

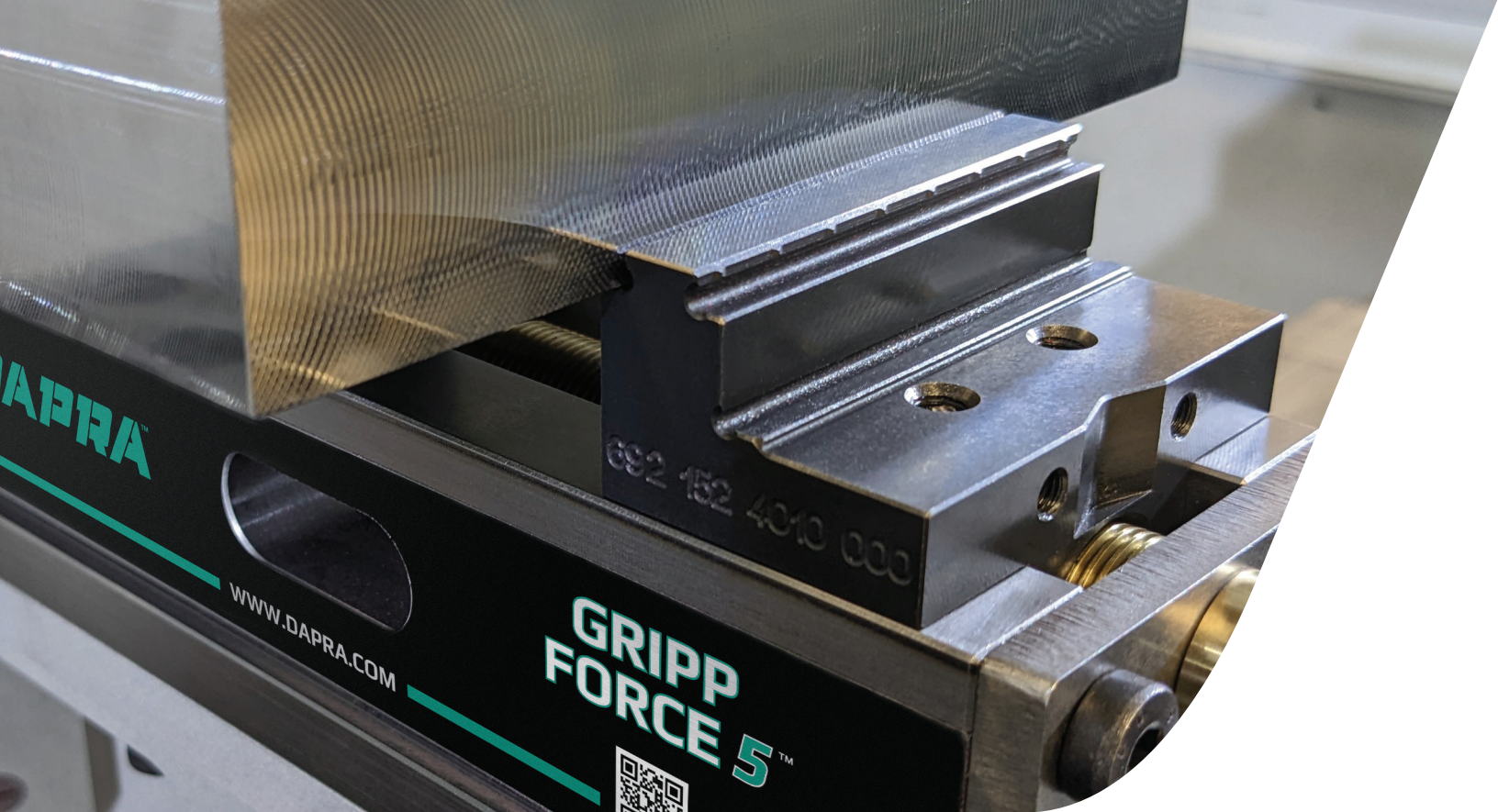
GRIPP FORCE 5™



General-Purpose & 5-Axis
Workholding

DAPRA™

WORKHOLDING • INDEXABLE MILLING • POWER TOOLS



GRIPP FORCE 5 Short and GRIPP FORCE 5 Long

One system, two sizes, 3 tons of clamping – for all common and 5-axis applications.

GRIPP FORCE 5 machine tool vises can be configured to meet your production requirements for either general-purpose or dedicated applications.

GRIPP FORCE 5 has a modular design that allows it to be flexible for your specific needs.

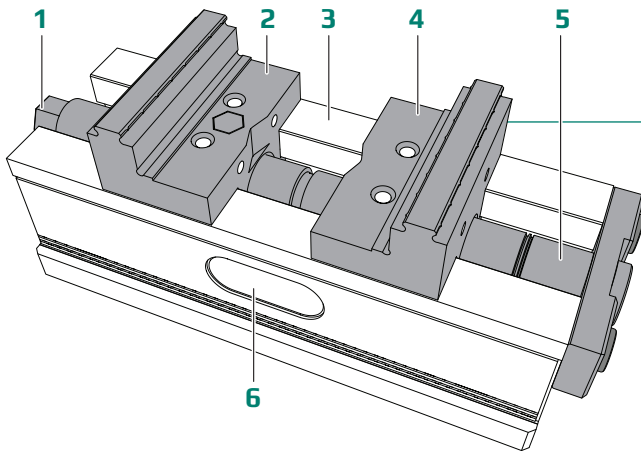
GRIPP FORCE 5 offers a variety of mounting options including popular zero point systems.

- › 3-ton clamping force
- › 5-axis focus with multipurpose flexibility
- › Raw part clamping capable
- › Zero point compatibility
- › Stout, robust, versatile design



› Scan to learn more about GRIPP FORCE 5 or visit dapra.com/GF5.

