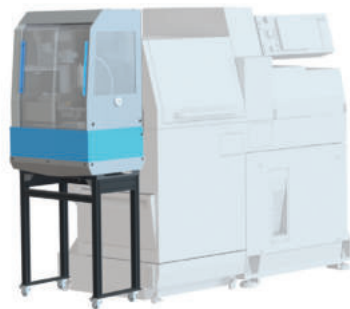


MECHA Depot-Line 7000

Flexible and economical workpiece storage systems

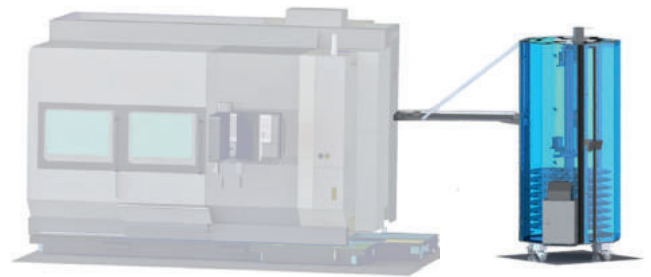
- Workpiece separation and storage
- Damage-free workpiece storage
- Enables statistical process control (SPC), since the traceability of parts is guaranteed
- Minimises part loss of micro-parts
- Minimises inspection work for quality control, as the parts are split into production parts and control parts
- Production of part families autonomously overnight (night shift)
- Enables 7000 production hours per year
- Mecha Depot-Line 7000 – your road to Industry 4.0

DepotPallet



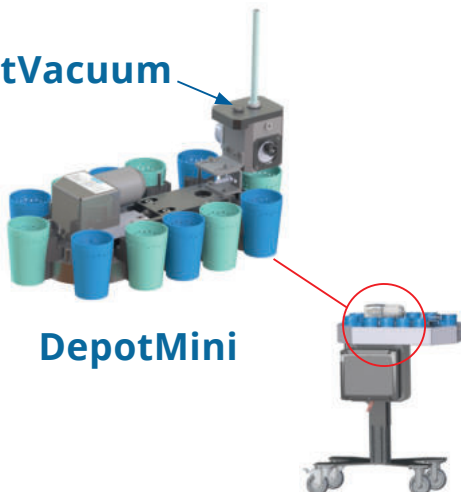
DepotPallet at Swiss-type lathe

DepotMax



DepotMax at lathe

DepotVacuum



DepotMini

DepotMini M at swiss type lathe

DepotBox



Optimise your capability by using Mecha Depot-Line 7000

Benefit from huge productivity potential with Depot-Line 7000 in:

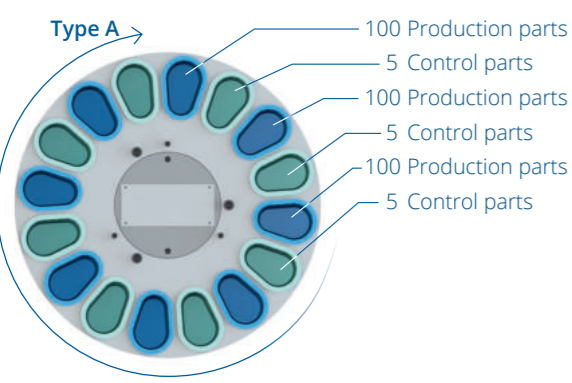
- Swiss-type lathes, multi-spindles, lathes
- Bar, milling and turning centers
- Circular and centerless grinding machines

Depot-Line 7000 enables:

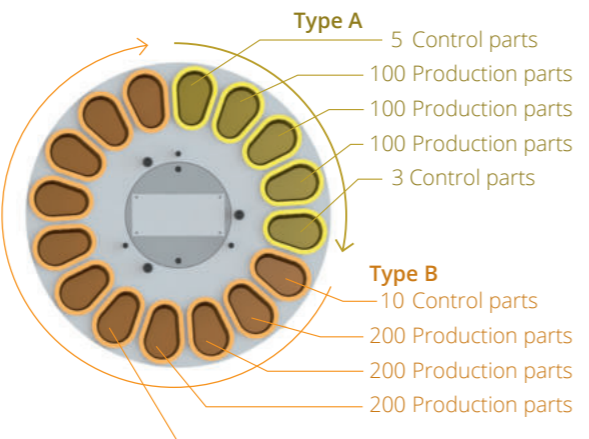
Automatic implementation of statistical process controls (SPC)

- Guarantees the separation of parts with no human factor
- Number of control parts and interval can be individually programmed

Example 1



Example 2



Depot-Line 7000 protects: Perfect surfaces of workpieces

- Parts are placed non-contact in single or defined batch sizes in oil to limit the risk of material damage



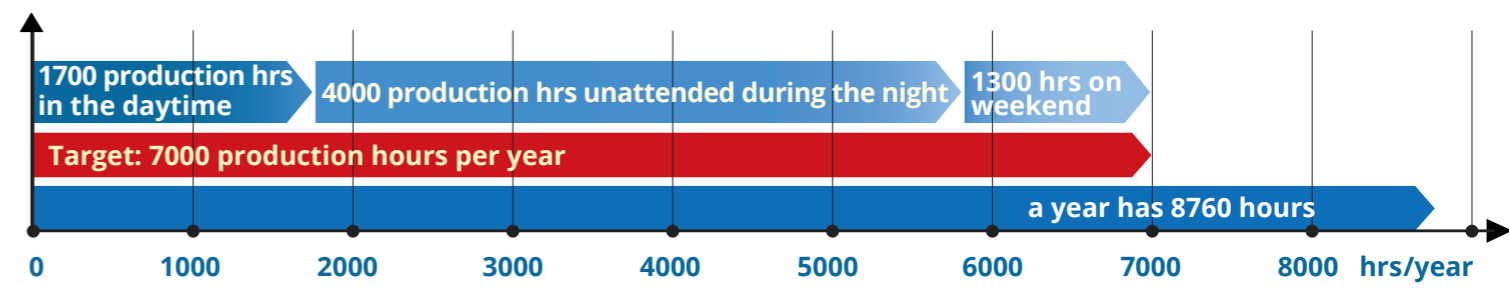
Depot-Line 7000 enables:

Autonomous operation of the Mecha part separators

- Simply retrofit to existing machines, as the part separators are operating electrically and autonomously
- Optional machine interface (ready for operation, storage full)
- Same workpiece storage can be used on multiple machines



Use your time bands productively with Depot-Line 7000!



