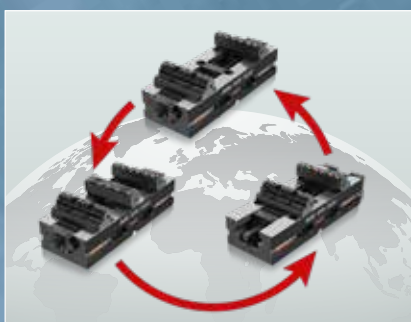
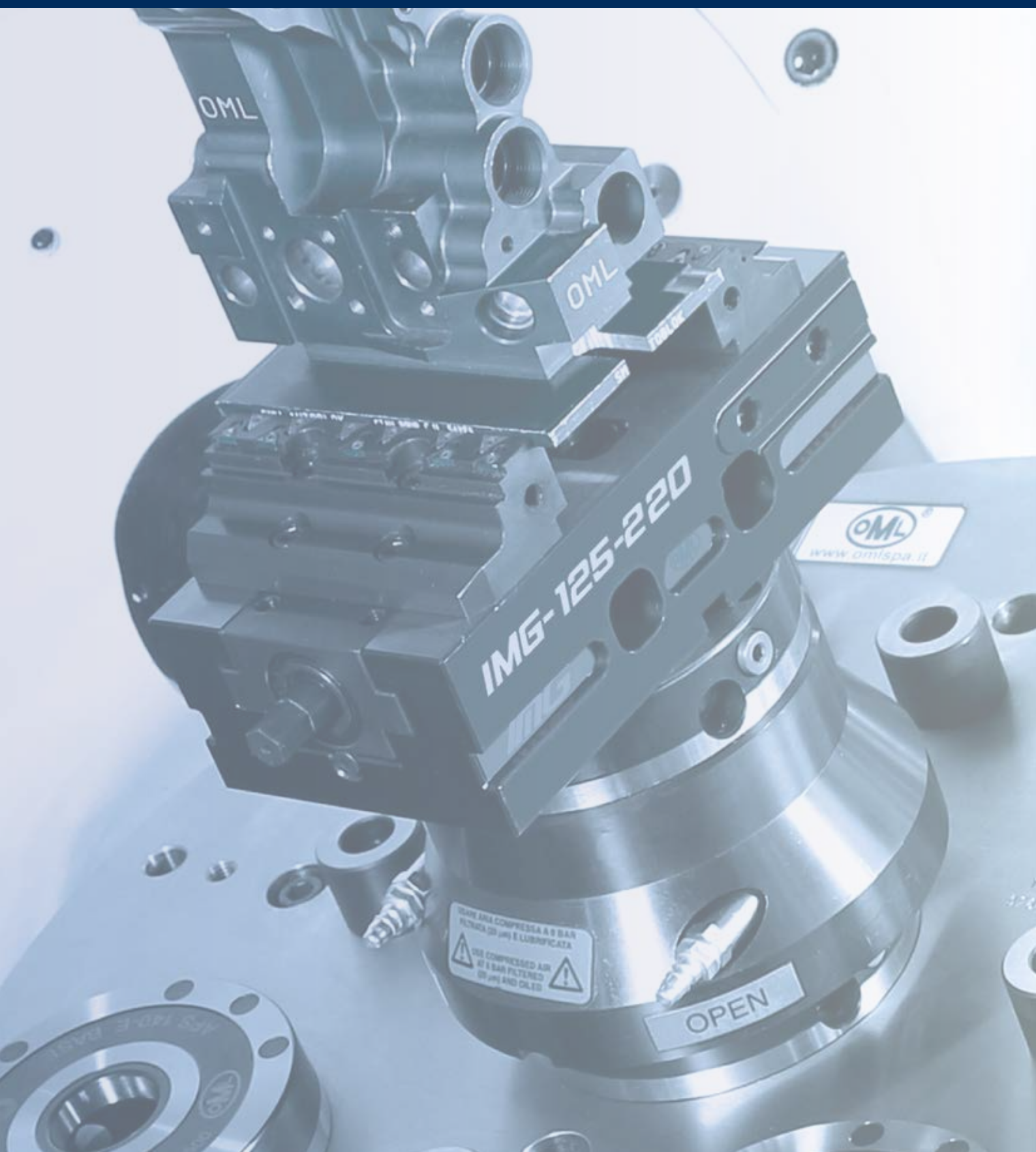




STATIONARY WORKHOLDING

5-AXIS WORKHOLDING







5-Axis Workholding

ZERO POINT INTERFACE



► **Mechanical Zero Point**
PLUS 5

Pag. 4



► **Pneumatic Zero Point**
APS

Pag. 36

5-AXIS MACHINE VICES



► **Self-centering
Double Clamping
Fixed**

IMG

Pag. 47



► **Self-centering vice**

V5

Pag. 95



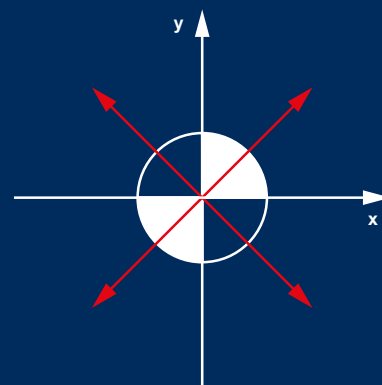
► **Precision vice**

GENIUS

Pag. 99

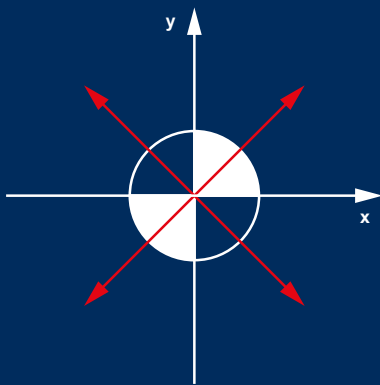
PLUS5

MECHANICAL ZERO POINT SYSTEM



Working example





PLUS5

MECHANICAL ZERO POINT SYSTEM



PLUS 5 - 52

Plus 5 - Mechanical Zero Point system

Pag. 8



PLUS 5 - 96

Plus 5 - Mechanical Zero Point system

Pag. 9



PLUS 5 ALL IN ONE 52/96

Plus 5 Plus 5 All in One
Mechanical Zero Point system

Pag. 10



PLUS 5 INDEX - 52

Plus 5 Index- Mechanical Zero Point system

Pag. 11



PLUS 5 INDEX - 96

Plus 5 Index- Mechanical Zero Point system

Pag. 12



PLUS 5 INDEX ALL IN ONE 52/96

Plus 5 Plus 5 All in One
Mechanical Zero Point system

Pag. 13



PLUS 5 - 52 PLUS 5 - 96

Clamping plate

Pag. 14



PLUS 5 - 52

Interface 96

Pag. 20



PLUS 5 - 52/96

Reduction plates

Pag. 21



PLUS 5 - 52/96

Clamping pins

Pag. 22



PLUS 5 - 52/96

Pallet interface plate

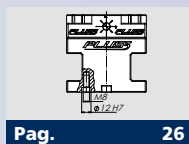
Pag. 24



PLUS 5 - 52/96

Plates

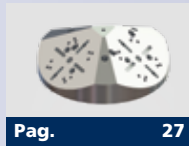
Pag. 25



PLUS 5 - 52/96

Risers

Pag. 26



PLUS 5 - 52/96

Alu pyramid

Pag. 27



PLUS 5 - 52 PLUS 5 - 96

Tiltings

Pag. 28



PLUS 5 - 96

Multiple tilting

Pag. 30



PLUS 5 - 52/96

■ Safety plate
■ Alignment plate

Pag. 31



PLUS 5 - 52

Tombstone

Pag. 32



PLUS 5 - 96

Tombstone

Pag. 33



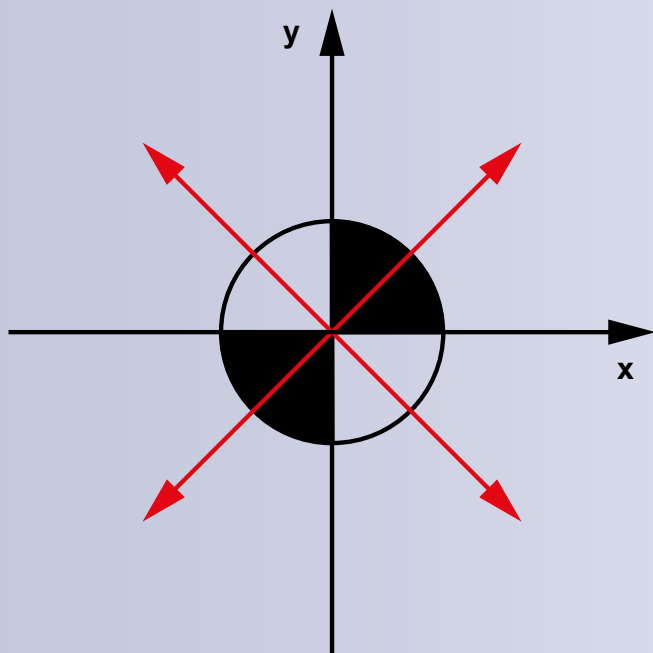
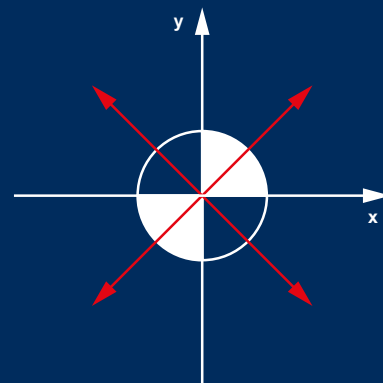
PLUS 5 - 52/96

Accessories

Pag. 34

PLUS5

MECHANICAL ZERO POINT SYSTEM



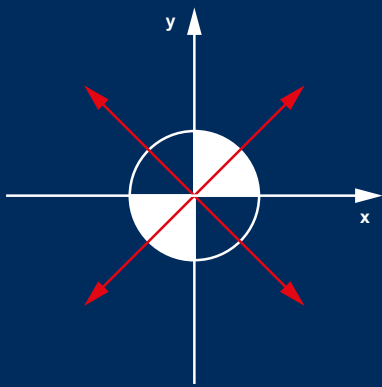
PLUS5

- ▶ The symbol on the side represents the vectorial force transmission system that acts by binding the pins uniformly and in all directions.



Watch the video

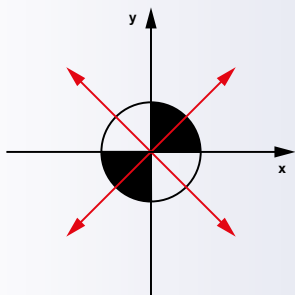




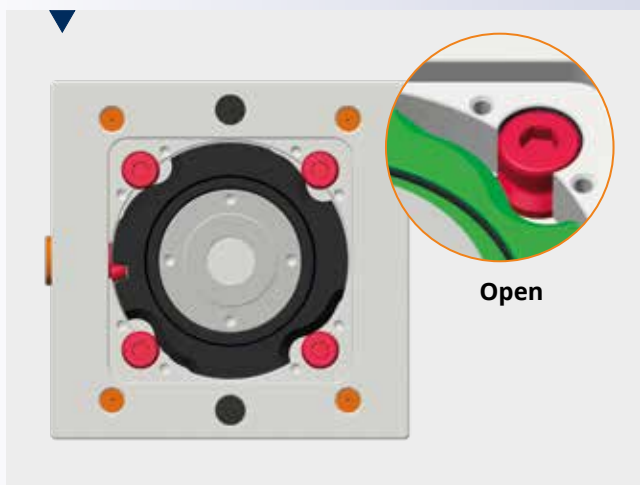
PLUS5

MECHANICAL ZERO POINT SYSTEM

PLUS5 BENEFITS

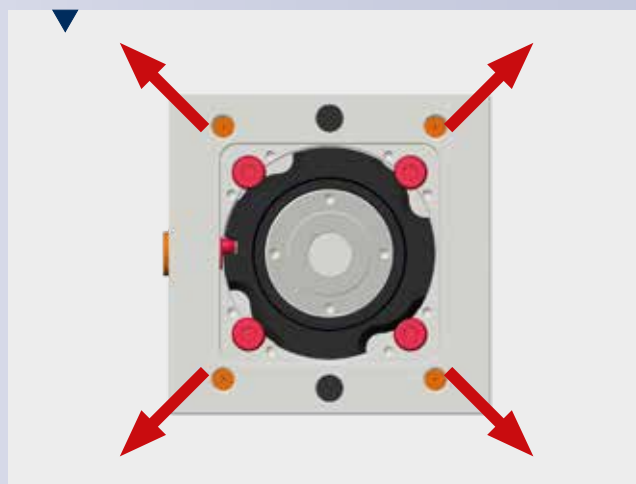
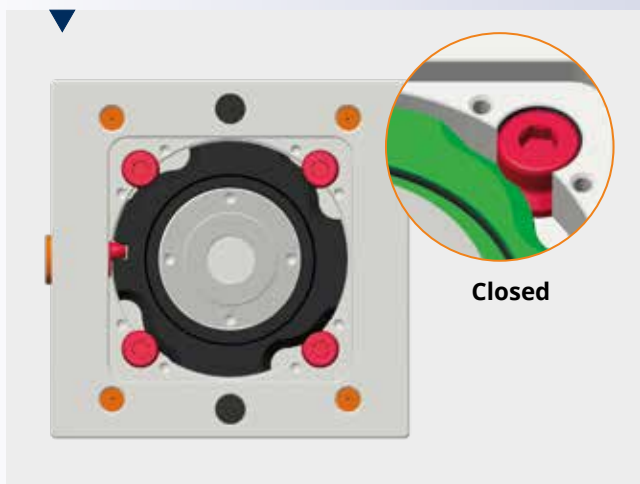


