

RUD MOLD HANDLING SOLUTIONS

PROFESSIONAL & PROGRESSIVE



POWERFUL IN ANY ENVIRONMENT

- ✓ Turning tools & molds in seconds
- ✓ Easy, safe, & ergonomic operation
- ✓ For different types & sizes of molds

Figures may differ from
the standard version.

WELCOME TO THE WORLD OF RUD MOLD HANDLING SOLUTIONS

Our goals: Process optimisation, increasing occupational safety as well as improving the ergonomics of your employees.

The **RUD TECDOS MSB** revolutionizes maintenance and testing processes in the injection molding industry. With its air-bearing table top and integrated test units, it enables the safe opening of molds as well as extensive tests, including leak tests and flow measurements. Centralized maintenance reduces travel and waiting times, while predictable production and minimal risk of downtime increase efficiency.

The **RUD TECDOS TMB**, a 2-in-1 combination of industrial workbench and turnover device is operated using a cordless screwdriver. On the RUD TECDOS TMB molds and tools weighing up to 2.5 tons can be efficiently turned and serviced. The low weight and its compact form save much space. The industrial workbench can be transported easily with a lift truck.

When it gets heavier, the **RUD TECDOS TM** can convince. Easy turning of tools and mold weighing up to 64 tons is guaranteed by the RUD TECDOS TM series. In its professional and progressive generation, the innovative turning device offers the user a narrow table at an absolutely low working height and enables efficient and process optimised turning at the push of a button in less than one minute.

The manual mold splitter **RUD TECDOS TSB** enables uncomplicated opening and closing of mold and injection molding tools up to 2.5 tons. Due to the mobility of the plates, the mold halves can be separated from each other by hand. Inspection, cleaning and maintenance can be performed directly on the RUD TECDOS TSB.

Additionally, the **RUD TECDOS TS** offers the ideal complement for separating and closing injection mold weighing several tons. At the push of a button, tools can be separated and closed quickly, safely, and easily with the RUD TECDOS TS. Ergonomic working is guaranteed due to the ideal working height.

RUD Mold HANDLING SOLUTIONS enables precise, uncomplicated, and progressive work. The advantages are convincing! Efficient handling of tools and mold. Time-saving turning and opening process at the push of a button. Avoidance of damage to mold, machines and other equipment.

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Can be used in a huge variety of manufacturing sectors:

Automotive | Medical technology | Consumer goods | Plastics mechanical engineering | Operating technology | Electrical/electronics manufacturing | Packaging industry



RUD Mold HANDLING SOLUTIONS in use:



1. RUD TECDOS MSB

1.1 CONSTRUCTION AND DIMENSIONS

Maintenance and testing

ADVANTAGES

- **Reduction of production risks:** The risk of downtime and rejects is reduced in both in-house and contract manufacturing.
- **Plannable production:** Comprehensive testing prior to production prevents unexpected production downtimes.
- **Efficient solution for skills shortages:** Minimal training time and centralised maintenance enable immediate productivity.
- **Time and resource savings:** Centralisation of tools and materials reduces travel and waiting times, as all maintenance work is carried out centrally in one place.
- **Safety:** Labelling of safety-relevant points ensures safe operation.



Technical Highlights

- **Compressed air bearing tabletop:** For safe opening of tools.
- **Hydraulic unit:** For testing the core pulls and functions.
- **Modular design:** Enables customisation and retrofitting of individual test units.
- **Extended test options:** With integrated units such as hydraulic units, leak tests and flow measurements, it is possible to test all the important functions of a mold.

Size of the air-borne-Mold Half in inch	Max. Height of the air-borne Mold Half in inch	Max. weight of the air-borne Mold Half	Max. weight of the Mold in total
23.6 x 19.7	23.6	2,200 lbs	4,400 lbs

Type	Workbench in inch		Clamping plate with T-slots in inch	Air bearing support plate in inch	Load-bearing capacity	Weight
	W (inch)	L (inch)	in inch	in lbs	in lbs	
RUD TECDOS MSB without Hydraulics	47.2	31.5	31.5 x 31.5	19.5 x 15.6	5,500 lbs	ca. 1,100 lbs
RUD TECDOS MSB Hydraulics	47.2	31.5	31.5 x 31.5	19.5 x 15.6	5,500 lbs	ca. 1,100 lbs

1. RUD TECDOS MSB

1.2 OPTIONAL COMPONENTS

RUD TECDOS MSB:
+49 7361 504 1457
moldhandling@rud.com



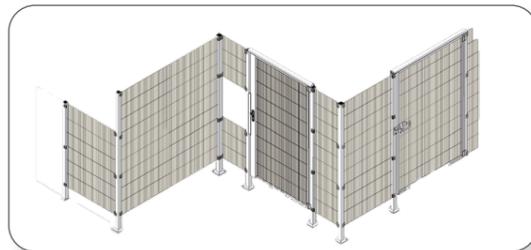
Hydraulic unit

- Hydraulic unit for RUD mold turner and opener. Can also be used to check the function of the ejector



