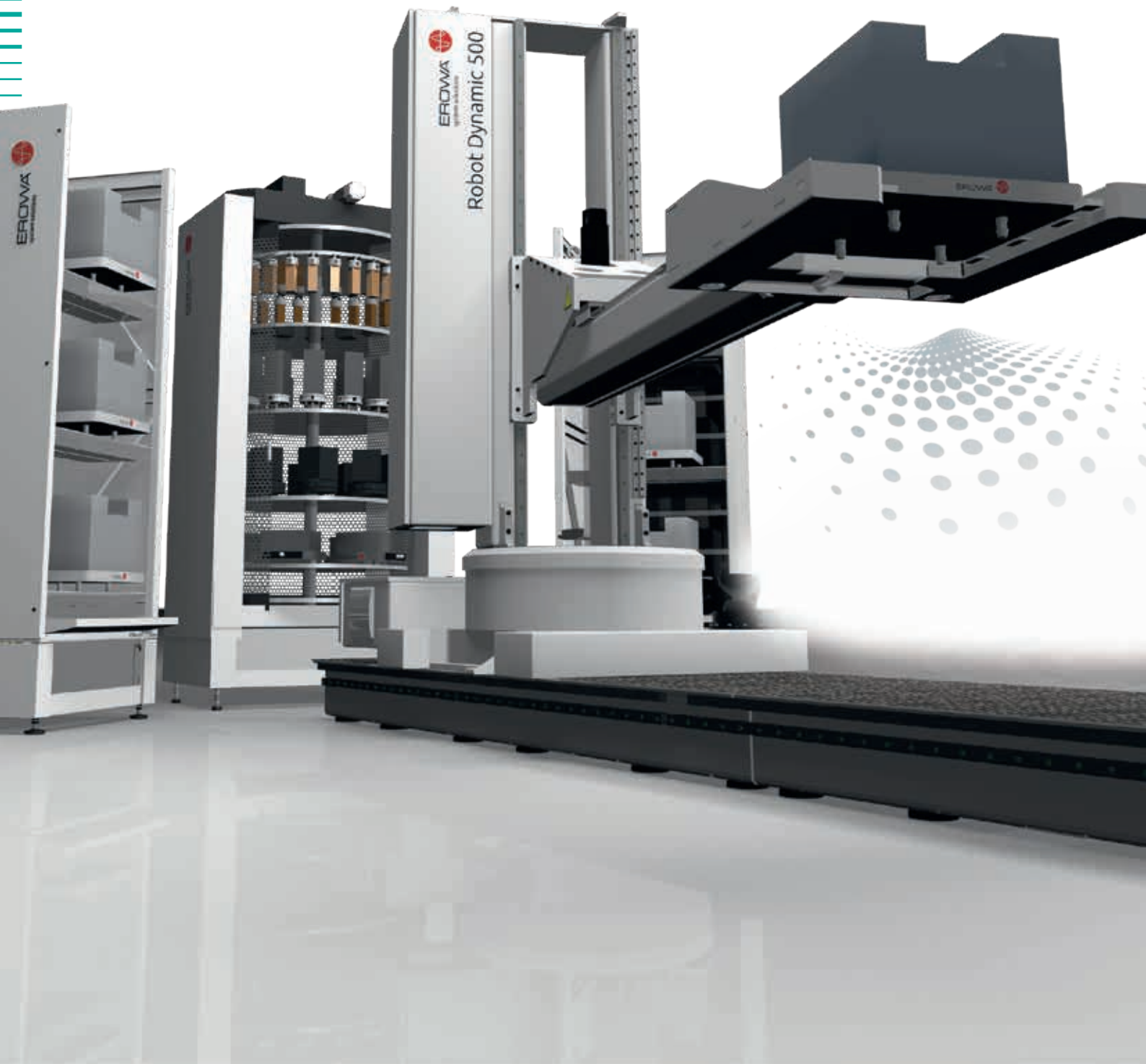


EROWA®  
systemsolutions



# Robot Dynamic

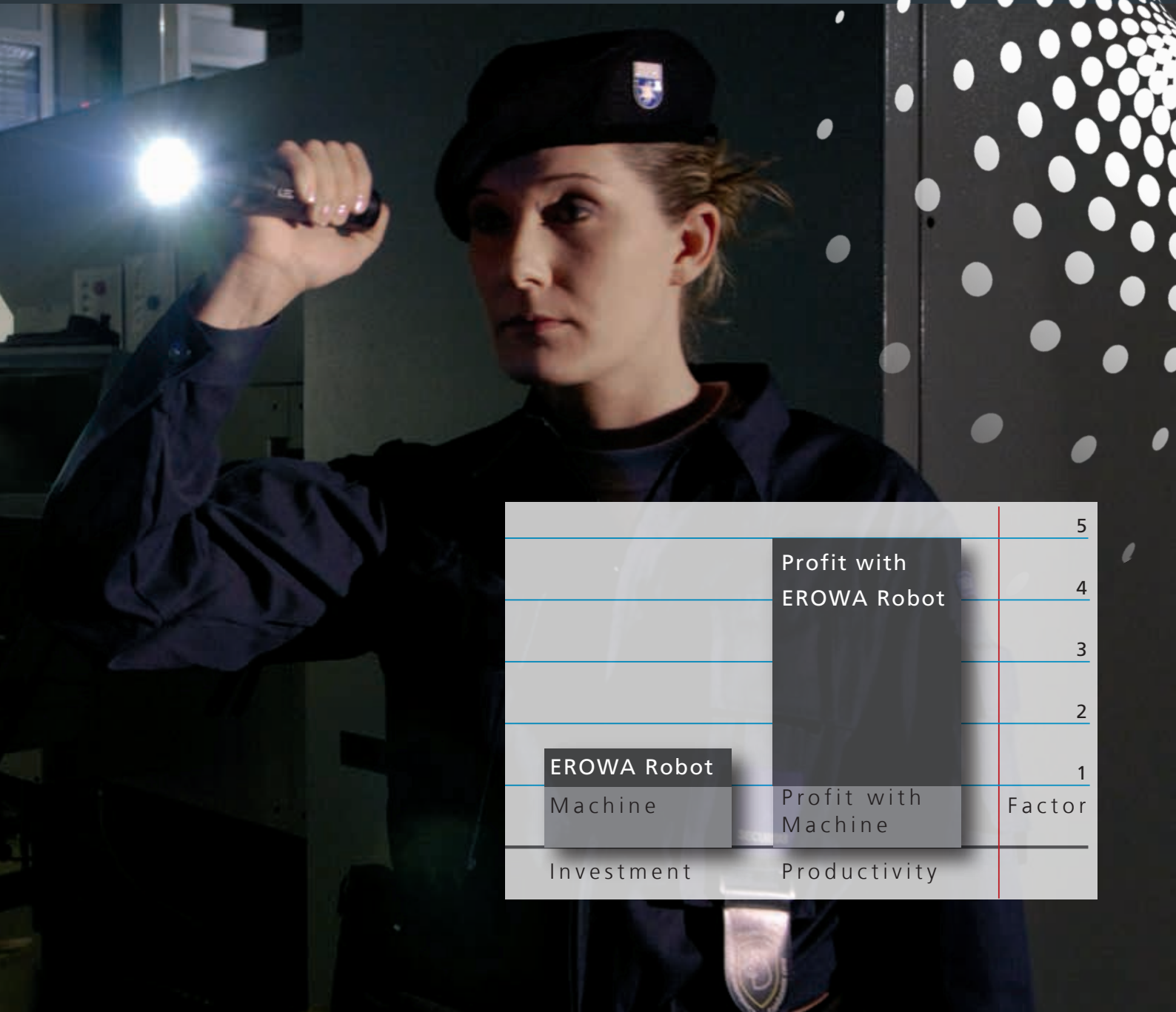
Rail system



# Is your production asleep?

Your machines are profitable when they are producing. They should run during the day, in off-peak hours and at night, even on weekends. Achieving this goal means combining all production requirements in a plan.

The plan is called "Flexible Manufacturing Concept – FMC". It is implemented in carefully measured steps.



