

ACCURACER[®]

by GMTK



Integration of machining processes and strategies



the end over the means



GMTK Multi-Process Machining S.A. is a manufacturer that upon a base of experience and high technology, works actively in the development of machining solutions which allow improving the efficiency and profitability of the users of its machine tools.

Due to the segment of market to which GMTK is addressed, the identification values of its products are accuracy, reliability and productivity. Therefore, GMTK has a highly qualified and experienced human capital specially enhancing the Applications and Development Areas.

The founding partners of GMTK are the Technological Centre Tekniker and the industrial group Grupo Maherholding that joined to the Public Venture Capital Fund Seed Gipuzkoa Capital contribute for the soundness and stability of the company.

GMTK's object is to cooperate in increasing competitiveness and profitability of the final users of its products and services through designs adapting to the real needs of each production process and by offering ground-breaking products as far as applied technology is concerned.



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ACCURACER VR is a new concept in multi-process machine developed in order to obtain the highest performance in the machining of complex, accurate and high precision and added value pieces.

The applied technology allows a combination of exceptional dynamics and strength. This compromise between DYNAMICS and POWER gives the users of ACCURACER VR the possibility of:

1.- Approaching to the machining of a piece with the most appropriate machining strategy.

- Conventional cutting.
- High feed cutting.
- High speed cutting.
- Combination between high feed cutting and high speed cutting.

2.- Integrating different machining processes.

- Complete machining solution.
- Machining processes adapted to their optimal cutting conditions.

All this results in HIGHER PRODUCTIVITY FOR THE CUSTOMER.

description

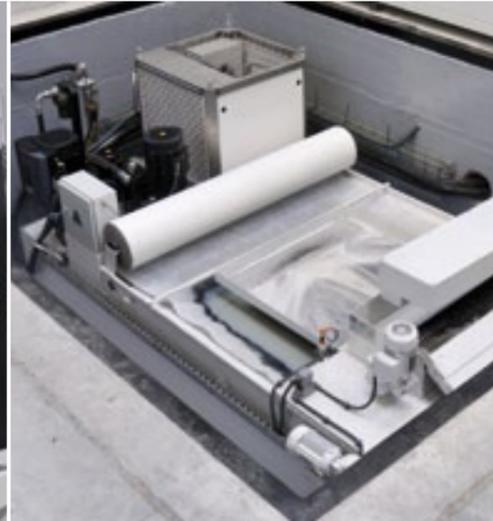
ACCURACER VR

The ACCURACER VR range has been developed on a knowledge base of machining processes and the optimal cutting conditions of the different processes and materials.

This knowledge in Applications Engineering has resulted in a configuration of a rigid and at the same time dynamic machine, where each axis is able to offer drives with high cutting and dynamics capacity (up to 40 m/min speed with accelerations up to 3,5 m/sec²). Compromise between dynamics and power results in an important improvement of productivity, due to the fact that the ACCURACER VR adapts to the cutting conditions of each process and material. In addition to this, times for empty movements are significantly reduced (changing of tools and accessories, measuring, a.s.o.). The more complex the working piece is and the higher added value it has, the more efficient and competitive the ACCURACER VR becomes.

The rigidity of the ACCURACER VR, together with the optimized hydrostatic guiding and the control of the temperature stability, grants the highest accuracy and reliability for approaching complex and high added value machining.

ACCURACER VR includes technical solutions which take it to the top regarding applied technology. This results in a geometric accuracy and surface finishing that satisfies the specific requirements of the most demanding sectors.





integral system for the changing of tools, toolholders and heads

The ACCURACER VR range includes an innovative integral system for the changing of tools, toolholders and heads that offers, among others, the following advantages:

Productivity: the changing of tools, toolholders and heads is done through the same device and the changing times are significantly improved.

Accuracy: removing weight from the cross beam in comparison to traditional changers improves considerably the accuracy on tool tip.

Flexibility: the integral changing system allows the user to adapt the changer according to the needs of tools and accessories in each application. Furthermore, a sole integral changing system can be shared by more than one machine.

Reliability: the integral changing system included in the ACCURACER VR range uses a standard robot used in sectors of highest productivity such as automotive. This grants reliability, availability and technical assistance.





applications

The philosophy of the ACCURACER VR range is based on an integral and efficient solution for the machining of complex pieces. The knowledge of GMTK's technicians on components manufacturing processes for different sectors results in a machine adapted to each user and application.

The job of our Applications Engineering Office focuses on approaching the machining of complex pieces with the highest compromise for reliability, accuracy and productivity, in order to improve profitability and competitiveness of end users of the ACCURACER VR.

The integration of machining processes and strategies makes the ACCURACER VR a really versatile machine which suits to the needs of each application through the configuration of the different accessories required.

GMTK's Application Engineering Office works actively in searching for new applications and in the study of their manufacturing processes. Depending on the requirements of each application, new accessories are developed to grant a complete machining solution.

