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Vol. 47

News Bulletin from Micromatic Grinding

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FLEXI 65

Universal Cylindrical Grinder

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CBN

CAM SHAFT GRINDER

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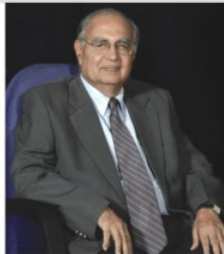


I am sure Imtex 2007 had shown our customers new trends, refinements as well as the innovative efforts in manufacturing solutions and systems. Micromatic grinding along with Ace Micromatic Group companies ACE, AMS & Pragati had showcased their new products. These products are sure to provide the manufacturing industry the best of productivity solutions with enhanced quality. In this issue we bring you the highlights of MGT at IMTEX 2007, FIE foundation award to Stallion 65 from MGT and MGT expanding its wings in exports. Please also see our coverage on Inauguration of MMT Tech. Center in Gurgaon and finally please don't miss our technical tips on grinding wheels.

Wish you all happy reading.

Sidhartha E. Dhand
Director – Sales

From the desk of **Chairman & Managing Director**



Dear Friends,

On behalf of Micromatic Grinding Technologies Ltd. And ACEMICROMATIC Group I would like to thank our customers and the visitors from around the world for tremendous response at IMTEX 2007 held at Bangalore. IMTEX 2007 was just the beginning of showcasing the biggest machine tool expo in the Asia-pacific region. It is a matter of great pride to Team MGT that our new Cylindrical Grinding Machine with Hydrostatic Guideways got FIE Foundation Award for the best design in this category.

I take this opportunity to invite you to EMO 2007 at Hannover (17-22 Sept. 07) at our stall no. E 06 Hall No.11 to see our E GRIND 200 in a new envelop with design conforming to European Standard (CE marked). We will also display our Precision Hydraulic grinder GCU 260 X 630. I trust you will be able to find time to visit our stall at EMO 2007.

Sincerely,



N.K.Dhand
Chairman & Managing Director


MGT Participation in



Hall 11 Stand E-06



If you are looking for ways
to improve your
productivity & quality,
just follow the
blue line



Glimpses

IMTEX 2007

BIEC (18-24th Jan, 07), Bangalore



MGT Stand at IMTEX 2007



Visitors having a close look on MGT Machines



Visitors appreciating Stallion (FIE foundation award) Machine

Stallion wins the FIE Foundation Award

The MGT Stallion 65 CNC Production plunge cylindrical grinder with Hydrostatic Guideways was honored with the best product exhibited at IMTEX 2007. Stallion won the FIE Foundation Award. Some of the unique features of Stallion

Some of the unique benefits of Stallion:

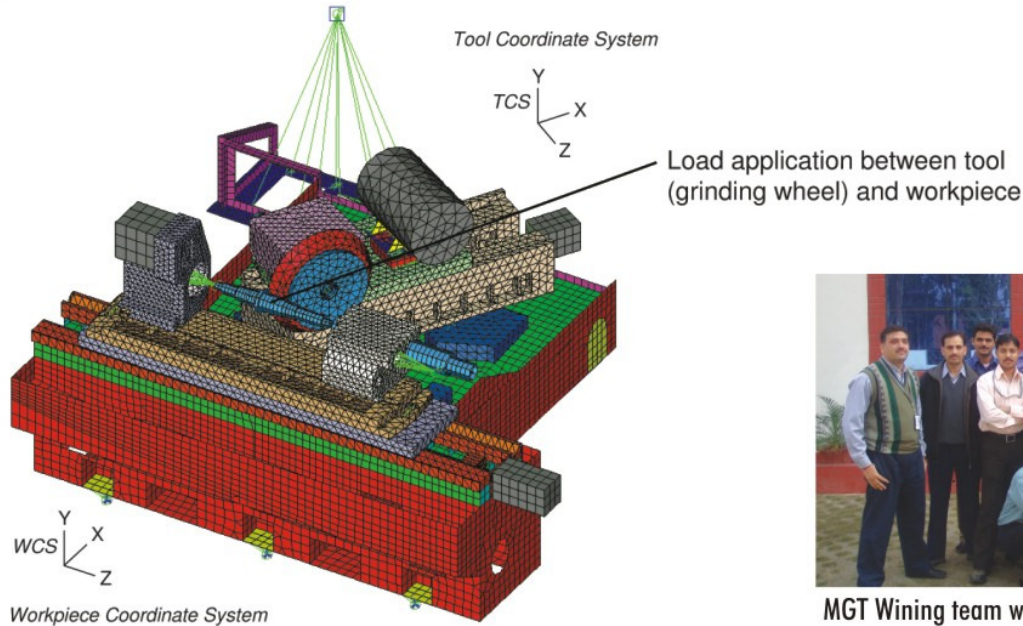
- ◆ Hydrostatic slide (x - axis).
- ◆ Rigid Machine Base.
- ◆ Higher Dynamic and Thermal stability.
- ◆ Faster Response.
- ◆ Single wheel width capacity up to 160mm (Dia 660 wheel)
- ◆ Optional twin wheel width capacity up to 200mm (Dia 660 wheel)
- ◆ Better aesthetics.
- ◆ TPM friendly enclosure.