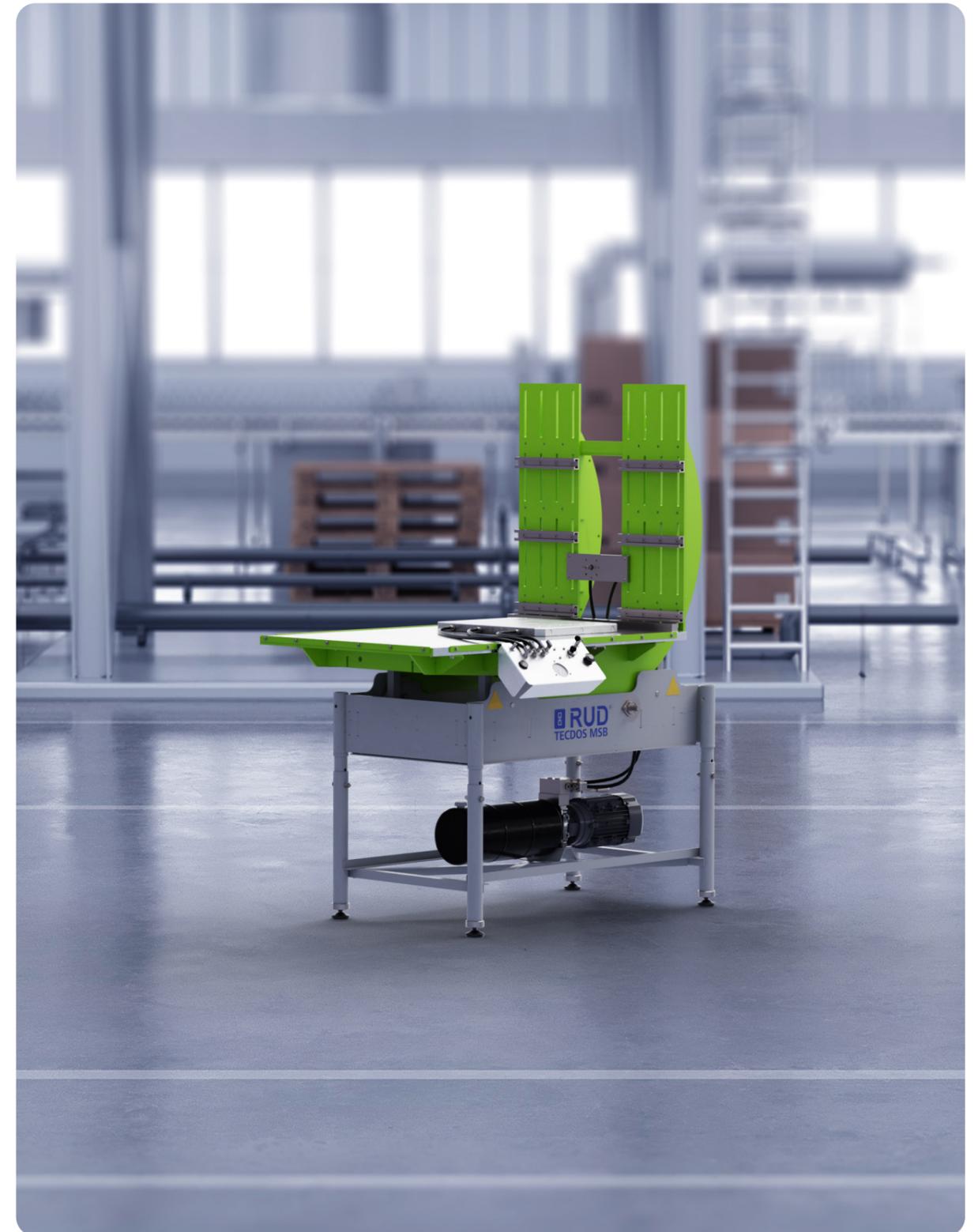
RUD TECDOS MSB screwdriver

- Screwdriver for uncomplicated driving of the TECDOS MSB
- Screwdriver makes handling TECDOS MSB easy



RUD TECDOS MSB protective fence

- Total protection of the operator and the TECDOS MSB



2. RUD TECDOS TMB

2.1 CONSTRUCTION AND DIMENSIONS

Turning injection molds by up to **90 degrees at their center of gravity**.

For **flexible and safe working**, the turning device can be held in any swivelled position.

The drive is carried out by means of a **cordless screwdriver**. Therefore, no use of electrical, pneumatic or hydraulic power is necessary.