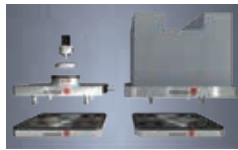
			5
		Profit with EROWA Robot	4
			3
			2
	EROWA Robot		1
	Machine	Profit with Machine	Factor
Investment		Productivity	



**Loading Around the Corner** 4  
 Always sufficient space in front of the machine for manual work



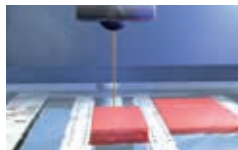
**Extendable** 6  
 Tailored to the requirements of the practice



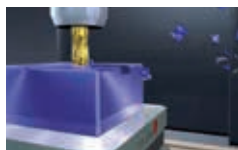
**Big and Small** 8  
 Move any size with the ingenious adapter pallets



**The Modules** 10  
 Configuring for a project, expanding later



**Automating Tool and Die making** 12  
 Easy linking of manufacturing steps



**Automating the Production** 14  
 Automatic manufacturing of individual parts and small batches



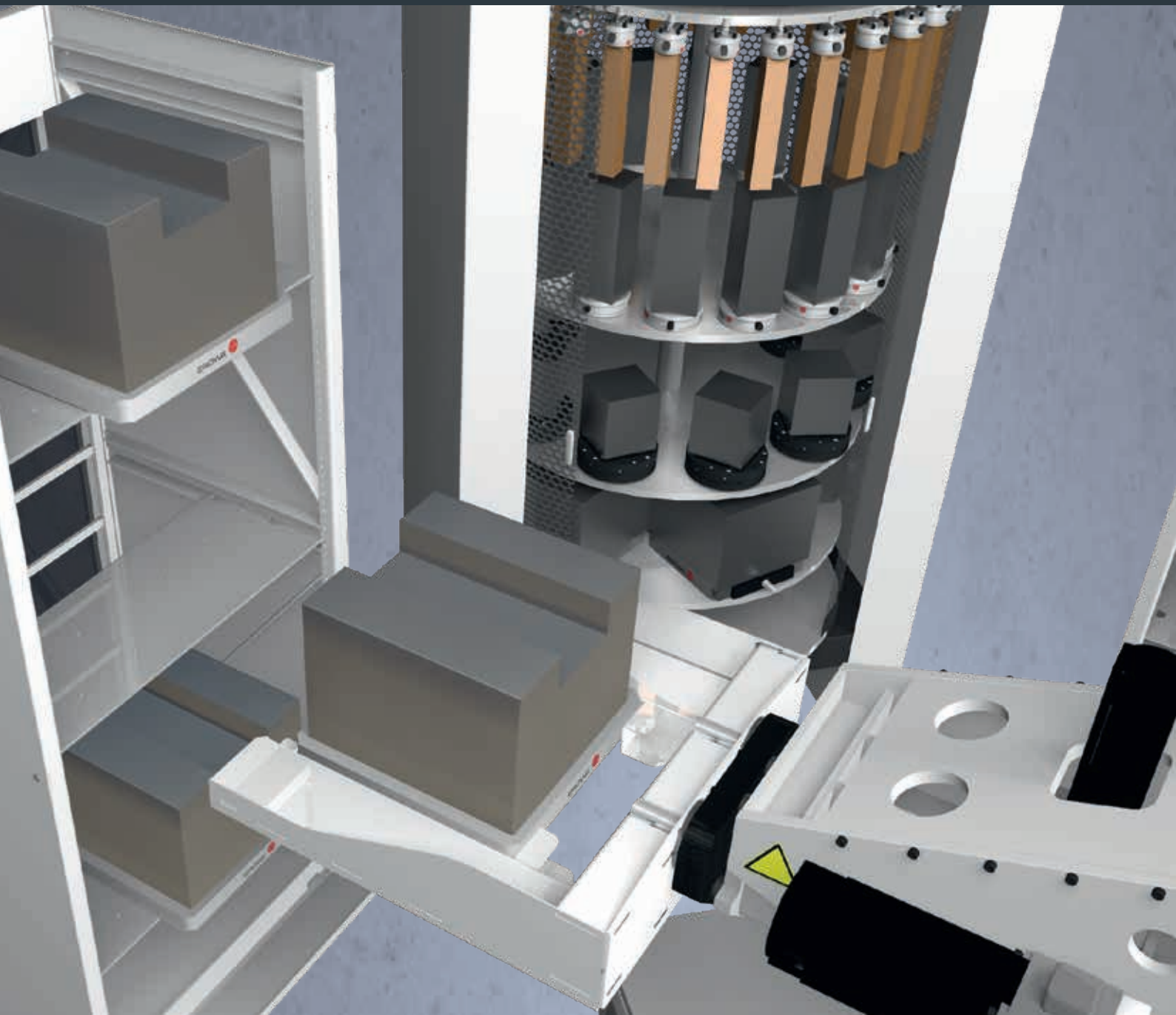
**Line Management** 16  
 Automatic and secure manufacturing of single parts and small batches



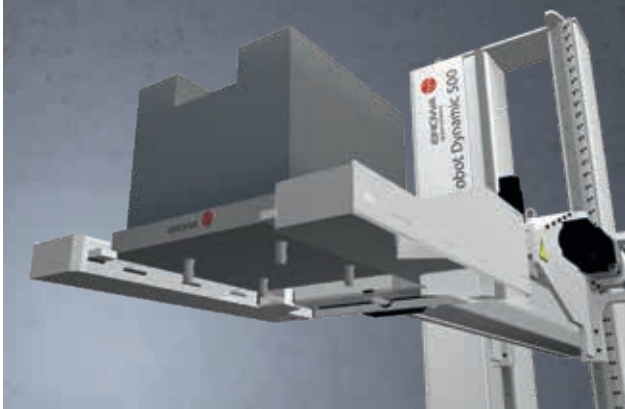
**25 Years of Experience** 18  
 Standard components are quickly installed

# Loading Around the Corner

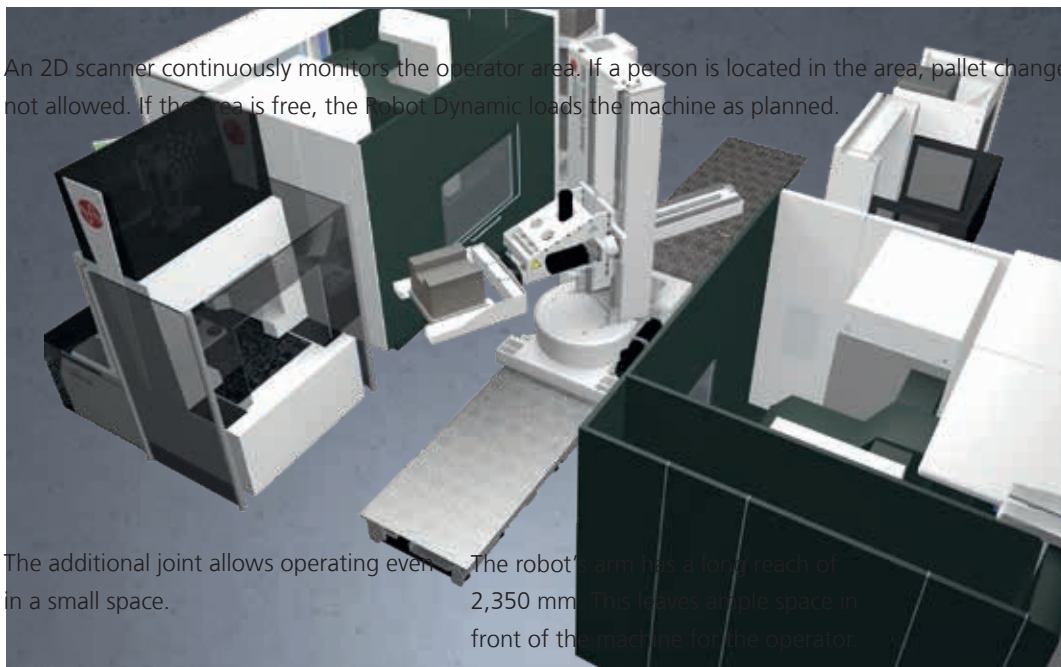
The Robot Dynamic is located laterally offset from the machine. Despite loading through the front door, a safe operating zone remains accessible for manual operation. That is flexibility!







An 2D scanner continuously monitors the operator area. If a person is located in the area, pallet changes are not allowed. If the area is free, the Robot Dynamic loads the machine as planned.



The additional joint allows operating even in a small space. The robot arm has a long reach of 2,350 mm. This leaves ample space in front of the machine for the operator.

