

Max. Turning

Diameter:

4800 mm

**Work Load
Capacity:**

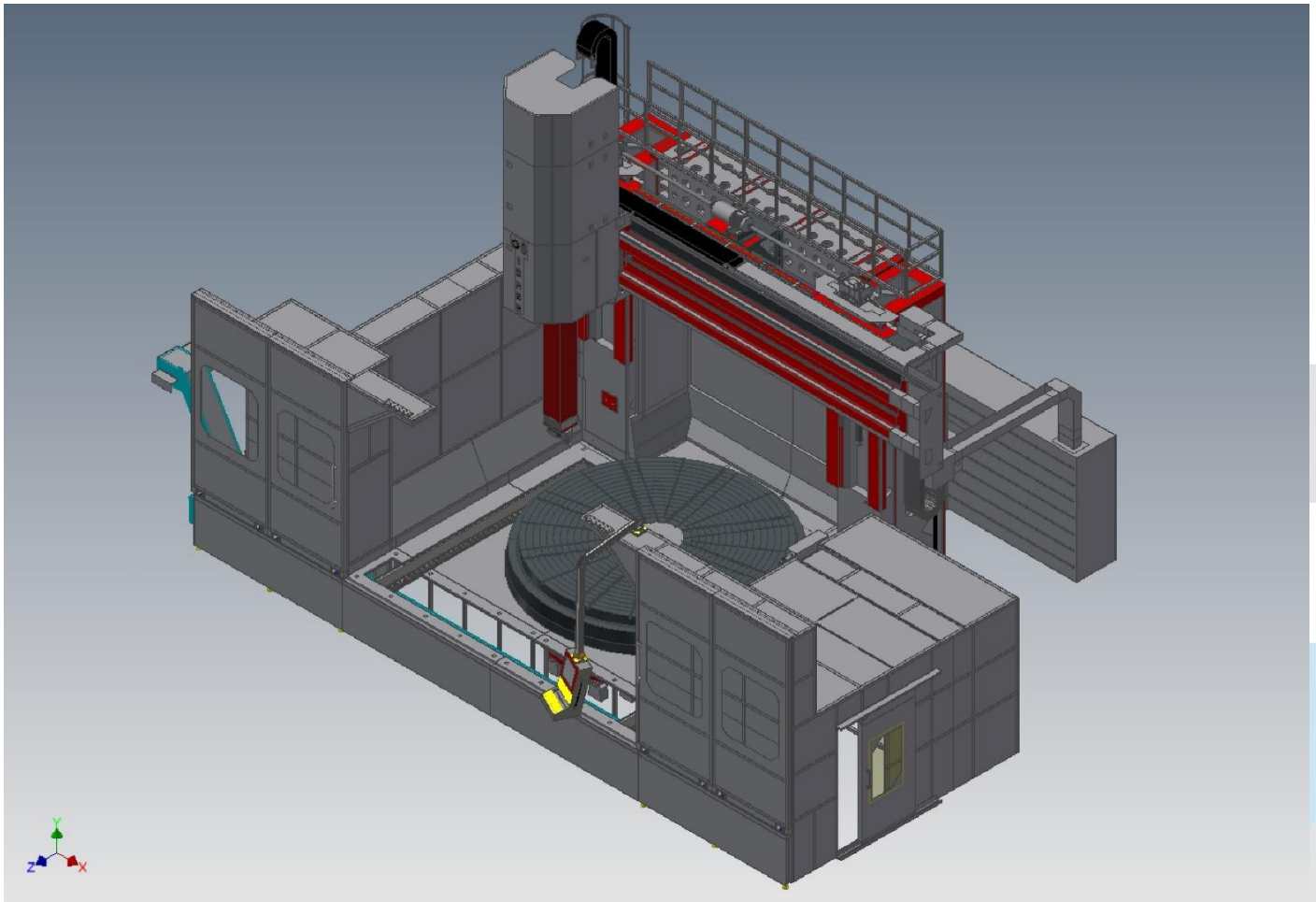
40 Tons



IGM DT 4000 is completely made of cast iron by our own foundry. Stress relieving heat treatment was applied to the castings. The body parts are machined on precision milling machines and the guide surfaces are grinded.

