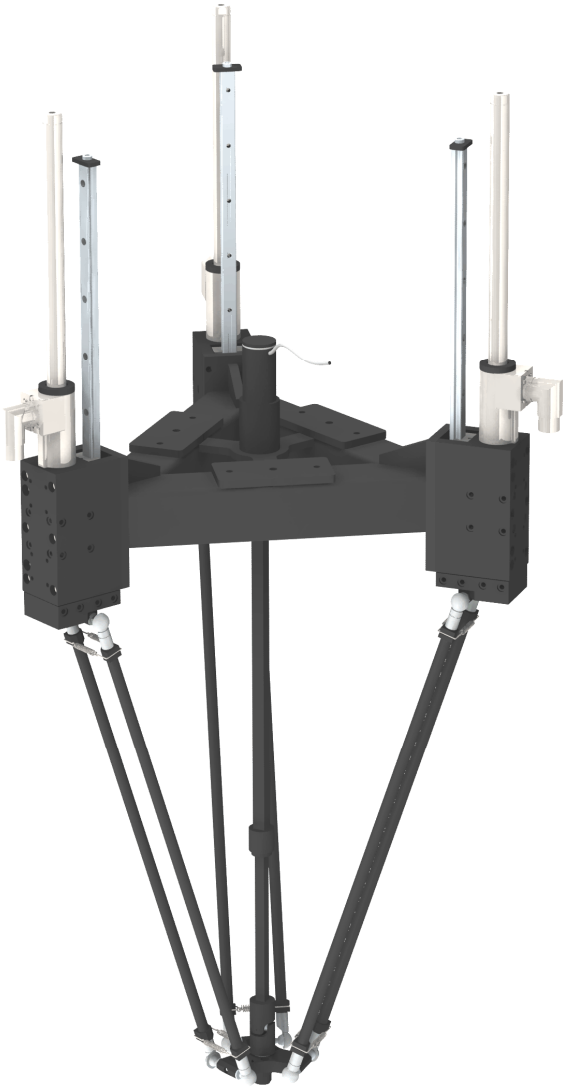
JUNG ANTRIEBSTECHNIK U. AUTOMATION GMBH

# ParaPicker® Industrial Robots



**Applications**

- Palettizing
- Packaging
- Grouping
- Sorting
- Varnishing
- Mounting
- Glueing
- Controlling
- Feeding
- Tooling

- four-axis parallel kinematics robot
- highest dynamic with linear direct drives
- rotation axis integrated
- excellent for high-dynamic positioning tasks
- freely positionable in work space

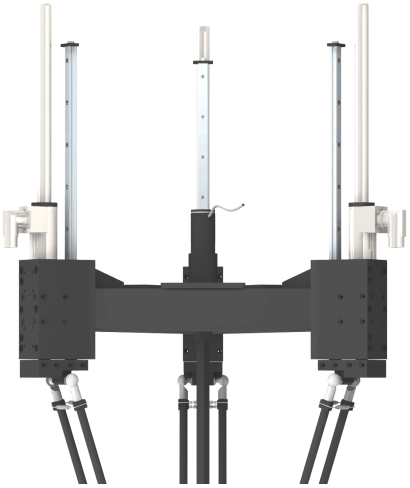
**Linear direct drive technology!**

# ParaPicker® Industrial Robot Overview

*ParaPicker*® are 4-axis parallel kinematic robots with three actuator arms and one rotational axis.
The actuators consist of *HighDynamic*® linear guides, which are driven by linear direct drives. The use of standard linear drive and guide components produces a, for motion technology, very cost-effective and comprehensive package. *ParaPicker*® robots are characterized by highest flexibility and high-dynamic performances at extreme low costs.
*ParaPicker*® stands for the parallel mounting of the three actuators.

## Integrated Motion Profiles

- Straight line
- Pick
- Arc
- Curve in space
- Spiral
- Helix



*ParaPicker*® actuators with linear direct drives

Due to the parallel and vertical arrangement of the three actuators, reaction forces, caused by the moving masses of the drives, are vertically discharged into the production floor. The result is an extremely high stability. Furthermore, only a small work surface is needed.

Because of an optimized construction, the TCP (tool center point) has a very low moving mass and high stiffness. A high-dynamic rotating axis is available optionally.
Pneumatic, as well as electric grippers can be used for work piece handling. Carring units are prepared for the energy supply of the grippers.

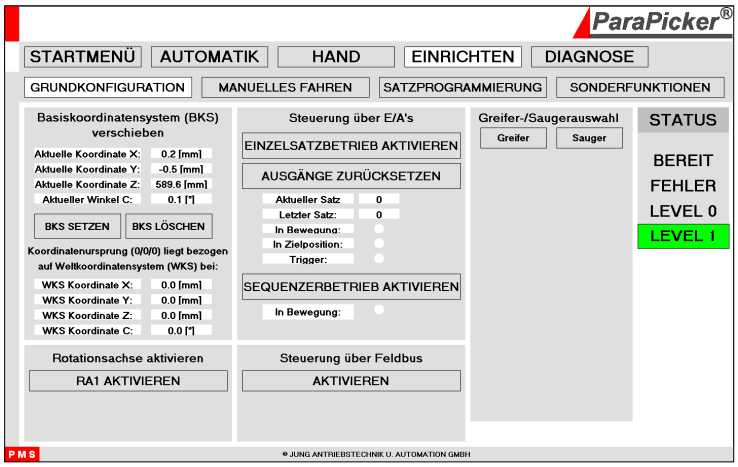
*ParaPicker*® TCP detail with rotational-axis

