

DMP V linear - Baureihe

DECKEL MAHO

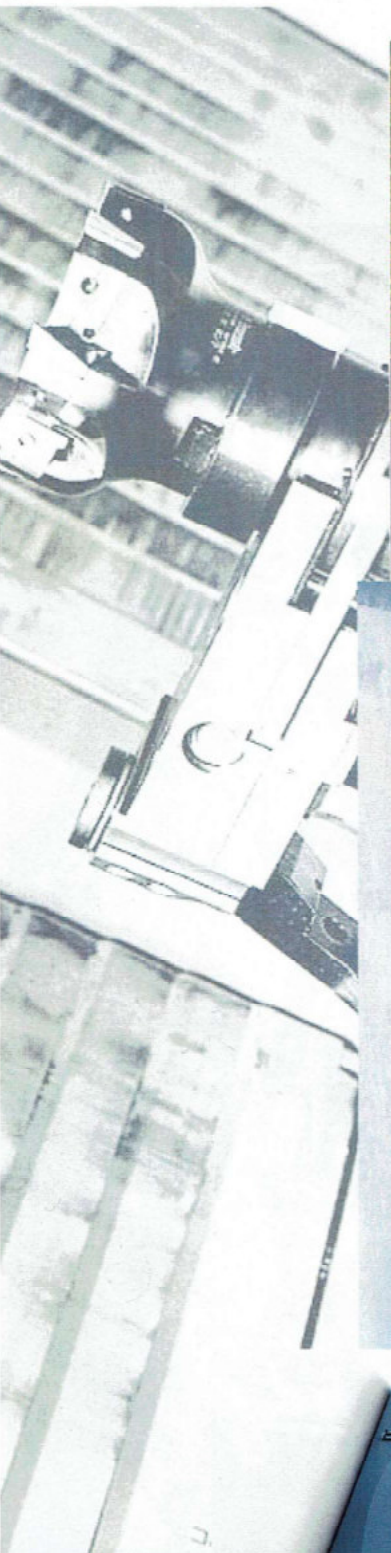
Seebach GmbH

Kick Off - Meeting

Herzlich Willkommen ! Welcome to EMO!



Premiere at **EMO**



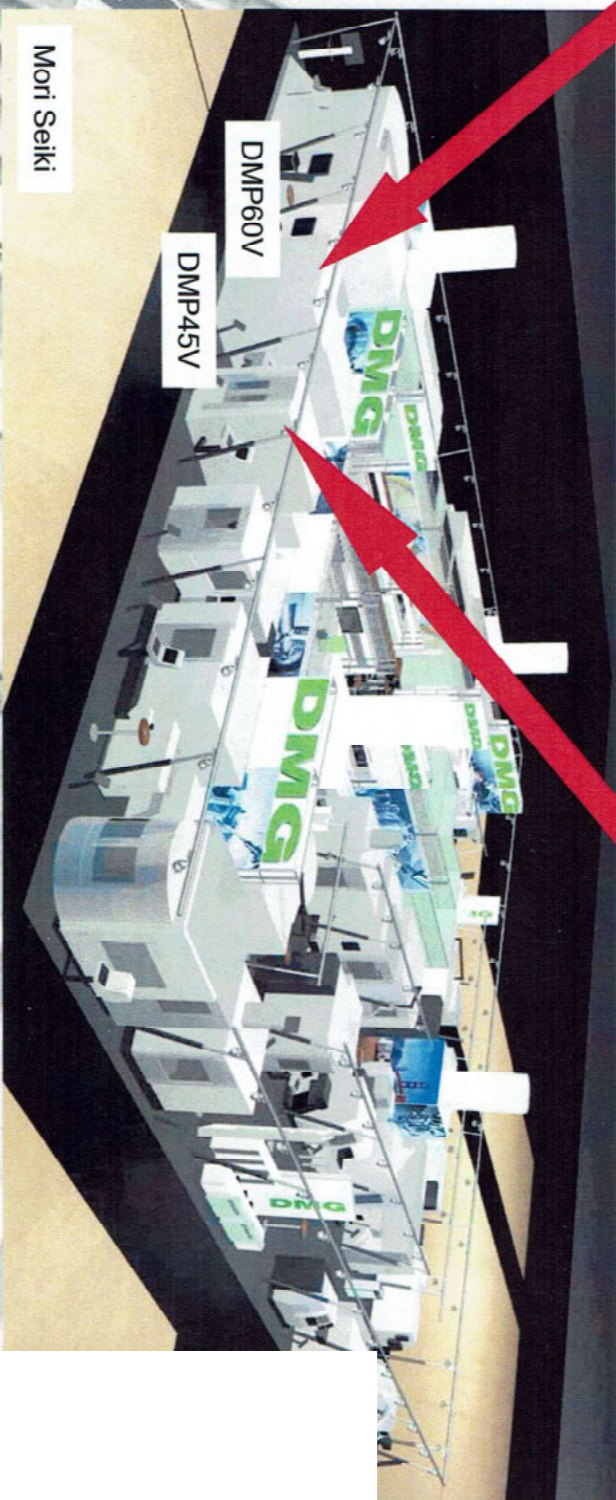
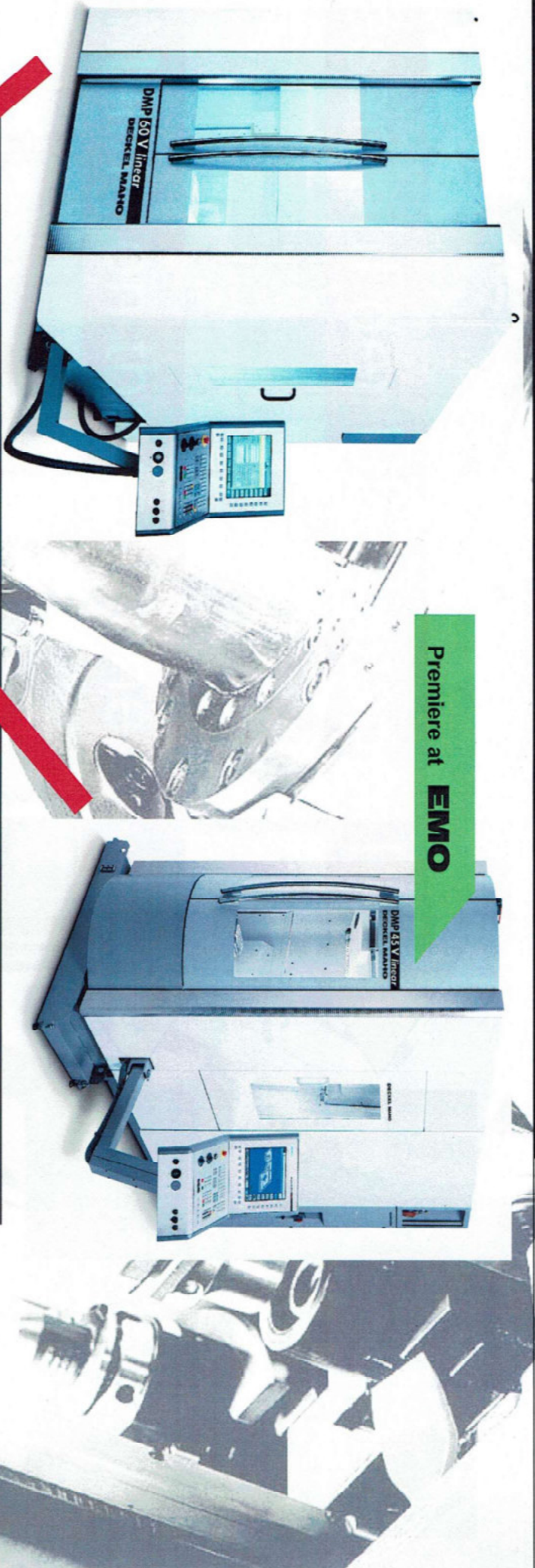
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Premiere at **EMO**