Components are measured and assembled using our Renishaw Laser Interferometers, high precision Niveltronic devices with Bluetooth communication and certified granite gauge blocks.

Axis drive systems are composed of high quality guideways, ball screws, servo motors and rack and pinion gear systems. All axes are equipped with absolute optical measuring scales. All kinematics, pneumatic, hydraulic, electrical and electronic components are selections of top-class products and brands for achieving the highest quality and reliability. Our machine has high stability and accuracy thanks to its robust design. Our design is subjected to dynamic, static, stress, vibration and fatigue analysis by finite element methods and production was planned accordingly. Accuracy and usage norms are according to CE, VDI-DGQ 3441 and ISO standards.



IGM DT 4000 - Vertical Lathe with Ø4000 mm Hydrostatic Rotary Table & Moving Traverse Vertical

Technical Details:

Table Diameter	mm	4000
Max Turning Diameter	mm	4800
Max Turning Height from Table	mm	2000
X – Axis Stroke	mm	5000
Column Distance	mm	4190
Ram Slide Stroke	mm	2100
Ram Section	mm	350 x 350
Traverse Positioning Stroke	mm	2000
Table Drive System	Segmented Direct Drive Motors	
Table Torque	Nm - Nominal	8200
	Nm - Max	14400
Table Speed	rpm	60
Table Load	Kg	40000
Table Guide System	Hydrostatic Bearing and Guides	
Spindle Speed	rpm	4000
Spindle Power	KW	37
Spindle Torque	Nm	1200
Tooling Taper Type	ISO50	
Machine Size	mm	7500
		12000
		9500
Machine Weight	Kg	150000

IGREK Hydrostatic Rotary Table Ø 4000 mm



A hydrostatic rotary table is a specialized type of rotary table that is designed specially to achieve high precision and stiffness by utilizing a hydrostatic bearing system.

The hydrostatic bearing system in a rotary table offers several advantages over other types of bearings. It provides excellent load-carrying capacity, allowing the table to handle heavy workpieces without compromising precision. The hydrostatic pressure also helps to dampen vibrations, ensuring stable and accurate positioning.

Due to its high precision and stiffness, our hydrostatic rotary table is the perfect tool for your applications where tight tolerances and smooth motion are critical. Our machine has the capability to do machining operations such as milling, grinding, and drilling, where precise positioning and movement are essential for achieving the desired results.

Overall, IGREK Hydrostatic Rotary Table (our patented design) offers enhanced performance and reliability compared to other types of rotary tables. Its ability to achieve high precision and stiffness makes it an essential tool in industries that demand accurate and efficient rotary motion.

CNC CONTROL UNIT

The control board is on the operator station at the front of the machine.

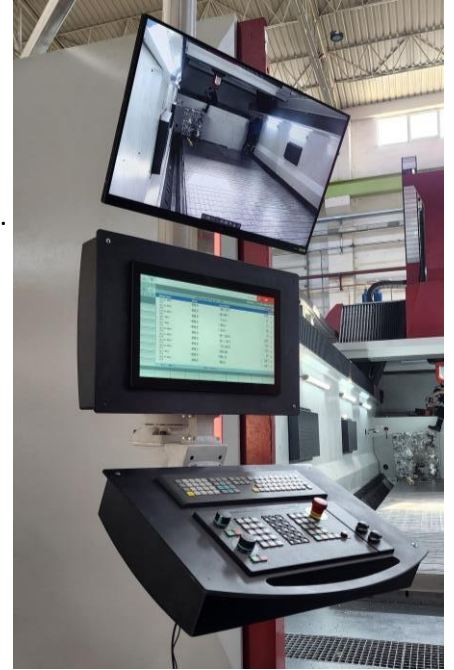
All commands of the machine and the CNC are centralized on the control board.