- ▶ Locking and unlocking system of the pins with a rotation of only 180 degrees
- ▶ Does not require a torque wrench. The limit switch determines locking / unlocking
- ▶ Repeatability < 0.005mm
- ▶ Pull down force 7 kN for Plus 5 52 and 8 kN for Plus 5 96
- ▶ Holding force 40 kN for Plus 5 52 and 80 kN for Plus 5 96



The mechanism designed for locking the pins consists of a cam which is operated by an eccentric pin.

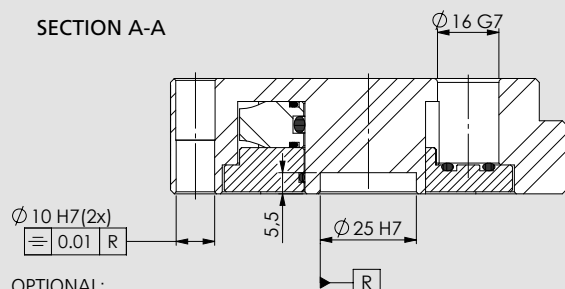
The system guarantees high performance in terms of precision and clamping force. This is due in particular to the fact that the cam locks the 4 pins outwards at the same time.



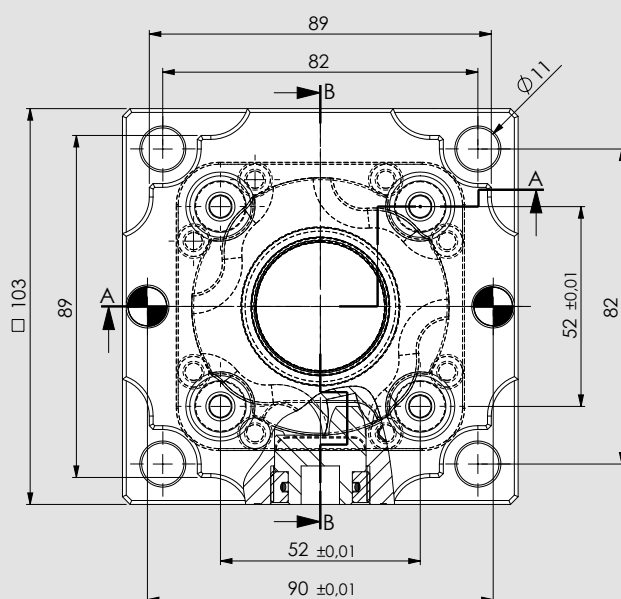
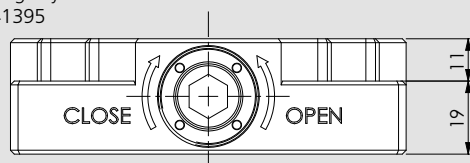


- Complete with wrench 10mm
- Pins not included

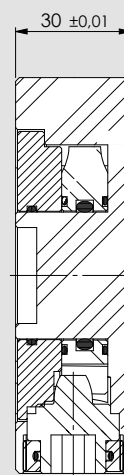
SECTION A-A



OPTIONAL:
Multislot positioning key
58341393 / 58341395



SECTION B-B



Subject to technical changes.

Id. No.

46240101

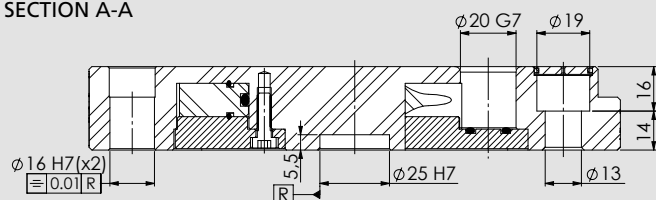
Weight (Kg)

2

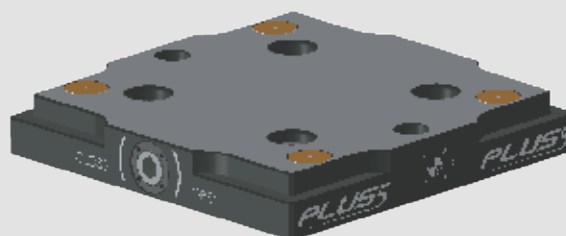
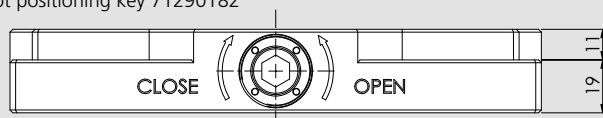


- Complete with wrench 10mm
- Pins not included

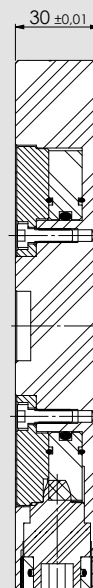
SECTION A-A



OPTIONAL:
Multislot positioning key 71290182



SECTION B-B



Subject to technical changes.

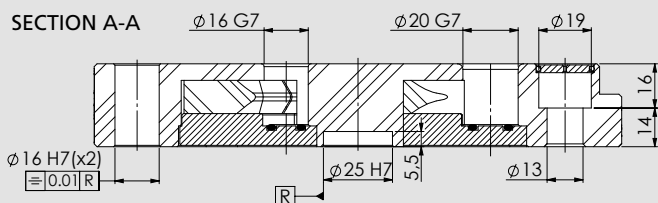
Id. No.	Weight (Kg)
46240102	7,5

PLUS 5 All in One 52/96

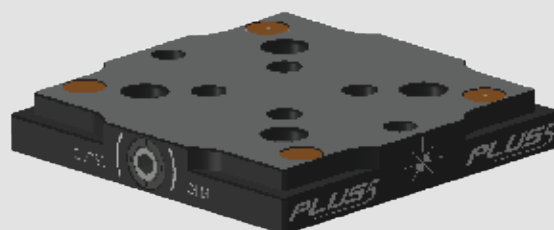
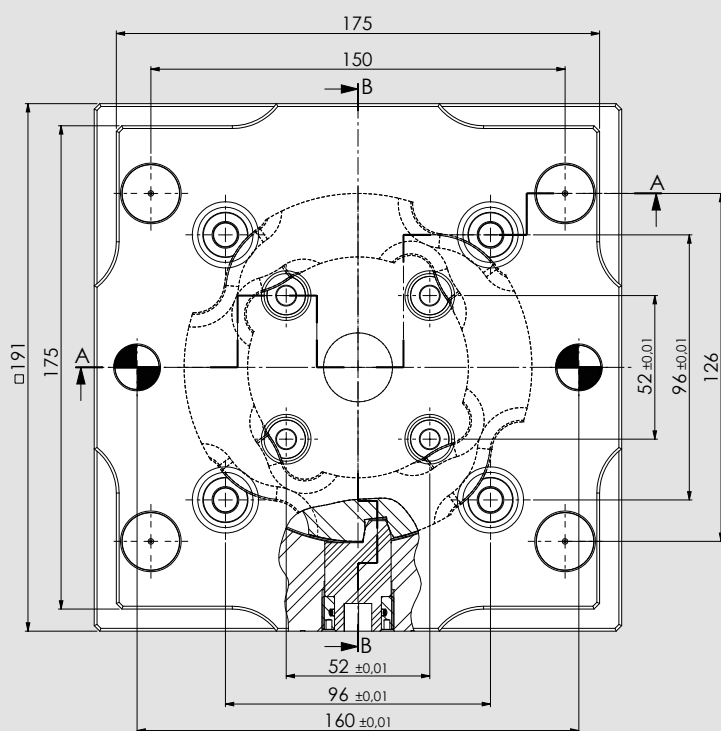
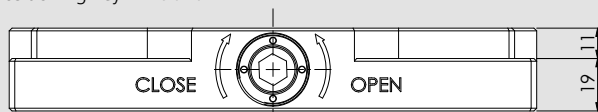
PLUS 5 All in One - Mechanical Zero Point system



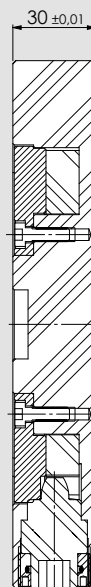
- Complete with:
 - wrench 10mm
 - protection caps (Plus 5 - 96)
- Pins not included



OPTIONAL:
Multislot positioning key 71290182



SECTION B-B

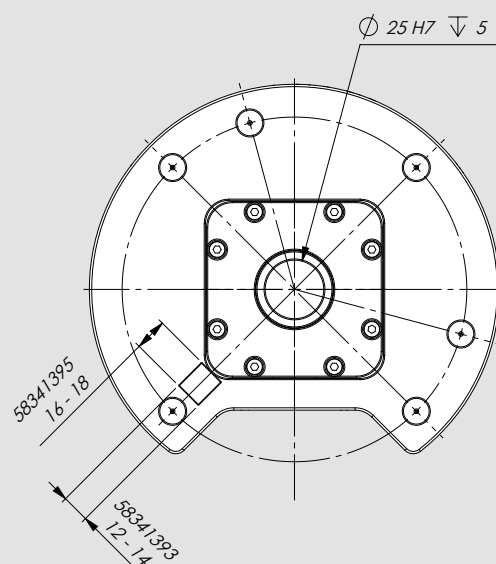
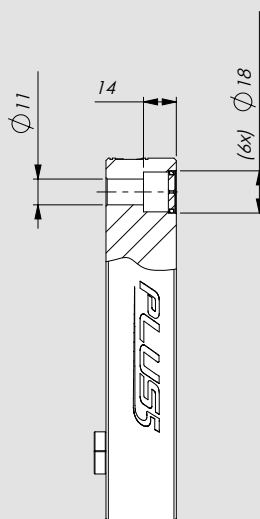
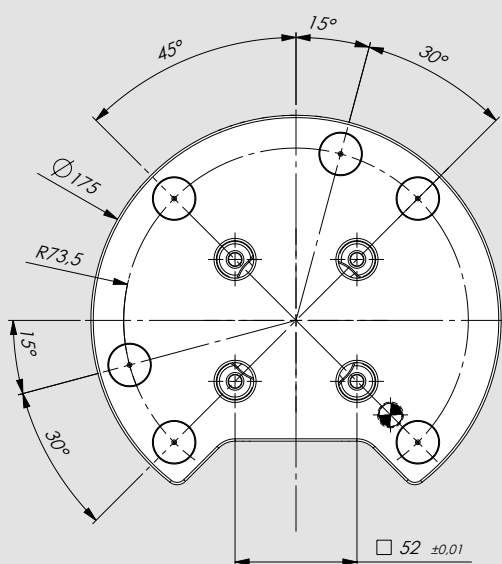
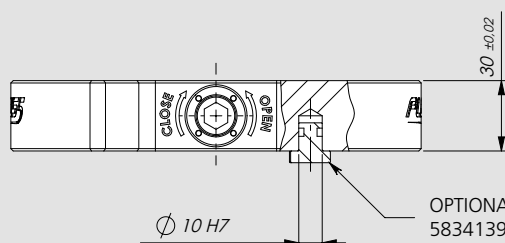


Subject to technical changes.