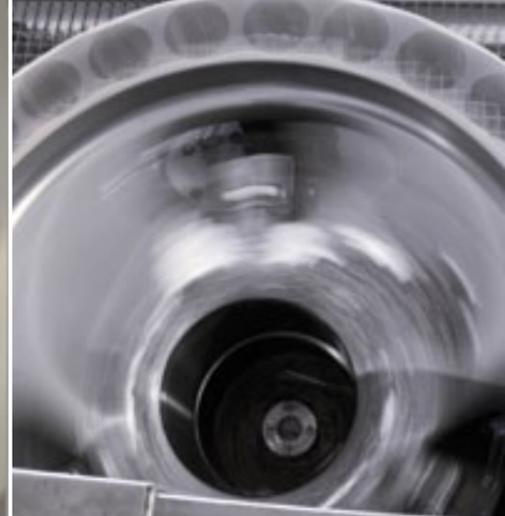
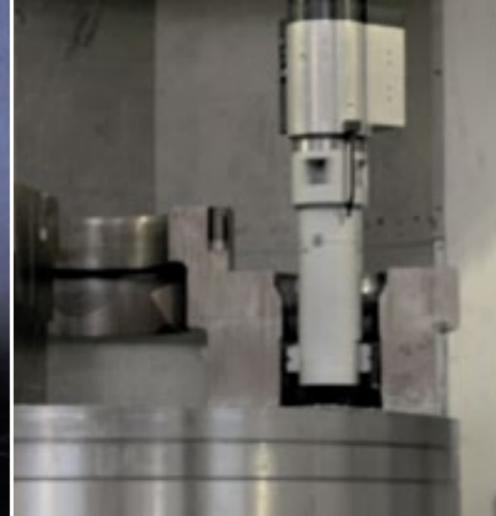
the end over the means





“GMTK: your strategic partner for efficiency in complex and high added value applications”



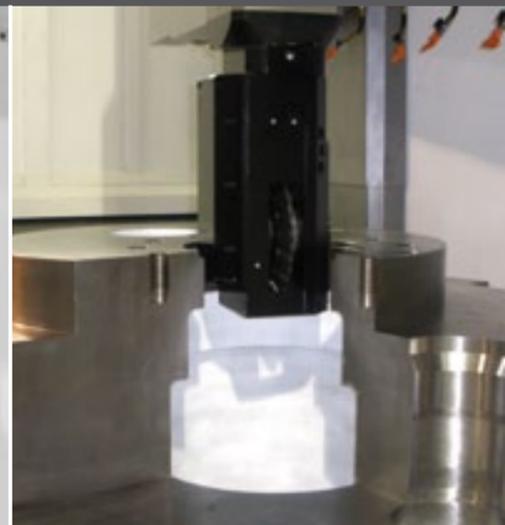
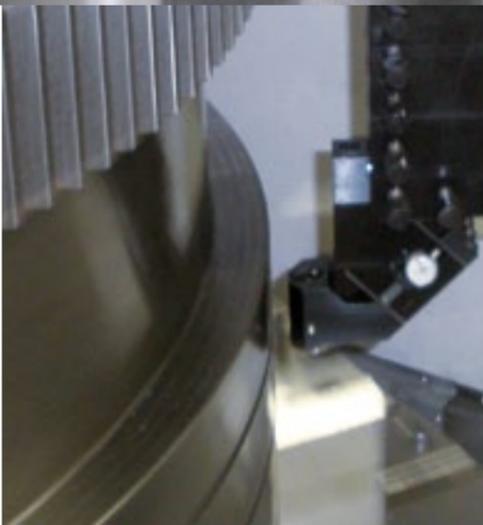


accessories

The versatility of the base machine of the ACCURACER VR range allows an approach to the complete machining of complex pieces. This approach is done by the integration of different accessories directly to the RAM through a coupling device specially developed by our team of engineers.

Design and development of these accessories are carried out in order to fulfill the current requirements in complex pieces analyzed by our Applications Engineering Office. They allow a customized and effective integral solution for each user and application.

The decisive commitment for applications engineering and new developments make GMTK dispose of unique accessories and solutions.



Services



Turnkey projects

The experience and knowledge of GMTK's Applications Engineering Office allows it to offer a wide range of services under turnkey format. This service may include the configuration of investment in machinery, and advice in engineering for foundation, CAM programming, post-processing, simulation and verification of pieces, tooling, training for operators, a.s.o.

Advice for improving the manufacturing processes

GMTK offers to the customers all its knowledge regarding manufacturing processes. This knowledge makes GMTK be the appropriate partner to approach projects for improvements in productivity and efficiency when machining complex and high added value pieces.

Training

GMTK's compromise with its customers goes beyond the delivery and installation of the machines. Convinced by the idea that a good training of the user is essential for improving performance and productivity of installed equipments, GMTK offers standard and customized training programs to grant highest profitability of the investment made.

