



General Catalog

Unlocking the full potential
of your machines

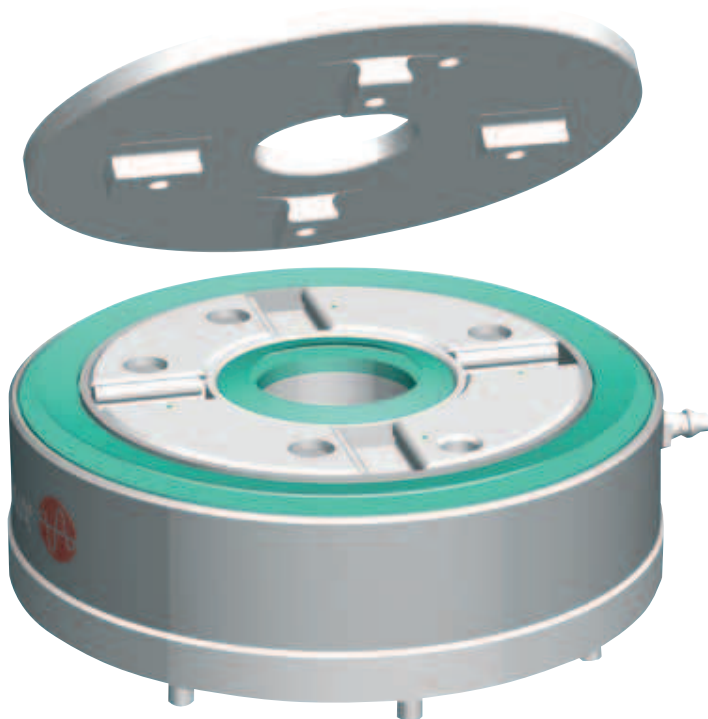


EROWA FTS Fine Tooling System

Workpiece palletization on small machines

The significance of setting up while the machine is at work is not a function of workpiece size. Rather, it is the time spent on changing from one production batch to another that has a crucial impact on machine productivity. Even with very small parts on machines designed for fine and finest processes, setting up outside the machine can be a critical success factor for production.

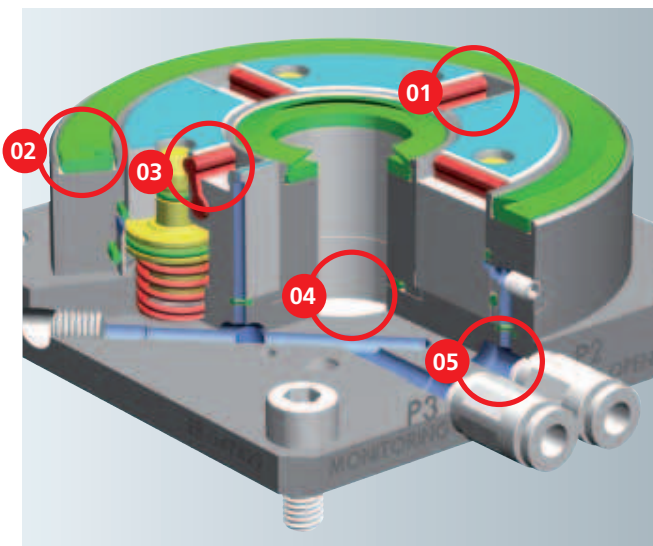
The FTS Fine Tooling System has been adapted to exactly these circumstances. With a positioning accuracy of less than 0.002 mm and its extremely flat design, it contributes toward an optimal exploitation of the working range of small machines.



- The pallet is positioned and clamped with special profiles.
- The pallet has to be raised only 4 mm before it can be removed from the chuck.
- The precision pallet is made of one piece.
- The chuck centers and clamps the pallet by means of spring tension. Thus functional safety is also guaranteed in the case of air-pressure failure.
- The compressed air required to open and clean the chuck is supplied through the lateral connections or directly through the base plate.
- Central through borehole of \varnothing 18 mm.
- The seals ensure that the pallet is neatly and precisely clamped and positioned.

Applications**Handling**

Manual / Loading facility / Robot

Function**01 | Cleaning**

Contact surfaces are automatically cleaned with compressed air.

02 | Seals

The seals ensure reliable protection from contamination.

