

Automate your success

Think about tomorrow today!

Restructure the way you work and get more out of your work resources!

We bring success to you and your customers with our pneumatic automation clamps. What does that mean for you? More output - less manpower required, not only on weekends!

High clamping force and due to unique pressure and sign of the state o

- minimum—mmm

Kesel®

ZSP and Bi

kast clamping times,

Reduced time between reuuvou "", o changes

Autonomic

Agoline Oberator has

Highest precision with every clambing

Revenue

You only need compressed air (no hydraulic unit required)

Complete

Kese Machine Tools Clamping Systems

ZSP

Pneumatic centering clamp

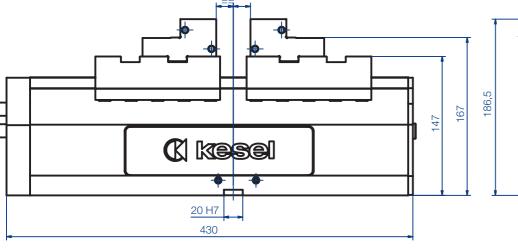
Your work pieces need machining from multiple sides? Then the ZSP is the perfect vise for automated, multi-side machining. A pneumatic, centric clamp designed for 5-side machining, the ZSP can be integrated easily into manual or fully automated operations.

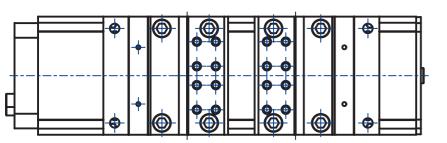
- > Unrestricted 5-side machining
- > Optimal tool accessibility
- > Fully encapsulated system
- > Safe and easy part placement with automation
- > Perfect hold due to maximum clamping force
- > Stable/solid base body prevents vibrations
- > The right jaw for every workpiece
- > No additional hydraulic power unit necessary

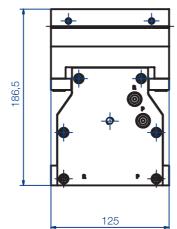
Scope of delivery:

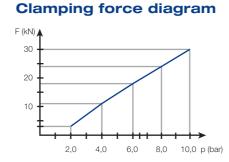
Vise incl. 4 clamping claws + 1 operating key











| Order no. | Jaw width | Clamping range | Clamping force | Clamping stroke |
|--------------------------|--------------|---|--------------------------------------|-------------------------------------|
| 04.25.155.0001 | 125 mm | High jaw side 12 - 203 mm Step side 100 - 291 mm | max. 30 kN at 10 bar pressure | max. 5 mm (2.5 mm on both sides) |
| Base body (L x W x H) | Total length | Total height (with jaws) | Connection thread for compressed air | Weight |
| 400 x 125 x 125 mm | 430 mm | 186.5 mm | G 1/8" | 41 kg |



Large clamping range

Up to 296 mm can be realized by turning the clamping jaws around



Many more clamping options

When using the multijaws with grip inserts



Application on a vertical milling machine.

Air supply via 2 hoses



Application on a 5-axis milling machine.

Air supply via the rotary feed-through of the machine, as well as an under-screwed connection plate.



ZSP on a 5-axis milling machine

With 0-point clamping system



ZSP ideally suited for robot loading

Due to large clamping stroke (5mm)

Bull pneumatic

Your workpieces are primarily machined vertically? Then the Bull is the right choice for your automated production. Pneumatic high-pressure clamp with tension clamping system and patented clamping width adjustment for series parts.

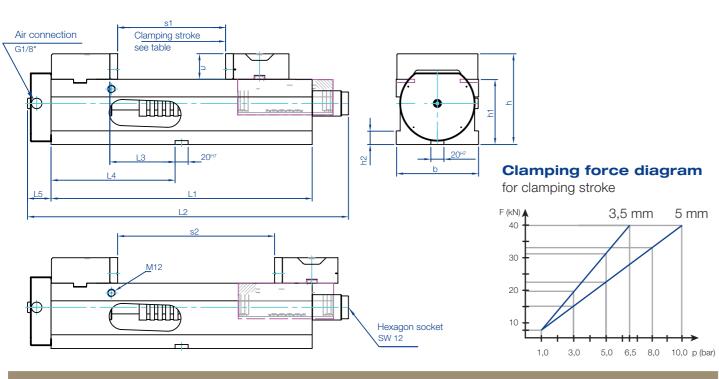
Clamping without force.