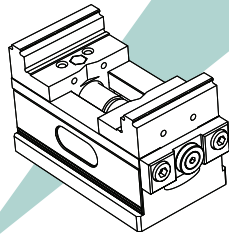
GRIPP FORCE 5



- 1. 14mm hexagon spindle drive
- 2. Left jaw
- 3. Base part
- 4. Right jaw
- 5. Spindle
- 6. Outlet opening for coolant and chips

GRIPP FORCE 5 PART NUMBERING:

68S-G30-WGJ



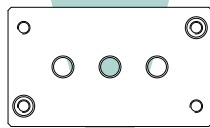
1 Vise Size

See pages 4-5

Workpiece capacity:

68S = 0 to 104mm

68L = 0 to 164mm



2 Base Options

See pages 6-9

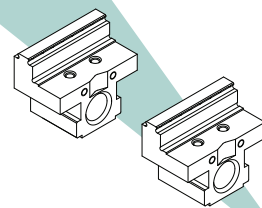
BL = Blank

ZP1 = Zero point

G30 = Grid 30 (for 68S)

G50 = Grid 50 (for 68L)

G63 = Grid 63 (for 68L)



3 Jaw Set

See pages 10-11

WGJ = Wide gripp jaws

WSJ = Wide smooth jaws

NGJ = Narrow gripp jaws

NSJ = Narrow smooth jaws

See page 12 for quick ordering chart. See pages 13-16 for accessories.

1 Select Vise Size



685 -G30-WGJ

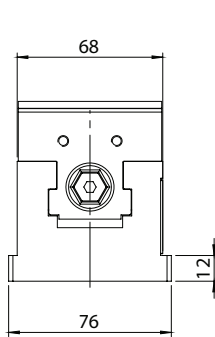
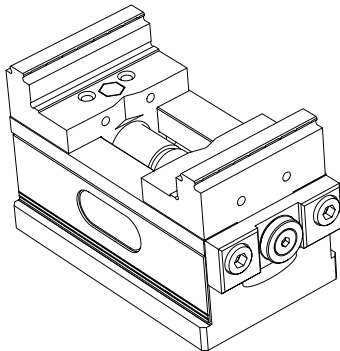
685

SHORT

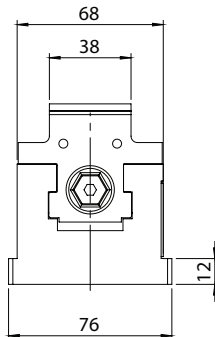
› 0 to 104mm clamping width*

› Weight: 4.2 kg

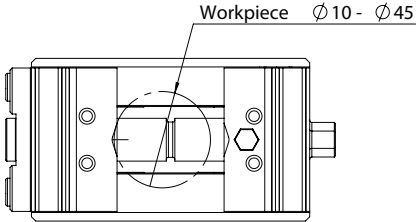
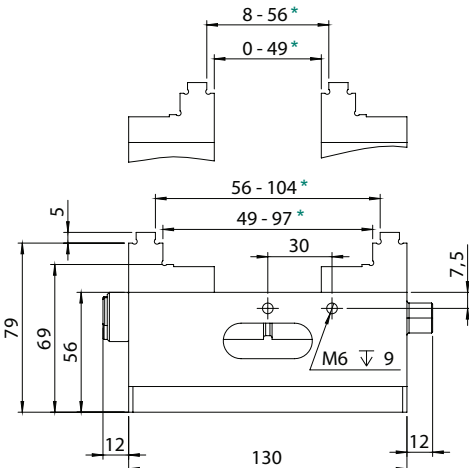
* Clamping capacities shown with smooth jaws.
Gripper jaw capacities are 1mm less.



Wide Jaws



Narrow Jaws



See pages 6-7 for 685 base options.

1 Select Vise Size



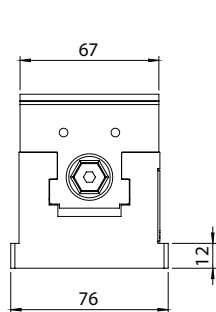
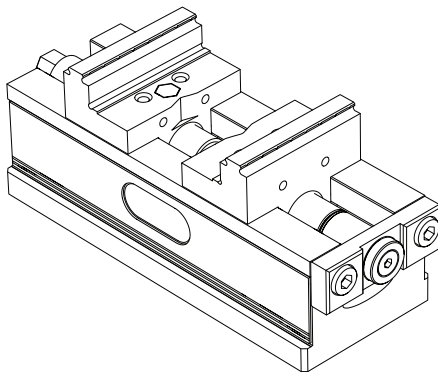
68L -G30-WGJ

68L

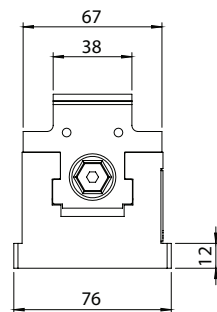
LONG

> 0 to 163mm clamping width*

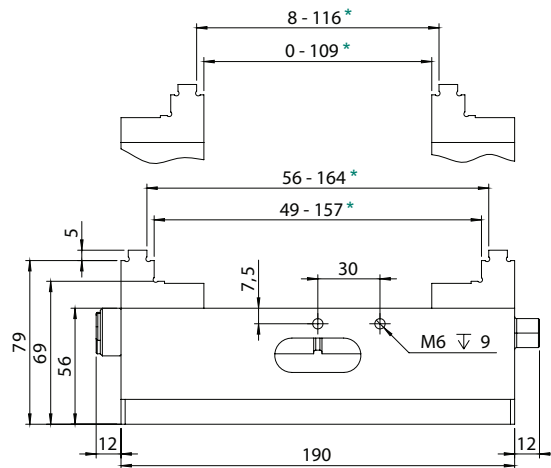
> Weight: 5.7 kg



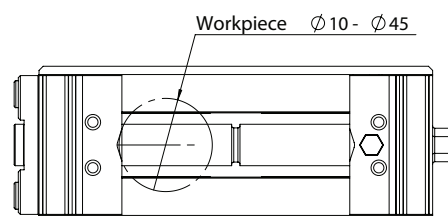
Wide Jaws



Narrow Jaws



* Clamping capacities shown with smooth jaws.
Gripper jaw capacities are 1mm less.



See pages 8-9 for 68L base options.

