

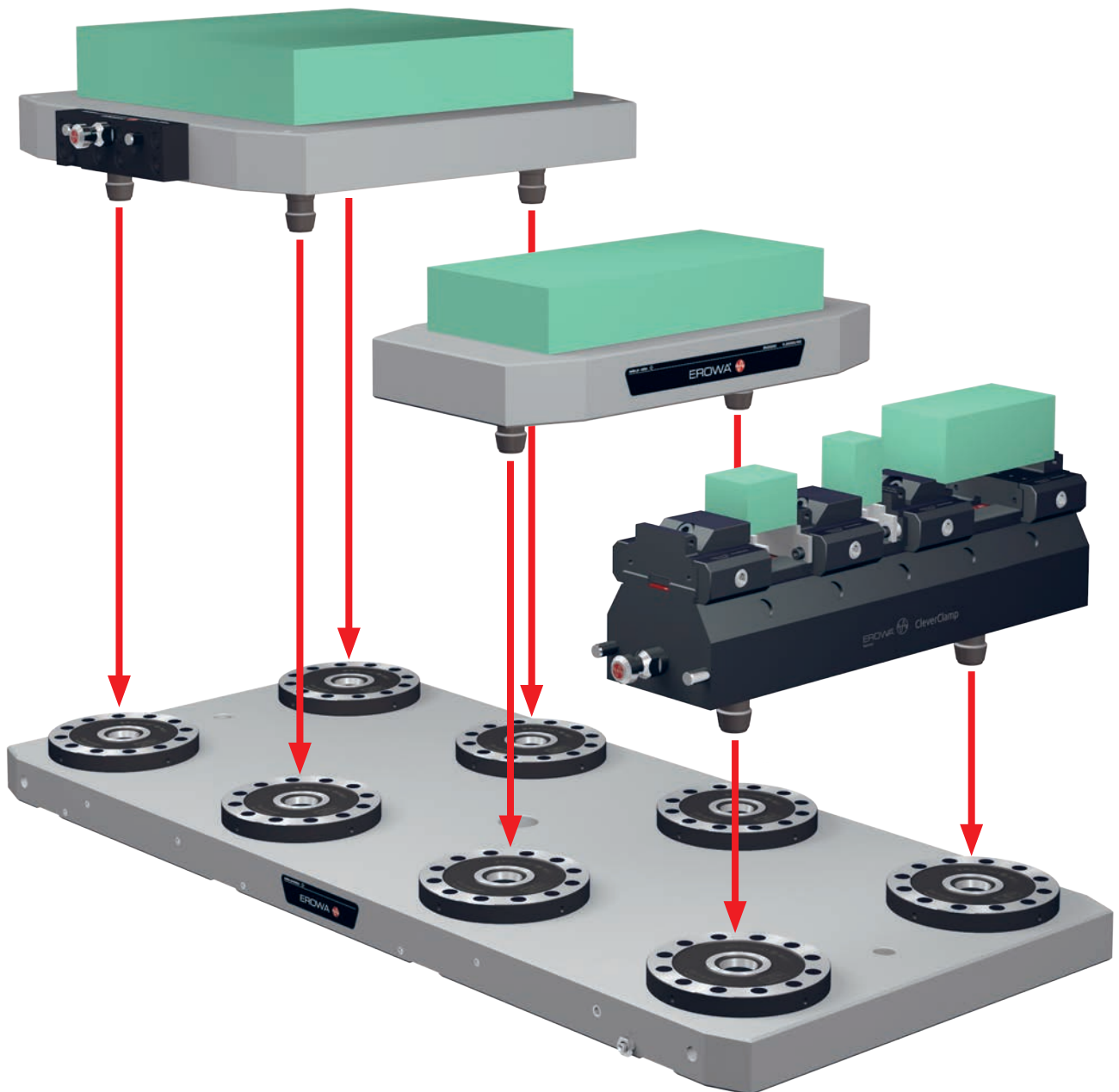
MTS Zero Point Tooling System

Consistently reduce set-up times



Increase the capacities of your machine tools

When you use the MTS zero point tooling system on your machine tool, you lay the foundation for efficient and flexible workpiece production. The tooling system acts as a consistent and standardized interface on all machine tools and measuring stations during the production process. The MTS chucks can be loaded manually or automatically. This reduces the downtime for the machine to a minimum.



More productivity, more economic efficiency with EROWA MTS

EROWA MTS - Significantly reduce setup times

Without tooling system



With EROWA MTS zero point tooling system



Machine downtime

Effective manufacturing time

Maximizing productivity

The MTS zero point tooling system allows set-up to be carried out during the primary production time. The workpieces are clamped onto MTS pallets outside of the machine tool. This results in up to 90 % cost savings for set-up processes. Optimum use can be made of the capacity of the machine.



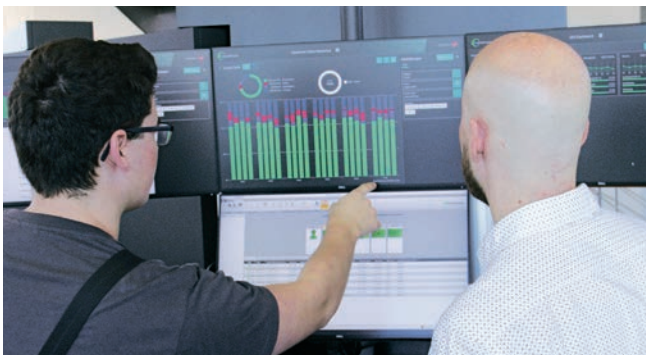
Remaining flexible

With an express order, EROWA MTS allows you to interrupt a larger production batch without costly machine downtime. There is no need for time-consuming setup procedures on the machine - you can flexibly pick up right where you left off and seamlessly continue the originally set-up production batch.



Manufacturing with process security

Use of the MTS zero point tooling system guarantees process reliability. The tooling system constitutes the standardized interface for all machines in the manufacturing process and always provides the same conditions. EROWA MTS ensures maximum precision paired with different monitoring options.



Return on investment

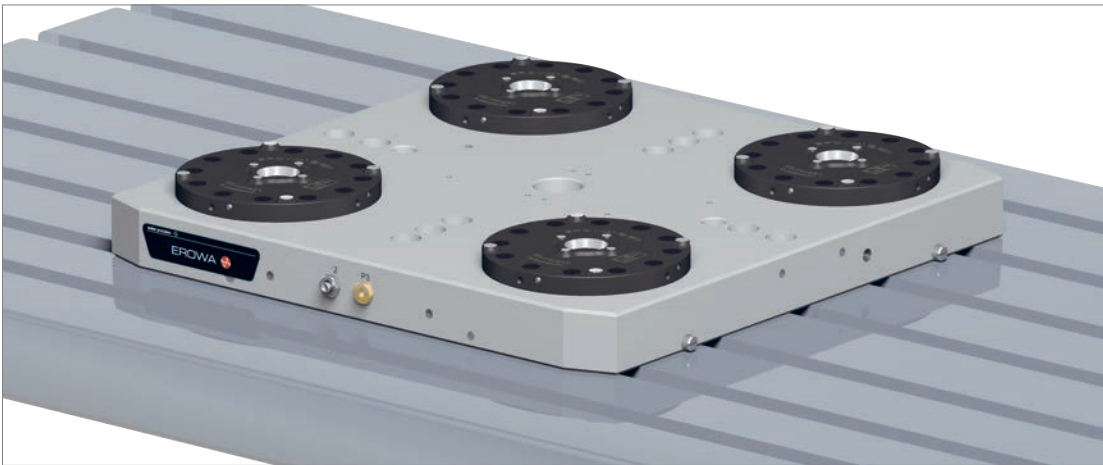
If the set-up time on the machine can be reduced by 20 minutes, for example, purchasing MTS basic equipment with base plate, alignment pallet and few pallets will pay off after only a few pallet changes. Investing in an MTS zero point tooling system is always worthwhile!

The universal interface

EROWA MTS (Modular Tooling System) stands for absolute modularity and flexibility: Whether single-part palletizing with an MTS chuck, multiple-part palletizing with MTS base plates or even integration of additional EROWA tooling systems – all combinations are possible.

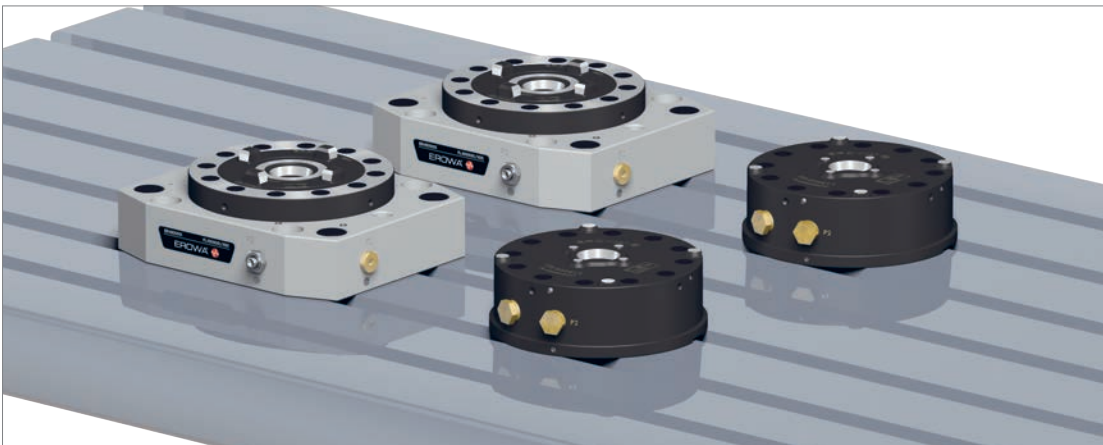
Integral chucks

MTS IntegralChucks are available in different sizes and versions. The chucks can be integrated into base plates, tombstones or directly into the machine table. The wide range of IntegralChucks can meet virtually any technical requirement.



Mounting chucks

MTS mounting chucks and single base plates can be arranged on the machine table individually or in combination. They are suitable for clamping individual or multiple pallets as well as customer-specific fixtures. The mounting chucks offer you unlimited possibilities.



Combinations and customer requests

The different MTS base plates and mounting chucks can be combined. This creates the basis for clamping larger MTS pallets. If you cannot find the right product in our standard range, please contact us. We will develop the optimal solution for you.

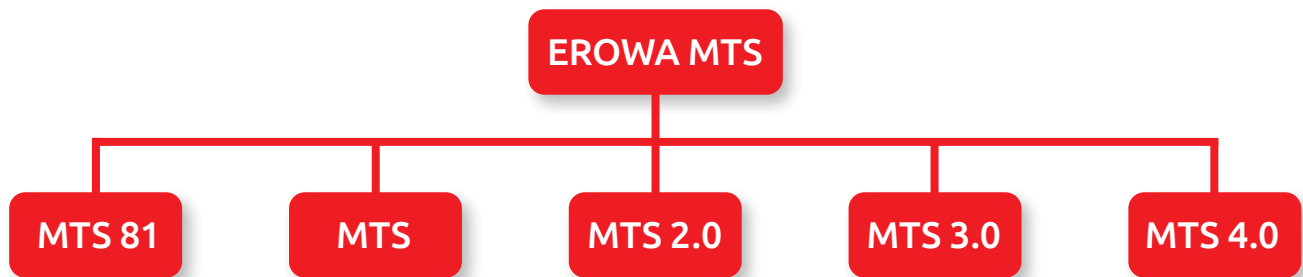


Adaptations

The modular tooling system as a basis on the machine table keeps all your options open. Many other EROWA clamping systems, as well as your workpiece clamps, fixtures, etc., can be adapted to MTS. Active tooling systems can be actuated via application-specific coupling systems. EROWA MTS guarantees the highest level of flexibility.



The different EROWA MTS tooling systems at a glance

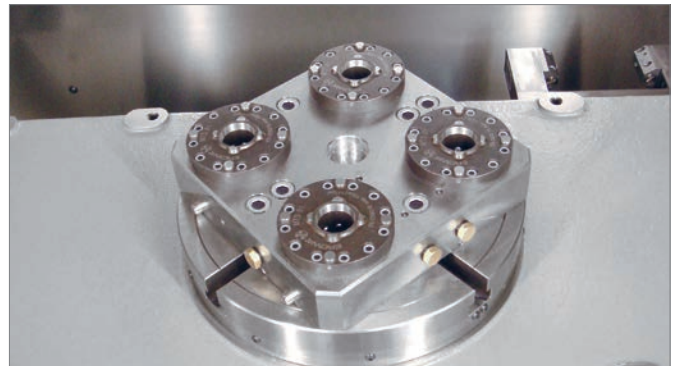


MTS 3.0 and **MTS 4.0** expand the product range and ensure a higher safety standard for milling and turning applications. These solutions are developed on a project-by-project basis. For more information, please refer to the product catalogs or contact your EROWA dealer.

EROWA MTS 81

Compact design, high clamping force

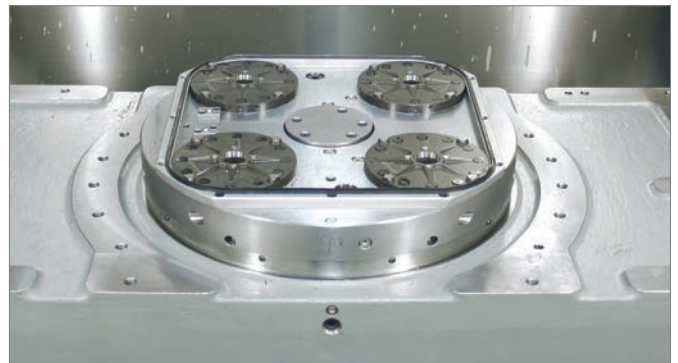
The MTS 81 is used wherever space is limited, without sacrificing the benefits of a zero-point clamping system or its high clamping force. MTS 81 clamping units feature a re-tightening function and are available for both automatic and manual use.



EROWA MTS

The universal interface

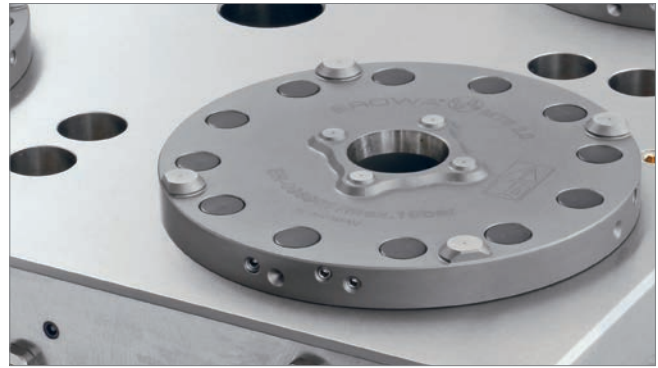
Used in 10,000 applications and proven in practice. The MTS zero-point clamping system has become an indispensable part of machining and the EROWA product portfolio. IntegralChucks are available in a single version for single-pallet clamping and in a multi-version for multi-pallet clamping. Both versions are available for universal use on machine tools.



EROWA MTS 2.0

For high machining forces

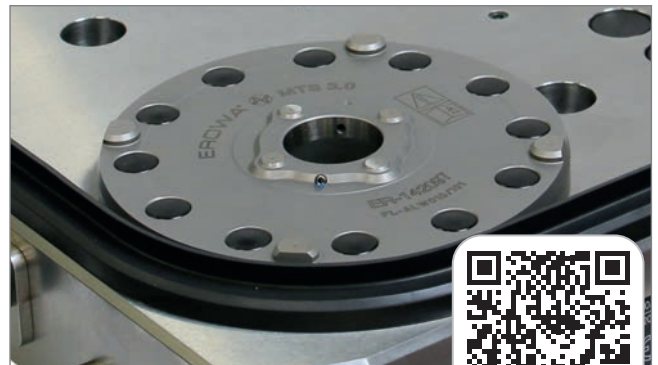
This high-performance clamping system is suitable for 5-axis machining and mill-turn applications. With integrated open-loop control and a remarkable clamping force of 20 kN, the corrosion-resistant MTS 2.0 chucks meet even the most demanding requirements in production environments. The MTS 2.0 IntegralChucks are available for single and multiple palletizing in both manual and automatic operation. With MTS 2.0, you are choosing a premium product at an attractive price.



EROWA MTS 3.0

The highest safety standards

The MTS 3.0 offers certified safety in accordance with ISO 13849 Performance Level D, Category 3, and ensures a high level of process reliability. It is designed for demanding milling and turning applications and guarantees secure workpiece clamping and stable, productive processes even under heavy loads.



more info: MTS 3.0

EROWA MTS 4.0

Intelligent Process Control

Increasing connectivity and stricter safety requirements in production call for innovative technologies. With digital data processing of current clamping force, status, and other relevant information, the MTS 4.0 is the ideal choice for smart and future-oriented manufacturing processes.



more info: MTS 4.0

MTS integral chucks

Outstanding properties

Technical data of the MTS IntegralChuck - MTS 81 / MTS / MTS 2.0

Legend: S = single M = multi A = can be automated P = pneumatically actuated	MTS 81		MTS				MTS 2.0			
	M-P ER-057943	M-P/A ER-059016	M-P ER-131220	M-P/A ER-131230	S-P ER-131200	S-P/A ER-131210	M-P ER-096900	M-P/A ER-096901	S-P ER-096902	S-P/A ER-096903
Can be automated (with cleaning function)	-	✓	-	✓	-	✓	-	✓	-	✓
Manual	✓	-	✓	-	✓	-	✓	-	✓	-
INOX	-	-	-	-	-	-	✓	✓	✓	✓
Number of lines	2	3	1	2	1	2	3	4	3	4
Suitable for milling- turning applications*	-	-	-	-	-	-	✓	✓	✓	✓
Opening pressure [bar] (minimum)	8.5	8.5	7	7	7	7	6	6	6	6
Clamping power [kN]	10	10	12	12	12	12	20	20	20	20
Repeating accuracy	< 3 µm									
Open check	-	-	-	-	-	-	✓	✓	✓	✓
Combined locking and presence check	-	✓	-	✓	-	✓	-	✓	-	✓

*In consideration of certain specifications. Please contact your EROWA dealer.

The MTS integral chucks stand out on account of the following properties:

- **High safety standards:**

In the event of a compressed air failure, the chuck and the pallet remain reliably clamped. The clamping mechanism features a **self-locking, spring-loaded ball lock**.

- **Maximum precision:**

Due to the polished functional surfaces, the chucks achieve a **repeating accuracy of less than 0.003 mm**.

- **Durability:**

Long service life and performance thanks to the use of **ceramic balls**. The chucks are hardened and can easily meet the high demands of the production environment even after many years.

- **Performance:**

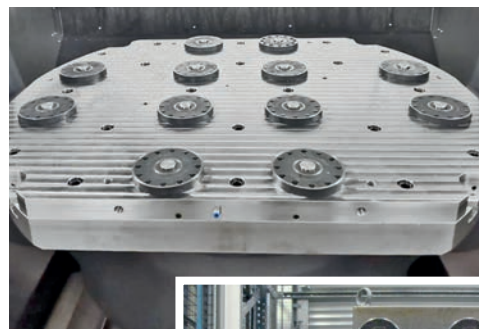
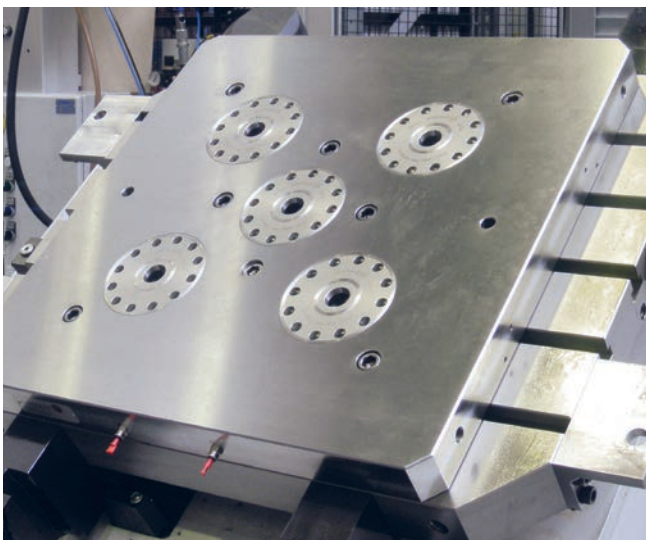
The chucks have a **clamping power of up to 20 kN** at a holding power of **60 kN**. The spiral springs used ensure an even and high clamping power.

