

Machine tooling technology

Zero point clamping system SPN

THE KNOW-HOW FACTORY

ORDER INFORMATION

ZERO POINT CLAMPING SYSTEM SPN

STRUCTURE OF THE ORDER NUMBER

ORDER NUMBER SAMPLE

SP N 07 - 110 - 03 - A - 00

▶ Clamping system

▶ Characteristics

N Zero point clamping system

▶ Pull-in force

in kN

▶ Size

Diameter [mm]

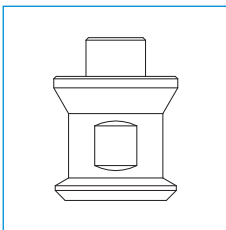
▶ Numeration variant

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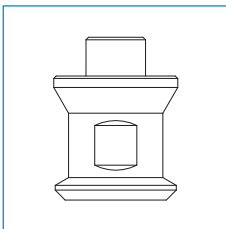
▶ Special variant

▶ ACCESSORIES



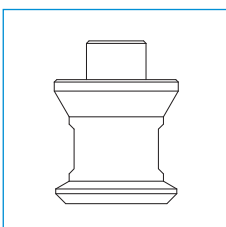
▶ **Centering bolts:**

same diameter as bore of zero point system
- Positioning in **X, Y, and Z axis**



▶ **Clamping bolts:**

smaller diameter than the bore of SPN
- Positioning in **Z-axis**



▶ **Diamond shape bolts:**

nearly same diameter as bore of SPN.
- Prevents rotation around the **Z-axis**

Increased Productivity

By automating processes the Zimmer zero point clamping system dramatically increases productivity of processes that required precision. Machine set-up times are reduced by up to 92%, and cleaning and maintenance of the system is minimal. The option to link processes, one after the other, in a single workpiece clamping system, in various machining cells and equipped with identical clamping system geometries, allows previously unrealized synergies. The workpiece carrier with the Zimmer zero point clamping system accompanies the workpiece all the way through the production process, thus ensuring the ultimate in precision and cost efficiency.

WITHOUT ZERO POINT SYSTEM



WITH ZERO POINT SYSTEM



Highest repeatability and precision

The Zimmer zero point clamping system offers due to its market approved construction a repeating accuracy of 0,005mm. By its high pull-in force and the consequent use of hardened tool steel a highly precise and torsion resistant base stabilizes fragile and vibration susceptible workpieces in addition.

Improved process safety

The zero point clamping system eliminates mistakes during milling, lathing, wire and sinker EDM, flat and cylindrical grinding, drilling, laser cutting and measuring. The maintenance free construction also contributes to the unmatched process safety of the system.

Exactly the right system for your production

An optional available air-flow system provides an integrated contact monitoring and cleaning function. The pin receivers opens only when a component is drawn in and closes automatically during decoupling again. Thus the Zimmer zero point clamping system represents the maximum in terms of freedom from maintenance and insensitivity to contamination. The zero point clamping system offers the option of fully automated or partly automated loading and unloading of manufacturing cells. So the system contributes significantly to the reduction of process times.

ZIMMER GROUP

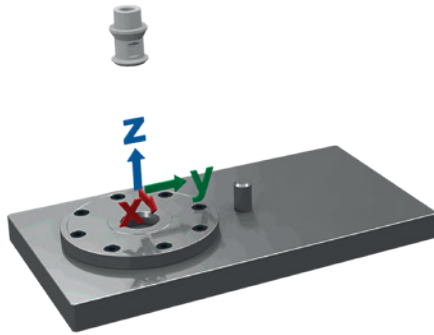
ZERO POINT CLAMPING SYSTEM SPN

IN A PRODUCTION ENVIRONMENT THAT IS DRIVEN BY THE DEMAND THAT PROCESSES BECOMING MORE AND MORE EFFICIENT, THE CONVENTIONAL PRECISE AND REPEATABLE WORKPIECE CLAMPING IS A COSTLY AND TIME CONSUMING FACTOR.