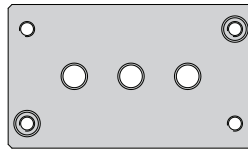
2 Select Base Option

68S Vises



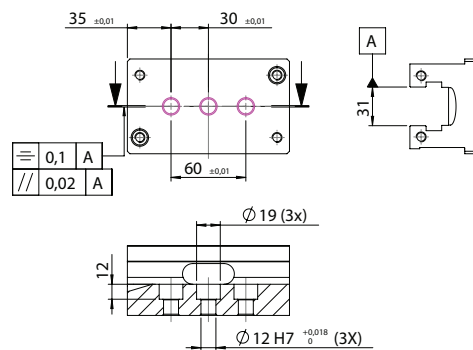
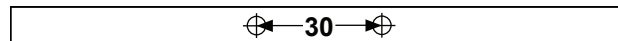
Blank - no holes

68S- **BL** -W GJ



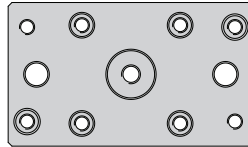
Grid 30

68S- **G30** -W GJ



2 Select Base Option

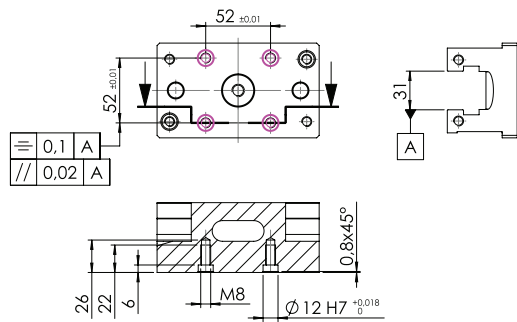
68S Vises



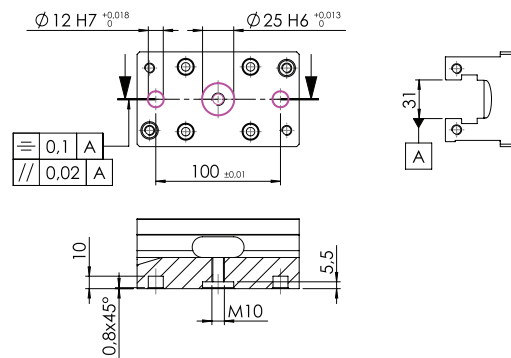
Zero Point

68S-**ZP1**-WGJ

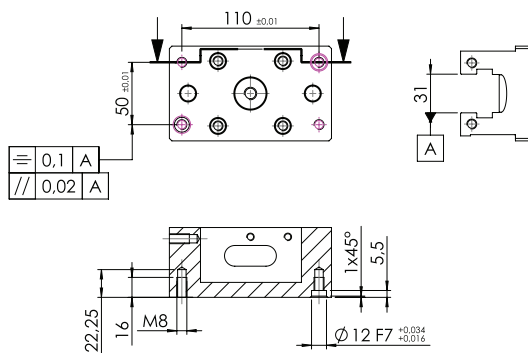
Lang Quick-Point 52x52



Gressel gradoc

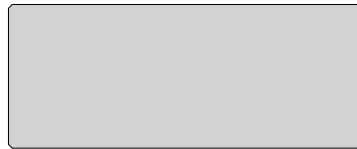


Erowa



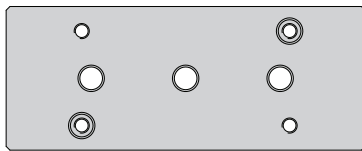
2 Select Base Option

68L Vises



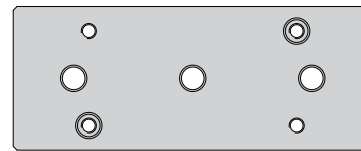
Blank - no holes

68L-**BL**-WVGJ



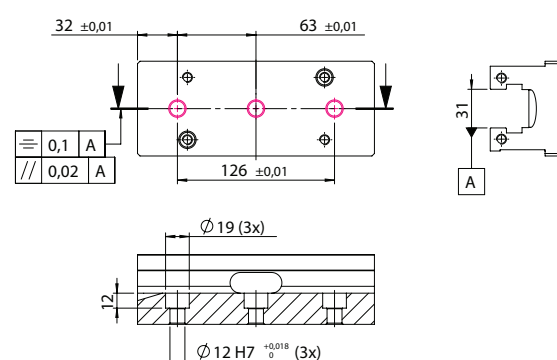
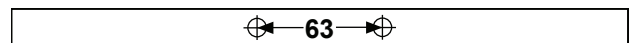
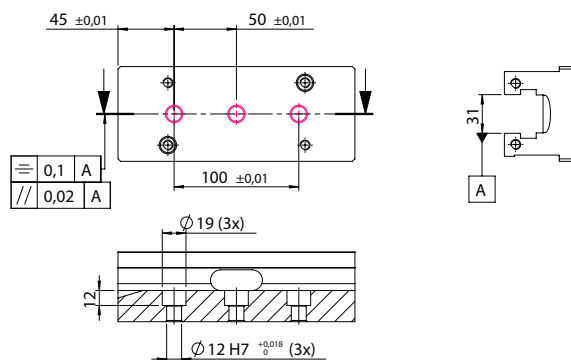
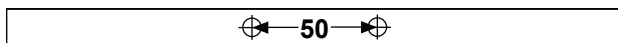
Grid 50

