 560 400
Refrigeration system: liquid-cooled		✓	✓
Bearing lubrication: grease relubrication		✓	✓
Heat compensation		✓	✓
Flatness positioning control		✓	✓
Options motor spindle			
Speed rates	1/min	12,000 15,000 24,000	12,000 15,000
Power	Kw	217 217 130	96 84 74
Torque max.	Nm	217	535
Additional sensor technology, dep. on application		○	○
Hydraulic clamping for turning operations		○	○
Variable bearing preload		○	○
Tool magazine			
Tool places	Pcs.	480	40
Optional tool places up to	Pcs.	680	680
Tool length max.	mm	450	450
Tool Ø	mm	70	104
Tool weight	kg	3 10	20

✓ Standard ○ Option

MATEC 30P | 40P

5-Axis Gantry Series | 2-Axis Fork Head

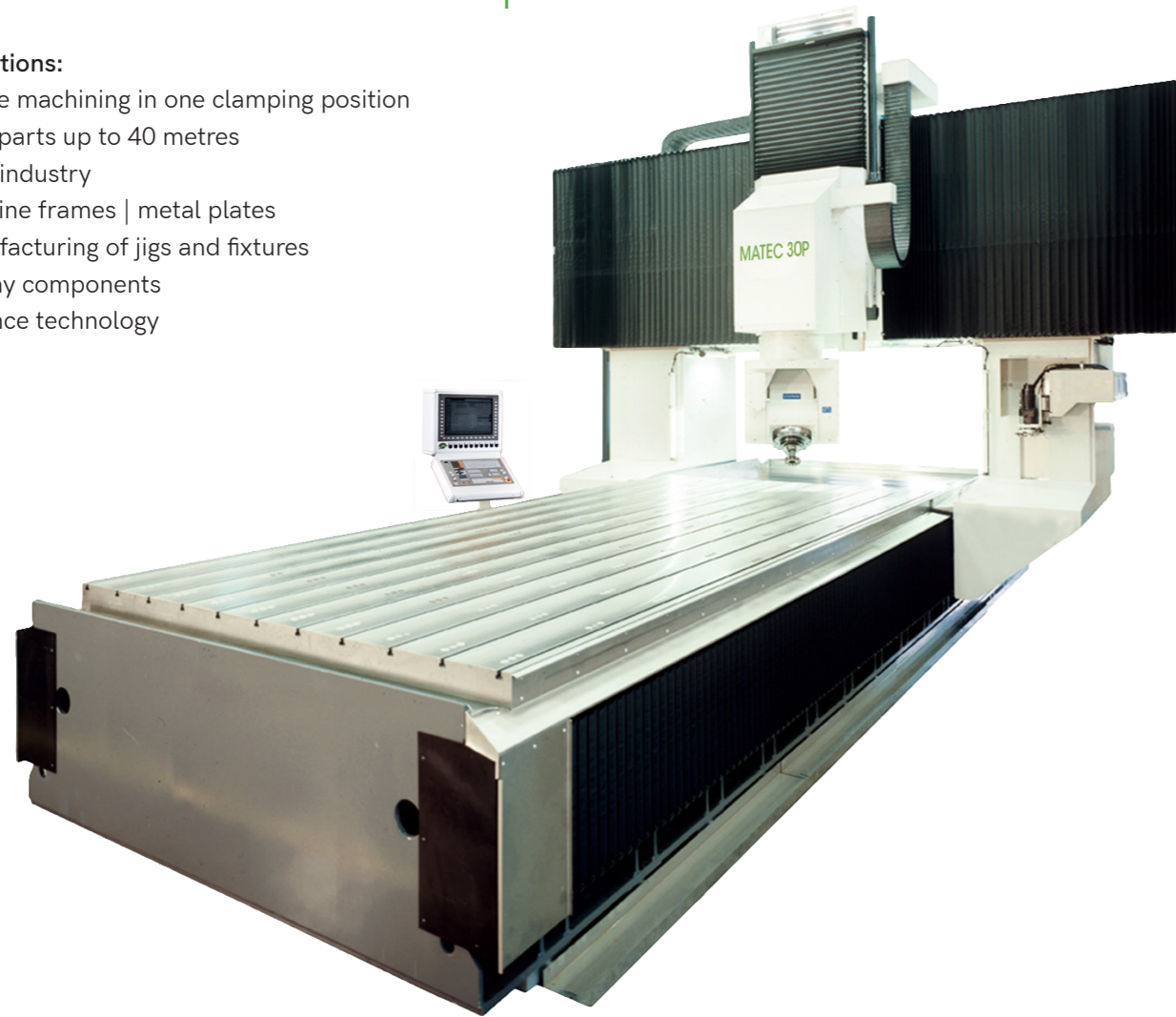
Moving Gantry | Stationary Table

Performance Class HSK63 | HSK100

CNC Control Unit: SIEMENS | HEIDENHAIN

Applications:

- 5-Side machining in one clamping position
- Long parts up to 40 metres
- Steel industry
- Machine frames | metal plates
- Manufacturing of jigs and fixtures
- Railway components
- Defence technology



Series MATEC 30P and MATEC 40P gantry machines meet highest quality standards. The basic design of the machine is identical for both performance classes.

The moving gantry with all axis movements has an advantage over the stationary gantry due to its lower space requirement. The machine is only slightly longer than the travel path of the X-axis.

In addition, stationary machine tables can carry a much higher static load. This machine design allows to perfectly handle heavy weight workpieces with respect to crane loading and accessibility.

For the structural components of the gantry series, we

have set especially high criteria regarding rigidity and resonance behaviour which is a guarantee for highest precision, contour accuracy and surface quality of the workpiece.