Description	Unit	MH 63 S
Capacities		
Admit between centers	mm	630
Swing over table	mm	320
Wheel dia (OD x ID)	mm	600x160
Surface speed	m/s	45
Wheel head motor power	kW	11 (15)
Work head Center	MT	5
Tailstock Center	MT	5



MGT is sure that this machine will give higher precision and productivity with lower total life cycle cost.

Model setup FEA Analysis done at Aachen University Germany



MGT Wining team with FIE Foundation Award

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Fraunhofer
Institut
Produktionstechnologie

WZL
RWTHAACHEN

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An evening organized by ACE Micromatic Group on 22nd January 2007 at Hotel Ashok, Bangalore



Mr. N.K. Dhand CMD-MGT with Welcome Address to customers



Our Customers attending the ACE Micromatic Evening



Dance Performance by local Artists was appreciated at large



Mr. Anuj Jain from Hero Honda receiving lucky draw prize from Mr. A.V. Sathe MD, Pragati Automation

New Product



FLEXI 65



OD Grinding



ID Grinding



Face Grinding

Technical Specifications of B-axis Machine

General Data		
Swing diameter:	mm	350 (External)
max length between centres	mm	650
Max Diameter of G/W	mm	350(400)
Peripheral Wheel speed	m/sec	33(45)
Swivelling range of B-axis	deg	-15 to 225
Max length of bore to be ground	mm	150
Job Length (With Chuck)	mm	240
Work head Taper:		MT5/A2-5
Tailstock Taper:		MT4

CNC UNIVERSAL CYLINDRICAL GRINDER

The versatile universal cylindrical grinding machine is designed for grinding medium sized work pieces in small and large-batch production. It can be adapted precisely to the demands made on it.

ADVANTAGES

- Turret wheel head with automatic swivel (5°)
- Two external wheels and one internal wheel enabling external, internal and face grinding in the same setup
- Frequency-controlled motor-driven grinding spindles for external and internal grinding
- C-axis option for work head enabling form and thread grinding
- Full enclosure
- Siemens PCU50 with windows XP control

Inauguration of **AceMicromatic** Technology Centers - Gurgaon

AceMicromatic Tech Centers are one stop shops where customers could touch feel and try out our machines before actually buying. These tech centers also provide training and other value added services to our customers.

AceMicromatic Tech Center has an in-house faculty to train operators deputed by customers. The courses cover the basic operation, maintenance and programming of the machines. Besides, training sessions are held in association with suppliers of machine tool sub-systems on related topics such as CNC and hydraulic systems, tooling etc. External experts are invited to conduct programmes on subjects covering productivity and production practices. An operator-training program to provide CNC operators to the industry is also on the anvil.

On the service front, the Tech Centre is well stocked with spares for the entire range of machines from the AceMicromatic group. Service requirements from customers are immediately attended to on top priority. Annual maintenance contracts with Micromatic Machine Tools enable customers to concentrate on their production schedules without having to divert their attention to maintenance problems. With the success of the Tech Center at Pune, the second one was inaugurated at Gurgaon near Delhi. This will be followed by opening of Tech Centers at Chennai and Bangalore.

INAUGURATION OF GURGAON TECH CENTRE

On 16th June 2007, AceMicromatic Group has added another feather to its cap with the successful inauguration of their New Tech Centre at Gurgaon. The event began traditionally with an invocation followed by Lighting of the Lamp by all the dignitaries on the dais.