68L-**G50**-WVGJ



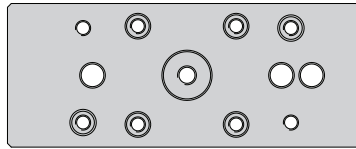
Grid 63

68L-**G63**-WVGJ



2 Select Base Option

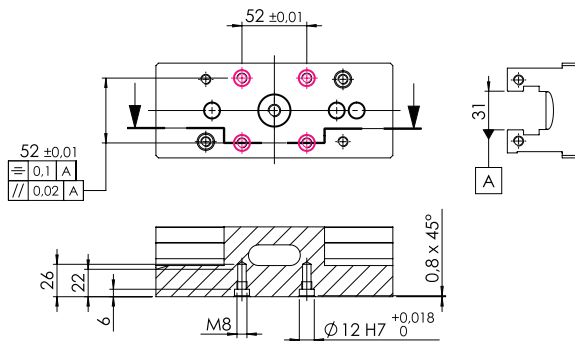
68L Vises



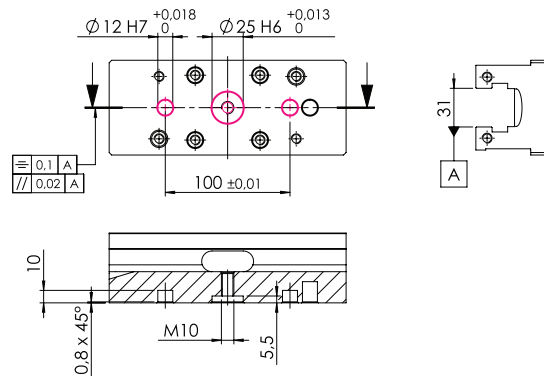
Zero Point

68L-ZP1-WGJ

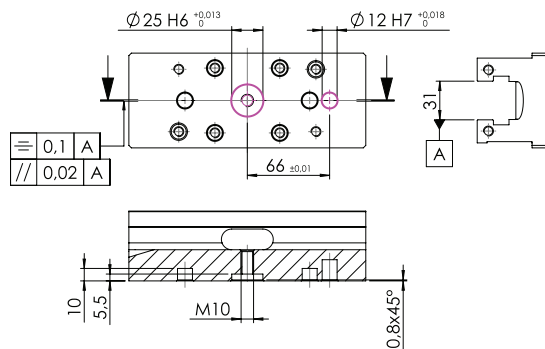
Lang Quick-Point 52x52



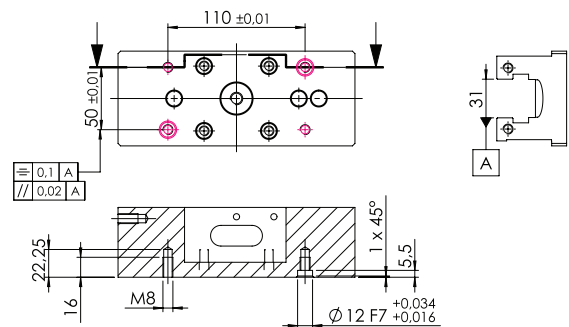
Gressel gradoc



Schunk VERO-S



Erowa

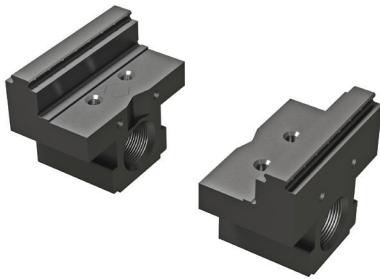


3 Select Jaw Set

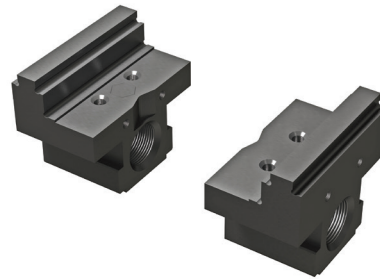
WIDE Jaws

- › All jaw sets are universal and fit both Short (68S) and Long (68L) vise sizes
- › Smooth jaws are ideal for machined parts
- › Gripp jaws are designed for raw material clamping surfaces parallel within .3mm / .012"
- › All jaws feature a V notch for clamping round workpieces
- › Floating center jaws are also available for Long (68L) vises – see page 13

Wide Jaws – 67mm



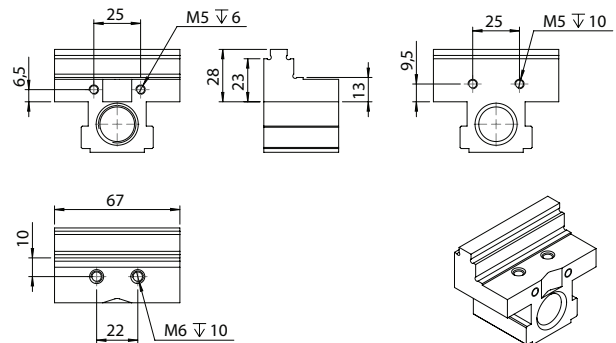
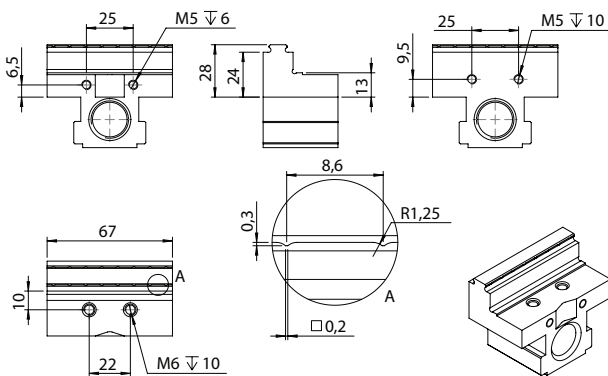
Wide Gripp Jaws



Wide Smooth Jaws

68S-G30- **WGJ**

68S-G30- **WSJ**

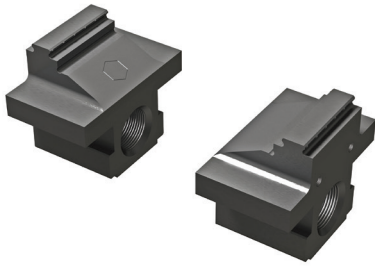


3 Select Jaw Set

NARROW Jaws

- › All jaw sets are universal and fit both Short (68S) and Long (68L) vise sizes
- › Smooth jaws are ideal for machined parts
- › Gripp jaws are designed for raw material clamping surfaces parallel within .3mm / .012”
- › All jaws feature a V notch for clamping round workpieces
- › Floating center jaws are also available for Long (68L) vises – see page 13