- **Monitoring:**

The MTS integral chucks are available with the **combined locking and presence check**, an **open check** and the **cleaning function**.

- **High variability:**

MTS chucks can be installed in base plates, machine tables, adapter pallets, mineral cast towers and fixtures. The clamps are suitable for use on milling machines, machining centers, milling-turning machines (depending on the model), grinding and EDM sinking machines as well as for measuring processes.



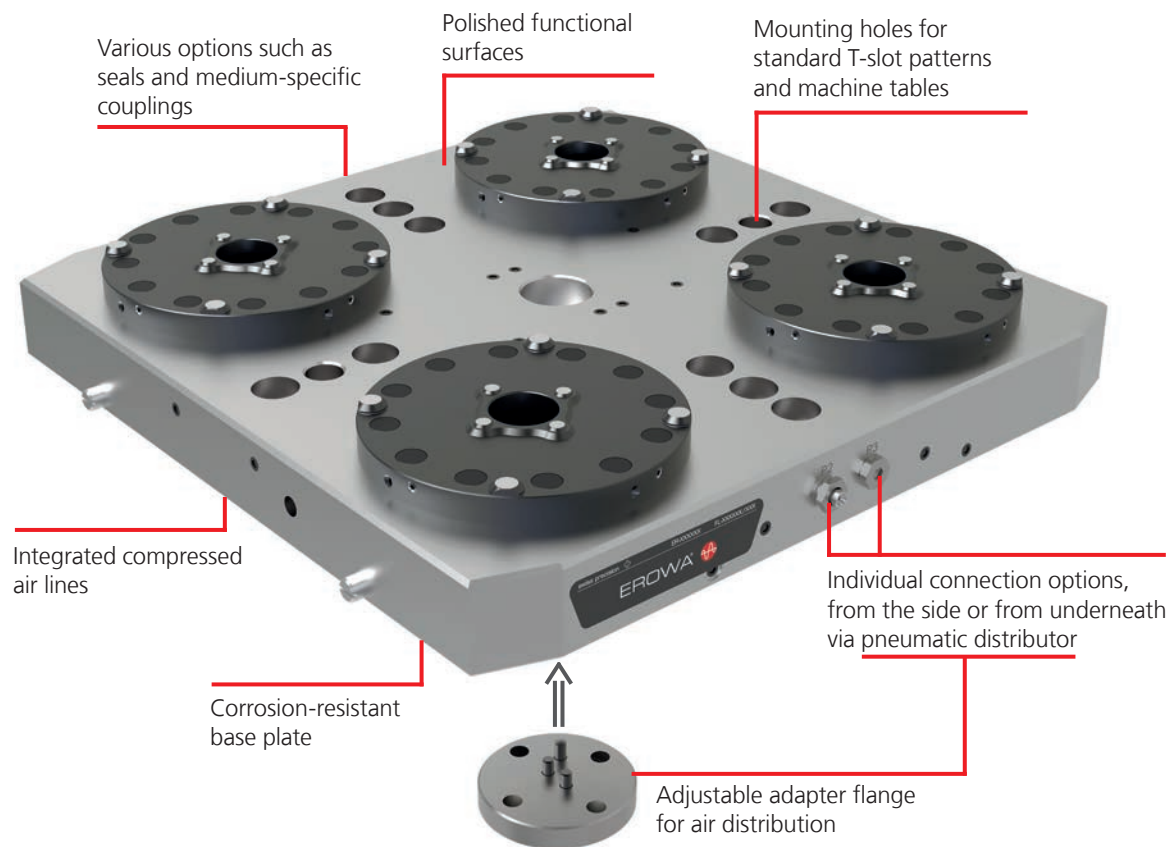
MTS Base Plates and Pallets

Outstanding properties

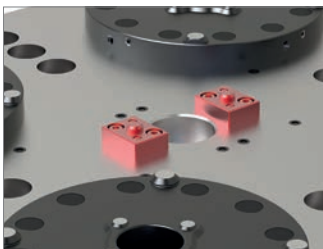
MTS Base Plates

The wide variety of machine tables with their different mounting and clamping options: no problem with EROWA MTS! In addition to our broad range of standard base plates, we develop optimal custom solutions. Various options, such as seals and media feed-throughs, are available upon request. The base plates are delivered ready for use.

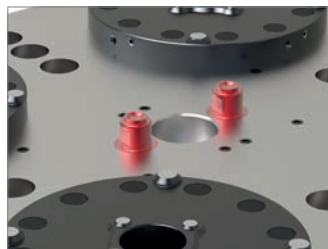
The MTS base plates stand out on account of the following properties:



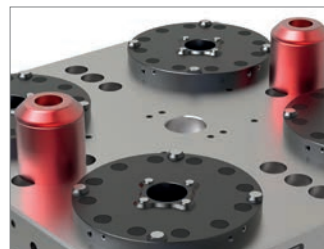
Options available



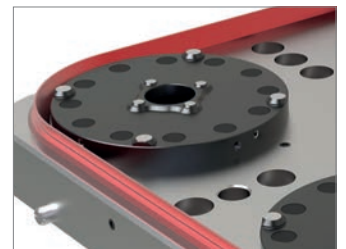
MTS air coupling: interface for compressed air up to 10 bar.



Nipple: interface for oil, vacuum and air.



Pre-centering: For careful changeover of heavy pallets.



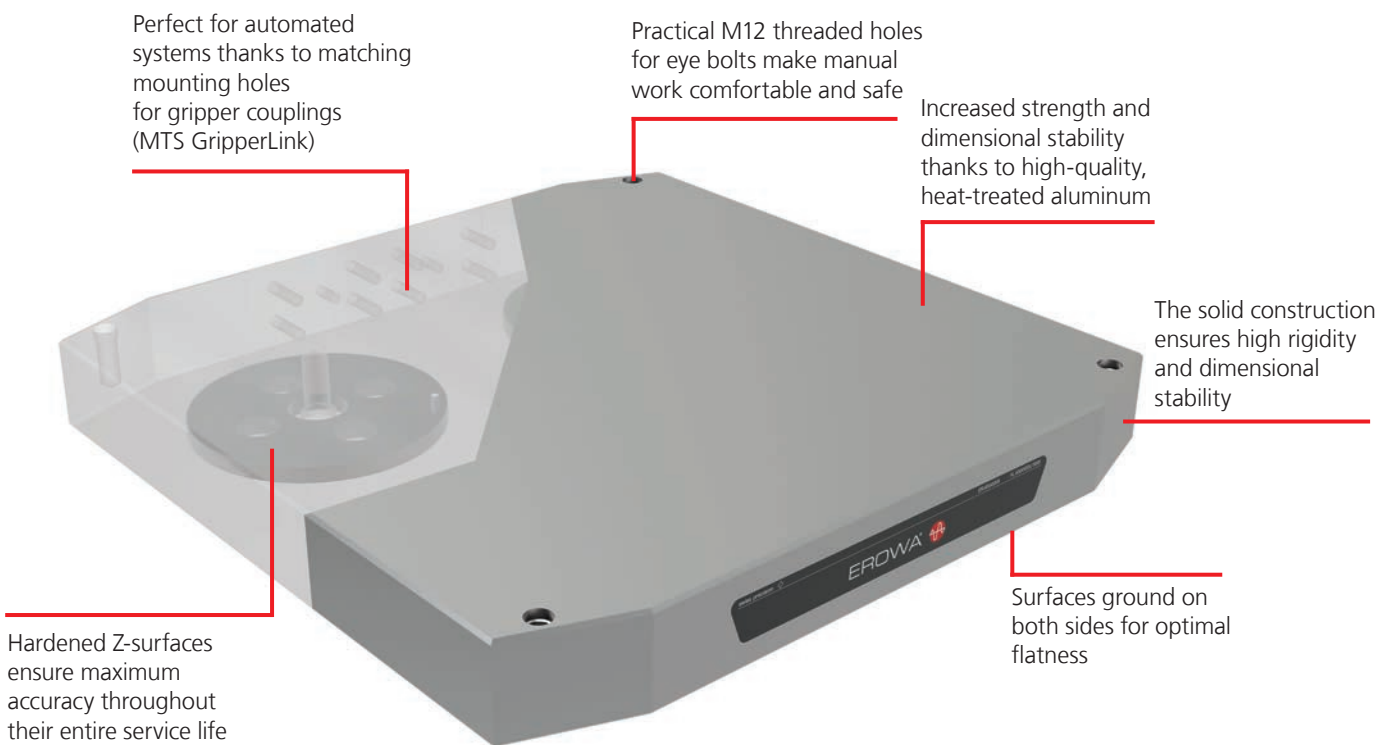
MTS seal: Keeps the clamping units free from contamination.

MTS pallets

Benefit from an extensive range of MTS standard pallets. In addition to the conventional workpiece carriers, this also includes grid and magnetic plates.

EROWA also offers advice on customer-specific solutions. The adapter pallets with active workpiece chucks have become an established component of these. We can develop a customized solution that meets your requirements in all aspects.

The MTS pallets stand out on account of the following properties:



Customized versions



MTS grid pallet



MTS T-slot pallet



MTS magnetic pallet

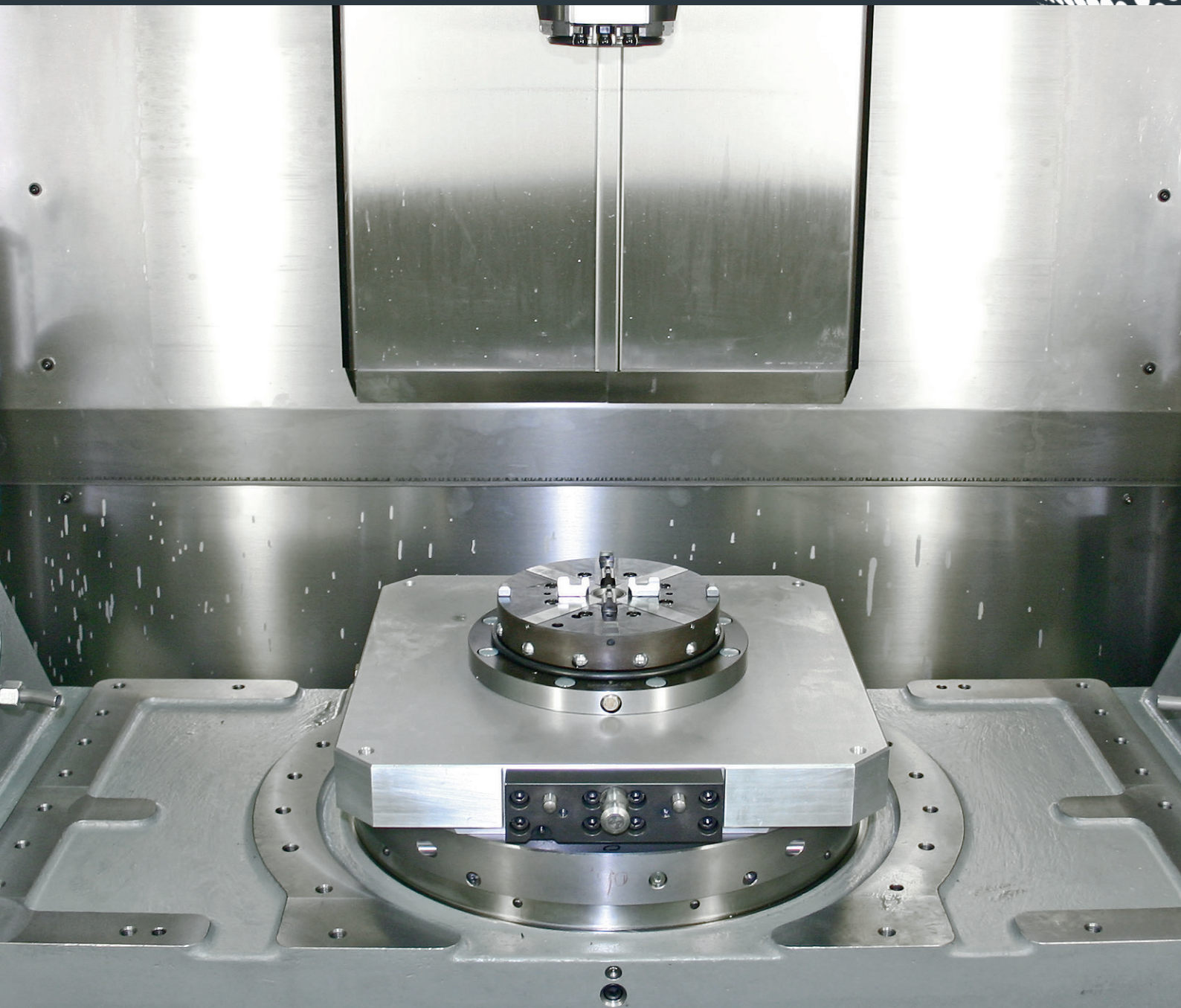


MTS vacuum pallet

Combined production expands the possibilities

Other tooling systems can be consistently integrated by adapting an EROWA chuck on the MTS pallet.

The adapted EROWA chucks are actuated with an air gun, with the EROWA handling system or directly through the machine tool.



MTS adaptations

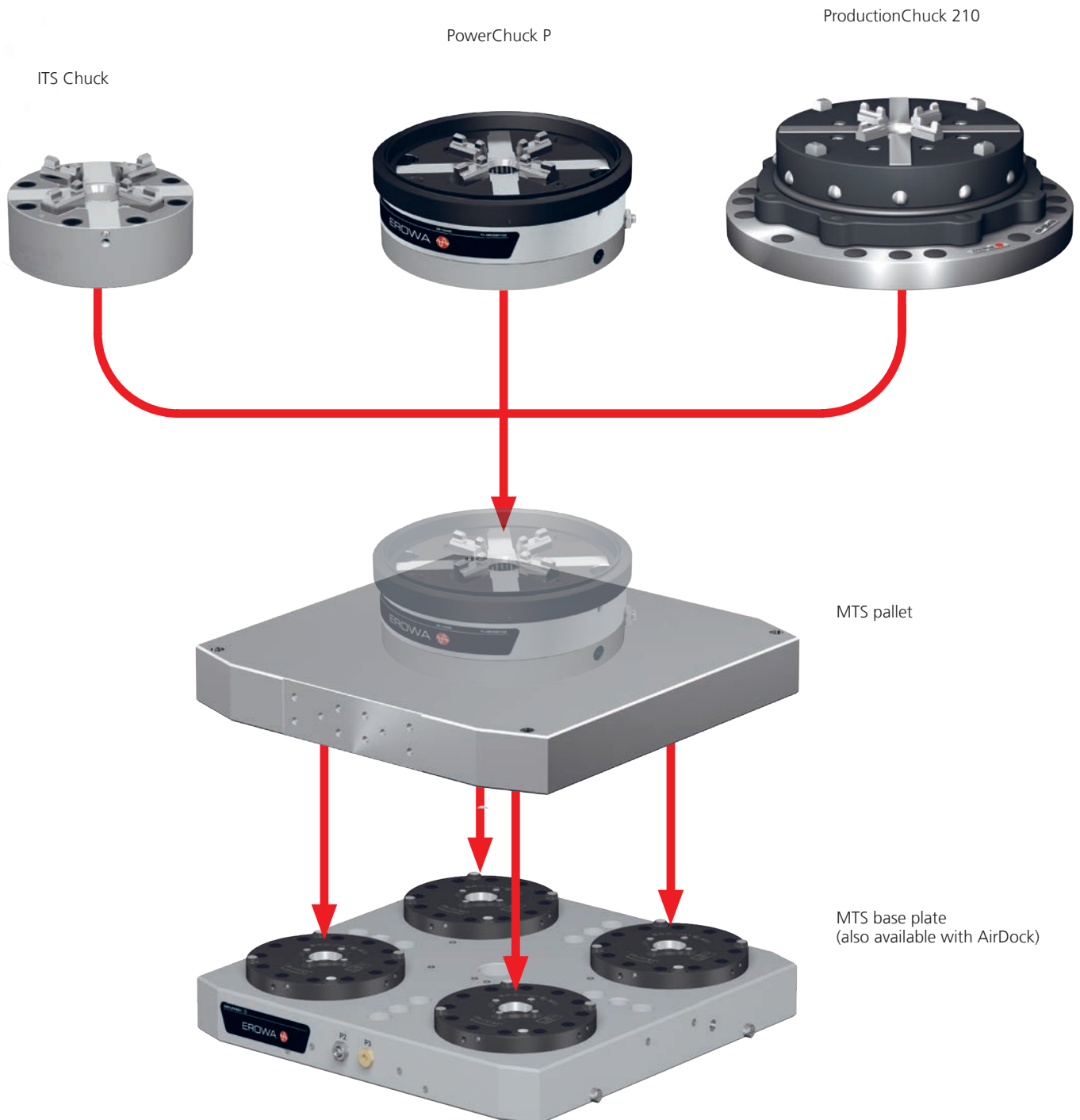
Various EROWA chucks can be mounted on MTS pallets. Two additional air lines are usually required for actuating the adapted chuck.

Medium transfer

The MTS pallet is equipped with a coupling system for actuating the adapted chuck. The coupling system serves as the interface between the MTS base plate and the MTS adapter pallet.

Other options

The adapted EROWA chucks are actuated with compressed air. Hydraulically actuated fixtures or chucks can also be adapted without problems. EROWA offers coupling systems for both options.



Increase production through automation

More cost-effective production thanks to perfectly tailored automation solutions.



The availability of productive hours is considerably increased if new workpieces are set up during primary machining. In addition, marginal and night hours as well as the weekend can be used efficiently.

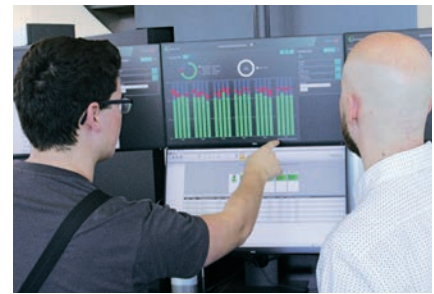
EROWA offers customized handling system solutions, from manual lifting devices to sophisticated robotic systems.



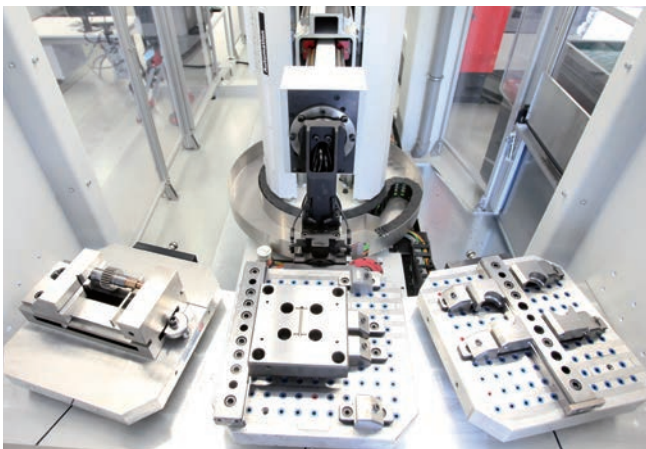
At the ergonomically designed loading station, the operator places the workpieces in position. He presses a button to have the robot place the set up job in a free space in the magazine.



The workpieces are palletized and placed in the magazine of the handling facility. The EWIS™ pallet identification system ensures a good overview in the magazine.



With the EROWA JMS 4.0 process control system, the operator is always in control of all data for the manufacturing cell.



AUTOMATICALLY GOOD

Individually adapted to your requirements.

Robots with stand-alone or linear solutions.

Pallet identification with EROWA EWIS.

EROWA process control system for planning and controlling orders.



To make it easier for you to find your way about the fields of application for EROWA products, we use the following symbols in all our documents:

1. Manual operation
2. Operate with compressed air jet
3. Operate with manual valve
4. Operate with manual control unit
5. Operate with electro-pneumatic control unit
6. With central flushing clearance
7. Suited for submerged operation
8. Corrosion-resistant material
9. Suited for automatic operation
10. Handling with EROWA Robot gripper S
11. Handling with EROWA Robot gripper Combi
12. Handling with EROWA Robot gripper C
13. Handling with EROWA Robot gripper 72
14. Handling with EROWA Robot gripper 115
15. Handling with EROWA Robot gripper 148
16. Handling with EROWA Robot gripper RN PC 210
17. Handling with EROWA Robot gripper RCS
18. Handling with EROWA Robot gripper WGS-500

EROWA MTS

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For chip-removing processes



For EDM sinking



For WEDM

EROWA MTS 81

Small size, high clamping power!