With the infinitely variable 2-axis fork head, workpieces can be machined on 5 sides or in 3D.

An automatic pick-up station for angle heads, immersion spindles or units for special machining tasks are available as options.

Work area enclosure with protective fence.

Basic Data

Work Area	Unit	MATEC 30P	MATEC 40P
X-axis	mm	3,000 - 40,000	
Y-axis	mm	2,500 - 4,300	
Z-axis	mm	1,300 1,500 1,800	
Machine table length	mm	3,500 - 12,500	
Machine table width	mm	2,100 3,000	
Axis drives X Y Z standard		Ball screw drive	
Rapid traverse speed and feed rate max.	m/min	30	
Linear drive		○	
Rack and pinion drive		○	
2-Axis fork head			
Swivelling radius (<i>pivot point towards spindle nose</i>)	mm	250	
Rotation angle C-axis	Degrees	±180°	
Dividing accuracy C-axis	arcsec.	± 6"	
Torque C-axis max., unclamped	Nm	3,000	
Torque C-axis max., clamped	Nm	7,000	
Rotation speed C-axis	1/min	16	
Swivelling angle A-axis	Degrees	±105	
Dividing accuracy A-axis	arcsec.	± 5"	
Torque A-axis max., unclamped	Nm	650	
Torque A-axis max., clamped	Nm	4,800	
Rotation speed A-axis	1/min	12.5	
Direct position measuring system in A- and C-axis		✓	
Main spindle motor spindle (standard)			
Tool holder		HSK63	HSK100
Speed	1/min	10,000	10,000
Power at 25 40 100 % duty cycle	kW	50 46 30	86 70 50
Torque at 25 40 100 % duty cycle	Nm	217 200 130	690 560 400
Refrigeration system: liquid-cooled		✓	✓
Bearing lubrication: grease relubrication		✓	✓
Heat compensation		✓	✓
Flatness positioning control		✓	✓
Options motor spindle			
Speed rates	1/min	12,000 15,000 24,000	12,000 15,000
Power	Kw	217 217 130	96 84 74
Torque max.	Nm	217	535
Additional sensor technology, dep. on application		○	○
Hydraulic clamping for turning operations		○	○
Variable bearing preload		○	○
Tool magazine			
Tool places	Pcs.	48	40
Optional tool places up to	Pcs.	280	172
Tool length max.	mm	450	450
Tool Ø	mm	70	104
Tool weight	kg	3 10	20