Narrow Jaws – 38mm



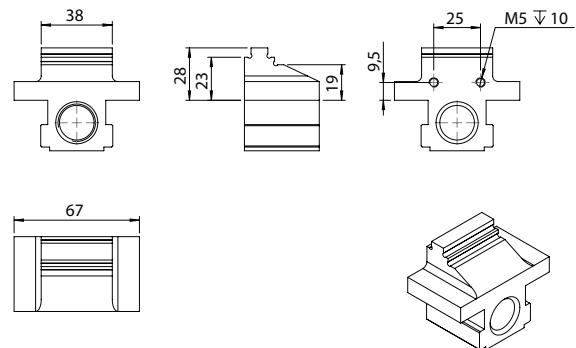
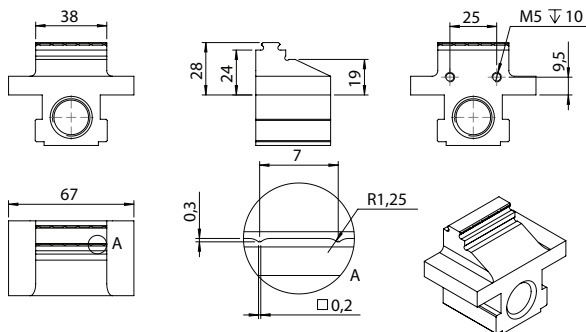
Narrow Gripp Jaws



Narrow Smooth Jaws

68S-G30- **NGJ**

68S-G30- **NSJ**



Quick Order Reference Chart

Short Vises

130 x 76 x 84mm (L x W x H) | 4.2 kg

Base Option	Jaws	Part Number	EDP	Clamping Capacity	Jaw Width
Blank Base	Narrow Gripp	68S-BL-NGJ	SA68SBNG	0 - 103mm	38mm
	Narrow Smooth	68S-BL-NSJ	SA68SBNS	0 - 104mm	38mm
	Wide Gripp	68S-BL-WGJ	SA68SBWG	0 - 103mm	67mm
	Wide Smooth	68S-BL-WSJ	SA68SBWS	0 - 104mm	67mm
Grid 30 Base	Narrow Gripp	68S-G30-NGJ	SA68SG3NG	0 - 103mm	38mm
	Narrow Smooth	68S-G30-NSJ	SA68SG3NS	0 - 104mm	38mm
	Wide Gripp	68S-G30-WGJ	SA68SG3WG	0 - 103mm	67mm
	Wide Smooth	68S-G30-WSJ	SA68SG3WS	0 - 104mm	67mm
Zero Point Base	Narrow Gripp	68S-ZP1-NGJ	SA68SZNG	0 - 103mm	38mm
	Narrow Smooth	68S-ZP1-NSJ	SA68SZNS	0 - 104mm	38mm
	Wide Gripp	68S-ZP1-WGJ	SA68SZWG	0 - 103mm	67mm
	Wide Smooth	68S-ZP1-WSJ	SA68SZWS	0 - 104mm	67mm

Long Vises

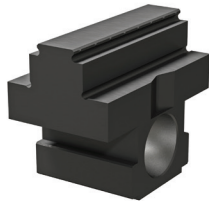
190 x 76 x 84mm (L x W x H) | 5.7 kg

Base Option	Jaws	Part Number	EDP	Clamping Capacity	Jaw Width
Blank Base	Narrow Gripp	68L-BL-NGJ	SA68LBNG	0 - 163mm	38mm
	Narrow Smooth	68L-BL-NSJ	SA68LBNS	0 - 164mm	38mm
	Wide Gripp	68L-BL-WGJ	SA68LBWG	0 - 163mm	67mm
	Wide Smooth	68L-BL-WSJ	SA68LBWS	0 - 164mm	67mm
Grid 50 Base	Narrow Gripp	68L-G50-NGJ	SA68LG5NG	0 - 163mm	38mm
	Narrow Smooth	68L-G50-NSJ	SA68LG5NS	0 - 164mm	38mm
	Wide Gripp	68L-G50-WGJ	SA68LG5WG	0 - 163mm	67mm
	Wide Smooth	68L-G50-WSJ	SA68LG5WS	0 - 164mm	67mm
Grid 63 Base	Narrow Gripp	68L-G63-NGJ	SA68LG6NG	0 - 163mm	38mm
	Narrow Smooth	68L-G63-NSJ	SA68LG6NS	0 - 164mm	38mm
	Wide Gripp	68L-G63-WGJ	SA68LG6WG	0 - 163mm	67mm
	Wide Smooth	68L-G63-WSJ	SA68LG6WS	0 - 164mm	67mm
Zero Point Base	Narrow Gripp	68L-ZP1-NGJ	SA68LZNG	0 - 163mm	38mm
	Narrow Smooth	68L-ZP1-NSJ	SA68LZNS	0 - 164mm	38mm
	Wide Gripp	68L-ZP1-WGJ	SA68LZWG	0 - 163mm	67mm
	Wide Smooth	68L-ZP1-WSJ	SA68LZWS	0 - 164mm	67mm

Accessories

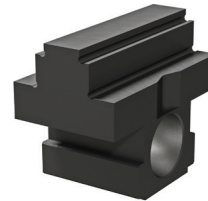
Floating Centering Jaws – 67mm

- › For use with 68L Long vises
- › Smooth jaws are ideal for machined parts
- › Gripp jaws are designed for raw material
- › All jaws feature a V notch for clamping round workpieces