Applications

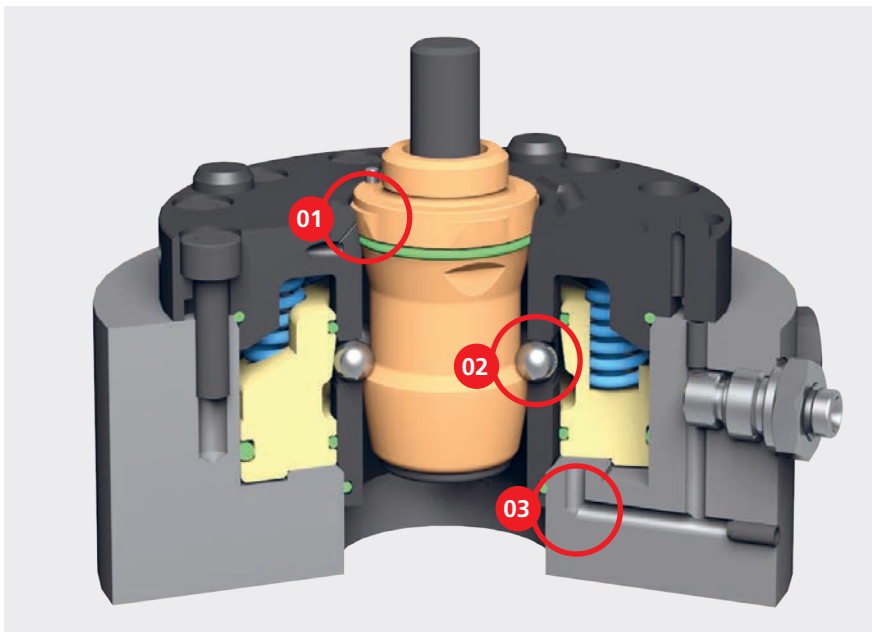


Handling

Manual / Loading facility / Robot

FACTS

- Compact design
- With reclamping function
- High clamping power of 10,000 N
- Precise
- Reliable
- Safe through self-locking system



01 | Precise

Play-free, conical centering.
Repeatability: < 0.003 mm.
Easy insertion of the pallets
without any jamming.

02 | Clamping mechanism

Reliable clamping mechanism through
self-locking ball lock. Stable, low level
of vibration.

03 | Open

MTS 81 chucks are operated
pneumatically.

compatible with

- MTS 81
- MTS
- MTS 2.0
- MTS 4.0

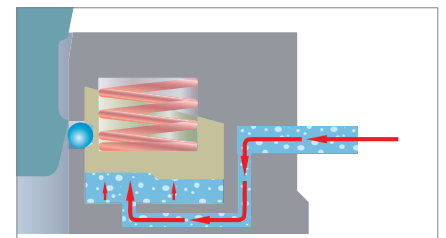


Technical data - MTS 81

	MTS 81
Repeatability	< 0.003 mm
Clamping	with spring tension (clamped without pressure)
Opening pressure	min. 8.5 bar (pneumatic)
Monitoring	combined locking & presence check (pneumatic)
Clamping power	
with reclamping	10,000 N/chuck
Holding power	> 60,000 N/chuck
Reclamp	yes
Clamping cycles	> 500,000

Power package

A reclamping feature provides up to
10,000 N of clamping power.
The chucks are opened pneumatically.



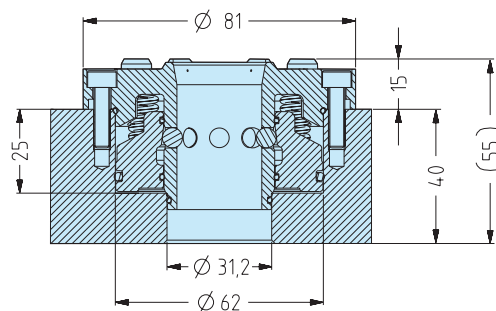
EROWA MTS 81

Integral chucks

Technical data	MTS 81 integral chucks
	pneumatic
Repeatability	< 0.003 mm
Clamping	with spring tension (clamped without pressure)
Opening pressure	min. 8.5 bar (pneumatic)
Monitoring (Chuck P/A)	combined locking & presence check (pneumatic)
Clamping power with reclamping	up to 10,000 N/chuck

M = Multi
P = pneumatically operated
A = able to automate

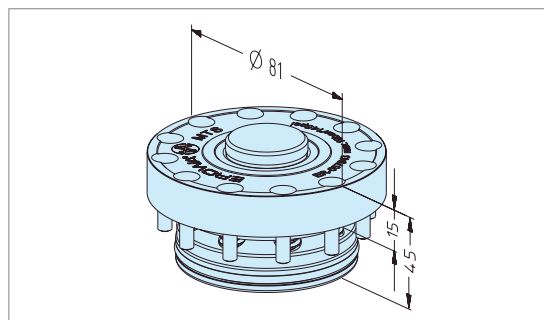
Fitting variant for MTS IntegralChuck.
Pay attention to the tolerances according to operating instructions!



ER-057943 MTS 81 IntegralChuck M-P



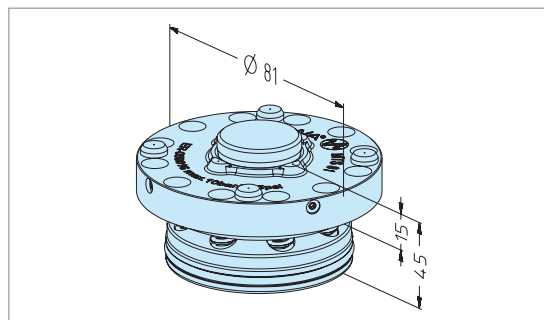
Version For direct integration in machine tables, plates, tombstones, squares or dividing heads.
Connections 2 pneumatic connections: for opening and reclamping.
Application To accommodate multiple pallets.



ER-059016 MTS 81 IntegralChuck M-P/A



Version For direct integration in machine tables, plates, tombstones, squares or dividing heads.
Connections 3 pneumatic connections: for opening, reclamping and cleaning / presence check.
Application To accommodate multiple pallets.



EROWA develops custom-made solutions tailored to your needs. We would be happy to design custom MTS 81 base plates or pallets for you that are precisely tailored to your requirements. For more information, please contact your EROWA partner.

EROWA MTS

The universal interface

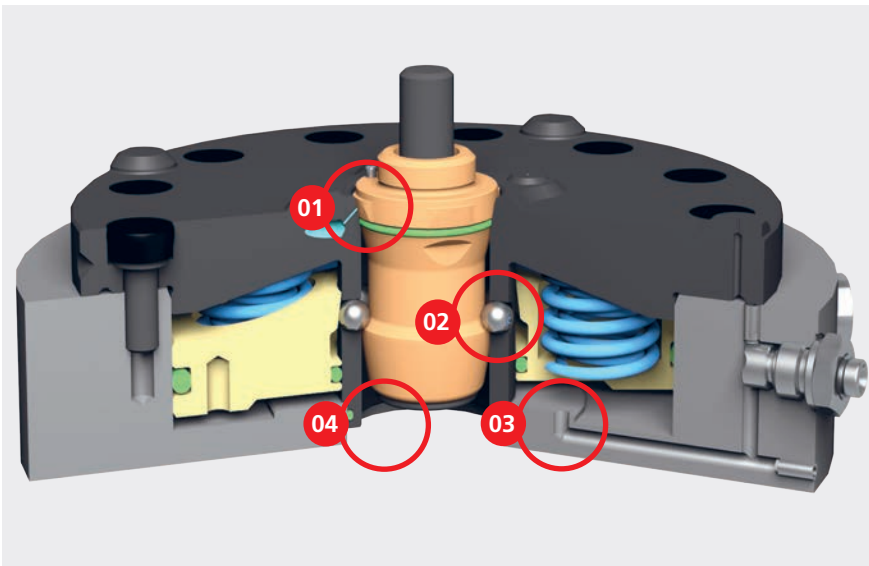
Applications



Handling

Manual / Loading facility / Robot

Function MTS Chuck



FACTS

- Tested in practice 10,000 times
- Repeatability < 0.003 mm
- High clamping power of 12,000 N
- Durable and reliable
- With ceramic balls

01 | Precise

Play free, conical centering.
Repeatability: <0.003 mm.
Easy insertion of the pallets
without any jamming.

02 | Clamping mechanism

Reliable clamping mechanism through
self-locking ball lock. Stable, low level
of vibration.

03 | Open

MTS chucks are pneumatically
operated.

04 | Cleanliness

Liquids can drain off. No dirt traps.

compatible with

- MTS 81
- MTS
- MTS 2.0
- MTS 4.0

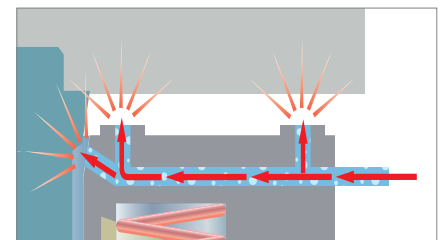


Technical data - MTS

	MTS
Repeatability	< 0.003 mm
Clamping	with spring tension (clamped without pressure)
Opening pressure	min. 7 bar (pneumatic)
Monitoring (Chuck P/A)	combined locking & presence check (pneumatic)
Clamping power	12,000 N/chuck
Holding power	> 60,000 N/chuck
Reclamp	no
Clamping cycles	> 500,000

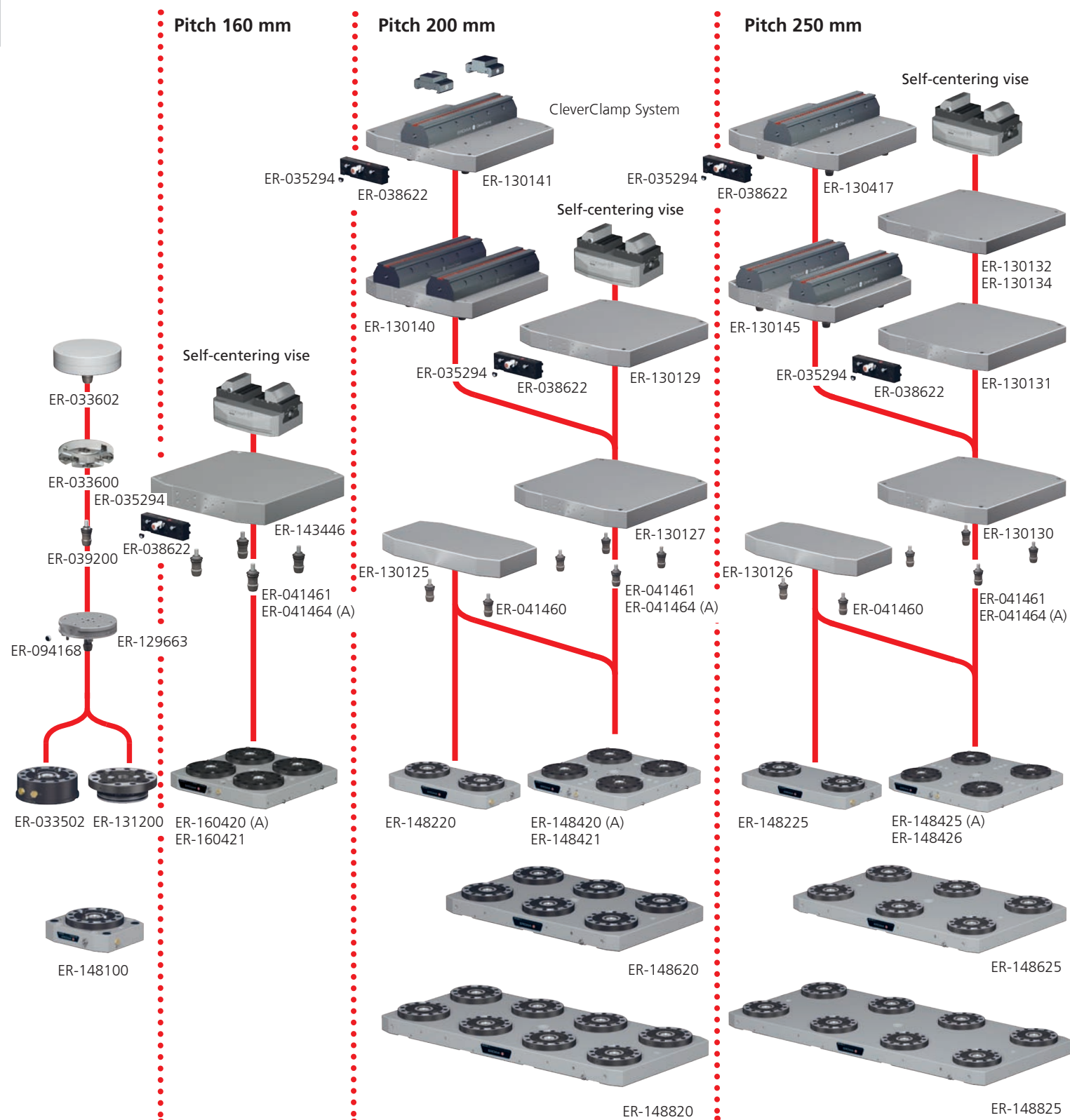
MTS chuck, automatable

Automatic cleaning of contact surfaces
and of the centering spigot cone
while the workpiece is changed.



EROWA MTS

The components



(A) = automatic

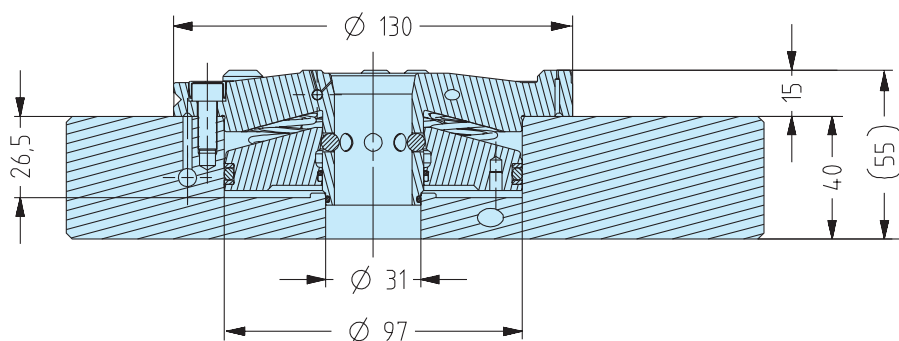
Integral chucks

Technical data	MTS integral chucks pneumatic
Repeatability	< 0.003 mm
Indexation, pallet	4 x 90° (MTS IntegralChuck S)
Clamping	with spring tension (clamped without pressure)
Opening pressure	min. 7 bar (pneumatic)
Monitoring (Chuck P/A)	combined locking & presence check (pneumatic)
Clamping power	12,000 N/chuck

S = Single
 M = Multi
 P = pneumatically operated
 A = able to automate

Fitting variant for MTS IntegralChuck.

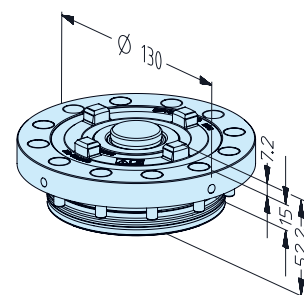
Pay attention to the tolerances according to operating instructions!



ER-131200 MTS IntegralChuck S-P



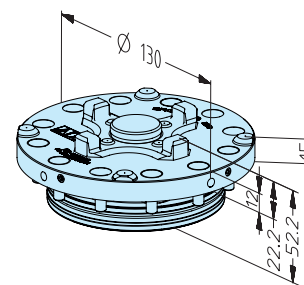
Version For direct integration in machine tables, plates, tombstones, squares or dividing heads.
 Connections 1 pneumatic connection: for opening.
 Application To accommodate single or multiple pallets.



ER-131210 MTS IntegralChuck S-P/A



Version For direct integration in machine tables, plates, tombstones, squares or dividing heads.
 Connections 2 pneumatic connections: for opening and cleaning / presence check.
 Application To accommodate single or multiple pallets.

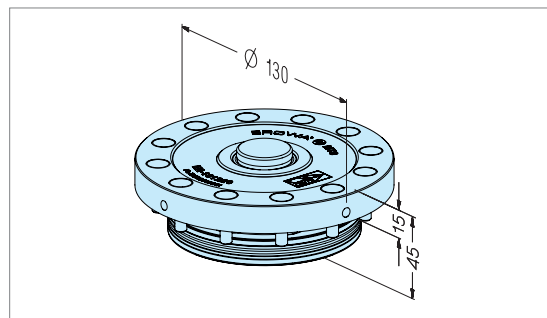


ER-131220 MTS IntegralChuck M-P


Version For direct integration in machine tables, plates, tombstones, squares or dividing heads.

Connections 1 pneumatic connection: for opening.

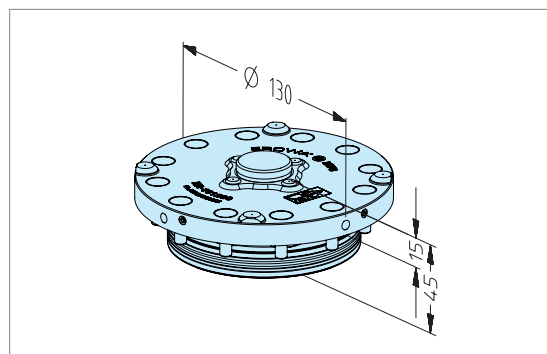
Application To accommodate multiple pallets.


ER-131230 MTS IntegralChuck M-P/A


Version For direct integration in machine tables, plates, tombstones, squares or dividing heads.

Connections 2 pneumatic connections: for opening and cleaning / presence check.

Application To accommodate multiple pallets.



EROWA MTS

Mounted chucks

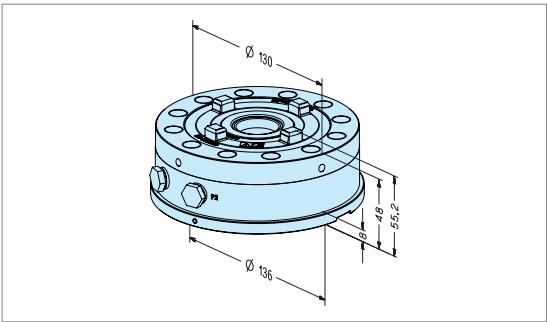
Technical data	MTS mounted chucks
	pneumatic
Repeatability	< 0.003 mm
Indexation, pallet	4 x 90° (MTS Chuck S)
Clamping	with spring tension (clamped without pressure)
Opening pressure	min. 7 bar (pneumatic)
Monitoring (Chuck P/A)	combined locking & presence check (pneumatic)
Clamping power	12,000 N/Chuck

- S = Single
M = Multi
P = pneumatically operated
A = able to automate

ER-033502 MTS Chuck S-P



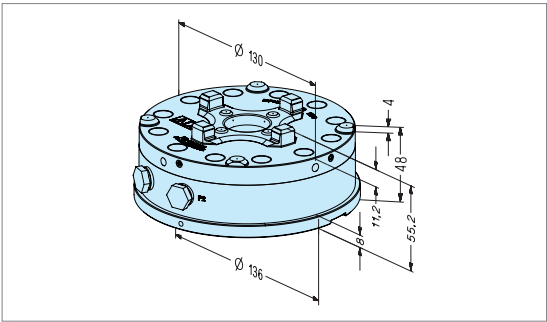
Version	For direct mounting on machine tables, plates, tombstones, squares, etc.
Connections	Lateral, 1 piece (pneumatic): for opening.
Application	To accommodate single or multiple pallets.
Accessories	Order separately for chuck fitting: MTS bracket ER-033804 or ER-033805.



ER-035502 MTS Chuck S-P/A

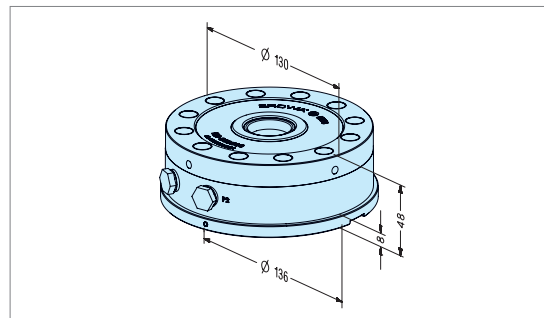


Version	For direct mounting on machine tables, plates, tombstones, squares etc.
Connections	Lateral, 2 pieces (pneumatic): for opening and cleaning / presence check.
Application	To accommodate single or multiple pallets.
Accessories	Order separately for chuck fitting: MTS bracket ER-033804 or ER-033805.