Id. No.	Weight (Kg)
46240103	7,5



- Complete with wrench 10mm
- Pins not included

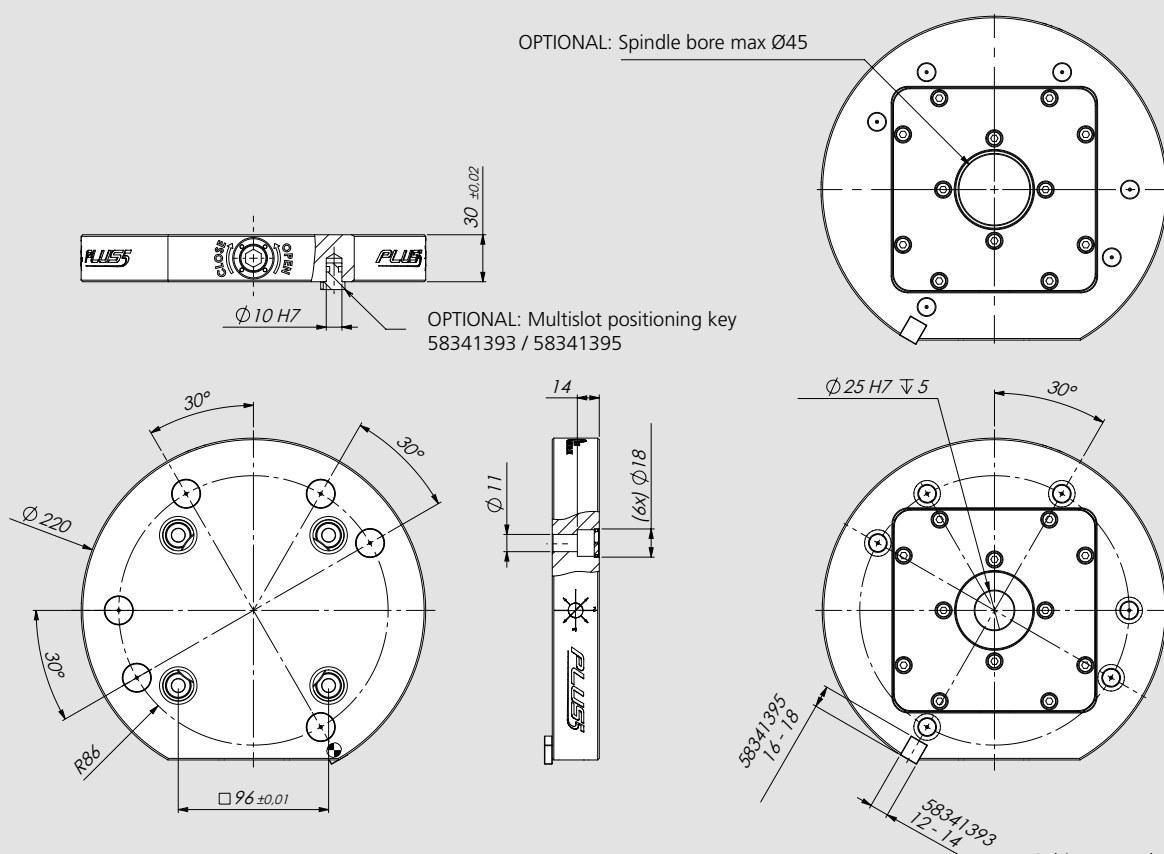


Subject to technical changes.

Id. No.	Weight (Kg)
46240111	6



- Complete with wrench 10mm
- Pins not included



Subject to technical changes.

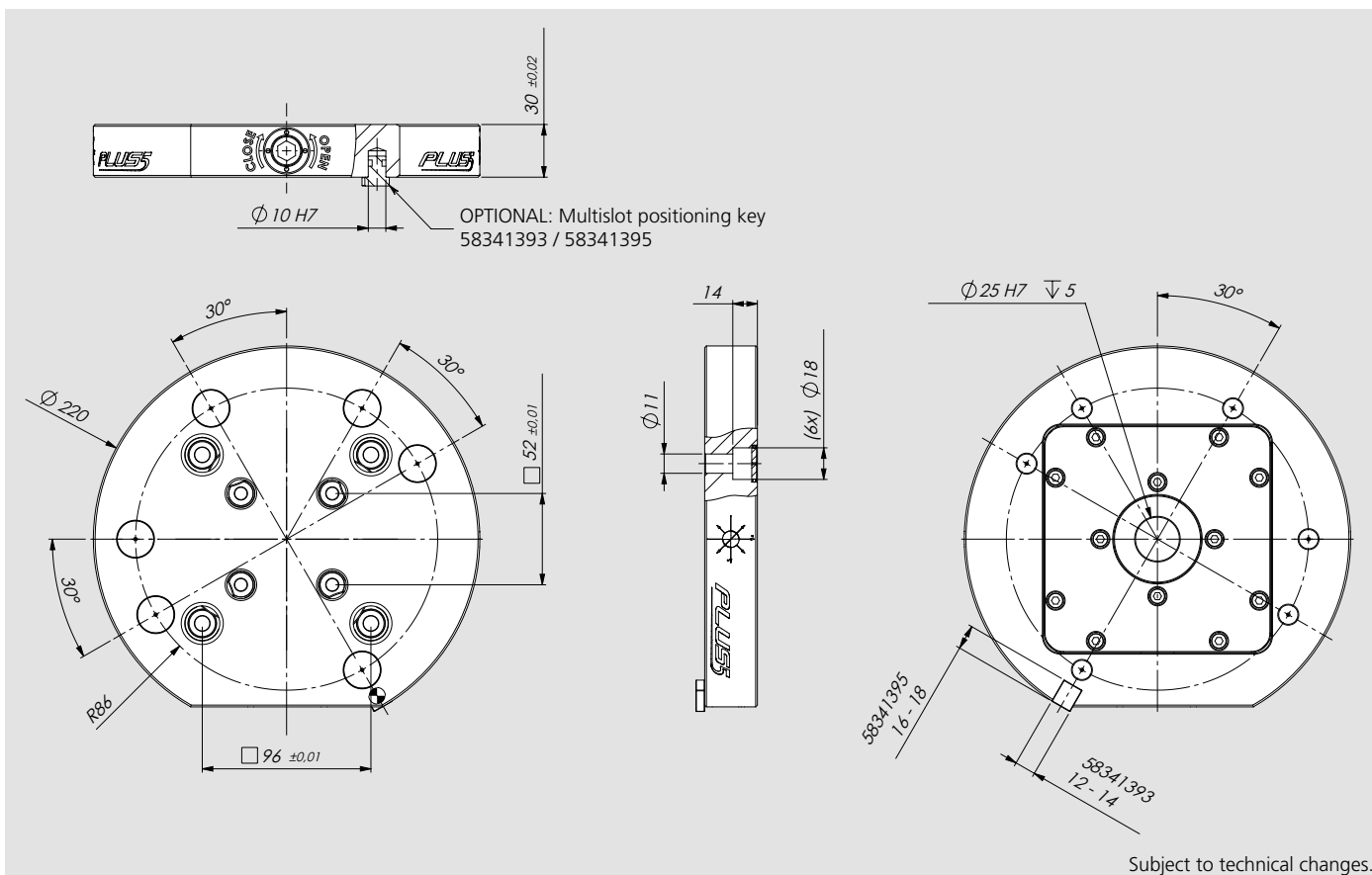
Id. No.	Weight (Kg)
46240112	8

Working example





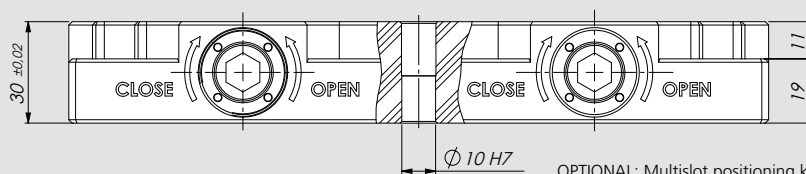
- Complete with:
 - wrench 10mm
 - protection caps (Plus 5 - 96)
- Pins not included



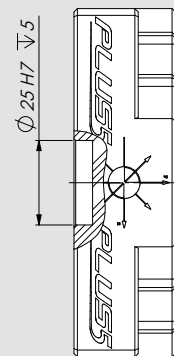
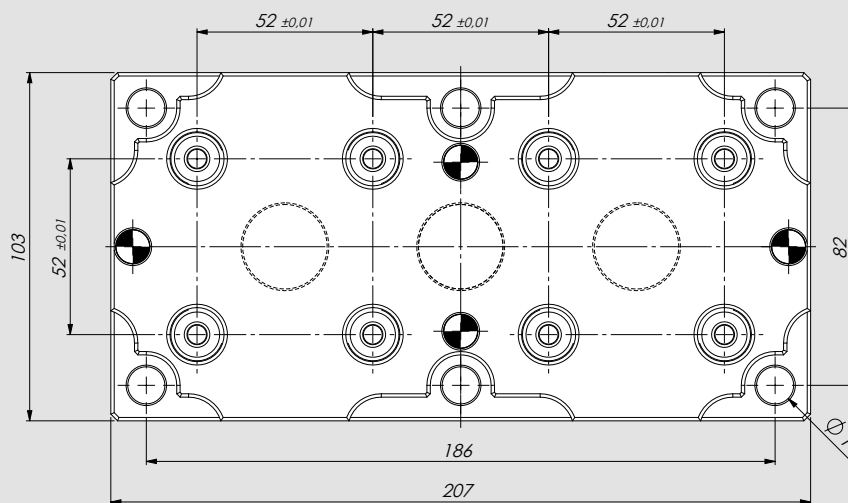
Id. No.	Weight (Kg)
46240113	8



- Complete with:
 - wrench 10mm
 - n. 2 safety plates (Id. No. 46248205)
- Pins not included

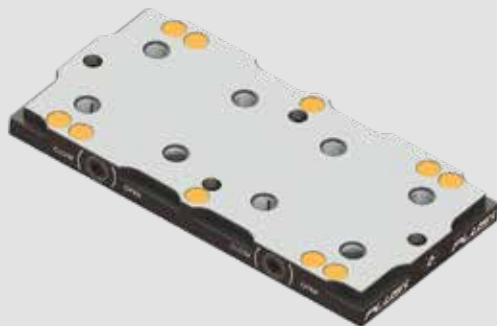


OPTIONAL: Multislot positioning key 58341393 / 58341395

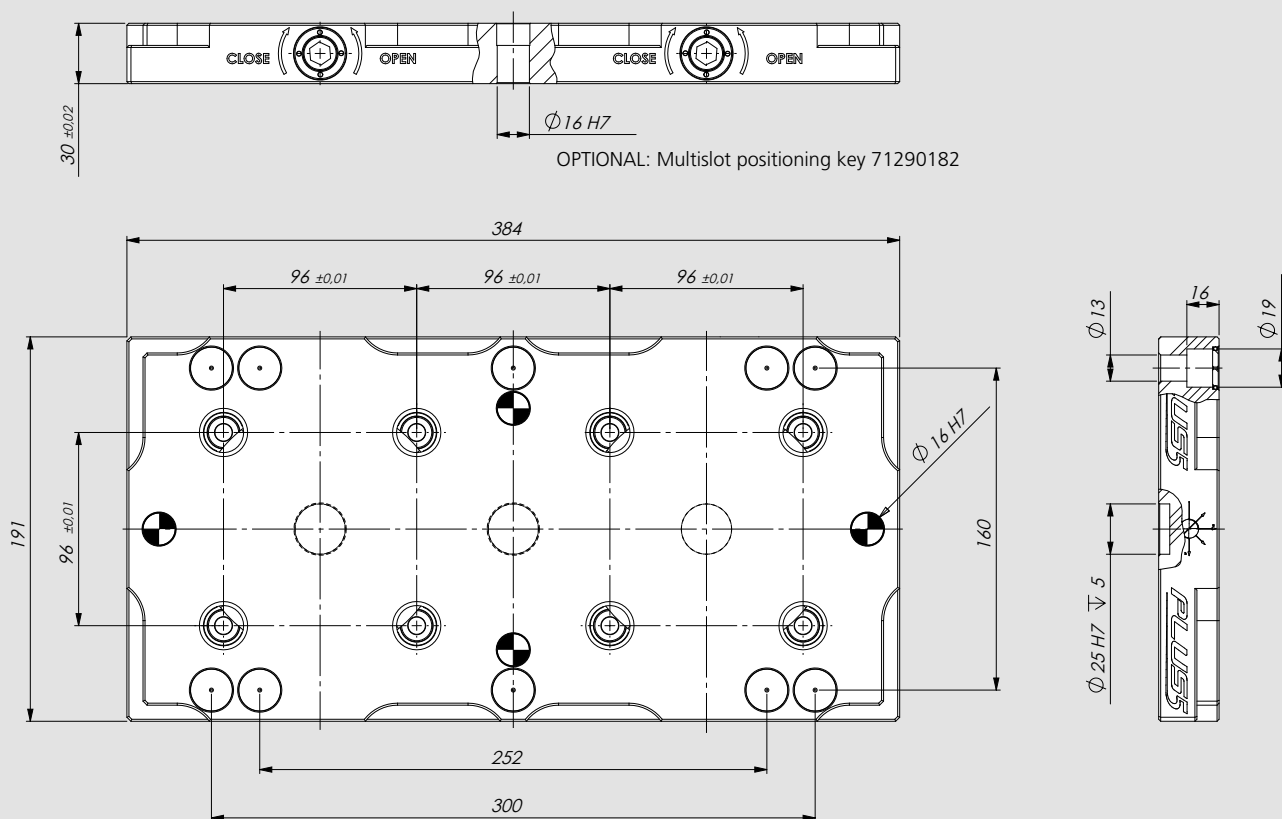


Subject to technical changes.

