



24 series

Technical Data

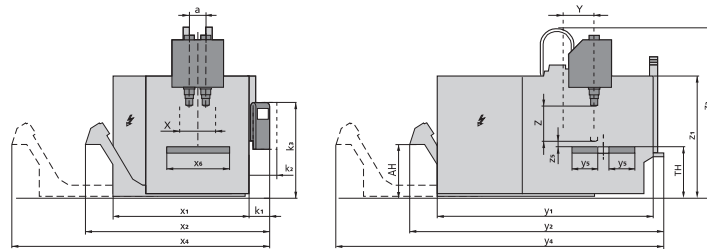
Machining centers with workpiece changing device

Technical data	FZ 24 W	DZ 24 W	DZ 24 W MAGNUM
Drilling capacity in St 60 with inserted drill	Ø 42 mm	2 x Ø 42 mm	2 x Ø 42 mm
Thread cutting	M30	2 x M30	2 x M30
Milling capacity in St 60	350 cm ³	2 x 350 cm ³	2 x 350 cm ³
Tool places	60	2 x 28	2 x 30
Tool tapere	HSK-A 63	HSK-A 63	HSK-A 63
Max. tool Ø	98 mm	98 mm	98 mm
Max. tool Ø if adjacent places are free	160 mm	160 mm	160 mm
Max. tool length	370 mm	370 mm	370 mm
Max. tool weight	8 kg	8 kg	8 kg
Tool change time approx.	1.0 s	1.0 s	1.0 s
Chip-to-chip time approx.	2.7 s	2.7 s	2.7 s
Infinitely variable speed range up to	12,000 rpm	12,000 rpm	12,000 rpm
Max. torque	140 Nm	2 x 140 Nm	2 x 140 Nm
Spindle drive	7.5 - 22 kW	2 x 22 kW	2 x 22 kW
Spindle bearing diameter	70 mm	70 mm	70 mm
Tool clamping	18 kN	18 kN	18 kN
Clearance spindle take-up – table surface/swivel axis	145 mm	145 mm	75 mm
Spindle distance in X	–	400 mm	600 mm
Travel X/Y/Z axis	830 / 630 / 630 mm	830 / 630 / 630 mm	630 / 630 / 630 mm
Feed force X/Y/Z axis	10 / 12 / 16 kN	10 / 12 / 16 kN	10 / 12 / 16 kN
Rapid feed rate X/Y/Z axis	75 / 75 / 75 m/min	75 / 75 / 75 m/min	75 / 75 / 75 m/min
Acceleration X/Y/Z axis	8 / 12 / 12 m/s ²	8 / 12 / 12 m/s ²	8 / 12 / 12 m/s ²
Direct path measuring system	•	•	•
Workpiece changing device with Speed Control	0/180°	0/180°	–
Clamping surface	2 x 1,320 x 520 mm	2 x 1,320 x 520 mm	–
Fixture mounting pattern	M 16 x Ø 15H7 x 50 mm	M 16 x Ø 15H7 x 50 mm	–
Workpiece changing time approx.	3.5 s	3.5 s	–
Load capacity per table side	400 kg	400 kg	–
Workpiece changing device with integrated NC rotary tables	–	–	0°/180°
Bridge dimension	–	–	Ø 800 x 1,250 mm
Workpiece changing time approx.	–	–	3.5 s
Max. load capacity per table side	–	–	1,000 kg
Coolant equipment, tank capacity	900 l	900 l	900 l
Total connected power approx.	40 - 80 kVA	40 - 80 kVA	40 - 80 kVA
Machine weight approx.	15 t	16 t	18.5 t
Floor space	13 m ²	13 m ²	14 m ²
Air connection	6 bar	6 bar	6 bar
Central lubrication	•	•	•