Safety for man and machine

Tabletop
Additional: PE plates for damping and increasing safety.

Storage surface
For easy storage of your accessories and tools. (optional)

Thanks to its **adjustable height**, the TECDOS TMB, can be easily integrated into existing workshop processes.

Easy **movable** via forklift.

ADVANTAGES

- Ergonomic working on injection molds
- Optimisation of mold handling processes
- Direct turning process without time-consuming disassembly of tubes, connections, and other components
- Avoidance of damage to injection molds, machines, and infrastructure

Type	Tabletop		Table top height in inch	Load-bearing capacity in lbs	Weight approx. in lbs	Included accessories
	W (inch)	L (inch)				
TMB 08/08-2,5 Basic	31.5	31.5	33.8	5,500	595	-
TMB 08/08-2,5 Expert	31.5	31.5	33.8	5,500	683	storage surface; PE-Plate

2. RUD TECDOS TMB

2.2 OPTIONAL COMPONENTS

RUD TECDOS TMB:
+49 7361 504 1457
moldhandling@rud.com



RUD TECDOS TMB storage surfaces

- Lateral storage surfaces
- For easy storage of your accessories
- Makes it easier to work and mount molds and tools on the TECDOS TMB



RUD TECDOS TMB platforms

- Polyethylene table plate
- With adjustable recesses



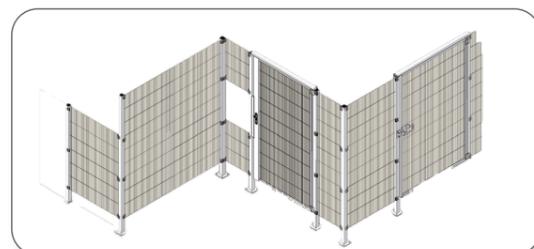
RUD TECDOS TMB drawer

- High-quality drawer
- Storage of accessories
- Required accessories and tools are always within reach



RUD TECDOS TMB screwdriver

- Screwdriver for uncomplicated driving of the TECDOS TMB
- Screwdriver makes handling TECDOS TMB easy



RUD TECDOS TMB protective fence

- Total protection of the operator and the TECDOS TMB



3. RUD TECDOS TM

3.1 CONSTRUCTION AND DIMENSIONS

Turning injection molds by up to **90 degrees at their center of gravity.**

Safe turning by avoiding a tipping point

The **low table height** allows maintenance of your mold directly on the TECDOS TM



Type	Table surface		Table top height	Load-bearing capacity	Approx. unit weight
	W (inch)	L (inch)	in inch	in lbs	in lbs
TM 08/10-5	31.5	39.4	21.3	11,000	1,323
TM 08/13-10	31.5	51.2	23.4	22,000	2,315
TM 13/13-10	51.2	51.2	23.4	22,000	2,315
TM 15/18-16	59.1	70.9	34.8	35,200	8,159
TM 20/20-20	78.7	78.7	34.8	44,100	8,820
TM 20/23-25	78.7	90.5	45.9	55,100	17,640
TM 25/25-32	98.4	98.4	45.9	70,500	17,640
TM 25/25-40	98.4	98.4	45.9	88,200	17,640
TM25/30-64	98.4	118.1	61.0	141,100	30,205

Tabletop
Optional: PE plates for damping and increasing safety

Guard bracket
(optional)

Easy movable via crane or forklift

ADVANTAGES

- Increased safety at work
- Ergonomic working on injection molds
- Optimisation of mold handling processes by shortening handling times and the time an operator needs to be on the job
- Direct turning process without time-consuming disassembly of tubes, connections, and other components
- Avoidance of damage to injection molds, machines, and infrastructure

3. RUD TECDOS TM

3.2 OPTIONAL COMPONENTS

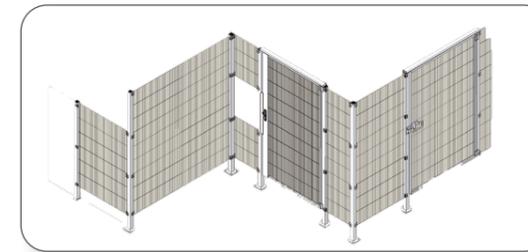
RUD TECDOS TM:
+49 7361 504 1457
moldhandling@rud.com



RUD TECDOS TM guard bracket

Hoop design provides distance protection for the operator

- For the front zone
- For the rear zone



RUD TECDOS TM protective fence

- Complete protection of the operator and the TECDOS TM
- An alternative to the light curtain – can also be installed together



RUD attachment points

- RUD VLBG-Plus load ring
- Optimised load-bearing capacity: captive exchangeable attachment points
- Bracket adjustable in direction of force



RUD TECDOS TM working platform

- For attaching attachment points and lashings safely
- Custom working platform configurations
- Stationary safety enclosures or mobile working platforms available