Id. No.	Weight (Kg)
46248200	4



- Complete with:
 - wrench 10mm
 - n. 2 safety plates (Id. No. 46248215)
- Pins not included

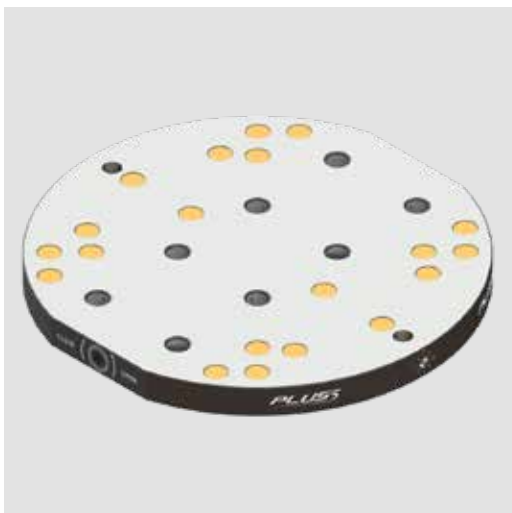


Subject to technical changes.

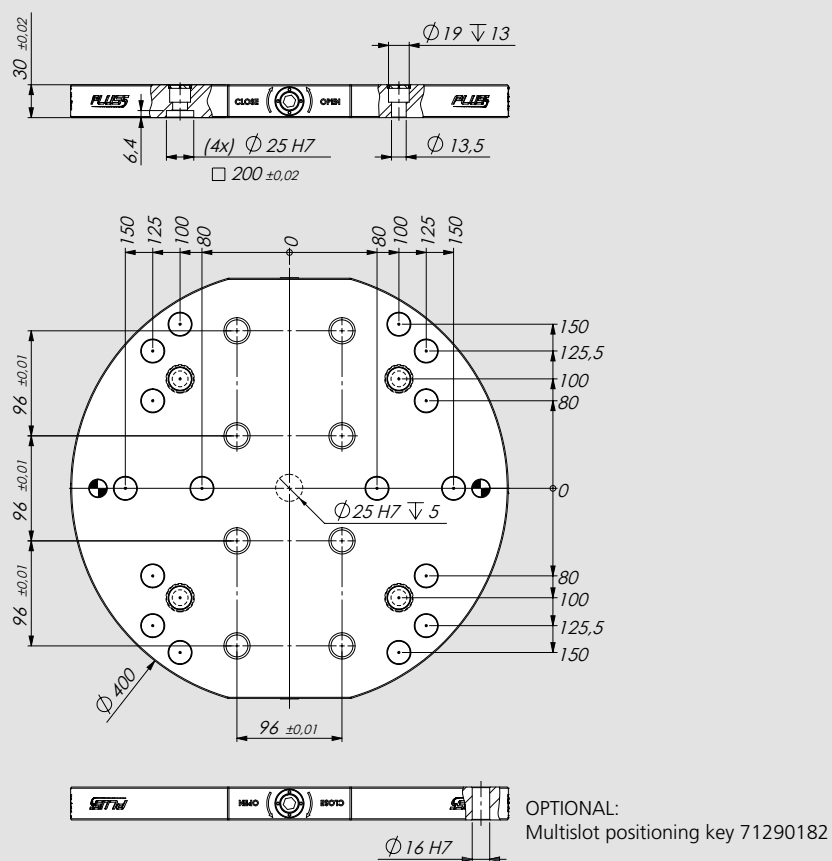
Id. No.	Weight (Kg)
46248210	16

Working example





- Complete with:
 - wrench 10mm
 - n. 2 safety plates (Id. No. 46248215)
- Pins not included

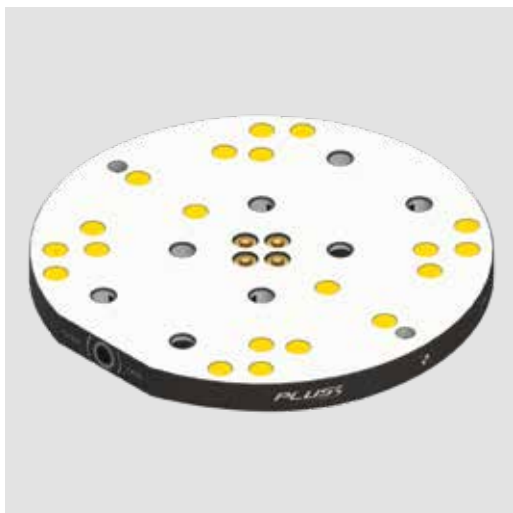


Subject to technical changes.

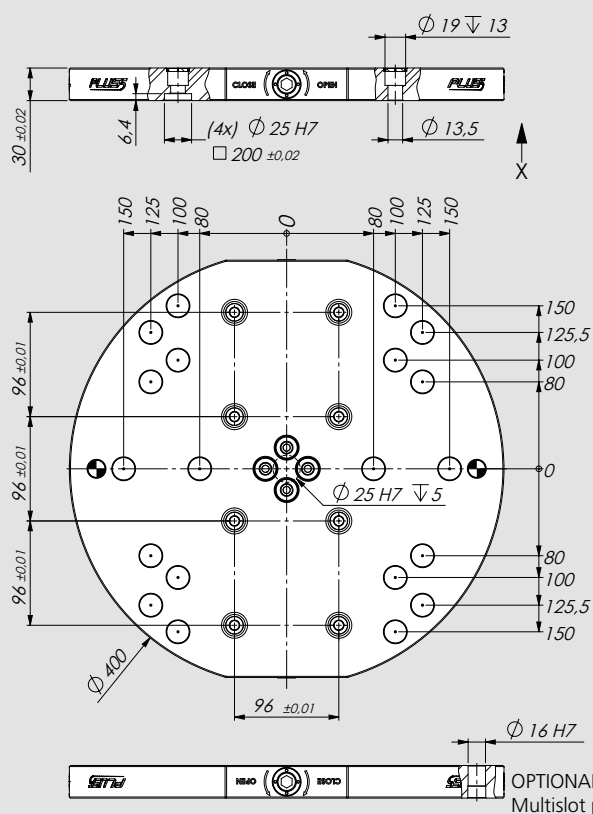
Id. No.	Weight (Kg)
46248220	27

Working example

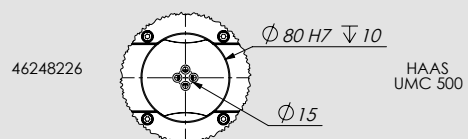
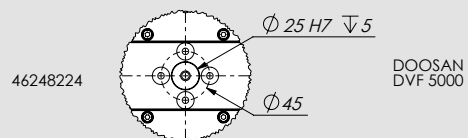
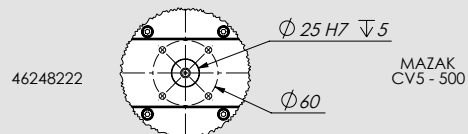




- Complete with:
 - wrench 10mm
 - n. 2 safety plates (Id. No. 46248215)
- Pins not included
- n. 4 fittings male



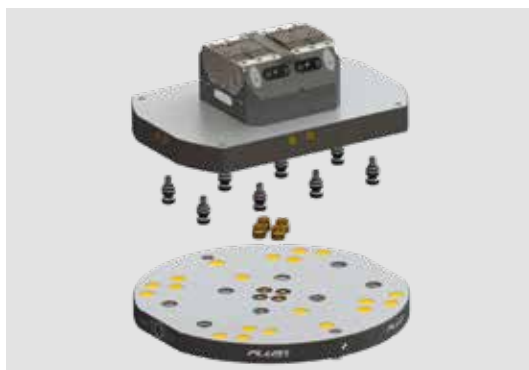
VISTA da X



Subject to technical changes.

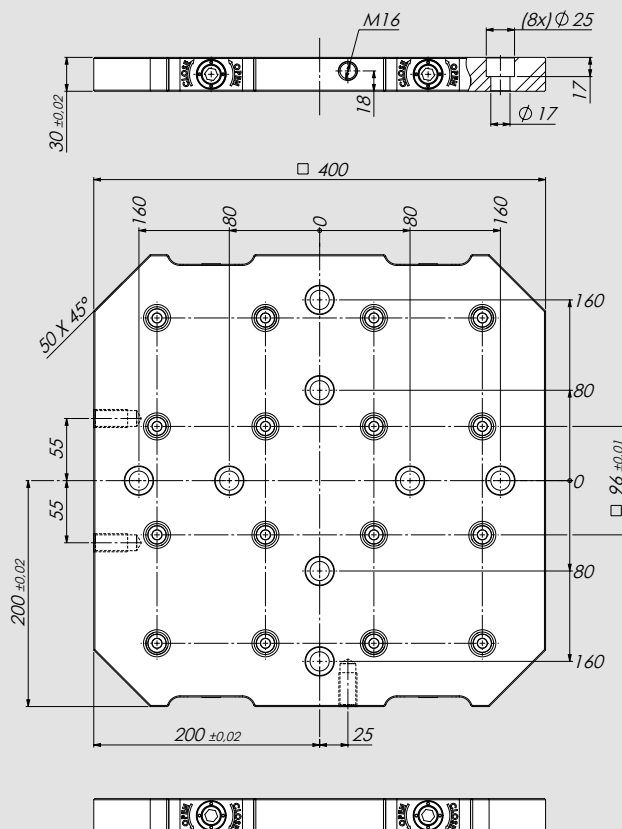
Id. No.	Weight (Kg)
46248224	27

Working example





- Complete with:
 - wrench 10mm
 - n. 6 safety plates (Id. No. 46248215)
- Pins not included



Subject to technical changes.

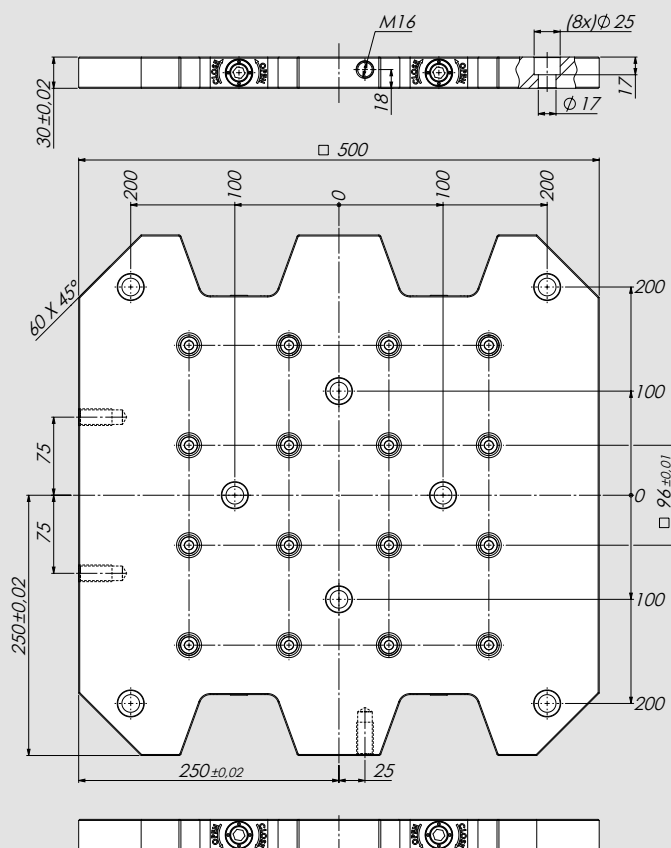
Id. No.	Weight (Kg)
46248230	33

Working example





- Complete with:
 - wrench 10mm
 - n. 6 safety plates (Id. No. 46248215)
- Pins not included



Subject to technical changes.

