

# TITAN125

flexible

Modular clamping and  
positioning system for milling  
machines and machine tool



**ALLMATIC** JAKOB  
Spannsysteme

# TITAN 125

**ALLMATIC**  
Spannsysteme **JAKOB**

## **Titan 125 – Everything under control**

The new Allmatic **TITAN 125** high pressure vice combines virtually all the features of our proven LC 125 and T-Rex XL NC designs.

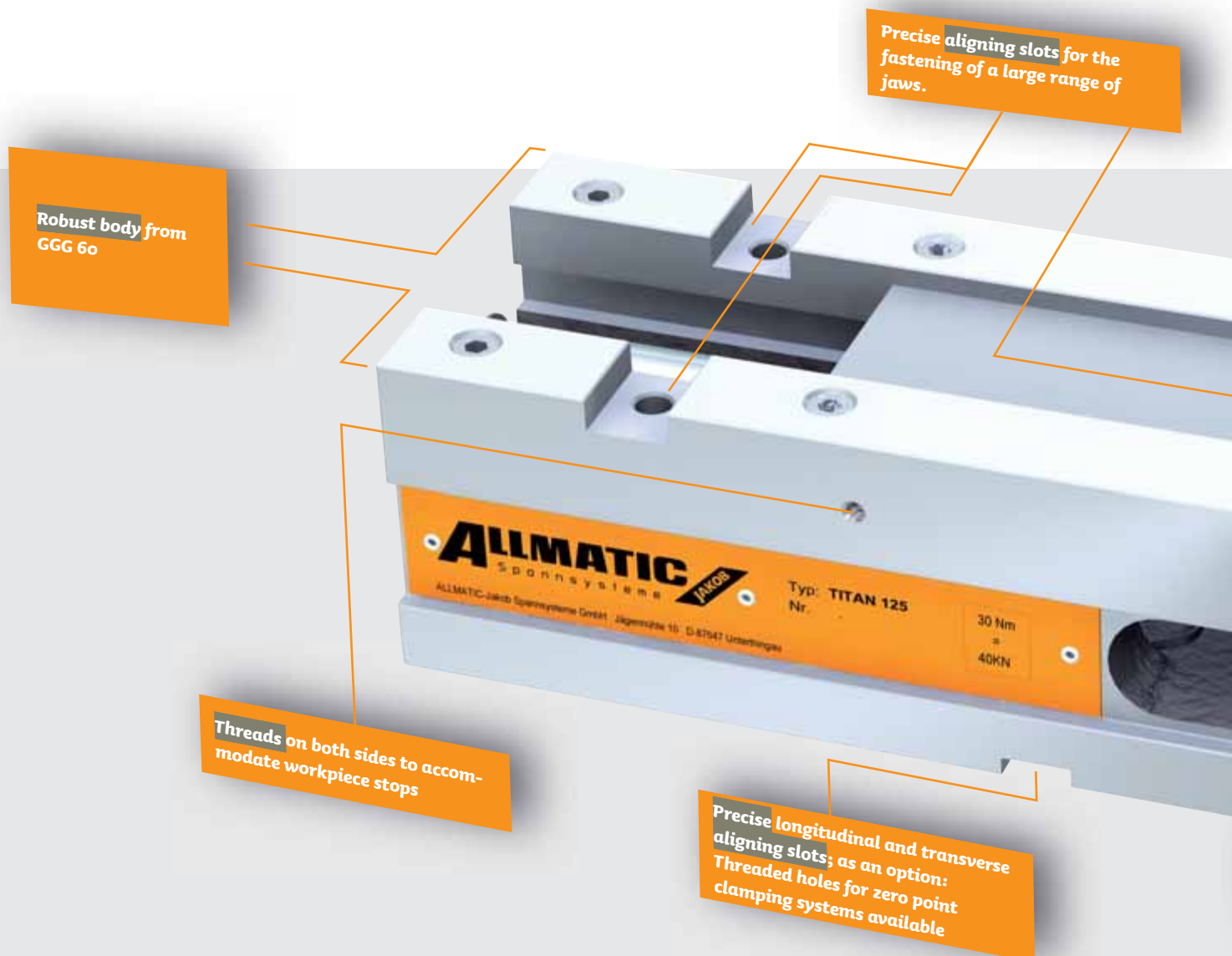
The vice has a robust GGG 60 base. Hardened and ground slideways give a high degree of precision and good wear resistance. Large lateral outlets allow chips and coolant to come out. Threads on both sides for the attachment of workpiece stops and precise aligning slots in the base ensure perfect handling.