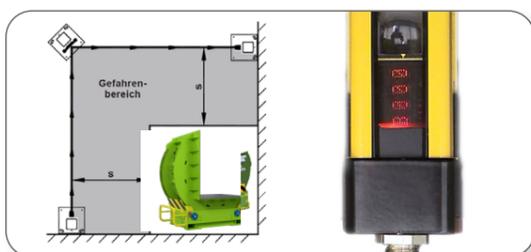
RUD TECDOS TM operator devices

- Standard: Two-hand operator device
- Optional: Radio control system
- Can be operated safely outside the danger zone



RUD TECDOS TM plate

- Polyethylene table plate
- With adjustable recesses



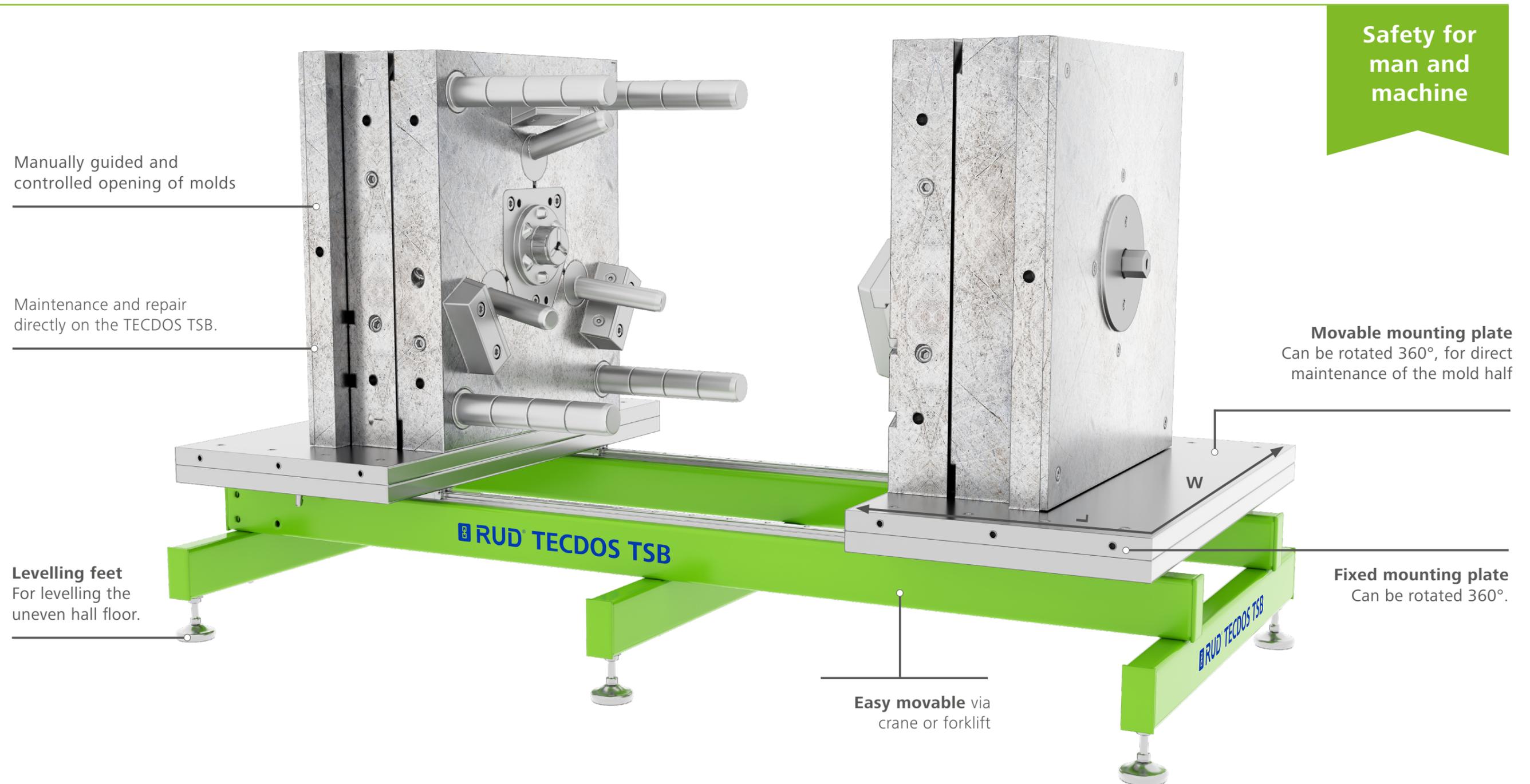
RUD TECDOS TM light curtain

- Stops inadvertent or unauthorised entry to the danger zone
- Protects operators at or near the TECDOS TM