Mr. N. K. Dhand Managing Director MMT welcomed our Chief Guest –Mr. A.K.Taneja President Shiram Pistons and Rings Ltd. and spoke of the humble beginnings of Micromatic group and its journey to the present. He emphasized that this could only be achieved due to MMT's commitment towards their customers and the faith & support given to Micromatic by their customers.



Mr. S.G.Shirgurkar Managing Director, Ace Designers gave an overview of our group and spoke about the new initiatives under taken by them in the field of training & partnering with customers.

Mr.A.K.Taneja ,Chief guest, in his address spoke of the present situation and the long road ahead for manufacturing in India, he drew parallels from his recent experiences in Thailand. He lauded the efforts and initiatives of ACEMicromatic group while reminding them of the need to keep getting better. Mr. T.K.Ramesh, VP MMT proposed the vote of thanks.

The evening livened up with the large gathering of customers who toured the Tech Centre, experienced the machines on display, the video conferencing center and other state of the art equipment.

There was a traditional Bhangra dance performance while cocktails and dinner was served.



Mr.A.K. Taneja President SPRL addressing on opportunities & new challenges for manufacturing in India

MGT-TOYODA Services Now at your door steps

TOYODA Sales and Service representatives along with MGT Engineers (TOYODA Trained) now available at Gurgaon Office to answer your sales queries and solve service problems of TOYODA Grinders

Contact :

For Sales

Mr. Yasushi Hibi
Mr. S.E. Dhand
Mr. M.Tyagi

Service

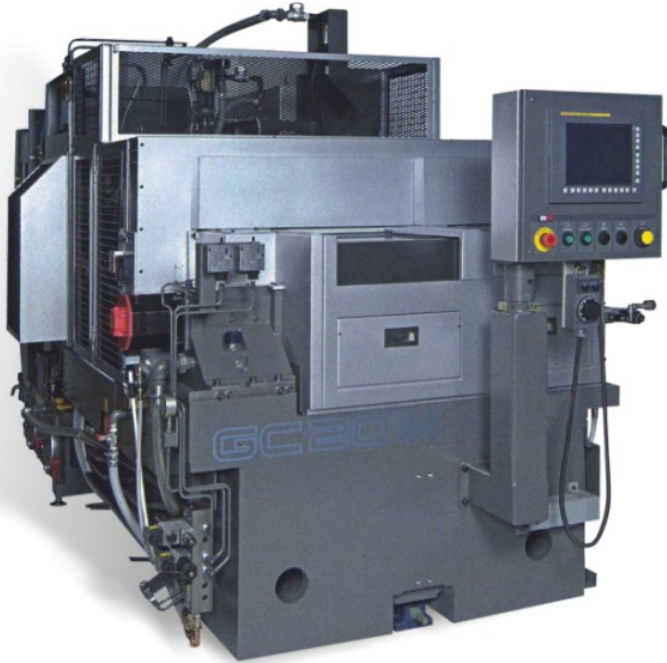
Mr. Matsuoka San
Mr. V.K. Sood
Mr. M.Divaskar

Address: 550E, Pace City II, Sector 37, Gurgaon

MODEL OF SUCCESS

Product Update GC20M

Salient Features of the machine and their advantages



Salient Feature

Advantage

Infinitely variable work speed Control	High productivity Reduced cycle time
High speed CBN grinding	High productivity for hard to grind materials Reduced cycle time
Full closed loop control by linear scale	High accuracy
Balancing of wheel & pulleys	Higher accuracy
Dynamic balancing of Wheel(option)	Reduction of chatter
3 point support for Machine base Displacement sensor(option)	Better support rigidity Reduction of warm up running Reduction in size variation caused due to thermal displacements of machine between previous day and next morning
Environment friendly cam grinding by ECOLOG Type II nozzle	Lesser volume of coolant required for grinding
Compact Machine (1870W x 2200H x 5200D)	Downsizing of coolant tank Reduction in wheel spindle power consumption Ideal for cell production Space saving

You are aware that Micromatic Grinding Technologies Ltd. Ghaziabad (MGT) has been in the fore front of Grinding Technology and has offered cutting edge solutions to Indian manufacturing industry for the past three decades. Introduction of new Toyoda-Micromatic Cam Lobe Grinding Machine is a big leap in the history of Indian Machine Tool Industry. MGT and JTEKT Corp. Japan have joined hands to introduce a state-of-art machine for this application. Toyoda-Micromatic compact Cam Grinder: Model GC20M-25.