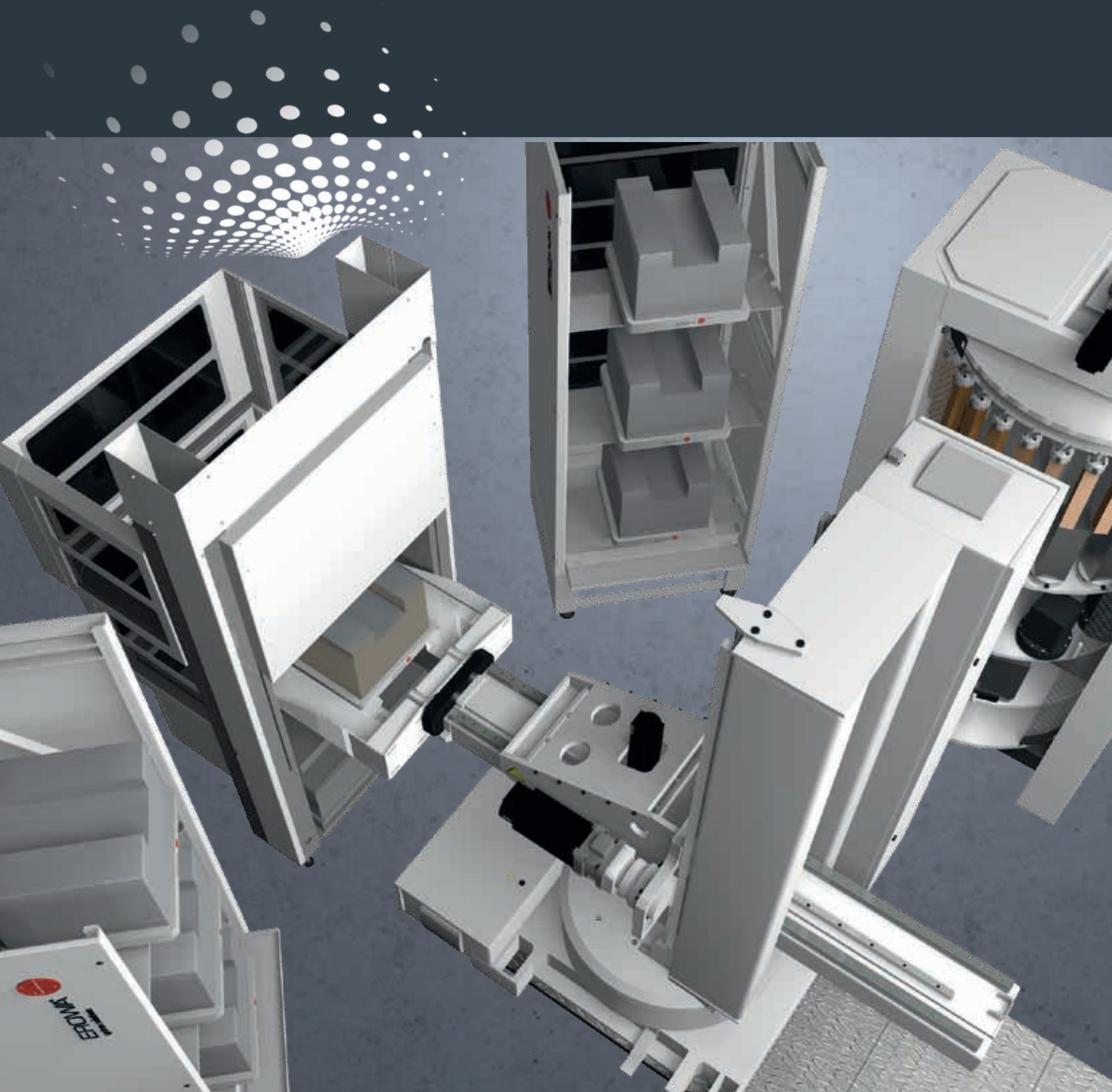
#### FACTS

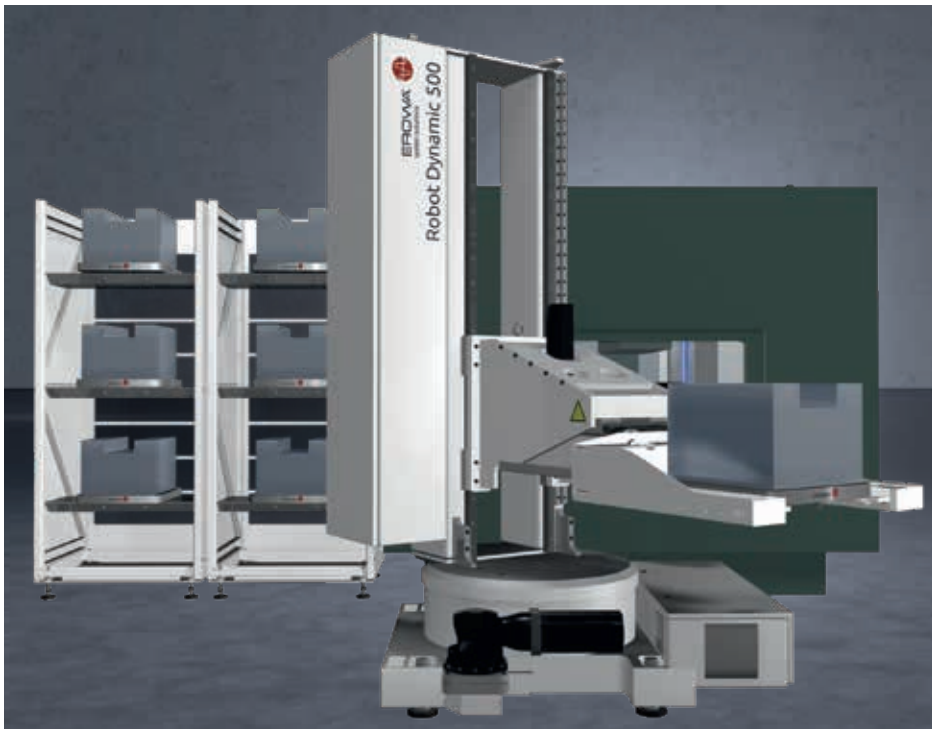
Machine is readily accessible  
 Large coverage of the robot  
 2D scanner for access safety

While transporting the pallets, the robot travels in a compact, stable position.

# Extendable

The EROWA Robot Dynamic can always be adapted and extended. The basic investment is protected. So it's always the right decision to go for the modular concept of the Robot Dynamic.





At a first stage, configure the machine such that hours at night can be utilized for the most part. As one magazine is sufficient, at an average machining time of 30 minutes per workpiece, 5 hours can be utilized productively.



The production cell is extended. A second machine is integrated. The robot is equipped with rails, additional magazines, and a loading station. The initial investment is completely utilized and complemented; the manufacturing cell now has twice the capacity.