4. RUD TECDOS TSB

4.2 CONSTRUCTION AND DIMENSIONS



ADVANTAGES

- Direct opening and closing without time-consuming disassembly of tubes, connections, and other components
- Optimisation of mold handling processes
- Avoidance of damage to injection molds, machines, and infrastructure

Typ	Plates		Total size		Table top high	Load-bearing capacity	Weight approx.
	W (inch)	L (inch)	W (inch)	L (inch)	in inch	in lbs	in lbs
TSB 06/12-2,5	23.6	11.8	23.6	47.2	12.2	5,500	661
TSB 08/16-2,5	31.5	15.75	31.5	63	12.2	5,500	705

4. RUD TECDOS TSB

4.2 OPTIONAL COMPONENTS

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Magnetic holders

- Components, workpieces and molds can be fastened easily and flexibly



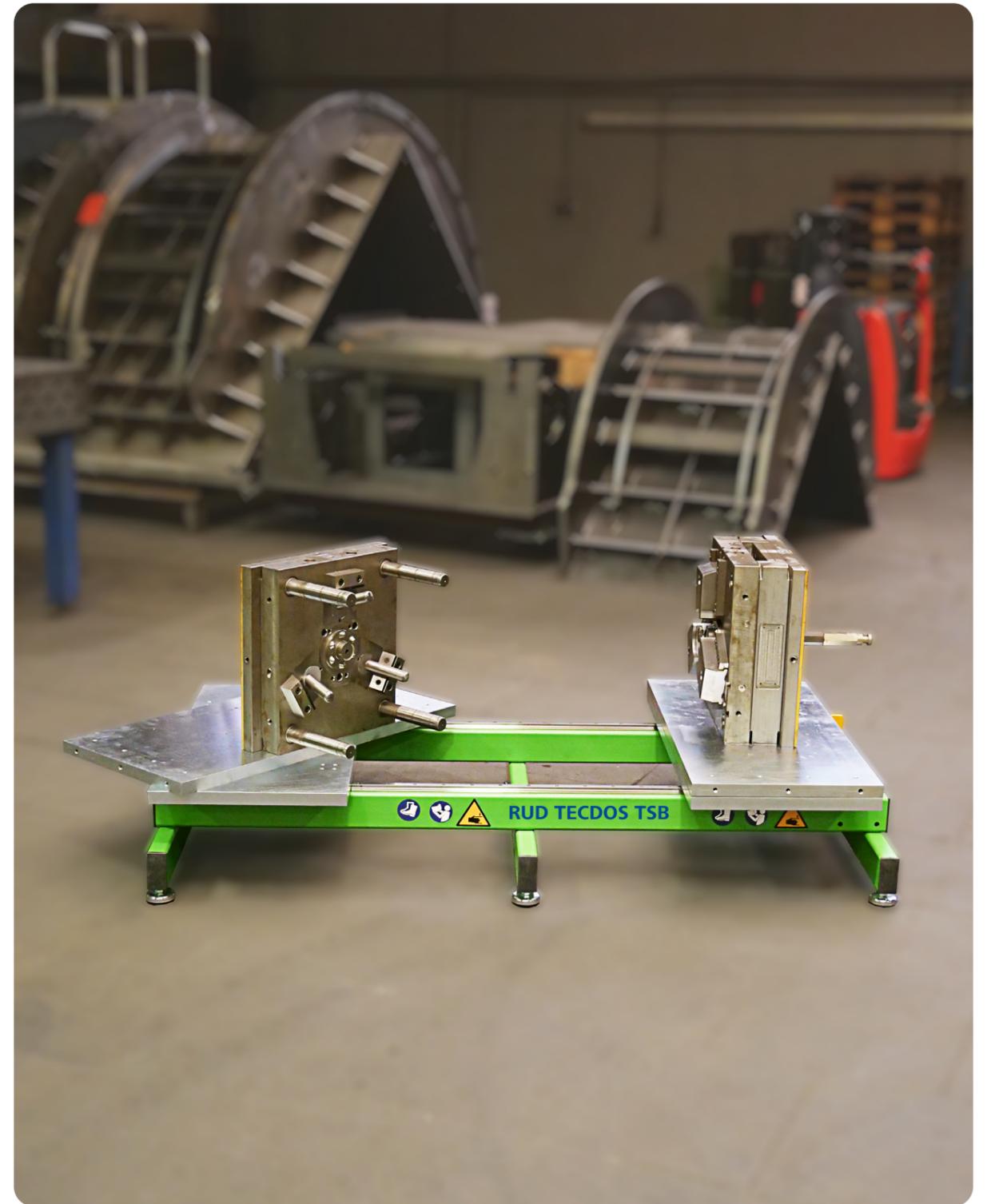
Undertable

- Undertable specially developed for ergonomic work



Fix bracket

- Fastening of the mold halves
- Supports opening and closing
- Flexible positioning of the mounting brackets