The heart of the **TITAN 125** is its fully enclosed maintenance-free high pressure spindle which has stood the test for many years. It is equipped with a mechanical low-wear power intensifier. For clamping, a torque wrench adjustable from 6 – 30 Nm is used, so that even unfavourable clamping arrangements above the table can be handled.

## **A base to rely on**

**TITAN 125** offers outstanding flexibility. With ground step jaws, also available with a carbide coating, or the newly developed pull-down jaws, **TITAN 125** offers the precision it takes for the machining of your workpieces.

With a modular grip jaw system, all types of raw parts from flame cut to sawn items to complex cast parts can be safely and cost-effectively clamped.

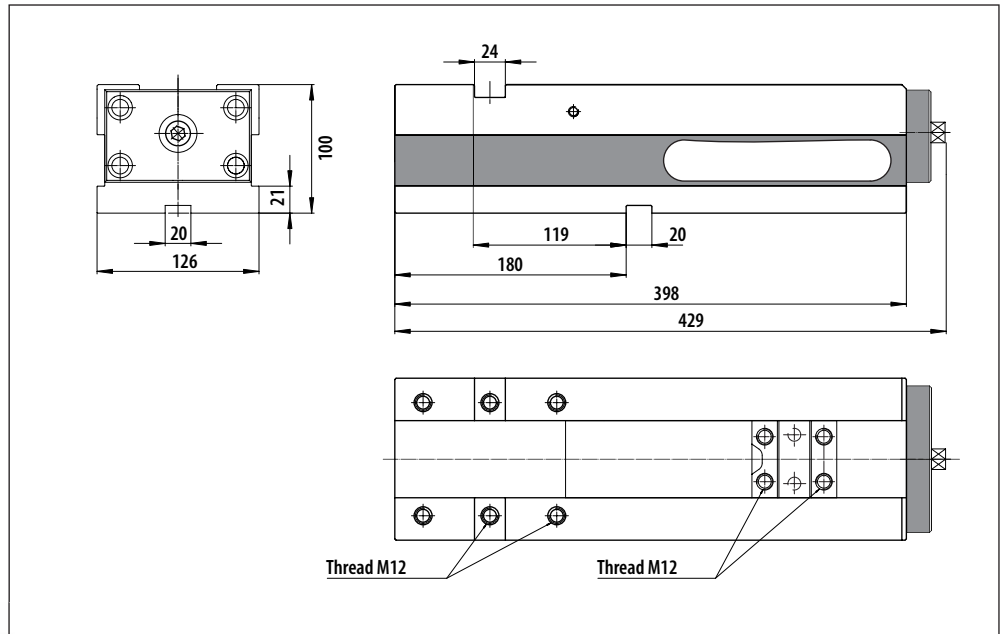


## Modular clamping and positioning system for milling machine and machine tool

### Part no. 2053/125

With standard accessories including:

- 1 torque wrench
- 1 set side clamps
- 3 socket screw wrenches  
(jaws to be ordered separately)