After Sales Service

GMTK knows about the influence that machine availability has on the profitability and competitiveness of end users. Therefore, the assistance department of GMTK works in preventive and corrective maintenance programs which grant highest reliability and disposability through remote service systems and qualified personnel.

technical characteristics

	MONOBLOCK Models				DOUBLE COLUMN Models					
	VR 1.6	VR 2.0	VR 2.4	VR 2.8	VR 3.2	VR 3.6	VR 4.0	VR 4.6	VR 5.3	VR 6.3
GENERALITIES										
∅ Turning (mm)	1.600	2.000	2.400	2.800	3.200	3.600	4.000	4.600	5.300	6.300
∅ Chuck (mm)	1.200 ÷ 1.400	1.600 ÷ 1.800	2.000 ÷ 2.200	2.400 ÷ 2.600	2.800 ÷ 3.000	3.000 ÷ 3.200	3.400 ÷ 3.600	3.600 ÷ 4.200	4.200 ÷ 4.800	5.000 ÷ 5.800
Standard turning height up to (mm)	2.000		2.400		2.800			4.000		
Max. piece weight (kg)	10.000	15.000	20.000	30.000	30.000	40.000	50.000	80.000	80.000	120.000
CHUCK DRIVE										
Main motor power (Kw)	22+22 / 28 + 28 / 37+37 (46 + 46 / 52 + 52)					51+51 / 60+60		51+51 / 60+60 / 71+71 / 100 + 100		
Chuck speed (rpm)	470	360	290	235	210	190	175	130	110	100
Positioning speed C axis (rpm)	10 bidirectional				10 bidirectional			5 bidirectional		
Min. positioning angle C axis	0,0001°							0,0001°		
Lathe axis drive guiding	Hydrostatic							Hydrostatic		
CROSS BEAM DRIVE										
Axis speed (mm/min)	500							500		
Drive	Hydraulic							Hydraulic		
X DRIVE										
X axis speed (mm/min)	30.000							30.000		
X axis drive guiding	Hydrostatic							Hydrostatic		
Z DRIVE										
Z axis speed (mm/min)	40.000							40.000		
Z axis drive guiding	Hydrostatic							Hydrostatic		
RAM section (mm)	270 x 270							270 x 270 (320 x 320)		
RAM stroke (mm)	1.250 / 1.650							1.250 / 1.650 / 2.050 / 2.550		
MILLING DRIVE										
Milling motor power (Kw)	37							37 (51)		
Tool speed (rpm)	4.000							4.000 (3.000)		
Y DRIVE (optional)										
Y axis speed (mm/min)	30.000							30.000		
Y axis drive guiding	Hydrostatic							Hydrostatic		
Y axis stroke(mm)	according to customer's requirements							according to customer's requirements		
Yx axis stroke (mm)	800	1.000	1.200	1.400	1.600	1.800	2.000	2.300	2.650	3.150
INTEGRAL AUTOMATIC TOOLS, TOOLHOLDER AND HEADSCHANGER										
Capacity (Number of tools)	40 / 60 / 80 / 100 / 120 / 200 / (acc. customer)							40 / 60 / 80 / 100 / 120 / 200 / (acc. customer)		
Max. tool Ø / Length / Weight	250 / 500 / 35 / (acc. customer)							250 / 500 / 35 / (acc. customer)		
Capacity (Number of accessories)	according to customer's requirements							according to customer's requirements		
AUTOMATIC PALLETS CHANGER										
Number of pallets	2 / (acc. customer)							2 / (acc. customer)		n.d
Changing system	180 ° / Shuttle	180 ° / Shuttle	Shuttle					Shuttle		n.d
HALF-AUTOMATIC PALLETS CHANGER										
Number of pallets	2 / (acc. customer)							2 / (acc. customer)		n.d
Pallets loading in changing					Manual with crane					n.d
Pallet claming and centering system					Hydraulic through 7 pins, centering repeatability 0.01 mm					n.d
NUMERIC CONTROL										
Model	Siemens 840 D.SL / Fanuc CNC FS31i-A							Siemens 840 D.SL / Fanuc CNC FS31i-A		

For other sizes or technical characteristics please contact our commercial department.



Pol. Sansinenea-Erreka, Parcela A4, Nave 8
20.749 Arroa-Behekoa, Zestoa
Gipuzkoa, (Spain)
T. +34 943 868 893
F. +34 943 868 894
sales@gmtk.es

GMTK CENTRAL EUROPE
Gewerbegebiet Salzweg 1
A-4894 Oberhofen am Irrsee AUSTRIA
Tel. +43 (0)6213 2005318
Fax. +43 (0)6213 2005322
office@gmtk.de

GMTK USA CORPORATION
1270 Rankin Drive, Suite E
Troy, MI 48083 USA
P. (+1) 248 7339717
F. (+1) 248 7339718
gmtk@gmtk-usa.com

www.gmtk.es // www.gmtk-usa.com