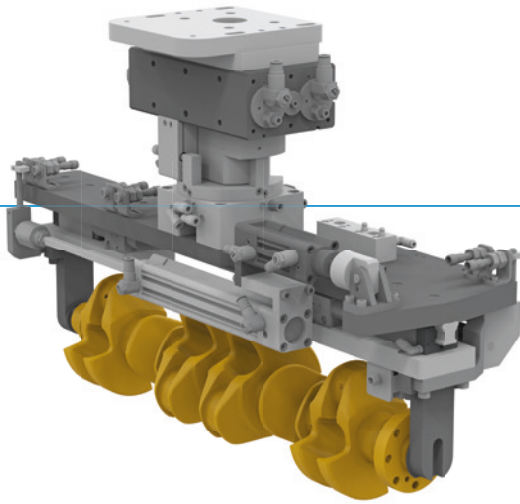


HANDLING SYSTEM FOR CRANKSHAFTS

Z01SYS114158

▶ PRODUCT INFORMATION



- ▶ The handling system is used for loading and unloading machining centers within a production line for 4 and 6-cylinder crankshafts. In the final operations, the crankshafts are only gripped on the front side in order to avoid damage to the finished bearings.

▶ CHALLENGE

- ▶ Large differences in the lengths of the individual shaft types
- ▶ Approach from various positions
- ▶ Flange side as the reference point for all lengths
- ▶ Rotation of shafts by 90°
- ▶ Optimized media routing

▶ SOLUTION

- ▶ 2-stage closing stroke (small and large workpiece length)
- ▶ Dominant force stroke for a uniform reference point
- ▶ Pneumatic swivel unit with rotary distributor
- ▶ Securing of the gripper position by clamping

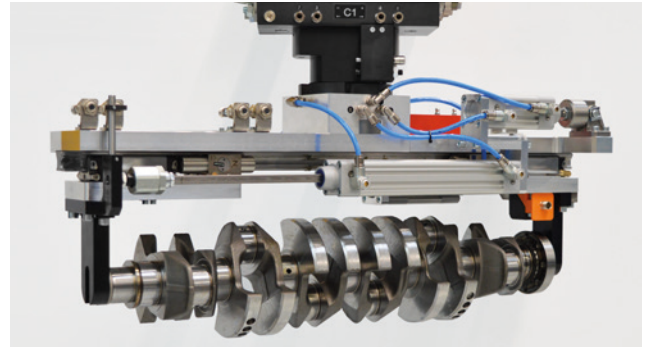
▶ WORKPIECE

- ▶ Up to 30 kg workpiece weights
- ▶ Workpiece lengths from 475 mm to 660 mm

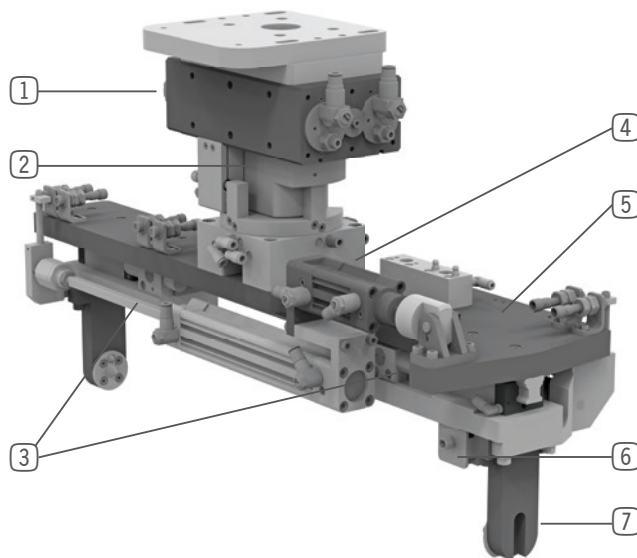


▶ TECHNICAL DATA

Product	Crankshaft
Gripping technology	Form fit
Workpiece weight [kg]	25
System weight [kg]	36
Drive type	Pneumatic



▶ FUNCTIONS IN DETAIL



- ① Standard 90° swivel unit with end position sensing and damping
- ② 8-way pneumatic rotary distributor
- ③ 2-way integrated clamping element
- ④ Cylinder for inside micrometer adjustment and free stroke
- ⑤ Cylinder for dominant stroke
- ⑥ Inductive workpiece presence sensing
- ⑦ Jaw set made of hardened steel

▶ MORE INFORMATION/CROSS REFERENCES

▶ Crankshaft (front side)
01SYS001801-02

▶ Crankshaft (front side)
01SYS002129-01

▶ Crankshaft (diameter)
01SYS000864-13

