

GILDEMEISTER Aktiengesellschaft:  
the Technologygroup

GILDEMEISTER

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Der Technologiekonzern



Deutsch  
English

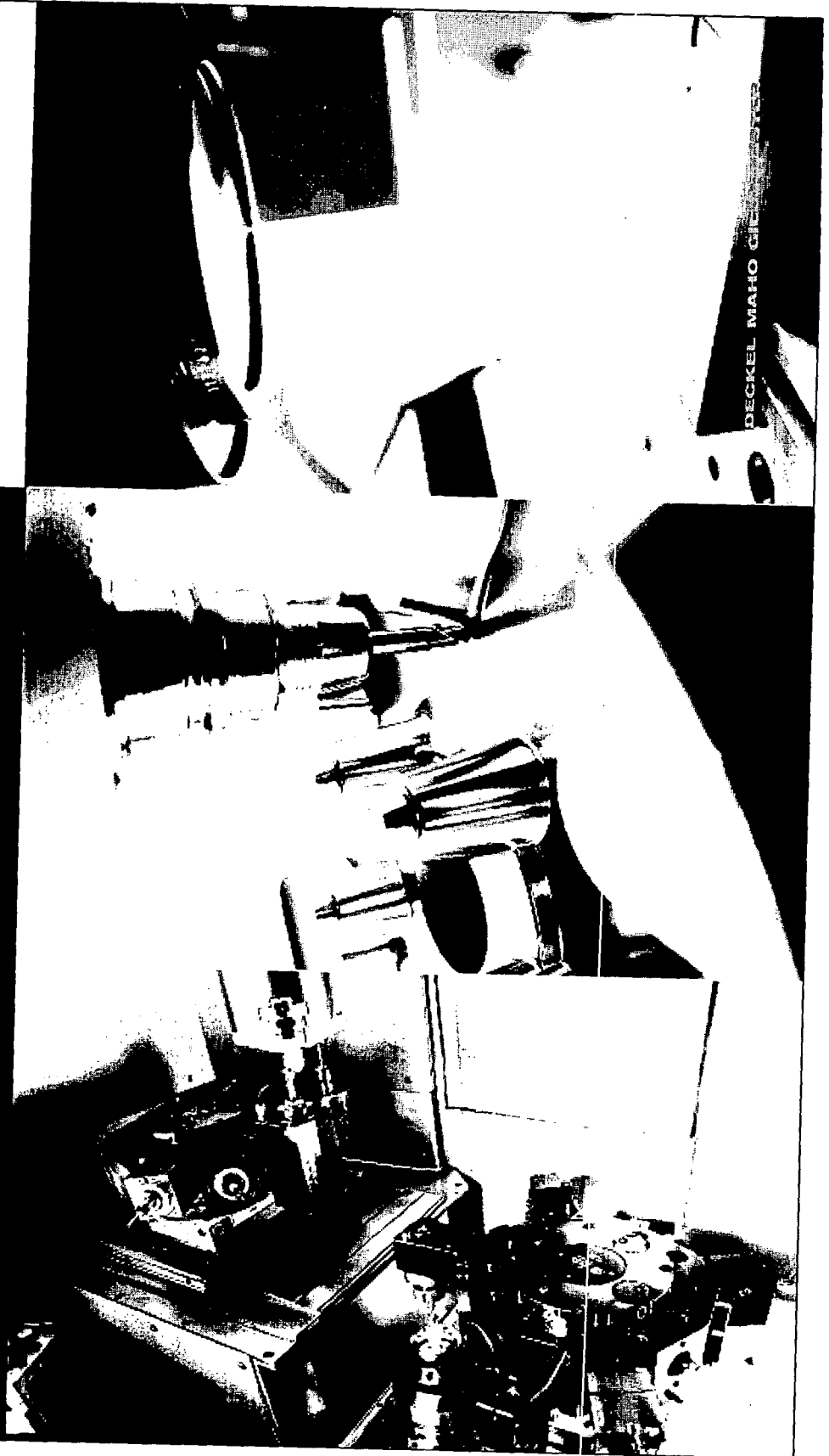


«[www.gildemeister.com](http://www.gildemeister.com)»

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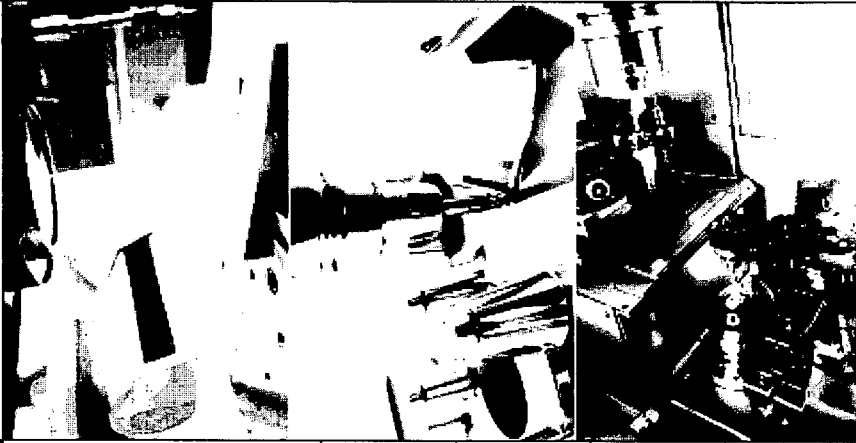
The Technologygroup  
in turning, milling, lasering

GILDEMEISTER

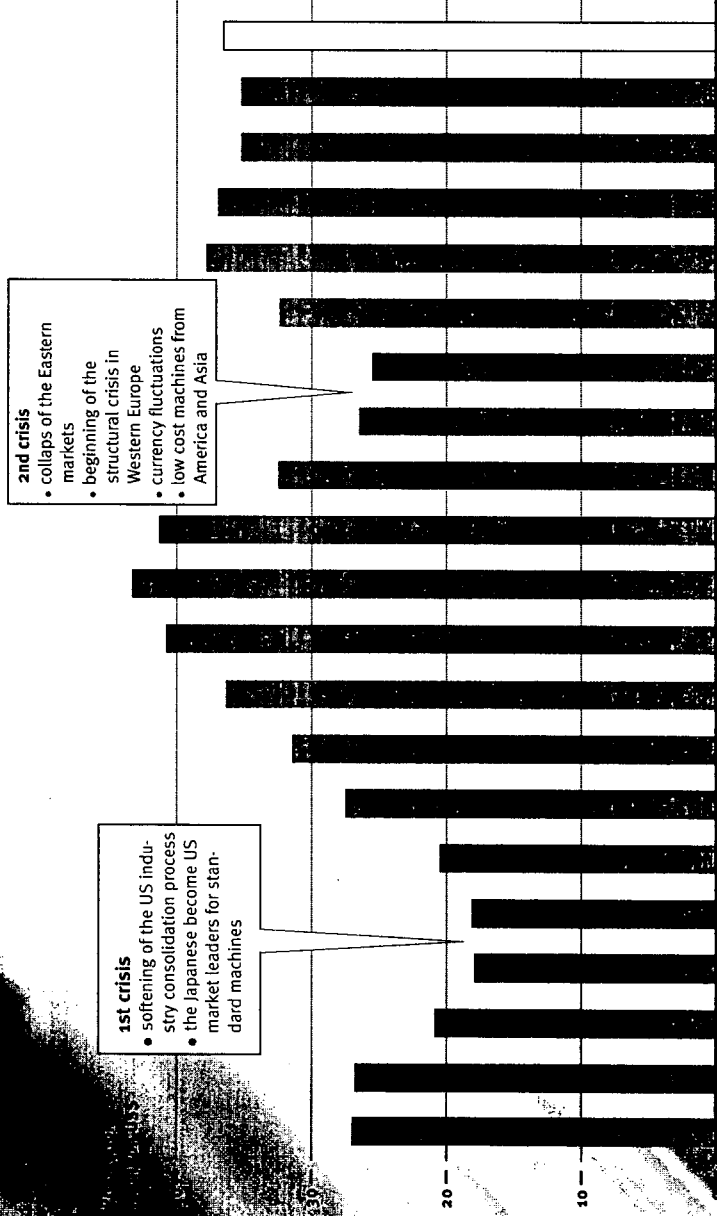


# World machine tool market 1980 through 2000\*

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**2nd crisis**

- collapses of the Eastern markets
- beginning of the structural crisis in Western Europe
- currency fluctuations
- low cost machines from America and Asia

**1st crisis**

- softening of the US industry consolidation process
- the Japanese become US market leaders for standard machines

\*VDW estimate, January 2000

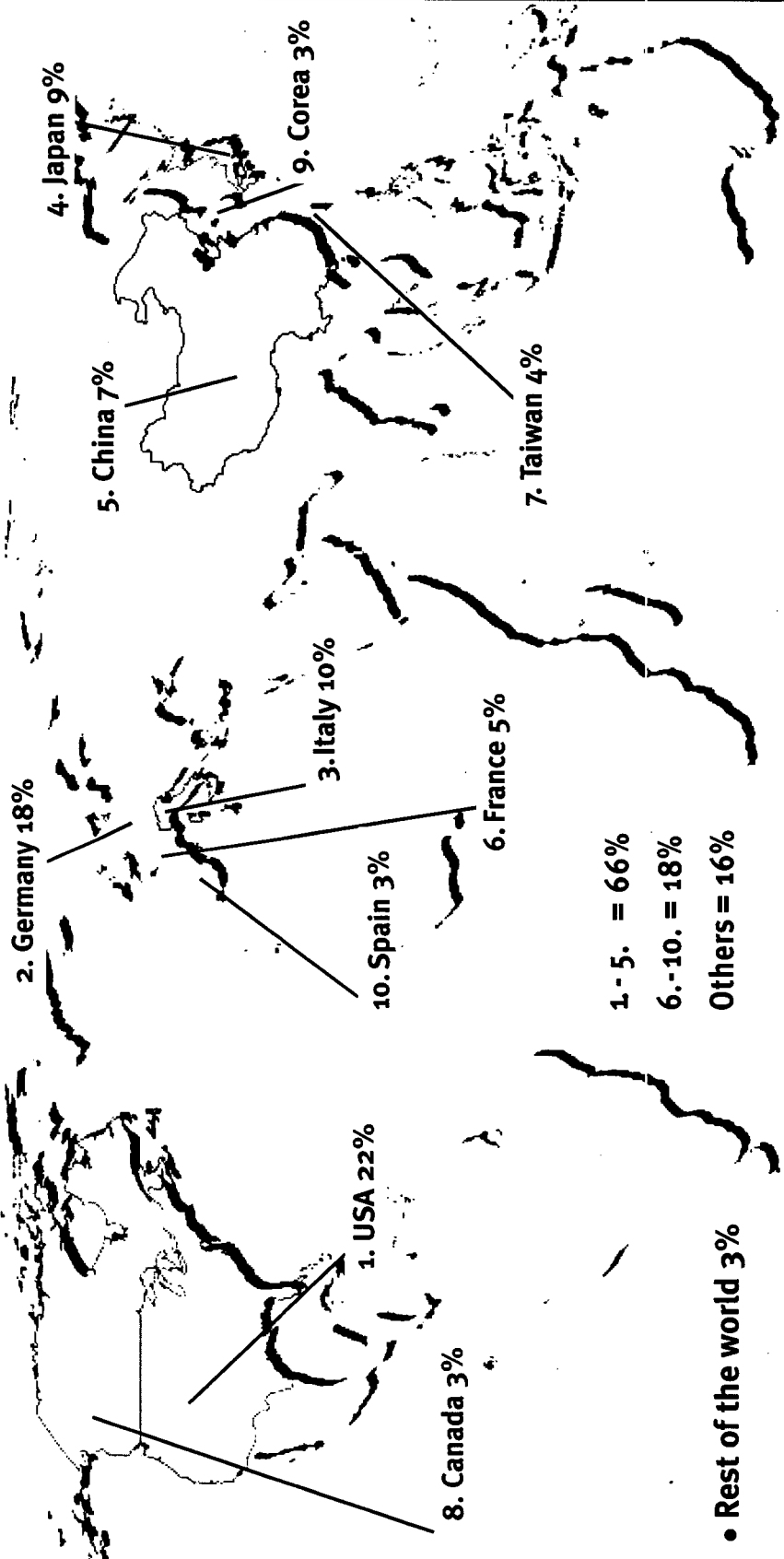
# Worldwide machine tool consumption 1999

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**America 28%**

**West-Europe 45%**

**Pacific area 24%**



1-5. = 66%  
6-10. = 18%  
Others = 16%

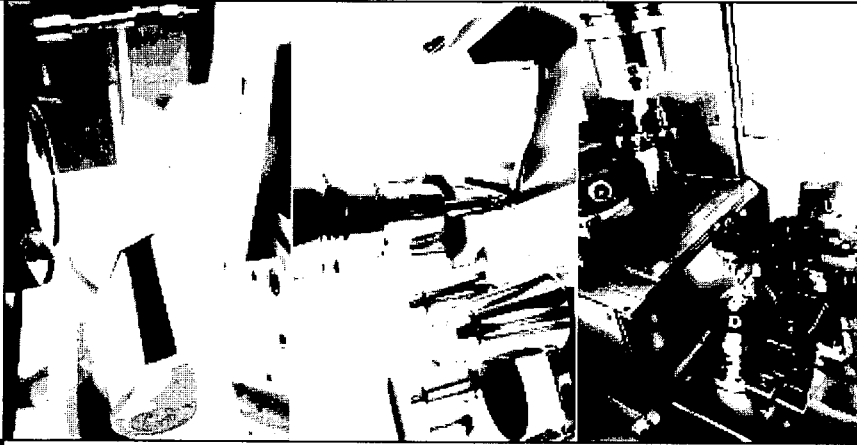
• Rest of the world 3%

**Total: 32,2 Billion US-\$**

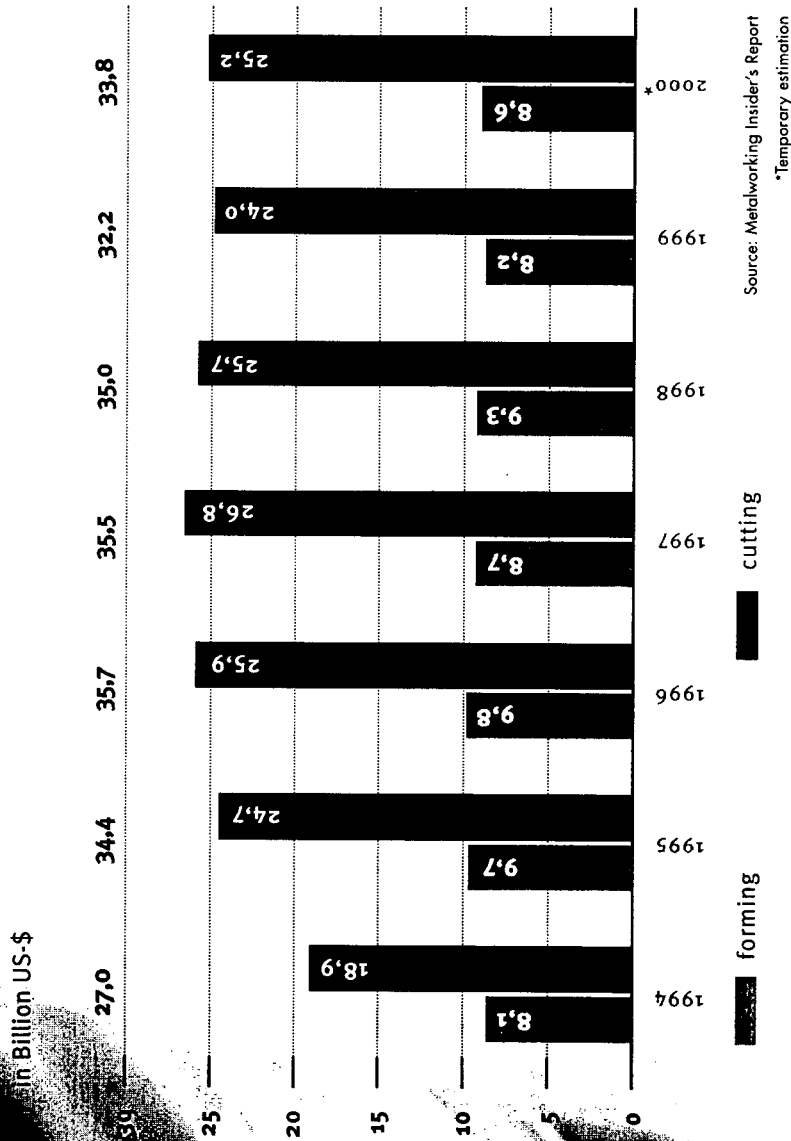
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# Worldwide consumption of machine tools