Increase your unattended production time with Mecha Depot-Line 7000

- During the night and at the weekend
- Up to 16 hours autonomic work
- Target 7000 hours per year
- Individually adjustable number of Depot-Line 7000 storage spaces
- Optimised production planning for Depot-Line 7000
- Single parts and small series production during the day
- Long-running parts overnight

Depot-Line 7000 offers:

Parts separation and temporary workpiece storage

- Container DepotMax: Parts are stored individually



- Container DepotMini: Parts are stored in oil in defined batch sizes



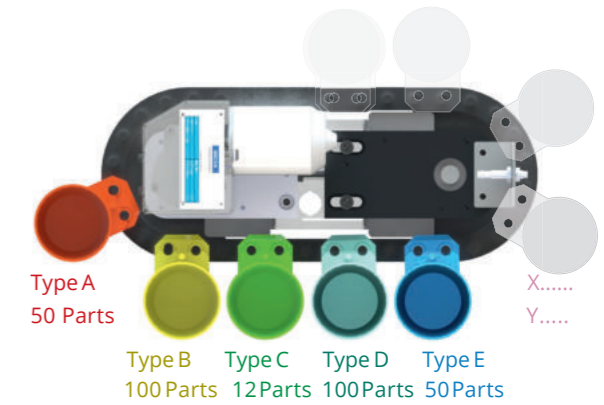
Depot-Line 7000 provides all prerequisites: For the production of part families

- Separated storage of different parts families
- When switching program to CNC control; container change with M code

Depot-Line 7000 prevents:

The loss of workpieces

- Loss-free parts unloading from the machine using vacuum

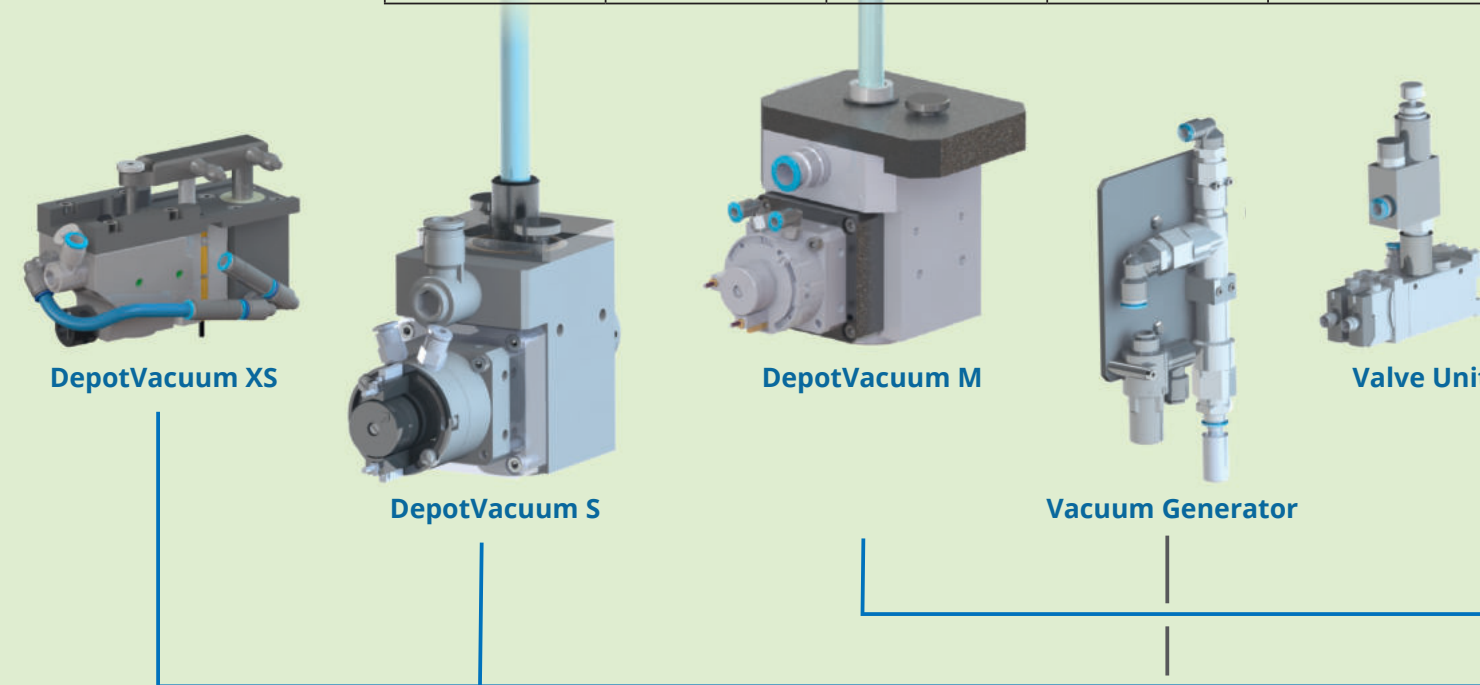


MECHA Depot-Line 7000

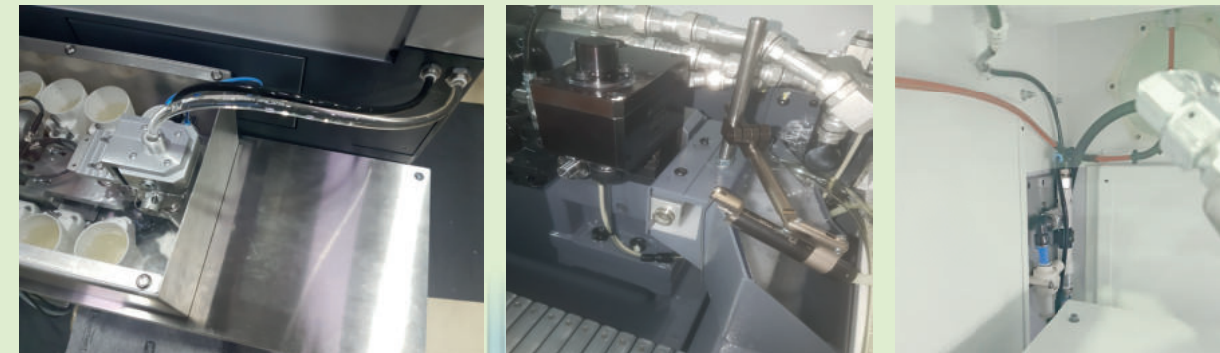
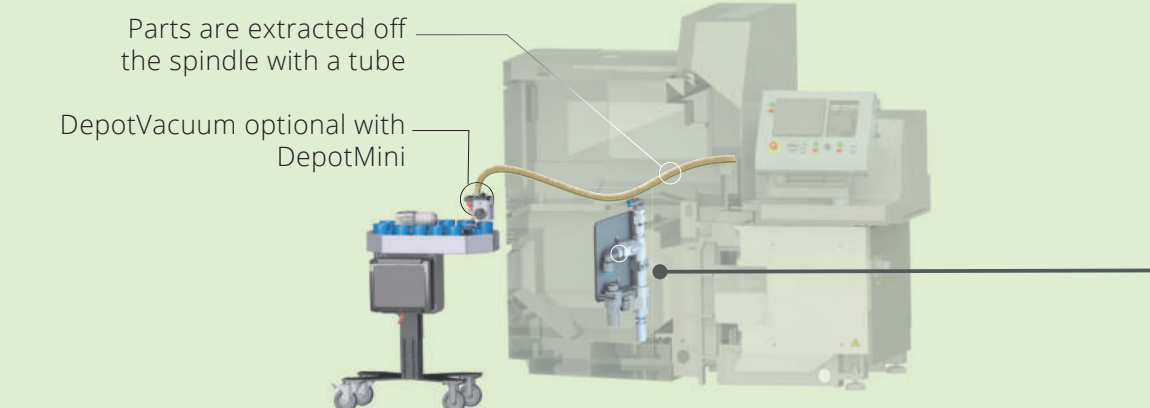
DepotVacuum

- For micro-parts
- The solution for loss-free micro-parts unloading from the machine using a vacuum generator
- No mixing of different types of parts by safe unloading

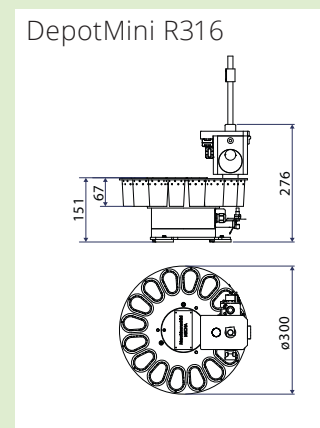
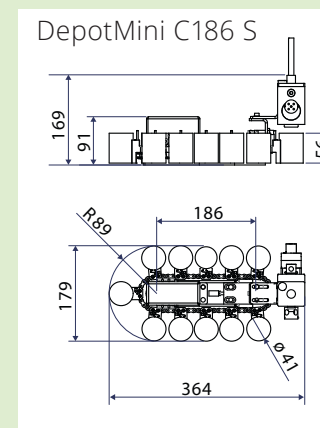
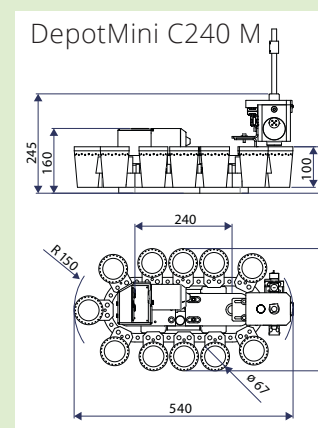
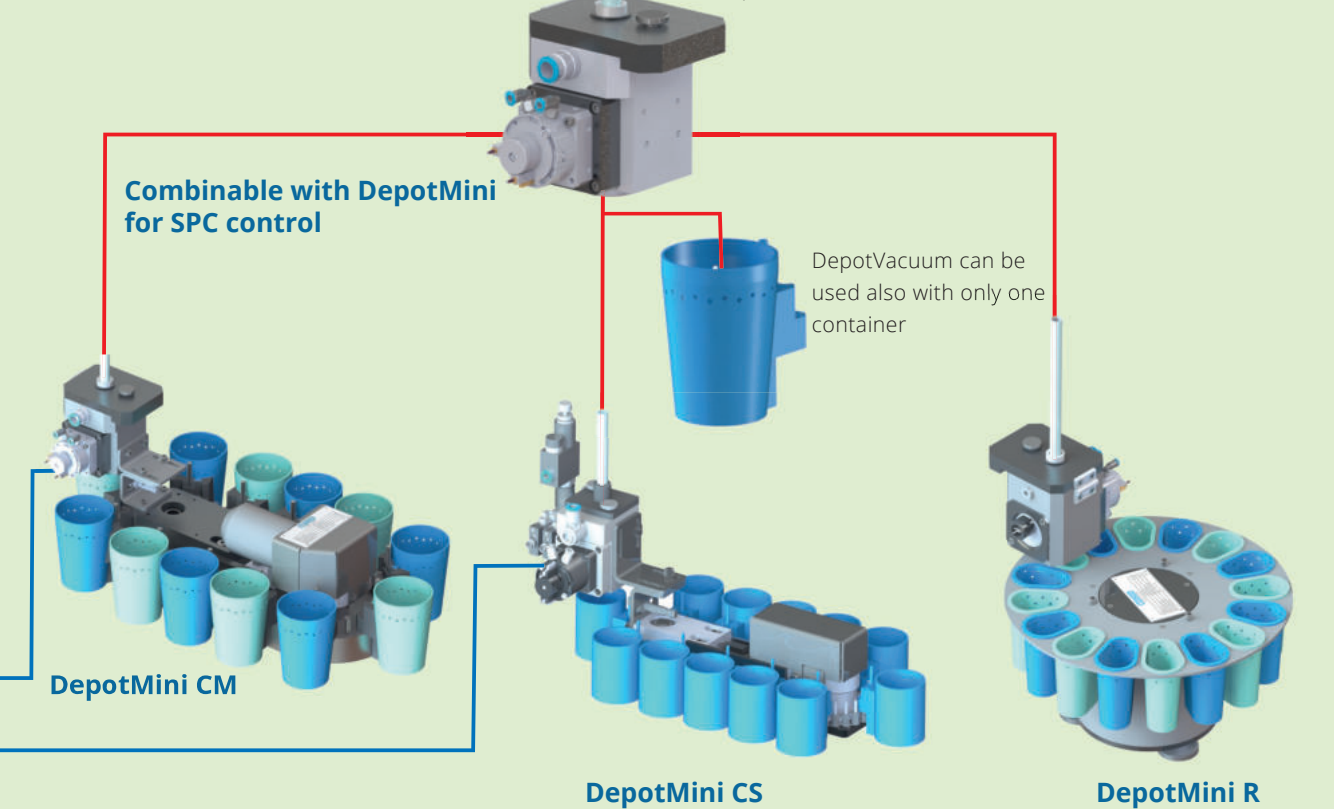
Inner tube-Ø	Part-Ø (depends on length of part)	DepotVacuum XS	DepotVacuum S	DepotVacuum M
Ø 1.2 mm	Ø 1.0 mm	(X)	-	-
Ø 2.5 mm	Ø 1.5 mm	X	(X)	-
Ø 4.0 mm	Ø 3.0 mm	X	X	(X)
Ø 5.5 mm	Ø 5.0 mm	X	X	X
Ø 7.0 mm	Ø 6.5 mm	(X)	X	X
Ø 9.0 mm	Ø 8.0 mm	-	-	X
Ø 11.0 mm	Ø 10.0 mm	-	-	(X)