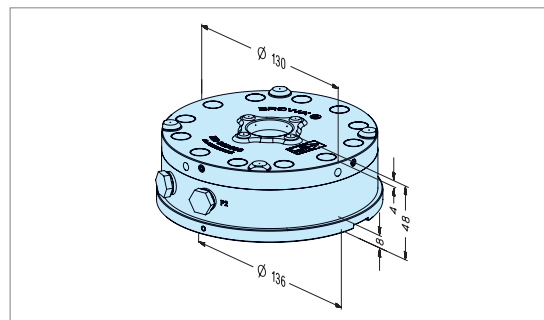


ER-033500 MTS Chuck M-P

- Version For direct mounting on machine tables, plates, tombstones, squares, etc.
- Connections Lateral, 1 piece (pneumatic): for opening.
- Application To accommodate multiple pallets.
- Accessories Order separately for chuck fitting: MTS bracket ER-033804 or ER-033805.

**ER-035500 MTS Chuck M-P/A**

- Version For direct mounting on machine tables, plates, tombstones, squares etc.
- Connections Lateral, 2 pieces (pneumatic): for opening and cleaning / presence check.
- Application To accommodate multiple pallets.
- Accessories Order separately for chuck fitting: MTS bracket ER-033804 or ER-033805.



EROWA MTS

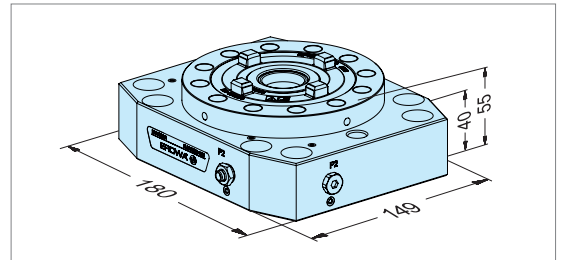
Base plates, 1-fold

Technical data	MTS base plates, 1-fold pneumatic
Repeatability	< 0.003 mm
Indexation, pallet	4 x 90° (MTS Chuck S)
Clamping	with spring tension (clamped without pressure)
Opening pressure	min. 7 bar (pneumatic)
Clamping power	12,000 N

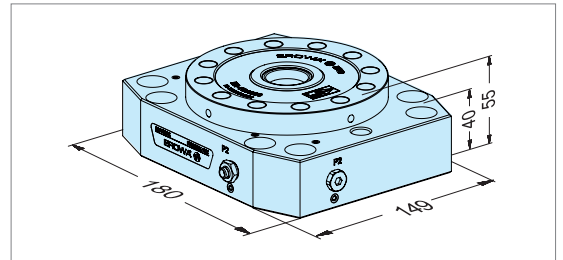
S = Single
M = Multi
P = pneumatically operated

**ER-148100 MTS base plate 149 x 180 S-P
1-fold**


Version Baseplate, steel unhardened.
Connections Lateral, 1 piece (pneumatic): for opening.
Application To accommodate single and multiple pallets. For direct assembly on machine tables.
To fit Mounting hole pattern for grid 50 mm / M12 and for machine tables with T-slot distances of 63 and 100 mm.


**ER-148101 MTS base plate 149 x 180 M-P
1-fold**


Version Baseplate, steel unhardened.
Connections Lateral, 1 piece (pneumatic): for opening.
Application To accommodate multiple pallets. For direct assembly on machine tables.
To fit Mounting hole pattern for grid 50 mm / M12 and for machine tables with T-slot distances of 63 and 100 mm.



EROWA MTS

Base plates, 2-fold

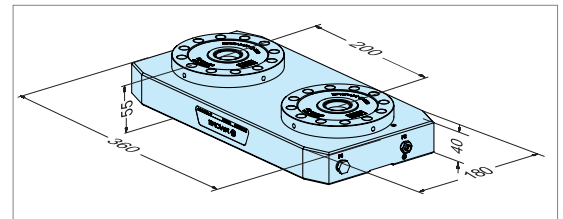
Technical data	MTS base plates, 2-fold pneumatic
Repeatability	< 0.003 mm
Indexation, pallet	1 x 180°
Clamping	with spring tension (clamped without pressure)
Opening pressure	min. 7 bar (pneumatic)
Clamping power	24,000 N (2 x 12,000 N)

P = pneumatically operated

ER-148220 MTS base plate 180 x 360 P Pitch 200



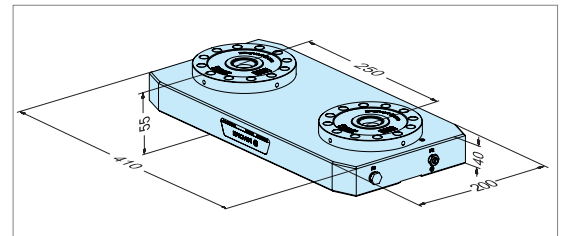
Version	Base plate, steel, unhardened. Pitch: 200 mm.
Connections	Lateral, 1 piece (pneumatic): for opening.
Application	To accommodate 2-fold pallets. For direct assembly on machine tables.
Note	Attachment boreholes can be drilled by customers.
Caution	Do not drill through any air ducts! Please check operating instructions.



ER-148225 MTS base plate 200 x 410 P Pitch 250



Version	Base plate, steel, unhardened. Pitch: 250 mm.
Connections	Lateral, 1 piece (pneumatic): for opening.
Application	To accommodate 2-fold pallets. For direct assembly on machine tables.
Note	Attachment boreholes can be drilled by customers.
Caution	Do not drill through any air ducts! Please check operating instructions.



EROWA MTS

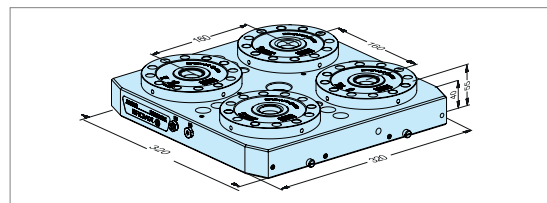
Base plates, 4-fold

Technical data	MTS base plates, 4-fold pneumatic
Repeatability	< 0.003 mm
Clamping	with spring tension (clamped without pressure)
Opening pressure	min. 7 bar (pneumatic)
Clamping power	48,000 N (4 x 12,000 N)

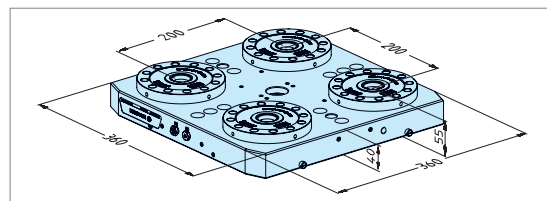
P = pneumatically operated

ER-160421 MTS base plate 320 x 320 P
Universal, pitch 160

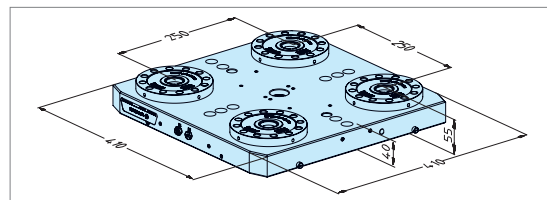

Version	Base plate universal, steel unhardened, pitch 160 mm. Including adapter flange without air boreholes.
Connections	Lateral, 1 piece (pneumatic): for opening.
Option	Control from underneath possible with the relevant adapter flange (available on request).
Application	To accommodate multiple pallets. For direct assembly on machine tables.
To fit	Mounting hole pattern for grid 50 mm / M12 and for machine tables with T-slot distances of 63 and 100 mm.


ER-148421 MTS base plate 360 x 360 P
Universal, pitch 200


Version	Base plate universal, steel unhardened, pitch 200 mm. Including adapter flange without air boreholes.
Connections	Lateral, 1 piece (pneumatic): for opening.
Option	Control from underneath possible with the relevant adapter flange (available on request).
Application	To accommodate multiple pallets. For direct assembly on machine tables.
To fit	Mounting hole pattern for grid 50 mm / M12 and for machine tables with T-slot distances of 63 and 100 mm.


ER-148426 MTS base plate 410 x 410 P
Universal, pitch 250


Version	Base plate universal, steel unhardened, pitch 250 mm. Including adapter flange without air boreholes.
Connections	Lateral, 1 piece (pneumatic): for Opening.
Option	Control from underneath possible with the relevant adapter flange (available on request).
Application	To accommodate multiple pallets. For direct mounting on machine tables.
To fit	Mounting hole pattern for grid 50 mm / M12 and for machine tables with T-slot distances of 63 and 100 mm.



EROWA MTS

Base plates, 4-fold, automatable

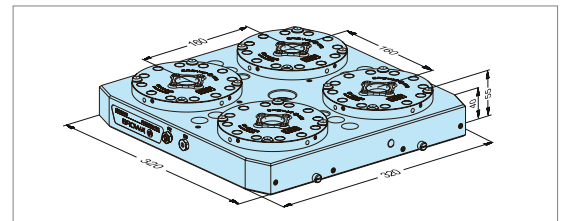
Technical data	MTS base plates, 4-fold, pneumatic, automatable
Repeatability	< 0.003 mm
Clamping	with spring tension (clamped without pressure)
Opening pressure	min. 7 bar (pneumatic)
Monitoring (Chuck P/A)	combined locking & presence check (pneumatic)
Clamping power	48,000 N (4 x 12,000 N)

P = pneumatically operated
A = able to automate

ER-160420 MTS base plate 320 x 320 P/A Universal, pitch 160



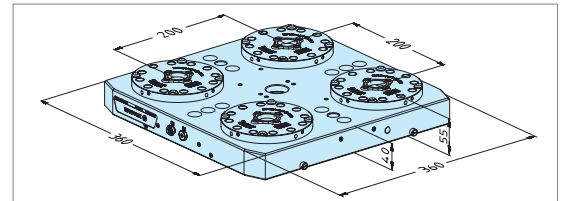
Version	Base plate universal, steel unhardened, pitch 160 mm. Including Adapter flange without air boreholes.
Connections	Lateral, 2 pieces (pneumatic): for opening and cleaning/presence check.
Option	Control from underneath possible with the relevant adapter flange (available on request).
Application	To accommodate multiple pallets. For direct mounting on machine tables.
To fit	Mounting hole pattern for grid 50 mm / M12 and for machine tables with T-slot distances of 63 and 100 mm.



ER-148420 MTS base plate 360 x 360 P/A Universal, pitch 200



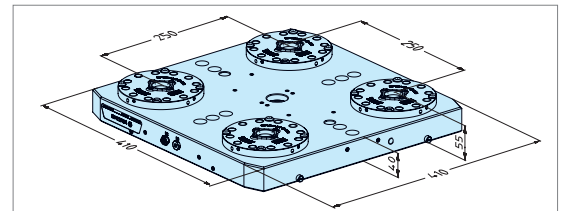
Version	Base plate universal, steel unhardened, pitch 200 mm. Including Adapter flange without air boreholes.
Connections	Lateral, 2 pieces (pneumatic): for opening and cleaning/presence check.
Option	Control from underneath possible with the relevant adapter flange (available on request).
Application	To accommodate multiple pallets. For direct mounting on machine tables.
To fit	Mounting hole pattern for grid 50 mm / M12 and for machine tables with T-slot distances of 63 and 100 mm.



ER-148425 MTS base plate 410 x 410 P/A Universal, pitch 250



Version	Base plate universal, steel unhardened, pitch 250 mm. Including adapter flange without air boreholes.
Connections	Lateral, 2 pieces (pneumatic): for opening and cleaning/presence check.
Option	Control from underneath possible with the relevant adapter flange (available on request).
Application	To accommodate multiple pallets. For direct mounting on machine tables.
To fit	Mounting hole pattern for grid 50 mm / M12 and for machine tables with T-slot distances of 63 and 100 mm.



EROWA MTS

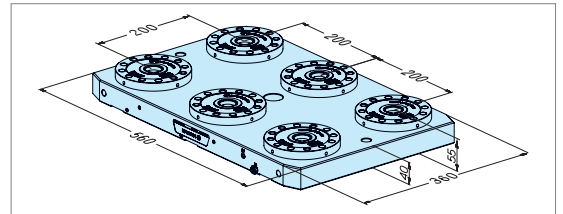
Base plates, 6-fold

Technical data	MTS base plates, 6-fold pneumatic
Repeatability	< 0.003 mm
Clamping	with spring tension (clamped without pressure)
Opening pressure	min. 7 bar (pneumatic)
Clamping power	72,000 N (6 x 12,000 N)

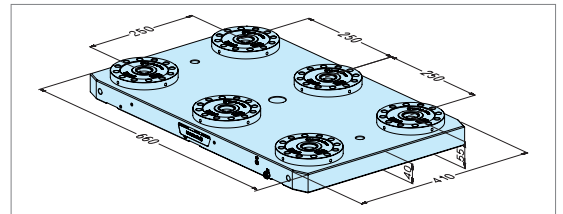
P = pneumatically operated

ER-148620 MTS base plate 360 x 560 P
Pitch 200


Version	Base plate, steel, unhardened. Pitch: 200 mm.
Connections	Lateral, 1 piece (pneumatic): for opening.
Application	To accommodate multiple pallets. For direct assembly on machine tables.
Note	Attachment boreholes can be drilled by customers.
Caution	Do not drill through any air ducts! Please check operating instructions.


ER-148625 MTS base plate 410 x 660 P
Pitch 250


Version	Base plate, steel, unhardened. Pitch: 250 mm.
Connections	Lateral, 1 piece (pneumatic): for opening.
Application	To accommodate multiple pallets. For direct assembly on machine tables.
Note	Attachment boreholes can be drilled by customers.
Caution	Do not drill through any air ducts! Please check operating instructions.



EROWA MTS

Base plates, 8-fold

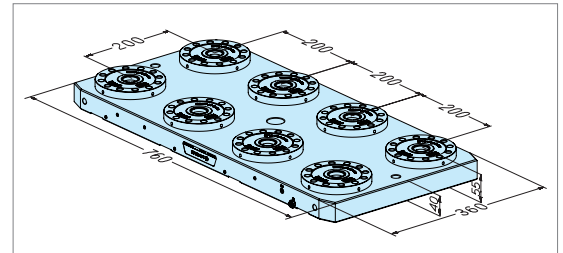
Technical data	MTS base plates, 8-fold pneumatic
Repeatability	<0.003 mm
Clamping	with spring tension (clamped without pressure)
Opening pressure	min. 7 bar (pneumatic)
Clamping power	96,000 N (8 x 12,000 N)

P = pneumatically operated

ER-148820 MTS base plate 360 x 760 P Pitch 200



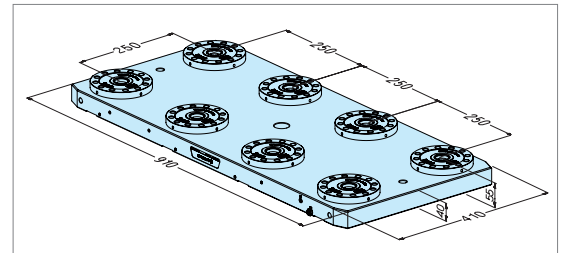
Version Base plate, steel, unhardened. Pitch: 200 mm.
Connections Lateral, 1 piece (pneumatic): for opening.
Application To accommodate multiple pallets. For direct assembly on machine tables.
Note Attachment boreholes can be drilled by customers.
Caution Do not drill through any air ducts! Please check operating instructions.



ER-148825 MTS base plate 410 x 910 P Pitch 250



Version Base plate, steel, unhardened. Pitch: 250 mm.
Connections Lateral, 1 piece (pneumatic): for opening.
Application To accommodate multiple pallets. For direct assembly on machine tables.
Note Attachment boreholes can be drilled by customers.
Caution Do not drill through any air ducts! Please check operating instructions.



EROWA MTS 2.0

The zero point tooling system for the highest demands

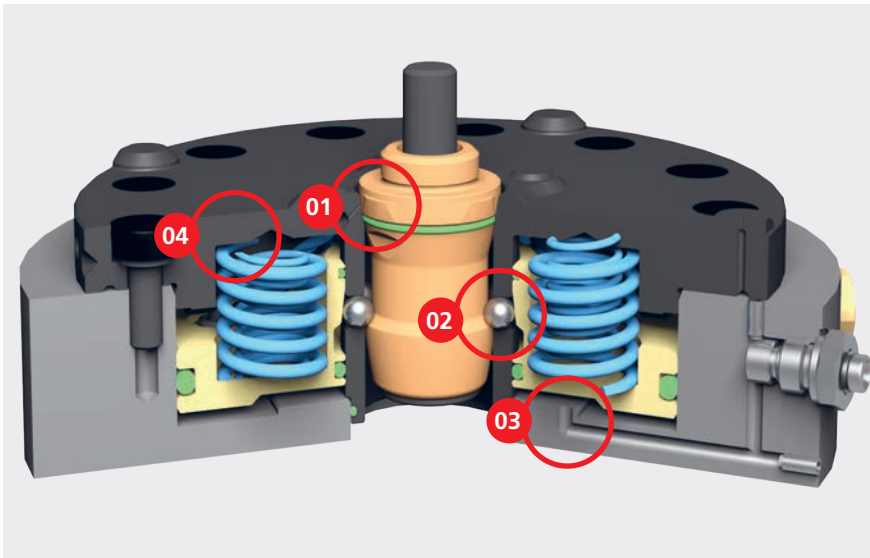
Applications



Handling

Manual / Loading facility / Robot

Function MTS 2.0 Chuck



FACTS

- Repeatability < 0.003 mm
- Power pack: 20,000 N clamping power
- Only 6 bar opening pressure
- With open check
- Ceramic balls
- Rust-resistant

01 | High precision

Play free, conical centering.
Repeatability: < 0.003 mm.
Easy insertion of the pallets without any jamming.

02 | Clamping mechanism

Reliable clamping mechanism through self-locking ball lock. Stable, low level of vibration.

03 | Open

MTS 2.0 chucks are operated pneumatically. The chucks require only 6 bar opening pressure despite their high clamping power of 20,000 N.

04 | Open monitoring

Know for sure when the MTS 2.0 chuck is open thanks to integrated open monitoring.