5. RUD TECDOS TS

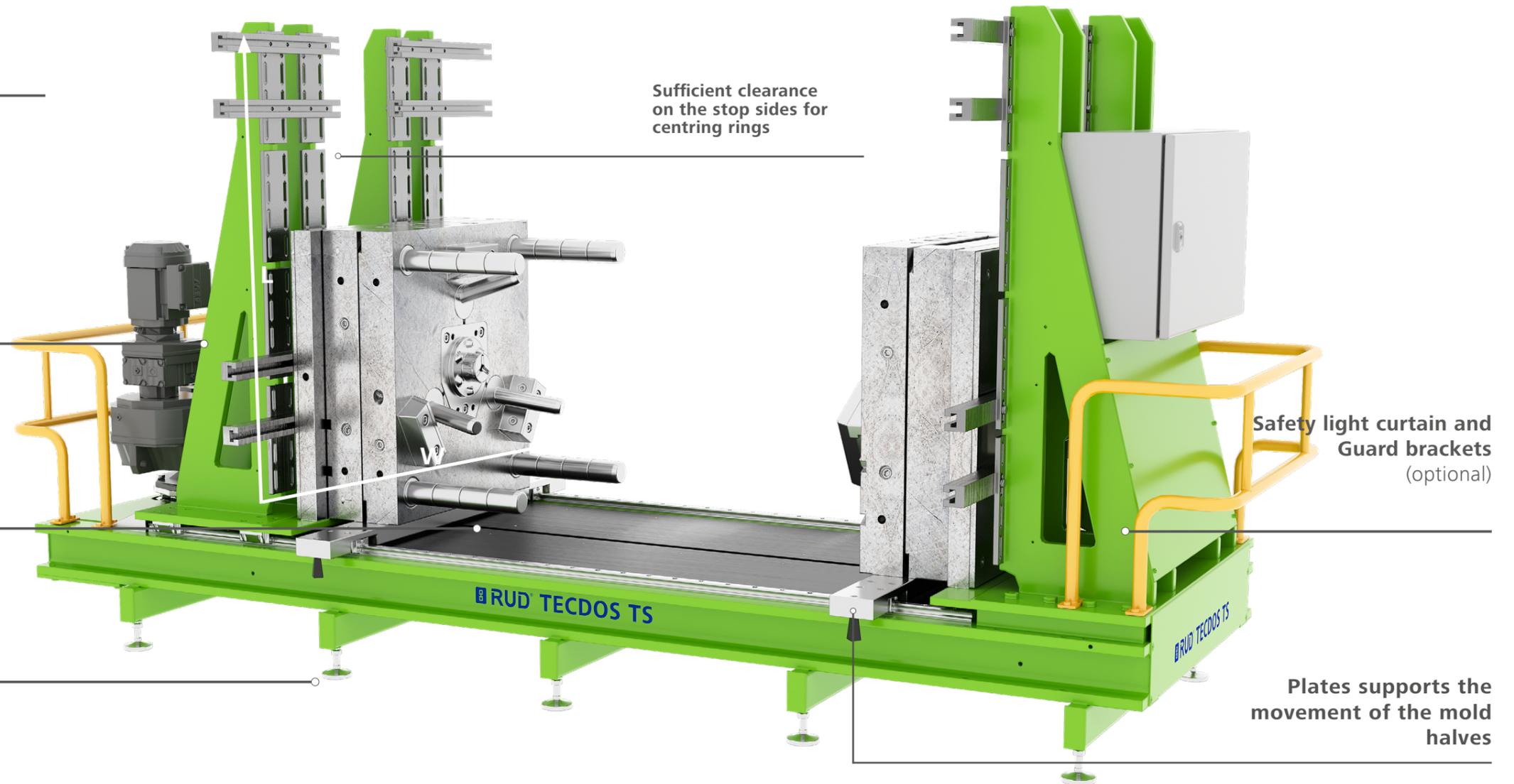
5.1 CONSTRUCTION AND DIMENSIONS

Safe and time-saving opening and closing of mold halves at the touch of a button.

Fixing of the mold halves on T-slot rails that are flexible in height

The **sliding surface** enables ergonomic maintenance of molds directly on the TECDOS TS.

Levelling feet



Figures may differ from the standard version.