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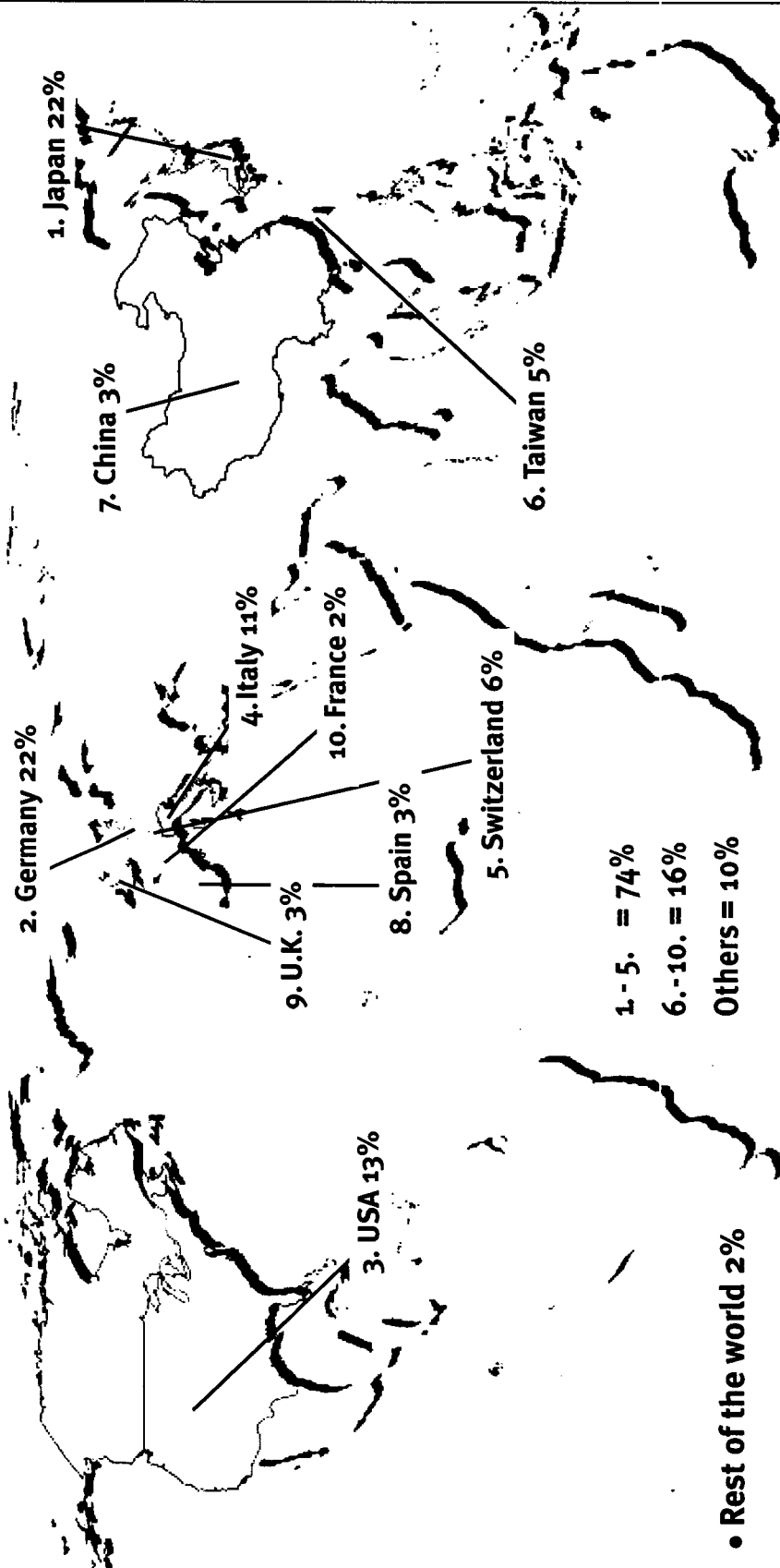
# Worldwide machine tool production 1999

**GILDEMEISTER**

**America 15%**

**West-Europe 50%**

**Pacific area 33%**



1-5. = 74%

6.-10. = 16%

Others = 10%

• Rest of the world 2%

**Total: 34,5 Billion US-\$**

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# GILDEMEISTER Group structure 2000

## GILDEMEISTER

<b>GILDEMEISTER Aktien- gesellschaft, Bielefeld</b>	
<b>Production plants</b>	
GILDEMEISTER Drehmaschinen GmbH, Bielefeld 100 %	
DECKEL MAHO Pfriemten GmbH 100 %	LASERTEC GmbH, Pfriemten 97 %
DECKEL MAHO Geretsried GmbH 100 %	
DECKEL MAHO Seebach GmbH 62,5 %	
FAMOT - Pleszew S. A. 75 %	
<b>Sales and Service Organisation</b>	
DMG Vertriebs- und Service GmbH DECKEL MAHO GILDEMEISTER Holding, Bielefeld 100 %	
<b>Procurement</b>	
a & I Stahl- und Maschinenbau GmbH, Würzburg 51 %	

Germany	Europe	America	Asia	Technical Service
DMG Stuttgart Vertriebs- und Service GmbH	DMG France S.A. Paris	DMG America Inc. Charlotte	DMG Asia Pacific Pte. Ltd. Singapore	DMG Services International Bielefeld
DMG München Vertriebs- und Service GmbH	DMG Italy S.p.A. Sorgiano	DMG America Inc. Chicago	DMG Malaysia Kuala Lumpur	DMG Services 1773 GmbH Karlsruhe
DMG Hilgen Vertriebs- und Service GmbH	DMG Switzerland Bülach	DMG America Inc. Boston	DMG Australia Melbourne, Sydney, Brisbane	DMG Services 1773 GmbH Aachen
DMG Bielefeld Vertriebs- und Service GmbH	DMG UK Ltd. Luton	DMG America Inc. Los Angeles (in part)	DMG China Beijing, Taipei, Shanghai, Donghai	DMG Services International GmbH, Karlsruhe
DMG Berlin Vertriebs- und Service GmbH	DMG Denmark København	DMG Canada Ltd. Toronto (in part)	DMG Technology Trade Co. Ltd. Shanghai	DMG Services International GmbH, Karlsruhe
DMG Frankfurt Vertriebs- und Service GmbH	DMG Netherlands B.V. Lelystad		DMG Milling Melito Bangalore, Delhi, Mumbai	
	DMG Belgium S.V.B.V. Zaventem		DMG Singapore S.P. Singapore	
	DMG Finland Oy Vammala		DMG Korea Ltd. Seoul (in part)	
	DMG Spain S.L. Barcelona			
	DMG Poland Sp. z o.o. Pleszew			

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# The Trends 2000



**GILDEMEISTER**

**Technology integration**

**CISC-processor  
technology**

**Open software:  
Intel® inside/  
Windows™ on site**

**Linear-guideways  
and -drives**

**DMG-Netservice**

**LASERTEC**

BECKEL MAND GILDEMEISTER





# The Trends 2000

**GILDEMEISTER**



**Technology integration**

**CISC-processor  
technology**

**Open software:  
Intel® inside/  
Windows™ on site**

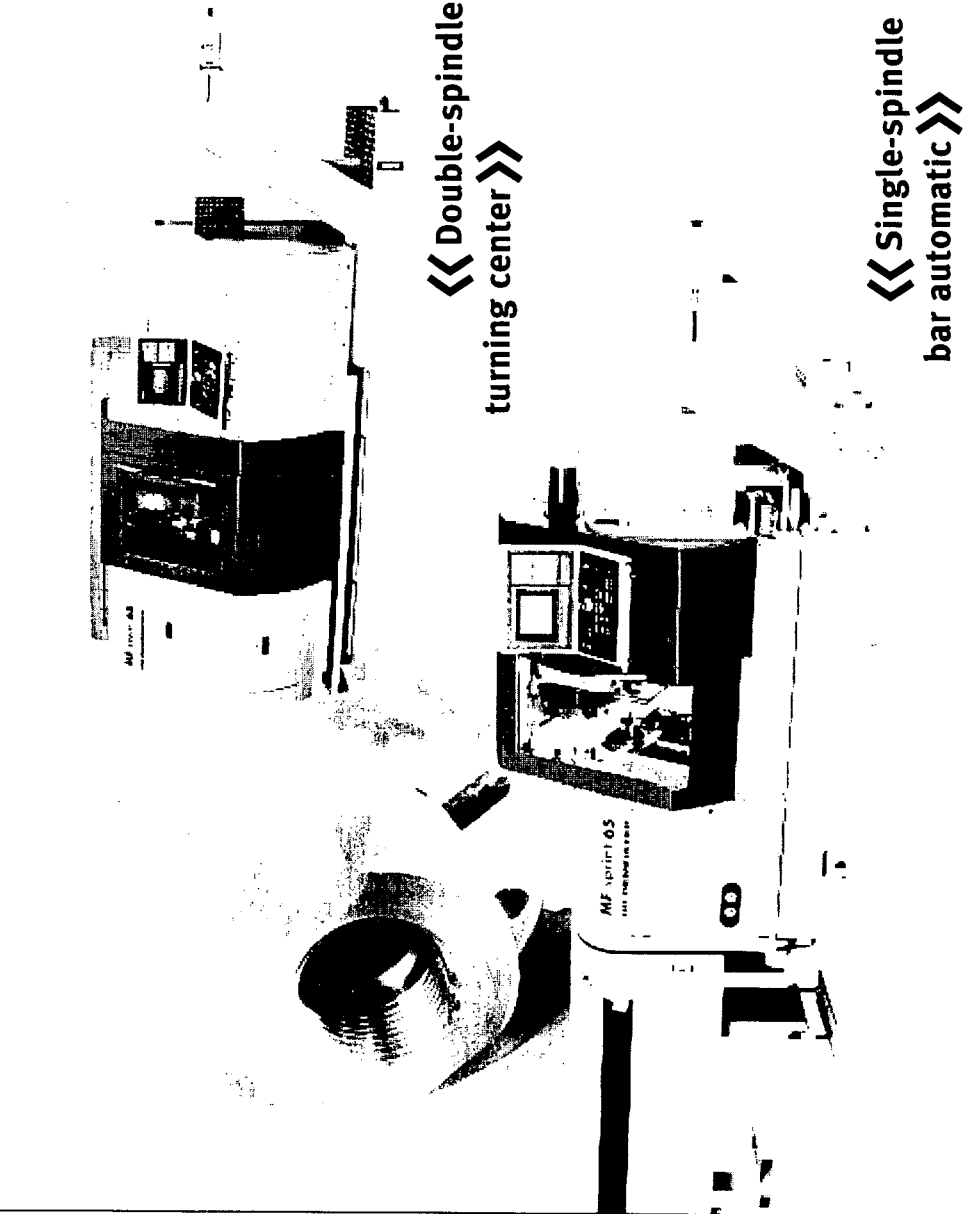
**Linear-guideways  
and -drives**

**DMG-Netservice**

**LASERTEC**

**DECKEL MAHO GILDEMEISTER**

# MF twin 42/65, MF sprint 42/65: high tech bar machining

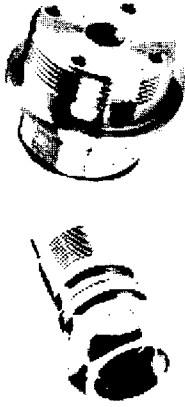


《《 Double-spindle  
turning center 》》

《《 Single-spindle  
bar automatic 》》

**GILDEMEISTER**

Drehmaschinen GmbH



Completely producing a complex work-piece in a single process, apart from turning operations, even with drilling and milling work, provides many advantages, which are noticeable in time and money.

### Factbox MF twin 42/65:

Bar diameter	mm	42/65
Drive power (Main drive)	kW	19/28
Drive power (Counter spindle)	kW	16/22
Speed range	rpm	31-6.300/25-5.000

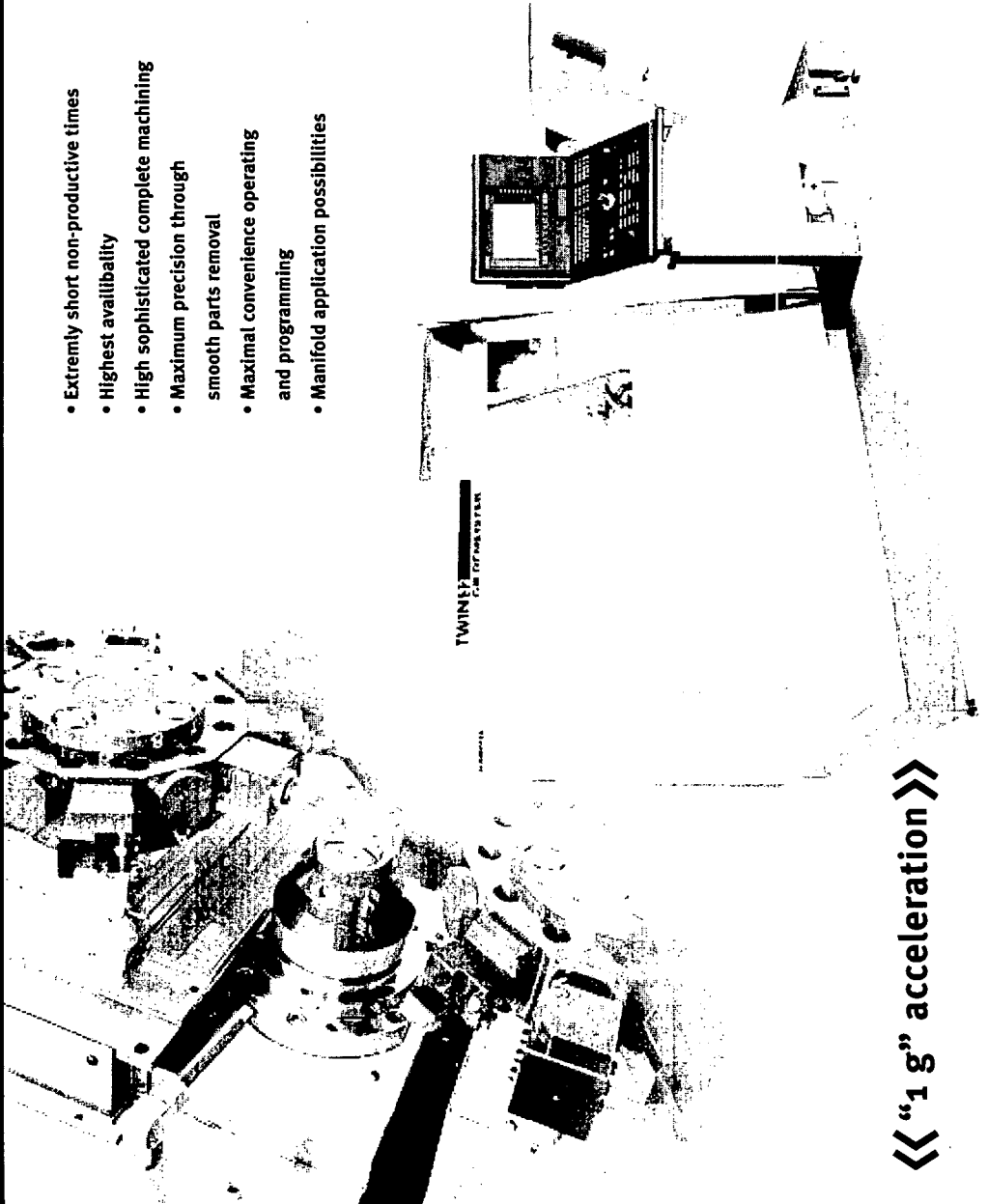
### Factbox MF sprint 42/65:

Bar diameter	mm	42/65
Drive power (Main drive)	kW	19/28
Drive power (Counter spindle)	kW	7.6/7.6
Speed range	rpm	31-6.300/25-5.000

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# New: TWIN 32 for demanding bar and chuck parts

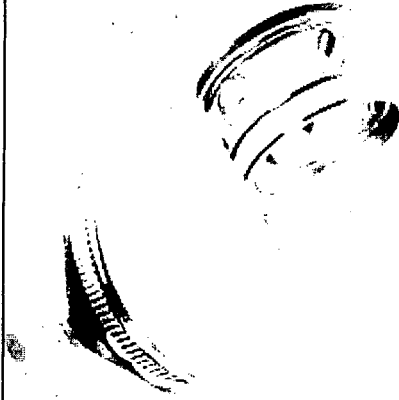
- Extremely short non-productive times
- Highest availability
- High sophisticated complete machining
- Maximum precision through smooth parts removal
- Maximal convenience operating and programming
- Manifold application possibilities



«1 g» acceleration»

**GILDEMEISTER**

Drehmaschinen GmbH



Highly sophisticated complete machining through:

- 2 equally strong main spindles
- 2-12x turret heads each with max. 24 driven tools
- turret with Y-axis

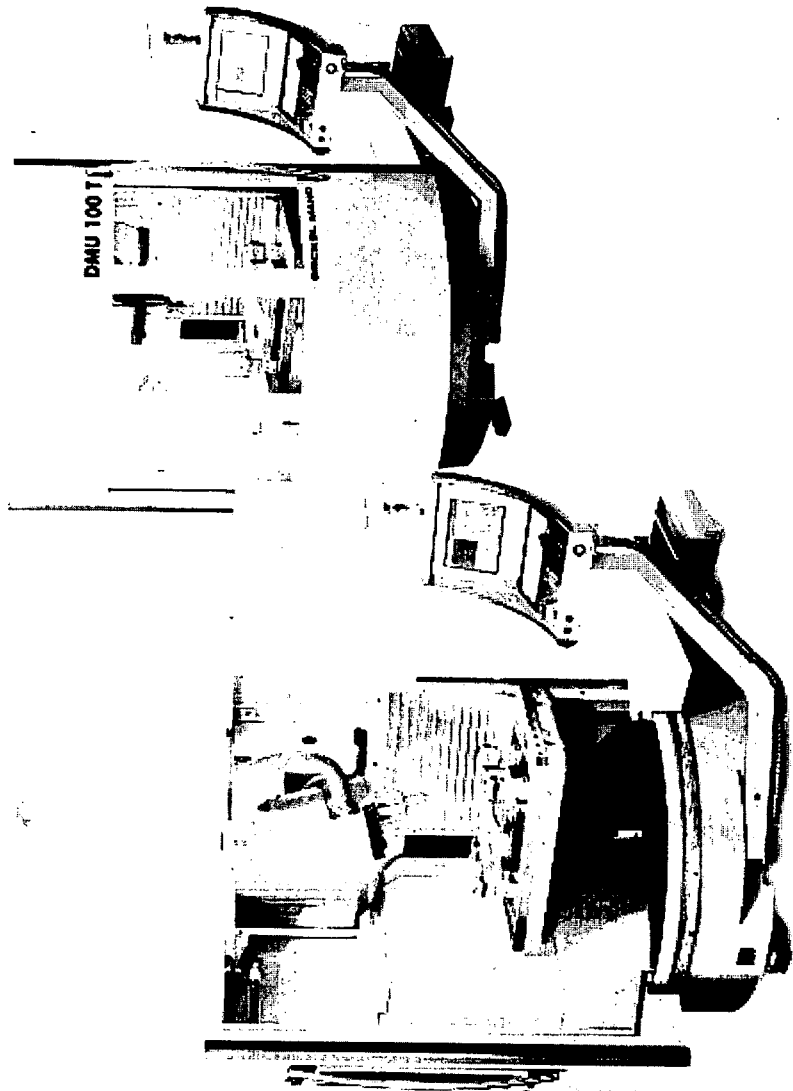
### Factbox TWIN 32:

Main spindle	
Bar diameter	mm 32
Drive power	kW 15 (ISM)
Turret	
No. of tools (all driven)	2 x 12
Switching time	sec. 0.1

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# DMU T-series in monoblock design

« Monoblockwise – modest space requirements,  
more stability, optimal ergonomics! »»



**DECKEL MAHO**

Pfronten GmbH



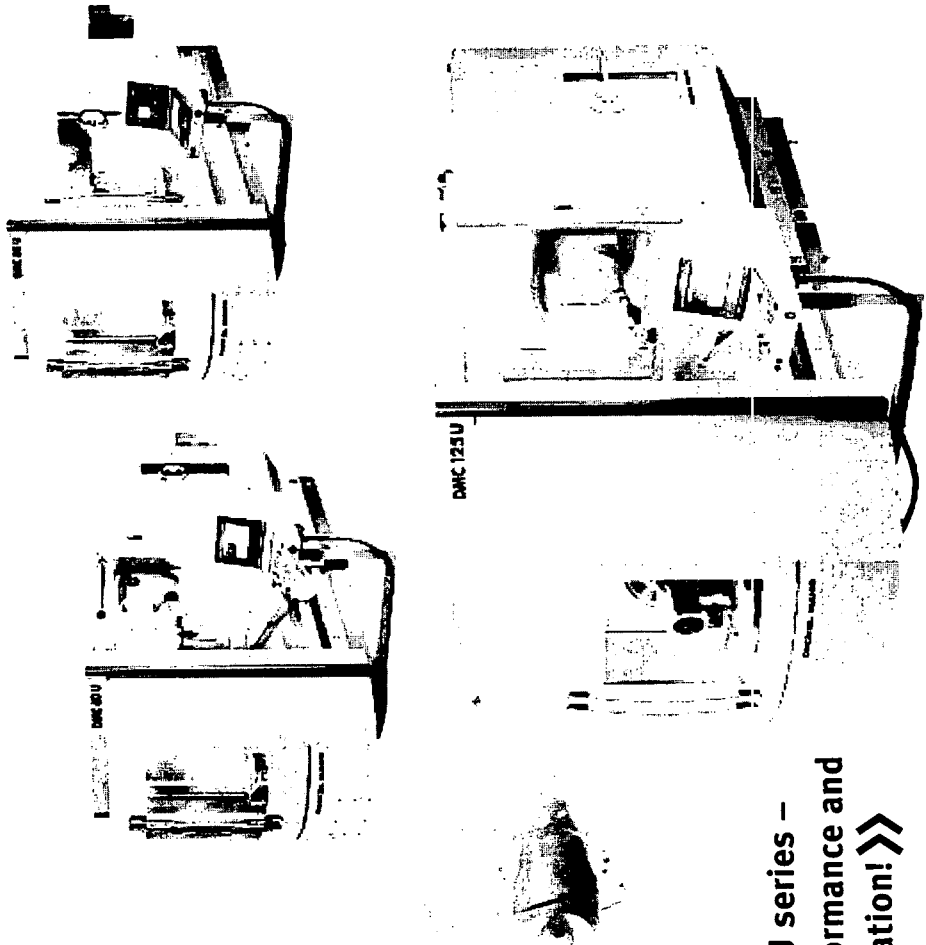
Intake flange, right: Knee link

## Factbox DMU T-Reihe:

	DMU 60 T / DMU 80 T	DMU 100 T
X-axis	mm 600 / 800	1.080
Y-axis	mm 525 / 650	710
Z-axis	mm 500 / 550	710
Main drive	kW 9(13) / 11(16)	10(15)
Speed range up to	min* 6.300/	12.000/
	(8.000/30.000)* (10.000/18.000)*	
Tool holder	SK 40 / HSK E 50*	SK 40
Feed range up to	mm/min 15.000	15.000
Rapid traverse X/Y/Z m/min	18/18/17	30/30/20
	18/18/15	
Control	MillPlus/TNC 430	
*Optional		

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# DMC U series: fully automatic, flexible series production



« DMC U series –  
maximum performance and  
easiest operation! »

**DECKEL MAHO**

Pfronten GmbH



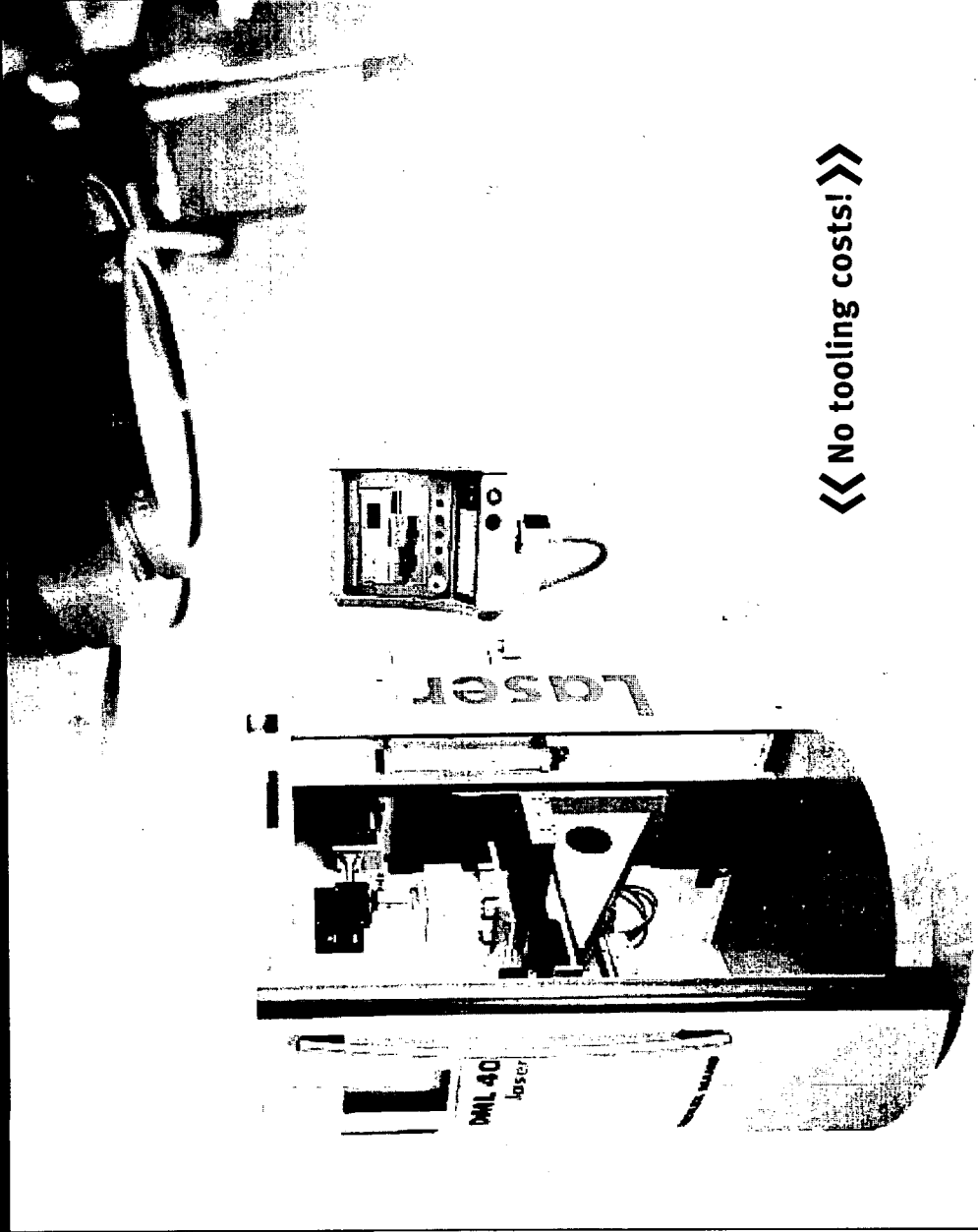
When it comes to machining complex workpieces or workpieces in manifold variations in series and in one setting. This latest technology also allows demanding 5-axis and 5-sided machining.