03 | Clamping mechanism

Reliable clamping mechanism thanks to spring tension.

04 | Through-hole

Central through borehole of \varnothing 18 mm.

05 | Connections

Pneumatic system can be connected up laterally or through the base plate.

Technical data - FTS Fine Tooling System**FTS Fine Tooling System**

Repeatability	< 0.002 mm
Indexation	4 x 90°
Clamping power	400 N
Recommended workpiece size	depends on machining power
Clamping	by spring tension
Opening	by compressed air, min. 6 bar
Operation	control unit or air gun

EROWA FTS Fine Tooling System in Operation

The palletizing system for micro-machining

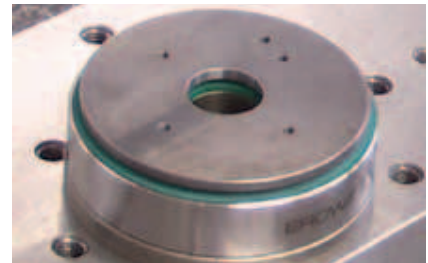
Have a closer look at EROWA's FTS Fine Tooling System. All its components are made of stainless steel. The chucks can be fitted to a wide variety of machine tables, either directly or with adapter plates. A standard pallet covers the main range of applications.

FLAT DESIGN

For a maximum utilization of the machine working range.



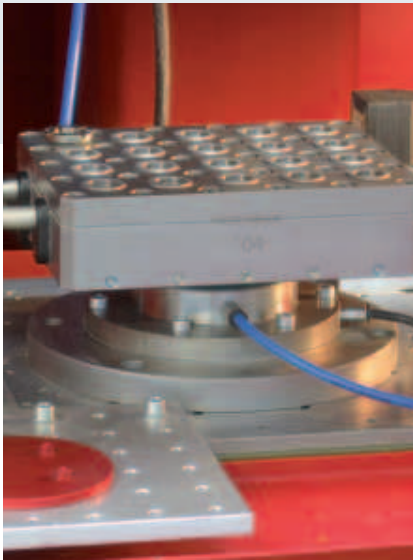
FTS in operation on a laser marking machine. The system's high positioning accuracy ensures the quality of signage even on the smallest of workpieces.



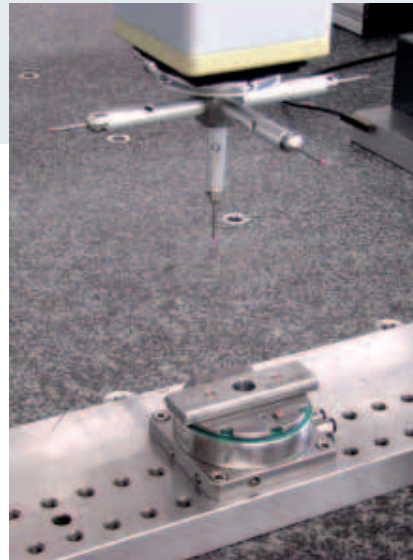
Chuck height: only 23 mm!



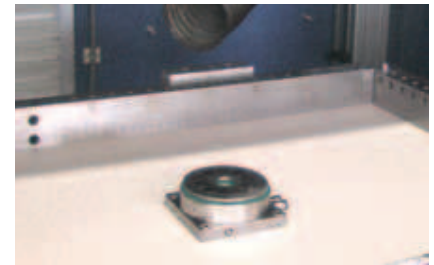
Setting up outside the machine is an essential success factor for increased machine productivity.



Fixture with set-up workpieces.



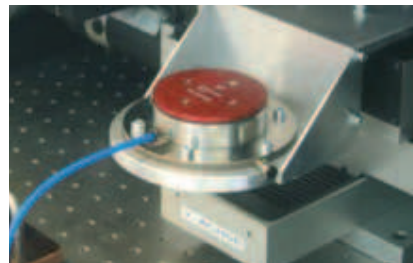
Positioning accuracy is below 0.002 mm on all machines. Precision is retained after every machining process change.



The chucks can be fitted to the machine table directly or with adapter plates.