#### FACTS

Manageable investment steps

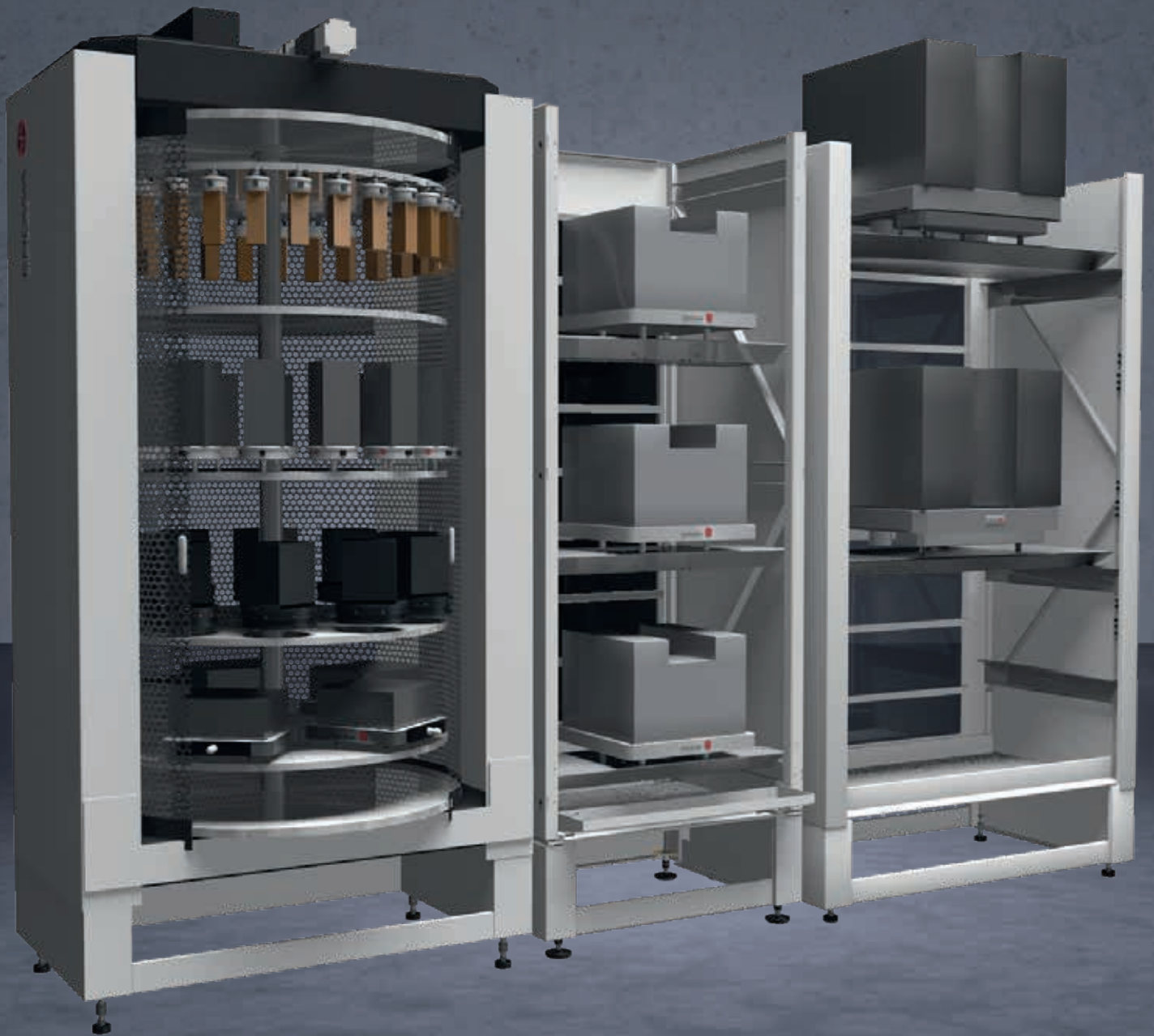
Extendable at any time

The basic investment is protected

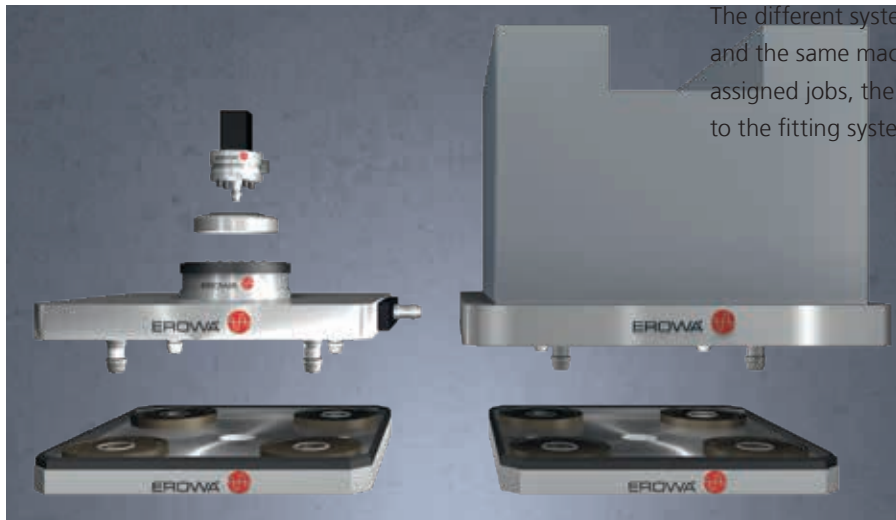


# Big and Small

The Robot Dynamic is suitable for loading large and small workpieces. One of the important features for automated manufacturing of single parts and small batches is that the system can switch automatically between different pallet sizes.







The different system sizes are used at one and the same machine. Depending on the assigned jobs, the Robot Dynamic switches to the fitting system automatically.



The right gripper for each tooling system size. Stored in the GripperDock and automatically employed when needed.



The Robot Dynamic changes pallets with a total weight up to 250 kg reliably on to the machine ...



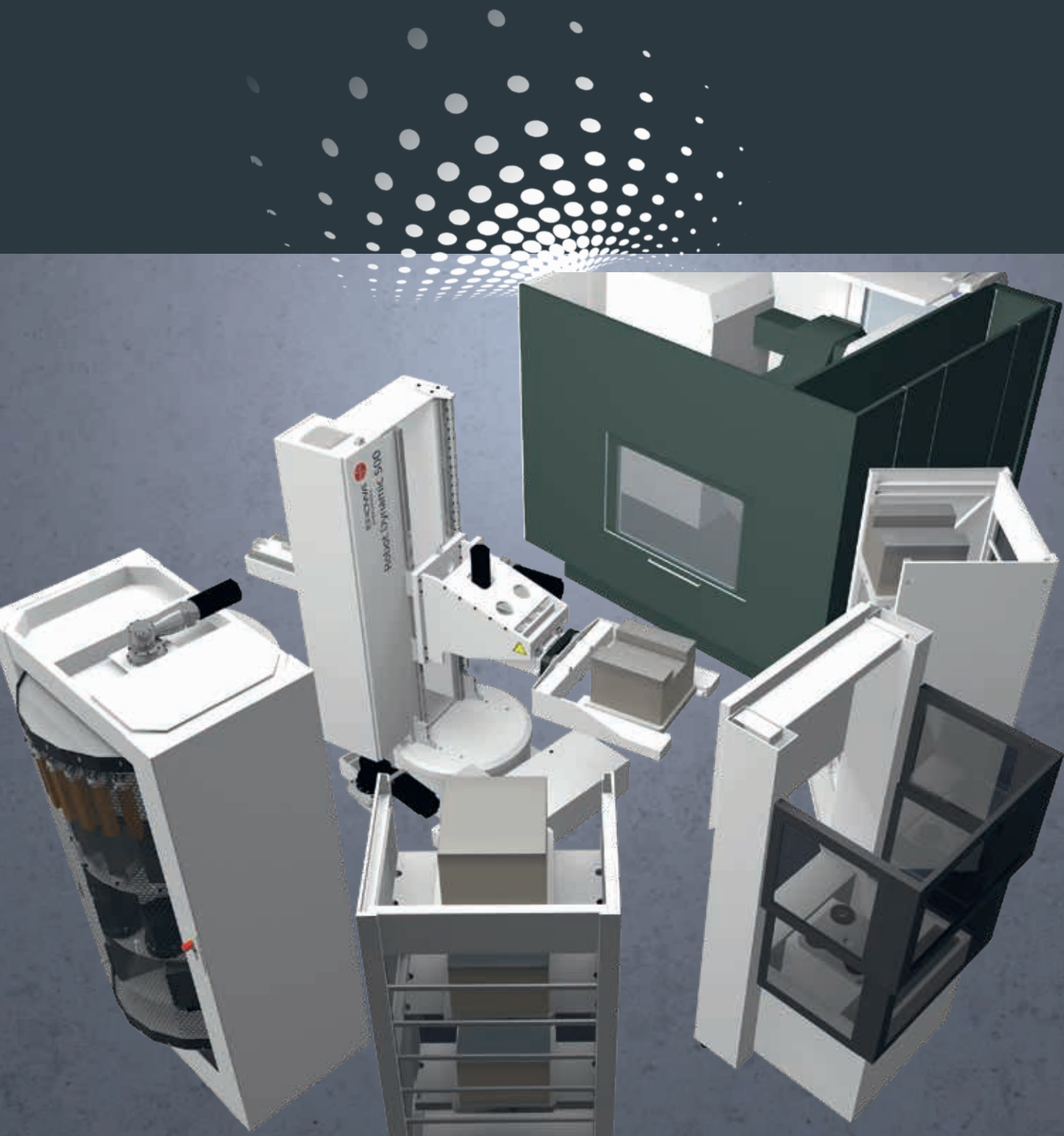
... and just as reliably it takes small workpieces from the magazine to the machining location.