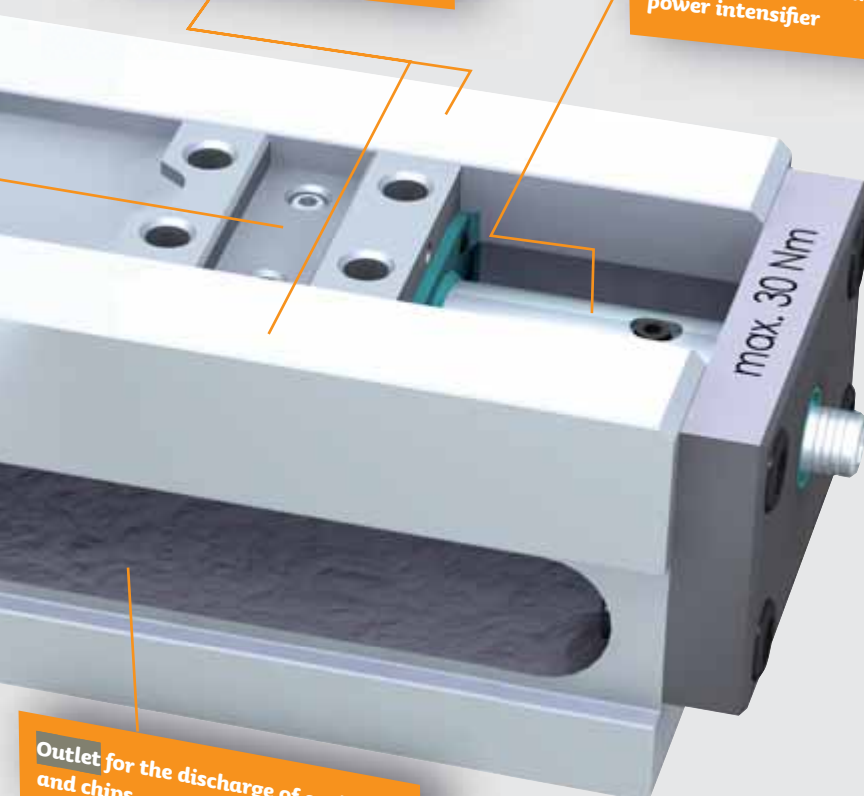


Hardened and ground workpiece support surfaces ensure high precision and optimum resistance to wear.

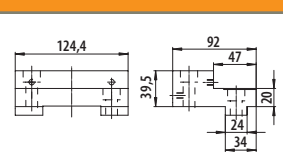
Fully enclosed, maintenance-free, low-wear high pressure spindle with special mechanical power intensifier

Convenient handling thanks to adjustable torque wrench or clamping against incorporated stop

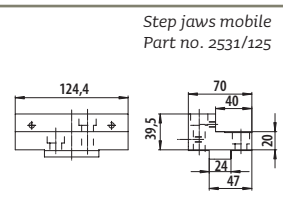
Outlet for the discharge of coolant and chips



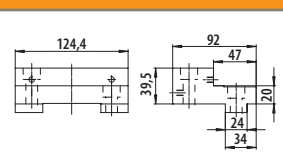
### For conventional workpiece clamping



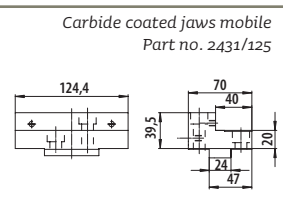
Step jaws fixed  
Part no. 2560/125



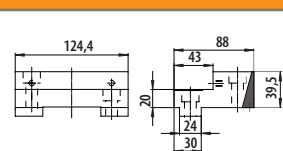
Step jaws mobile  
Part no. 2531/125



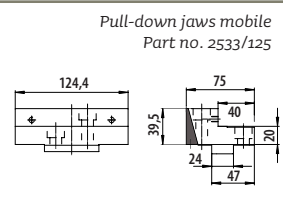
Carbide coated jaws fixed  
Part no. 2460/125



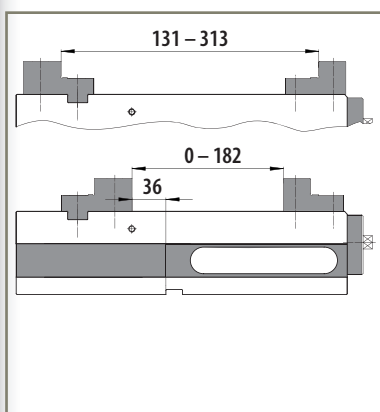
Carbide coated jaws mobile  
Part no. 2431/125



Pull-down jaws fixed  
Part no. 2563/125

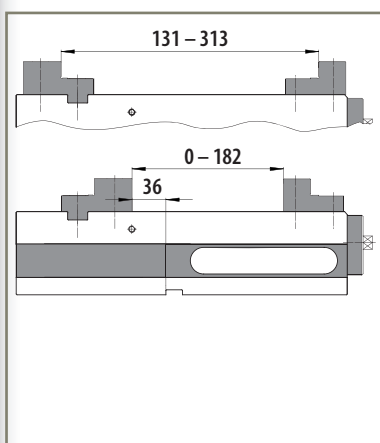


Pull-down jaws mobile  
Part no. 2533/125



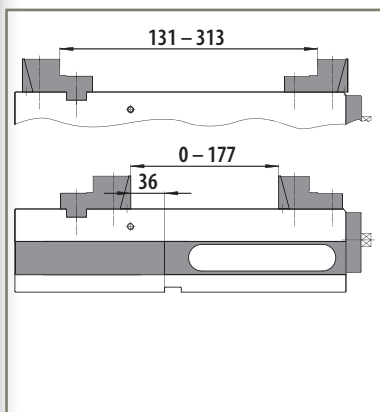
#### Step jaws

- ◇ hardened and ground
- ◇ with M6 + M10 threads for parallels and quick change jaws
- ◇ with Click quick change system for Click parallels



