

Product



Unique Selling Points

- ✓ **TENDO Zero is a hydraulic expansion toolholder with adjustable run-out accuracy and is therefore a compensation chuck.**
- ✓ Length adjustment not possible (restricted).
- ✓ **Durable true running and repeat accuracy < 3 µm**
- ✓ **Minimizes tool breakouts due to outstanding vibration damping**
- ✓ Tools are changed within seconds, without peripheral equipment à low set-up time
- ✓ Versatile clamping range due to individual intermediate sleeves
- ✓ All commercially available shank types can also be clamped without intermediate sleeves, e.g. Weldon
- ✓ SCHUNK service with performance check - Extension of service life by means of lowpriced repairs
- ✓ TENDO compensation chuck
- ✓ Can be adjusted to 0 µm run-out accuracy

Message

In 90 seconds to 0 µm.

Technical Data / Functions

Part no.	Interface	Clamping D
0204056Z	HSK-A63	20
0204266Z	SK 40	20
0204445Z	BT 40	20
0204246Z	SK 50	20

Cost Effectiveness/ Customer Benefits

- ✓ Exact setting of the run-out accuracy ensures that all blades are evenly engaged.
- ✓ Typical TENDO advantages, such as vibration damping and built-in excellent run-out accuracy.
- ✓ Intermediate sleeves can be used.
- ✓ Good surface quality, minimization of vibrations.
- ✓ Process reliability
- ✓ Tool protection → Lower costs, protects the machine spindle

Price

Prices are 99 euros higher than the standard TENDOS

Questions about the product? Your contact person is Dieter Gielen (+49 - 7133 - 103 - 2462)



Market and competitors	
SIGMA	✓ "ARF" adjustable ER collet chuck ✓ "ARF" adjustable hydraulic expansion tool-holder (base chuck from SCHUNK) ✓ "ARF" adjustable shrink holder → All three with compensation radius
KOMET	✓ DIHART compensation chuck made by SCHUNK, but due to patents only sold by KOMET. Different technology to TENDO Zero: with compensation radius. Basically, TENDO Zero technology is more precise. ✓ List price at KOMET: approx. €727
NIKKEN	✓ ZERO FIT compensation chuck with collet ✓ Adjustable to 2-3 µm
EROGLU	✓ MicroMec ARF compensation chuck with ER collet ✓ Adjustable to 1-2 µm

Line of Argument
✓ Adjustability is achieved via 4 lateral setscrews, which press directly on the tool shank. The flexibility of the expansion chamber changes the axial position of the tool. ✓ This technology thus permits concentricity errors of tool holders to be compensated and the run-out accuracy to be set to 0 µm.

Industries and Applications	
The adjustability of the run-out accuracy is of particular interest for reaming applications, as these demand very precise and good surfaces. The reamed surface suffers from poor run-out accuracy and the necessary fitting tolerance is difficult or impossible to achieve.	
Applications	Final products
✓ Reaming applications	✓ Pumps ✓ Motor blocks ✓ Cylinder blocks ✓ Transmission casings ✓ ABS systems
✓ Precise pinholes	✓ Molds ✓ Tools ✓ Devices

✓ The SCHUNK production facility in Lauffen employs TENDO Zero above all when long tools are used. ✓ This is the case, when a tool, from which a high level of precision is expected, is inserted into a tool extension. These include, for example, mills, reamers, and solid carbide drills. ✓ Thanks to the toolholder's 0.000 mm true running accuracy, the precision specifications of tools can be sustained 100 % and the special hydraulic expansion toolholders can be used for the required applications.	
---	---

Questions about the product? Your contact person is Dieter Gielen (+49 - 7133 - 103 - 2462)