Technical data - MTS 2.0

	MTS 2.0
Repeatability	< 0.003 mm
Clamping	with spring tension (clamped without pressure)
Opening pressure	min. 6 bar (pneumatic)
Reclamp pressure	max. 6 bar
Monitoring	open check and combined locking & presence check (pneumatic)
Clamping power	9,000 N/Chuck (spring tension)
with reclamping	20,000 N/Chuck
Holding power	> 60,000 N/Chuck
Reclamp	yes
Clamping cycles	> 500,000
Material	INOX

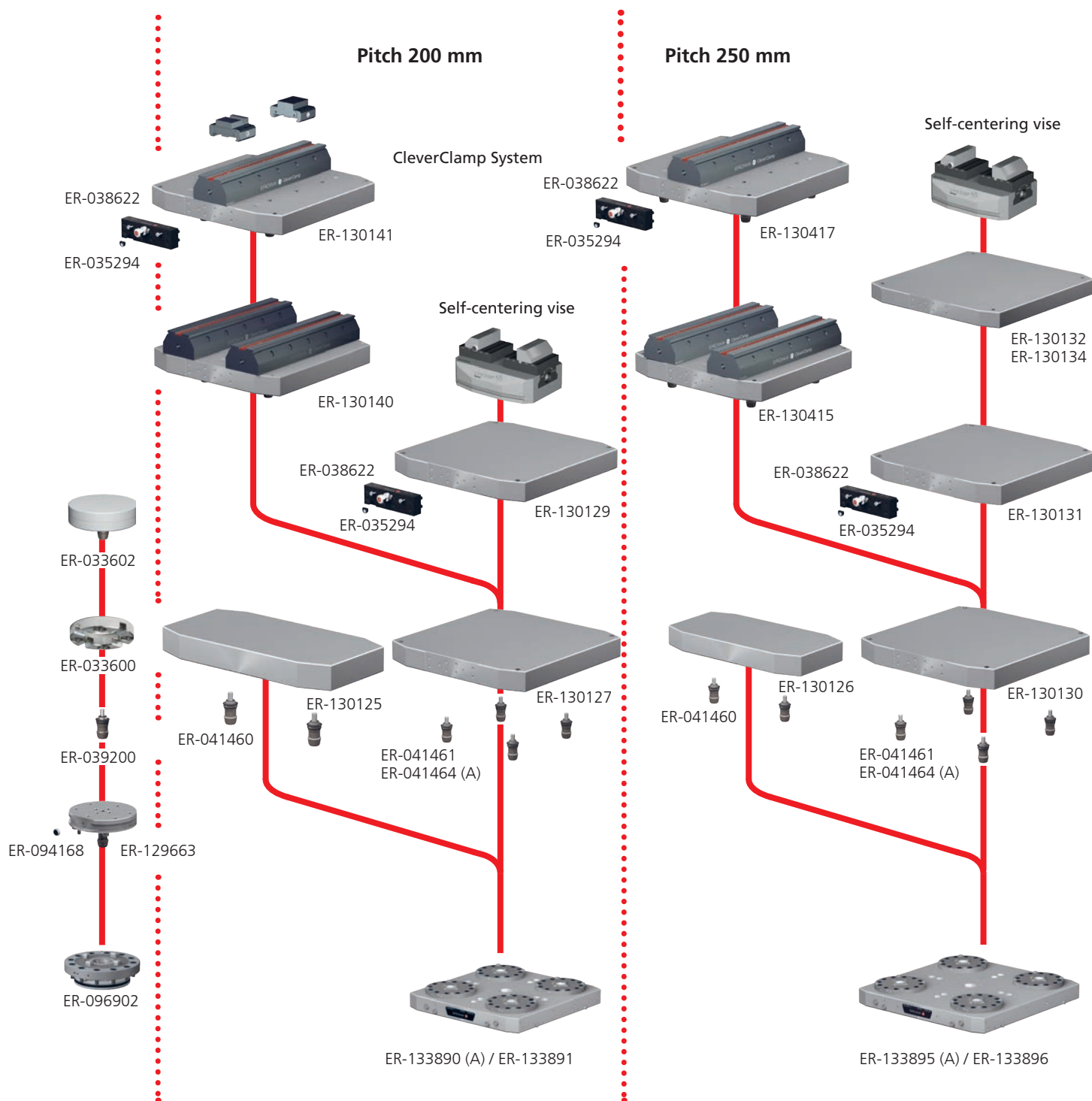
compatible with

- MTS 81
- MTS
- MTS 2.0
- MTS 4.0



EROWA MTS 2.0

The components



(A) = automatic

EROWA MTS 2.0

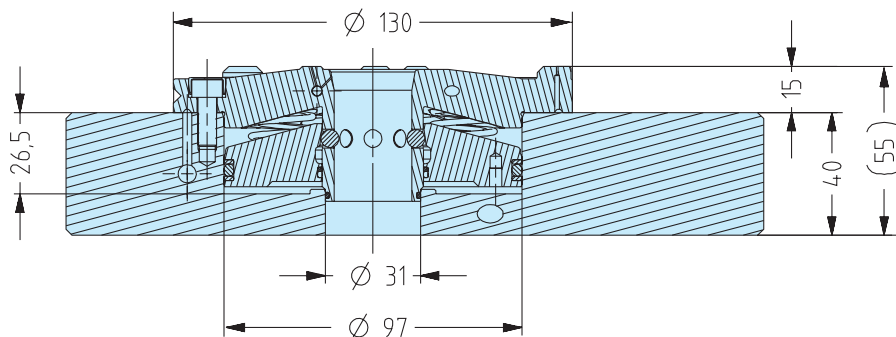
Integral chucks

Technical data	MTS 2.0 integral chuck, pneumatic
Repeatability	< 0.003 mm
Indexation, pallet	4 x 90° (MTS 2.0 IntegralChuck S)
Clamping	with spring tension (clamped without pressure)
Opening pressure	min. 6 bar (pneumatic)
Monitoring	open check and combined locking & presence check (pneumatic)
Clamping power	9,000 N (spring tension)
with reclamping	20,000 N

S = Single
M = Multi
P = pneumatically operated
A = able to automate

Fitting variant for MTS IntegralChuck.

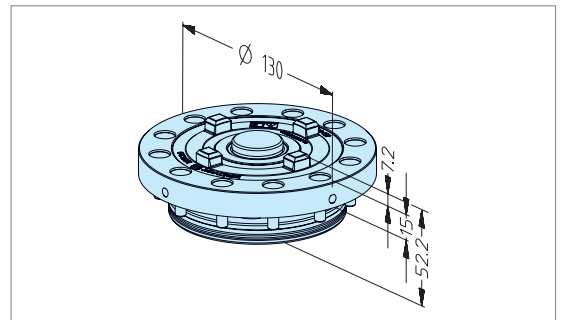
Pay attention to the tolerances according to operating instructions!



ER-096902 MTS 2.0 IntegralChuck S-P



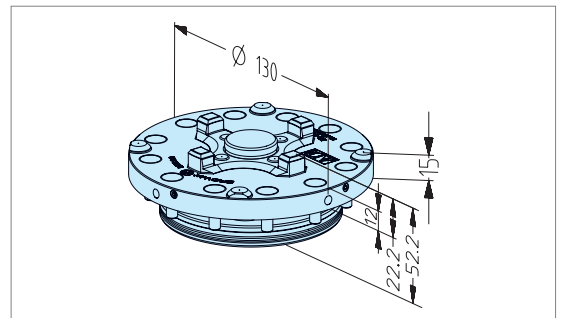
Version For direct integration in machine tables, plates, tombstones, angles or dividing heads.
Connections 3 pneumatic connections: for opening, reclamping and the open check.
Application To accommodate single and multiple pallets.



ER-096903 MTS 2.0 IntegralChuck S-P/A

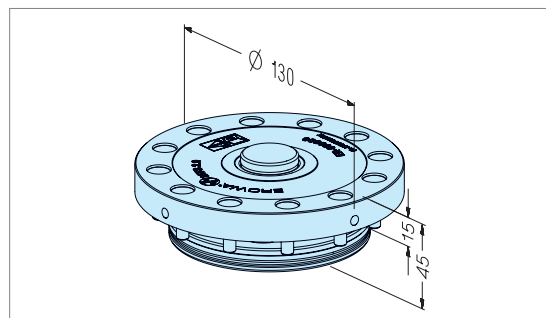


Version For direct integration in machine tables, plates, tombstones or dividing heads.
Connections 4 pneumatic connections: for opening, cleaning/presence checks, reclamping and the open check.
Application To accommodate single and multiple pallets.

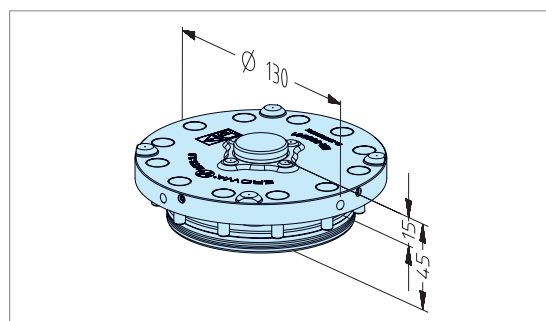


ER-096900 MTS 2.0 IntegralChuck M-P

- Version For direct integration in machine tables, plates, tombstones or dividing heads.
- Connections 3 pneumatic connections: for opening, reclamping and the open check.
- Application To accommodate multiple pallets.

**ER-096901 MTS 2.0 IntegralChuck M-P/A**

- Version For direct integration in machine tables, plates, tombstones, angles or dividing heads.
- Connections 4 pneumatic connections: for opening, cleaning/presence check, reclamping and the open check.
- Application To accommodate multiple pallets.



EROWA MTS 2.0

Base plates, 4-fold

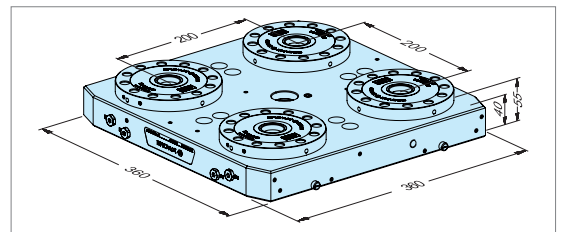
Technical data	MTS base plate 2.0, 4-fold, pneumatic
Repeatability	< 0.003 mm
Clamping	with spring tension (clamped without pressure)
Opening pressure	min. 6 bar (pneumatic)
Clamping power	36,000 N (4 x 9,000 N) (spring tension)
with reclamping	80,000 N (4 x 20,000 N)

P = pneumatically operated

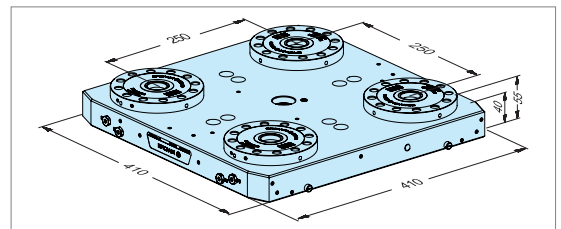
PC* = pitch circle

ER-133891 MTS 2.0 base plate 360 x 360 P
Universal, pitch 200


Version	Base plate universal, steel unhardened, pitch 200 mm. Including adapter flange with air boreholes.
Connections	3 pneumatic connections, laterally and from underneath on PC* $\varnothing 57$ mm: : for opening, reclamping and open check.
Option	Customized adapter flange available on request.
Application	To accommodate multiple pallets. For direct assembly on machine tables.
To fit	Mounting hole pattern for grid 50 mm / M12 and for machine tables with T-slot distances of 63 and 100 mm.


ER-133896 MTS 2.0 base plate 410 x 410 P
Universal, pitch 250


Version	Base plate universal, steel unhardened, pitch 250 mm. Including adapter flange with air boreholes.
Connections	3 pneumatic connections, laterally and from underneath on PC* $\varnothing 57$ mm: : for opening, reclamping and open check.
Option	Customized adapter flange available on request.
Application	To accommodate multiple pallets. For direct assembly on machine tables.
To fit	Mounting hole pattern for grid 50 mm/ M12 and for machine tables with T-slot distances of 63 and 100 mm.



EROWA MTS 2.0

Base plates, 4-fold,
automatable

Technical data	MTS 2.0 base plate universal, 4-fold, pneumatic, automatable
Repeatability	< 0.003 mm
Clamping	with spring tension (clamped without pressure)
Opening pressure	min. 6 bar (pneumatic)
Monitoring (Chuck P/A)	open check and combined locking & presence check (pneumatic)
Clamping power with reclamping	36,000 N (4 x 9,000 N) (spring tension) 80,000 N (4 x 20,000 N)

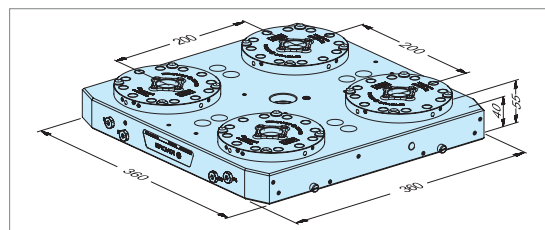
P = pneumatically operated

A = able to automate

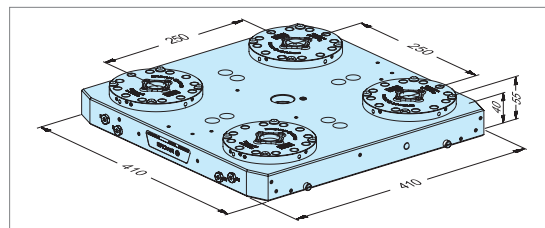
PC* = pitch circle

**ER-133890 MTS 2.0 base plate 360 x 360 P/A
Universal, pitch 200**

Version	Base plate universal, steel unhardened, pitch 200 mm. Including adapter flange with air boreholes.
Connections	4 pneumatic connections, laterally and from underneath on PC* ø57 mm: : for opening, reclamping, open check and for cleaning/presence check.
Option	Customized adapter flange available on request.
Application	To accommodate multiple pallets. For direct assembly on machine tables.
To fit	Mounting hole pattern for grid 50mm / M12 and for machine tables with T-slot distances of 63 and 100 mm.

**ER-133895 MTS 2.0 base plate 410 x 410 P/A
Universal, pitch 250**

Version	Base plate universal, steel unhardened, pitch 250 mm. Including adapter flange with air boreholes.
Connections	4 pneumatic connections, laterally and from underneath on PC* ø57 mm: : for opening, reclamping, open check and for cleaning/presence check.
Option	Customized adapter flange available on request.
Application	To accommodate multiple pallets. For direct assembly on machine tables.
To fit	Mounting hole pattern for grid 50 mm / M12 and for machine tables with T-slot distances of 63 and 100 mm.



EROWA MTS

Pallets - Pitch 160 mm 4-fold

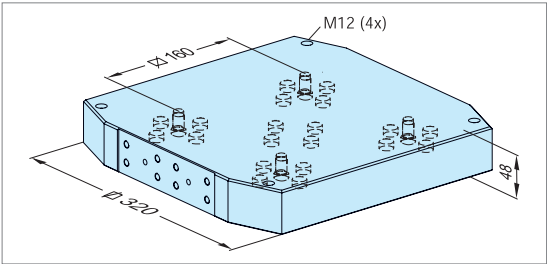
ER-143446 MTS pallet 320 x 320 / 160
Hard Z support



Version Aluminum pallet, 4-fold, pitch 160 mm. With hard Z support bolt. Excluding chucking spigots.

Application To clamp workpieces, vises and gauges. Holes to be drilled as required.

Accessories MTS chucking spigot set ER-041461 (M) or ER-041464 (A) and MTS GripperLink ER-038622.



ER-157207 MTS Adapter pallet PCP automatic
320 x 320 / 160

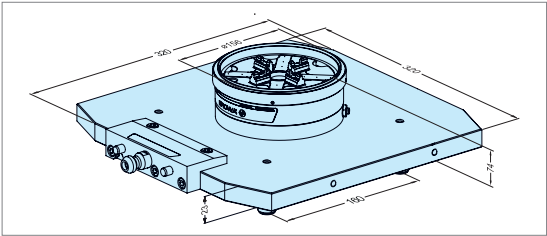


Version Adapter pallet from MTS to PowerChuck P.

Operation Automatic control of the PowerChuck P via MTS air couplings of the MTS base plate.

Application On machines with MTS base plate for holding ITS pallets.

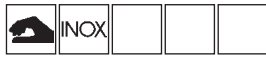
Note For automatically changing pallets into the MTS base plate and PowerChuck P.



EROWA MTS

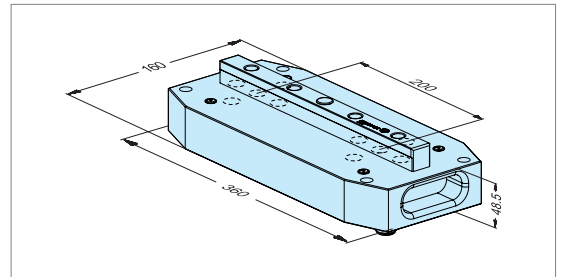
Pallets - Pitch 200 mm 2-fold

ER-130135 MTS Alignment pallet 160 x 360 / 200



Version Aluminum pallet, 2-fold, with hard Z supports. With ground alignment rail and four Z-measuring surfaces. Including 2 x MTS centering spigot / A.

Application Alignment of the angle position and determination of the Z-values of 2-fold MTS base plates with pitch 200 mm.



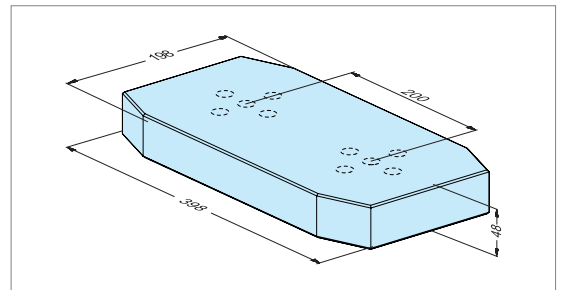
ER-130125 MTS pallet 198 x 398 / 200



Version Aluminum pallet, 2-fold, pitch 200 mm. Excluding chucking spigots.

Application To clamp workpieces, vises and gauges. Holes to be drilled as required.

Accessories MTS chucking spigot set ER-041460.



EROWA MTS

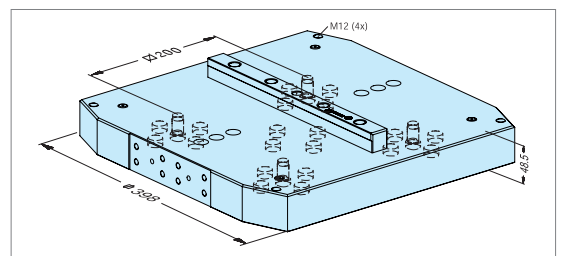
Pallets - Pitch 200 mm 4-fold

ER-130137 MTS Alignment pallet 398 x 398 / 200



Version Aluminum pallet, 4-fold, with hard Z supports. With ground alignment rail and four Z-measuring surfaces. Including MTS chucking spigot set 4 / A-Z.

Application Alignment of the angle position and determination of the center and Z-values of 4-fold MTS base plates with pitch 200 mm.



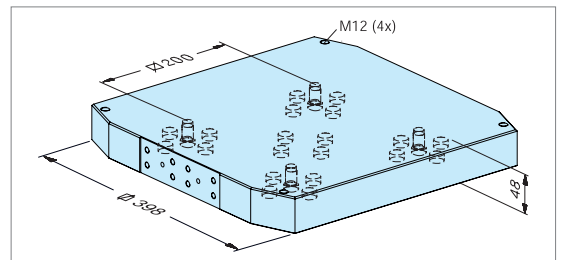
ER-130127 MTS pallet 398 x 398 / 200



Version Aluminum pallet, 4-fold, pitch 200 mm. Excluding chucking spigots.

Application To clamp workpieces, vises and gauges. Holes to be drilled as required.

Accessories MTS chucking spigot set ER-041461 (M) or ER-041464 (A) and MTS GripperLink ER-038622.

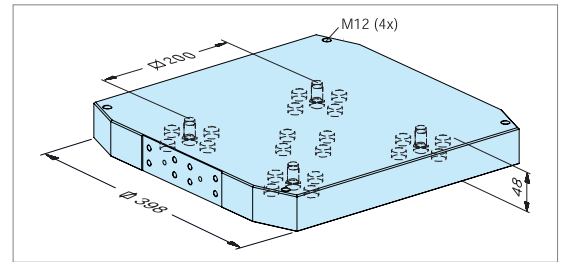


EROWA MTS

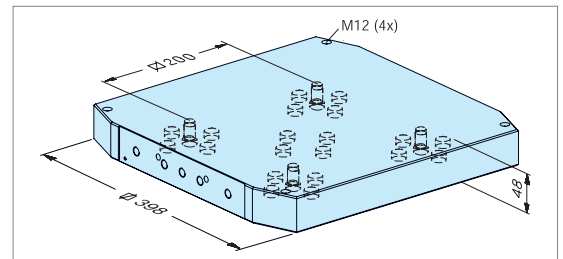
Pallets - Pitch 200 mm 4-fold

**ER-130129 MTS pallet 398 x 398 / 200
Hard Z support**

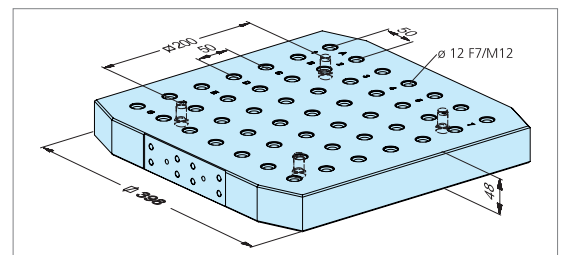
- Version Aluminum pallet, 4-fold, pitch 200 mm. With hard Z supports. Excluding chucking spigots.
- Application To clamp workpieces, vises and gauges. Holes to be drilled as required.
- Accessories MTS chucking spigot set ER-041461 (M) or ER-041464 (A) and MTS GripperLink ER-038622.