Id. No.	Weight (Kg)
46248232	50

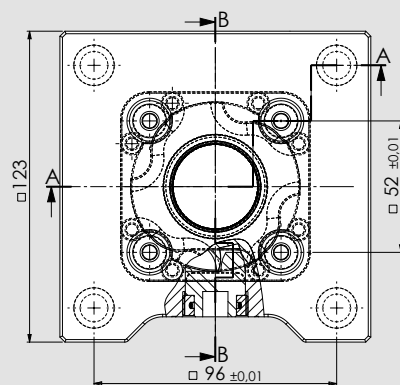
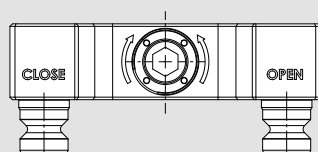
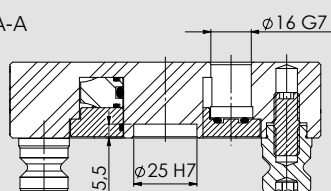
Working example



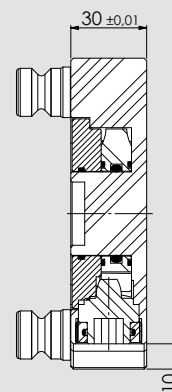


- Complete with:
 - wrench 10mm
- n. 4 pins 96 (46240220)

SECTION A-A



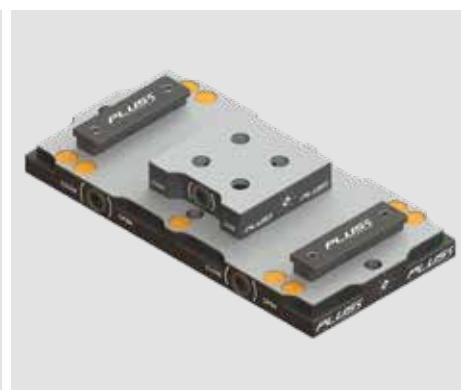
SECTION B-B



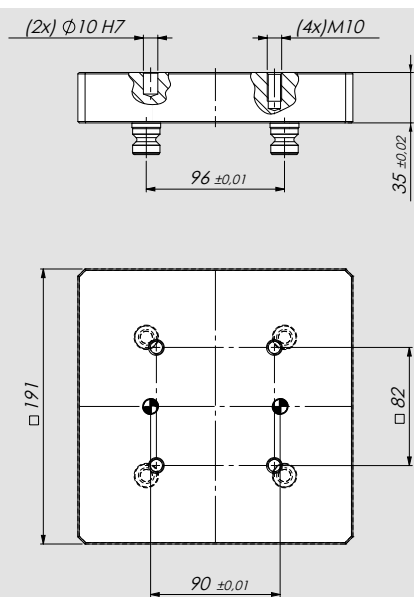
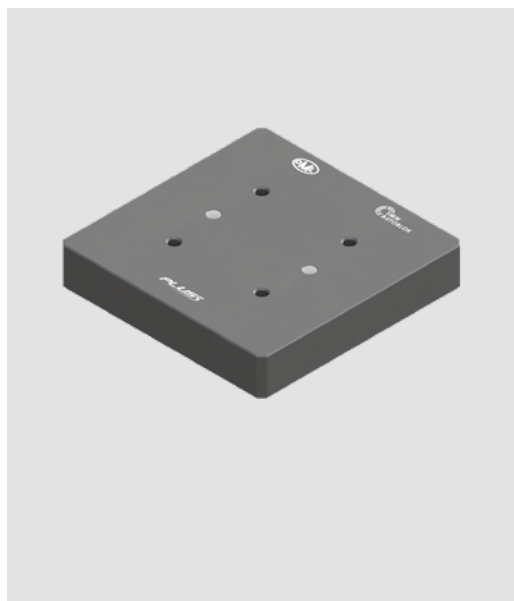
Subject to technical changes.

Id. No.	Weight (Kg)
46240104	3,5

Working example



Reduction plate



Working examples

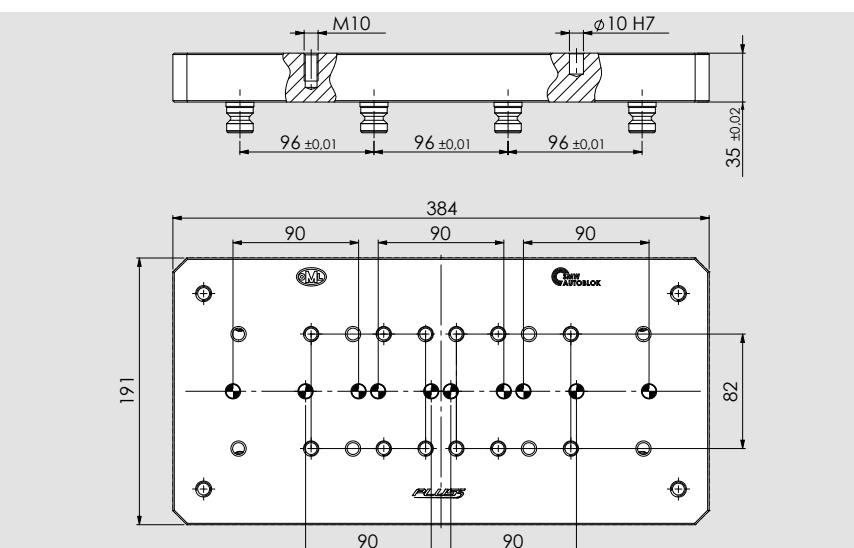


Complete with

- Fixing screws and dowel pins for Plus 5 52
- Set of 4 Plus 5 96 pins

Id. No.	Weight (Kg)
46242210	10

Multiple reduction plate

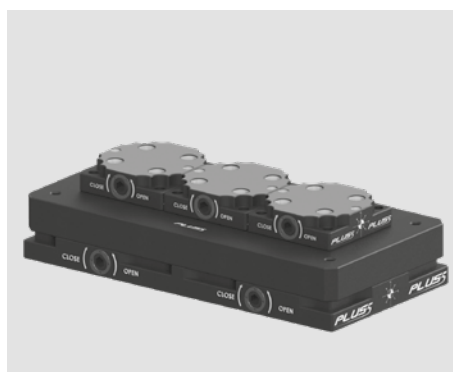


Complete with

- Fixing screws and dowel pins for Plus 5 52
- n. 2 Set of 4 Plus 5 96 pins

Id. No.	Weight (Kg)
46242220	21

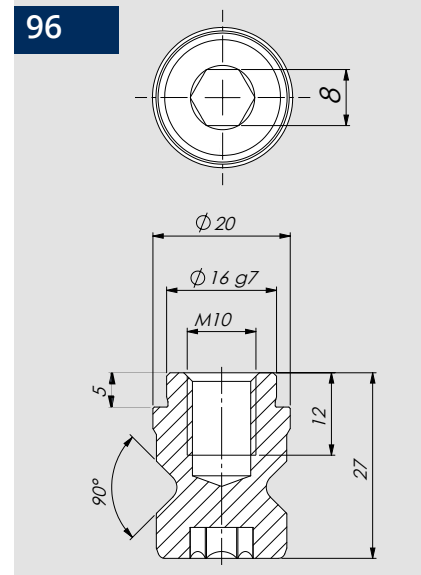
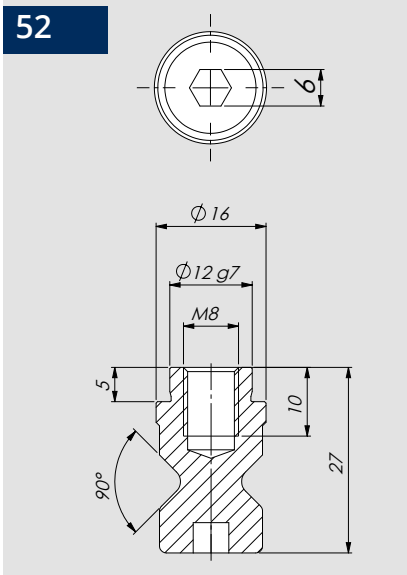
Working example



Clamping pins



- Complete of grub screw M8 for Plus5 52 and M10 for Plus5 96



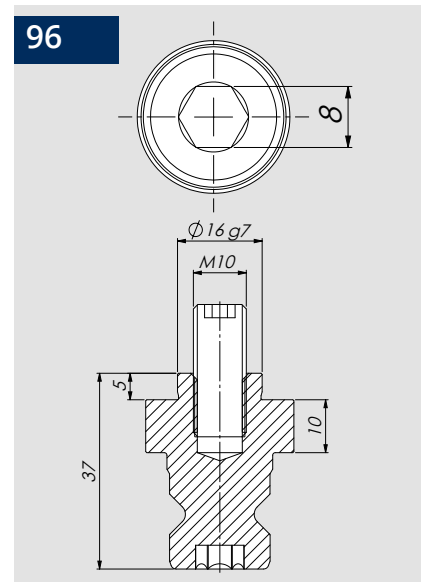
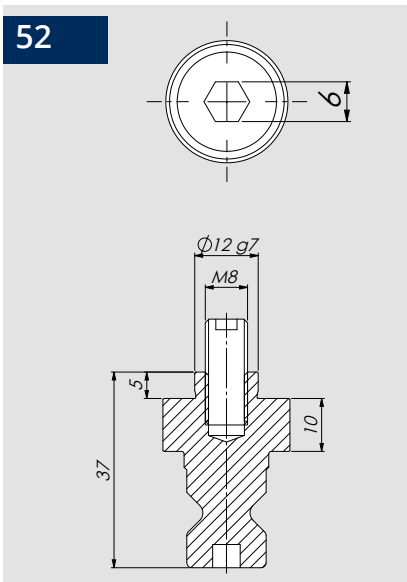
Description	Id. No.	Weight (Kg)
Set of 4 pins for PL5 - 52	46240214	0,12
Set of 4 pins for PL5 - 96	46240224	0,20
Pin for PL5 - 52	46240210	0,03
Pin for PL5 - 96	46240220	0,05