Installation in the machine



Tube from DepotMini into the machine
 Tube in machine opposite the sub-spindle
 Vacuum generator installed inside the machine

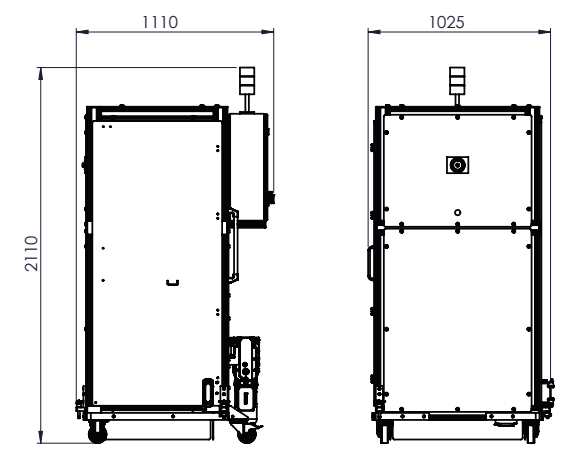
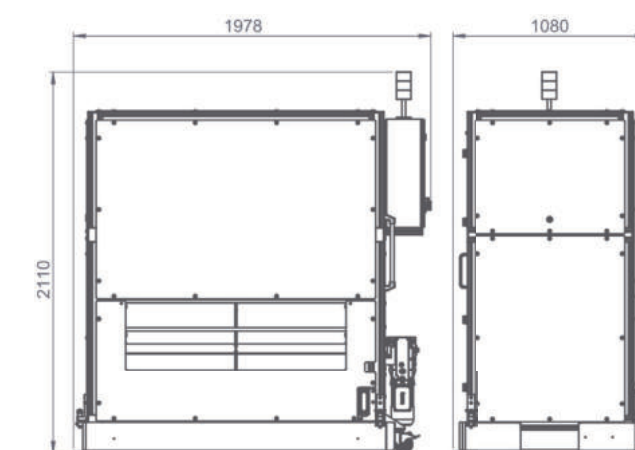


DepotBox

Enables new productivity potential by:
 Parts separation for bulk parts using the principle of Paternoster:

- Multi-spindles
- Punching presses
- Test machines

- Advantages with DepotBox:**
- Traceability of parts is guaranteed
 - Defined production quantity per container
 - Autonomy during night shifts and weekends
 - Adjustable number and size of plastic boxes/washing boxes/cardboard boxes
 - Control is independent of the processing machine
 - Low space requirements



Controls for DepotMini



Standard Control



Time Control



	Standard Control	Time Control
Time-mode	x	x
Counter-mode	x	
M-mode	x	x
Quantity in counter-mode	Any quantity of control parts and production parts per container	
Quantity recipes	10	1
Differentiation production parts and control parts	x	x
Single container emptying	x	
Available with DepotVacuum	x	
Available with DepotMini C	x	
Available with DepotMini R	x	x
Sampling in mode automatic	x	
Touchscreen	x	
Languages (ger., fr., eng.)	Languages can be changed	English

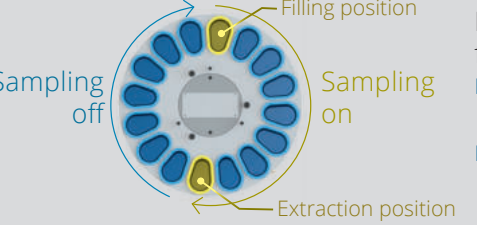
Operating modes

- Time mode: The production and control containers are switched further after a fixed time.
- Counter mode: The production and control containers are switched further after a certain number of parts
- M mode: The production and control containers are switched further using a M code.

Machine interface

- DepotMini full in automatic mode, if all containers are full
- DepotMini ready in automatic mode

Sampling



Automatic mode

- In automatic mode, the following signals are issued:
- DepotMini ready for operation
 - DepotMini full

Emptying containers

Manual switched further for emptying the containers.

DepotMini / DepotPallet / DepotMax: The automation solutions for parts removal on machine tools

Target: 1. Increase the machine autonomy, automatic unloading
 2. Improve the quality and traceability, no mess with produced parts
 3. Simplify interfaces for follow-up processes

Bar feeder

- LNS
- FMB
- IRCO Breuning
- Top Automazione
- IEMCA
- Haas
- INDEXT
- TRAUB
- SAMSYS (SAMECA)

Machine tool

Swiss-type lathes

- Manurhin
- Tornos
- Star
- Citizen



Multi spindles

- Index
- Tornos
- Schütte
- MORY-SEIKI



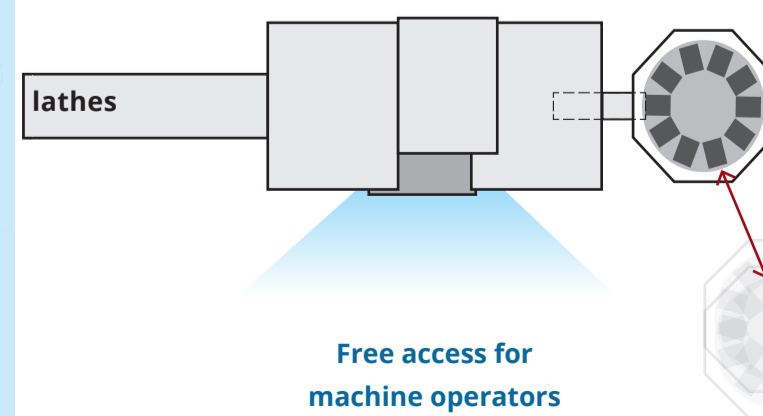
Bar, milling and turning centers

- Chiron
- Willemin-Macodel
- Tornos
- Bumotec



Lathe

- EMCO
- OKUMA
- MAZAK
- INDEXT
- Miyano



Operating modes

• Time-mode:

The production and control containers are switched further after a fixed time.