**ER-136576 MTS pallet 398 x 398 / 200
Hard Z support / WGS-500 40 mm**

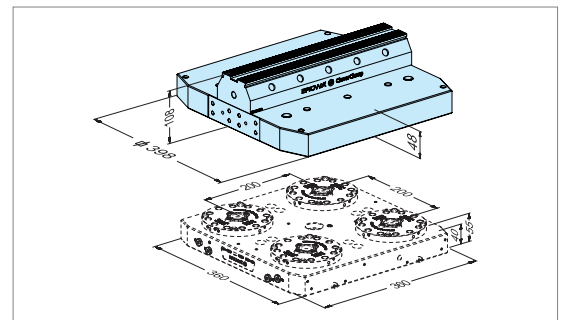
- Version Aluminum pallet, 4-fold, pitch 200 mm. With hard Z-supports. Excluding chucking spigots.
- Application To clamp workpieces, vises and gauges. Hold grid to be drilled according to requirements.
- Accessories MTS chucking spigot set ER-041461 (M) or ER-041464 (A), as well as GripperLink WGS-500 40 mm, ER-094828.

**ER-130128 MTS pallet 398 x 398 / 200 R50**

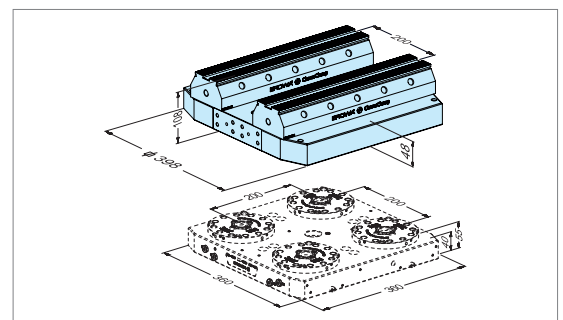
- Version Aluminum pallet (hard-anodized), 4-fold, pitch 200 mm. With grid 50mm / M12. Excluding chucking spigots.
- Application To clamp workpieces, vises and gauges.
- Accessories MTS chucking spigot set ER-041461 (M) or ER-041464 (A) and MTS GripperLink ER-038622.

**ER-130141 MTS pallet 398 x 398 / 200
CleverClamp mono**

- Version Aluminum pallet, 4-fold, pitch 200mm. With hard Z supports and 1 x CleverClamp rail 398. Excluding chucking spigots.
- Application Optimal accessibility for 5-axis machining with single and multiple part clamping.
- Accessories MTS chucking spigot set ER-041461 (M) or ER-041464 (A).

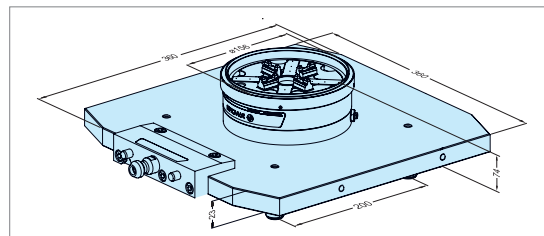
**ER-130140 MTS pallet 398 x 398 / 200
CleverClamp duo**

- Version Aluminum pallet, 4-fold, pitch 200 mm. With hard Z supports and 2 x CleverClamp rail 398. Excluding chucking spigots.
- Application Optimal accessibility for 5-axis machining with single and multiple part clamping.
- Accessories MTS chucking spigot set ER-041461 (M) or ER-041464 (A).

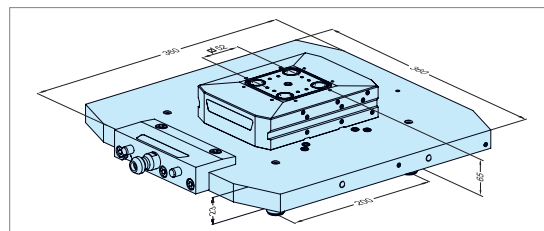


**ER-138658 MTS Adapter pallet PCP automatic
360 x 360 / 200**

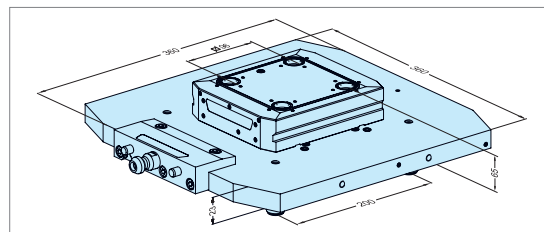

Version Adapter pallet from MTS to PowerChuck P.
Operation Automatic control of the PowerChuck P via MTS air couplings of the MTS base plate.
Application On machines with MTS base plate for holding ITS pallets.
Note For automatically changing pallets into the MTS base plate and PowerChuck P.


**ER-169341 MTS Adapter pallet VPC 52 automatic
360 x 360 / 200 with changeover valve**

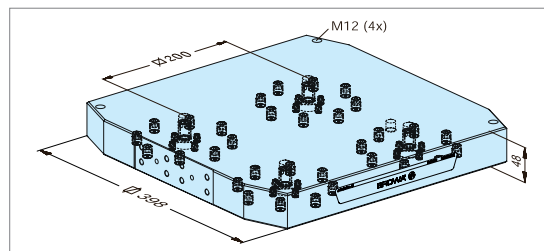

Version Adapter pallet from MTS to VPC.
Operation Automatic control of the VPC via MTS air couplings of the MTS base plate.
Application On machines with MTS base plate for holding vises, fixtures and workpieces with pitch dimension 52.
Note For automatic changing of pallets, vises, fixtures and workpieces with pitch dimension 52 into the MTS base plate and VPC.


**ER-169342 MTS Adapter pallet VPC 96 automatic
360 x 360 / 200 with changeover valve**


Version Adapter pallet from MTS to VPC.
Operation Automatic control of the VPC via MTS air couplings of the MTS base plate.
Application On machines with MTS base plate for holding vises, fixtures and workpieces with pitch dimension 96.
Note For automatic changing of pallets, vises, fixtures and workpieces with pitch dimension 96 into the MTS base plate and VPC.


**ER-143875 MTS pallet 398 x 398 / 200 FD
Z-support hard**


Version Aluminum pallet, 4-fold, pitch 200 mm. With hard Z supports. Excluding MTS chucking spigots FD.
Application To clamp workpieces, vises and gauges. Holes to be drilled as required.
Accessories MTS chucking spigot set 4/ A-Z-FD Type 1 ER-171025, GripperLink RCS 45 mm ER-038622 and counter weight ER-146556.
Compatibility MTS (up to max. 80 min⁻¹), MTS 2.0, MTS 3.0, MTS 4.0.

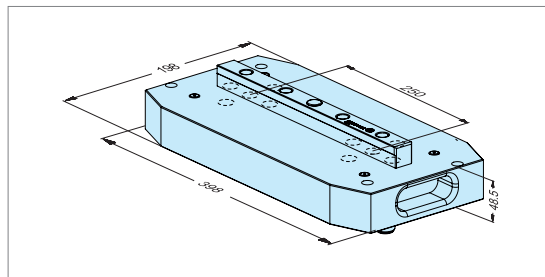


EROWA MTS

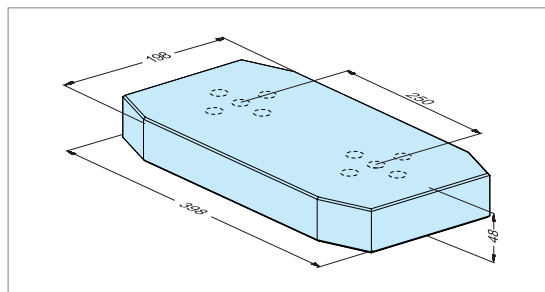
Pallets - Pitch 250 mm 2-fold

ER-130136 MTS Alignment pallet 198 x 398 / 250

- Version Aluminum pallet, 2-fold, with hard Z supports. With ground alignment rail and four Z-measuring surfaces. Including 2 x MTS centering spigot / A.
- Application Alignment of the angle position and determination of the Z-values of 2-fold MTS base plates with pitch 250 mm.

**ER-130126 MTS pallet 198 x 398 / 250**

- Version Aluminum pallet, 2-fold, pitch 250 mm. Excluding chucking spigots.
- Application To clamp workpieces, vises and gauges. Holes to be drilled as required.
- Accessories MTS chucking spigot set ER-041460.

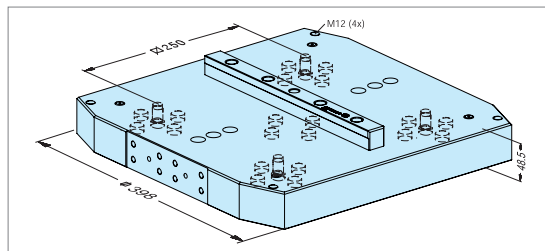


EROWA MTS

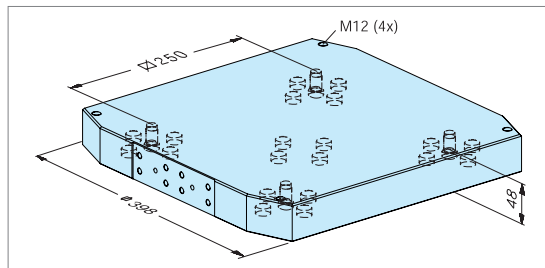
Pallets - Pitch 250 mm 4-fold

ER-130138 MTS Alignment pallet 398 x 398 / 250

- Version Aluminum pallet, 4-fold, with hard Z supports. With ground alignment rail and four Z-measuring surfaces. Including MTS chucking spigot set 4 / A-Z.
- Application Alignment of the angle position and determination of the center and Z-values of 4-fold MTS base plates with pitch 250 mm.

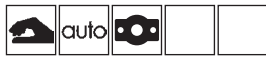
**ER-130130 MTS pallet 398 x 398 / 250**

- Version Aluminum pallet, 4-fold, pitch 250 mm. Excluding chucking spigots.
- Application To clamp workpieces, vises and gauges. Holes to be drilled as required.
- Accessories MTS chucking spigot set ER-041461 (M) or ER-041464 (A) and MTS GripperLink ER-038622.

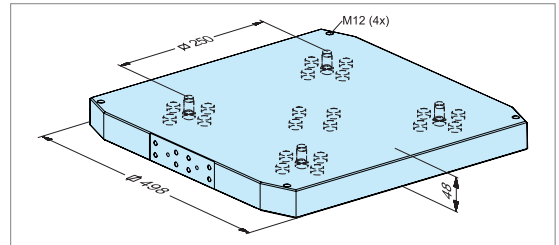


EROWA MTS

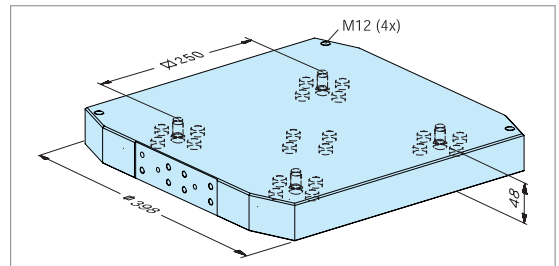
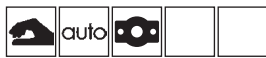
Pallets - Pitch 250 mm 4-fold

ER-130132 MTS pallet 498 x 498 / 250


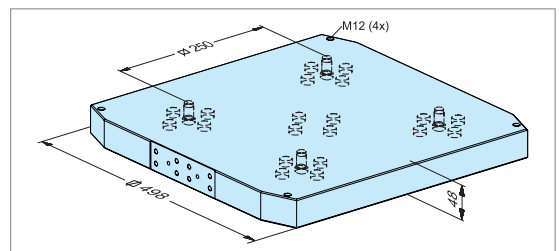
- Version Aluminum pallet, 4-fold, pitch 250 mm. Excluding chucking spigots.
- Application To clamp workpieces, vises and gauges. Holes to be drilled as required.
- Accessories MTS chucking spigot set ER-041461 (M) or ER-041464 (A) and MTS GripperLink ER-038622.)


ER-130131 MTS pallet 398 x 398 / 250 Hard Z support

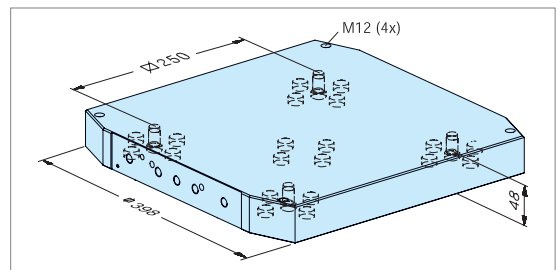

- Version Aluminum pallet, 4-fold, pitch 250 mm. With hard Z supports. Excluding chucking spigots.
- Application To clamp workpieces, vises and gauges. Holes to be drilled as required.
- Accessories MTS chucking spigot set ER-041461 (M) or ER-041464 (A) and MTS GripperLink ER-038622.


ER-130134 MTS pallet 498 x 498 / 250 Hard Z support


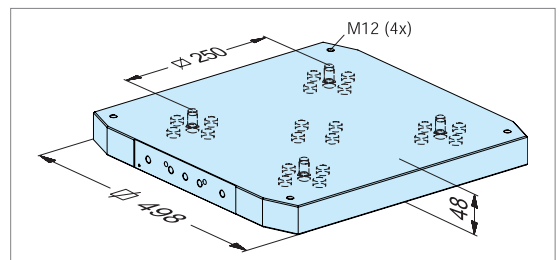
- Version Aluminum pallet, 4-fold, pitch 250 mm. With hard Z supports. Excluding chucking spigots.
- Application To clamp workpieces, vises and gauges. Holes to be drilled as required.
- Accessories MTS chucking spigot set ER-041461 (M) or ER-041464 (A) and MTS GripperLink ER-038622.


ER-136578 MTS pallet 398 x 398 / 250 Hard Z support / WGS-500 40 mm


- Version Aluminum pallet, 4-fold, pitch 250 mm. With hard Z supports. Excluding chucking spigots.
- Application To clamp workpieces, vises and gauges. Hole grid to be drilled according to requirements.
- Accessories MTS chucking spigot set ER-041465 (M) or ER-041464 (A), as well as GripperLink WGS-500 40 mm, ER-094828.


ER-136757 MTS pallet 498 x 498 / 250 Hard Z support / WGS-500 40 mm


- Version Aluminum pallet, 4-fold, pitch 250 mm. With hard Z supports. Excluding chucking spigots.
- Application To clamp workpieces, vises and gauges. Hole grid to be drilled according to requirements.
- Accessories MTS chucking spigot set ER-041461 (M) or ER-041464 (A), as well as GripperLink WGS-500 40 mm, ER-094828.

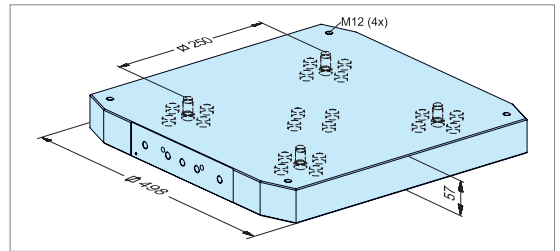


EROWA MTS

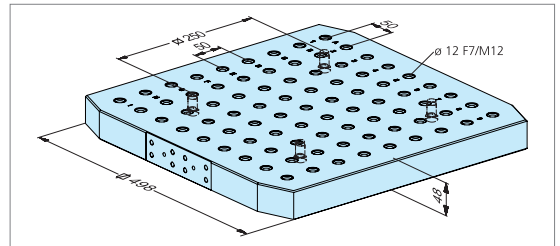
Pallets - Pitch 250 mm 4-fold

**ER-136793 MTS pallet 498 x 498 x 57 / 250
Hard Z support / WGS-500 56 mm**

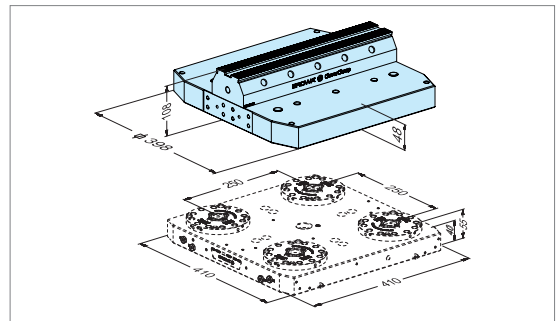
- Version Aluminum pallet, 4-fold, pitch 250 mm. With hard Z supports. Excluding chucking spigots.
- Application To clamp workpieces, vises and gauges. Hold grid to be drilled according to requirements.
- Accessories MTS chucking spigot-sets ER-041461 (M) or ER-041464 (A), as well as GripperLink WGS-500 56 mm, ER-104344.

**ER-130133 MTS pallet 498 x 498 / 250 R50**

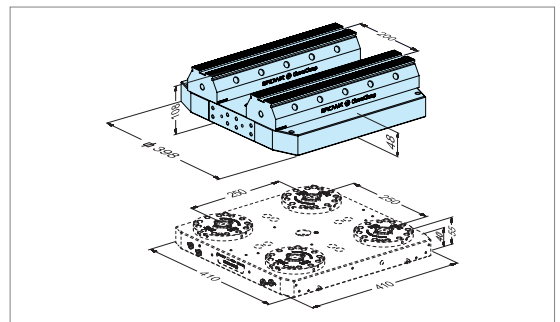
- Version Aluminum pallet (hard-anodized), 4-fold, pitch 250 mm. With grid 50 mm / M12. Excluding chucking spigots.
- Application To clamp workpieces, vises and gauges.
- Accessories MTS chucking spigot set ER-041461 (M) or ER-041464 (A) and MTS GripperLink ER-038622.

**ER-130417 MTS pallet 398 x 398 / 250
CleverClamp mono**

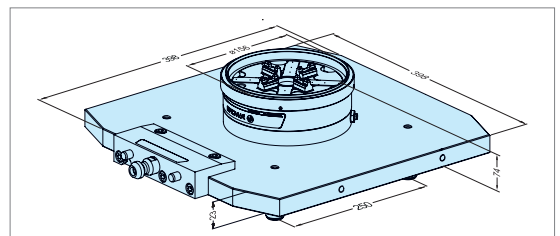
- Version Aluminum pallet, 4-fold, pitch 250 mm. With hard Z supports and 1 x CleverClamp rail 398. Excluding chucking spigots.
- Application Optimal accessibility for 5-axis machining with single and multiple part clamping.
- Accessories MTS chucking spigot set ER-041461 (M) or ER-041464 (A).

**ER-130415 MTS pallet 398 x 398 / 250
CleverClamp duo**

- Version Aluminum pallet, 4-fold, pitch 250 mm. With hard Z supports and 2 x CleverClamp rail 398. Excluding chucking spigots.
- Application Optimal accessibility for 5-axis machining with single and multiple part clamping.
- Accessories MTS chucking spigot set ER-041461 (M) or ER-041464 (A).

**ER-150517 MTS Adapter pallet PCP automatic
398 x 398 / 250**

- Version Adapter pallet from MTS to PowerChuck P.
- Operation Automatic control of the PowerChuck P via MTS air couplings of the MTS base plate.
- Application On machines with MTS base plate for holding ITS pallets.
- Note For automatically changing pallets into the MTS base plate and PowerChuck P.



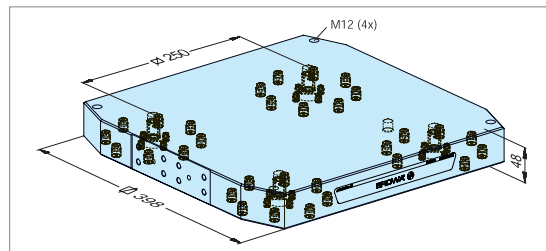
EROWA MTS

Pallets - Pitch 250 mm 4-fold

ER-143876 MTS pallet 398 x 398 / 250 FD Z-support hard



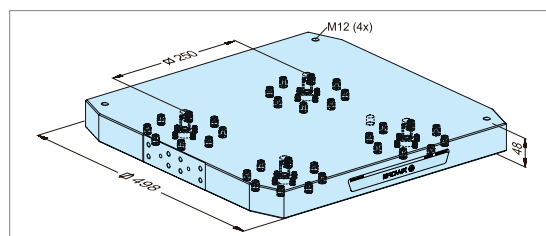
- Version Aluminum pallet, 4-fold, pitch 250 mm. With hard Z supports. Excluding MTS chucking spigots FD.
- Application To clamp workpieces, vises and gauges. Holes to be drilled as required.
- Accessories MTS chucking spigot set 4/ A-Z-FD Type 1 ER-171025, GripperLink RCS 45 mm ER-038622 and counter weight ER-146556.
- Compatibility MTS (up to max. 80 min⁻¹), MTS 2.0, MTS 3.0, MTS 4.0.