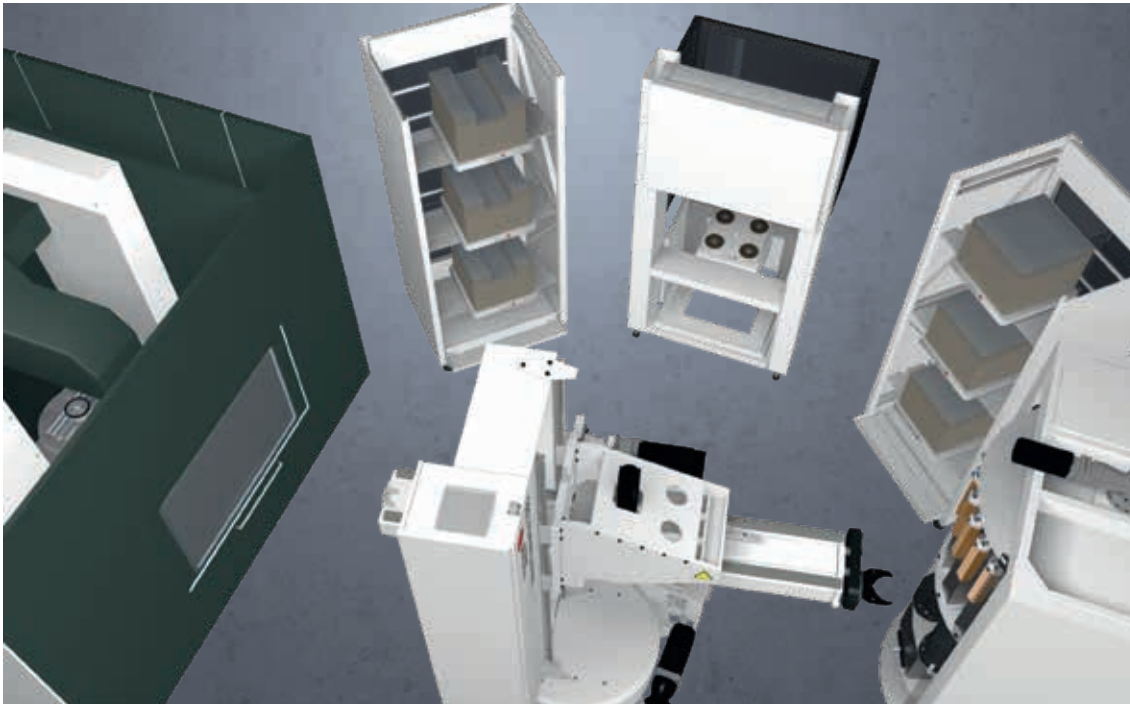
#### FACTS

Mixed part sizes in manufacturing  
Transfer weight up to 250 kg  
Automatic seal management

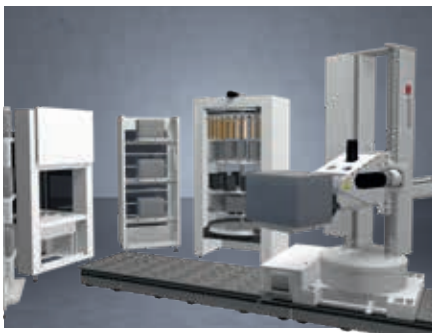
# The Modules

A Robot Dynamic consists basically of a transfer unit and various magazines. They are supplemented with a gripper pool, loading station, and linear axis. Extensions are sure to fit any existing installations.





A highly efficient system for automating the manufacture of single parts and small batches. Workpieces are supplied and removed via the integrated set-up and loading stations. When needed, another magazine is added.



The robust linear rail is extended in segments to the right length.



Each magazine position and each pallet is continuously monitored. The EWIS™ Rapid identification system ensures a clear view.



Extending the machine's tool storage; made easy with a Rotary Magazine for tool holders.

#### FACTS

Magazines for all possible EROWA clamping system pallets

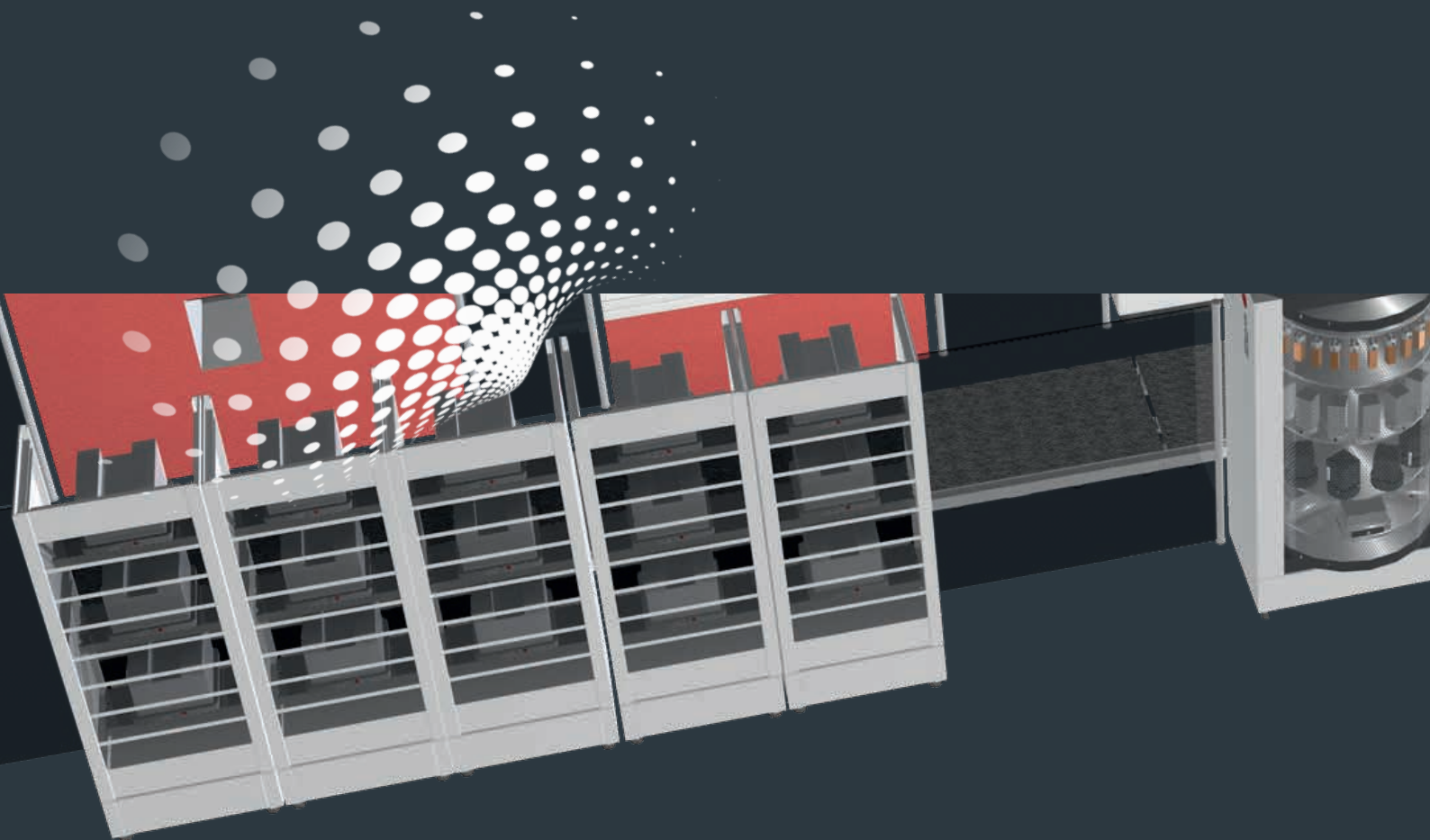
Matching setting-up and loading stations

Automatic pallet identification with EWIS™ chips



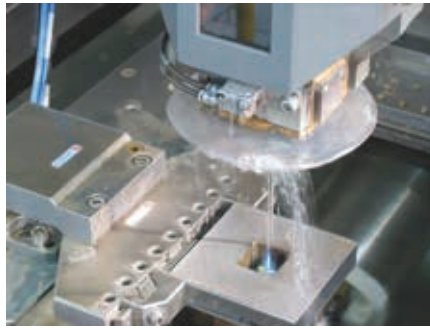
# Automating Tool and Die making

Automation tailored to the requirements of tool and die manufacture. The Robot Dynamic provides machines of different technologies with workpieces, electrodes and tools. With the process guidance system proven in practical application, the operator is on top of all jobs and priorities.





The process control system, a critical factor for production reliability, helps the operator to keep track at all times.



Washing, drying and quality measurement. These important steps are fully integrated in the system. At the end, it puts out completely finished workpieces with a quality certificate!