- > Easy clamping, whether by automation or manually
- > Integrated force amplifier for high clamping forces
- > No penetration of the chip into the spindle area
- > Unique quick adjustment to the desired span width
- > Deformation-resistant base body
- > Compact design for milling machines and machining centers
- > No additional hydraulic power unit necessary

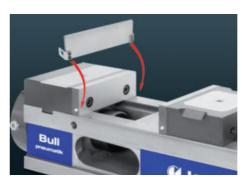
Scope of delivery:

Vise incl. 4 clamping claws + 1 operating key



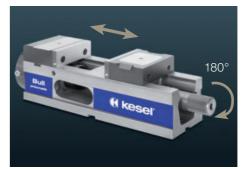


| | | | max. Clamping | max. Com- pressed air | Clampin | g range | Clam- — ping | Weight |
|--------|-----------------|------------|------------------|--------------------------|------------------------------|-----------|-----------------|--------|
| Size b | Order no. | Jaws | force kN | bar | s1 | s2 | stroke | kg |
| 125 | 04.25.153.001.9 | Block jaws | 40 | 6.5 | 0-165 | 80-240 | 3.5 mm | 35 |
| 125 | 04.25.153.0003 | Step jaws | 40 | 6.5 | 3-270 With attachment jaws | 100-345 | 3.5 mm | 35 |
| 125 | 04.26.153.0000 | Block jaws | 40 | 10 | 0-165 | 80-240 | 5 mm | 35 |
| 125 | 04.26.153.0002 | Step jaws | 40 | 10 | 3 - 270 With attachment jaws | 100 - 345 | 5 mm | 35 |
| Size b | Li | L2 | L3 | L4 | L5 | h | h1 +0.01 | h2 |



Step ledge quick release system

- > Step ledges are "clicked" into place clicked in by hand
- > Safe and stable hold even when using use of compressed air



Quick adjustment of the clamping range

> By turning the spindle by 180° the span the span can be adjusted very quickly adjusted



With step jaws

> Chucking width 3-345 mm



On vertical milling machine On 5-axis milling machine

> Air supply via 1 hose



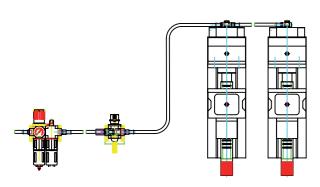


For robot loading

> Clamping stroke 3.5 mm or 5 mm



Example Applications:



2 x Bull pneumatic clamping simultaneously

ZSP and **BULL** pneumatic accessories



Maintenance unit for an oiled compressed air and adjusting the clamping force

| Order no. | Thread |
|-----------------|--------|
| 01 25 153 110 9 | G 1/8" |



| 0 | | |
|---|--|--|

Foot valve

| Order no. | Thread |
|-----------------|--------|
| 33.21.032.007.9 | G 1/4" |



Rotary knob on-off valve with threaded connection plate. Design as 3/2 way valve, manually actuated

01.25.153.114.9

| Order no. |
|-----------|





Check valve

3 x Bull pneumatic clamping individually

| Order no. | Thread |
|-----------------|--------|
| 33.11.032.012.9 | G 1/8" |



Hand lever valve 4/3 way

| Order no. | Thread |
|----------------|--------|
| 33.25.155.0004 | G 1/8" |



Check valve lockable

| Order no. | Thread |
|-----------------|--------|
| 33.21.032.009.9 | G 1/8" |



Manual slide valve 3/2 Way only for Bull Pneumatic

| Order no. | Thread |
|-----------------|--------|
| 01.25.153.113.9 | G 1/8" |



Quick exhaust valve

| Order no. | Thread |
|-----------------|--------|
| 33.11.032.007.9 | G 1/8" |



Magnet valve 3/2 Way only for Bull Pneumatic

| Order no. | Thread |
|-----------------|--------|
| 33.40.428.029.9 | G 1/4" |



Coupling connector and coupling socket for quick set-up Order no. Thread G 1/8"

Quick release coupling

01.25.153.115.9



ZSP and **BULL** pneumatic accessories



Magnet valve 5/3 way

| Order no. | Thread |
|----------------|--------|
| 33.25.155.0005 | G 1/8" |



L-threaded connection with internal thread, aluminium blue anodised, pivoting, incl. 2 PVC sealing rings

| Order no. | | Thread |
|-----------|-----------------|--------|
| | 01.25.153.111.9 | G 1/8" |



T-threaded connection with internal thread, aluminium blue anodised, pivoting, incl. 2 PVC sealing rings

| Order no. | Thread |
|-----------------|--------|
| 01 25 153 112 9 | G 1/8" |



High pressure hose with NW 4 mm, with brass connection both sides,

G 1/8", metallic gauze sheath for protection against hot chips in the working area

| Order no. | Diameter | |
|-----------------|----------|--|
| 01.25.153.101.9 | 0,3 m | |
| 01.25.153.102.9 | 0,5 m | |
| 01.25.153.103.9 | 1,0 m | |
| 01.25.153.104.9 | 2,0 m | |