ER-145087 MTS pallet 498 x 498 / 250 FD Z-support hard



- Version Aluminum pallet, 4-fold, pitch 250 mm. With hard Z supports. Excluding MTS chucking spigots FD.
- Application To clamp workpieces, vises and gauges. Holes to be drilled as required.
- Accessories MTS chucking spigot set 4/ A-Z-FD Type 1 ER-171025, GripperLink RCS 45 mm ER-038622 and counter weight ER-146556.
- Compatibility MTS (up to max. 80 min⁻¹), MTS 2.0, MTS 3.0, MTS 4.0.



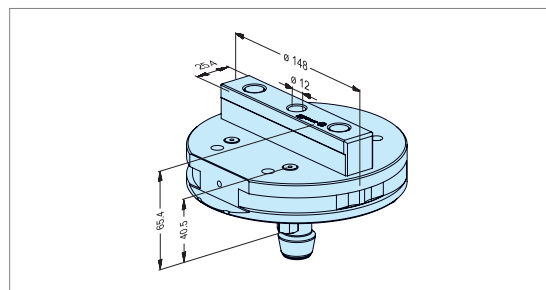
EROWA MTS

Single pallets

ER-138951 MTS Alignment pallet P ø 148 with MTS chucking spigot P



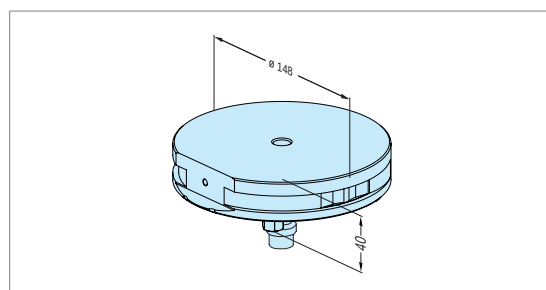
- Version Pallet P ø 148 with ground alignment rail and four Z-measuring surfaces. Including ER-040999 chucking spigots.
- Application Alignment of the angle position and determination of the center and the Z-values of MTS Single chucks.



ER-156077 MTS Pallet ø 148 P blank



- Version Steel pallet, not hardened, including MTS chucking spigot P ER-040999, centering integrated in pallet. With optimized centre of gravity.
- Application For holding workpieces and fixtures in the field of metal-cutting production.
- Note In automatic operation, also use MTS sealing ring ER-045969.



EROWA MTS

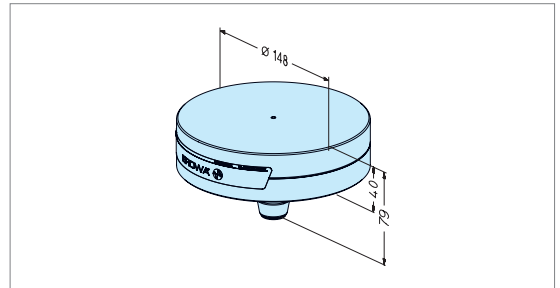
Single pallets

ER-033602 MTS pallet ø 148 P blank ALU



Version Aluminum pallet, fitted with centering plate ER-033600, including MTS chucking spigot ER-039200.

Application To clamp workpieces and gauges. For manual handling on MTS IntegralChuck Single.



ER-129663 MTS pallet ø 148 P

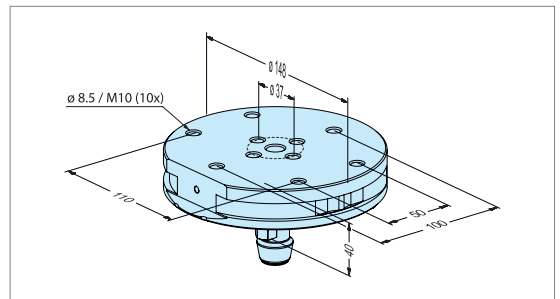


Version Steel pallet, not hardened, including MTS chucking spigot P ER-040999, centering integrated in pallet. With optimized centre of gravity.

Application For holding workpieces and fixtures in the field of metal-cutting production.

Fitting a blank Through the pallet with M8 bolts or through the blank with M10 bolts.

Note In automatic operation, also use MTS sealing ring ER-045969.



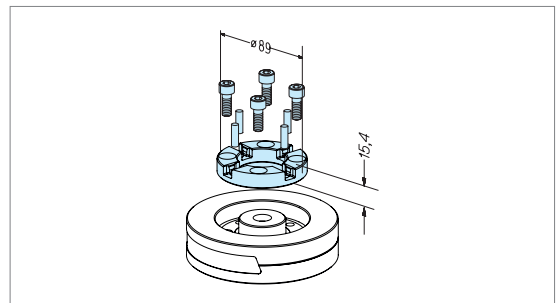
ER-033600 MTS centering plate P



Version Steel, including attachment bolts and positioning pins.

Application For the production of customized and indexable MTS pallets. For manual handling on MTS IntegralChuck Single.

Accessories Chucking spigot ER-039200 to be ordered separately.



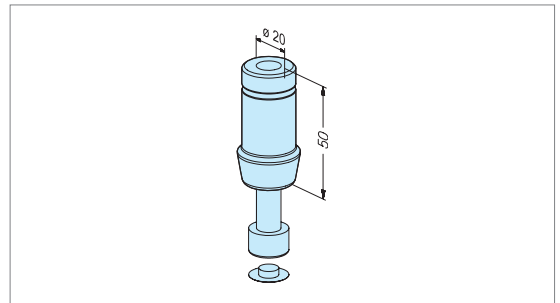
ER-040999 MTS chucking spigot P 1 piece



Version MTS chucking spigot, including attachment bolt and protective cap.

Application To be mounted on pallets ø 148 P.

Note In automatic operation additionally use MTS sealing ring ER-045969.



EROWA MTS

Chucking spigots


MTS centering spigot:
ER-033800 MTS centering spigot
ER-038000 MTS centering spigot / A

 The **centering spigot** defines the datum point (free of play).

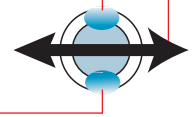
MTS chucking spigot:
ER-039200 MTS chucking spigot / A
Chucking spigot without centering function.

MTS compensation spigot:
ER-039201 MTS compensation spigot / A

 The **compensation spigot** positions the pallet in one axis only (X or Y) and is capable of compensating for a maximum pitch difference of 0.1 mm.

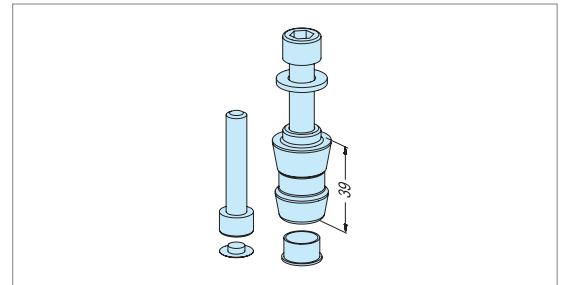
Possible compensation movements

Centering surfaces


ER-033800 MTS centering spigot


Version

One chucking spigot with centering function (free of play), including attachment bolts (M10x50, M12x55), U-disc and protective caps.

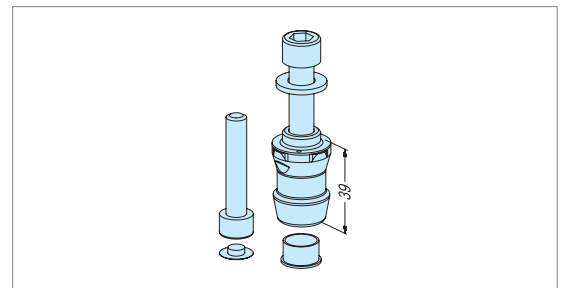

ER-038000 MTS centering spigot / A


Version

One chucking spigot with centering function, including attachment bolts (M10x50, M12x55), U-disc, O-ring and protective caps.

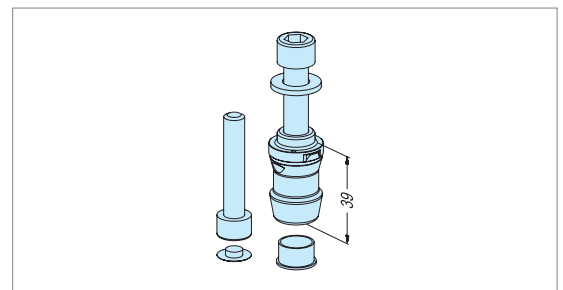
Application

For MTS pallets which are loaded/unloaded automatically. The centering spigot defines the datum point and closes the cleaning boreholes in the MTS Chucks / A.


ER-039201 MTS compensation spigot / A

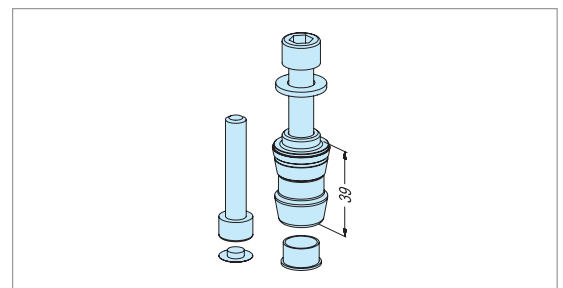

Version

One chucking spigot with compensation function, including attachment bolts (M10x50, M12x55), U-disc and protective caps.


ER-039200 MTS chucking spigot / A


Version

One chucking spigot without centering (centering play 0.1mm), including attachment bolts (M10x50, M12x55), U-disc and protective caps.

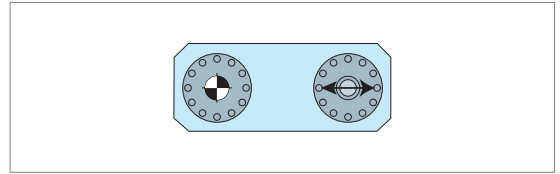


EROWA MTS

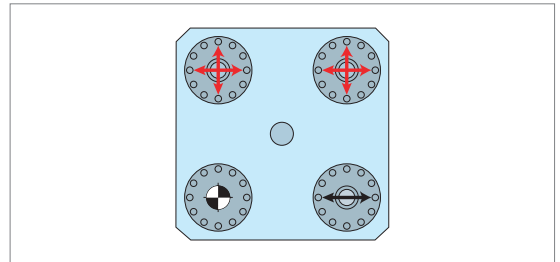
Chuckling spigot set

ER-041460 MTS chucking spigot set 2

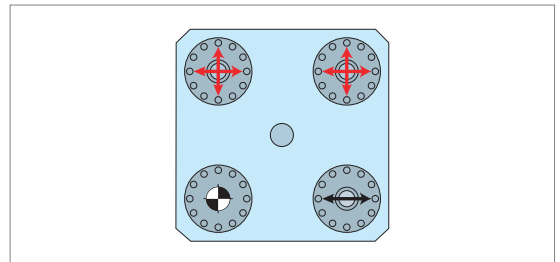
Version 1 centering spigot, 1 compensation spigot / A.
 Mounting With the bolts supplied through the pallet or through the chucking spigot.

**ER-041461 MTS chucking spigot set 4**

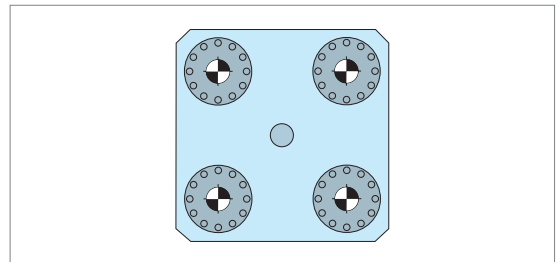
Version 1 centering spigot, 1 compensation spigot / A,
 2 chucking spigots / A.
 Mounting With the bolts supplied through the pallet or through the chucking spigot.

**ER-041464 MTS chucking spigot set 4 / A**

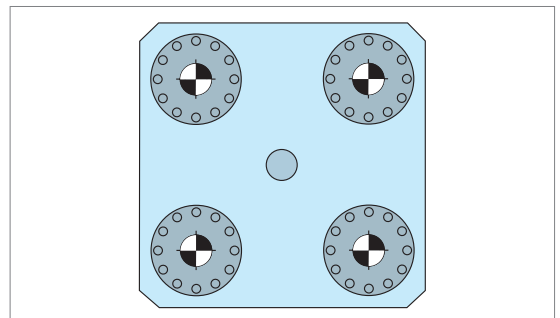
Version 1 centering spigot / A, 1 compensation spigot / A,
 2 chucking spigots / A.
 Mounting With the bolts supplied through the pallet or through the chucking spigot.

**ER-062465 MTS chucking spigot set 4 / A-Z**

Version 4 centering spigots / A.
 Application Basically for 5-axis machining.
 Mounting With the bolts supplied, through the pallet, or through chucking spigots.

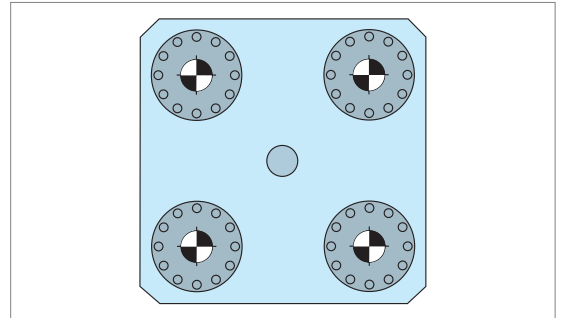
**ER-171025 MTS chucking spigot set 4/ A-Z-FD Type 1
Fastening from below with spec. M12 bolt**

Application Primarily for rotary applications such as mill-turn machining and 5-axis machining.
 Version 4x MTS centering spigots A-Z-FD, including special bolt
 Mounting On the underside of the pallet - no fastening possible from above through the pallet.
 Note The centering spigots FD can be used with pallets FD with MTS 2.0, MTS 3.0 and MTS 4.0.

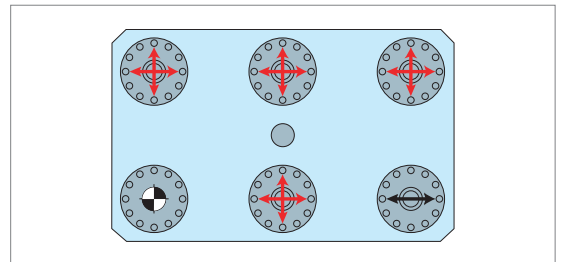


ER-171026 MTS chucking spigot set 4/ A-Z-FD Type 2
Fastening from top with special M12 Nut

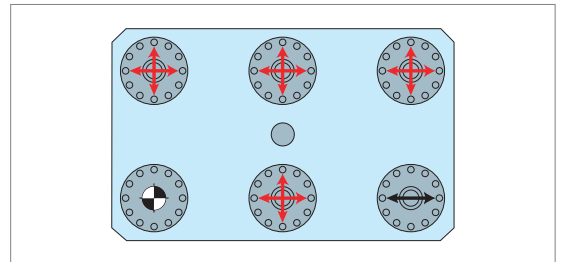

- Application Primarily for rotary applications such as mill-turn machining and 5-axis machining.
- Version 4x MTS centering spigots A-Z-FD, including special nut and washer. Without fixing screw M12.
- Mounting From above through pallet - no fastening from below possible.
- Note The centering spigots FD can be used with pallets FD with MTS 2.0, MTS 3.0 and MTS 4.0.


ER-041462 MTS chucking spigot set 6

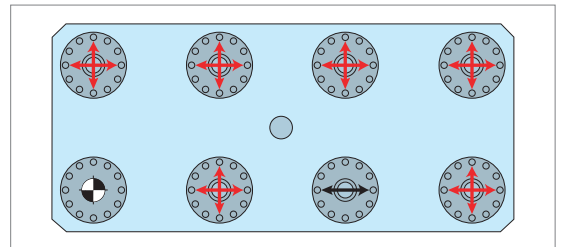

- Version 1 centering spigot, 1 compensation spigot / A, 4 chucking spigots / A.
- Mounting With the bolts supplied through the pallet or through the chucking spigot.


ER-054710 MTS Chucking spigot set 6 / A


- Version 1 centering spigot / A, 1 compensation spigot / A, 4 chucking spigots / A.
- Mounting With the bolts supplied through the pallet or through the chucking spigot.


ER-041463 MTS chucking spigot set 8


- Version 1 centering spigot, 1 compensation spigot / A, 6 chucking spigots / A.
- Mounting With the bolts supplied through the pallet or through the chucking spigot.



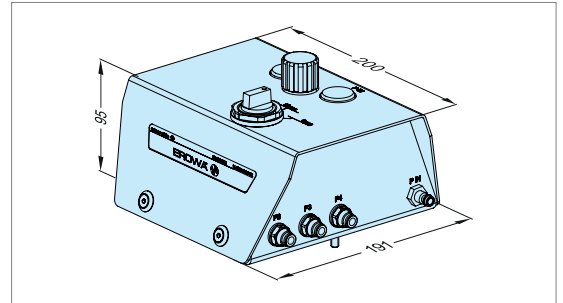
EROWA MTS

Operation

ER-157413 Control box 1-fold with booster



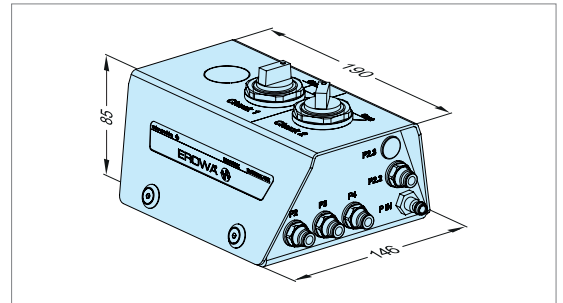
- Version** Manual control box for 1 chuck. Integrated booster with a maximum loading ratio of 1:2. To control the opening / reclamping / cleaning functions. Pressure adjustable, display through a manometer. Includes a set of tubes.
- Connections** 1 input (P IN) and 3 outputs (P2 Open / P3 Clean / P4 Reclamp).
- Application** To operate chuck types ITS, ITS Compact, CombiChuck, PowerChuck P, VPC, UPC or PM Tooling.



ER-157411 Control box 2-fold



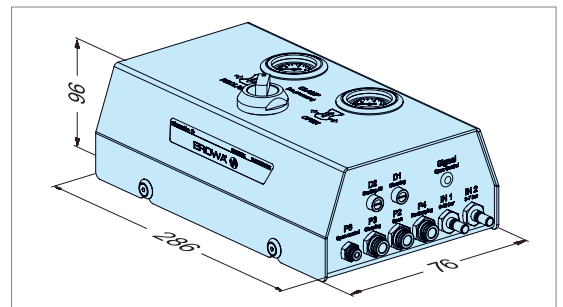
- Version** Manual control box for a maximum of 2 chucks. To control the opening / reclamping / cleaning functions. Pressure adjustable. Includes a set of tubes.
- Connections** 1 input (P IN) and 4 outputs (P2 Open / P2.2 Open P3 Clean / P4 Reclamp).
- Application** To operate chuck types ITS, ITS Compact, CombiChuck, PowerChuck P, VPC, UPC or PM Tooling.



ER-136200 MTS 2.0 manual control unit



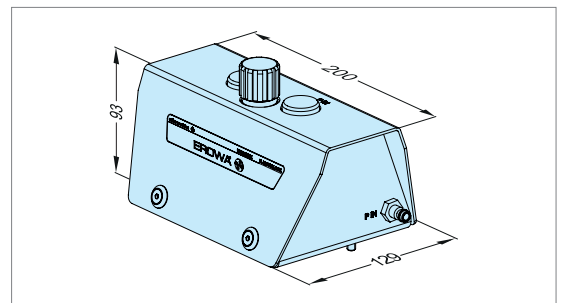
- Version** Manual control unit for MTS 2.0 chucks. With connections for all functions. Indication of open control via manometer or electrical signal possible.
- Application** Operation of MTS 2.0 chucks.



ER-157409 Booster box



- Version** Booster with a maximum loading ratio of 1:2. Pressure adjustable, display through a manometer.
- Connections** 1 input (P IN) and 2 outputs (P OUT High (boosted) / P OUT Low (network pressure)). All connections with fast couplings for tube inside ø mm.
- Application** To ensure the required pneumatic pressure in case of deficient network pressure and pressure fluctuations.
- Please note** To be integrated in the air circuit near the user.