The dimensions of the pin identify compatibility with other pins on the market

Raised clamping pins

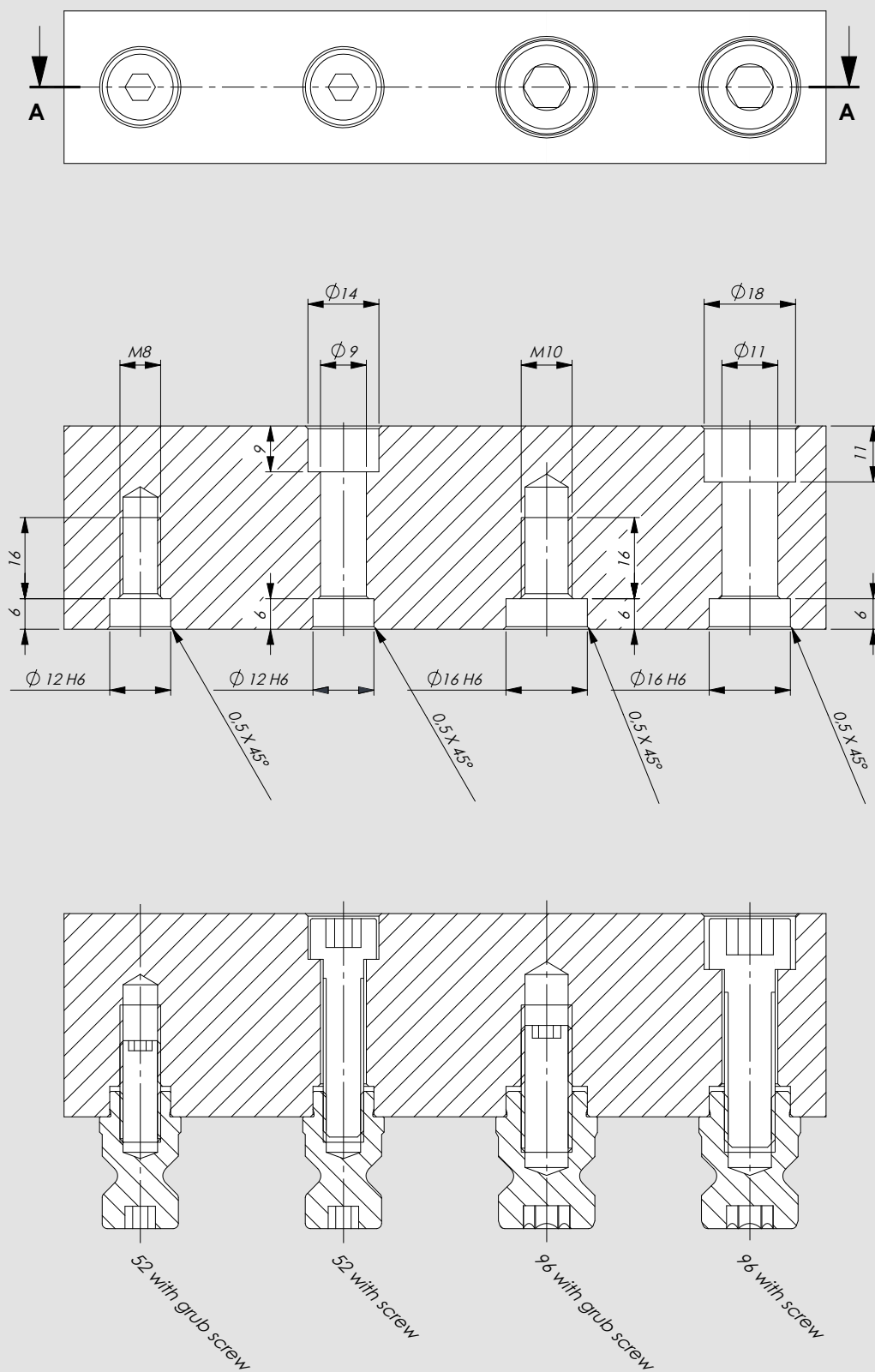


- Complete of grub screw M8 for Plus5 52 and M10 for Plus5 96



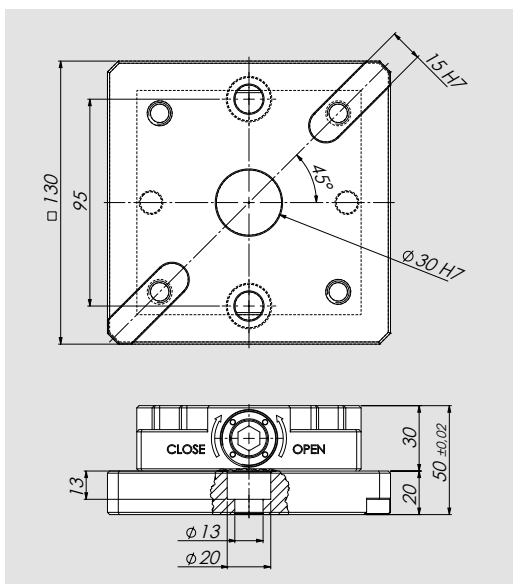
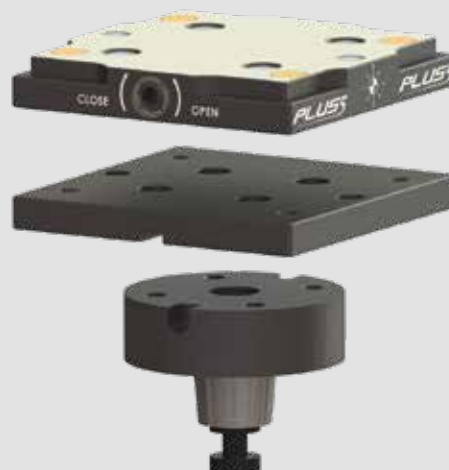
Description	Id. No.	Weight (Kg)
Set of 4 raised pins for PL5 - 52	46240234	0,12
Set of 4 raised pins for PL5 - 96	46240244	0,20
Raised pin for PL5 - 52	46240230	0,03
Raised pin for PL5 - 96	46240240	0,05

The dimensions of the pin identify compatibility with other pins on the market





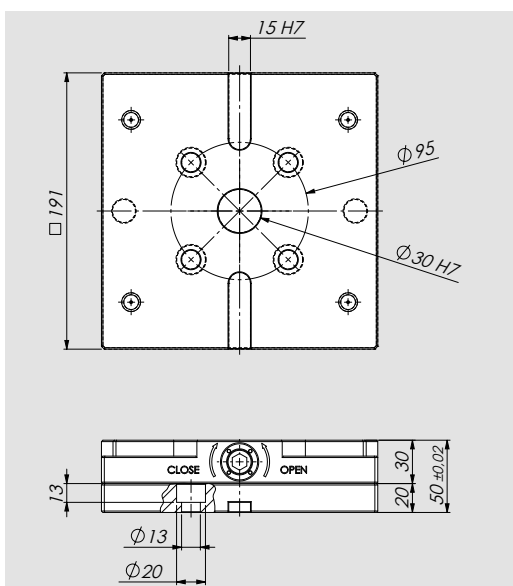
Working examples



PLUS 5 - 52 Pallet interface plate

Complete with screws and dowel pins
Plus 5 not included

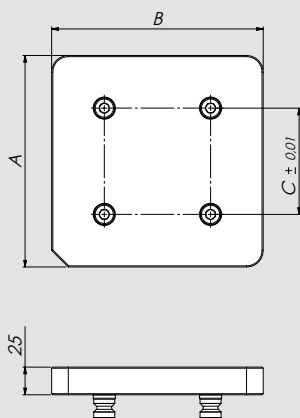
Id. No.	Weight (Kg)
46242110	2,5



PLUS 5 - 96 Pallet interface plate

Complete with screws and dowel pins
Plus 5 not included

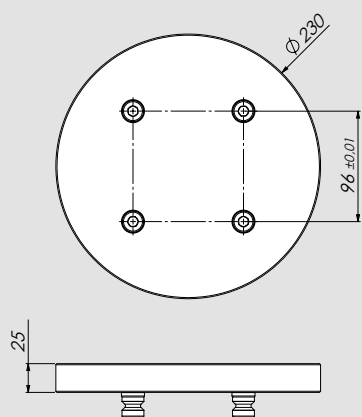
Id. No.	Weight (Kg)
46242120	5,5



PLUS 5 - 52 / 96 Smooth plate

Complete with set of 4 pins

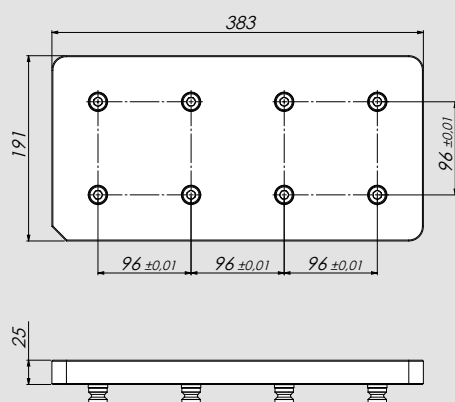
Id. No.	Type	A	B	C	Weight (Kg)
46247710	52	103	103	52	2
46247720	96	191	191	96	7



PLUS 5 - 96 Smooth round plate

Complete with set of 4 pins

Id. No.	Weight (Kg)
46247730	8



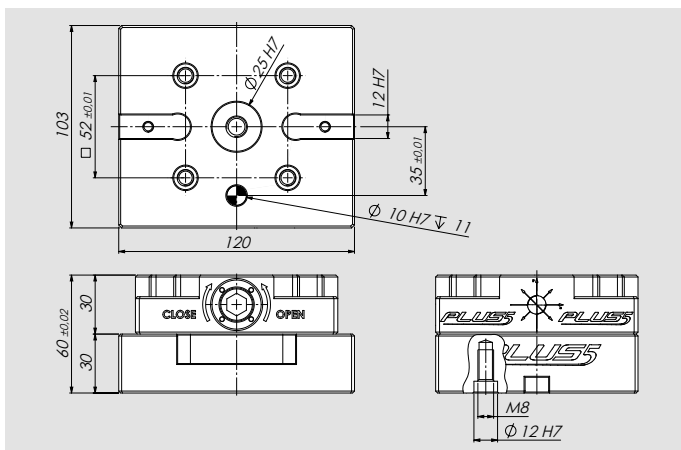
PLUS 5 - 96 Double smooth plate

Complete with n. 2 set of 4 pins Plus 5 96

Id. No.	Weight (Kg)
46247740	15

RISER PLUS 5 - 52 (H tot = 60)

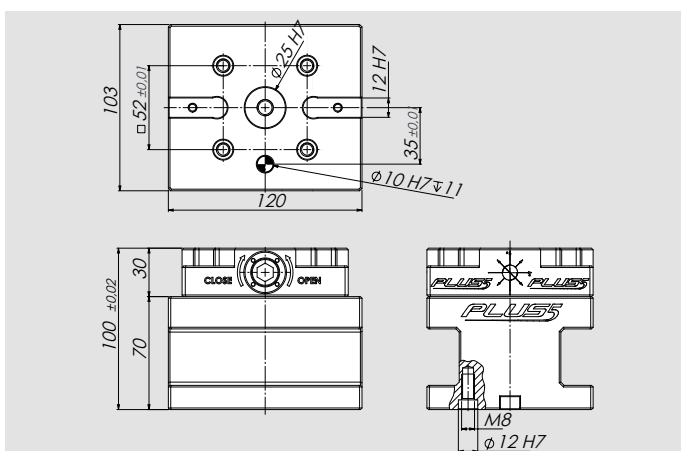
Complete with screws and dowel pins
Plus 5 not included



Id. No.	Weight (Kg)
46242018	2

RISER PLUS 5 - 52 (H tot = 100)

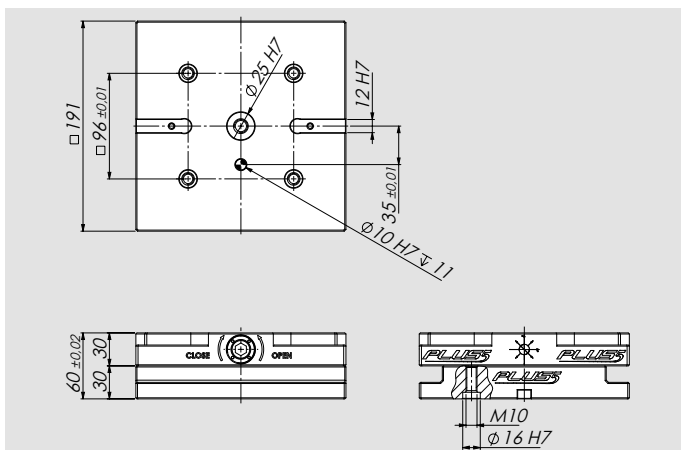
Complete with screws and dowel pins
Plus 5 not included



Id. No.	Weight (Kg)
46242019	5

RISER PLUS 5 - 96 (H tot = 60)

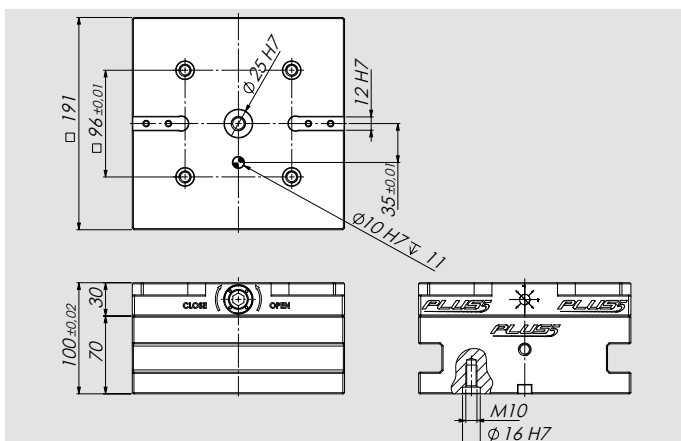
Complete with screws and dowel pins
Plus 5 not included