• Counter-mode:

The production and control containers are switched further after a certain number of parts.

• M-mode:

The production and control containers are switched further using a M code.

SPC automatic statistical process control

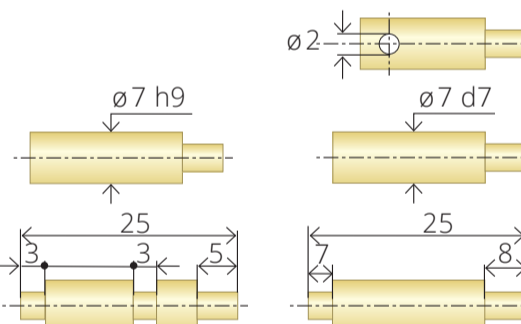
Because of the individual part separation a control part can be placed in the control container also during fully automatic and unattended night operation.

A double container for separately control parts with DepotMini

For control measurement a control part is separated after a defined time or quantity also during autonomous night operation.

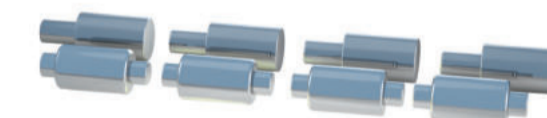
DepotMini specific for night shifts

For production of part families or separation of control and production parts. E.g. automatic production of 5 parts of a family separated in containers.



DepotMax allows scratch free part surfaces of high quality

Because of the part separation with DepotMax it is possible to produce absolutely scratch free parts.

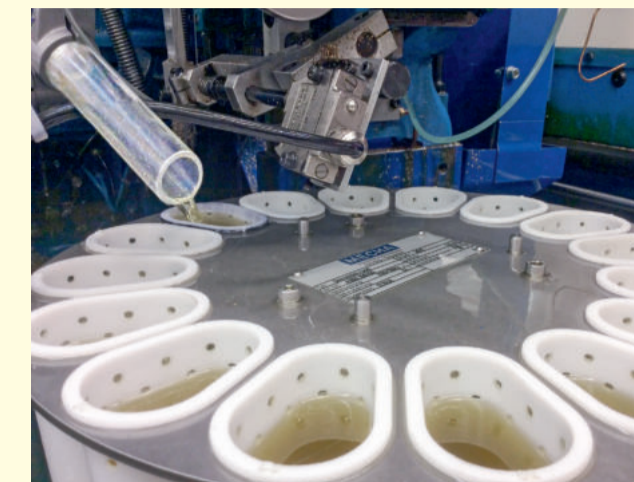


Suitable range
 • Parts ø
 • Batch size

DepotMini
 From about Ø 30 mm to micro parts about Ø 0.1 mm
 Batch sizes from 100-10 000 parts per day

DepotMini

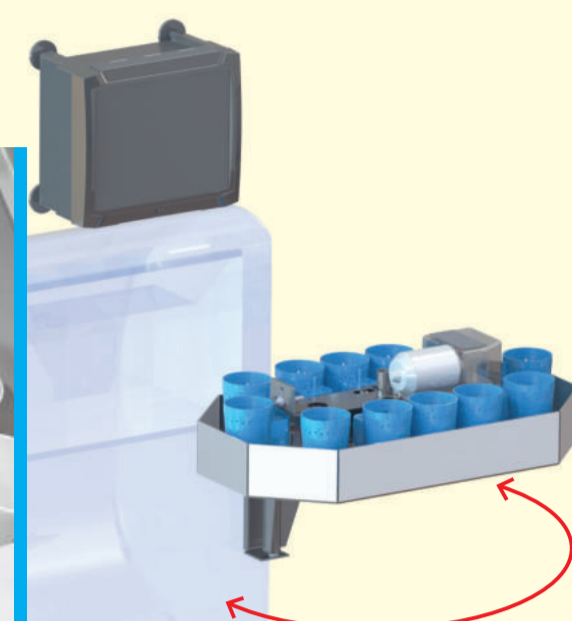
A compact fixed or mobile parts separation for turning machines. The parts are placed in production and control containers in defined quantity.



DepotMini R316
 Parts are rinsed directly into containers.



DepotMini C240 M
 Integrated in the machine



DepotMini C240 M
 Integrated in the machine

DepotMini R212
 Ø 200mm, 6 part containers
 6 control containers



DepotMini R316
 Ø 300 mm, 16 containers
 e.g. 8 part containers,
 8 control containers



DepotMini R308
 Ø 300 mm, 8 containers
 e.g. 4 part containers,
 4 control containers