✓ Standard ○ Option

MATEC 30PU | 40PU

5-Axis Gantry Series | 2-Axis Universal Head

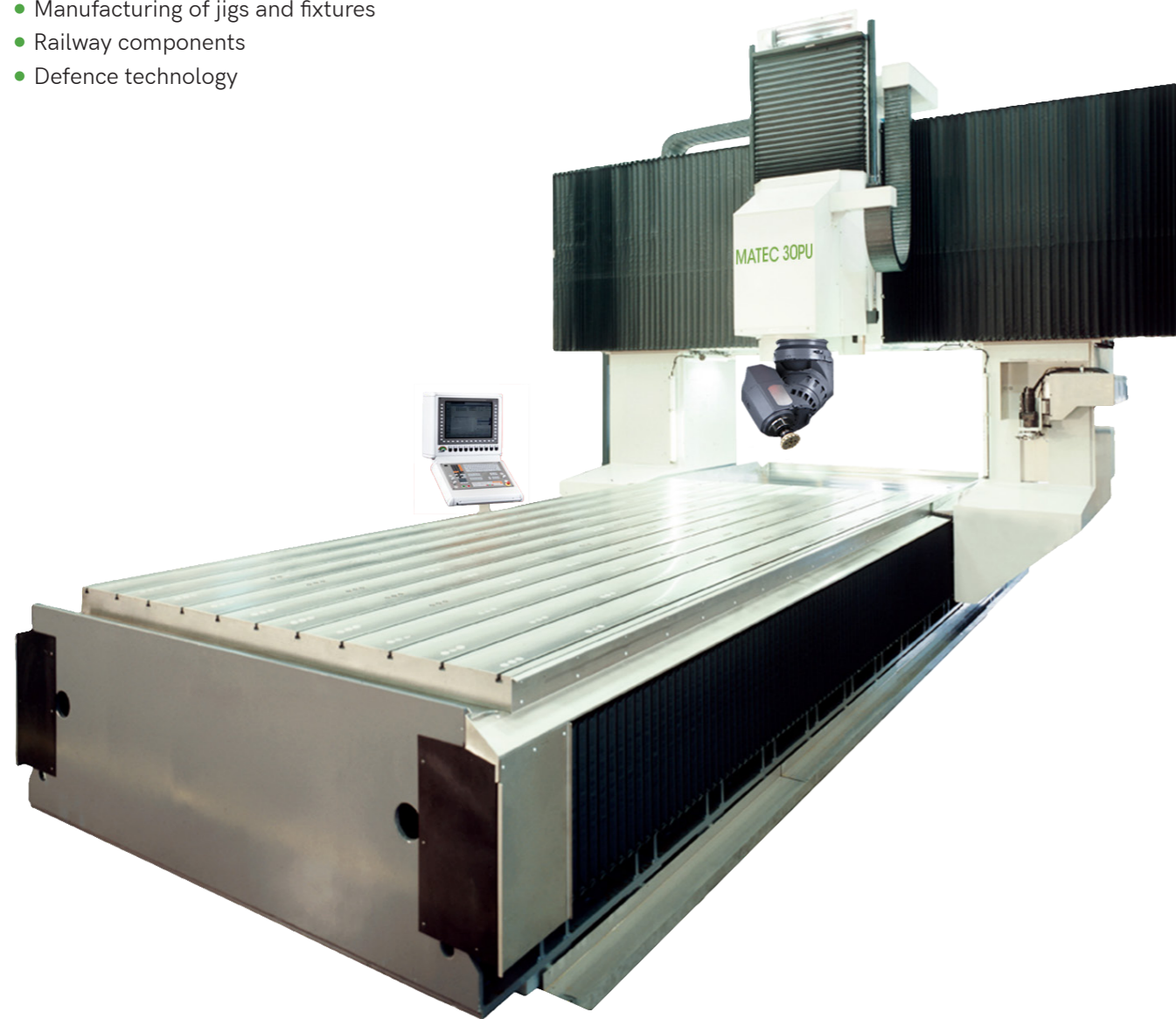
Moving Gantry | Stationary Table

Performance Class HSK63 | HSK100

CNC Control Unit: SIEMENS | HEIDENHAIN

Applications:

- 5-Side machining in one clamping position
- 3D-machining in every angular position
- Long parts up to 40 metres
- Steel industry
- Machine frames | metal plates
- Manufacturing of jigs and fixtures
- Railway components
- Defence technology



Basic Data

Work Area	Unit	MATEC 30PU	MATEC 40PU
X-axis	mm	3,000 - 40,000	
Y-axis	mm	3,000 3,500 4,300	
Z-axis	mm	1,500 1,800	
Machine table length	mm	3,500 - 12,500	
Machine table width	mm	2,100 2,600 3,100	
Axis drives X Y Z standard		Ball screw drive	
Rapid traverse speed and feed rate max.	m/min	30	
Linear drive		○	
Rack and pinion drive		○	
2-Axis universal head			
Swivelling radius (<i>pivot point towards spindle nose</i>)	mm	440	
Rotation angle C-axis	Degrees	±180°	
Dividing accuracy C-axis	arcsec.	± 1.9"	
Torque C-axis max., unclamped	Nm	4,200	
Torque C-axis max., clamped	Nm	12,000	
Rotation speed C-axis	1/min	16	
Swivelling angle A-axis	Degrees	±180	
Dividing accuracy A-axis	arcsec.	± 1.7"	
Torque A-axis max., unclamped	Nm	5,000	
Torque A-axis max., clamped	Nm	5,600	
Rotation speed A-axis	1/min	12.5	
Direct position measuring system in A- and C-axis		✓	
Main spindle motor spindle (standard)			
Tool holder		HSK63	HSK100
Speed	1/min	10,000	10,000
Power at 25 40 100 % duty cycle	kW	50 46 30	86 70 50
Torque at 25 40 100 % duty cycle	Nm	217 200 130	690 560 400
Refrigeration system: liquid-cooled		✓	✓
Bearing lubrication: grease relubrication		✓	✓
Heat compensation		✓	✓
Flatness positioning control		✓	✓
Options motor spindle			
Speed rates	1/min	12,000 15,000 24,000	12,000 15,000
Power	Kw	217 217 130	96 84 74
Torque max.	Nm	217	525
Additional sensor technology, dep. on application		○	○
Hydraulic clamping for turning operations		○	○
Variable bearing preload		○	○
Tool magazine			
Tool places	Pcs.	48	40
Optional tool places up to	Pcs.	680	680
Tool length max.	mm	450	450
Tool Ø	mm	70	104
Tool weight	kg	3 10	20

✓ Standard ○ Option

MATEC 30PB | 40PB

5-Axis Gantry Series | Floor-Running

2-Axis Fork Head

Moving Gantry | Stationary Table

Performance Class HSK63 | HSK100

CNC Control Unit: SIEMENS | HEIDENHAIN

Applications:

- 5-Side machining in one clamping position
- Long parts up to 40 metres
- Steel industry
- Machine frames
- Manufacturing of jigs and fixtures
- Railway components
- Defence technology



Series MATEC 30PB | 40PB gantry machines meet highest quality standards. The basic design of the machine is identical for both performance classes.

The moving gantry with all axis movements has an advantage over the stationary gantry due to its lower space requirement. The machine is only slightly longer than the travel path of the X-axis.

In addition, stationary machine tables can carry a much higher static load. This machine design allows to perfectly handle heavy weight workpieces with respect to crane loading and accessibility.

For the structural components of the gantry series, we have set especially high criteria regarding rigidity and resonance behaviour which is a guarantee for highest precision, contour accuracy and surface quality of the workpiece.

