

## ZERO-POINT CLAMPING SYSTEMS

Coupling elements for clamping and at the same time centring jigs and fixtures, developed as a quick-change system for shortening set-up times.

- Referenced clamping of jigs and fixtures provided by repeatedly accurate placement at the „zero-point“.
- For machining workpieces in several working steps on different machines.

In addition to the maximum of flexibility zero-point clamping systems – be this hydraulic operation in a built-in version with integrated lifting of the jigs and fixtures or through a modular design – the way the system is designed (with the peg of the base element mounted pointing upwards and the connecting ring integrated on the jig) guarantees a high degree of production reliability, continuous accuracy, and soiling of the reference point is avoided.

### FEATURES

- Holding force of up to 30 kN.
- Mechanical, pneumatic and hydraulic operation.
- Also with locking device against twisting when using individual elements.
- High efficiency, repeatedly accurate and cost-saving.
- Can be used on all machinery.
- Can also be integrated in Halder jig and fixture systems.



Built-in double acting connecting elements  
Holding force of 30 kN

Built-in single acting connecting elements  
Holding force of 20 kN



Connecting rings suited for all zero-point clamping systems



Modular connecting elements  
Holding force up to 10 kN



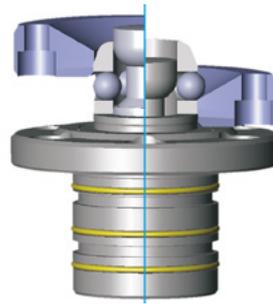
Control modules interchangeable



## ZERO-POINT CLAMPING SYSTEMS

### HYDRAULIC, DOUBLE ACTING, BUILT-IN CONNECTING ELEMENT HOLDING FORCE OF 30 kN

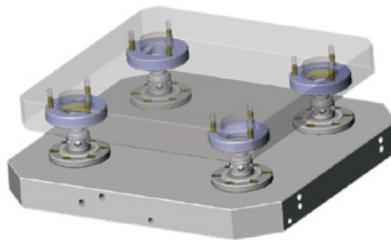
- Hydraulic clamping and centring.
- Releasing and lifting with integrated retraction cylinder, hydraulic.
- Suited for automation.
- Integrated pneumatic blow-out of the supporting surfaces.
- Pneumatic sensing check on the supporting surface during clamping.
- Can be integrated in base plates, angles, cubes, etc.



Functional Principle:  
clamp and lift-off

### HYDRAULIC, SINGLE-ACTING, BUILT-IN CONNECTING ELEMENT HOLDING FORCE OF 20 kN

- Clamping and centring by spring load.
- Releasing and lifting with integrated retraction cylinder, hydraulic.
- Suited for automation.
- Can be integrated in base plates, angles, cubes, etc.



Mounting principle

### MODULAR CONNECTING ELEMENT HOLDING FORCE OF UP TO 10 kN

- Clamping and centring by spring load.
- Release: mechanical, pneumatic, hydraulic. (Control modules interchangeable).
- Can be integrated in base plates, angles, cubes, etc.
- Provided with screw thread for bolting to tables, plates, etc.



Machine table:  
Base plate with 4  
connecting elements

## DESIGNS OF THE CONNECTING RINGS

The connecting rings are suited for all Halder zero-point clamping systems.

Can be bolted to and integrated on jigs and fixtures or directly on the workpiece.

The connecting rings are split into the following designs for positioning and simultaneous clamping of jigs and fixtures:

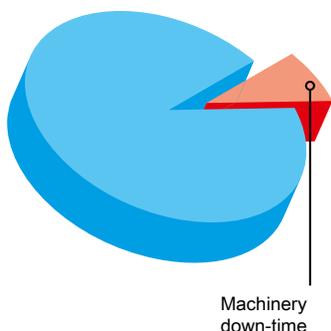
1. „Central“ connecting ring for aligning and clamping at the zero-point.
2. „Sword-shaped“ connecting ring for two-point placement for alignment in one axial direction.
3. „Floating“ connecting ring without centring function for over-determined additional clamping.