In 2004 an agreement was signed between Micromatic Grinding Technologies Ltd. & Toyoda Machine works (Presently JTEKT corp.) of Japan for joint design & development of compact Cam grinding machine for camshafts of small engines. This joint effort led to the development of the second prototype of this state of the art cam grinder in the year 2006, with proven Japanese technology of a market leader in cam grinding machines (The first prototype was developed at Toyoda, Japan in 2005). This effort was unique in the history of machine tool industry as Engineers from both the companies worked together right from the machine design stage through to the machine building and then finally machine testing and performance evaluation stage.

The machine is first of its kind developed in India with high speed CBN grinding technology (120m/sec) and compact size, keeping in mind the aim to deliver the customer with a machine of Japanese technology, reliability and quality at lowest cost.



Latest on Super abrasive

MSB Abrasive Grain

MSB Grain is an abrasive grain produced by Sol Gel process that provides exceptional durability and cut rates in grinding.

Characteristics of MSB Grain
Hard & Tough

Self Sharpening

With its unique "stay-sharp" microscopic crystalline structure, it continually reveals fresh cutting edges to give a sustained cut. It is more durable, cost-effective abrasive solution that delivers real productivity benefits across the operation without the premature dulling associated with traditional abrasives.

MSB, Cubitron, Solgel, SG, Seeded Gel, Ceramic alumina are similar names that refer to a special class of alumina grains. These differ from regular fused grains by the number of crystals in a given grit size.

Conventional grain



- ◆ It removes tiny chips of steel for a considerable length of time by
- ◆ It gets dull & gets fractured in one or two places
- ◆ It will probably fly out from grinding pressure, and expose neighboring grains to do the work

MSB Grain



- ◆ It removes tiny chips of steel with many minute teeth penetrating the steel
- ◆ After extended use, when pressure increases these tiny particles may discard themselves, which keep the wheel sharp.
- ◆ The act of redressing this wheel is accomplished in smaller increments. For its no longer necessary to knock out entire grains or parts of grain simply retouch the face of MSB wheel.

Product Range

Grain	Grit Size	Hardness	Structure	Bond	Speed
1MSB – 10%, 3MSB – 30% 5MSB – 50%	46 - 220	G - N	5, 6, 7,	VSAE, VCAE, V2020, V389, V308	Up to 80 MPS

Where to use MSB Wheels

Machine Condition	Process Condition
High Static Stiffness	Preferably for Jobs with Hardness above 50 HRC
Facility to have Skip Dressing	Higher Specific Material Removal Rate

Typical Applications

A) Cylindrical Grinding – Transmission Shafts, Crank pin, Bearing Races, Cam Shafts
b) Internal Grinding – Bearing Races, Gear ID Grinding
c) Centreless Grinding – Bearing Races, Cutting Tools
d) Special Applications – Gear Teeth Grinding, Roll Grinding, Flute Grinding, Creep Feed

Case Study

M/c	: CNC External Grinding Machine
Job	: Taper Roller Bearing - Inner Ring Track
Wheel Size	: 510 X 12.5 X 304.8 mm

Advantages of MSB Wheels

Direct Benefits	Indirect Benefits
Lower Cycle Time	Higher productivity
More parts per dress /Lower Dressing Depth	Higher Wheel Life
Lower Grinding Cost	Less Down Time

Parameters	Conventional Wheel –DA120 K7 V1092/60	MSB Wheel –3MSB1201 L7 V389/60
Stock Removal	0.4mm (OD) / 0.2mm (face)	0.4mm (OD) / 0.2mm (face)
Cycle Time	18 secs	16 Secs
Dressing Frequency	15	75
Dressing Depth	0.02	0.02
Surface Finish (Ra)	< 0.4 Microns	< 0.4 Microns
Wheel Life	75000	375000
Wheel Cost	Rs. 2154.00	Rs. 4715.00
Cost / Part	Rs.0.029 / Job	Rs. 0.013 / Job

By Rajesh Kumar P.B.-Dy. Mgr. Product Application Caborundum Universal Ltd.

Happening's at MGT

MGT ROLLING OUT MACHINES FROM NEW FACILITY

"Nothing astonishes men so much as common sense." - wrote Ralph Waldo Emerson in his essay 'Art', Common sense was also the inspiration behind MGT'S State of Art new manufacturing facility, which astonishes the visitors.