SIEMENS SINUMERIK 840D SL

Drive-based, modular CNC with modular panel concept up to 24" color display SIMATIC S7-300 PLC supported.

Control system Siemens 840D SL features and hardware:

- CPU Type: NCU730.3 or higher
- 21" touch screen as standard, higher as optional,
- Siemens MDynamics, Top Surface, Advance Surface features are enabled,
- Shopmill latest version enabled,
- Collision Avoidance Standard enabled: Real-time anti-collision protection for user specified regions on the work area,
- Collision Avoidance Advance: Real-time anti-collision work piece protection module is optional.
- Siemens Tool Management system is enabled,
- 3D Simulation screen is enabled,
- HT2 wired and screened hand wheel is included,
- PILZ user key card selection module is included,
- Joystick controlled dome camera within work area included.



Headquarter

Luther-Augustin-Straße 7
38820 Halberstadt

✉ info@swh-gmbh.de

🌐 www.swh-gmbh.de

Branch

Aktienstr. 43B
45473 Mülheim an der Ruhr

☎ + 49 (0) 208 / 594 07 19

📞 + 49 (0) 208 / 594 07 58



DIAGNOSTIC AND MONITORING

The machine has diagnostic and monitoring software. A full safety system is controlling all main functions of the machine with clear text alarm messages in the CNC's screen in case of failures.

STANDARDS – SAFETY – PROTECTIONS

The machine is manufactured according to CE standards. It is supplied with safety enclosure in metal sheet, enclosing and protecting the work area. Two sliding doors, with toughened glass windows, are equipped with electro-locks controlled by the machine's PLC, ensuring the safe access to the work area.

WORKING LIGHTS & ENCLOSURE AROUND THE WORKING AREA

Dedicated working lights are located under the gantry assembly and on the lateral steel covers. Such lights can be independently switched on from control unit. The internal working area of the machine is covered with STEEL panels. Working Voltage: 380 Volt / 3 Phases / 50 Hz.

INCLUDED IN THE DELIVERY

Use, maintenance, and programming manuals.

Anchoring and levelling pads devices.

Layout and foundation drawings without structural/civil calculation.

In case of modifications to our standard layout of the machine, which will add costs to the agreed price (working hours and/or materials), these will be quoted in advance and agreed.

PACKING

Packing will be sufficient to prevent deterioration of the goods under normal transport conditions exclusively to the destination port, in case of ocean freight, and to customer premises in case of land transport.

It is the Buyer's responsibility to dispose of any waste packaging material in an environmentally-friendly manner, pursuant to local environmental legislation in force.

NOTES

Pictures and sketches for reference purpose only, without any contractual value. We reserve the right to introduce improved designs at any time.

TRAINING

Upon completion of installation our service technician will familiarize your operators with machine basic functional operations and the electrical & mechanical maintenance tasks for a maximum of 8 working hours. If in-depth control training is required, we recommend attending a training class offered by the control manufacturer at their facility at the buyer's expense.

MACHINE INSTALLATION

Machine will be installed by IGREK Service engineers. The travel and accommodation costs of the IGREK Service engineers will be covered by the customer.

For proper machine installation, **Customer will provide:**

- Machine foundation according to our specifications.
- Unloading from trucks and transport of machine sub-assemblies to installation site.
- Handling and crane equipment for rigging and erecting the machine in the foundation.
- Welding and or grouting of foundation pads.
- Compressed air and power according to our specifications.
- All required lubricants and coolant.
- In order to achieve and maintain the precision of the machine, the temperature must fluctuate between 18 and 22°C.
- Temperature variations cannot exceed 0.5°C in an hour, or 3°C in 12 hours.
- The machine must be protected against direct sunlight or any other radiation source, as well as from air draughts or external sources of heat or cold.
- The relative humidity of the air must be contained between 40% and 75% with regard to the 20°C temperature.
- The machine must be protected against dirt and vibrations.

Under above-mentioned basis installation should be completed within a period which will be determined by the manufacturer in accordance with the machine final specifications, equipment and any other special customer's requirements. If there are any delays not attributable to IGREK Makina A.S., we reserve the right to charge the pertaining extra costs.