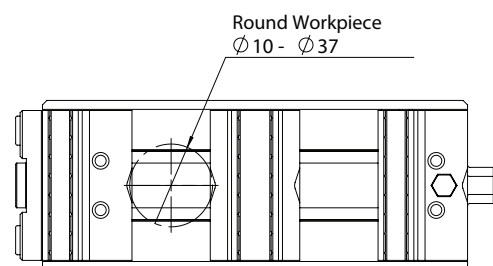
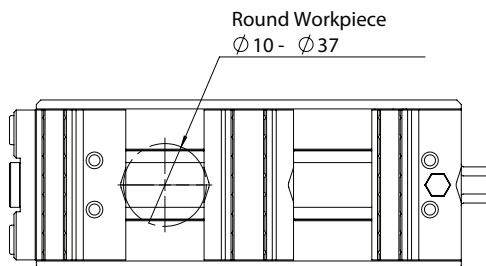
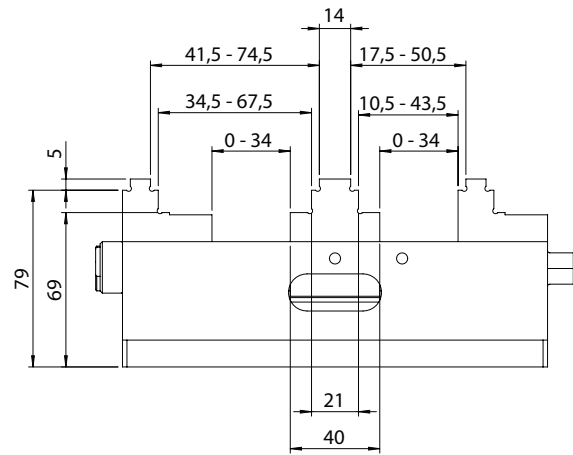
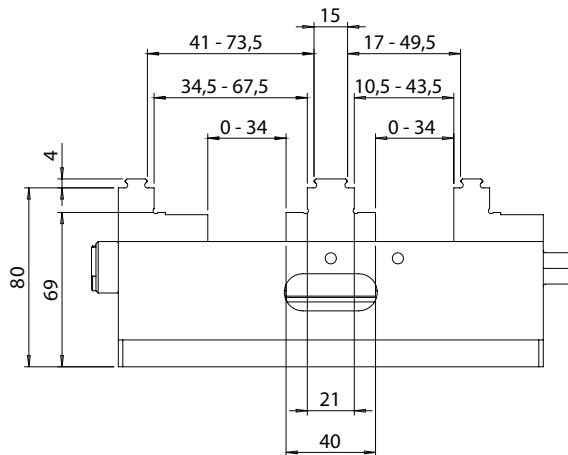
Floating Gripp Jaw

EDP: SA524110



Floating Smooth Jaw

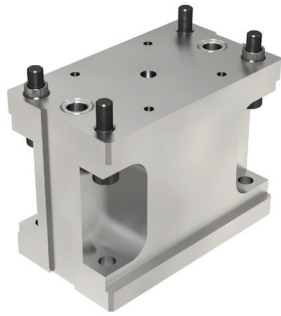
EDP: SA524021



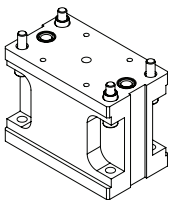
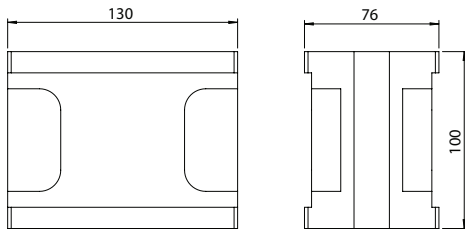
Accessories

Risers

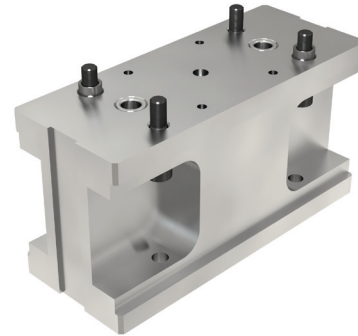
- › Aluminum alloy risers provide enhanced workpiece access in 5-axis machining environments
- › Raises the workpiece 100mm
- › See pages 6 - 9 for base diagrams



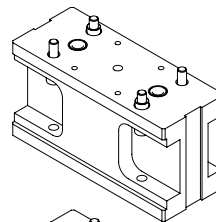
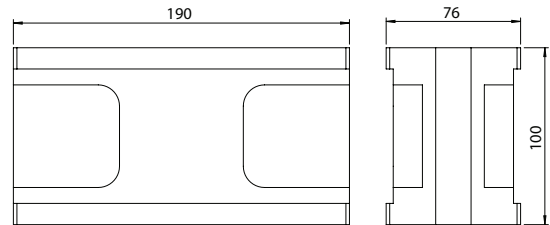
Risers for 68S Short Vises



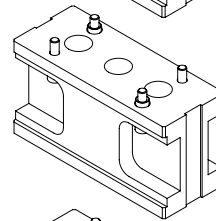
Zero Point
EDP: SA5253031



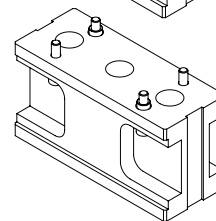
Risers for 68L Long Vises



Zero Point
EDP: SA5253131



Grid 50
EDP: SA5251131

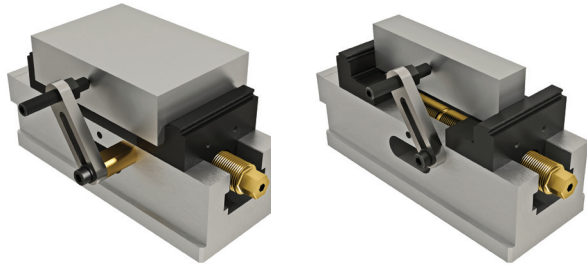


Grid 63
EDP: SA5252131

Accessories

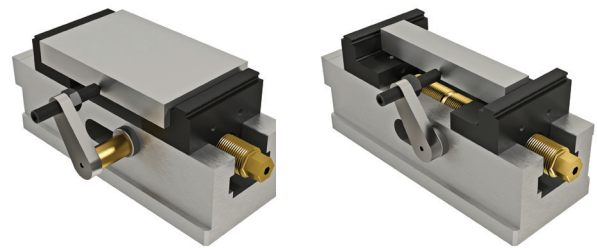
Workpiece Stops

- › Mechanical stop cannot be used with blank base vises
- › Magnetic stop is suitable for all base styles