With the infinitely variable 2-axis fork head, workpieces can be machined on 5 sides or in 3D.

An automatic pick-up station for angle heads, immersion spindles or units for special machining tasks are available as options.

Work area enclosure with protective fence.

Basic Data

Work Area	Unit	MATEC 30PB	MATEC 40PB
X-axis	mm	3,000 up to 40,000	
Y-axis	mm	3,500 4,300	
Z-axis	mm	1,500 1,800	
Machine table length	mm	3,500 up to 20,500	
Machine table width	mm	2,600 3,100	
Axis drives X Y Z standard		Ball screw drive	
Rapid traverse speed and feed rate max.	m/min	30	
Linear drive		○	
Rack and pinion drive		○	
2-Axis fork head			
Swivelling radius (<i>pivot point towards spindle nose</i>)	mm	250	
Rotation angle C-axis	Degrees	±180°	
Dividing accuracy C-axis	arcsec.	± 6"	
Torque C-axis max., unclamped	Nm	3,000	
Torque C-axis max., clamped	Nm	7,000	
Rotation speed C-axis	1/min	16	
Swivelling angle A-axis	Degrees	±105	
Dividing accuracy A-axis	arcsec.	± 5"	
Torque A-axis max., unclamped	Nm	650	
Torque A-axis max., clamped	Nm	4,800	
Rotation speed A-axis	1/min	12.5	
Direct position measuring system in A- and C-axis		✓	
Main spindle motor spindle (standard)			
Tool holder		HSK63	HSK100
Speed	1/min	10,000	10,000
Power at 25 40 100 % duty cycle	kW	50 46 30	86 70 50
Torque at 25 40 100 % duty cycle	Nm	217 200 130	690 560 400
Refrigeration system: liquid-cooled		✓	✓
Bearing lubrication: grease relubrication		✓	✓
Heat compensation		✓	✓
Flatness positioning control		✓	✓
Options motor spindle			
Speed rates	1/min	12,000 15,000 24,000	12,000 15,000
Power	Kw	217 217 130	96 84 74
Torque max.	Nm	217	535
Additional sensor technology, dep. on application		○	○
Hydraulic clamping for turning operations		○	○
Variable bearing preload		○	○
Tool magazine			
Tool places	Pcs.	48	40
Optional tool places up to	Pcs.	680	680
Tool length max.	mm	450	450
Tool Ø	mm	70	104
Tool weight	kg	3 10	20

✓ Standard ○ Option

Transfer station with clamping vice on linear axis „U“ and rotary axis „C“, 2-axis CNC saw unit.

MATEC 30PBU | 40PBU

5-Axis Gantry Series | Floor-Running

2-Axis Universal Head

Moving Gantry | Stationary Table

Performance Class HSK63 | HSK100

CNC Control Unit: SIEMENS | HEIDENHAIN

Applications:

- 5-Side machining in one clamping position
- 3D-machining in every angular position
- Long parts up to 40 metres
- Steel industry
- Machine frames
- Manufacturing of jigs and fixtures
- Railway components
- Defence technology
- Aviation and aerospace



Series MATEC 30PBU | 40PBU gantry machines meet highest quality standards. The basic design of the machine is identical for both performance classes.

The moving gantry with all axis movements has an advantage over the stationary gantry due to its lower space requirement. The machine is only slightly longer than the travel path of the X-axis.

In addition, stationary machine tables can carry a much higher static load. This machine design allows to perfectly handle heavy weight workpieces with respect to crane loading and accessibility.

For the structural components of the gantry series, we have set especially high criteria regarding rigidity and resonance behaviour which is a guarantee for highest precision, contour accuracy and surface quality of the workpiece

With the infinitely variable 2-axis universal head, workpieces can be machined on 5 sides or in 3D in every angular position.

An automatic pick-up station for angle heads, immersion spindles or units for special machining tasks are available as options.

Work area enclosure with protective fence.