#### Carbide coated jaws

- ◇ extremely wear-resistant (80HRC) carbide coating of the clamping surfaces to increase the holding force by approx. 80 %
- ◇ benefits for high machining performance or reduction of clamping force for delicate workpieces

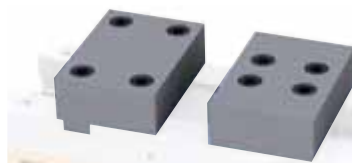


#### Pull-down jaws

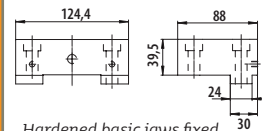
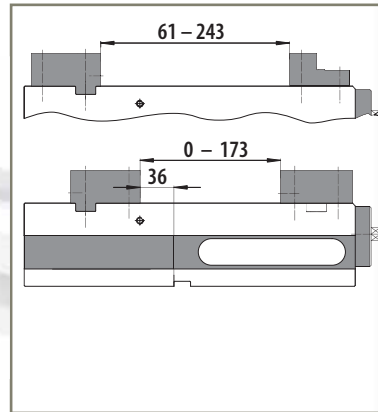
- ◇ maximum precision as the workpiece is pulled onto the support surface
- ◇ with Click quick change system for Click parallels



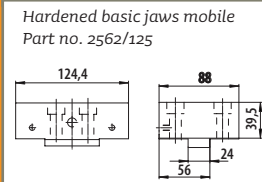
### Hardened basic jaws



- ◇ hardened and ground
- ◇ increased clamping range on the high side
- ◇ with M6 + M10 threads for parallels and quick change jaws
- ◇ with Click quick change system for Click parallels



Hardened basic jaws fixed  
Part no. 2561/125

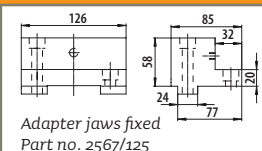
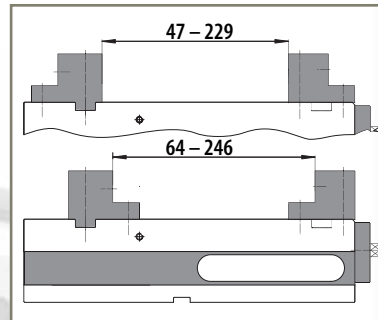


Hardened basic jaws mobile  
Part no. 2562/125

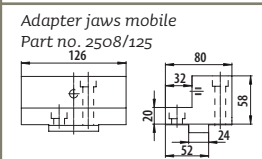
### Adapter jaws



- ◇ quenched and tempered
- ◇ M10 on the step side to accommodate insert jaw



Adapter jaws fixed  
Part no. 2567/125

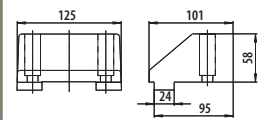
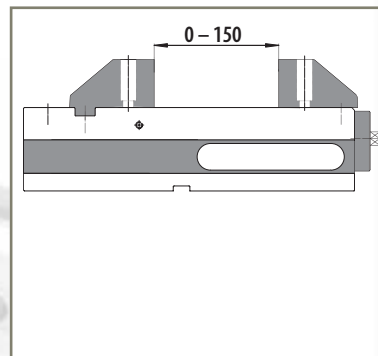


Adapter jaws mobile  
Part no. 2508/125

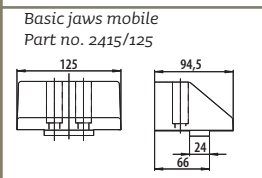
### Basic jaws



- ◇ for preparation of special jaws by the customer
- ◇ chamfered to give good access to the workpiece
- ◇ material GGG 40



Basic jaws fixed  
Part no. 2414/125

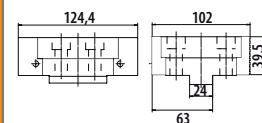
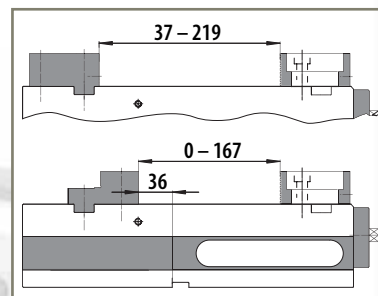