ADVANTAGES

- Continuous guided and controlled movement of mold halves
- Ergonomic maintenance of injection molds
- Optimisation of mold handling processes by shortening handling times and the time an operator needs to be on the job
- Direct opening and closing without time-consuming disassembly of tubes, connections, and other components
- Less downtime due to maintenance work
- Avoidance of damage to injection molds, machines, and infrastructure

Type	Mounting plate		Table top height in inch	Load-bearing capacity in lbs	Approx. unit weight in lbs
	W (inch)	L (inch)			
TS 09/15-5	35.4	35.4	10.6	11,020	4,410
TS 13/19-10	51.2	51.2	15	22,050	7,907

5. RUD TECDOS TS

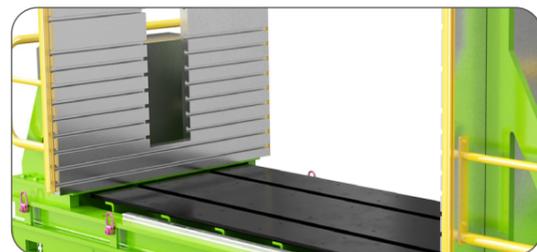
5.2 OPTIONAL COMPONENTS

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RUD TECDOS TS guard bracket
Hoop design provides distance protection for the operator

- For the front zone
- For the rear zone



RUD TECDOS TS mounting plate

- For easy tool attachment
- Other mounting plates are optionally available



RUD TECDOS TS operator devices

- Two-hand operator device
- Radio control system
- Safe operation outside the danger zone



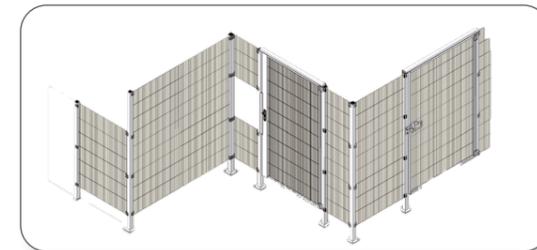
RUD TECDOS TS light curtain

- Stops unauthorised or inadvertent entry to the danger zone
- Protects operators at or near the TECDOS TS



RUD attachment points

- RUD VLBG-Plus load ring
- Optimised load-bearing capacity: captive exchangeable attachment points
- Bracket adjustable in direction of force



RUD TECDOS TS protective fence

- Complete protection of the operator and the TECDOS TS
- An alternative to the light curtain – can also be installed together



6. RUD TECDOS IN USE

Cool move for rotor hubs

The RUD Tecdos TM turning table has been in operation at ENERCON since April 2021. Nacelles and rotor hubs for the entire ENERCON portfolio are produced here: from the EP1 platform to the EP5 platform, and in the future ENERCON's e-nacelles will also be manufactured there. After painting, the large-volume cast bodies of the rotor hubs enter the assembly line, where the inner workings are fitted to them. This is where the compact turning table from RUD comes into play.

ENERCON: Process optimization in intralogistics

This is because the rotor hub has to be turned within the assembly line at the factory. With a weight of up to 65 tons and correspondingly large dimensions, this is a truly mammoth task in the intralogistics process. „We used to turn the hubs with two overhead cranes. That could take up to two hours,“ explains Keno Claassen, who is responsible for the procurement of operating resources in the competence center. „With the turning table from RUD, we now manage the turning process in just a few minutes,“ Claassen continues. The RUD Tecdos TM thus reduces the logistics effort in the plant, for an optimized process in the production and assembly of the rotor hubs.

Special design: Support surfaces

The rotor hubs have a diameter of up to 3.5 meters and the supporting surface of the turning table in the standard version is 2.5 m x 3.5 m (W x L). Together with the Y-shape of the hub and a support angle that does not correspond exactly to 90°, these were not optimal conditions for a stable turning process. The solution: special supports that can be attached to the RUD Tecdos TM and that are perfectly adapted to the three different hub sizes. This is because the rotor hubs not only have different sizes, but also different angles - 5 degrees, 3.5 degrees and 2.5 degrees - which had to be taken into account when designing the support surfaces.

RUD Tecdos TM protects the infrastructure and the health of the employees

By using the turning table from RUD, ENERCON not only benefits from process optimization and time savings in the manufacturing plant in Aurich. Because the indoor cranes are no longer required for turning the rotor hubs, which weigh several tons, the RUD Tecdos TM also protects the entire intralogistics infrastructure. The cranes can therefore take over other tasks. A plus for the employees: For them, the turning process is particularly ergonomic and safe with the help of the RUD Tecdos TM.