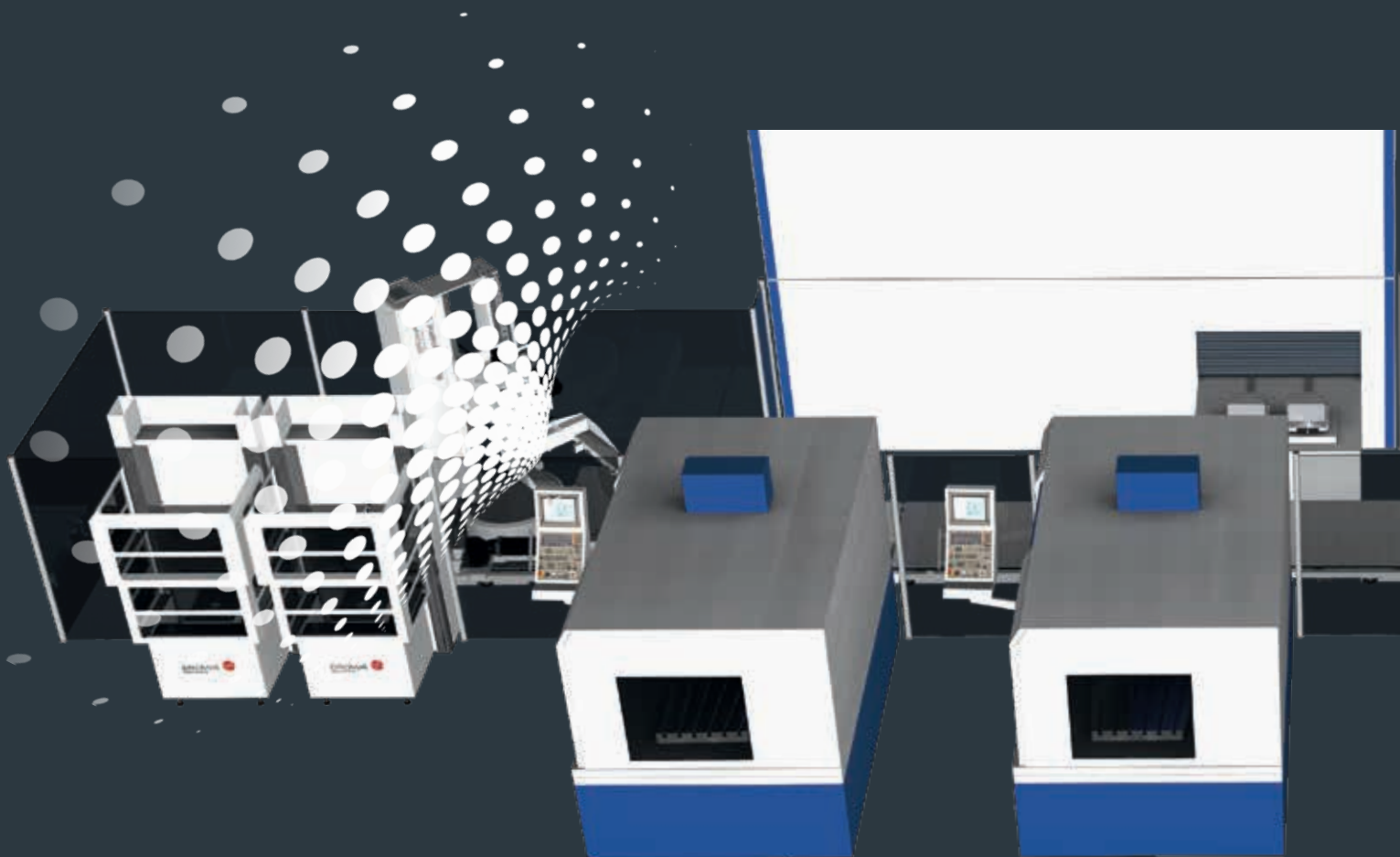


#### FACTS

- Controlled sequence of steps
- Integrated quality measurement
- Automatic manufacturing of single parts

# Automating the Production

Automation tailored to the requirements of manufacturing. The Robot Dynamic provides workpieces to CNC machines. Rack magazines are the most space-saving solution when a large number of pallets are to circulate. The new jobs are prepared at the loading stations. If required, the machined parts are delivered with a measurement report.

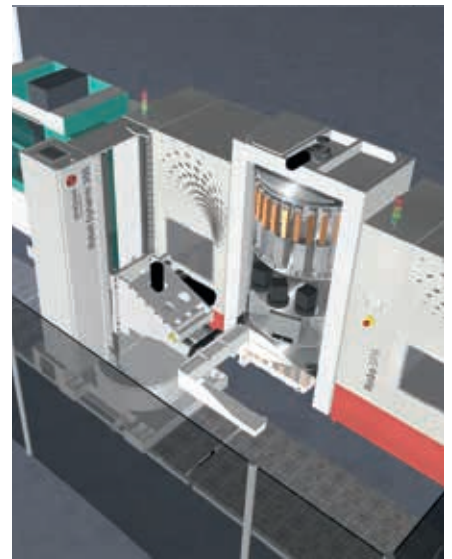






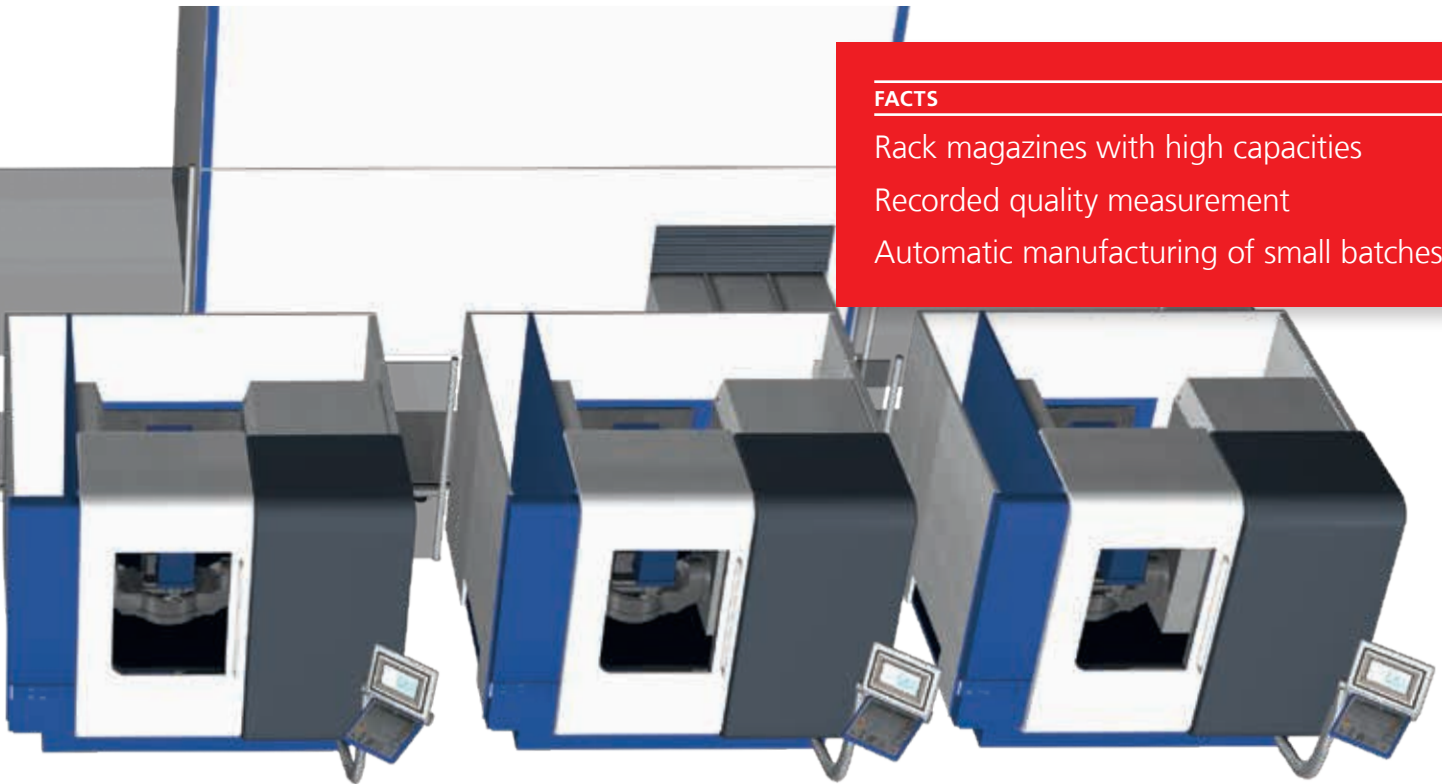
The pallets are equipped depending on the workpiece. Vise, fixture or vacuum clamping plate – EROWA tooling systems get a competent grip on everything.