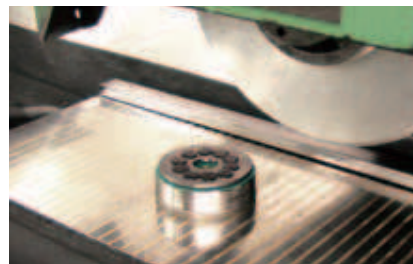
The flat precision pallet is the basis for all clamping processes.



The cover prevents penetration of chips and dirt into the FTS chuck.



4 mm vertical movement to remove the pallet. This, too, saves space.



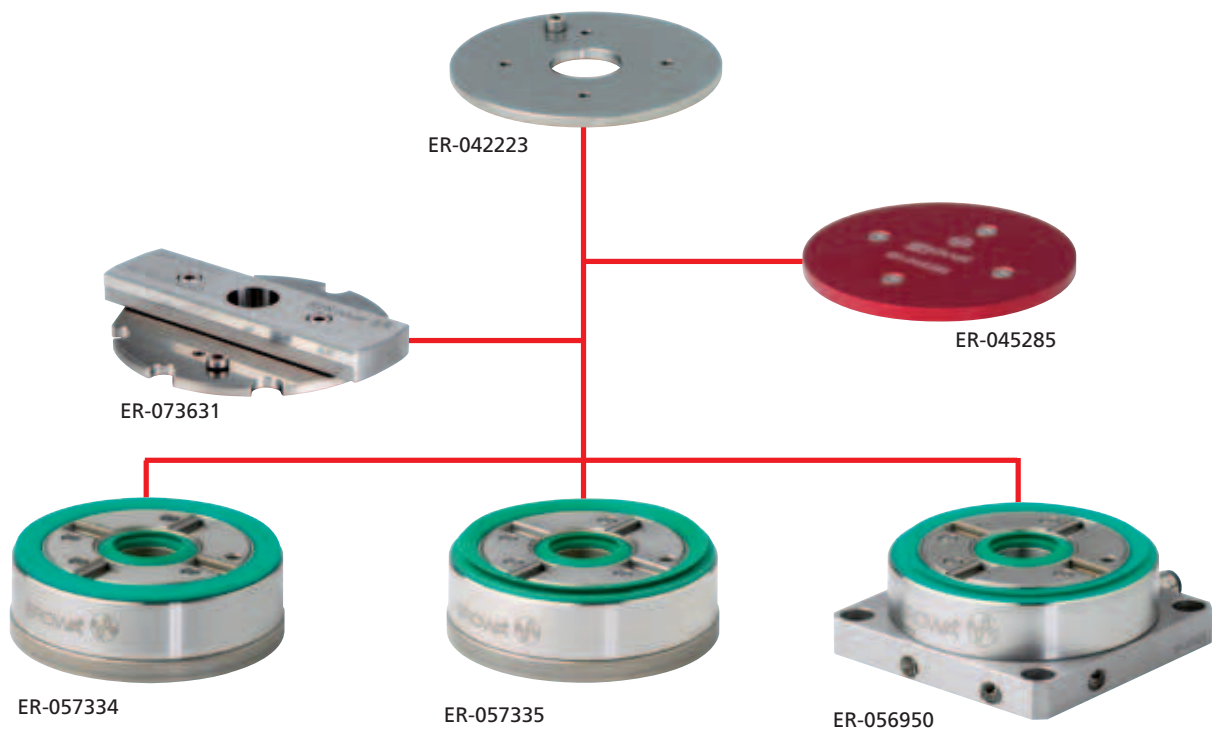
FTS is ideally suitable for the high-precision machining of small and smallest workpieces.



All axes, X, Y, Z and the center are checked with the same alignment plate.

Tooling System

















The components



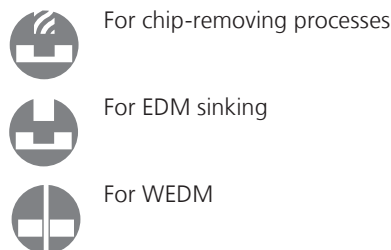
To make it easier for you to find your way about the fields of application for EROWA products, we use the following symbols in all our documents:



EROWA FTS FINE TOOLING SYSTEM

-  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 Combi gripper
-  12. Handling with EROWA Robot gripper 72
-  13. Handling with EROWA Robot gripper 115
-  14. Handling with EROWA Robot gripper 148
-  15. Handling with EROWA gripper RN PC 210
-  16. Handling with EROWA RCS gripper