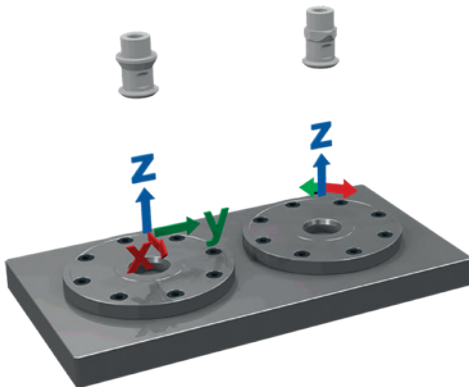
The Zimmer zero point clamping system offers the ideal solution for a precise and efficient retooling of workpieces, clamping systems and fixtures in modern processing machines.

It optimizes the utilization of the available machine capacity by reducing the set-up time and therefore it is the ideal solution for all production and measuring processes with the demand of highest efficiency and precision. The Zimmer zero point clamping system guarantees by its modular construction the best performance for all present and future applications.

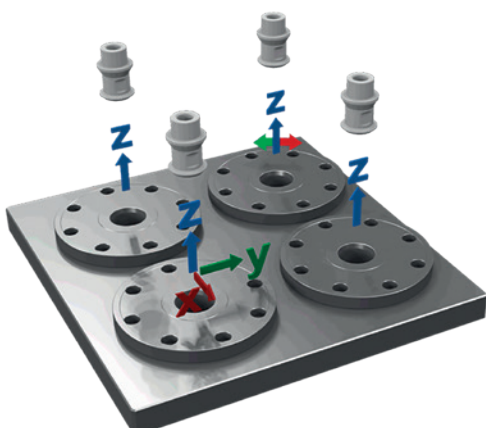
► CONFIGURATIONS



Configuration with one zero-point-clamping system plus external orientation bolt



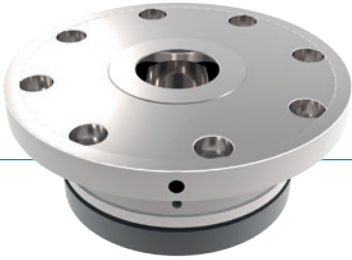
Configuration with two zero-point-clamping systems



Configuration with four or more zero-point-clamping systems

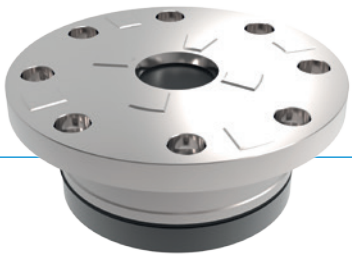
SERIES SPN07-110

► SIZE SPN07-110



- Pre-positioning 24mm before reaching end position
- Automatic centering and pull-in already 2mm before reaching end position
- Resistant against contamination (patent sealing piston)
- Mechanical locked in clamping position
- Low operating pressure of 6bar
- Maintenance free

► SPN07-110 WITH CONTACT MONITORING

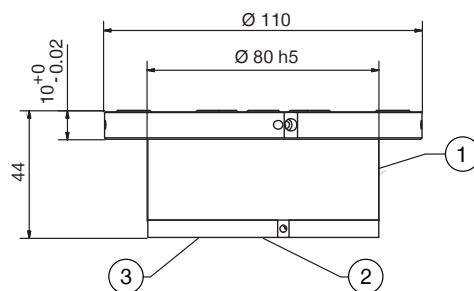
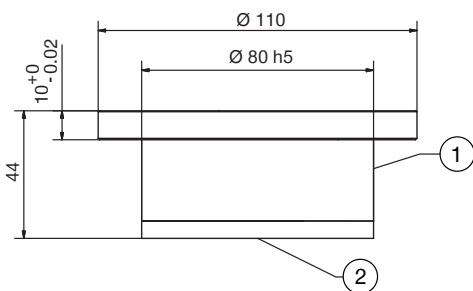


- Integrated contact monitoring & Cleaning of supporting area function
- Contact monitoring by flow meter or dynamic air speed indicator possible
- Mechanical locked in clamping position
- Resistant against contamination (patent sealing piston)
- Low operating pressure of 6bar
- Maintenance free