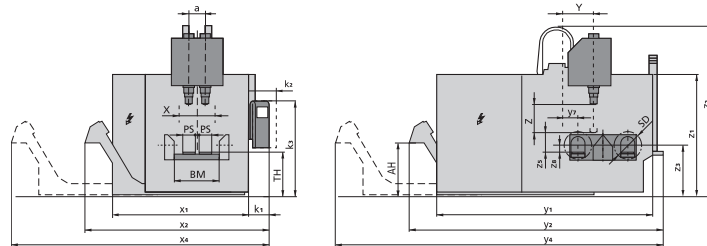
Options	FZ 24 W	DZ 24 W	DZ 24 W MAGNUM
Increased speed range (20% ED)	15,000 rpm	15,000 rpm	15,000 rpm
High Speed Plus package			
Increased speed range up to	–	–	20,000 rpm
Tool taper	–	–	HSK-A 63
Max. tool Ø if adjacent places are free	–	–	98 mm
Max. torque	–	–	2 x 70 Nm
Spindle drive	–	–	2 x 14 kW
Total connected power	–	–	2 x 30 kVA
More powerful spindle drive			
	65 kW	2 x 65 kW	2 x 65 kW
Infinitely variable speed range	10,500 rpm	10,500 rpm	10,500 rpm
Max. torque	320 Nm	2 x 320 Nm	2 x 320 Nm
Drilling capacity in St 60 with inserted drillr	50 mm	2 x 50 mm	2 x 50 mm
Thread cutting	M 36	2 x M 36	2 x M 36
Milling capacity in St 60	700 cm ³ /min	2 x 700 cm ³ /min	2 x 700 cm ³ /min
Workpiece changing device with integrated NC rotary tables			
	0°/180°	0°/180°	–
Bridge dimension	Ø 570 x 900 mm	Ø 570 x 900 mm	–
Workpiece changing time approx.	3.5 s	3.5 s	–
Max. load capacity per table side	250 kg	250 kg	–
Bridge with one or two spindle 2-axis rotary table			
Adapter face plate Ø	1 od. 2 x 280 mm	2 x 280 mm	2 x 400 mm
Speed max.	200 / 1,000 rpm	200 / 1,000 rpm	200 / 1,000rpm
Load capacity max.	150 kg / 75 kg	75 kg	250 kg
Bridge with four spindle 2-axis rotary table			
Adapter face plate Ø	–	–	4 x 280 mm
Speed max	–	–	200 / 1.000 rpm
Load capacity max.	–	–	150 kg
More Options			
Spindle position adjustment	–	•	•
Tool places	114	58	2 x (60/84/102)
Coolant through the spindle	30 / 70 bar	30 / 70 bar	30 / 70 bar
Chip conveyor, ejection height 1,050 mm	•	•	•
Coolant treatment	•	•	•
NC rotary table	•	–	–
NC rotary table with basic device	•	•	–
Tool life monitoring	•	•	•
CHIRON Laser Control	•	•	•
Tool breakage monitoring	•	•	•
Stationary 3D probing system	•	•	–
Probes	•	•	•
Work area mist collection	•	•	•
Connection for central mist collection	•	•	•
Oil package	•	•	•
Machining with minimal lubrication	•	•	•
Pneumatic connection for clamping devices	•	•	•
Hydraulic unit and connection for clamping devices	•	•	•
Automatic doors	•	•	•
Handwheel	•	•	•
Multi spindle head adapter	•	•	•
Robot interface, electric	•	•	•
Magazining devices	•	•	•
Handling robot and workpiece storage	•	•	•