### Factbox DMC 60/80/125 U:

X-axis	mm	600/800/1.250
Y-axis	mm	700/700/880
Z-axis	mm	550/600/800
Main drive	kW	15/15/15 (30)*
Speed range up to	min <sup>-1</sup>	12.000**
Tool mounting		SK 40/SK 40/SK 40 (SK 50)*
Feed range up to	mm/min	15.000
Rapid traverse	m/min	30/30/34
Tool magazin	pockets	60 (120)*
Control		MILLplus/TNC 430
* Optional		** Optional: 18.000/30.000 min <sup>-1</sup>

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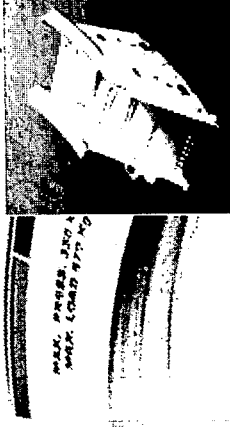
# DML 40: laser machining of delicate cavities



«« No tooling costs! »»

**LASERTEC**  
Pfronten GmbH

**LASERTEC**



Moulded part of airbag, turbine blade

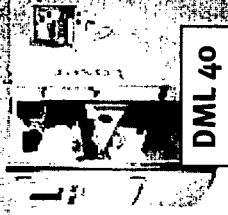
## Factbox DML 40:

X / Y / Z	mm	70 / 70 / 200
Table size	mm	375 x 400
Max. table load	kg	50
Min. inclination of ejection	grade	15
Diam. of laserbeam	mm	0,1
Laser type		Q-Switch YAG
Laser output	W	100
Measurements		
Width	mm	1950
Depth	mm	1.200
Height	mm	2.000

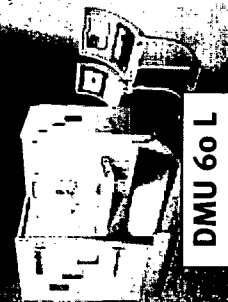
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# 14 new products 1999

## GILDEMEISTER



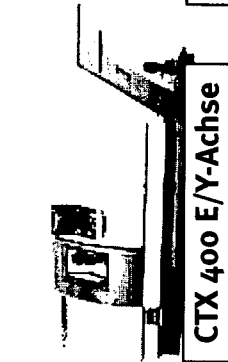
DML 40



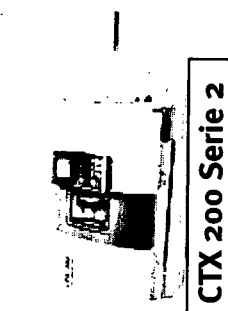
DMU 60 L



DMU 80 FD



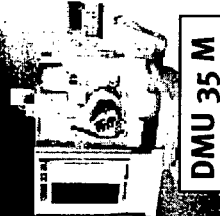
CTX 400 E/Y-Achse



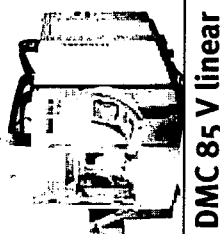
CTX 200 Serie 2



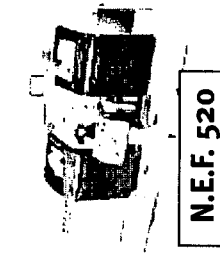
DMU 50 evolution



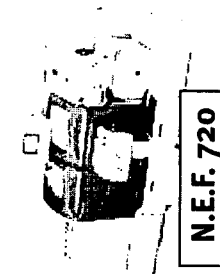
DMU 35 M



DMC 85 V linear



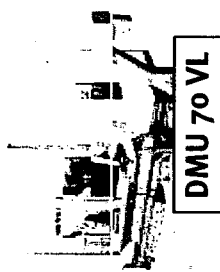
N.E.F. 520



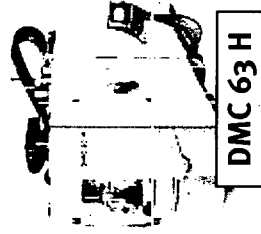
N.E.F. 720



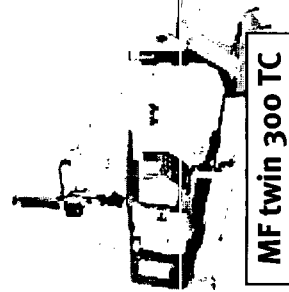
TWIN 32



DMU 70 VL



DMC 63 H



MF twin 300 TC

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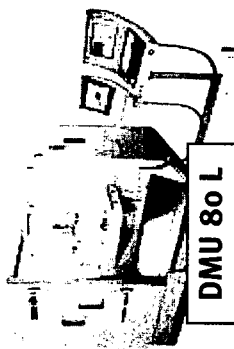


# New products 2000

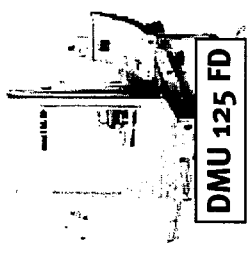
GILDEMEISTER



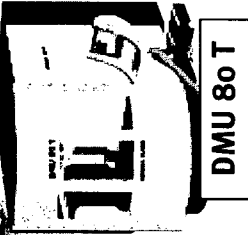
DMC 200 U



DMU 80 L



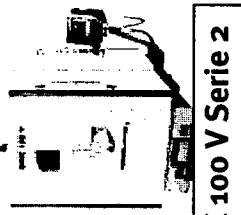
DMU 125 FD



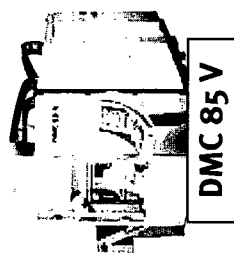
DMU 80 T



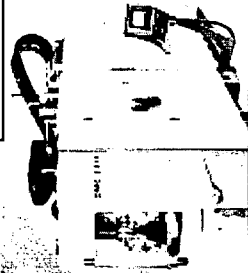
DMU 60 T



DMC 100 V Serie 2



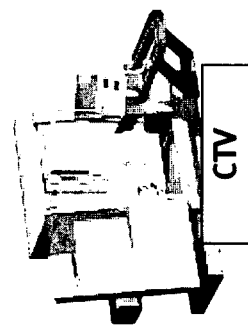
DMC 85 V



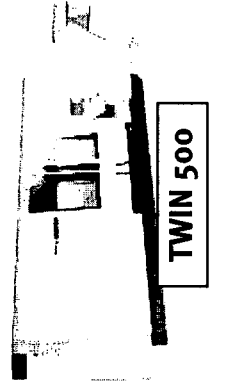
DMC 83 H



DMC 50 H



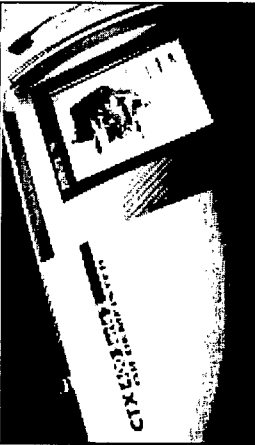
CTV



TWIN 500

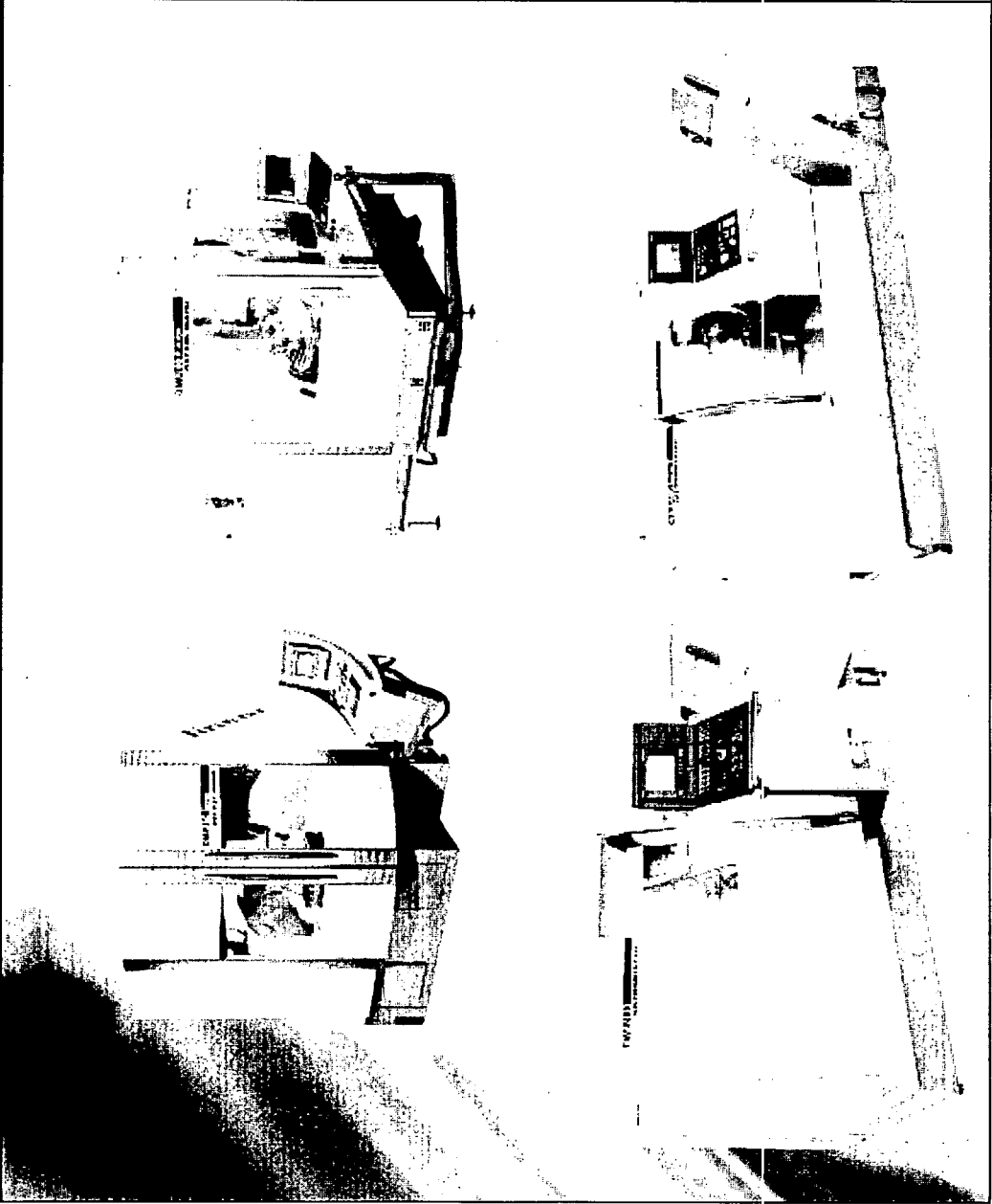
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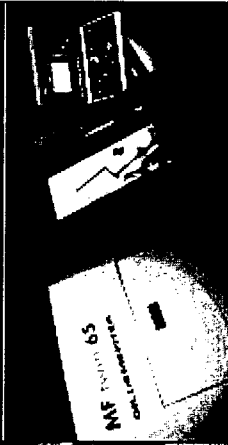
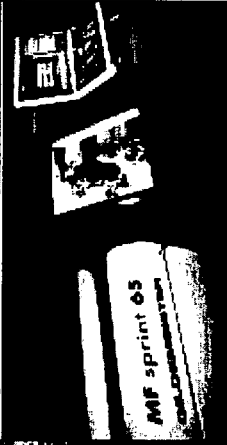
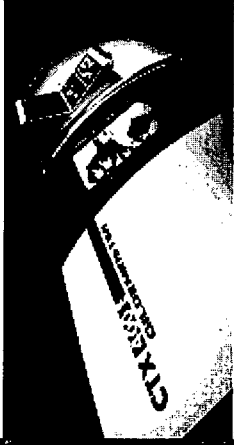
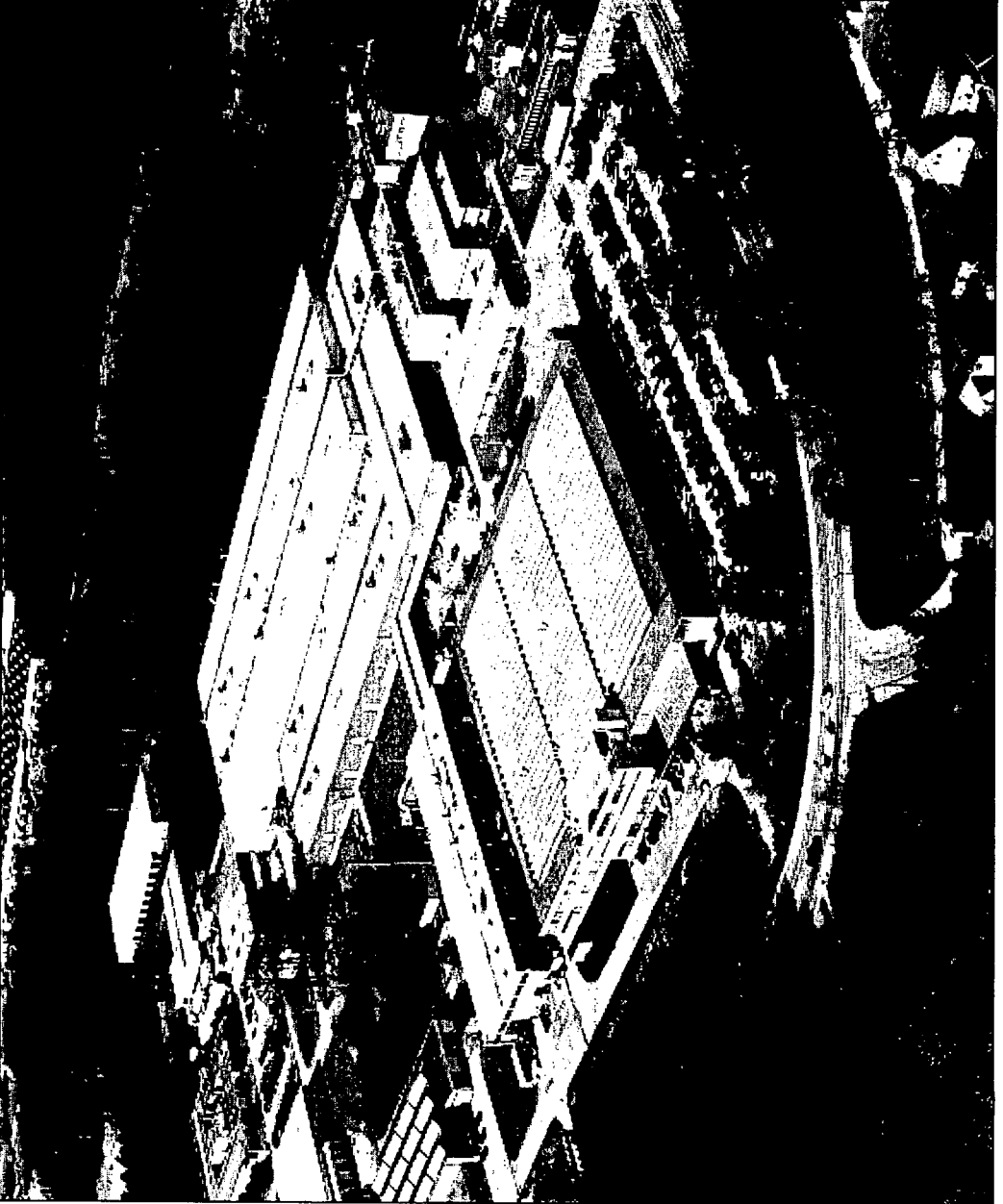
Design 2000



# GILDEMEISTER Drehmaschinen GmbH, Bielefeld

**GILDEMEISTER**

Drehmaschinen GmbH

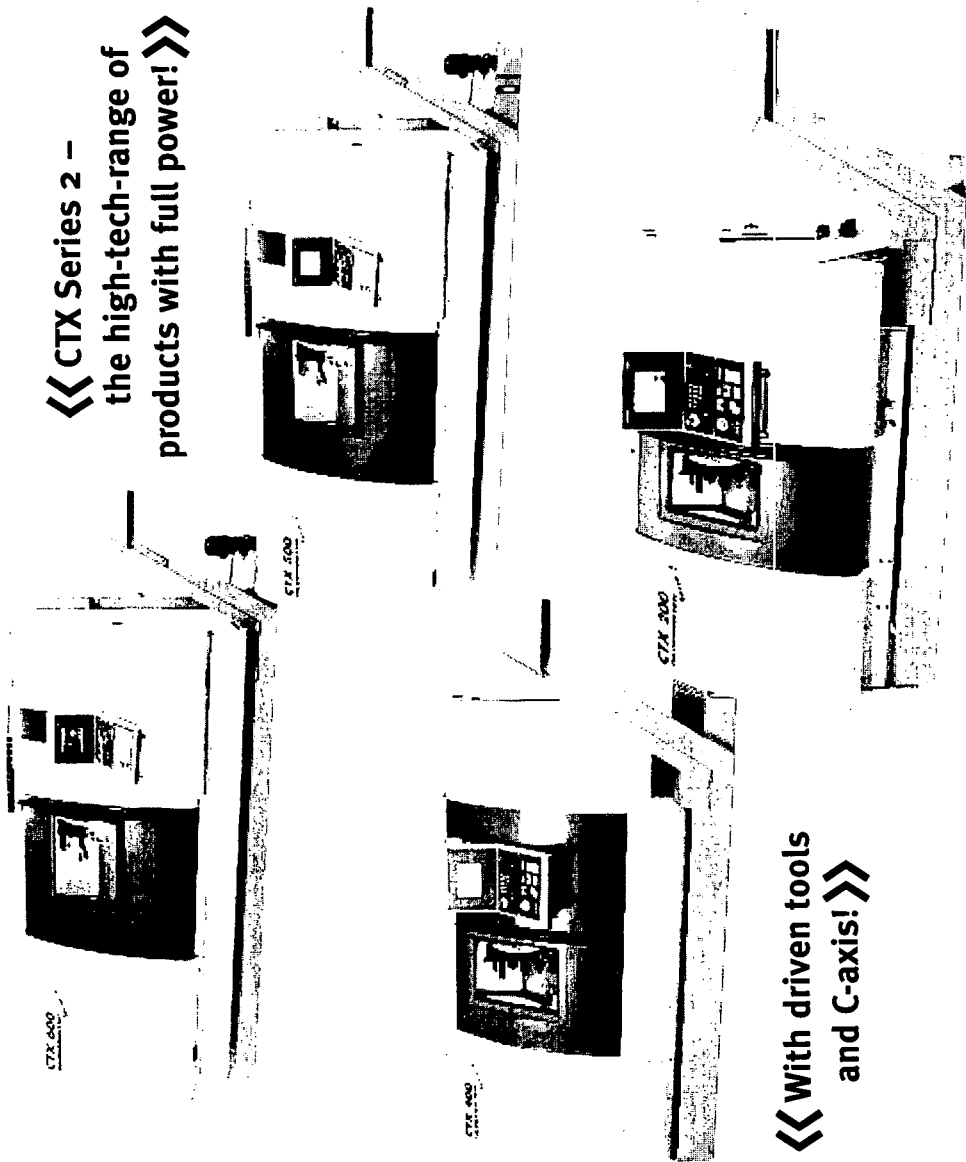


Employees (without trainees): 396  
Business volume: 147 Mio €

DECKEL MAHO GILDEMEISTER

CTX-lathes now available in every configuration

« CTX Series 2 –  
the high-tech-range of  
products with full power! »