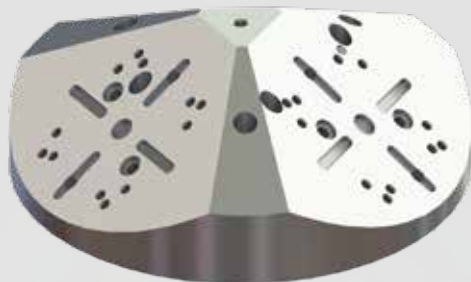
Id. No.	Weight (Kg)
46242028	7

RISER PLUS 5 - 52-96 (H tot = 100)

Complete with screws and dowel pins
Plus 5 not included



Id. No.	Weight (Kg)
46242029	18



Applications / Customer Benefits

- Ideal for 5 axis machines
- Compact design
- Possibility to be mounted directly on machine tools with radial slots at 45 / 60 degrees
- Possibility to be mounted directly on single plate or DUO APS (pitch 200/250mm) and Plus 5

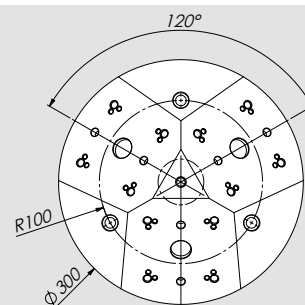
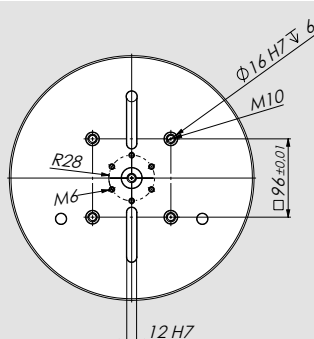
Technical features

- Material: ALU

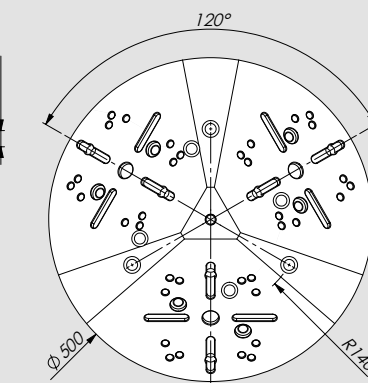
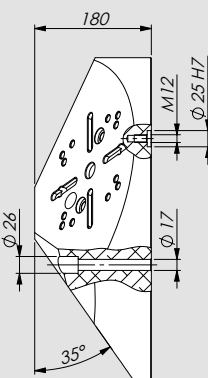
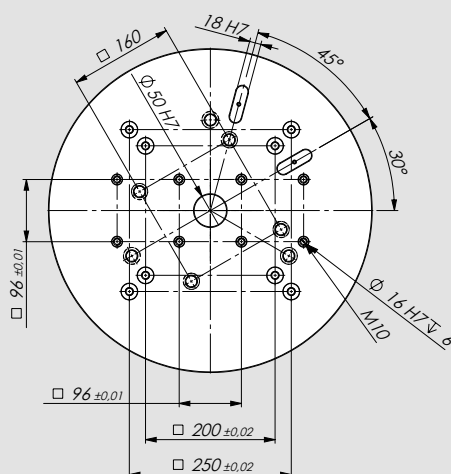
Standard equipment

Positioning keys and screws for IMG
Pins and screws for Plus 5

IMG 88 - 130
PLUS 5 - 52



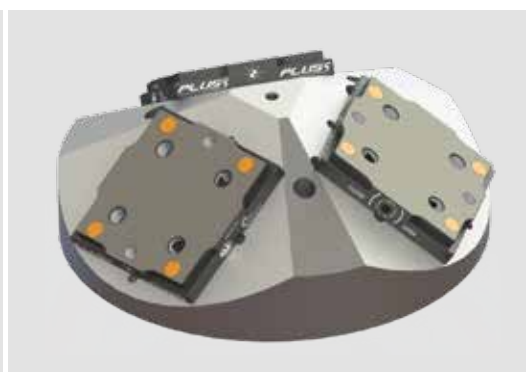
IMG 125 - 180
IMG 125 - 220
PLUS 5 - 96



Subject to technical changes.

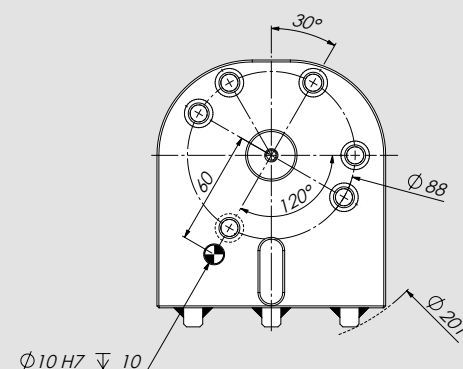
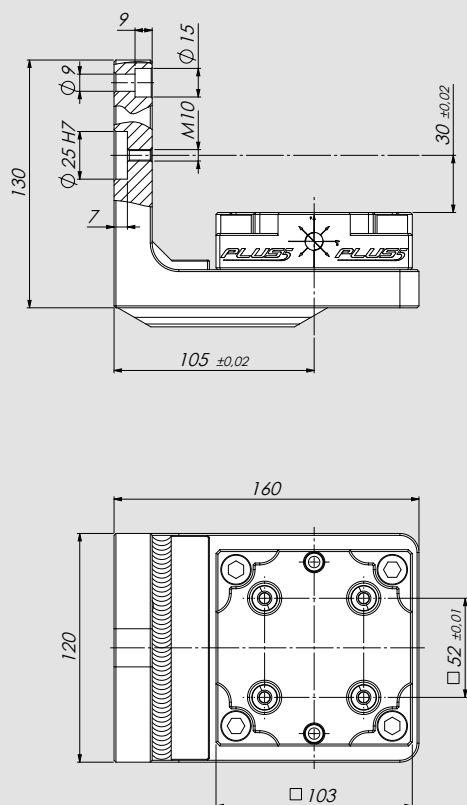
Type	Id. No.	Weight (Kg)
For IMG 88-130 and PLUS 5 - 52	58343210	12
For IMG 125-180, IMG 125-220 and PLUS 5 - 96	58353210	55

Working example





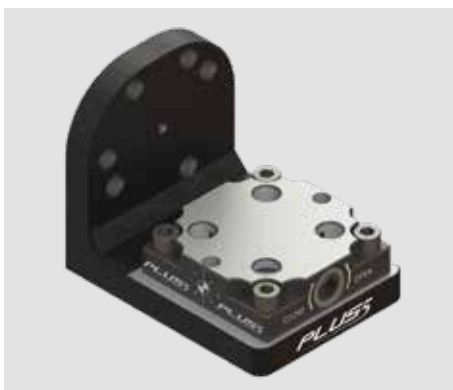
Plus 5 - 52 not included



Subject to technical changes.

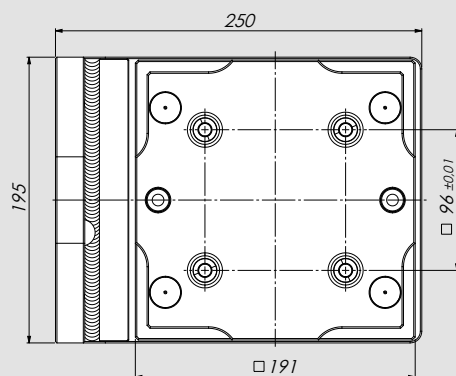
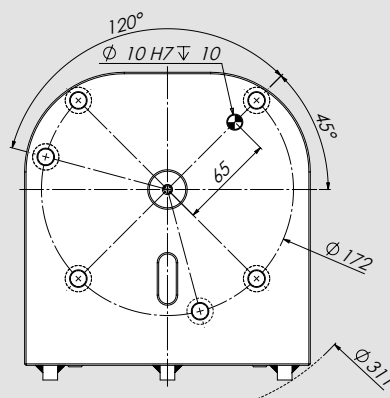
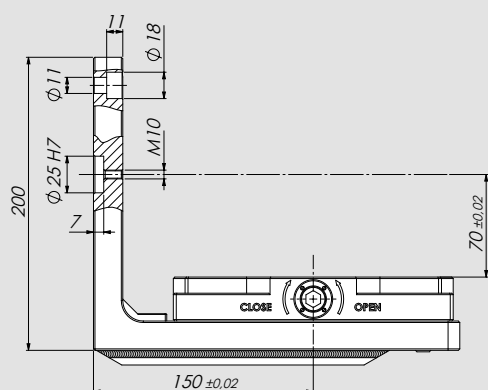
Id. No.	Weight (Kg)
46242038	6

Working example





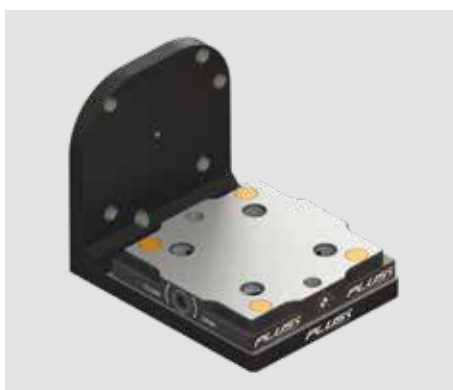
Plus 5 - 96 not included



Subject to technical changes.

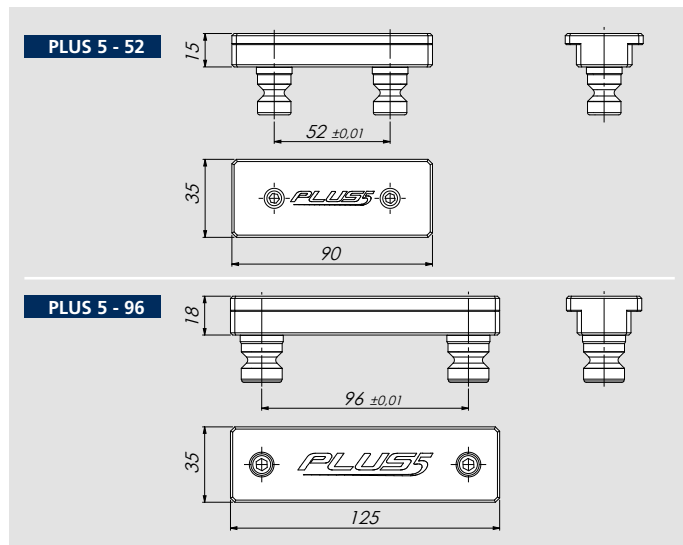
Id. No.	Weight (Kg)
46242039	14

Working example



PLUS 5 - 96

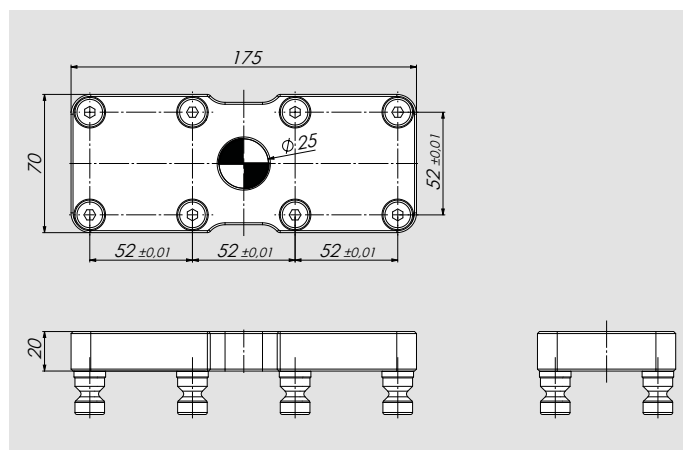
Safety plate for locking on two different modules. Complete with pins 96