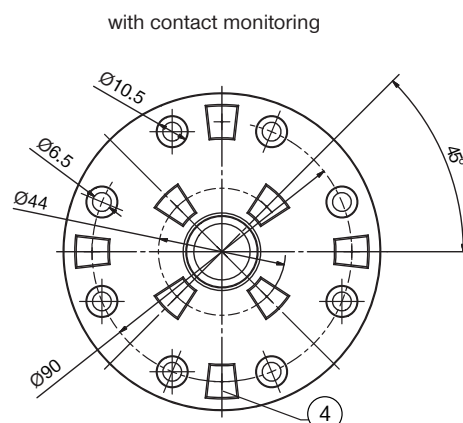
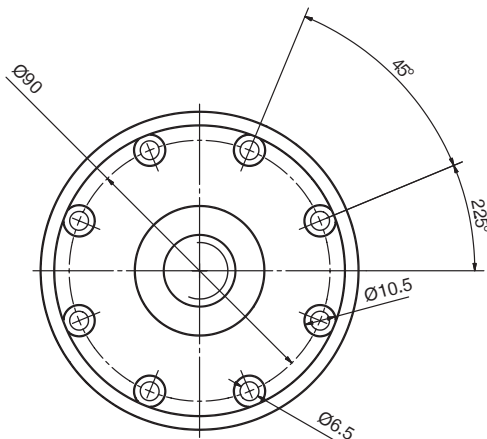
► Technical data

SPN07-110

Order No.	
Retraction force [KN]	7
Extraction force	breaking force M8 (12,9)
Repeatability [µm]	5
Operating pres. [bar]	6
Weight [kg]	1,5

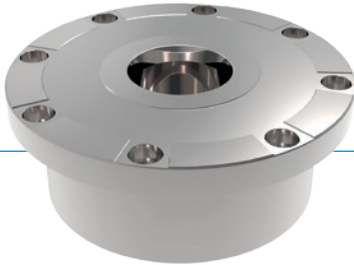


- ① Air connection side face
- ② Air connection G1/8"
- ③ Sensors (optional)
- ④ Contact monitoring



SERIES SPN30-195

▶ SPN30-195



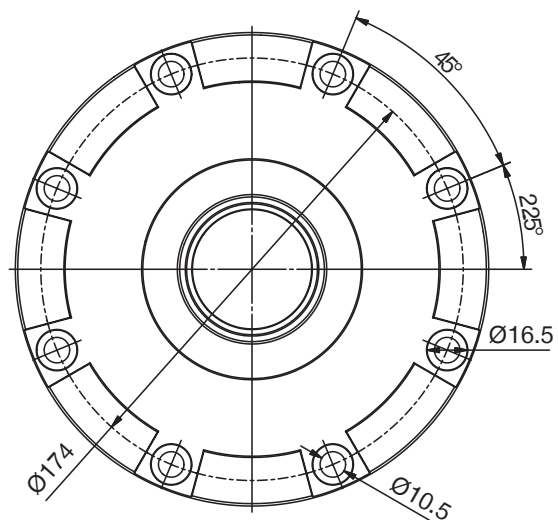
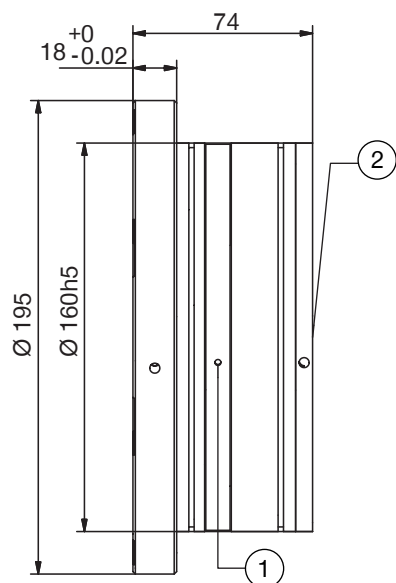
SPN30-195 is the ideal ZPS for your heavy duty machinery. It has been designed with the main focus on being immune against angel error while inserting of large-scale parts.

- ▶ Resistant against contamination (patent sealing piston)
- ▶ Pre-positioning 48mm before reaching end position
- ▶ Automatic centering and pull-in already 4mm before reaching end position
- ▶ Mechanical locked in clamping position
- ▶ No-sensitive against staining (patent sealing piston)
- ▶ Low operating pressure of 6bar
- ▶ Maintenance free

▶ Technical data

SPN30-195

Order No.	SPN30-195
Retraction force [kN]	30
Extraction force	breaking force M16 (12,9)
Repeatability [μm]	5
Operating pres. [bar]	6
Weight [kg]	9,75



① Air connection side face

② Air connection G1/8"