Dimensions

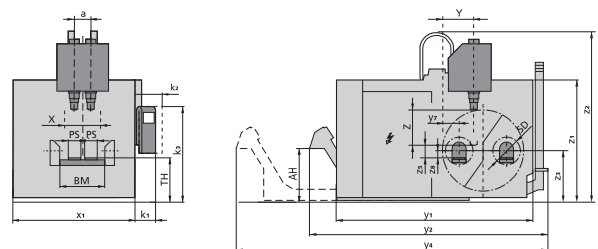
Technical data	FZ 24 W	DZ 24 W	DZ 24 W MAGNUM
a Spindle distance	–	400 mm	600 mm
AH Chip conveyor, ejection height min.	1,050 mm	1,050 mm	1,050 mm
BM Bridge dimension (5-axis / 4-axis)	700 mm / 900 mm	800 mm / 900 mm	1,250 mm
k1 Control panel depth	370 mm	370 mm	370 mm
k2 Control panel depth swivelled	360 mm	360 mm	360 mm
k3 Control panel height	1,900 mm	1,900 mm	1,900 mm
SD Max. interference range - Ø	570 mm	570 mm	800 mm
PS Face plate diameter	1 or 2 x 280 mm	2 x 280 mm	2 x 400 mm or 4 x 280 mm
TH Height face plate/ rotary table center	885 mm	1,045 mm	1,165 mm
X Travel X axis	830 mm	830 mm	630 mm
x1 Cabin width	2,790 mm	2,790 mm	2,920 mm
x2 Total width the chip conveyor to the side	4,450 mm	4,450 mm	–
x4 Total width with chip conveyor pulled out	6,100 mm	6,100 mm	–
x6 Clamping surface - width	1,340 mm	1,340 mm	–
Y Travel Y axis	630 mm	630 mm	630 mm
y1 Cabin depth	4,890 mm	4,890 mm	4,820 mm
y2 Total depth with chip conveyor to the rear	6,210 mm	6,210 mm	6,260 mm
y4 Total depth with chip conveyor pulled out	8,870 mm	8,870 mm	8,910 mm
y5 Clamping surface - depth	590 mm	590 mm	–
y7 Furthest distance Y-position - A-axis	345 mm	345 mm	380 mm
Z Travel Z axis	630 mm	630 mm	630 mm
z1 Cabin height	2,340 mm	2,340 mm	2,340 mm
z2 Total height	3,700 mm	3,700 mm	3,700 mm
z3 Height swivel-axis	1,090 mm	1,090 mm	1,165 mm
z5 Deepest spindle position – clamping surface / face plate	220 mm	200 mm	170 mm
z6 Deepest spindle position - swivel axis	145 mm	145 mm	70 mm
z8 Clearance face plate - swivel axis	55 mm	55 mm	100 mm



FZ / DZ 24 W



FZ / DZ 24 W (with workpiece changing device "IWW")



FZ / DZ 24 W MAGNUM(with workpiece changing device "TWW")

24 Series – Options

High Speed package
High Speed Plus package
More powerful spindle drive
Spindle position adjustment
Tool places up to 114
Coolant through the spindle
Chip conveyor, ejection height 1.050 mm
Coolant treatment
NC rotary table
NC rotary table with basic device
Workpiece changing device with 2 integrated 1-spindle 2-axis tables
Workpiece changing device with 2 integrated 2-spindle 2-axis tables
Tool life monitoring
CHIRON Laser Control
Tool breakage monitoring
Stationary 3D probing system
Probe
Work area mist collection
Connection for central mist collection
Oil package
Machining with minimal lubrication
Pneumatic connection for clamping devices
Hydraulic unit and connection for clamping devices
Automatic doors
Handwheel
Multi spindle head adapter
Robot interface, electric
Workpiece transport and magazining device
Handling robot with workpiece storage

Basic series

08 Series

Fast, compact machining centers for high precision and various applications

12 Series

Fast, compact single, double-spindle and multi-functional precision machining centers

15 Series

Fast and powerful precision machining centers for profitable production - with one, two or four spindles

18 Series

Powerful, single and twin-spindle machining centers for high-speed machining and heavy cutting

24 Series

Powerful, single and double spindle machining centers for high-productive machining of large workpieces

MILL Series

Universal precision machining centers for high performance cutting - from small parts to large workpieces

Flexible production systems

Variocell UNO

Robot-automated 6-side complete machining

Variocell SYSTEM

Customized automation solutions

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