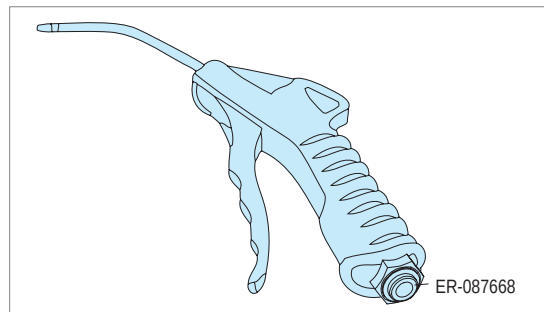


EROWA MTS

Accessories

ER-001846 Air jet

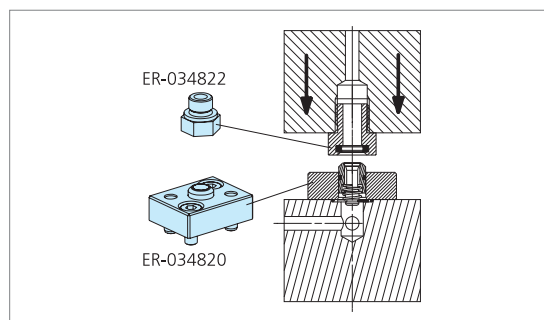
Version	Plastic, smooth regulation of air flow, connection 1/4", inside thread.
Application	Operation of manual chucks.
Note	Not suitable for operating MTS+ and MTS81.
Option	Volume and pressure reduction to air jet (ER-087668). Pressure build up is reduced if air jet is not pushed against an air valve.



ER-034820 MTS air coupling base plate 1 piece

ER-034822 MTS air coupling pallet 1 piece

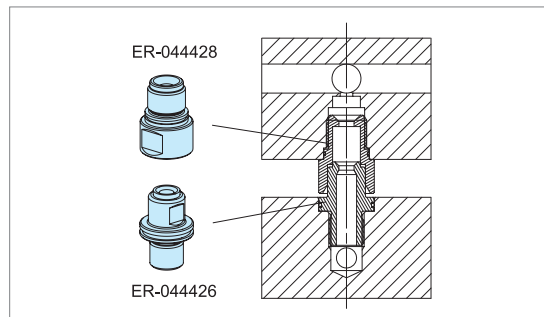
Application	The MTS air coupling ER-034820 combined with the MTS air coupling ER-034822 serves as a pneumatic interface between MTS base plates (A) and MTS pallets (B).
For use	with compressed air.
Working pressure	max. 10 bar.



ER-044426 Nipple for MTS base plates

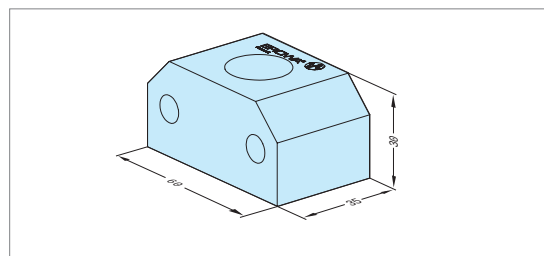
ER-044428 Coupling for MTS pallets

Application	The coupling for MTS pallets ER-044428, in combination with the nipple for MTS base plates ER-044426, serves as an interface for the medium connection between MTS base plates (A) and MTS pallets (B).
For use	with compressed air, with vacuum, with oil / hydraulic.
Working pressure	max. 300 bar.
Important	Docking- and undocking only depressurized.



ER-034168 MTS Connector block 1/8" double

Version	Connector block made of steel, excluding attachment bolts.
Application	To receive pneumatic and hydraulic threaded connectors, nipples and couplings.



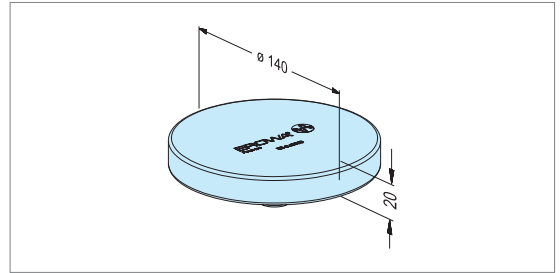
EROWA MTS

Accessories

ER-042038 MTS cover

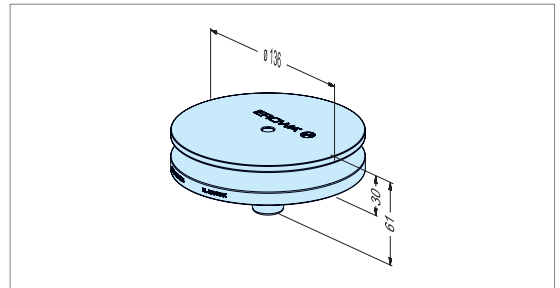
Version Aluminum cover, anodized. Suitable for MTS and MTS 2.0 chucks.

Application Protects MTS and MTS 2.0 chucks that are not in use from chips and coolant.

**ER-070064 MTS Sealing pallet ø 136/A**

Version Rust-resistant cover for the hermetical sealing of MTS chucks that are not in use.

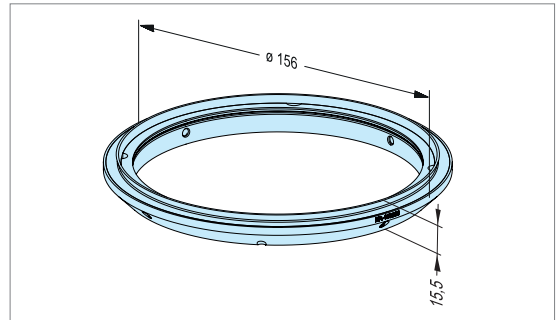
Note Support surface must be clean and must be protected against damage.

**ER-150696 MTS Chip guard low automatic**

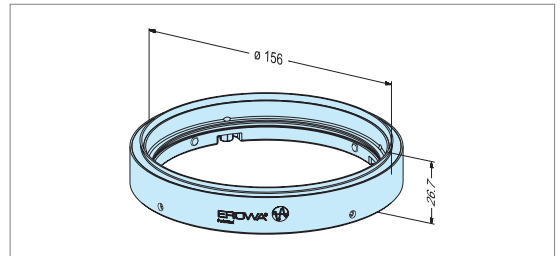
Version Aluminum, anodized.

Application The MTS chip guard serves to seal the automatic MTS chucks and pase plates when MTS pallets are used.

Note The MTS chip guard low cannot be combined with the MTS pallet P ø 148 INOX (ER-129663).

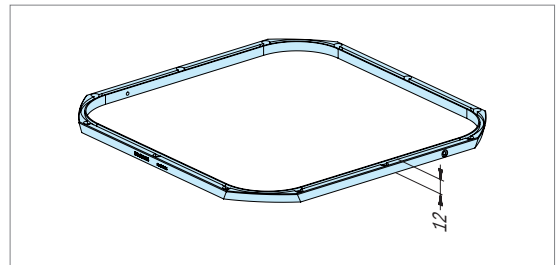
**ER-056879 MTS Chip guard ø 156 with axial deaeration**

Application For use with MTS pallet P ø 148 (ER-129663). Prevents dirt and chips from penetrating into the MTS SingleChuck

**ER-145286 MTS seal frame set / 160****ER-049041 MTS seal frame set / 200****ER-163634 MTS seal frame set / 250**

Version Aluminum anodized, with seal NBR.

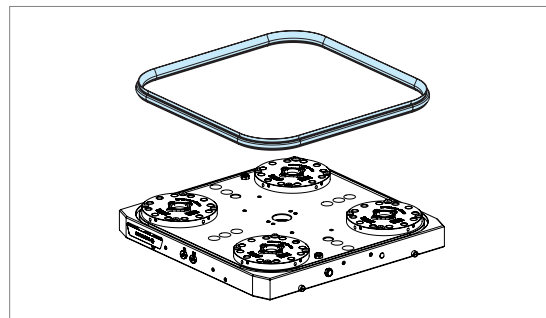
Application The MTS seal frame set serves to protect MTS chucks against dirt and liquids when in use with an EROWA MTS pallet.



ER-162994	MTS seal / 160 for MTS base plate 320 x 320 mm
ER-075393	MTS seal / 200 for MTS base plate 360 x 360 mm
ER-071604	MTS seal / 250 for MTS base plate 410 x 410 mm

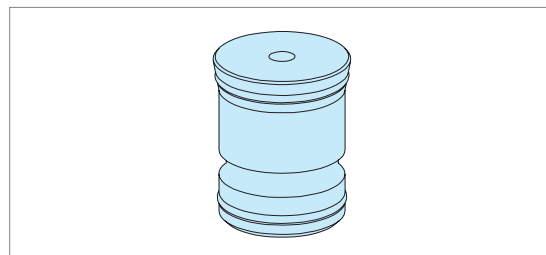


Version FPM (Viton).
 Application Prevents dirt from penetrating into MTS base plate.
 Note The MTS base plate must have, or be equipped with, the groove to accommodate the seal.



ER-037967	MTS Locking bolt with M6
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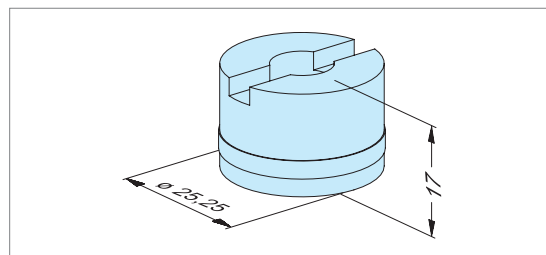
Version Steel.
 Application To plug the central borehole in MTS, MTS 2.0 and MTS 81 chucks.



ER-067563	Rubber seal MTS $\varnothing 25 \times 17$ mm for EDM
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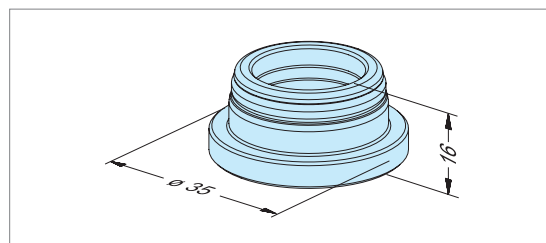
Version Rubber seal.
 Note Assembly according to operating instructions. Prevents liquid from penetrating from below into the MTS chuck.



ER-045969	MTS sealing ring for chucking spigot P
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Version Plastic.
 Application Used in combination with the MTS chucking spigot P ER-040999 for sealing MTS chucks.



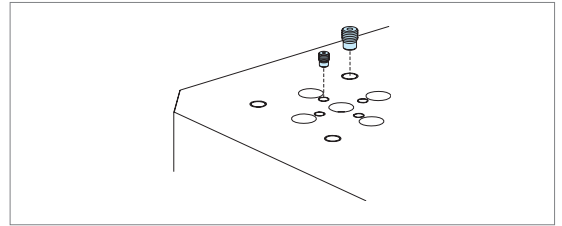
EROWA MTS

Accessories

ER-060391 MTS Set Z-support bolt set for 4-part pallet



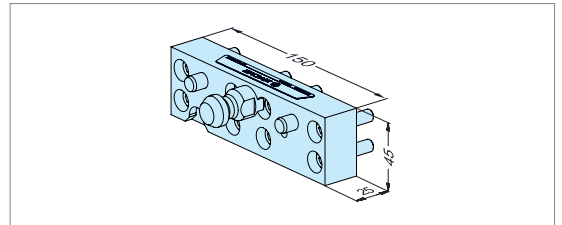
Version Steel, hardened.
Application The Z-support bolts (1, 2) serve as Z-support surface for custo-mized MTS pallets.



ER-038622 GripperLink RCS 45 mm



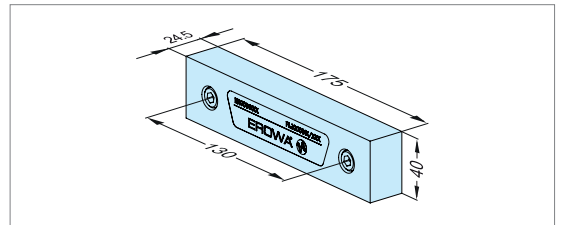
Version Coupling for MTS pallets, mounting accessories included.
Application Suited for MTS pallets to be used on EROWA handling devices with the «RCS» coupling system.



ER-178755 Counterweight for GripperLink RCS 45 mm for FD Applications



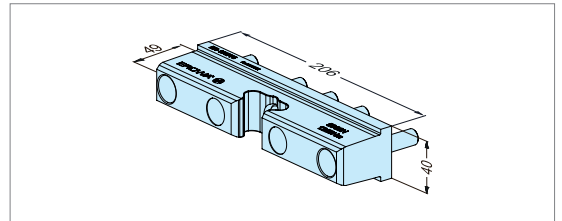
Version Steel counterweight, incl. mounting kit.
Application For mill turn application. For mounting on MTS pallet FD, which is equipped with GripperLink RCS 45 mm (ER-038622).



ER-153775 GripperLink WGS-500 40 mm without air ducts



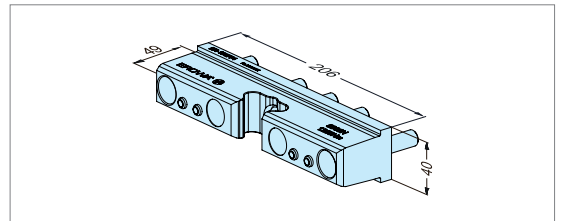
Version Coupling kit incl. screw set, for mounting on MTS or UPC pallets.
Application For pallets on EROWA handling units that are equipped with the WGS-500 exchange gripper system.



ER-153774 GripperLink WGS-500 40 mm with air ducts



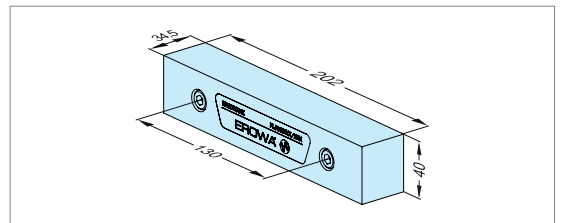
Version Coupling kit incl. screw set, for mounting on MTS or UPC pallets.
Application For pallets on EROWA handling units that are equipped with the WGS-500 exchange gripper System.
Connections 4 AirDock valves, e.g. to control additional grippers.



ER-178771 Counterweight for GripperLink WGS 40 mm for FD Applications



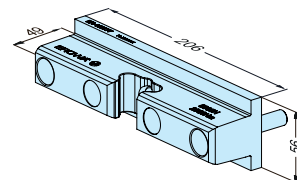
Version Steel counterweight, incl. mounting kit.
Application For mill turn application. For mounting on MTS pallet FD, which is equipped with GripperLink WGS-500 40 mm (ER-094828, ER-153775, ER-096633 or ER-153774).



ER-153777 GripperLink WGS-500 56 mm without air ducts


Version Coupling kit, including set of bolts, to fit to MTS pallet of 57 mm height.

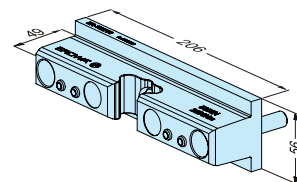
Application For pallets on EROWA handling facilities equipped with the WGS-500 exchange gripper system.


ER-153776 GripperLink WGS-500 56 mm with air ducts


Version Coupling kit, including set of bolts, to fit to MTS pallet of 57 mm height.

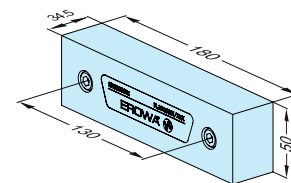
Version For pallets on EROWA handling facilities equipped with the WGS-500 exchange gripper system.

Connections 4 AirDock valves, for instance to control additional grippers.


ER-178782 Counterweight for GripperLink WGS 56 mm for FD Applications


Version Steel counterweight, including mounting kit.

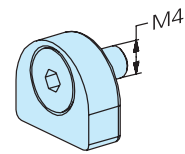
Application For milling and turning applications. For mounting on the MTS FD pallet, which is equipped with a GripperLink WGS-500 56 mm (ER-104344, ER-153777, ER-104343, or ER-153776).



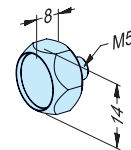
Accessories

ER-035294 EWIS™ Rapid chip with chip holder RCS with chip $\varnothing 3 \times 13.5\text{mm}$

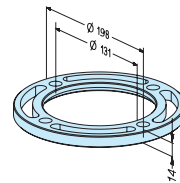

Version Holder with built-in data carrier. EWIS chip: read only.
 Application To build into RCS coupling, PalletSet W holder and Basic WEDM holder.


ER-094168 EWIS™ rapid chip with holder SW14 Length 8mm (grey)

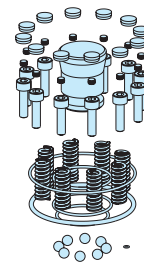

Version Sleeve fitting with built-in data carrier.
 Application In any EROWA electrode holder and pallet which has been prepared for it.


ER-033804 MTS ring bracket

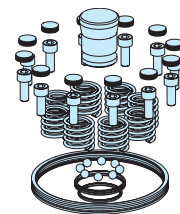
Version Bracket made of steel, excluding attachment bolts.
 Application Suitable for MTS chucks only. To attach mounted MTS chucks to the machine table.


ER-061558 MTS 81 Repair Kit


Version All the wearing parts for MTS 81 IntegralChuck.
 Application Repair Kit.

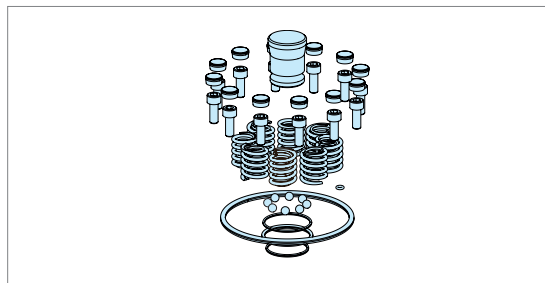

ER-140935 MTS repair set pneumatic with ceramic balls


Version All wear parts for pneumatic MTS chucks.
 Application Repair kit for pneumatic MTS chucks.
 Note Repair or conversion in accordance with the operating instructions supplied. Compatible with: ER-033402, ER-036802, ER-033400, ER-036800, ER-131200, ER-131210, ER-131220 and ER-131230.



ER-108204 MTS 2.0 repair set pneumatic

Version All the wearing parts for MTS 2.0 chuck.
Application Repair Kit.



Accessories

ER-014326 Straight threaded connector 3101 06 10
ø6 / G1/8

Application Pneumatic.


ER-002814 Angled connector 3199 06 10

Application Pneumatic.


ER-014366 Threaded T-connector 3198 06 10

Application Pneumatic.


ER-014333 T-connector

Application Pneumatic.


ER-034095 Cross-connector

Application Pneumatic.


ER-002023 Pneumatic tubing ø 6 / 4 black
Legris 1100 U06 01

Application Pneumatic. Max. operating pressure: 9 bar.
Order unit Meters.


ER-036672 Air gun valve G1/8"

Application Pneumatic. For air jet ER-001846.


ER-002147 Reinforced pipe PMAFlex
Co-Flex divisible

Application Hydraulic and pneumatic. Protects tubes ER-033495 and ER-002023 from damage.
Order units Meter.



ER-034098 Reduction nipple G1/4" - G1/8"

Application Hydraulic and pneumatic.

**ER-034373 Reduction bushing IG 1/8" - IG 1/8" AD FA 40-1/8-1/8**

Application Hydraulic and pneumatic.

**ER-034375 Reduction nipple AG 1/4" - IG 1/8"**

Application Hydraulic and pneumatic.

**ER-001617 Threaded plug 1/8" Legris 0220 10 00**

Application Hydraulic and pneumatic.

**ER-033504 Nipple 1/8"**

Application Hydraulic. With blocking device. Fits fast coupling ER-033499.

**ER-033499 Rapid-action coupling 1/8" IG**

Application Hydraulic. With blocking device. Fits fast nipple ER-033504.



EROWA - Manufacturing automation at its best

EROWA AG, founded in Switzerland in 1971, is now a globally operating organization specializing in the development, production, consulting, and distribution of state-of-the-art manufacturing technology for tool and mold making, as well as for production and precision engineering. With their headquarters located in central Switzerland, EROWA ranks among the world's leading companies in clamping technology and automation. Having 13 subsidiaries and 22 representatives, EROWA offers international points of contact and worldwide customer service.



Empowering Your Production

The next step towards greater efficiency, precision and productivity starts now. With EROWA, you have a partner who will optimize your production holistically - from clamping technology to automation and process control. Our innovative solutions adapt flexibly to your requirements and grow with you - for production that is ready for tomorrow.

Get in touch with us - we will be happy to assist you.



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