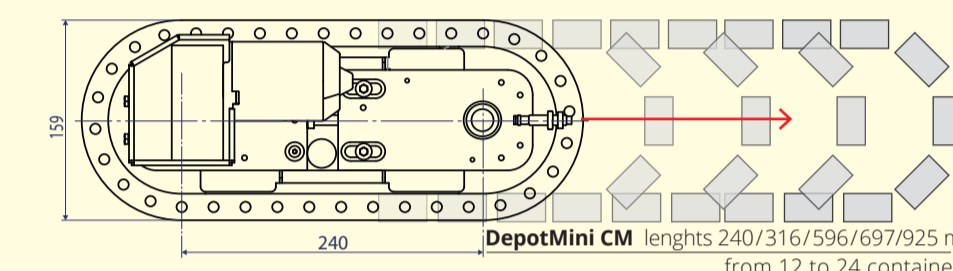


DepotMini C240 M on Trolley

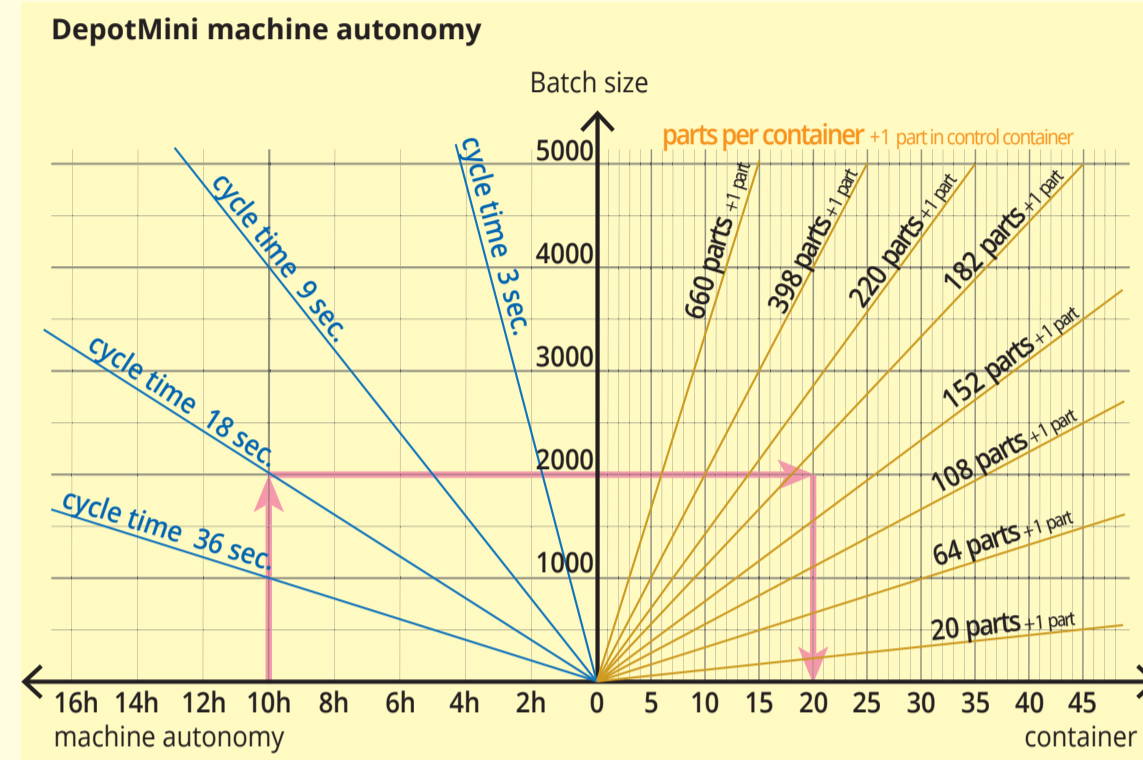
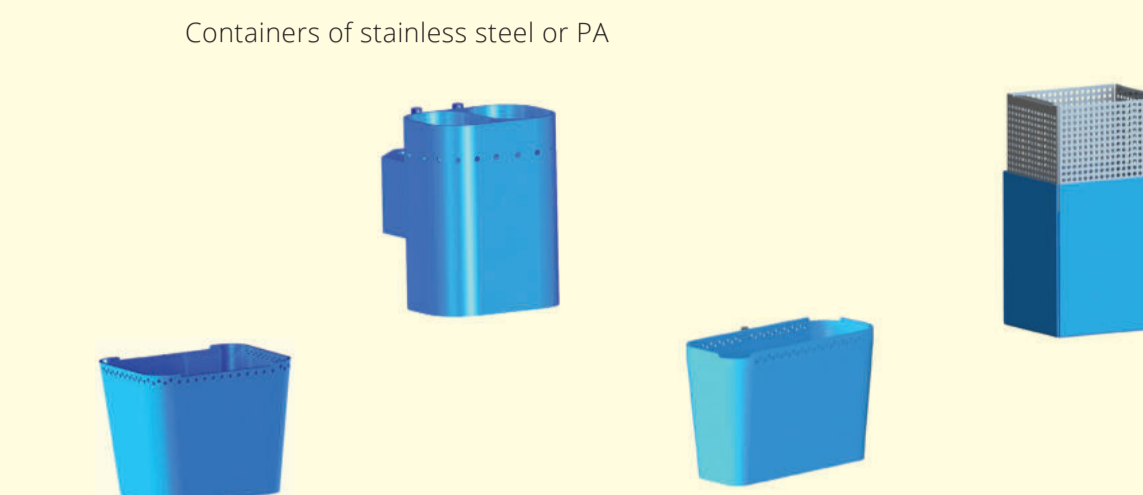
- with drip tray
- attached control system
- single or double container for production parts and control parts.

Standardised containers

Cylindrical or rectangular containers, double containers for control parts and production parts, containers with grids, etc. Depending on branch of industry and type of parts selectable.



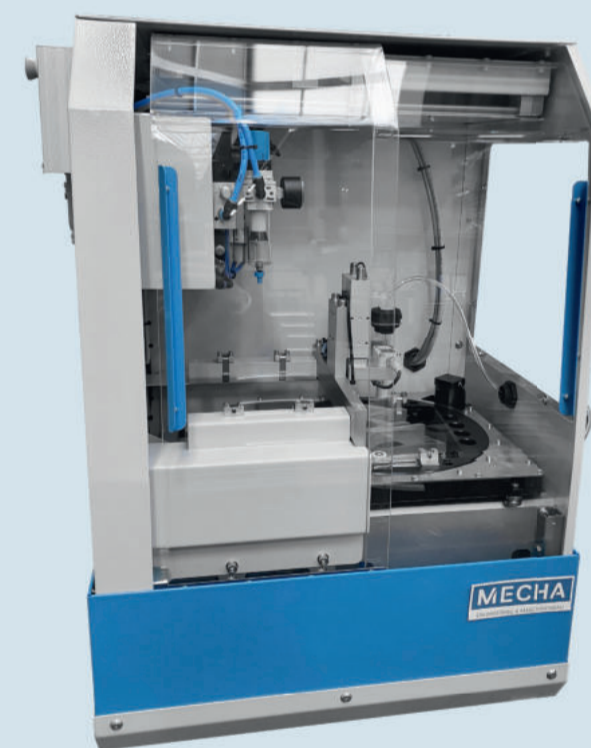
DepotMini CS
 length 186 mm with 12 containers



DepotPallet
 From about Ø 1 mm to Ø 35 mm
 Batch sizes from 150 to 3000 parts per day

DepotPallet

For the palletizing of turned small parts and micro parts from the machine tool using a vacuum directly from the subspindle or with a gripper or robot from the conveyor belt