Bild: RUD

7. SERVICE CONCEPT

Service No.:
+49 (0)36074-36642

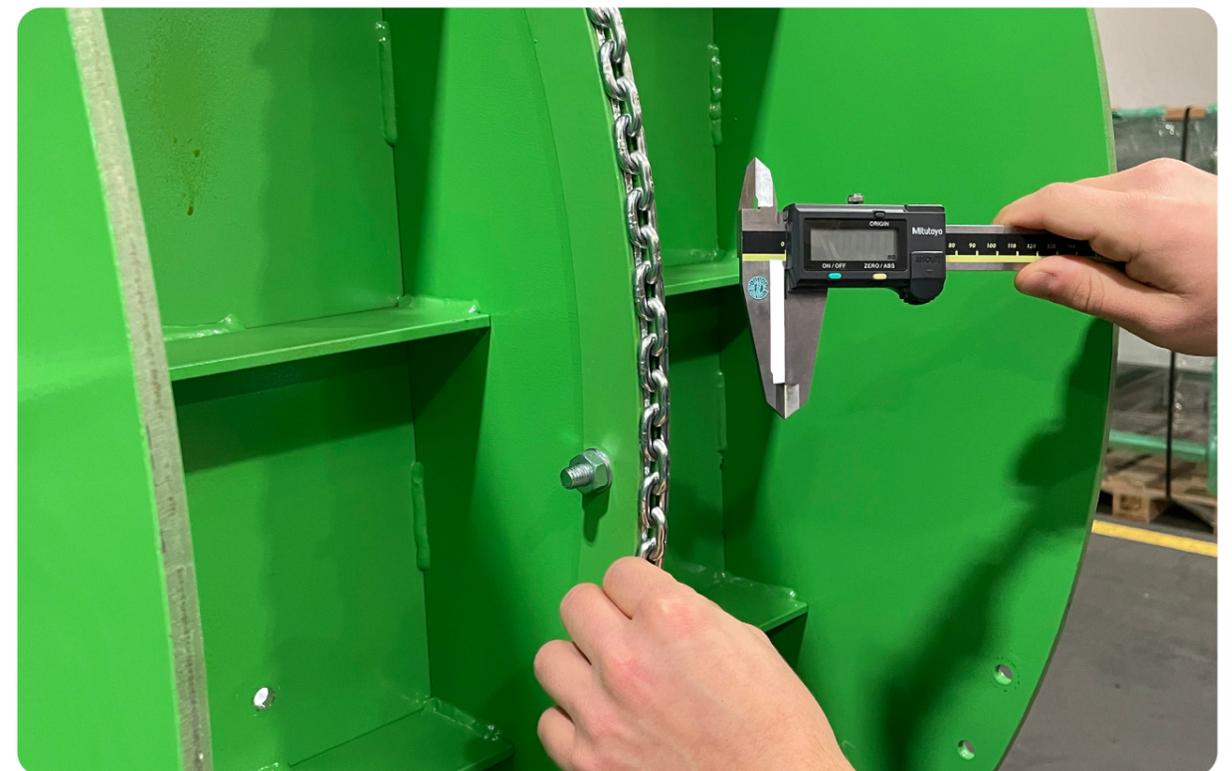
Mail: moldhandling@rud.com

Scope of service



Customer benefit:

- Checkbook-tested RUD product
- Inspection of attachments by qualified personnel
- Warranty extension up to a maximum of 5 years with regular inspection by RUD Service
- User training, advice and inspection report



8. ERGONOMIC & SAFE

Service No.
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Ergonomic work

Injection-formed tools and molds weighing several tons can be turned, opened, and closed safely, economically, and quickly, using RUD Mold HANDLING SOLUTIONS. Handling heavy, easily damaged tools is made easier, protecting your staff in industrial workplaces and helping prevent serious damage to joints and backs.

Customer benefit:

- **Time savings:**
More efficient work processes due to simple and fast handling of tools and molds
- **Ergonomic working:**
Reduced stress on joints and spine due to effortless movement of tools and molds weighing several tons
- **Injury prevention:**
Minimizing the risk of injury through ergonomic design, lifting devices and special handles
- **Protection of expensive tools & molds:**
Prevents damage from improper skewing
- **Employee Safety:**
Provides a safe working environment and minimizes the risk of accidents



Safe work

Normal turning and rotating as well as opening and closing operations conceal enormous risks for the operator. Not only can handling them cause damage to expensive molds if they are not pulled in a straight line, but the health of staff can also be put at risk. Using RUD Mold HANDLING SOLUTIONS guarantees that all kind of objects, no matter what shape, can be moved easily and safely.





RUD Conveyor & Drives



RUD Mold HANDLING SOLUTIONS

Efficient and safe handling of molds in the injection molding industry. We have different solutions for turning, opening and closing that optimise your processes.



RUD TECDOS drive technology

Rotating, lifting, moving or telescoping - with our drive systems RUD TECDOS OMEGA and RUD TECDOS PI-GAMMA, we offer maximum efficiency and reliability.



RUD conveyor technology

Combinable components and individual parts for conveyor technology, conveyor systems, and mining. RUD offers you perfectly coordinated systems and components for horizontal, vertical, and ascending conveyors.



RUD industrial chains

RUD components are the first choice worldwide for leading hoisting equipment manufacturers. We also offer a wide range of round link chains for different industries and areas, such as food, fishing, and awnings.