These days, integrated quality control is a must. Integrating a Qi measuring station from EROWA in your processing line will take care of this requirement.



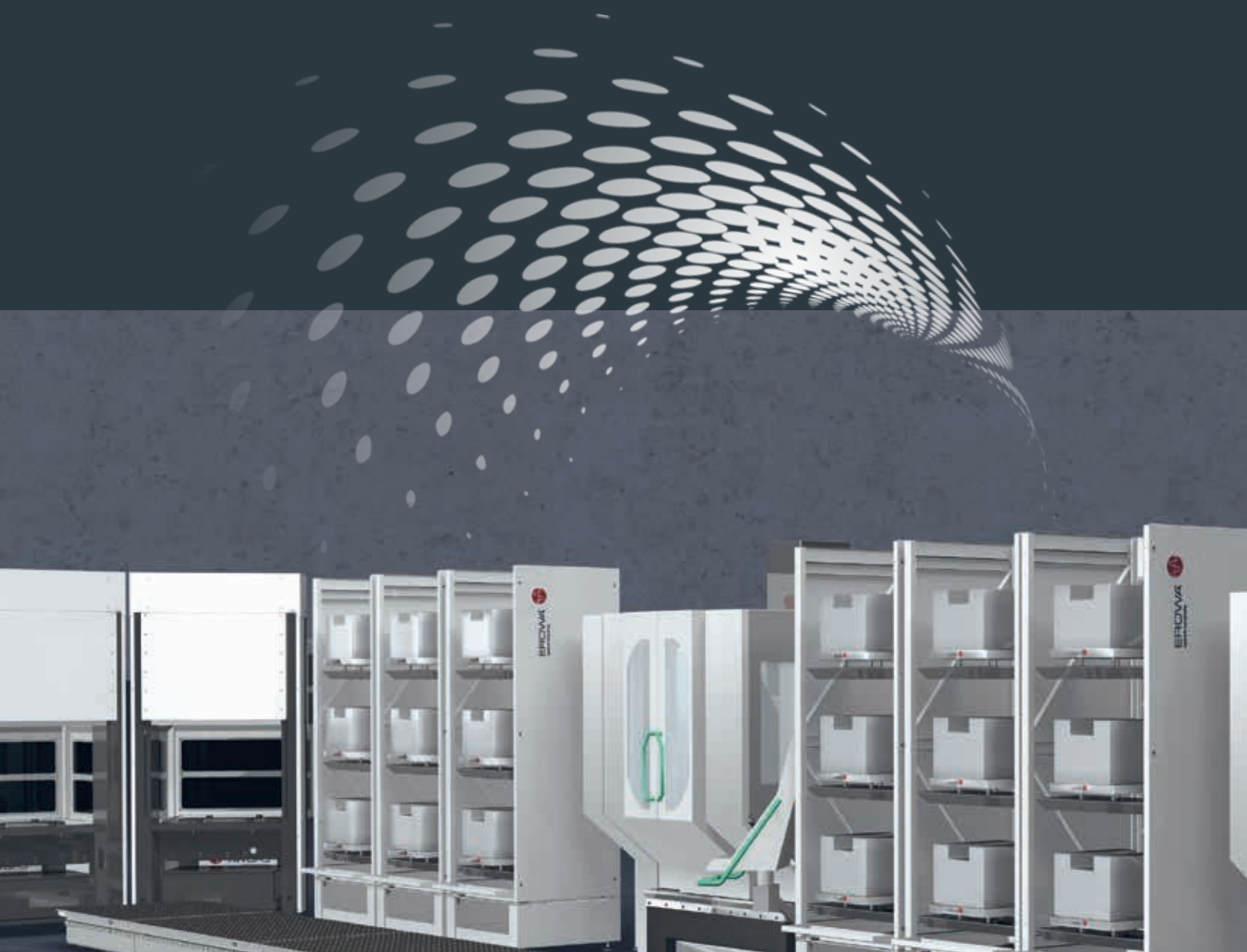
#### FACTS

- Rack magazines with high capacities
- Recorded quality measurement
- Automatic manufacturing of small batches



# Line Management

One of the basic conditions for automatic manufacturing of small batches and single parts is having all information available at one glance. The EROWA process control system has been developed for exactly this purpose. All relevant information and diverse planning aids are available to the machine operator in real-time and on-line.





**FACTS**

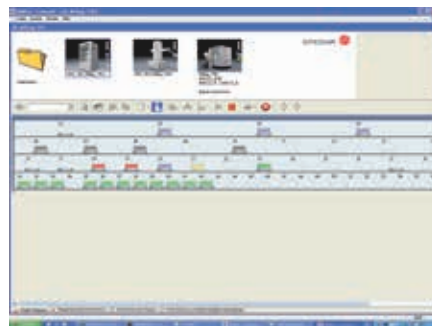
- Operation per push of a button
- Clear display
- Intuitive graphic interface

The operator is always being kept in the loop. CNC programmes, prepared workpieces, tool life and further details are available at the push of a button.

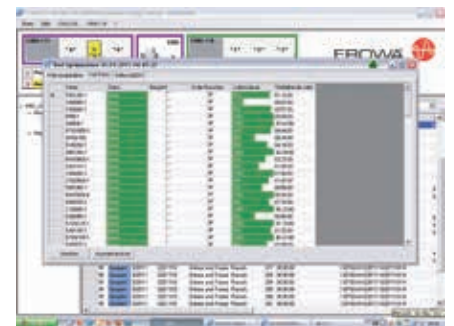
Platznr.	Status	Werkstück	Postion	Bearbeitungsdauer	Vor
5	Beitell	ERDWA	1	00:01:00	Lad
9	Beitell	ERDWA	3	00:01:00	Lad
10	Beitell	ERDWA	13	00:01:00	Beit
20	Beitell	ERDWA	11	00:01:00	Lad

Gesamte Bearbeitungsduer: 7 Stunden

How much time is left in the automatic cell cycle? Information by mouse click. Depending on what the display shows, further jobs are loaded.



Which tools have to be changed before the end of the day? The display shows exactly how much tool life is left at which position. The system checks internally if the available tool life is sufficient for the released jobs.



How are we doing? Different colors clearly indicate the current status.





# 25 Years of Experience

Long experience - short start-up.

EROWA robots consist of sophisticated, standardized components. This allows short set-up times.

## Your critical benefits

- Everything from one single source
- Experience with over 2000 robots
- Standard machine interface
- Long-life systems
- Independent partner
- Integrated safety system
- Perfect service with worldwide presence
- Integrated swivel axis horizontal / vertical
- Superior dynamics and perfect positioning

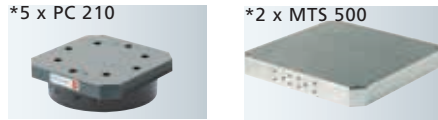
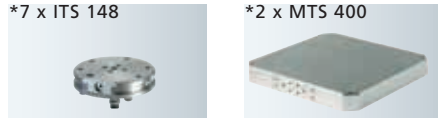
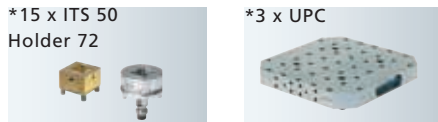
## The Facts

- Up to 20 m rail length
- Machines can be positioned on all four sides
- Transfer weight up to 250 kg
- Transfer axis with long range
- Automatic gripper change depending on pallet size

## Extension options

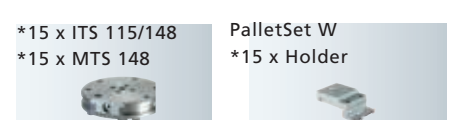
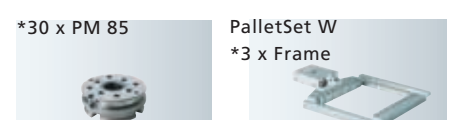
- More machines
- More magazines
- Cleaning, loading or set-ting-up stations
- Loading station with user guide
- Tool management
- Connection to CAD/CAM and production planning and control systems
- Fixture management

**ERD Rack Magazine**



\* Number of possible magazine positions per level or plate

**ERD Rotary Magazine**



**SYSTEM GRIPPERS**



Fixed gripper for MTS 400 or 500. Load capacity horizontally 250 kg.