« With driven tools  
and C-axis! »

**GILDEMEISTER**  
Drehmaschinen GmbH



Turret head with driven tools

**Factbox CTX 200/400 Serie 2:**

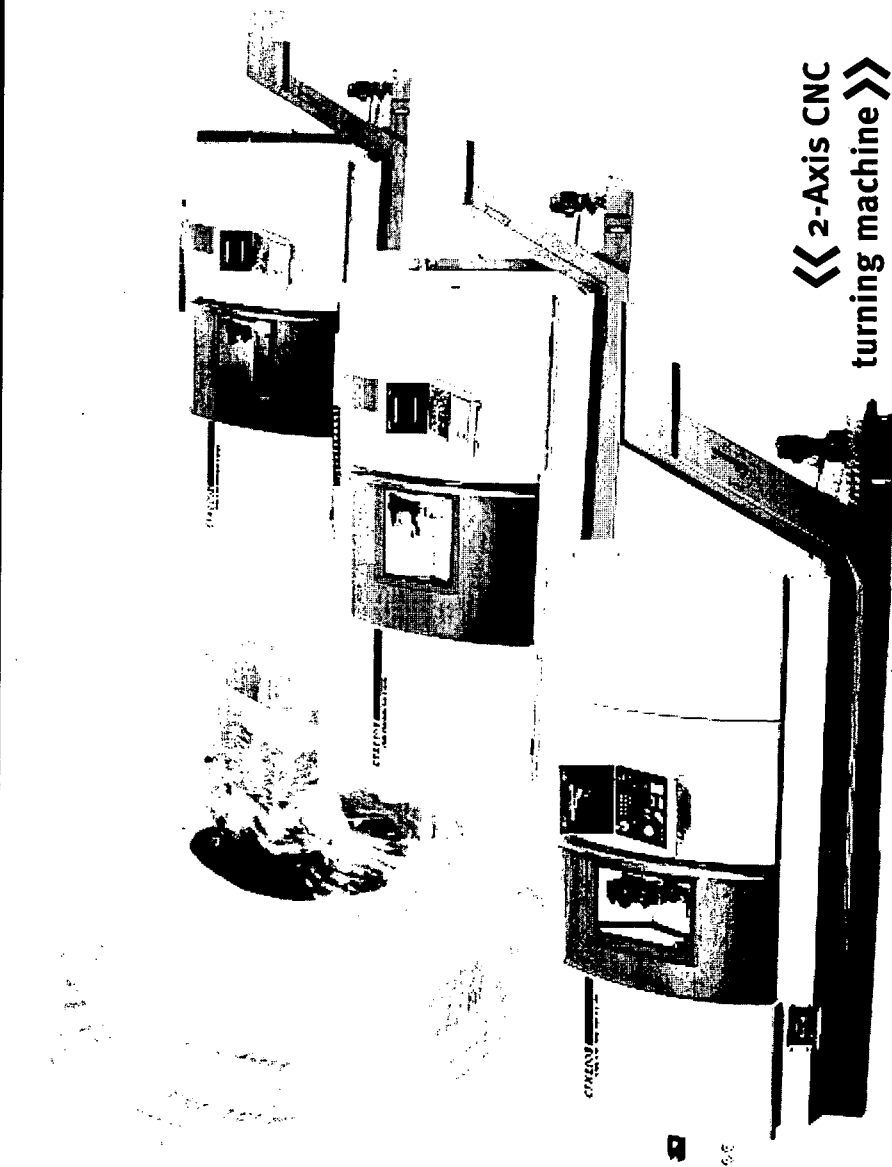
Swing over	mm	440/570
Longitudinal path	mm	350/635
Main drive	kW (AC)	7.5/21
Speed range	rpm	25-5,000/25-5,000

**Factbox CTX 500/600 Serie 2:**

Swing over	mm	680/680
Longitudinal path	mm	1.097/1.097
Main drive	kW (AC)	23/30
Speed range	rpm	18-3,600/4-2,800

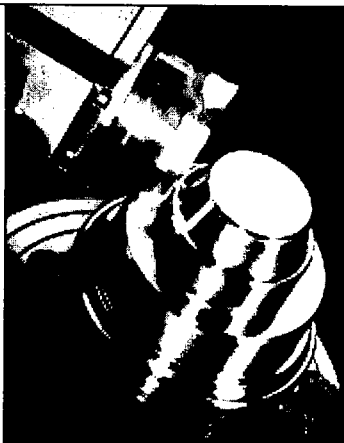
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# CTX E line: high tech all-purpose turning



« 2-AXIS CNC  
turning machine »

**GILDEMEISTER**  
Drehmaschinen GmbH



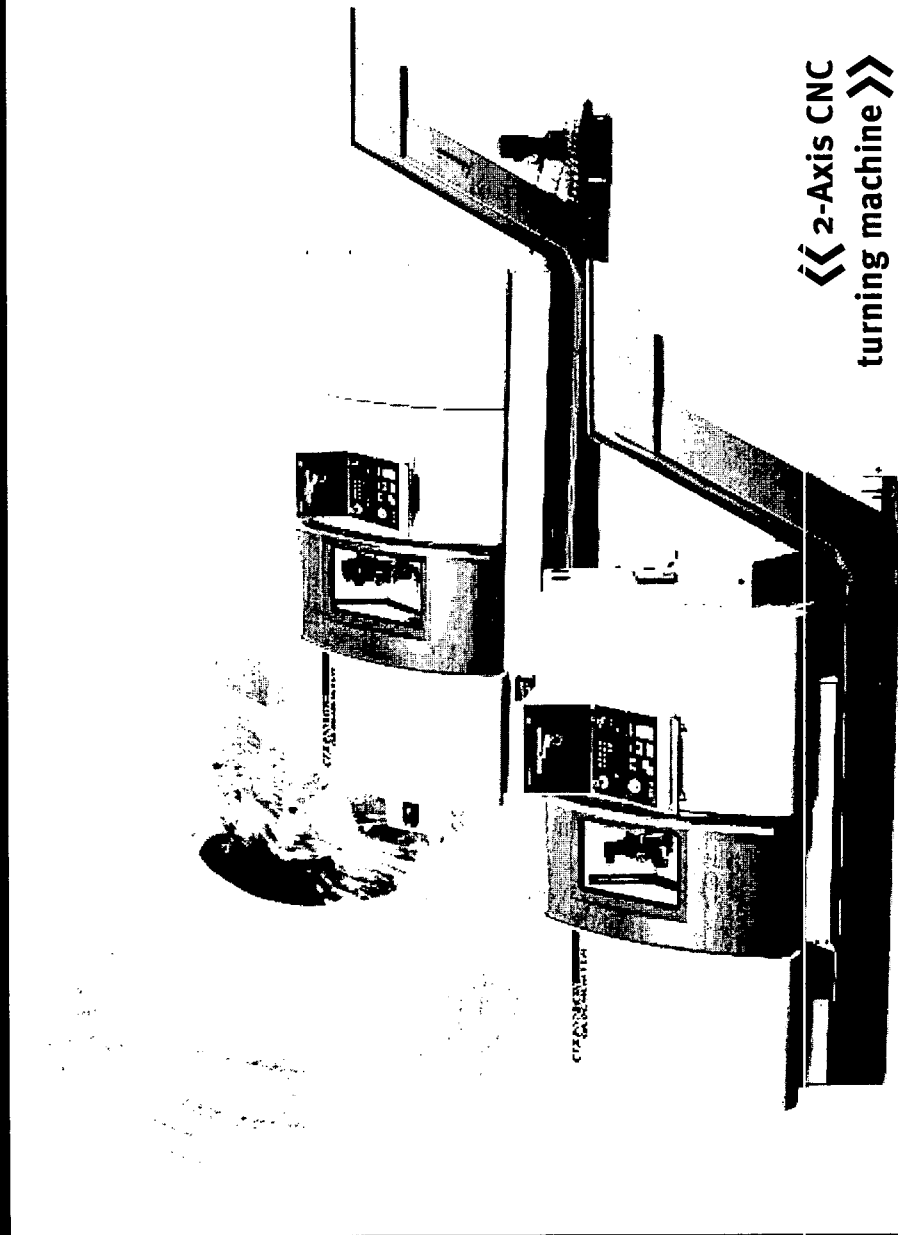
High contour definition is absolutely essential for demanding turning operations. But that is not everything: To increase the economy, it needs flexibility, short setting-up times and the possibility for complete machining.

## Factbox CTX 400/500/600 E:

Cross path	mm	220/320/320
Quill stroke	mm	600/1.097(2.097)/1.097(2.097)
Round material	mm	65/92/92
Drive output (100% ED)	kW	21/23/30
Speed range	min <sup>-1</sup>	25-5.000/18-3.600/35-2.800

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# CTX 200/400 twin: for 2-sided complete machining



<< 2-Axis CNC  
 turning machine >>

**GILDEMEISTER**

Drehmaschinen GmbH



High-tech turning with maximum performance: CTX 200/400 E with counter spindle. Driven tools and counter spindle allow timesaving complete machining. The latest engineering technology ensures absolute availability.

## Factbox CTX 200/400 twin:

Cross path	mm	160/220
Speed range	mm	305/600
Round material	mm	42/65
Drive output (100% ED)	kW	9.0/21
Speed range	min <sup>-1</sup>	25-5.000/25-5.000

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# Fairchild 100: production turning for small parts in large series production

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Drehmaschinen GmbH



Compact machine for the production and re-machining of small components. Innovative machine thanks to an intelligent slide design. Solid construction (bed, slide, guideways) for high machining accuracy. Available with efficient and flexible handling system.

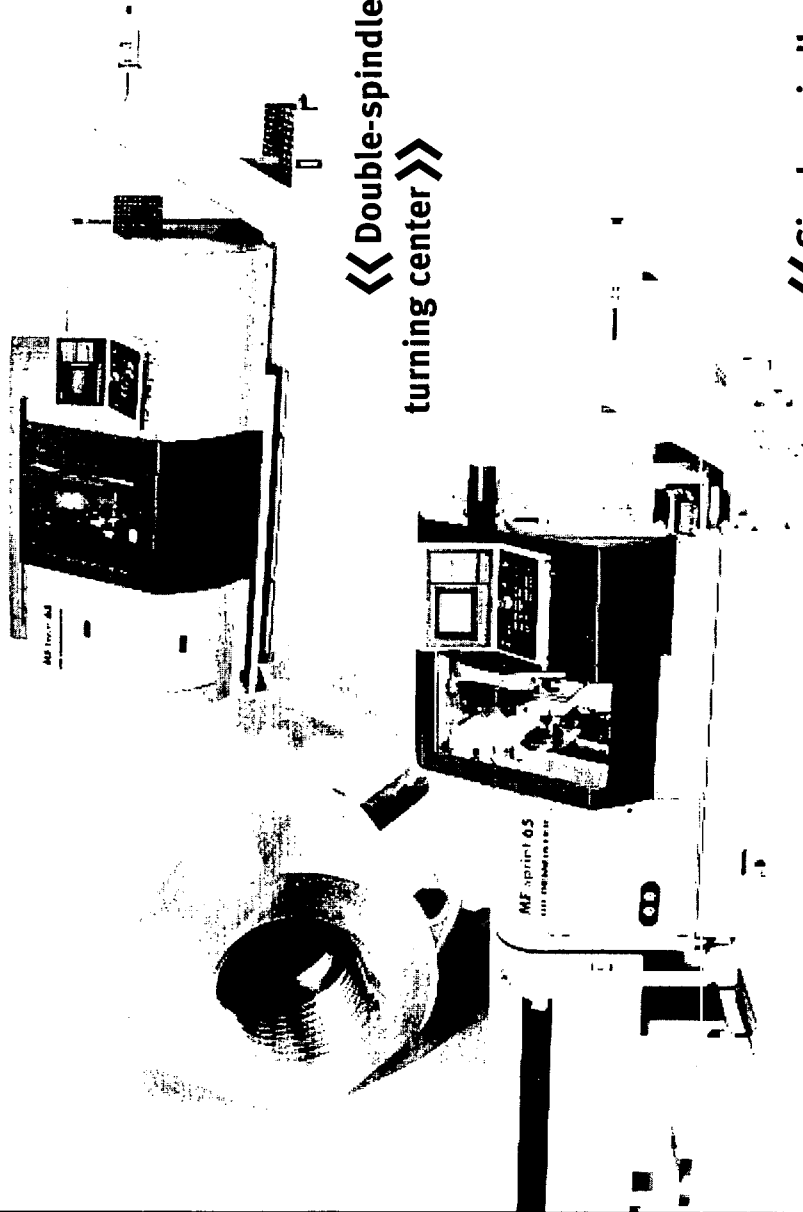
## Factbox Fairchild 100:

Travel X (Rotary axis)	mm	628
Travel Z	mm	175
Rapid traverse X/Z	m/min	27/27
Main drive		
Drive	kW	7
Speed range max.	rpm	7,000
Tool stations		8

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# MF twin 42/65, MF sprint 42/65: high tech bar machining



《《 Double-spindle  
turning center 》》

《《 Single-spindle  
bar automatic 》》

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Completely producing a complex work-piece in a single process, apart from turning operations, even with drilling and milling work, provides many advantages, which are noticeable in time and money.