Basic Data

Work Area	Unit	MATEC 30PBU	MATEC 40PBU
X-axis	mm	3,000 up to 40,000	
Y-axis	mm	3,500 4,300	
Z-axis	mm	1,500 1,800	
Machine table length	mm	3,500 up to 20,500	
Machine table width	mm	2,600 3,100	
Axis drives X Y Z standard		Ball screw drive	
Rapid traverse speed and feed rate max.	m/min	30	
Linear drive		○	
Rack and pinion drive		○	
2-Axis universal head			
Swivelling radius (<i>pivot point towards spindle nose</i>)	mm	440	
Rotation angle C-axis	Degrees	±180°	
Dividing accuracy C-axis	arcsec.	± 1.9"	
Torque C-axis max., unclamped	Nm	4,200	
Torque C-axis max., clamped	Nm	12,000	
Rotation speed C-axis	1/min	16	
Swivelling angle A-axis	Degrees	±180	
Dividing accuracy A-axis	arcsec.	± 1.7"	
Torque A-axis max., unclamped	Nm	5,000	
Torque A-axis max., clamped	Nm	5,600	
Rotation speed A-axis	1/min	12.5	
Direct position measuring system in A- and C-axis		✓	
Main spindle motor spindle (standard)			
Tool holder		HSK63	HSK100
Speed	1/min	10,000	10,000
Power at 25 40 100 % duty cycle	kW	50 46 30	86 70 50
Torque at 25 40 100 % duty cycle	Nm	217 200 130	690 560 400
Refrigeration system: liquid-cooled		✓	✓
Bearing lubrication: grease relubrication		✓	✓
Heat compensation		✓	✓
Flatness positioning control		✓	✓
Options motor spindle			
Speed rates	1/min	12,000 15,000 24,000	12,000 15,000
Power	Kw	217 217 130	96 84 74
Torque max.	Nm	217	535
Additional sensor technology, dep. on application		○	○
Hydraulic clamping for turning operations		○	○
Variable bearing preload		○	○
Tool magazine			
Tool places	Pcs.	48	40
Optional tool places up to	Pcs.	680	680
Tool length max.	mm	450	450
Tool Ø	mm	70	104
Tool weight	kg	3 10	20

✓ Standard ○ Option

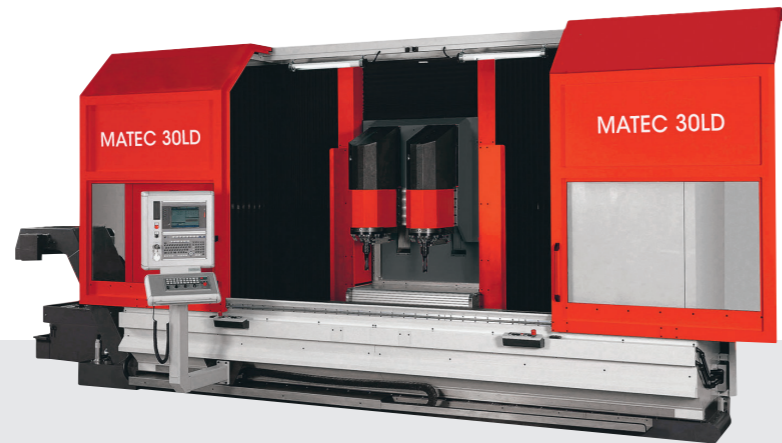
Other Machine Series Long Bed and Swivel Table Series

Long bed series

MATEC 30L
Vertical machining centre



MATEC 30LD
Double spindle
Fixed spindle distance 400 mm | 550 mm.
Option: with compensating second Z-axis.



Swivel table series
Series production
30S Single spindle
30SD Double spindle

MATEC 30S or 30SD
with 180° swivel table and two machining areas.
For difficult-to-machine materials.



Other Machine Series Standard Series

MATEC VMC
Vertical milling centre

Designed for single and series part production.



MATEC FUV620 | FUV720
5-Axis universal machining centres

MATEC FUV800
5-Axis gantry machining centre

For manufacturing of complex parts and shapes.