Basic jaws mobile  
Part no. 2415/125

### Pivot jaws



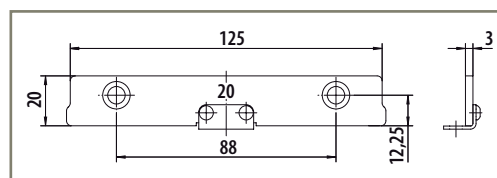
- ◇ rotatable by 360° to allow for clamping surfaces which are not parallel
- ◇ with M6 threads for parallels
- ◇ reverse side serrated



Pivot jaws  
Part no. 2511/125

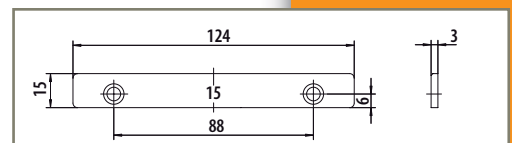
### Parallels

- ◇ can be screw-fastened or clicked on the high side
- ◇ can be screw-fastened on the step side
- ◇ for parallel lifting of the workpiece



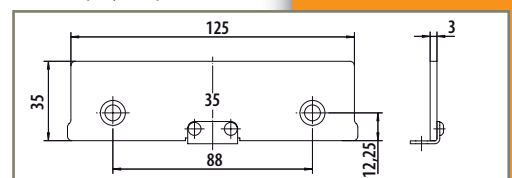
Parallels (high side)

Part no. 3551/125



Parallels (step side)

Part no. 2552/125



Parallels (high side)

Part no. 3550/125



# Grip jaws

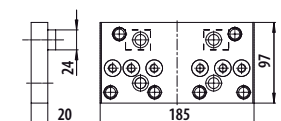
## TITAN125

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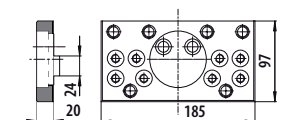
### for clamping of complex workpieces

#### Basic jaws for grip clamping

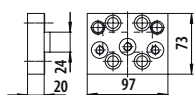
- ◇ Basic jaws serve to accommodate various grip studs
- ◇ Grip studs can be screw-fastened according to a hole pattern for safely clamping various workpiece geometries
- ◇ Movable pivot basic jaws serve to allow for clamping surfaces which are not parallel and are required to clamp uneven workpieces
- ◇ Movable rigid basic jaws are intended to clamp oversize workpieces at various clamping points or in a three-point clamping set-up
- ◇ The front sides of all basic jaws are ground and are therefore suitable for the machining of semi-finished workpieces



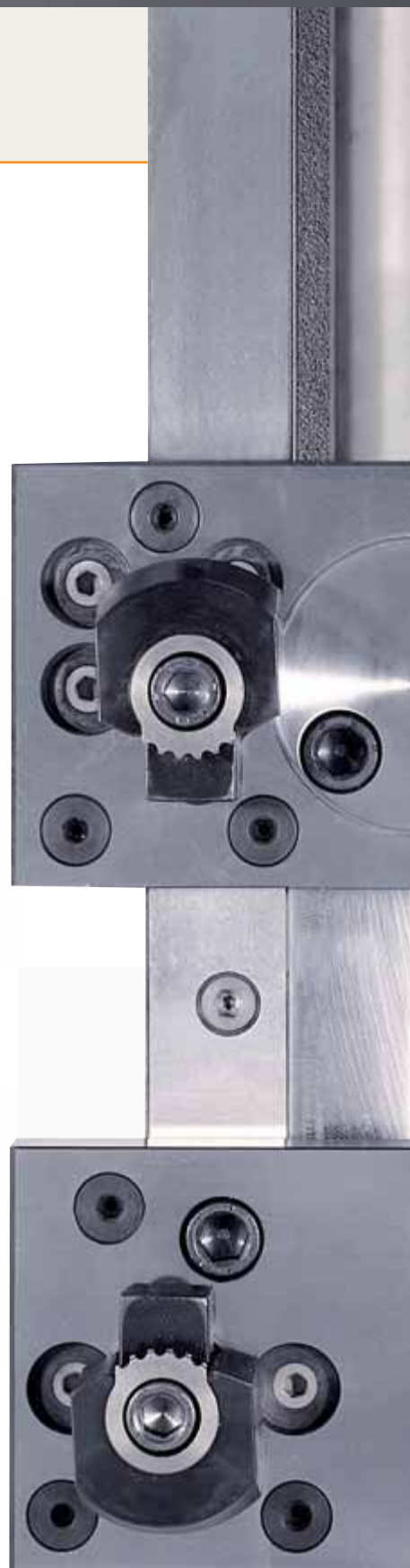
Basic jaws, fixed  
Part no. 2336/125



Basic jaws, mobile pivoting  
Part no. 2337/125



Basic jaws, mobile rigid  
Part no. 2338/125



## Universal „Grip“ set

The universal „Grip“ set offers various options for raw part clamping.



