HE | HOMAG

SORTBOT R-300

Robotics More output without waiting times.



YOUR SOLUTION



Robotic sorting cells – fully automatic space-saving and scalable setups

Robots ensure product quality and improve workplace conditions. As reliable solution for buffering, decoupling, and sorting, robots enhance production performance and increase yield.

YOUR SOLUTION

MORE: HOMAG.COM



CONTENTS

- Horizontal handling 04
- 06 Technical data
- 08 Vertical handling
- Technical data 10

Reliable Workpiece Flow - Robotics Solution by HOMAG

High repeat accuracy and availability makes a robot the central element of a sorting cell and enables production processes able to schedule.

• Maximum transparency due to monitoring the precise position of each workpiece • Optimum material flow thanks to free determinable storing and removal strategy • Flexible component arrangement offers variable storing capacity

SORTBOT





Higher volume utilisation through horizontal handling

Sorting is a process step that takes place between different processing steps in both trade and industry. Whether sorting is used to optimise set-up times for the subsequent machining process or to provide the right parts





- Dynamic width optimisation within a shelf compartment
- Increase in volume utilisation through **bundle formation** within a compartment
- 90° rotated storage for optimal depth utilisation of the shelves
- Two working heights for higher performance, one level for storage and one for retrieval and one for retrieval
- Also suitable as a solution for **low room heights**
- Bending line correction for performance-optimised handling of large and/or thin parts

at the right time for assembly, both are possible. Horizontal sorting by means of robots completes the HOMAG product range and represents an addition with various options.





SORTBOT

EXAMPLE CONFIGURATION FOR PARTS WITH: LENGTH 1,000 MM / WIDTH 600 MM / THICKNESS 19 MM (STORAGE OPTIMISED)										
Shelf per cell	Number Levels	Shelf length (mm): corresponds to max. part length	Shelf depth (mm): corresponds to max. part width	Usable stacking height per level (mm):	Parts per level in length:	Parts per level in height:	Sum parts per shelf:	Sum parts per cell:		
4	16	3.200	1.200	19	5	1	80	320		
4	13	3.200	1.200	16	5	3	195	780		

EXAMPLE CONFIGURATION FOR PARTS WITH: LENGTH 1,000 MM / WIDTH 600 MM / THICKNESS 19 MM (STORAGE NOT OPTIMISED)											
Shelf per cell	Shelf Number Shelf length (mm): per cell Levels corresponds to max. part length		Shelf depth (mm): Usable stacking corresponds to height per level max. part width (mm):		Parts per level in length:	Parts per level in height:	Sum parts per shelf:	Sum parts per cell:			
4	16	3.200	1.200	19	3	1	48	192			
4	13	3.200	1.200	16	3	3	117	468			

EXAMPLE CONFIGURATION FOR PARTS WITH: LENGTH 2,800 MM / WIDTH 1.00 MM / THICKNESS 19 MM											
Shelf per cell	Number Levels	Shelf length (mm): corresponds to max. part length	Regaltiefe (mm): entspricht max. Teilebreite	Usable stacking height per level (mm):	Parts per level in length:	Parts per level in height:	Sum parts per shelf:	Sum parts per cell:			
4	16	3.200	1.200	19	1	1	16	64			
4	13	3.200	1.200	16	1	3	39	156			





To increase the storage capacity by using the full shelf depth, parts with a corresponding length/width ratio are not stored crosswise but lengthwise, i.e. with the short side leading, in the racks. See graphic on the left. The orientation of the parts during storage and retrieval does not change.







5

• 2 different types possible (single part access with 16 shelves or for package formation with 13 shelves per rack)



Direct access to each workpiece - fully automatic.

Robots are the crucial key to higher productivity and more efficiency. They improve the quality of the products and reduce the use of expensive material and scarce energy resources. The keyword is "direct access to each workpiece, and that fully automated".

"In principle, every customer has to sort his workpieces. By using the cell he can do that automatically and feed workpieces in optimum order to his material flow. Or he will use the cell as central workpiece storage out of which panels are fed to the individual processing stations."

Christian Heißler - Technology consultant, HOMAG Group



Reliable Workpiece Flow - Robotics Solution by HOMAG High repeat accuracy and availability makes a robot the central element of a sorting cell and enables production processes able to schedule.

- Direct access to each component allows high system speed
- Vertical storage of dowelled parts possible
- Shelving designs adapted to customer requirements
- Narrow parts handling possible on separate racks installed on the floor

With a robot as central element, the sorting cell can create a maximum storage volume in smallest space. The robot sorts the workpieces flexibly into the different compartments, and thus enables a variable access to parts for the whole production.





SORTBOT

SHELF TYPE A - TYPE H, SPACES 1 - 16												
Shelf	Levels	Sheds	Workpiece dimensions			Shelf	Levels	Sheds	W	orkpiece dimen	sions	
			length (mm)	width (mm)	thickness (mm)				length (mm)	width (mm)	thickness (mm)	
Туре А	1	1 × 16	240 - 2,800	240 - 1,000	16 - 19	Type E	1	1 × 14	240 - 2,800	240 - 1,000	19 - 25	
Туре В	2	2 × 16	240 - 1,400	240 - 1,000	16 - 19	Type F	2	2 × 14	240 - 1,400	240 - 1,000	19 - 25	
Type C	3	3 × 16	240 - 800	240 - 1,000	16 - 19	Type G	3	3 × 14	240 - 800	240 - 1,000	19 - 25	
Type D	2	1 × 16 1 × 16	240 - 900 240 - 2,800	240 - 1,000	16 - 19	Туре Н	2	2 × 14	240 - 900 240 - 2,800	240 - 1,000	19 - 25	

SHELF TYPE FOR NARROW PARTS, TYPE I - TYPE N, SPACES FOR NARROW PARTS												
Shelf	Levels	Sheds	Workpiece dimensions			Shelf	Levels	Sheds	Workpiece dimensions			
			length (mm)	width (mm)	thickness (mm)				length (mm)	width (mm)	thickness (mm)	
Type I	1	1 × 15	240 - 600	100 - 240	16 - 19	Type L	1	1 × 15	240 - 600	100 - 240	19 - 25	
Type J	1	1 × 10	240 - 950	100 - 240	16 - 19	Туре М	1	1 × 10	240 - 950	100 - 240	19 - 25	
Туре К	1	1 × 11	240 - 1,600	100 - 240	16 - 19	Type N	1	1 × 11	240 - 1,600	100 - 240	19 - 25	

Combinations shelf type for narrow parts, type I - type N

	Variant 1	Variant 2	Variant 3	Variant 4	Variant 5	Variant 6	Variant 7	Variant 8
Space S1 - S4	1 x Type K	2 x Type I	2 x Type J	1 x Type N	2 x Type L	2 x Type M	1 x Type I + 1 x Type J	1 x Type L + 1 x Type M
Space S5 - S10	1 x Type I	1 x Type J	1 x Type L	1 x Type M				

D, H



1 Shelves • Up to 16 shelves in a circle

arrangement possible

2 Shelf for narrow parts (optionally)

3

- Shelf combinations S1 S10
- to pick up narrow parts up to a width of 240 mm

3 Infeed transport

- 4 Workpiece measurement • Bar code reader (optionally)









HOMAG Group AG info@homag.com www.homag.com

YOUR SOLUTION