MATEC FUV170T | FUV190T
Travel column 5-axis machining centres
Performance class HSK63

FUV170T	FUV190T
X-axis 1,700 mm	X-axis 1,900 mm
Y-axis 540 mm	Y-axis 540 mm
Z-axis 460 mm	Z-axis 460 mm



Series MATEC GPC
3-Axis standard gantry centre

MATEC GPC
Gantry centre
Performance class HSK100
X-axis 2,200 up to 4,200 mm
Y-axis 1,700 up to 2,100 mm
Z-axis 900 up to 900 mm

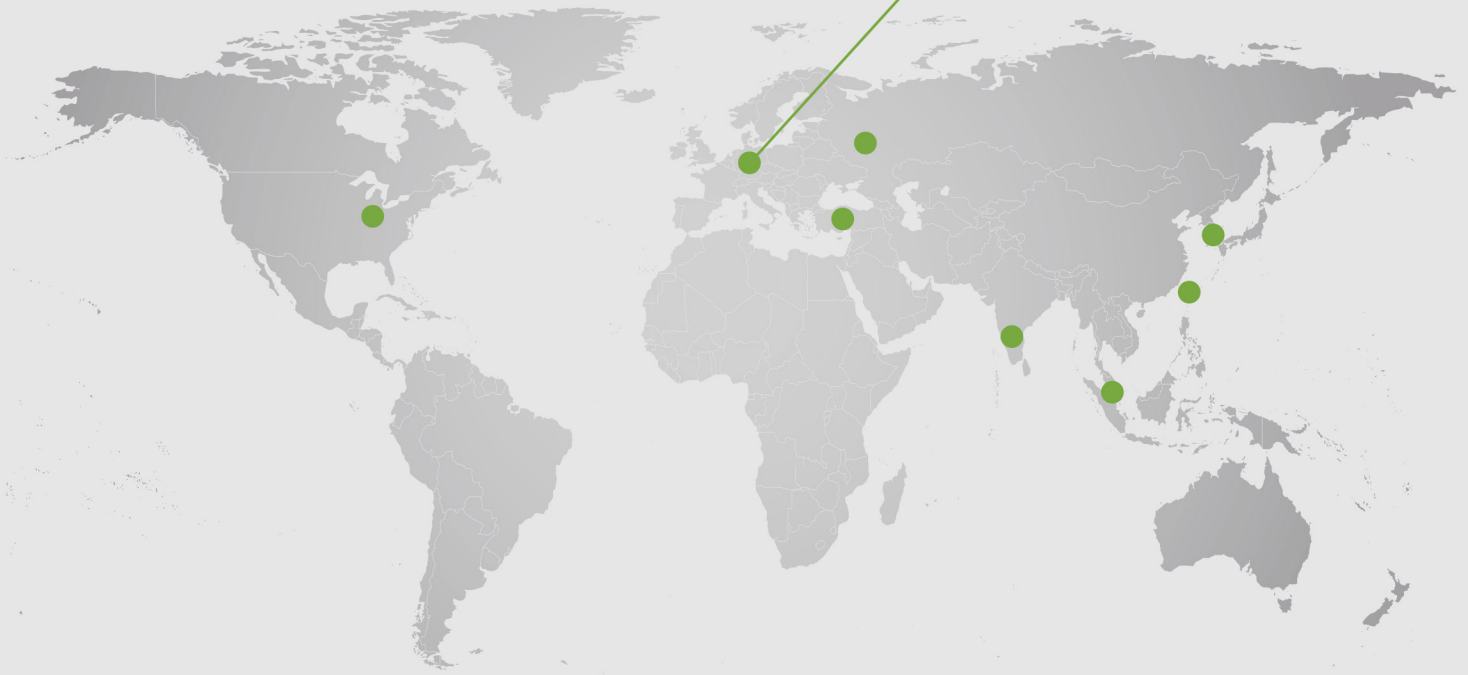


Company headquarters

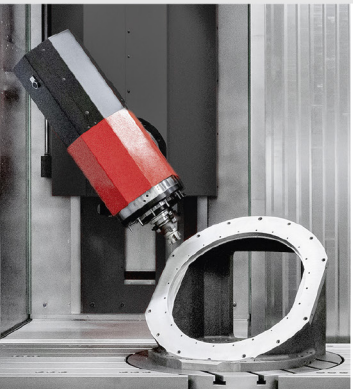
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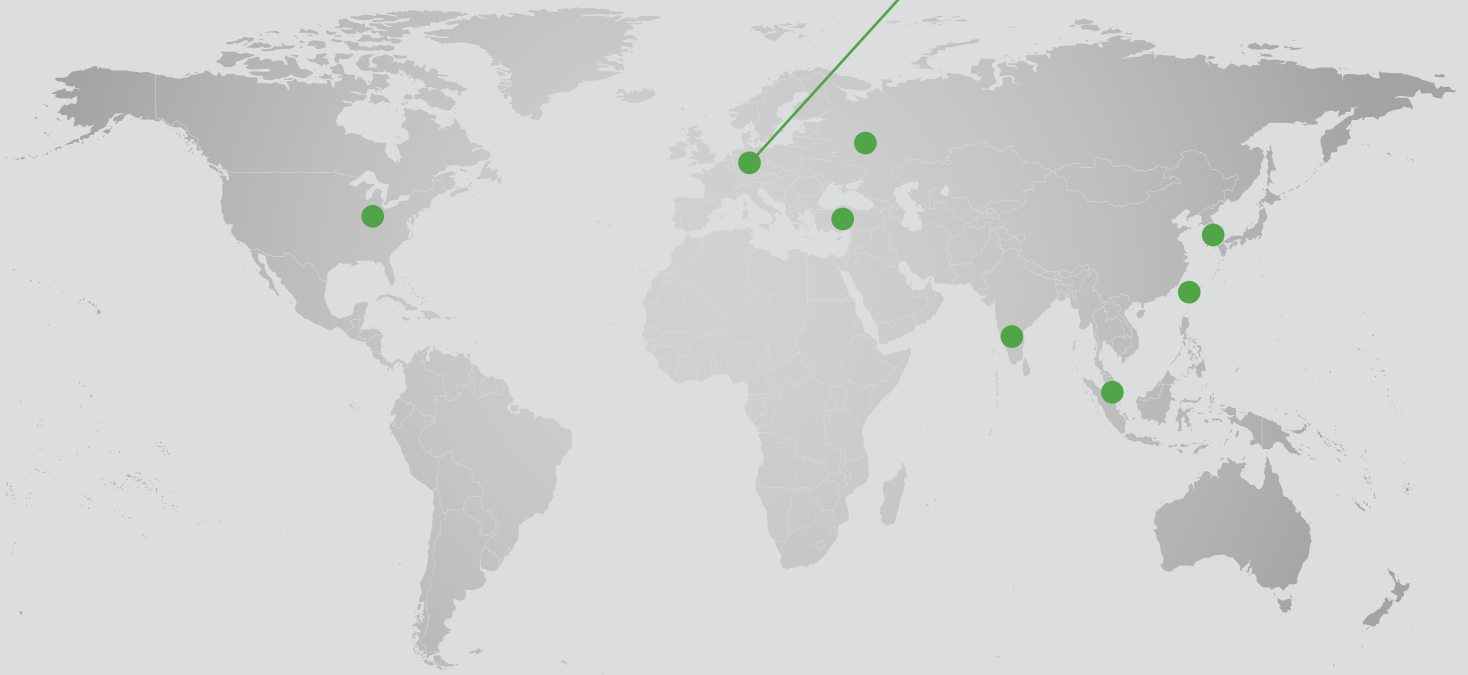


Subject to technical changes. Illustrations may contain options.



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Technische Änderungen vorbehalten. Abbildungen können Optionen enthalten.