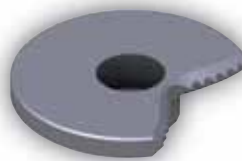
### Part no. 2306/000

Scope of delivery

- 4 x Grip stud 2306/001
- 4 x Basic unit 2306/002
- 4 x Support 2306/003
- Fastening screws, various lengths
- Spacers
- Support screws

The universal „Grip“ set consists of a basic unit with positioning hole, a support and a round grip stud. It is screw-fastened onto the basic jaw using an M10 screw.

## Eye grip insert for universal „Grip“ set



### Part no. 2305/000

To replace the 2306/001 round grip of the universal „Grip“ set.

With its special shape, the eye grip reduces (divides) the applied clamping force – a benefit in particular when clamping workpieces where fitting holes have to be machined.

## Threaded grip studs

(not suitable for universal set)

- ◇ for form-fit raw part clamping
- ◇ grip engagement height: adjustable from 4.5 to 6.0 mm
- ◇ very high retaining forces

### Part no. 2301/000

- ◇ for form-fit raw part clamping
- ◇ grip engagement height: adjustable from 3.0 to 4.5 mm
- ◇ minimum clamping edge loss

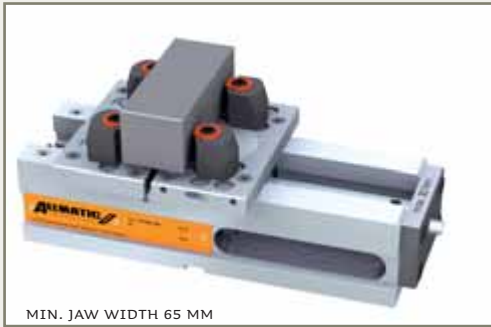
### Part no. 2304/000

- ◇ for clamping of semi-finished workpieces, smooth clamping surfaces
- ◇ enhanced frictional adhesion as a result of carbide coating
- ◇ retaining force increased by a factor of approx. 1.8

### Part no. 2302/000

- ◇ for form-fit raw part clamping
- ◇ support height 6.0 mm; i.e., clearance below the workpiece for drilling through

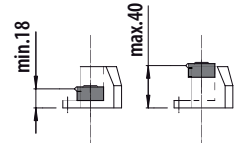
### Part no. 2303/000



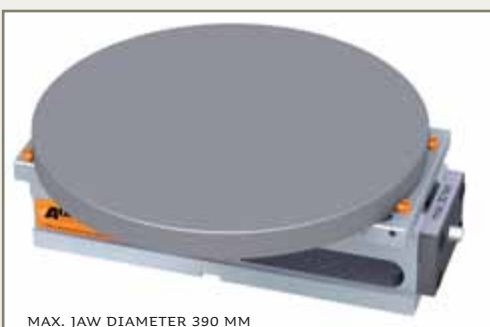
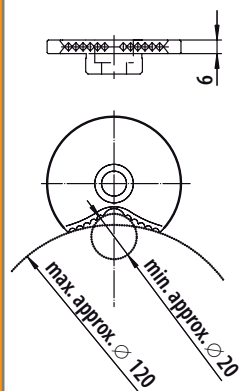
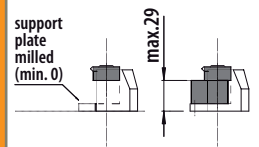
As a result of the modular design, the pivoting function and the tips of the grip stud (adaptation of the support by the customer is required) can be brought into virtually any position relative to the workpiece using the hole pattern of the basic jaw. By applying the clamping force, the grip tips penetrate into the material thus producing a positive fit.

By adapting the various set components, both grip height and the support height of the workpiece can be varied.