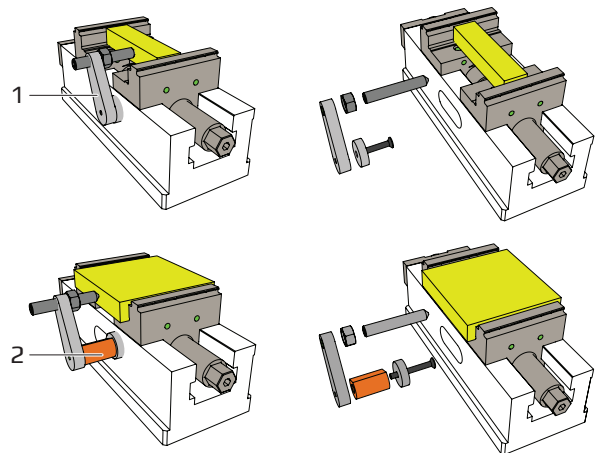
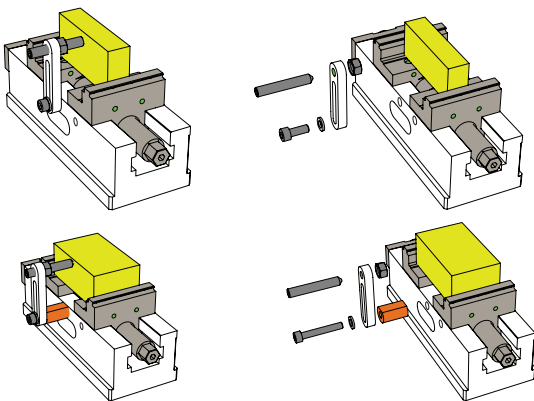
Mechanical Workpiece Stop

EDP: SA565031



Magnetic Workpiece Stop

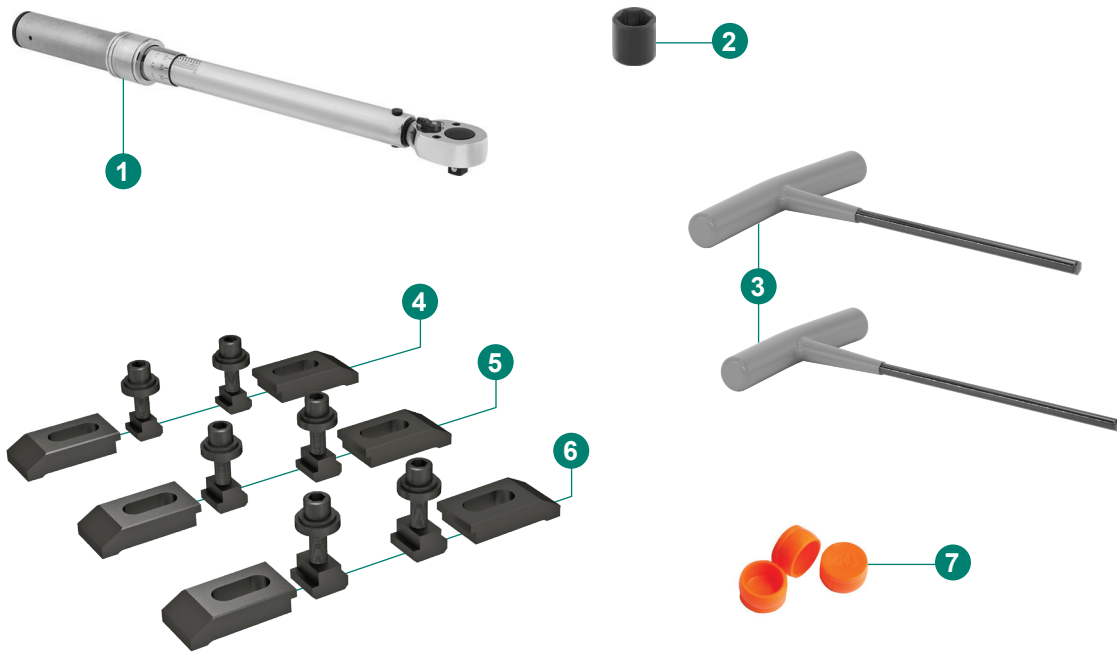
EDP: SA565131



The workpiece stop (1) can be mounted at the intended points either magnetically or with a screw. The clearance to the stop is adjusted with the included spacer (2). The same clamping position can be repeated with the workpiece stop (1).

Accessories

Common Accessories



Description	EDP
1 3/8" Drive Torque Wrench	SA595312
2 14mm 3/8" Drive Socket for Torque Wrench	SA59318
3 T-Handle Hex Key Set (4mm and 5mm)	SA59423-24
Wrench Set (Torque, Socket, Hex Keys)	SA59600
4 14mm Hold-Down Set	SA621031
5 16mm Hold-Down Set	SA622031
6 18mm Hold-Down Set	SA623031
7 Plastic Grid Hole Plug	SA581431
14mm Full Accessory Kit*	SA591031
16mm Full Accessory Kit*	SA592031
18mm Full Accessory Kit*	SA593031

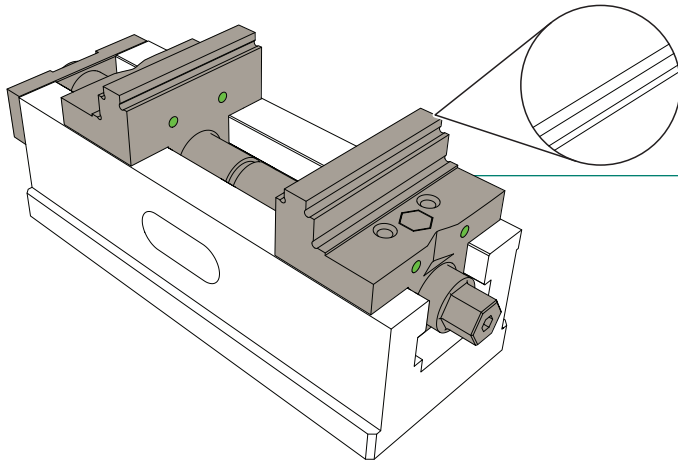
* Kit includes Torque Wrench, Socket, Hex Keys, and Hold-Down Set.

Clamping

Scan for full documentation
or visit dapra.com/GF5



Clamping Types



Conventional Clamping

Clamping jaws with a smooth surface

In the case of conventional clamping, parallel, premachined or level workpieces or materials are clamped. Generally, conventional clamping is used for the second clamping process or for workpieces with parallelism errors of up to 0.05mm.