MACHINE ACCEPTANCE

According to the ISO 230 - VDI/DGQ 3441 standards to be performed at our workshop prior to delivery of the machinery. We recommend Customer representation to be present during pre-acceptance in our works. Fulfilled Acceptance Protocols are delivered with the machine.

WARRANTY

Machine Guarantee is according to our General Terms of Sale and Guarantee as below:

*** Standard warranty terms are 12 months for Mechanical and Electrical Components.

The MANUFACTURER undertakes to guarantee his machine for the 12 months, whichever is the earlier from the date of machine acceptance and on the basis of the usual conditions used in the sector, that is:

- This warranty covers the free EX-WORKS replacement of parts which prove to be faulty as a consequence of any defect in design or manufacturing. The CUSTOMER is liable to pay carriage costs.
- The CUSTOMER must return the replaced parts when required to do so by the MANUFACTURER. The MANUFACTURER is liable to pay the carriage costs for such returned parts, except in those cases of materials borrowed in a temporary basis.
- This warranty covers machine repair AT NO CHARGE to the CUSTOMER through the official technical service established by the MANUFACTURER BOTH PARTIES agree to the following EXCLUSIONS to this Warranty contract:
 - Software and hardware updates to the PLC, numerical control and any other electronic equipment in general.
 - Faults or breakdowns arising out of failures or sudden variations in the electricity supply, power cuts, accidents, negligence, natural forces, vandalism or any other cause outside normal use of the machine.
 - Faults or breakdowns arising out of improper use, errors in handling the machine or operating modes not recommended by the MANUFACTURER or not in accordance with good professional practice.
 - Faults or defects in parts, elements or accessories capable of being used on another machine and/or which are not considered as an integral part of the machine forming the subject of this warranty (for example: splashguards, rotary tables, measuring probes, computers, etc.).
 - Machine faults or breakdowns due to the coupling or connection of accessories not envisaged in the original order.
 - Machine faults or breakdowns due to the coupling or connection of accessories not expressly authorized by the MANUFACTURER.
 - Components and elements subject to checking and/or replacement during preventive maintenance operations (greases, oils, filters, etc.), or whose normal use involves natural wear and tear and/or adjustment (brushes, wipers, bulbs, telescopic protections, etc.).
 - High Frequency Spindles fitted to the machine are likewise excluded from this Warranty, when after the repair of the spindle by its manufacturer; he issues a report justifying such exclusion.
 - Faults, breakdowns or re-levelling needed in consequence of defective foundations, responsibility for which rests exclusively with the CUSTOMER.

BOTH PARTIES agree to the following reasons for CANCELLATION of this Warranty contract:

- Non-fulfilment of the commitments set down and agreed in this Warranty Contract by either of the two parties.
- Manipulation of the machine hour-counters.
- Failure to keep up to date with the agreed machine payment obligations, no matter their origin.
- Installation of the machine in environments known to be harmful to correct operation of such machine (for example: graphite atmosphere, relative humidity of environment higher than 80%, ambient temperature higher than 36°, etc.).
- This contract exempts the MANUFACTURER from all claims or actions in connection with loss of production, personal injury or material loss or damage allegedly produced by improper operation of the machine.
- Repairs made under warranty shall NOT extend the duration of such warranty.
- The rights under this contract are not transferable to third parties.
- Faults arising out of vibrations or other effects (heat, electromagnetic waves) produced by a nearby machine.
- Faults arising out of machine exposure to sunlight radiation, heat or cold sources, which may affect its geometry and consequently its precision in a significant way.
- The warranty does not cover accidents, damages or injuries to the operators of the milling machine, staff of the company and any other person who interferes, works or handles with the milling machine.
- Warranty does not cover standard operations of preventive and corrective maintenance stipulated in the machine manual. Nor does it include component replacement due to wear or saturation (oils, filters, etc.) or the periodic geometric re-leveling operations of the machine recommended in the manual