## TIME IS MONEY

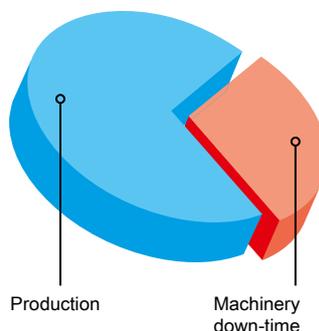
Halder zero-point clamping systems are a worthwhile investment that pay off within a very short period of time through simpler retooling procedures, less downtime for machinery and nearly unlimited flexibility. Make the comparison yourself as to the cost advantages obtained using Halder zero-point clamping systems.

### COMPARE PRODUCTION TIME / SET-UP TIME

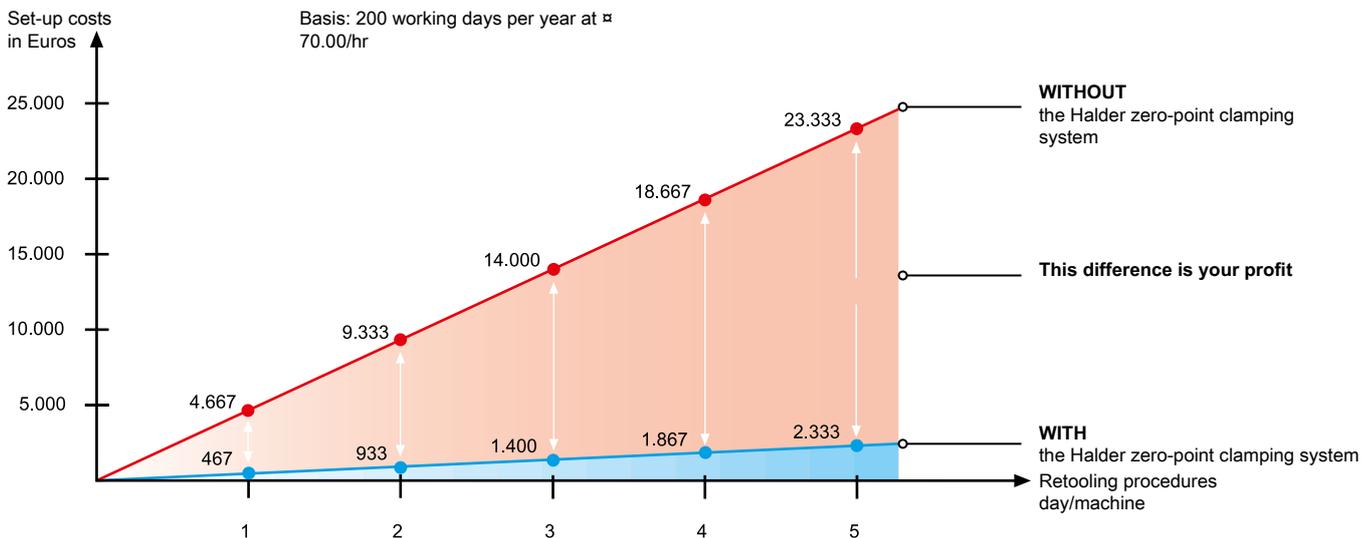
WITH the Halder zero-point clamping system



WITHOUT the Halder zero-point clamping system



### COST COMPARISON OF SET-UP COSTS WITH AND WITHOUT THE HALDER ZERO-POINT CLAMPING SYSTEM



### CALCULATION OF AMORTISATION TIME

#### Example

With five retooling procedures/shift/machine

Without the Halder zero-point clamping system: 5 x ~20 Min. = 100 Min.

With the Halder zero-point clamping system: 5 x ~2 Min. = 10 Min.

Saving/shift/net = 90 Min.

Saving/year/200 working days = 300 h

Cost advantage/year at € 70.00/hr = € 21.000.-

OVERVIEW