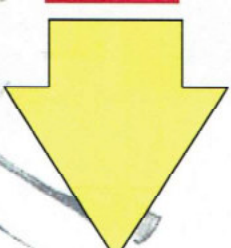


Mori Seiki

DMP60V

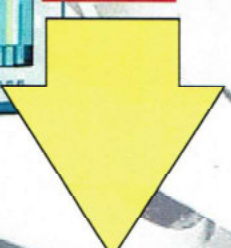
DMP45V

Fräsen auf der Überholspur !

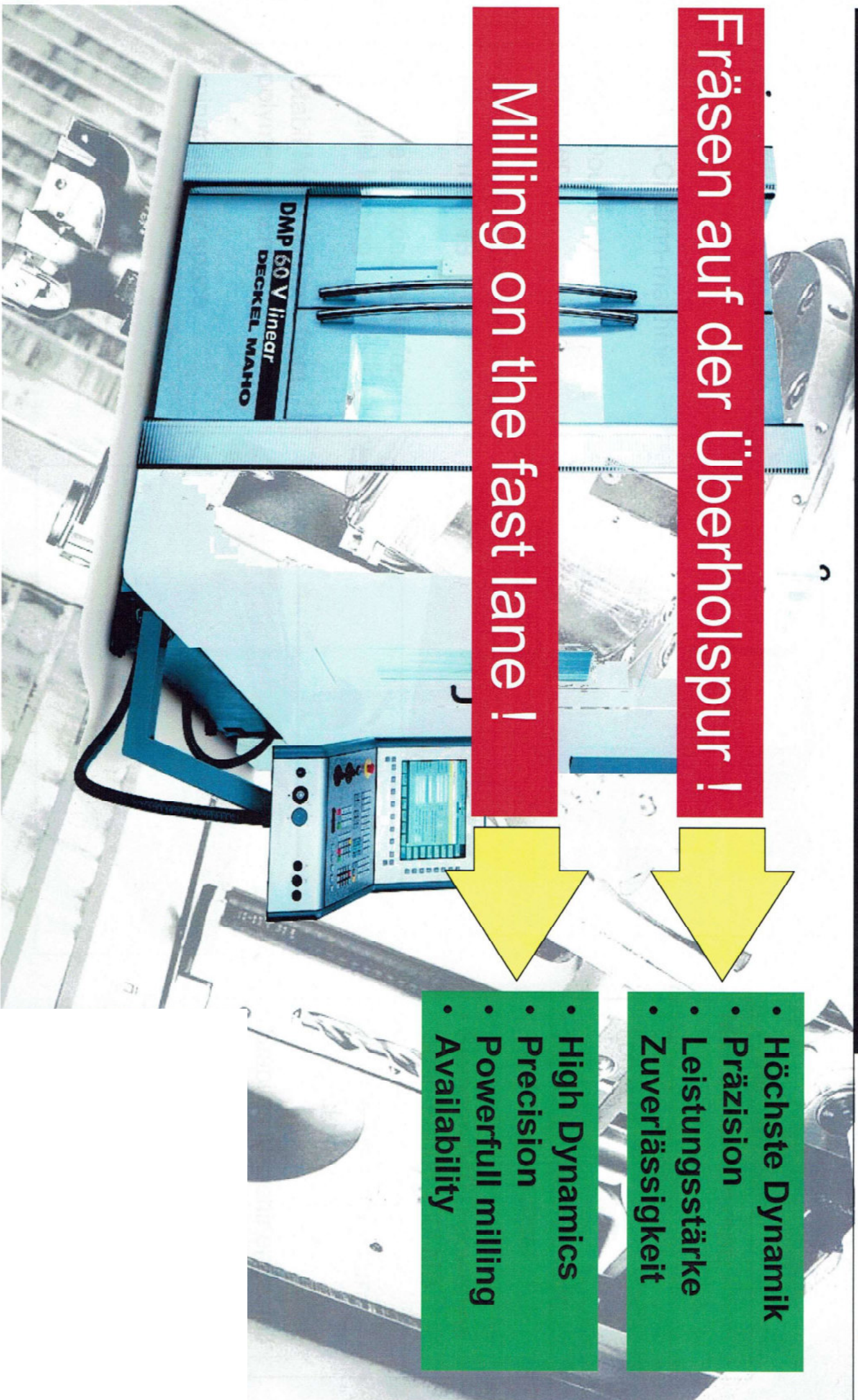


- Höchste Dynamik
- Präzision
- Leistungsstärke
- Zuverlässigkeit

Milling on the fast lane !