Gripp Clamping

Stepped jaws with gripp strip

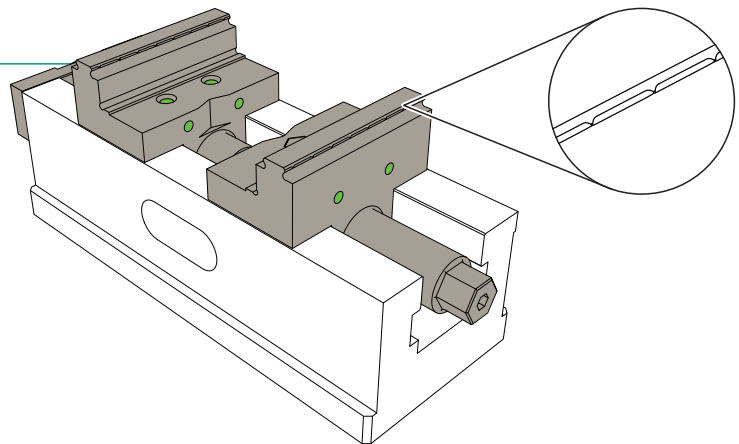
With gripp clamping, unmachined, non-parallel workpieces or raw materials are clamped.

Workpiece pre-milled:

- › Hardness up to 300 BHN

Raw materials:

- › Hardness up to 170 BHN
- › Parallelism error up to 0.3mm



Jaw Reversal

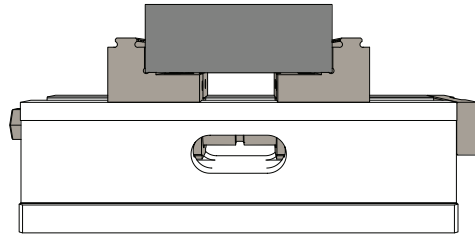


Jaw direction can be reversed in minutes, requiring only a pair of standard 4mm and 5mm hex keys. Scan this code for a quick tutorial or visit dapra.com/GF5-jaws.

Clamping

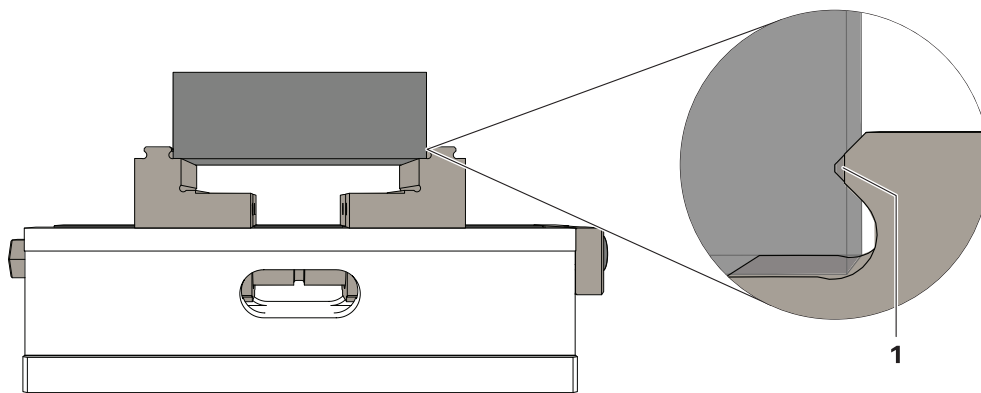
Clamping the Workpiece

Clamping Between Surfaces



When clamping between surfaces, no material displacement takes place, i.e. the clamping force is built up extremely quickly.

Clamping Between Gripp Tips



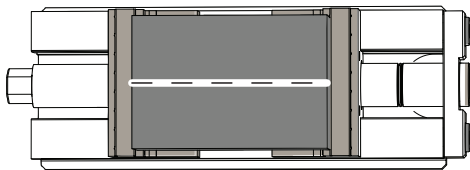
The conical GRIPP tips (1) penetrate the workpiece and create positive locking. The penetration depth depends on:

- › The clamping force
- › The material strength

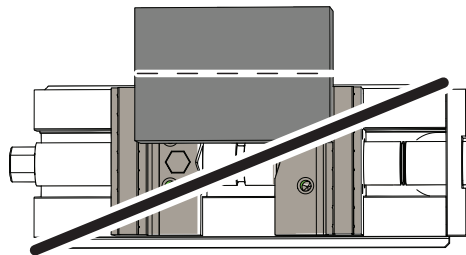
Clamping

Clamping Correctly

Position Workpiece Axis



Workpiece correctly clamped.

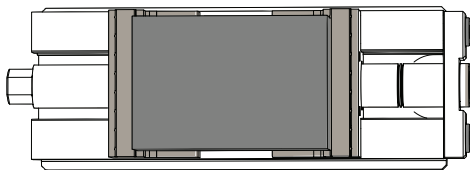


Workpiece clamped off center.

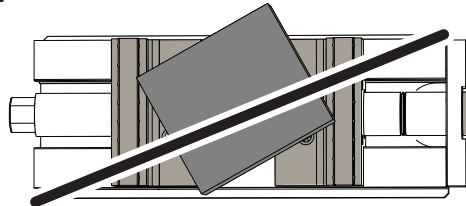
Risk of damage to the jaws and the workpiece.

- › Clamp workpieces centrally.

Position of the Workpiece



Workpiece correctly clamped.

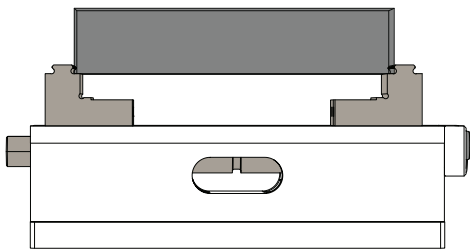


Workpiece clamped at an angle.

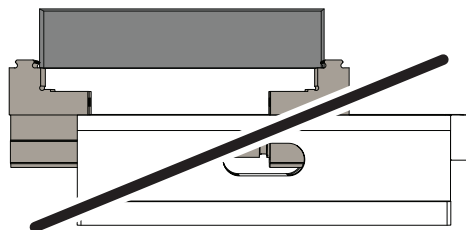
Risk of damage to the jaws and the workpiece.

- › Only clamp the workpiece when lying flat.
- › Only clamp workpieces of a suitable size.

Position of the Jaws



Jaws correctly positioned.



Jaw not completely on the spindle.

Risk of damage to the jaws and the spindle.

- › Only build up clamping force when both jaws are sitting completely on the spindle and the base body.

HEADQUARTERS

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