**Factbox MF twin 42/65:**

Bar diameter	mm	42/65
Drive power (Main drive)	kW	19/28
Drive power (Counter spindle)	kW	16/22
Speed range	rpm	31-6.300/25-5.000

**Factbox MF sprint 42/65:**

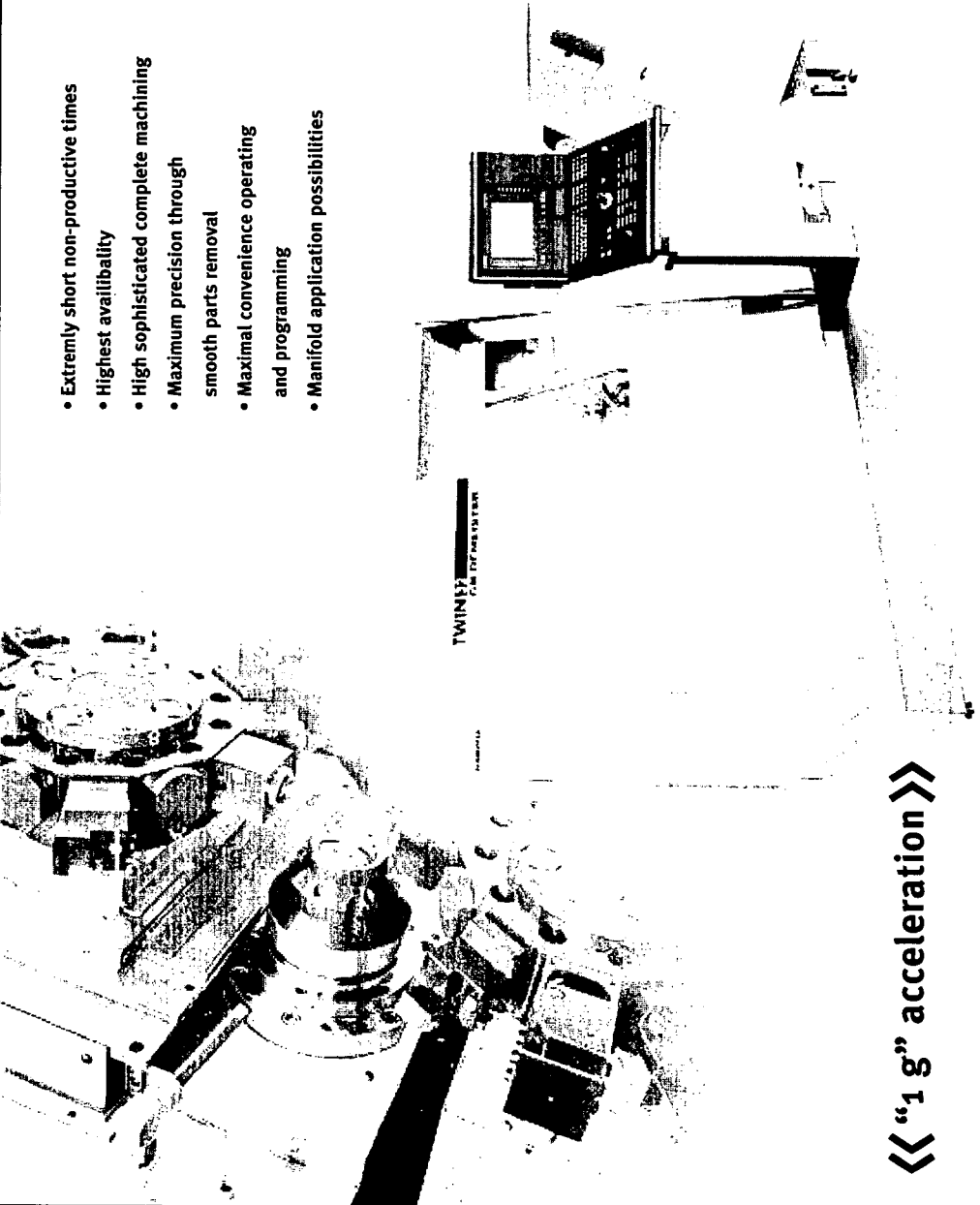
Bar diameter	mm	42/65
Drive power (Main drive)	kW	19/28
Drive power (Counter spindle)	kW	7.6/7.6
Speed range	rpm	31-6.300/25-5.000

DECKEL MAHO GILDEMEISTER



# New: TWIN 32 for demanding bar and chuck parts

- Extremely short non-productive times
- Highest availability
- High sophisticated complete machining
- Maximum precision through smooth parts removal
- Maximal convenience operating and programming
- Manifold application possibilities



Highly sophisticated complete machining through:  
 - 2 equally strong main spindles  
 - 2-12x turret heads each with max. 24 driven tools  
 - turret with Y-axis

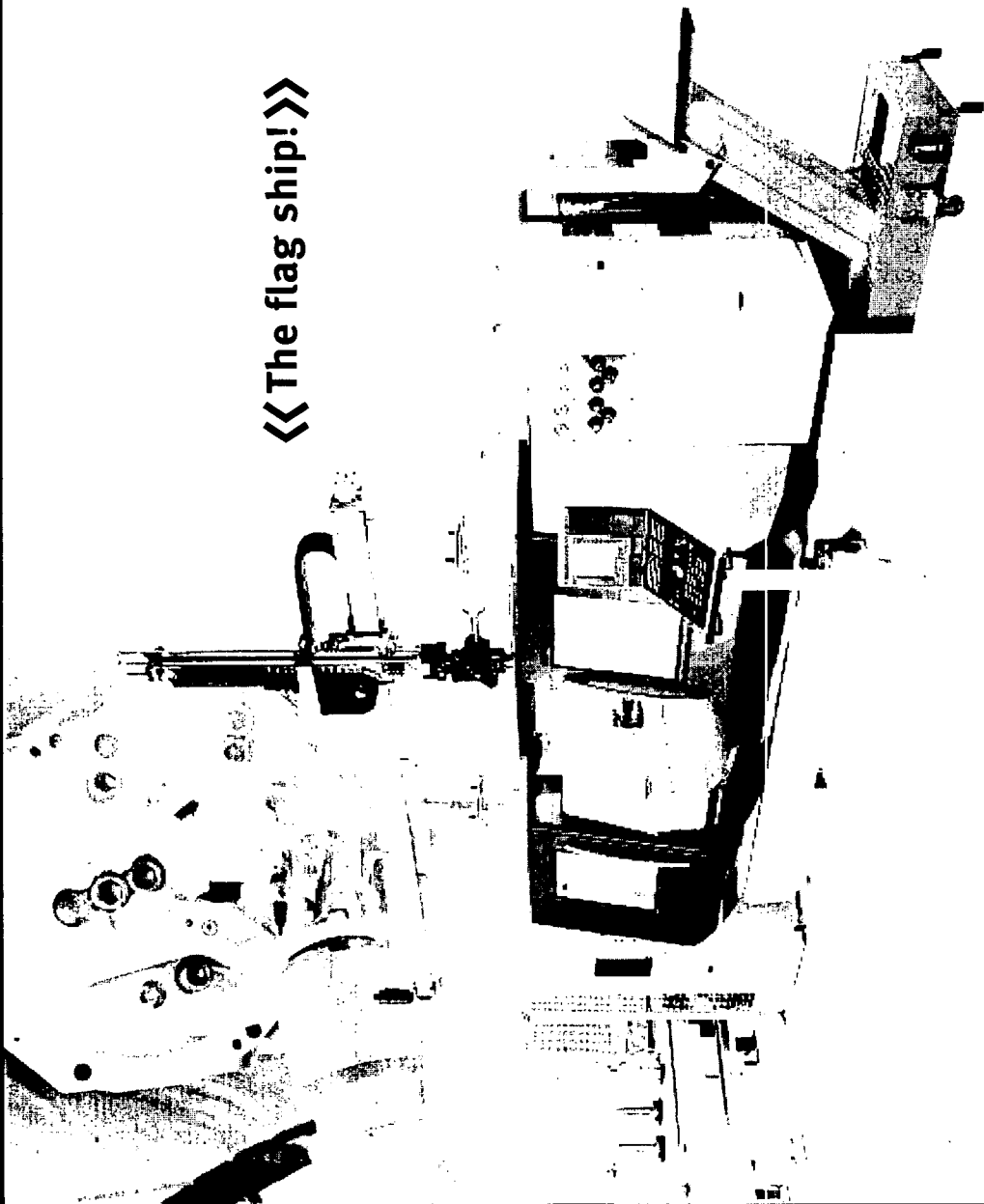
## Factbox TWIN 32:

<b>Main spindle</b>	
Bar diameter	mm 32
Drive power	kW 15 (ISM)
<b>Turret</b>	
No. of tools (all driven)	2 x 12
Switching time	sec. 0.1

DECKEL MAHO GILDEMEISTER

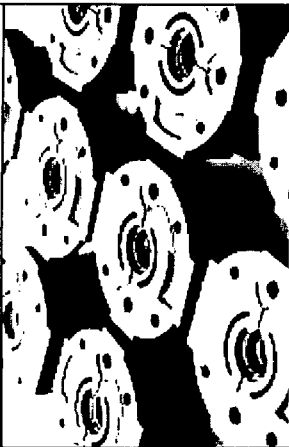
«1 g» acceleration»

# MF twin 300 TC: the turn-milling centre



«« The flag ship! »»

**GILDEMEISTER**  
Drehmaschinen GmbH



Adapter plate

## Factbox MF twin 300 TC:

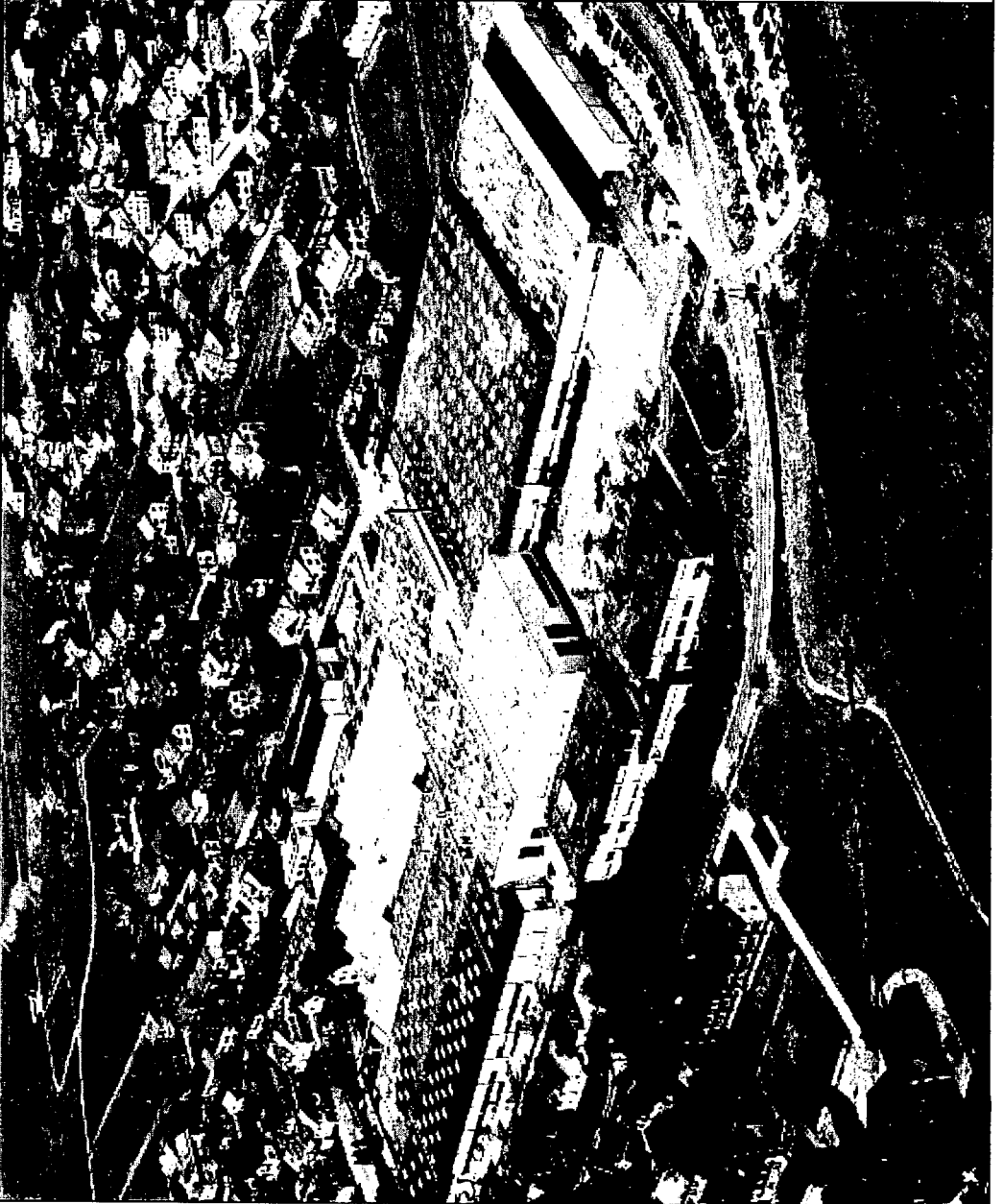
Main drive	kW (50/100 % ED)	33/25
Turret station, all driven		12
Tool drive	kW (50/100 % ED)	75/5.5
Torque	Nm	57/42
Speed range max.	rpm	4,000
Milling spindle		
Tool drive	kW (100 % ED)	30
Torque	Nm	112/47
Speed range max.	rpm	2,500/6,000
B-axis, swivable	Degrees	180
Stroke Y-axis	mm	± 80
Tool changer		
Max. tool capacity		80

DECKEL MAHO GILDEMEISTER

# DECKEL MAHO GmbH, Pfronten

**DECKEL MAHO**

Pfronten GmbH

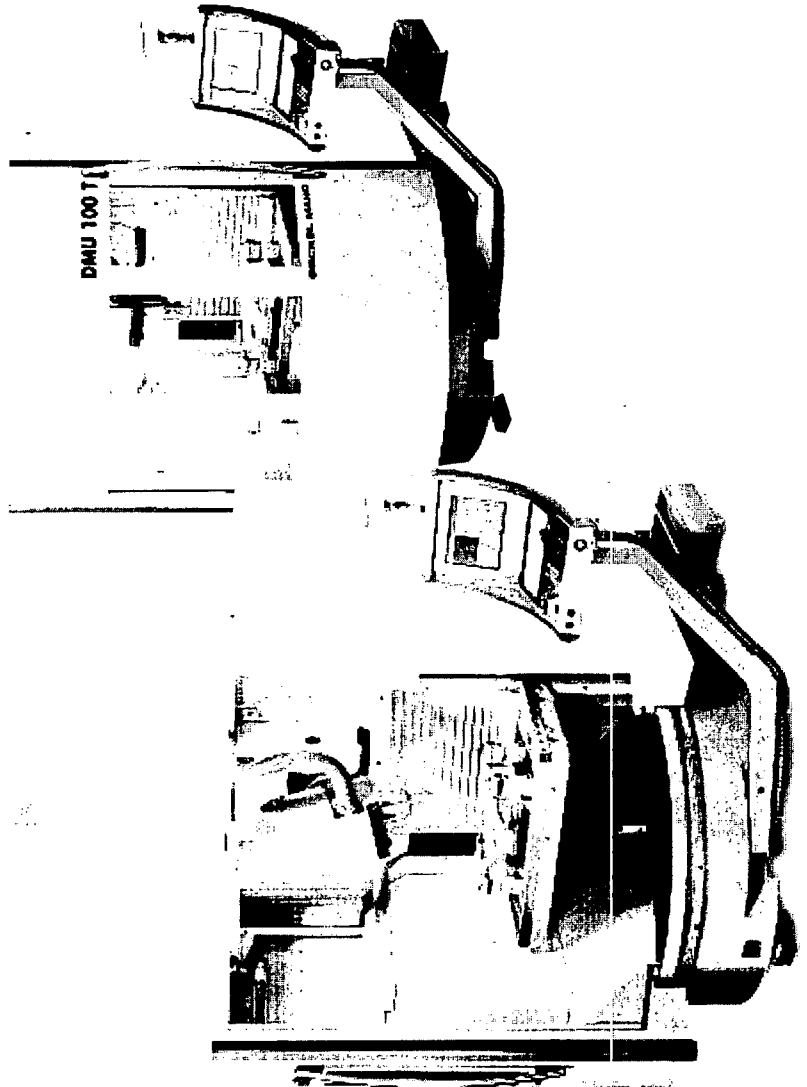


Employees (without trainees): 563  
Business volume: 202 Mio €

DECKEL MAHO GILDEMEISTER

# DMU T-series in monoblock design

« Monoblockwise – modest space requirements,  
more stability, optimal ergonomics! »