#### Grip height

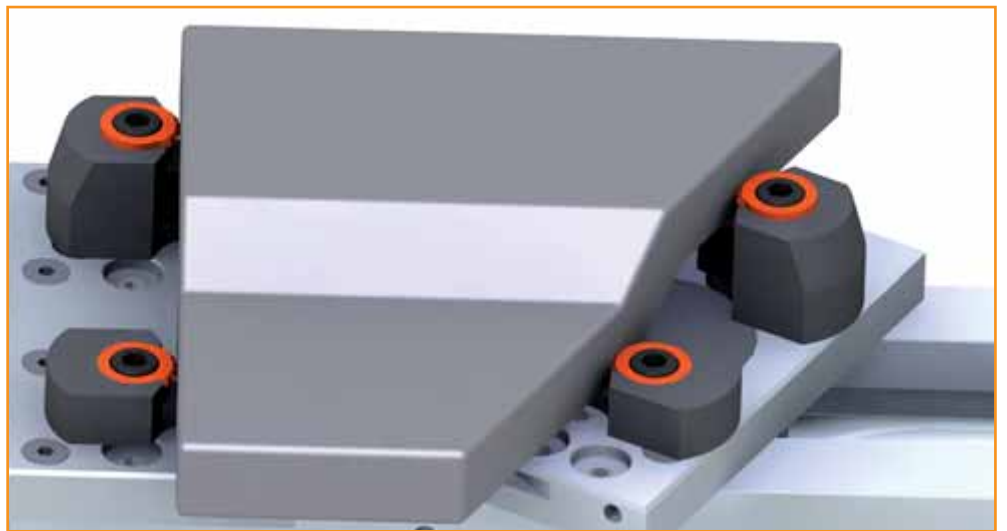
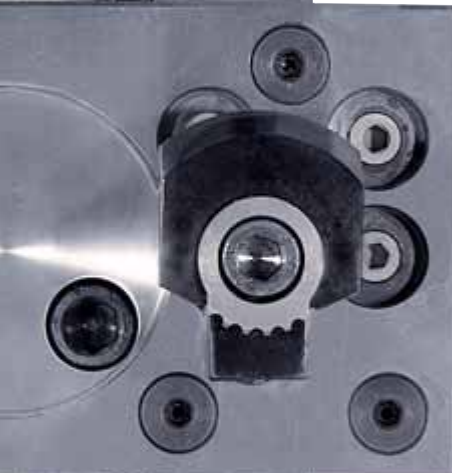


#### Support height





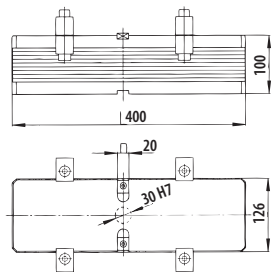
# Examples of application



# Standard accessories

## TITAN125

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### Console

**Part no. 2343/125**

Console for improved accessibility for 5-sided machining of workpieces in connection with Titan 125 high pressure vice

- ◇ optional preparation for zero point clamping systems
- ◇ scope of delivery:  
console for vice positioning, 2 aligning keys, 8 duo side clamps,  
4 screws, 1 fixing bolt  $\varnothing$  30 mm



### Aligning and fixing set

- Part no. 2700/000** for 12 mm/M 10
- Part no. 2701/000** for 14 mm/M 12
- Part no. 2702/000** for 16 mm/M 14
- Part no. 2703/000** for 18 mm/M 16
- Part no. 2706/000** for 20 mm/M 16
- Part no. 2707/000** for 22 mm/M 16

To adjust (position) and fasten the vice on pallets/machine tables



### Workpiece stop

**Part no. 2401/000**

Preadjustable position of the 3rd workpiece axis

The workpiece stop can be easily swung away after clamping the workpiece (repeatability of  $\pm 0.01$  mm).



### Workpiece stop

**Part no. 2402/000**

Preadjustable position of the 3rd workpiece axis

The workpiece stop can be swung away after clamping the workpiece. Can be preassembled with various fixed dimensions.



### Standard side clamps

**Part no. 2620/125**

1 set including 4 side clamps  
(included in scope of delivery of vice 2053/125)



Your distributor for ALLMATIC JAKOB SPANNSYSTEME

**ALLMATIC**  
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**ALLMATIC-Jakob Spannsysteme GmbH**

Jägermühle 10 · D-87647 Unterthingau  
Tel.: +49 (0) 83 77/9 29 - 0 · Fax: +49 (0) 83 77/9 29 - 3 80  
www.allmatic.de info@allmatic.de