Configurations

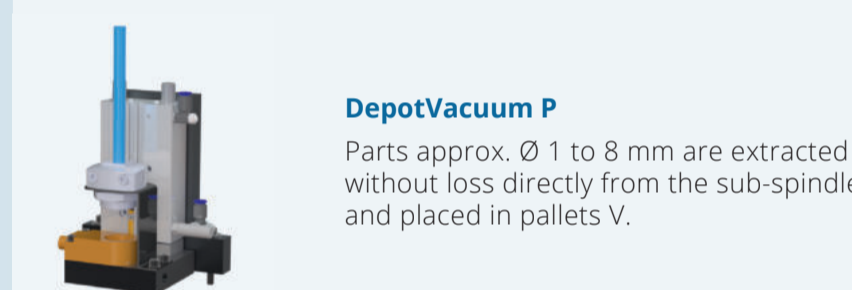


DepotPallet PXV
 (Dimensions W 526 x L 800 x H 1265 mm)
 Magazine for several pallets

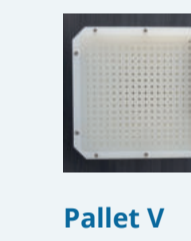


DepotPallet P2V
 (Dimensions W 455 x L 642 x H 980 mm)
 Magazine for 2 pallets

Loading options / pallets



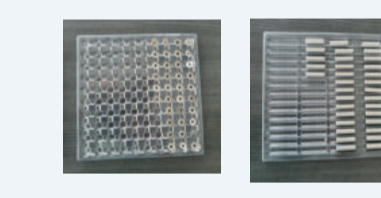
DepotVacuum P
 Parts approx. Ø 1 to 8 mm are extracted without loss directly from the sub-spindle and placed in pallets V.



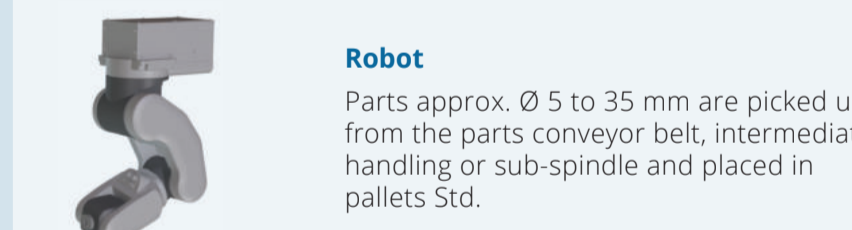
Specifications pallet V:
 ■ external dimensions 230 mm x 210 mm
 ■ plastic pallets available according to the defined range of part diameters



Gripper
 Parts approx. Ø 5 to 35 mm are picked up from the parts conveyor belt and placed in pallets Std.



Specifications pallet Std.:
 ■ external dimensions 230 mm x 210 mm
 ■ sheet metal bracket to put the plastic pallets in
 ■ plastic pallets available according to the defined range of part diameters
 ■ customer pallets can be used, provided they fit in the sheet metal bracket



Robot
 Parts approx. Ø 5 to 35 mm are picked up from the parts conveyor belt, intermediate handling or sub-spindle and placed in pallets Std.

Pallet Std. with sheet metal bracket

DepotMax
 From about Ø 100 mm to small parts about Ø 15 mm
 Batch sizes from 10-1000 parts per day

DepotMax

A compact and mobile solution for automatic removal of workpieces on each processing machine using a feed conveyor belt. Each workpiece individually, gently and traceable.



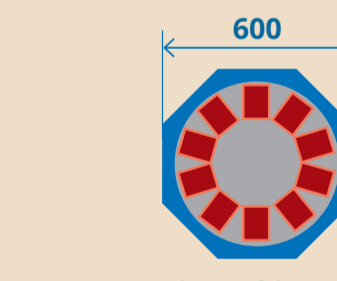
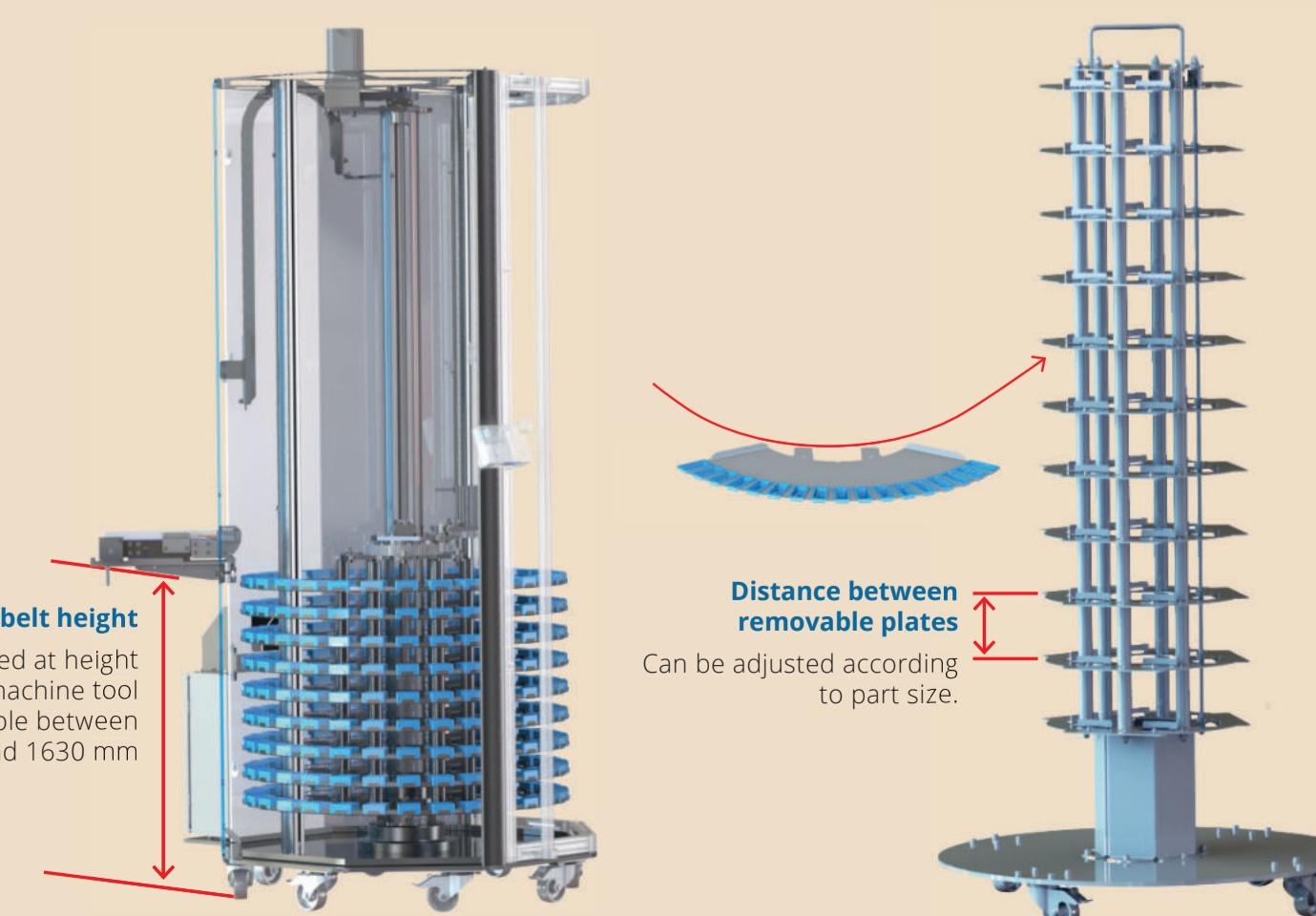
Operating panel with control