Double threaded nipple and sleeve

| Order no. | Thread |
|-----------------|--------|
| 01.25.153.116.9 | G 1/8" |



Reduction nipple threaded connection, internal G 1/8" external G 1/4"

| Order no. | |
|-----------------|--|
| 33.40.428.003.9 | |



Distributor strip threaded connection, internal G 1/4" external G 1/8"

| Order no. | |
|-----------------|--|
| 33.30.015.003.9 | |







Smooth clamping jaw hardened, ground, standard equipment

Smooth clamping jaw soft (1.2842), milled, for the fabrication of moulding jaw

Clamping jaw with linear grooves for firmly gripping the workpieces

| Size | Order no. Smooth clamping jaw hardened Height | | Thick- ness |
|----------------------------------|---|------|----------------|
| 125 01.25.152.014.4 | | 39,2 | 12 |
| Smooth clamping jaw soft | | | |
| 125 | 01.11.105.002.5 | 39,2 | 12 |
| Clamping jaw with linear grooves | | | |
| 125 | 01.11.105.001.5 | 39,2 | 12 |



ZSP and **BULL** pneumatic accessories



Smooth clamping jaw with step, hardened and ground, for saving clamping supports

| | | | Thick- | |
|------|-----------------|--------|--------|--------|
| Size | Order no. | Step | ness | Height |
| 125 | 01.11.105.003.5 | 3 x 6 | 12 | 39,2 |
| 125 | 01.11.105.008.5 | 5 x 10 | 12 | 39,2 |



Clamping jaw with corrugation hardened and ground

| Size | Order no. | Height | Thick- ness | Gripper Order no. | Thread |
|------|-----------------|--------|----------------|----------------------|--------|
| 125 | 01.26.160.035.3 | 40 | 12 | 01.26.160.048.4 | M 10 |



Grip clamping jaw, hardened, with step

| Size | Order no. | Height | Thickness | Step | |
|------|----------------|--------|-----------|------|---|
| 125 | 01.25.150.0002 | 40 | 12 | 3x3 | _ |



Prism jaw with horizontal prism 120° hardened and ground

| | | | | Clamping | g diameter |
|------|-----------------|--------|----------------|---------------|---------------|
| Size | Order no. | Height | Thick- ness | with 1 jaw | with 2 jaw |
| 125 | 01.11.105.005.4 | 39.2 | 20 | ø 9-50 | ø 14-50 |



Prism jaw with horizontal and vertical prism 90° hardened and ground

| | | | | Clamping diameter | |
|------|-----------------|--------|----------------|-------------------|---------------|
| Size | Order no. | Height | Thick- ness | with 1 jaw | with 2 jaw |
| 125 | 01.11.105.004.4 | 39,2 | 28 | ø 15-42 | ø 24-42 |



Pendulum jaw with smooth slide, hardened and ground, for clamping conical workpieces

| Size | Order no. | Height | Thickness |
|------|-----------------|--------|-----------|
| 125 | 04.13.125.150.9 | 39,2 | 43 |

ZSP and **BULL** pneumatic accessories



Pull-down jaw smooth, the workpiece is hold securely, with a deep drawing effect

| Size | Order no. | Height | Thickness | |
|------|-----------------|--------|-----------|--|
| 125 | 04.13.125.200.9 | 39,2 | 25 | |



Pull-down jaw for raw parts with inset spring plate for clamping raw parts. The spring plate establish a secure hold and deep drawing effect

| Size | Order no. | Height | Thickness |
|------|-----------------|--------|-----------|
| 125 | 04.13.125.250.9 | 40 | 21 |



Universal top jaw with angle adjustment possibility hardened and ground

| Size | Order no. | Height | Thickness |
|------|-----------------|--------|-----------|
| 125 | 04.13.125.400.9 | 42 | 10 |



Workpiece stop adjustable

| Size | Order no. | Thread | |
|------|-----------------|--------|--|
| 125 | 03.11.008.001.4 | M 12 | |



Step ledges

| Size | Order no. | Height | Thickness |
|------|-----------------|--------|-----------|
| 125 | 04.25.150.061 | 15 | 3 |
| 125 | 03.26.160.022.9 | 20 | 3 |
| 125 | 03.25.160.024.9 | 35 | 3 |
| 125 | 03.26.160.002.9 | 39 | 3 |



Manual crank in shortened design for use in place of the standard manual crank, if the throughput height to the machine table is too small

| Size | Order no. | Length | Width |
|------|-----------------|--------|-------|
| 125 | 03.15.103.001.4 | 110 | 90 |