**DECKEL MAHO**  
Pfronten GmbH



Intake flange, right: Knee link

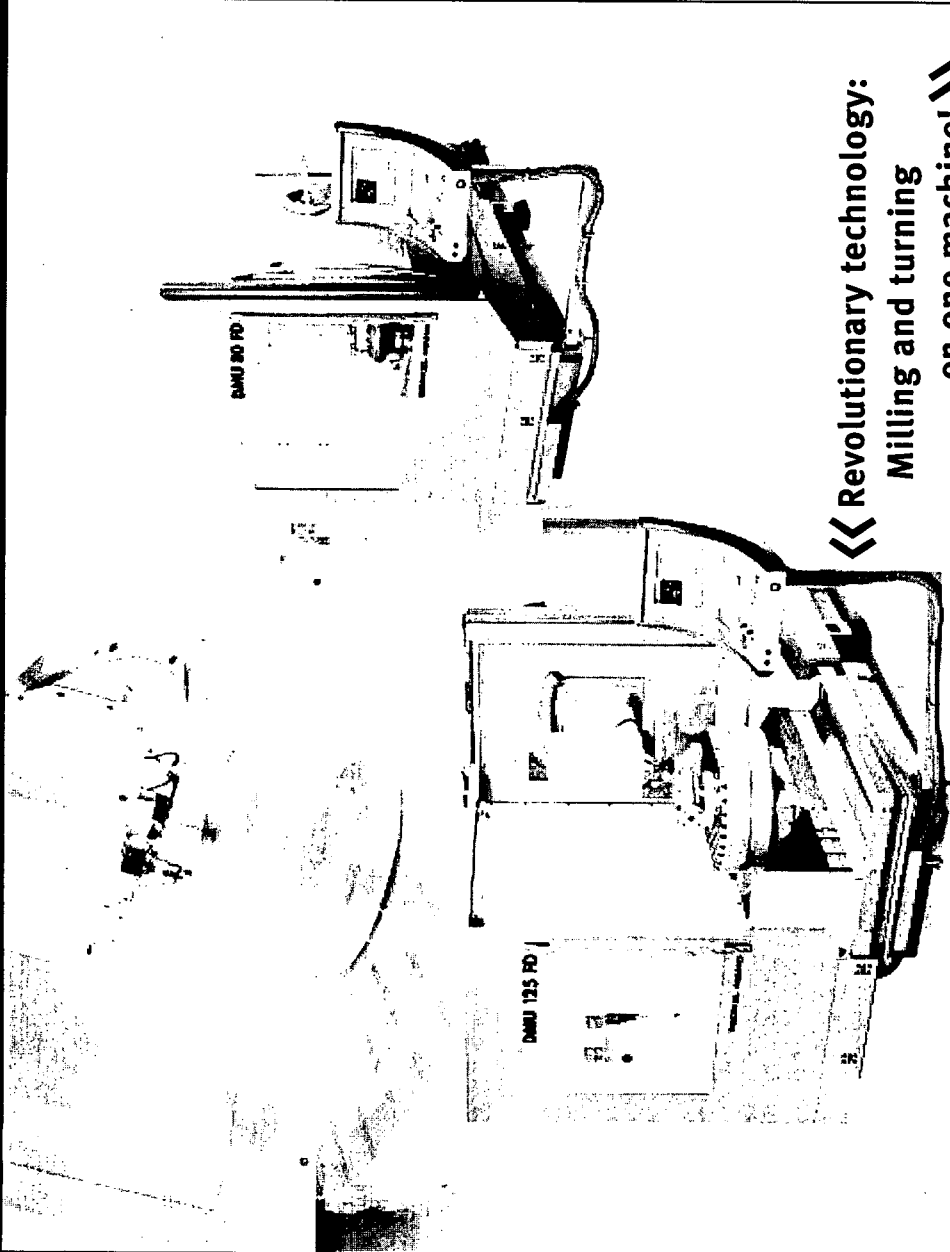
## Factbox DMU T-Reihe:

	DMU 60 T / DMU 80 T	DMU 100 T
X-axis	mm 600 / 800	1.080
Y-axis	mm 525 / 650	710
Z-axis	mm 500 / 550	710
Main drive	kW 9(13) / 11(16)	10(15)
Speed range up to	min <sup>-1</sup> 6.300/ 12.000/ (8.000/30.000)* (10.000/18.000)*	
Tool holder	SK 40 / HSK-E 50*	SK 40
Feed range up to	mm/min 15.000	15.000
Rapid traverse X/Y/Z m/min	18/18/17	30/30/20
	18/18/15	

Control MillPlus/TNC 430  
\*Optional

DECKEL MAHO GILDEMEISTER

New: DMU 80/125 FD  
milling and turning in only one setting



«« Revolutionary technology:  
Milling and turning  
on one machine! »»

**DECKEL MAHO**

Pfronten GmbH



Rolls-Royce engine housing

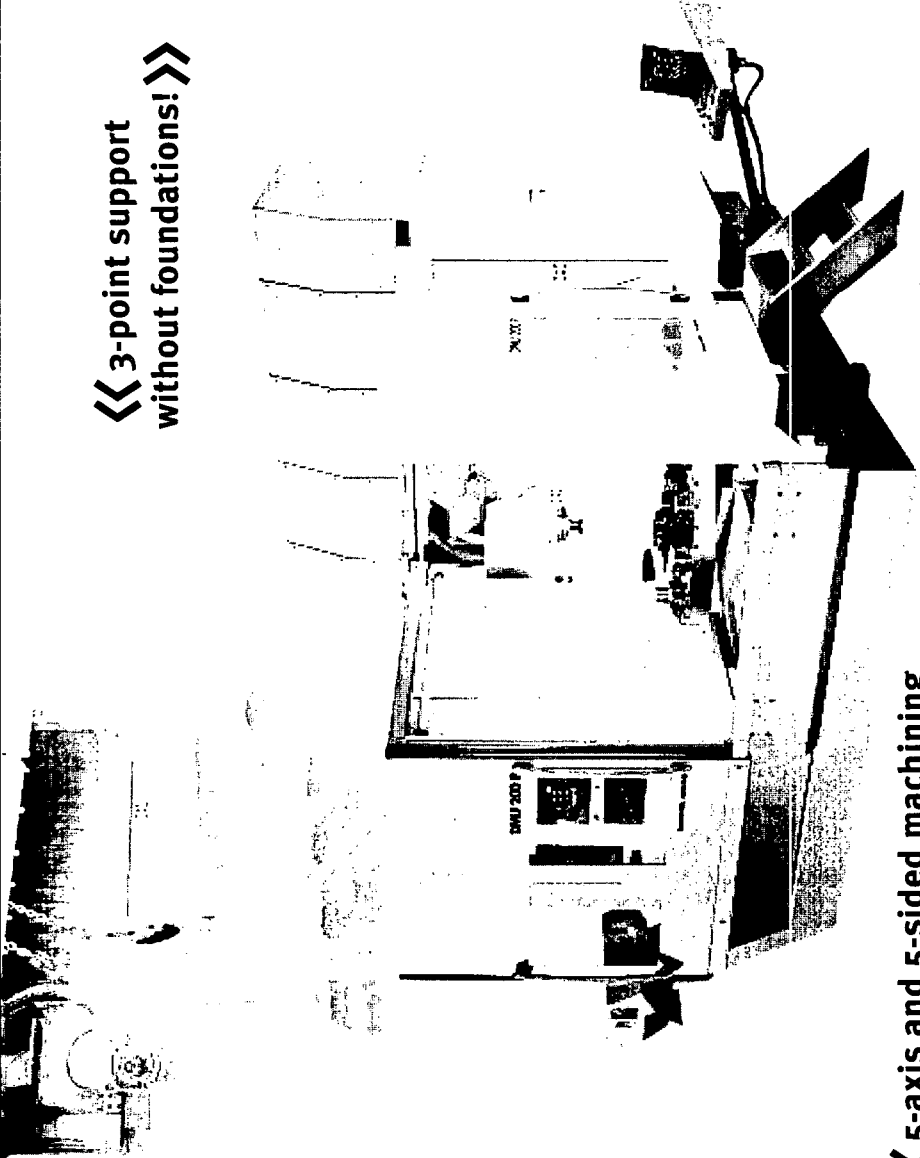
**Factbox DMU 80/125 FD:**

X-axis	mm	800/1.250
Y-axis	mm	700/880
Z-axis	mm	600/800
Main drive	kW	15/15
Speed range up to	rpm	12.000/12.000
Tool mounting		HSK-A63/HSK-A63
Feed range up to	mm/min	15.000/15.000
Rapid traverse X/Y/Z	m/min	340/24

DECKEL MAHO GILDEMEISTER

# DMU 200 P: the mega-milling centre

« 3-point support  
without foundations! »



« 5-axis and 5-sided machining  
of workpieces up to 6.000 kg! »

**DECKEL MAHO**  
Pfronten GmbH



Completely machining of large, heavy workpieces with swivel head arranged in gantry design and NC-rotary table? The DMU 200 P makes it possible!

## Factbox DMU 200 P:

X-axis	mm	1.800
Y-axis	mm	2.000
Z-axis	mm	1.100
Main drive	kW	30
Speed range up to	rpm	8.000**
Feed range up to	mm/min	15.000
Rapid traverse X/Y/Z	m/min	60/40/40
Control		MillPlus/TNC 430
		*Optional: 8.000/18.000/30.000 min <sup>-1</sup>
		**Optional: 12.000/18.000/42.000 min <sup>-1</sup>

DECKEL MAHO GILDEMEISTER

The new DMC 200 U: series production  
of components up to 3,000 kg

« Complete machining  
in one setting! »

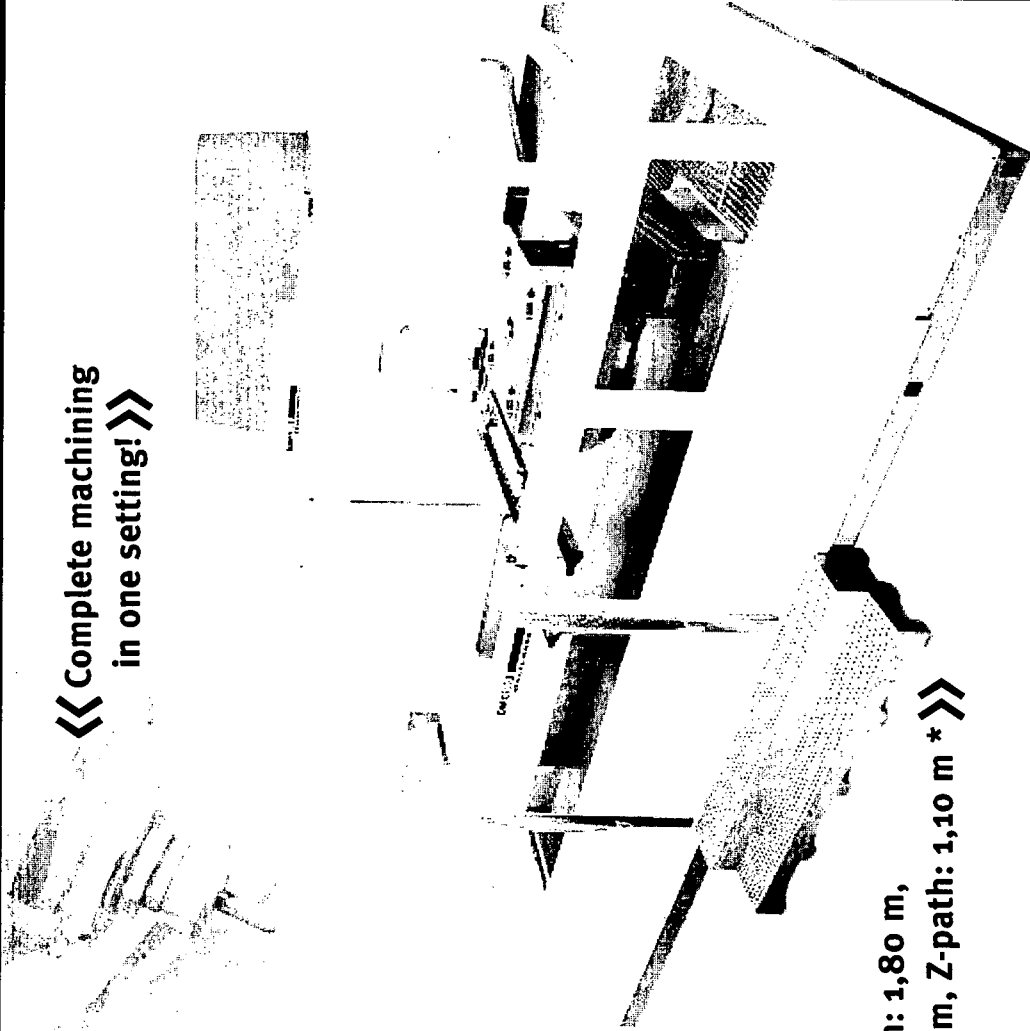


The DMC 200 U combines the highly complex machining of heavy components with the possibilities offered by an efficient pallet changing system!