RCS 5 gripper for MTS, UPC, PalletSet W and FrameSet. At the same time, interface for all other exchange grippers. Load capacity horizontally/vertically max. 130 kg.



PC210 gripper for PC210 pallets with ring groove. Load capacity horizontally/vertically max. 130 kg.



ITS 148 gripper for ITS 148 pallets. Load capacity horizontally max. 40 kg, vertically max. 30 kg.



ITS 115 gripper for ITS 115 pallets. Load capacity horizontally max. 40 kg, vertically max. 30 kg.



PM 56 gripper for PM tooling. Load capacity horizontally/vertically max. 5 kg.



PM 85 and PM 130 gripper for PM tooling. Load capacity horizontally max. 20 kg, vertically max. 10 kg.



Gripper for ITS holder 72. Load capacity horizontally max. 20 kg, vertically max. 10 kg.



S gripper for ITS holder Load capacity horizontally max. 20 kg, vertically max. 10 kg.



Combo gripper for ITS and Compact tooling. Load capacity horizontally max. 8 kg, vertically max. 5 kg.

**TECHNICAL DETAILS**

**TRANSFER WEIGHT**

RCS	<b>130 kg</b>
Fixed gripper	<b>250 kg</b>
Swivelarm	<b>yes</b>
Gripper change	<b>yes</b>

**DIMENSIONS**

Gripper movement X	<b>1500 mm</b>
Gripper movement X/D	<b>2350 mm</b>
Gripper movement Z	<b>1750 mm</b>
Gripper movement Y	<b>up to 20 m</b>
No. of machines	<b>up to 8</b>
System height	<b>2800 mm/with linear axis 3100 mm</b>
Space height min.	<b>3500 mm for Linear</b>

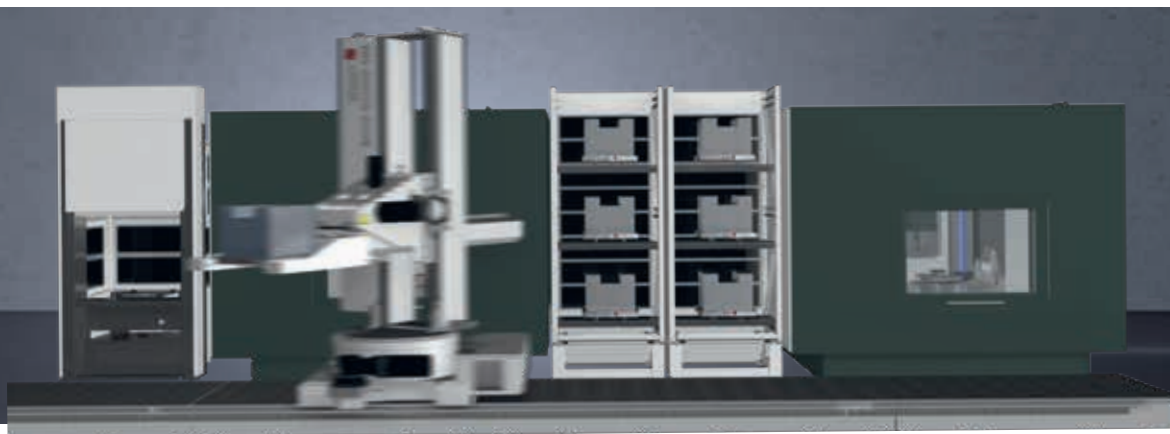
<b>MAGAZINES</b>	<b>LEVELS</b>	<b>LOAD PER LEVEL / MAGAZINE</b>
Rack	max. 9	260 kg / 2000 kg
Rotary	max. 5	650 kg / 2000 kg

**ELECTRONIC SYSTEM**

Automatic pallet identification	<b>yes / EWIST™</b>
Process control system	<b>yes</b>

# The next step

Important things need to be planned. And your next step is certainly among the important things. It is your start into a new, efficient era. We are pleased to be with you on the way. As consultants, in practice. For you to know at all times what you're engaging in. The next EROWA branch office is not far – **take the step.**



## USA

EROWA Technology, Inc.  
North American Headquarters  
2535 South Clearbrook Drive  
Arlington Heights, IL 60005  
USA  
Tel. 847 290 0295  
Fax 847 290 0298  
e-mail: [info@erowa.com](mailto:info@erowa.com)  
[www.erowa.com](http://www.erowa.com)

## Italy

EROWA Tecnologie S.r.l.  
**Sede Legale e Amministrativa:**  
Via Alfieri Maserati 48  
IT-10095 Grugliasco (TO)  
Italy  
Tel. 011 9664873  
Fax 011 9664875  
[info@erowa.it](mailto:info@erowa.it)  
[www.erowa.com](http://www.erowa.com)

Unità di Treviso:  
Via Leonardo Da Vinci 8  
IT-31020 Villorba (TV)  
Italy  
Tel. 0422 1627132

## Singapore

EROWA South East Asia Pte. Ltd.  
56 Kallang Pudding Road  
#06-02, HH@Kallang  
Singapore 349328  
Singapore  
Tel. 65 6547 4339  
Fax 65 6547 4249  
[sales.singapore@erowa.com](mailto:sales.singapore@erowa.com)  
[www.erowa.com](http://www.erowa.com)

## Japan

EROWA Nippon Ltd.  
Sibadaimon Sasano Bldg.  
2-6-4, Sibadaimon, Minato-ku  
105-0012 Tokyo  
Japan  
Tel. 03 3437 0331  
Fax 03 3437 0353  
[info@erowa.co.jp](mailto:info@erowa.co.jp)  
[www.erowa.com](http://www.erowa.com)

## Switzerland

EROWA AG  
Knutwilerstrasse 3  
CH-6233 Büren  
Switzerland  
Tel. 041 935 11 11  
Fax 041 935 12 13  
[info@erowa.com](mailto:info@erowa.com)  
[www.erowa.com](http://www.erowa.com)

## France

EROWA Distribution France Sàrl  
PAE Les Glaisins  
12, rue du Bulloz  
FR-74940 Annecy-le-Vieux  
France  
Tel. 4 50 64 03 96  
Fax 4 50 64 03 49  
[erowa.france@erowa.com](mailto:erowa.france@erowa.com)  
[www.erowa.com](http://www.erowa.com)

## Spain

EROWA Technology Ibérica S.L.  
c/ Avda. Cornellà, 142 7ª 3ª ext.  
E-08950 Esplugues de Llobregat - Barcelona  
Spain  
Tel. 093 265 51 77  
Fax 093 244 03 14  
[erowa.iberica.info@erowa.com](mailto:erowa.iberica.info@erowa.com)  
[www.erowa.com](http://www.erowa.com)

## China

EROWA Technology (Shanghai) Co., Ltd.  
G/F, No. 24 Factory Building House  
69 Gui Qing Road (Caohejing Hi-tech Park)  
Shanghai 200233, PRC  
China  
Tel. 021 6485 5028  
Fax 021 6485 0119  
[info@erowa.cn](mailto:info@erowa.cn)  
[www.erowa.com](http://www.erowa.com)

## Germany

EROWA System Technologien GmbH  
Gewerbegebiet Schwadernmühle  
Roßendorfer Straße 1  
DE-90556 Cadolzburg/Nbg  
Germany  
Tel. 09103 7900-0  
Fax 09103 7900-10  
[info@erowa.de](mailto:info@erowa.de)  
[www.erowa.de](http://www.erowa.de)

## Scandinavia

EROWA Technology Scandinavia A/S  
Fasanvej 2  
DK-5863 Ferritslev Fyn  
Denmark  
Tel. 65 98 26 00  
Fax 65 98 26 06  
[info.scandinavia@erowa.com](mailto:info.scandinavia@erowa.com)  
[www.erowa.com](http://www.erowa.com)

## Eastern Europe

EROWA Technology Sp. z o.o.  
Eastern Europe  
ul. Spółdzielcza 37-39  
55-080 Kąty Wrocławskie  
Poland  
Tel. 71 363 5650  
Fax 71 363 4970  
[info@erowa.com.pl](mailto:info@erowa.com.pl)  
[www.erowa.com](http://www.erowa.com)

## India

EROWA Technology (India) Private Limited  
No: 6-3-1191/6, Brij Tarang Building  
Unit No-3F, 3rd Floor, Greenlands, Begumpet,  
Hyderabad 500016 (Telangana)  
India  
Tel. 040 4013 3639  
Fax 040 4013 3630  
[sales.india@erowa.com](mailto:sales.india@erowa.com)  
[www.erowa.com](http://www.erowa.com)