| **ParaPicker® data overview** | max. work area [mm] | max. stroke in Z-dir. [mm] | peak force in Z-dir. [N] | max. force in X- & Y-dir. [N] | typ. trajectory speed [m/s] | typ. trajectory accel. [m/s²] | typ. load [kg] |
|---|---|---|---|---|---|---|---|
| PP03-23 | Ø300 | 260 | 100 | 100 | 3,0 | 50 | 0,25 |
| PP03-37 | Ø600 | 280 | 200 | 200 | 3,0 | 50 | 1,0 |
| PP03-48 | On demand! | | | | | | |

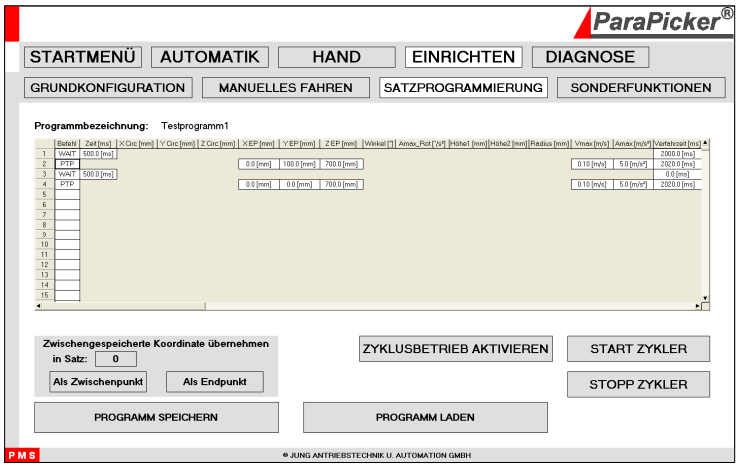
Technical details on demand!
Technical changes reserved!

# ParaPicker® Control

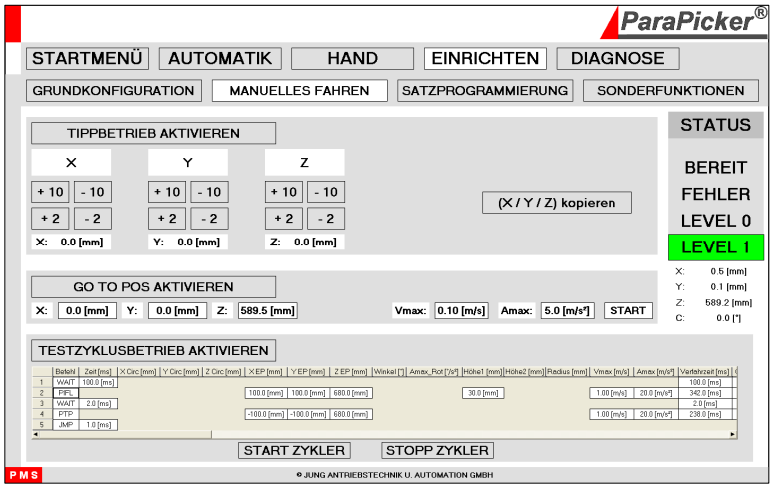
The *ParaPicker*® robot control is PC based and housed in a 19" rack-system. Through the use of standard industrial components, the whole system is very flexible with high performance, yet it is very cost-efficient. Current fieldbus interfaces, parallel I/O's and camera interfaces enable the connection to higher control systems. A safety circuit is integrated into the control, as well, which enables stand-alone robot applications, with human safety functions.


The *ParaPicker*® motion software PMS provides users with an efficient tool to set up the control to the process environments. A user-friendly interface gives the option to choose between the modes "automatic", "manual", "set-up" and "diagnose". The menu point "basic configuration" offers the option to parameterize the coordinate system, as well as the interface to higher controls or processes and the selection of grippers and suction systems. The automatic mode is step-oriented. A maximum of 256 positioning sets can be saved remanently and can be executed by I/O's or fieldbus interfaces. Common motion types for robots are implemented by default. The diagnose mode is an efficient tool for users.




The two functions "Jog" and "Test" are supported in the set-up mode.
The customer is able to evaluate the cycle-time in the test mode by operating the robot in a continuously running two-position mode.
Particularly in this mode the thermal operation limits of the robot can be evaluated easily



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***ParaPicker*® robot is available from our sytem partner and system integrator inotec AP GmbH**

inotec Automation & Prüftechnik

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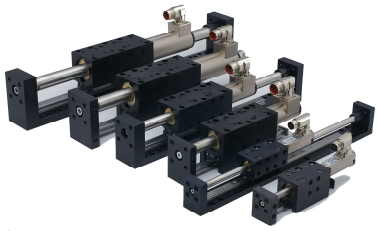
**Linear Motor Systems from a single source!**



Direct Drive Technology

Robot Controls

Vision Inspection Systems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