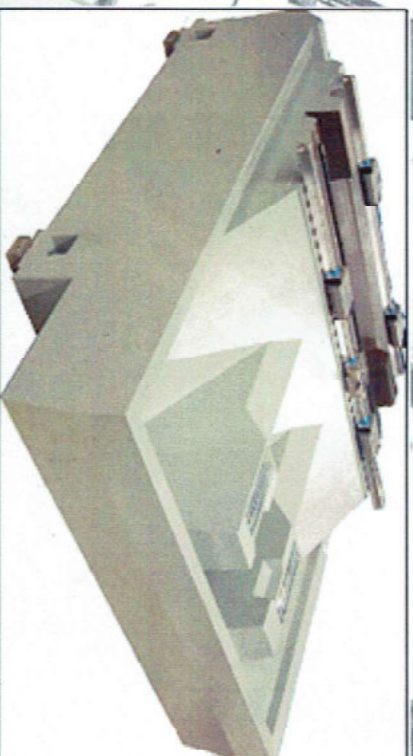
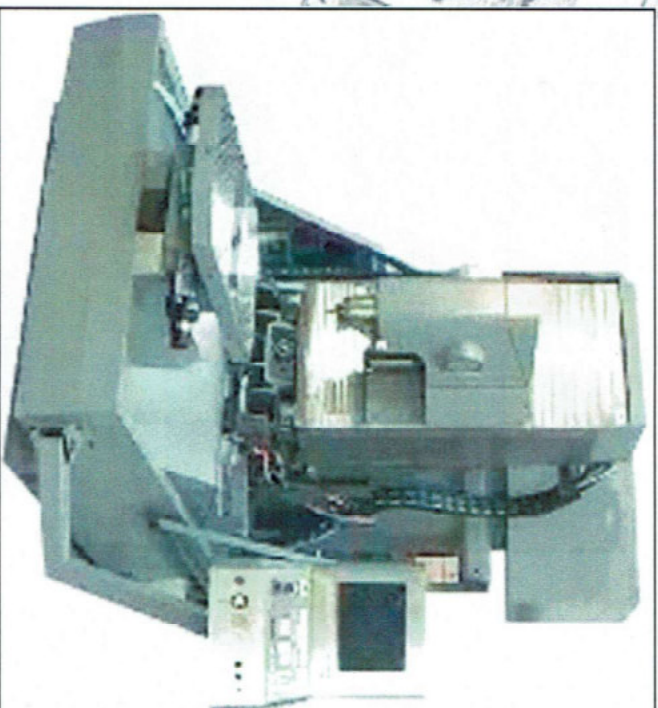
- High Dynamics
- Precision
- Powerfull milling
- Availability



DMP 60 V linear – Vertikales Produktionsfräsen

Machineconcept:

- 3-Axis-Column-machine
- Fast Double-grip tool changer
- Siemens 840 D powerline or Fanuc 180i MB
- flexible Indexing table for parallel loading
- Stabili Machine base from polymer concrete
- minimal floor space



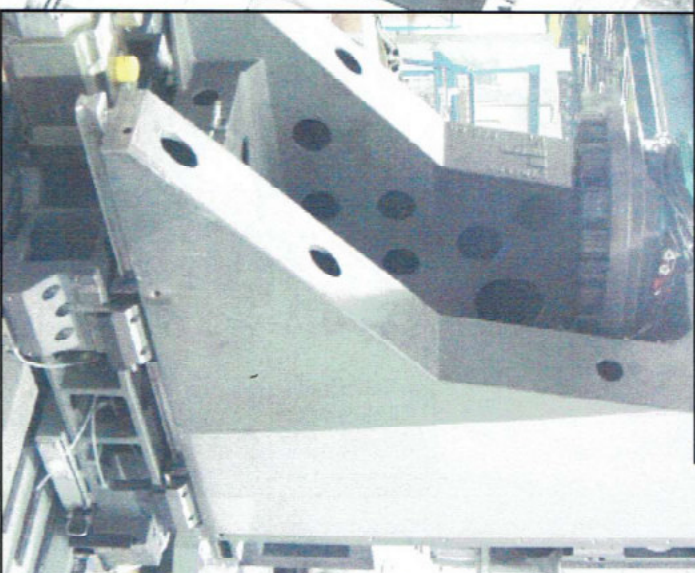
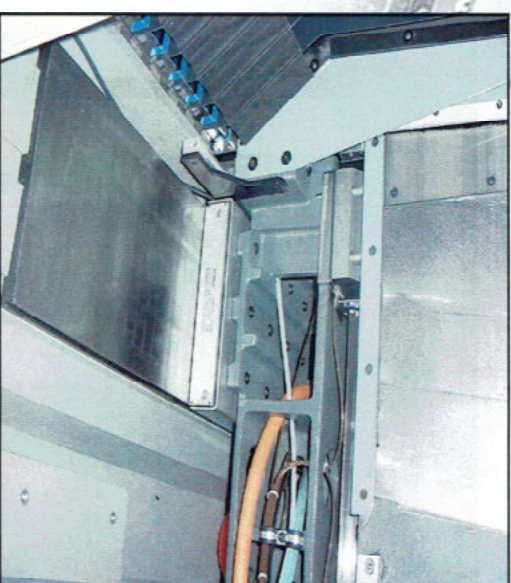
Maschinenkonzept:

- 3-Achs-Fahrständer-konzept
- Schneller mitfahrender Werkzeugwechsel
- Siemens 840 D powerline oder Fanuc 180i MB
- flexible Tischseite zur Bestückung
- Stabiles Maschinengestell

DMP 60 V linear – Vertikales Produktionsfräsen

Machineconcept:

- Extreme stabil Column from GGG 60
- Linearmotor in X-Axis
- Ball screw in Y-and Z-Axis
- Fast Tool change (1,8 s Chip-to-Chip)
- Tool magazin complete protected
- 25 Tools HSK A63 standard



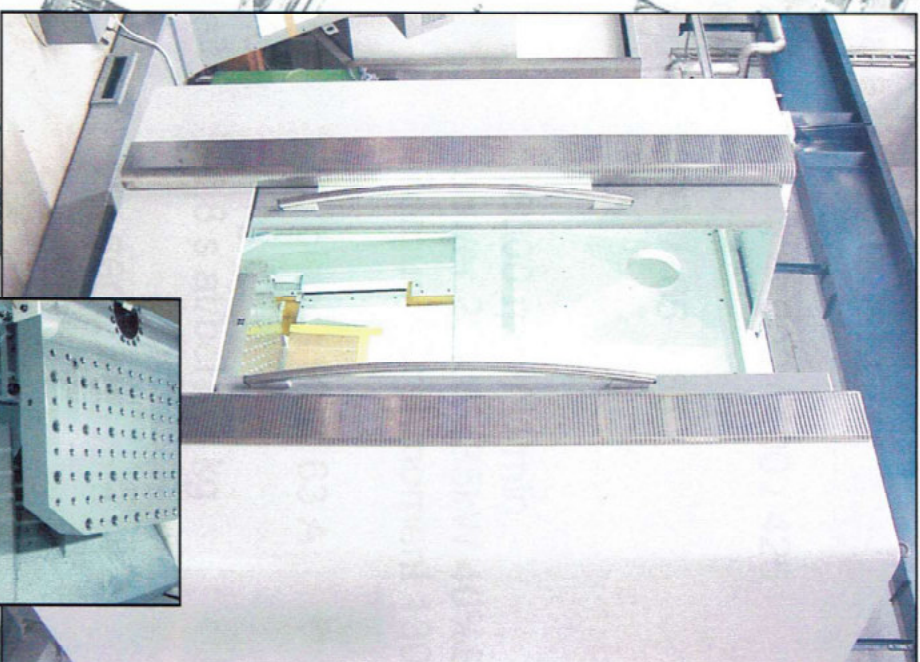
Maschinenkonzept:

- Extrem stabile Verfahrenreinheit Schlitten aus GGG 60
- Linearmotor in X-Achse
- Kugelgewindetriebe in Y-und Z-Achse
- Schneller Werkzeugwechsel (1,8 s Span-zu-Span)
- Werkzeugmagazin geschützt außerhalb Arbeitsraum
- 25 \

DMP 60 V linear – Vertikales Produktionsfräsen

Machineconcept:

- Loading also by crane possible
- Steep faces around working space for best Chip falling
- Indexing table with 2 x 400 x 660 mm clamping area
- Grid 50x50 mm with Tap M16 and Drills D16 F7



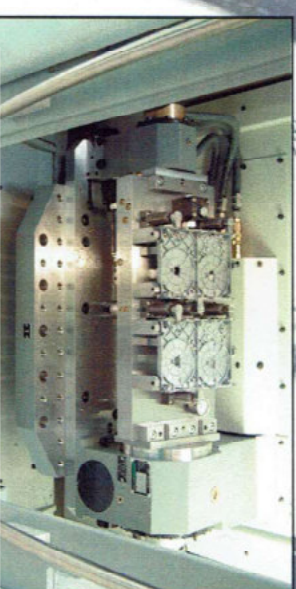
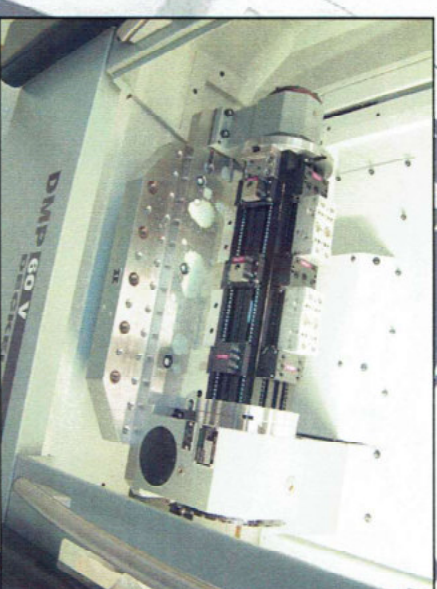
Maschinenkonzept:

- Bequeme Beladung, auch mit Kran zugänglich
- Glattflächiger, steil gestalteter Arbeitsraum für optimalen Spänefall
- Palettenwechsellisch mit 2 x 400 x 660 mm Aufspannfläche im Standard
- Raster 50x50 mm mit Gewinde M16 und Drills D16 F7

DMP 60 V linear – Vertikales Produktionsfräsen

Technische Daten / Technical data DMP60V :

- Travel size / Verfahrswege X/Y/Z mm 600 / 400 / 425
- Acceleration / Beschleunigungen m/s² 1 g
- Rapid move / Eilgänge X/Y/Z m/min 80 / 65 / 65
- Strength / Vorschubkräfte kN 3
- Motorspindle / Motorspindel 18000 rpm / U/min
power 25 kW (35kW 40%ED)
Torque / Drehmoment 130 Nm
- Tool changer / Werkzeugwechsel 25 pieces HSK 63 A
- Max. Tool weight / Max. WZ-gewicht 4 kg
- Chip-to-Chip / Span-zu-Span-Zeit 1,8 s at/bei 1,5 kg
- Indexing table/Palettenwechseltisch 2 x 660 x 400 mm
- Loading weight / Beladegewicht 2 x 300 kg
- Changing time / Wechselzeit 3 s
- minimal Floorspace/Aufstellfläche ca. 3350 x 1900 x 2700
- Machine weight / Gesamtgewicht ca. 7350 Kg
- Main Power /Gesamtleistungsbedarf ca. 55 kW



DMP 60 V linear – Vertikales Produktionsfräsen

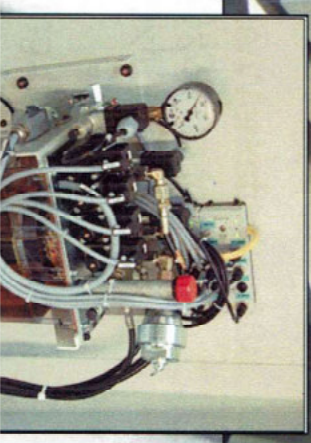
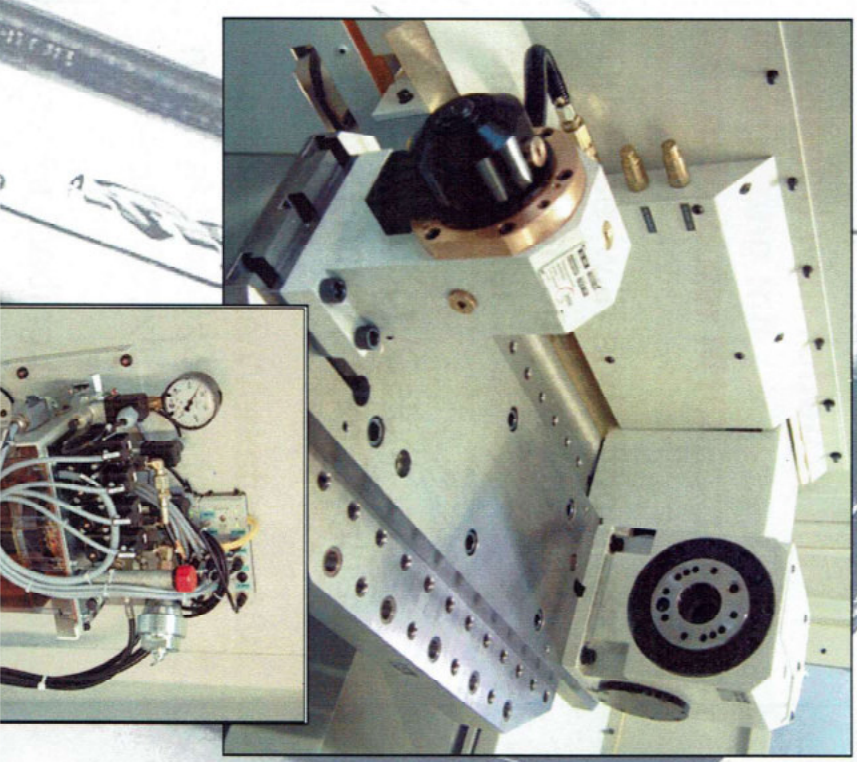
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Options / Optionen:

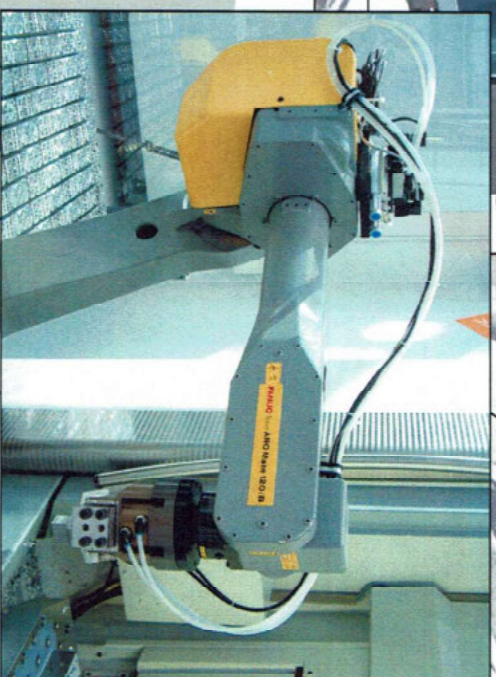
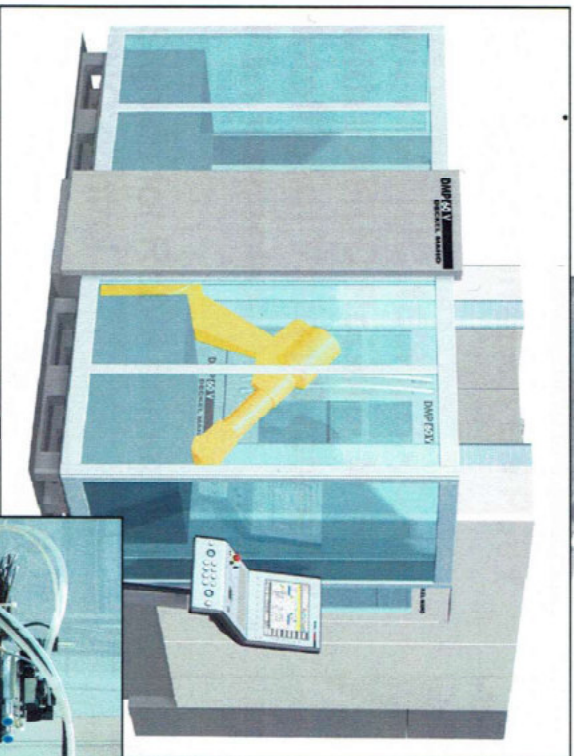
- Clamping hydraulic / Spannhydraulik für Wechseltisch
- Chip conveyor / Späneförderer
- Outer cooling / Äußere Kühlmittelzufuhr 40 l/min 2,5 bar
- Inner cooling / Innere Kühlmittelzufuhr 23 l/min 40 bar
- Oil mist extractor / Ölnebelabsaugung
- Dividing head / Teilapparate
- Counter bearing / Gegenlager
- Clamping bridges / Spannbrücken
- Operation panel loading place / Bedienpult Rüstplatz
- Touch probe / Meßtaster Renishaw MP10
- Visiport / Rotierende Sichtscheibe
- Signal lamp / Meldeleuchte 3 farbig
- Chip flushing / Arbeitsraumspülung
- Cooling unit for electrical cabinet / Kühlaggregat für Schaltschrank
- Tool break monitoring system / Werkzeugbruchüberwachung System Artis
- Pallet management / Palettenverwaltung
- Handwheel / Handbediengerät
- Automation with robot Fanuc M16i



DMP 60 V linear – mit Fannuc Roboter Automation

**Equipped with robot/
Ausrüstung mit
Fannuc Roboter M16i:**

- Dual use (with and without robot)
Fertigungsmöglichkeit mit und
ohne Roboter
- Multiarm robot /Gelenkarm-
roboter Fannuc (16 kg Tragkraft)
- Workpiece size/Werkstückgröße
minimal 50x50x20 up to
maximum 600x400x400 mm
- Area for loading / Ablagefläche
- Space/