On 15th Sept 2006, MGT inaugurated its state of the art factory adjacent to the old factory in Ghaziabad with the eventual aim of doubling the manufacturing capacity. MGT's factory is fully operational now. The transformation from bare shell to what is arguably one of the India's most efficient precision-engineering operations is a story of innovation and vision of MGT. 'We started with two simple objectives,' Quality products which satisfy our customers and now after 34 years MGT is the company of choice for its customer better known for friendly to customer needs and reliable grinding solution provider. One of the first things the visitors notice about the new facility compared to other manufacturing facilities of its size and output is the bright natural light and the cleanliness. The facility is fully air-conditioned installed with state-of-the art filtration system to ensure dust free environment. It provides our members with a pleasant and healthy place to work. Other investments include Co-ordinate Measuring Machine from CARL ZEISS and a Horizontal Machining Center from MAZAK.

MGT Annual Day celebration

On April 7, 2007 Micromatic Grinding Technologies Ltd. celebrated its Annual Day at Star Farms in Ghaziabad. Sports events, cultural activities and prize distribution were organised as a part of the celebrations. In the welcome address Mr. N. K. Dhand shared his views on some of the challenges for future and also advocated cultivating positive attitude in life with discipline and values. In his speech, a lot of emphasis was on safety and health, which we normally forget, in our daily life. The event started with distribution of awards for Best suggestion of the year, Award for participation in 5S, Special recognition for contribution in time and cost saving, improving quality of product and the best trainer. This was followed by distribution of prizes for in-house competition in sports like Carom, Tennis, Badminton, Cricket, Volleyball, Long jump, High jump & slow cycling. And what would MGTians do without music!! - the annual day presented live, non-stop orchestra by professionals and Songs, Plays and Dance by MGT Artists.





MGT EXPANDING It's WINGS

AUSTECH 2007

Austech 2007 is the biggest machine tool show in Australia happening every alternate year in Sydney & Melbourne. This year MGT participated along with its group companies ACE & AMS in Melbourne on 21-24 May, 2007 at Melbourne exhibition center under the banner of Quality Machine Tools Pty Ltd (QMT) - our representative in Australia. MGT exhibited its new model Junior 25 CNC compact CNC grinder that evoked keen interest at the show. QMT has recently sold 2 CNC grinders from MGT to M/s ULTRACUT who are into manufacturing carbide step drills.



From Left Mr. Ramchandra-QMT our rep. In Australia standing in the middle our customer Ultracut with Mr. S.K. Roy(MGT) in front of displayed machine Junior 25 at Austech 07



In the factory of Ultracut standing in the middle Mr. Narayanan Jayam (MGT) with Ultracut team after successful commissioning of Two CNC machines