**Factbox DMC 200 U:**

X-axis	mm	1.800
Y-axis	mm	2.000
Z-axis	mm	1.100
Main drive	kW	30
Speed range up to	min <sup>-1</sup>	8.000
		(12.000/18.000/42.000)*
Feed range up to	mm/min.	15.000
Rapid traverse X/Y/Z	m/min.	60/40/40
Control		MillPlus/TNC 430
		* Optional

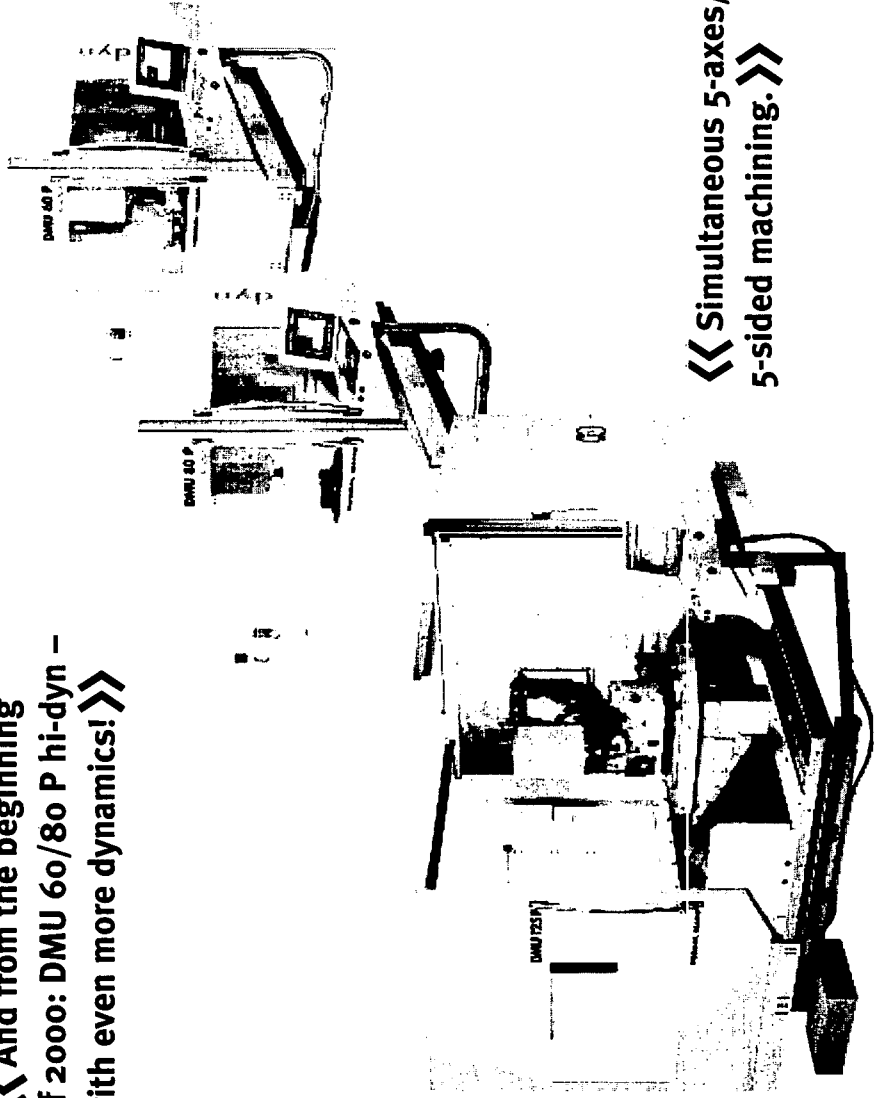
« X-path: 1,80 m,  
Y-path: 2 m, Z-path: 1,10 m \* »



DECKEL MAHO GILDEMEISTER

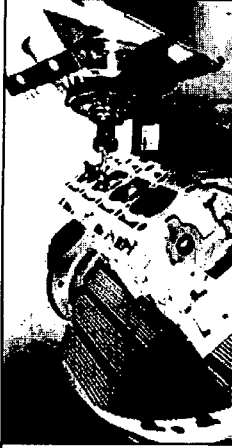
# DMU P series for 5-axis complete machining

«« And from the beginning  
of 2000: DMU 60/80 P hi-dyn –  
with even more dynamics! »»



«« Simultaneous 5-axes/  
5-sided machining. »»

**DECKEL MAHO**  
Pfronten GmbH



Simultaneous 5-axes/5-sided machining permits the production of universally designed workpieces with an efficiency that has never before been possible. Individual components and small batches are produced noticeably more precise, faster and economically.

## Factbox DMU 60/80/125 P:

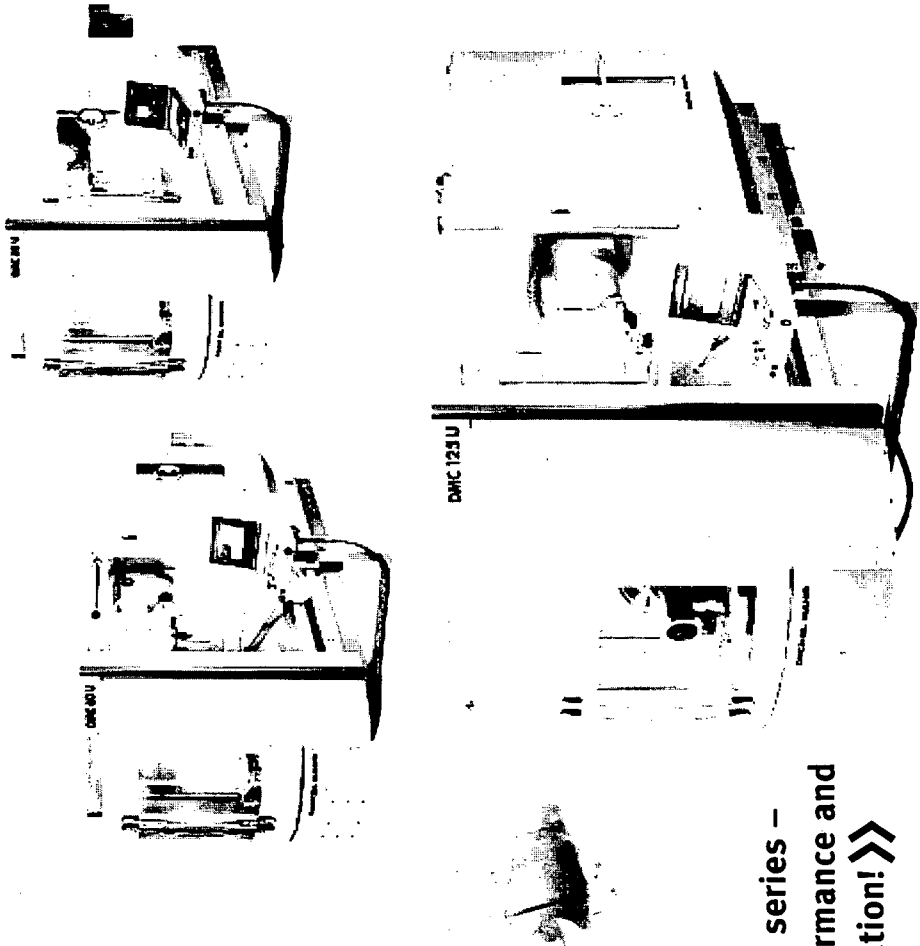
X-axis	mm	600/800/1,250
Y-axis	mm	700/700/880
Z-axis	mm	550/600/800
Main drive	kW	15/15/15(30)
Speed range up to	min*	12,000*
Feed range up to	mm/min.	15,000
Rapid traverse X/Y/Z	m/min.	40/40/24
Control		MILLIplus/TNC 430

\* Optional: 8,000/18,000/30,000 min<sup>-1</sup>

DECKEL MAHO GILDEMEISTER



# DMC U series: fully automatic, flexible series production



« DMC U series –  
maximum performance and  
easiest operation! »

**DECKEL MAHO**

Pfronten GmbH



When it comes to machining complex workpieces or workpieces in manifold variations in series and in one setting. This latest technology also allows demanding 5-axis and 5-sided machining.

### Factbox DMC 60/80/125 U:

X-axis	mm	600/800/1.250
Y-axis	mm	700/700/880
Z-axis	mm	550/600/800
Main drive	kW	15/15/15 (30)*
Speed range up to	min <sup>-1</sup>	12.000**
Tool mounting		SK 40/SK 40/SK 40 (SK 50)*
Feed range up to	mm/min	15.000
Rapid traverse	m/min	30/30/24
Tool magazin	pockets	60 (120)*
Control		MillPlus/TNC 430

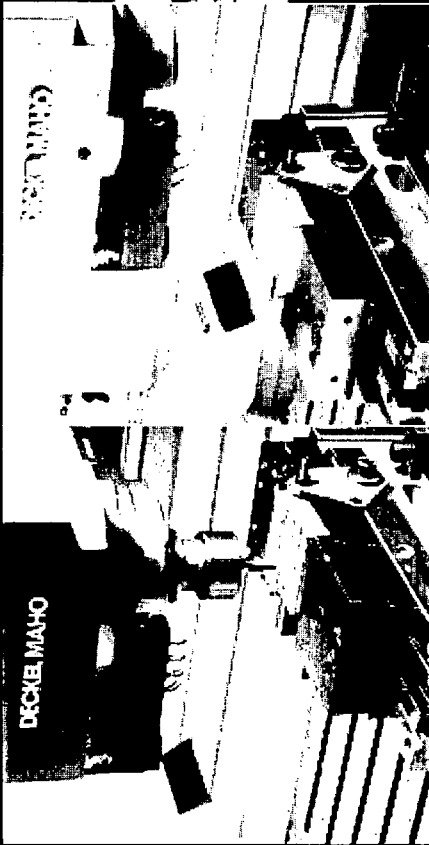
\* Optional

\*\* Optional: 18.000/30.000 min<sup>-1</sup>

DECKEL MAHO GILDEMEISTER

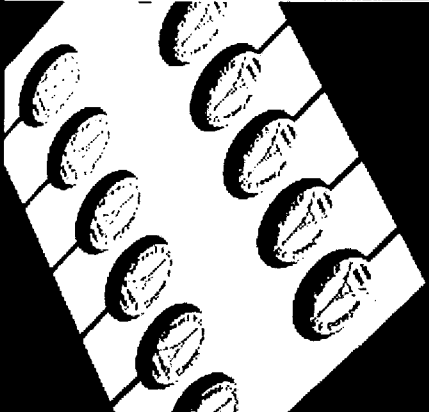
# Trends 2000 – laser technology

**LASERTEC**  
Pfronten GmbH

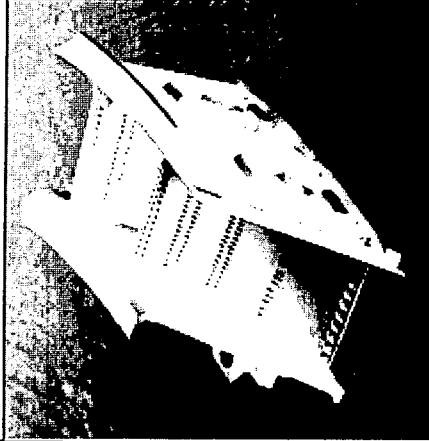


**Milling**

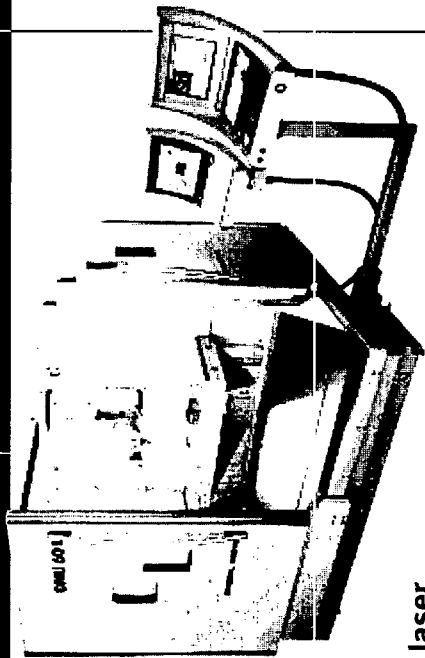
**Laser machining**



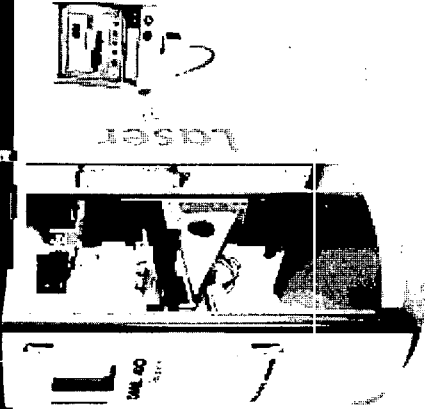
**Mold for candies**



**Turbine blade**



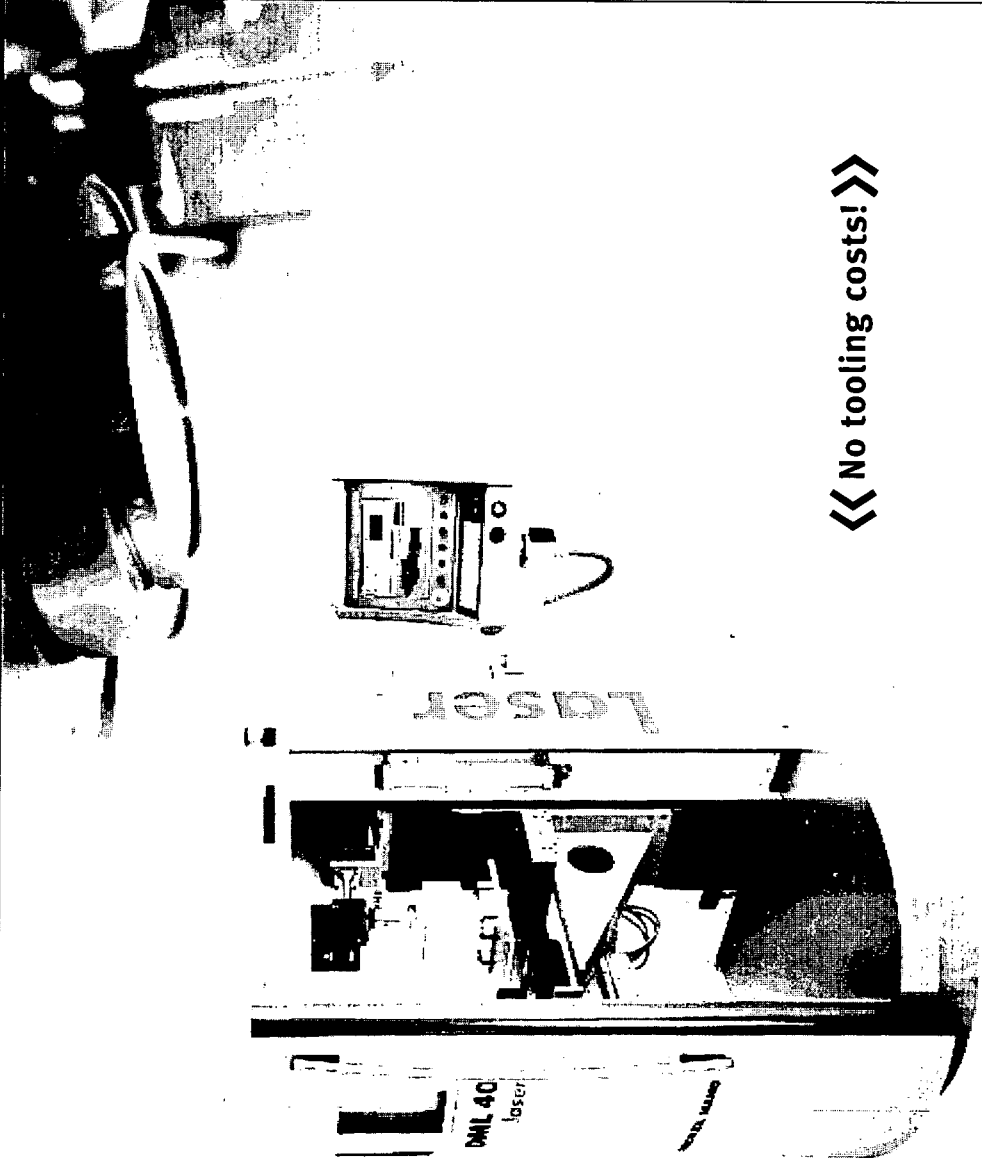
**DMU 60 L:  
Milling and laser  
machining on one machine**



**DML 40:  
Laser machining of  
intricate cavities**

DECKEL MAHO GÄLDENEISTER

# DML 40: laser machining of delicate cavities



《《 No tooling costs! 》》

**LASERTEC**  
Pfronten GmbH



Moulded part of airbag, turbine blade

## Factbox DML 40:

X / Y / Z	mm	70 / 70 / 200
Table size	mm	375 x 400
Max. table load	kg	50
Min. inclination of ejection	grade	15
Diam. of laserbeam	mm	0,1
Laser type	Q-Switch YAG	
Laser output	W	100
Measurements		
Width	mm	1.950
Depth	mm	1.200
Height	mm	2.000

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