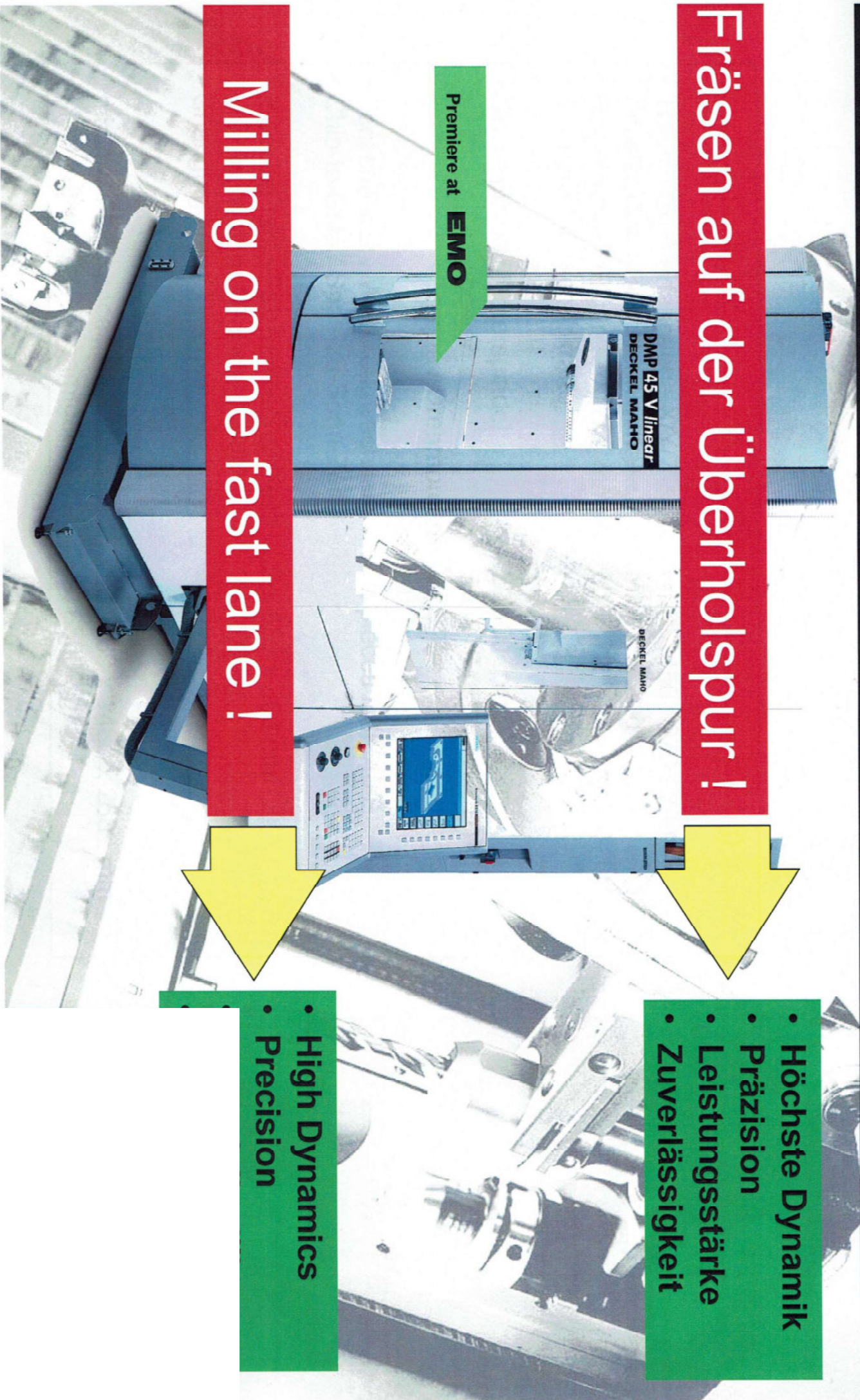
Fräsen auf der Überholspur !

- Höchste Dynamik
- Präzision
- Leistungsstärke
- Zuverlässigkeit

Premiere at **EMO**

Milling on the fast lane !

- High Dynamics
- Precision



DMP 45 V linear – Vertikales Produktionsfräsen

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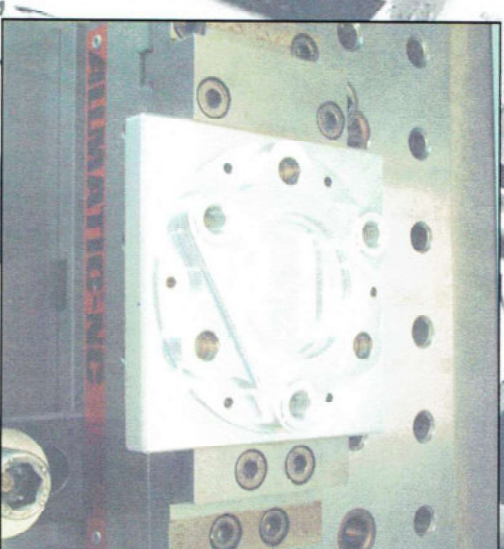
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Technical data (preliminary) / Technische Daten (vorläufig) :

- Travel size /Verfahrwege X/Y/Z mm 450 / 270 / 280
- Acceleration / Beschleunigungen m/s² 1 g
- Rapid move / Eilgänge X/Y/Z m/min 80 / 72 / 72
- Strength / Vorschubkräfte kN 3
- Motorspindle / Motorspindel
power 22.000 rpm / U/min
5 kW (8,5kW 25%ED)
Torque / Drehmoment 40,5 Nm
- Tool changer / Werkzeugwechsel 25 pieces HSK 40 E
- Chip-to-Chip / Span-zu-Span-Zeit
- Indexing table/Palettenwechseltisch 2 x 660 x 300 mm
Loading weight / Beladegewicht 2 x 200 kg
Changing time / Wechselzeit 3 s
- minimal Floorspace/Aufstellfläche ca. 3269 x 1480 x 2582 mm
- Machine weight / Gesamtgewicht ca. 6500 Kg



DMP 45 V linear – Vertikales Produktionsfräsen

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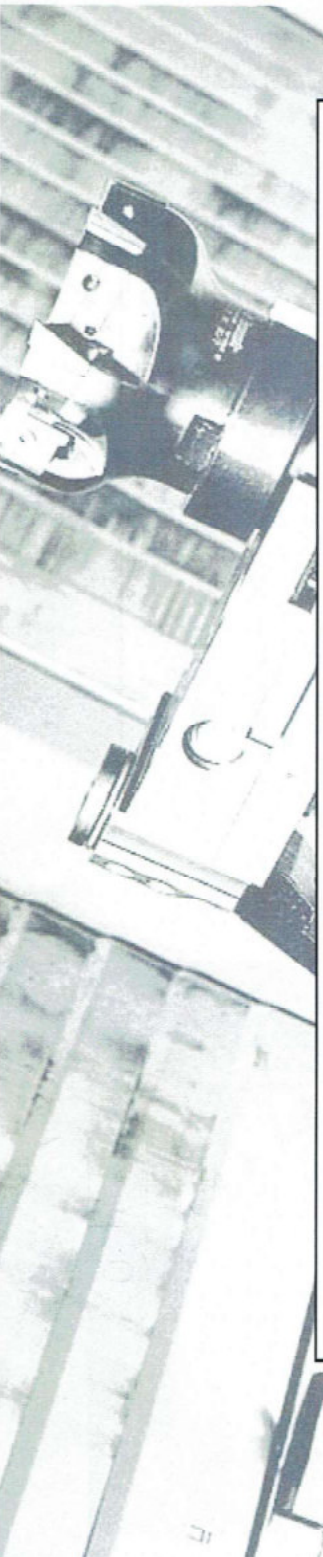
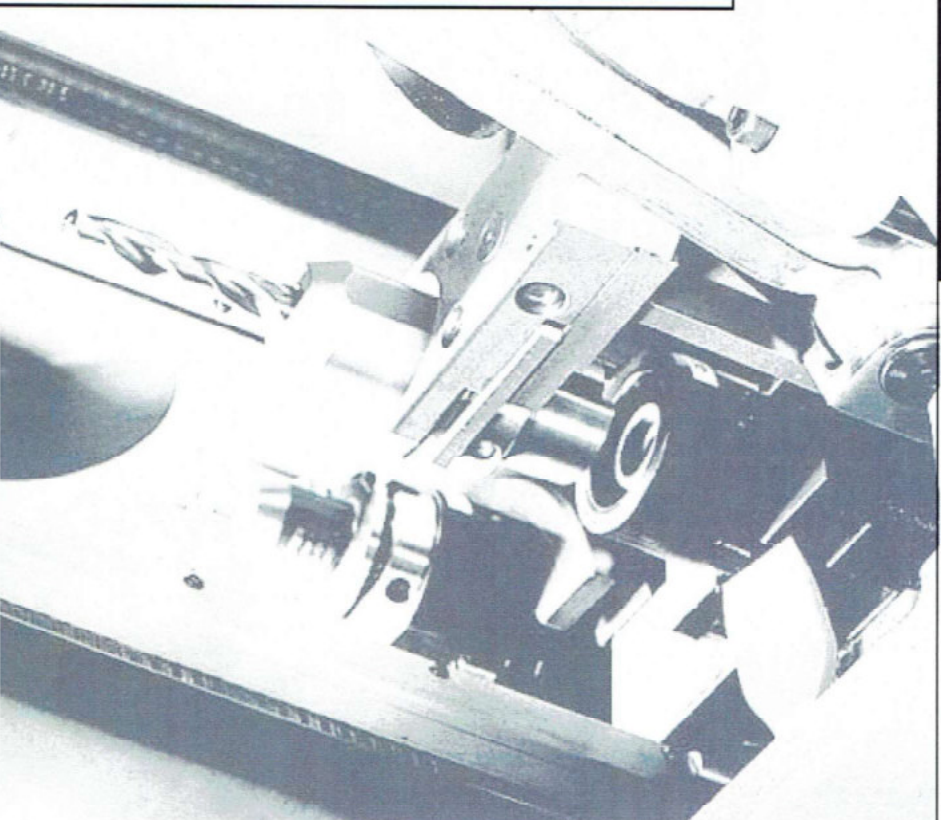
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Options / Optionen:

- Clamping hydraulic / Spannhydraulik für Wechseltisch
- Chip conveyor / Späneförderer
- Outer cooling / Äußere Kühlmittelzufuhr 40 l/min 2,5 bar
- Inner cooling / Innere Kühlmittelzufuhr 23 l/min 40 bar
- Oil mist extractor / Ölnebelabsaugung
- Dividing head / Teilapparate
- Counter bearing / Gegenlager
- Clamping bridges / Spannbrücken
- Touch probe / Meßtaster Renishaw MP10
- Tool break monitoring system / Werkzeugbruchüberwachung System Artis
- Pallet management / Palettenverwaltung
- Handwheel / Handbediengerät

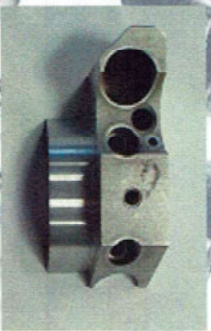
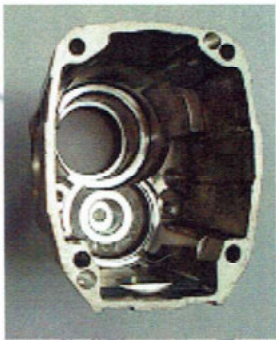
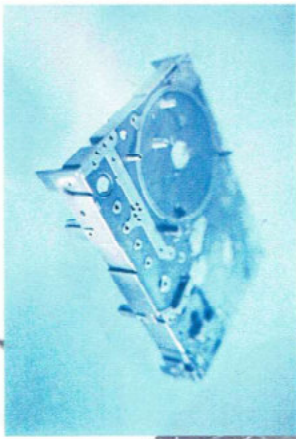


DMP 60 V linear – Vertikales Produktionsfräsen

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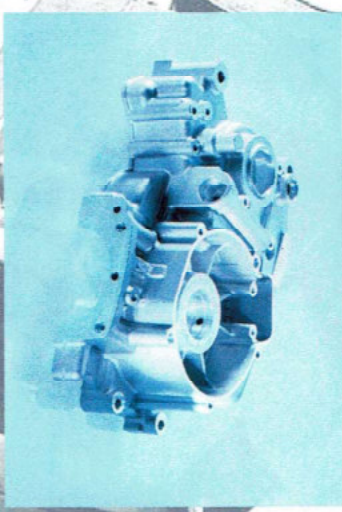
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• Applications in Serial production Anwenderprofil Serienfertiger

- Automotive Industry and subcontractors/Automobil-industrie und Zulieferer
- Machine building/Maschinenbau
- Electrotechnics/Electronics Elektrotechnische und Elektronikindustrie
- Hydraulics/Hydraulikindustrie



Technical Data for Production machines

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Description		DMP 60 V linear	DMP 45 V linear
			-preliminary -
CNC - Control		SIEMENS 840 D POWERLINE	SIEMENS 840 D POWERLINE
Working area			
Travel size X (longitudinal)	mm	600	450
Travel size Y (transverse)	mm	400	270
Travel size Z (vertical)	mm	425	280
Working table			
Indexing table	mm x mm	2 x 660 x 400	2 x 660 x 300
Beladegewicht	kg	2 x 300	2 x 200
Index table changing time	s	3	3
NC - Dividing head			
NC- Dividing head / Center height	mm	165	
NC- Dividing head - transport weight	kg	250	
Main spindle			
Design		AC controlled / digital	AC controlled / digital
Power 100 /40% ED (S3)	kW	25/35	5/8,5
Standard speed range (Spindle)	r.p.m	20...18.000	20.....22.000
Number of gears		none	none
max. Spindle torque	Nm	130	40,5
Tool clamping force	KN	15	
Feed drives			
Feed drive X - Axis		Lineardrive	Lineardrive
Feed drive Y-and Z- Axis		AC digital	AC digital
Feed rate range	mm/min	1...20.000	1...15.000
Rapid traverse [x-y-z]	m/min	80/65/65	80/72/72
Maximum Feed force [x-y-z]	kN	3 / 3 / 3	3 / 3 / 3
Tools			
Tool mounting	DIN	HSK - A63	HSK - E40
Toolmagazine		Chain	Chain
Tool capacity / weight	kg	25 /4	25/1,5
Tool diameter without free neighbour places	mm	65	40
Tool diameter with free neighbour places	mm	100	80
maximum Tool length	mm	250	180
Chip-to-Chip - time	s	1,8	
Coolant			
Quantity of coolant	l	200 (52.8 gallon)	150
Delivery rate / Pressure	l/min	40 / 2,5 (10.56 gallon/min at 36.2 psi)	40 / 2,5
Inner Coolant system through spindle		Option	Option
Quantity of coolant IKZ	l	600	600
Delivery rate / Pressure	l/min-bar	23 / 40 (6 gallon/min at 580 psi)	23 / 40
Chip conveyor			
Scraper type ejection height	mm	850	850
Installation			
Voltage / Frequency	V~/Hz	3/N/PE/400V/230V50HZ	3/N/PE/400V/230V50HZ
Control voltage	V	24	24
Power consumption	kVA	50	50
Pre-fusing	A	80	80
Air pressure connection	bar	6	6
Air consumption	m³/h	ca.28	ca.28
Weights			
Weight with chip conveyor	kg	ca. 7000	ca. 6500