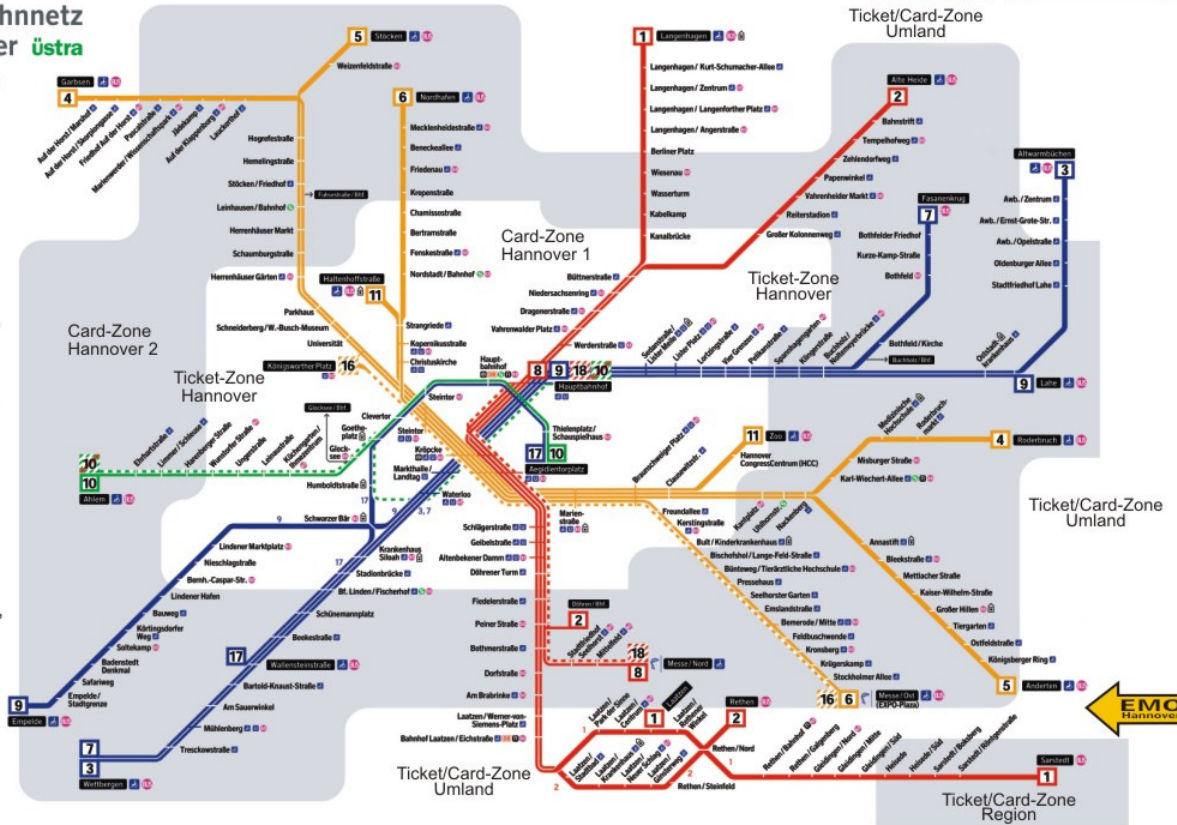
Mr. Boissenin & Mr. Roberto from Rewitech Sa Switzerland standing at the back with MGT Team after successful trial & Inspection of their ordered machine



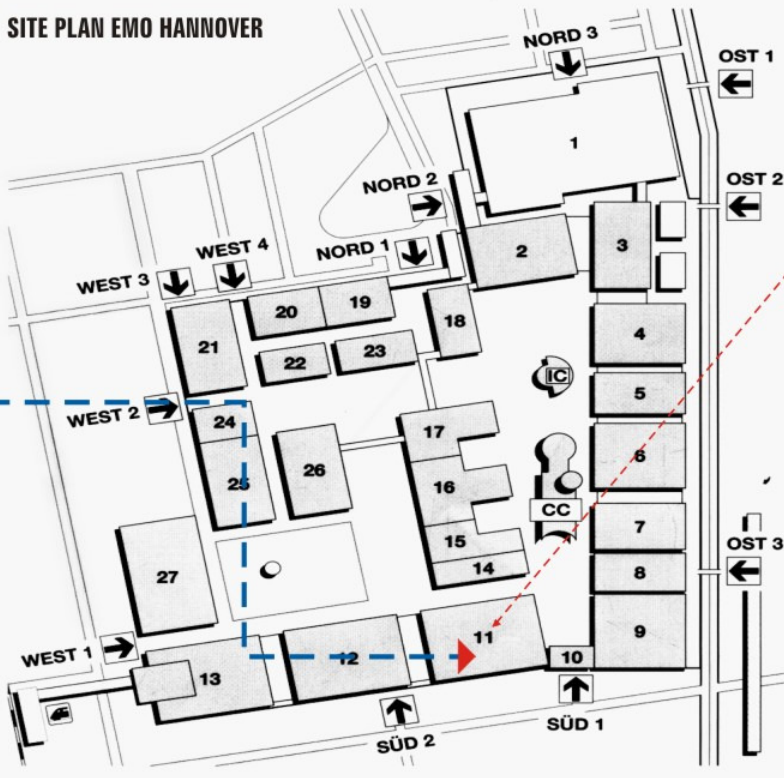
Mr. Konrad Lebherz from Guehring-Germany after successful trial & inspection of Ecotech-650 CNC Machine with MGT team

Stadtbahnnetz Hannover üstra

Tram network map
Plan du réseau tram



SITE PLAN EMO HANNOVER



We are here
Stall No. E-06
Hall No.-11

MACHINES ON DISPLAY
CNC External Grinder
GRIND 200



Precision Hydraulic Grinder
GCE 260 X 630



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