The touchscreen control panel is independent of the machining system. No interface to the machine tool is required. A sensor independently detects the parts to be stored and saves the filled container positions.

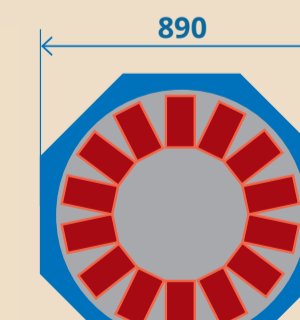
Conveyor belt height
 • Standard: fixed at height of machine tool
 • Adjustable between 336 mm and 1630 mm



Removable plates
 The magazine levels consist of 3 individual removable plates. Those can be placed on a trolley and used for follow-up operations.



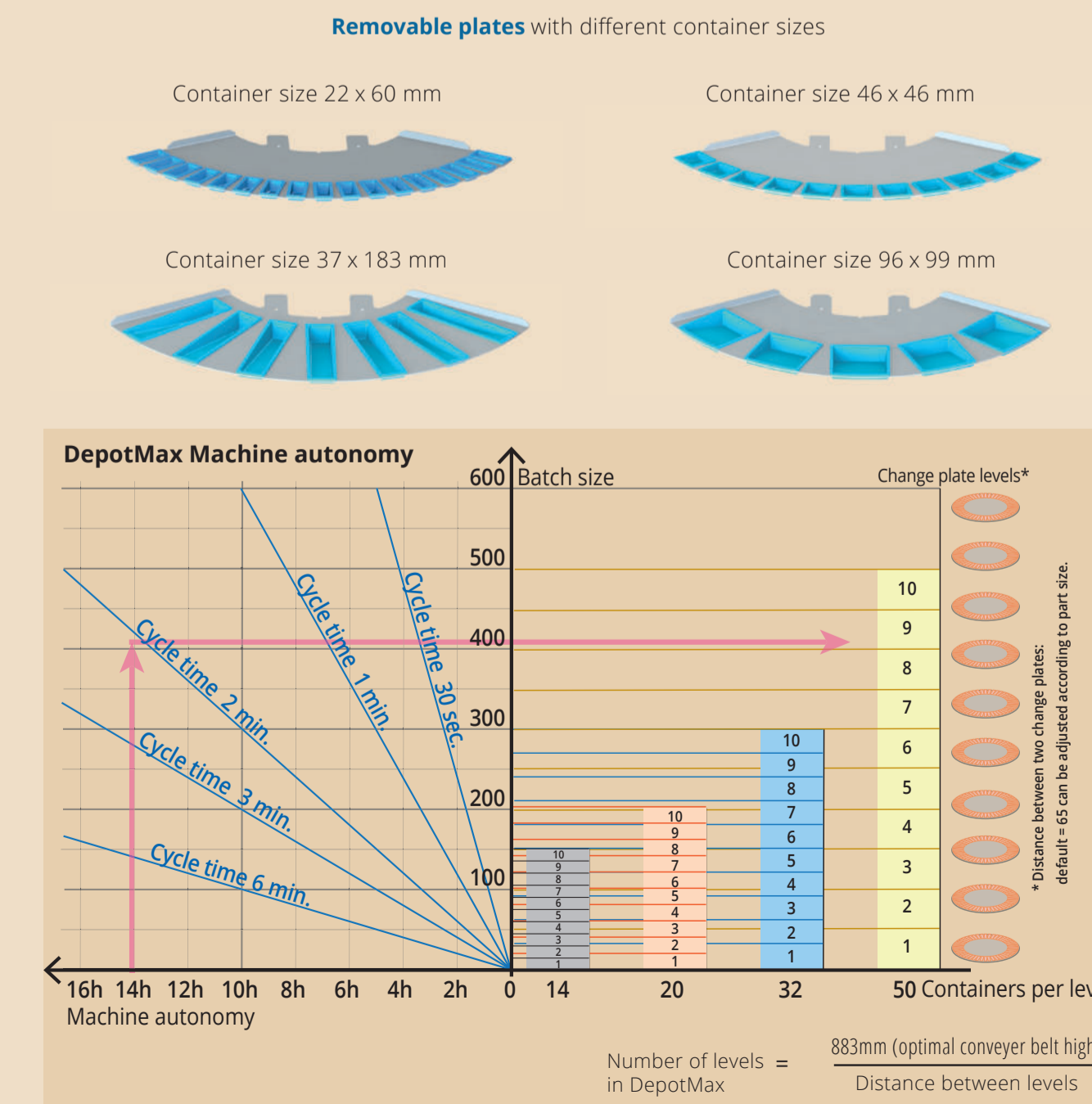
Option cabine 600



Cabine standard 890

Container size	Width	Length	per level
22 mm	60 mm	50	
22 mm	120 mm	35	
37 mm	90 mm	32	
37 mm	183 mm	20	
46 mm	46 mm	32	
46 mm	110 mm	23	
70 mm	110 mm	17	
70 mm	160 mm	14	
96 mm	99 mm	14	

DepotMax XL to max. 450 mm part length
 Width 65 mm Length 450 mm



Number of levels = 883mm (optimal conveyor belt high) in DepotMax
 Distance between levels



MECHA is an established SME based in the region of Berne.

We are a competent partner offering customized solutions from engineering through to commissioning.

We use our knowledge and flexibility to supply you with premium quality products. We place great value on personal consulting.

We serve customers all over Switzerland, and the systems we supply are used around the world. For us, a systematic approach to mechanical engineering means that we always set ourselves the very highest standards – from the production and delivery of your products to the continued training and professional development of our apprentices and staff.



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