

Product



Repositioning and turning in confined spaces

Product Features

Unique selling points:

- ü Highly flexible actuation
- ü Intelligent valve box enables plug & play
- ü Transferring and turning in a single unit: alternative to a typical pick & place unit with simultaneous rotation of the workpiece (see motion sequence on page 2), i.e. if the rotary loader is used, there is no need for an additional rotary unit for turning the workpiece
- ü Very compact design. The radius of the mounting surface is 42 mm, allowing it to be implemented in the tightest space and turn

Further product features:

- ü Rigid design
- ü Short cycle times
- ü Can only be implemented by actuating two waiting positions
- ü Smooth movements without interruptions makes it exceptionally quiet and fast running
- ü Compact design – easy assembly

Market and Competitors

Key Competitors

- ü Unimec (CH)

2 sizes

Designation BP 66 & BP 100



Vertikal-Hub (mm)	0 - 15 0 - 30 0 - 45
Drehwinkel (°)	0 - 90 20 - 120 80 - 180
Winkelgenauigkeit (°)	15
Last-Trägheitsmoment (kg.m ²)	0,008
Drehmoment (Nm)	0,6
Vertikal-Kraft (N)	150
Arbeitskadenz (C30)	siehe Diagramm
Betriebsdruck (bar)	3 - 6
Arbeitsposition	gleichgültig
Netto Gewicht (kg)	1,6 - 2,1

Difference to our modules

- max. picks per minute < 60 1/min
- Module has no damping in the vertical direction, runs to a fixed workpiece stop, therefore, very loud!!!

Here is the link to the homepage

<http://www.unimecsa.ch/default.asp?MenuID=4341&PageID=2749>

Cost-effectiveness / Customer Benefits

Maximum productivity due to the shorter cycle times, and maximum strength.

- ü Higher clock speeds lead to lower cycle times and significantly greater productivity
- ü Highly flexible actuation can thus be stopped directly above the pick or place positions in order to travel out of the machining area. This results in greater overall process reliability.
- ü Swivel stroke can be adjusted by $\pm 2^\circ$ on each side, making it possible to compensate for tolerances in the pick and place positions.
- ü Vertical stroke can be independently adjusted by 10 mm on each side, making various pick and place positions possible.
- ü Fully integrated in the assembly automation modular system, resulting in maximum flexibility/modularity.
- ü

Questions about the product? Your contact person in Product Management, Automation, is J. Khoury (+49 - 7133 - 103 - 2667)

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Technical Data / Functions

Technical data

Rotating angle: optionally 90° or 180°
 Rotating angle adjustment per end position: $\pm 2^\circ$
 Vertical stroke: 33 mm, of which 18 mm is linear
 Vertical stroke adjustment per end position: 10 mm
 Vertical stroke difference: max. 10 mm
 Operating pressure: 6 bar
 Torque: 2.26 Nm (6 bar)
 Piston force: 245 N (6 bar)
 Max. mass moment of inertia: 0.008 kgm^2 (see diagram)
 Can be actuated to 2 wait positions

Function

The movements of a vertical cylinder and a rotary drive are positively driven in a curve via cam roller. Therefore, the cylinders can be switched earlier than with conventional stroke rotary actuators. This allows a cycle time of up to 90 cycles/min. (for min. load and 180° rotating angle, pure swiveling time without reduced gripping times etc.).

Complementary products:

- ü Valves
- ü SCHUNK Grippers

Industries and Applications

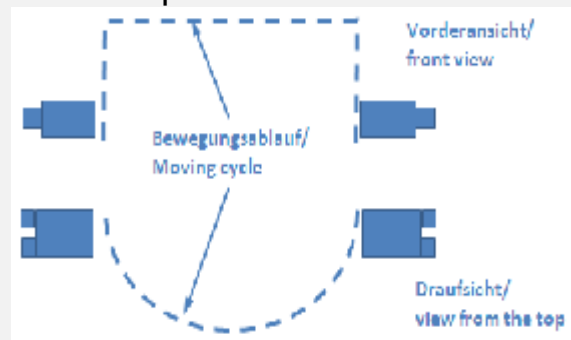
DRL convinces in the following industries:

- ü Electronics assembly
- ü Automated assembly and Handling
- ü Household goods/ sports equipment
- ü Medical/surgical equipment

Applications

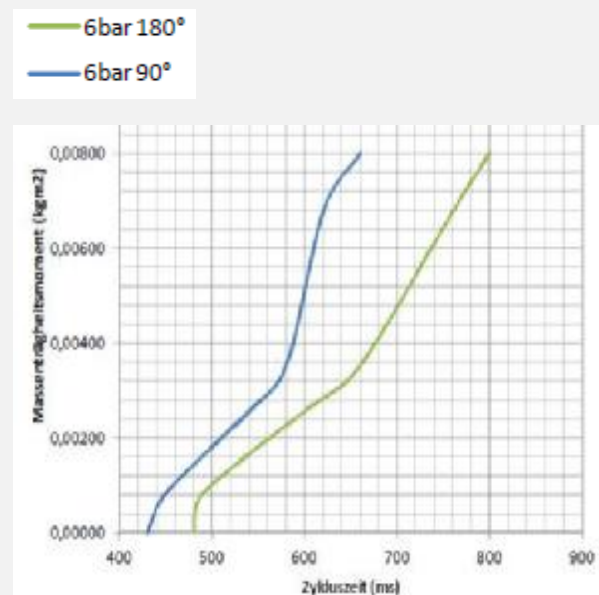
- ü Assembly of electrical connector
- ü Printed circuit board assembly
- ü Assembly of cannulas
- ü Assembly of ABS valves
- ü Assembly of safety switches

Motion sequence of the DRL



Additional Information

Load diagram



Cross Section



1. Housing
2. Rotary drive
3. Vertical drive
4. End position dampening
5. Cam roller
6. Assembly connection

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