Offer**Machining Centre DMP 60 V linear****Basic machine**

<input type="checkbox"/>	S-A3019	Machining Centre DMP 60 V linear	168.900,00 EUR	<u> </u>	<u> </u>	EUR
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Control

<input type="checkbox"/>	S-B3041	3D-contouring control SINUMERIK 840D pl				
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Software options for control 840D

<input type="checkbox"/>	S-F3001	TRACYL-Cylinder surface interpolation	870,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-F3002	CompCad-compressor function	2.930,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-F3003	Pallet Management Siemens 840D	2.750,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-F3005	Spline interpolation	2.180,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-F3007	3D-machining, 3D tool compensation	2.170,00 EUR	<u> </u>	<u> </u>	EUR
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Options for control SINUMERIK 840D

<input type="checkbox"/>	S-H3027	Electronic handwheel	1.970,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-H3038	Infrared measuring system Renishaw MP10	7.330,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-H3043	Infrared measuring system TS 641	5.160,00 EUR	<u> </u>	<u> </u>	EUR
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Option for 2 nd processor card or ext. PC

<input type="checkbox"/>	S-H3047	DMG Messenger base package	999,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-H3051	DMG Messenger extension package	650,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-H3049	GSM modem dualband (serial/USB)	850,00 EUR	<u> </u>	<u> </u>	EUR
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NC-Divider Peiseler (4th axis)

<input type="checkbox"/>	S-G3059	NC divider, indirect AWU160	17.065,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-G3088	direct measuring NC-indexer AWU160	4.840,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-G3060	Counter-bearing, hydr. clamped AWU160	2.835,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-G3103	Plugable preparation 1x TA AWU160	5.035,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-G3104	Plugable preparation 2x TA AWU160	8.656,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-G3105	Plugable preparation 1x TA AWU160D	5.240,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-G3106	Plugable preparation 2x TA AWU160D	9.015,00 EUR	<u> </u>	<u> </u>	EUR
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NC-Divider FTW (4th axis)

<input type="checkbox"/>	S-G3100	NC-Divider indirect TG160	17.065,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-G3101	Direct measuring system TG160	4.840,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-G3102	Counter bearing GL160	2.835,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-G3107	Plugable preparation 1x TA TG160	5.035,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-G3108	Plugable preparation 2x TA TG160	8.656,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-G3109	Plugable preparation 1x TA TG160D	5.240,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-G3110	Plugable preparation 2x TA TG160D	9.015,00 EUR	<u> </u>	<u> </u>	EUR
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Options for the Working Table

<input type="checkbox"/>	S-G3089	Hydraulik system for indexing table	7.830,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-G3099	Operation panel loading place	2.350,00 EUR	<u> </u>	<u> </u>	EUR
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Options for the Automation

<input type="checkbox"/>	S-K3083	Swarf conveyor with coolant tank (200l)	5.190,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-K3084	Internal coolant-lubricant supply 40 bar	16.200,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-K3094	Internal Coolant supply 40/80bar	26.450,00 EUR	<u> </u>	<u> </u>	EUR
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<input type="checkbox"/>	S-K3008	Rotating clear-view window	2.120,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-K3115	tool break monitoring system	10.045,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-K3116	Roboter equipment DMP60V	78.040,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-K3085	Oil and emulsion mist elimination unit	4.360,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-K3095	signal - lamp 1 colour	705,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-K3096	signal lamp 3 colour	980,00 EUR	<u>EUR</u>
Further Options				
<input type="checkbox"/>	S-N3004	Spray Gun f. Swarf Removal	695,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-N3040	chip flushing in working area	2.975,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-L3003	Cooling unit for electrical cabinet	3.570,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-N3024	Base package of DMG Netservice Sinumerik	1.480,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-N3026	Extention package Netservice/Sinumerik	400,00 EUR	<u>EUR</u>
Services				
<input type="checkbox"/>	S-Q3004	3-Day Startup	2.970,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-Q3007	Setup of DMG Netservice	500,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-Y3035	Course programming 840D pl DIN ISO	1.395,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-Y3029	course infrared measuring system 840D	620,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-Y3013	Training at the customer's, 1. day	1.200,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-Y3030	training at the customer, another day	980,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-Y3031	Training in the trainingsacademie	4.900,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-Y3032	Training at the customers plant abroad	980,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-R3001	DMG-service contract Bronze		
<input type="checkbox"/>	S-R3002	DMG-service contract Silver		
<input type="checkbox"/>	S-R3003	DMG-service contract Gold		
<input type="checkbox"/>	S-P3094	Packaging, base w. sheeting,DMP 60V	1.080,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-P3119	Sea crate packaging DMP60V	2.180,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-P3100	Pack., swarf conveyor, base w. sheeting	195,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-P3120	Sea crate packag.swarf conveyor	795,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-P3013	Packaging base with foil ICS	195,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-P3121	Sea crate packaging; ICS DMP60V	795,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-P3069	packaging base w.foil oil mist separator	195,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-P3122	Sea crate packaging oil mist separator	795,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-P3123	Packaging for roboter FANUC M16i	410,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-O3051	Delivery cost DMP 60V linear up to 150 km	650,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-O3052	Delivery cost DMP 60V linear up to 400 km	840,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-S3001	Training software 810D/840D	1.999,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-S3002	Classroom license 810/840D	8.950,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-S3007	Multifunctional keyboard	690,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-S3008	Keypad 810/840D ShopMill/Shop Turn	299,00 EUR	<u>EUR</u>
<input type="checkbox"/>	S-S3010	Dongle to Classroom license Sinumerik	120,00 EUR	<u>EUR</u>