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EROWA FTS Fine Tooling System

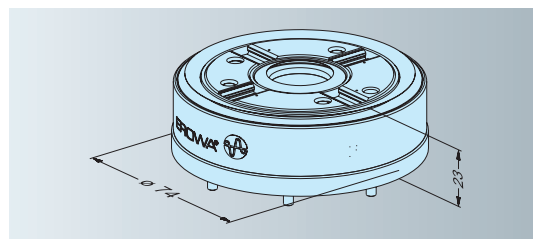
Chucks

Technical Data	FTS Fine Tooling System
Repeatability	< 0.002 mm
Indexation	4 x 90°
Clamping power	400 N
Recommended workpiece size	depends on machining power
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Opening	by compressed air, min. 6 bar
Operation	control unit or air jet

ER-057334 FTS chuck manual Inox



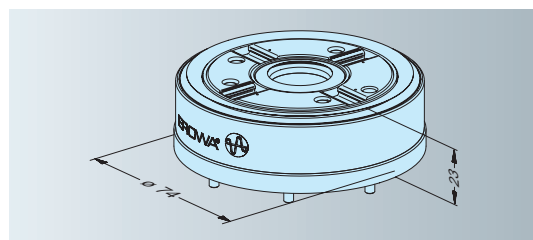
Version	Pneumatic FTS chuck.
To fit	With M3x7 bolts through the chuck.
Connections	Lateral for opening.
Operation	With air jet ER-001846 (option).



ER-057335 FTS chuck pneumatic Inox



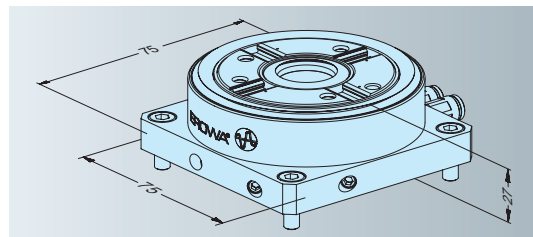
Version	Pneumatic FTS chuck.
To fit	With M3x7 bolts through the chuck.
Connections	At the rear for opening and cleaning/monitoring.
Operation	With manual control unit ER-008988 (option) or control unit with monitoring ER-070445 (option).



ER-056950 FTS chuck with base plate Inox



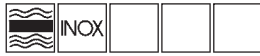
Version	Pneumatic FTS chuck with base plate.
To fit	With M3x4 bolts on grid dimension 63 mm through the base plate.
Connections	Lateral for opening and cleaning/monitoring.
Operation	With manual control unit ER-008988 (option) or control unit with monitoring ER-070445 (option).



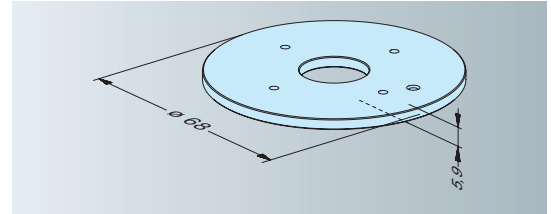
EROWA FTS Fine Tooling System

Auxiliary equipment

ER-042223 Pallet FTS



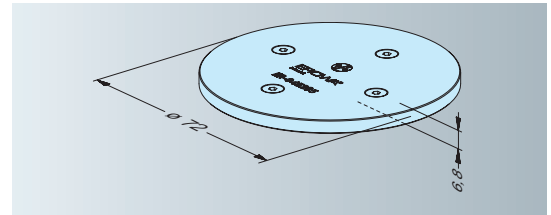
- Version Steel pallet, hardened, including positioning pin for safe positioning. With central borehole \varnothing 18 mm.
- Application To accommodate workpieces or fixtures.
- To fit blanks Through the pallet with M3x4 bolts.



ER-045285 Cover FTS



- Version Aluminum, with elox finish.
- Application To protect chucks that are not in operation on the machine.
- Note CANNOT be used as a pallet.



ER-073631 FTS alignment palett special



- Version Steel, corrosion-resistant, hardened and ground.
- Application To align and check the chuck position on the machine.
- Note All the axes – X, Y and Z – as well as the center are checked with the same alignment pallet.