Type	Id. No.	Weight (Kg)
Plus 5 - 52	46248205	0,3
Plus 5 - 96	46248215	0,4

PLUS 5 - 52

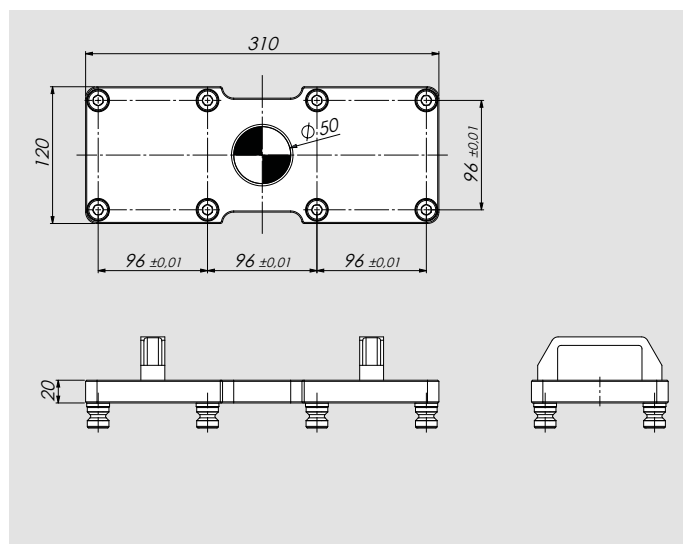
Alignment plate complete with pins 52



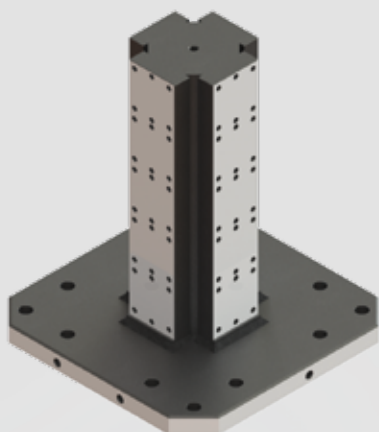
Id. No.	Weight (Kg)
46240410	2

PLUS 5 - 96

Alignment plate complete with pins 96



Id. No.	Weight (Kg)
46240420	6



Applications / Customer Benefits

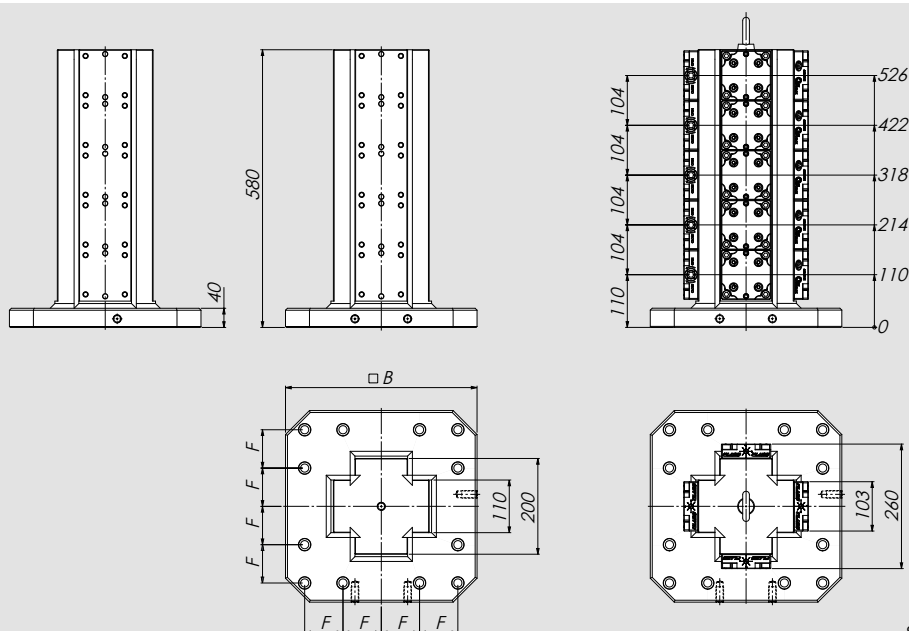
- Ideal for horizontal machines
- Compact design

Technical features

- Material: steel

Standard equipment

Steel tombstone complete with fixing screws and dowel pins

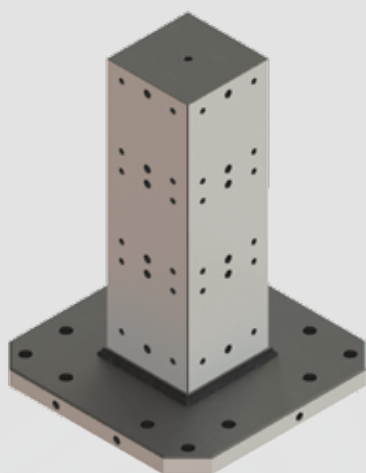


Subject to technical changes.

Type	Id. No.	B	F	Weight	Weight (only tombstone)
Tombstone Plus 5 - 52 - Base 400	46247110	400	80	162 Kg	121 Kg
Tombstone Plus 5 - 52 - Base 500	46247120	500	100	190 Kg	148 Kg

Working example





Applications / Customer Benefits

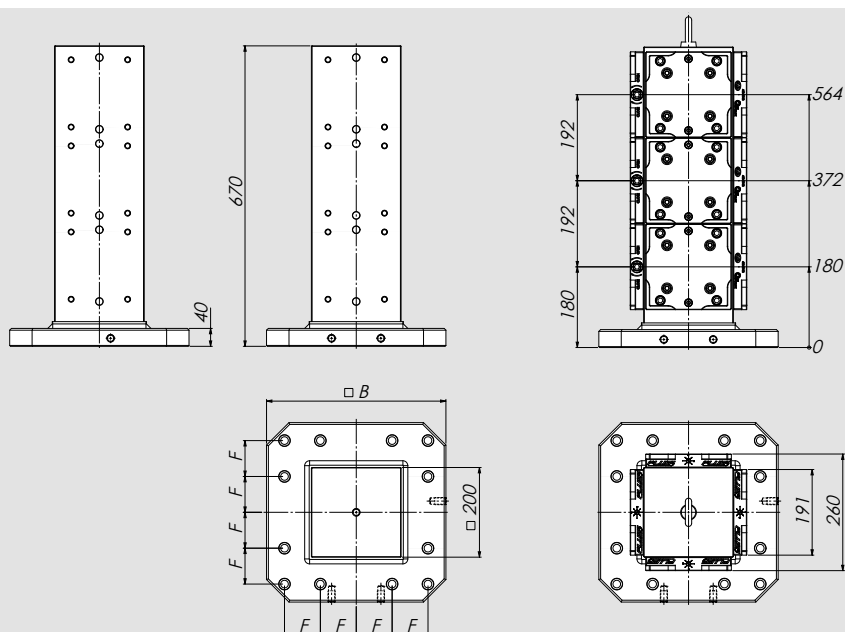
- Ideal for horizontal machines
- Compact design

Technical features

- Material: steel

Standard equipment

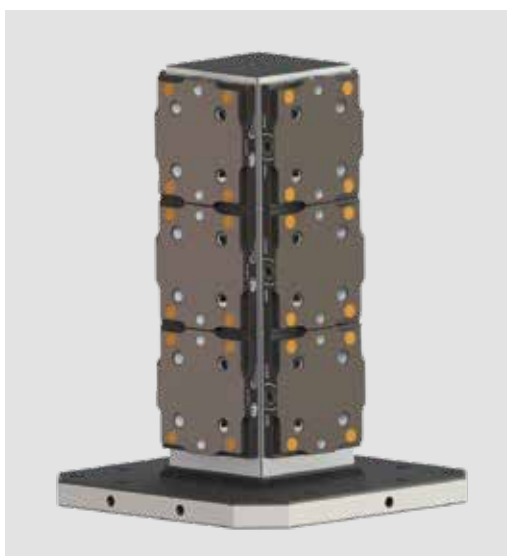
Steel tombstone complete with fixing screws and dowel pins



Subject to technical changes.

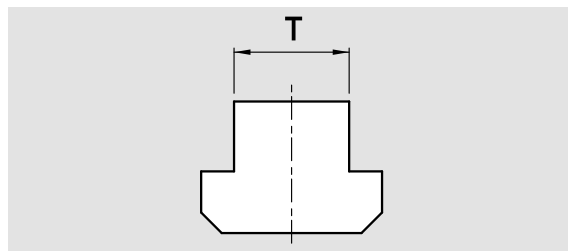
Type	Id. No.	B	F	Weight	Weight (only tombstone)
Tombstone Plus 5 - 96 - Base 400	46247210	400	80	253 Kg	160 Kg
Tombstone Plus 5 - 96 - Base 500	46247220	500	100	280 Kg	187 Kg

Working example

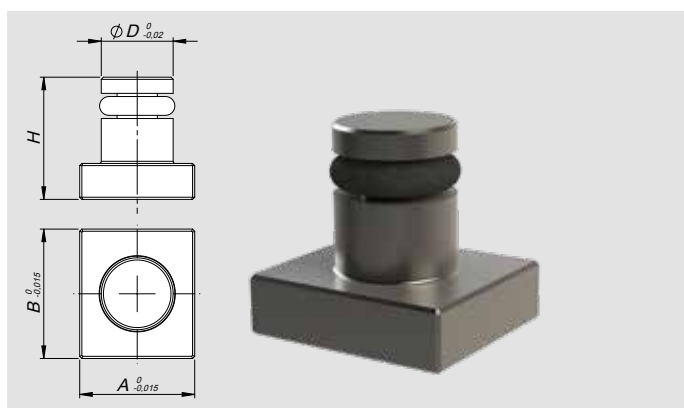


PLUS 5 - 52/96

Pair of Clamps



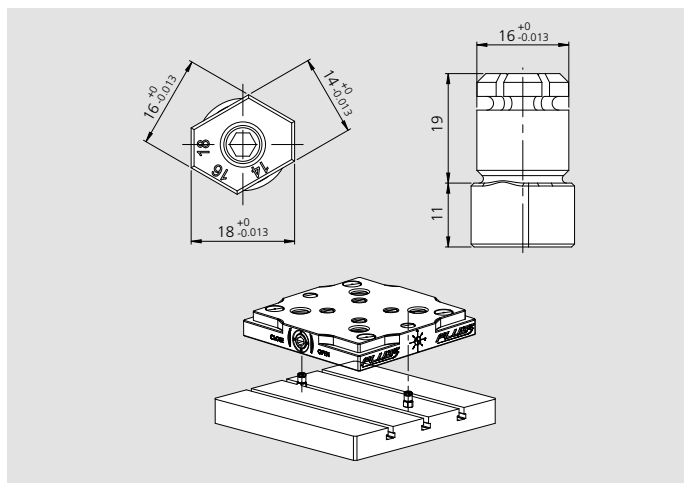
Type	mm 12	mm 14	mm 16	mm 18	mm 20	mm 22
PLUS 5 52/96	58022792	58022793	58022794	58022795	58022796	58022797



Key only for:

- Plus 5 52
- Plus 5 Index 96

Id.No.	A	B	H	D
58341393	12	14	17	10
58341395	16	18	17	10



Multi-Slot screw for Plus 5 96

Type	Id. No.
Multi-Slot 14 / 16 / 18	71290182

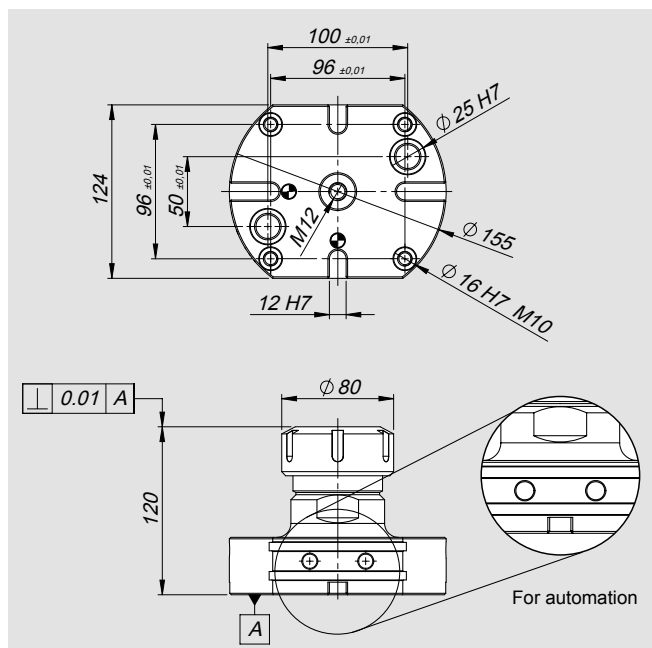


PLUS 5 - 52/96

Steel protection cap

Type	Id. No.	Weight (Kg)
Set 4 caps Plus 5 52	46240314	0,08
Set 4 caps Plus 5 96	46240324	0,16
Protection cap Plus 5 52	46240310	0,02
Protection cap Plus 5 96	46240320	0,04

COLLECT CHUCK ER50



Id. No.
46233500

Working example

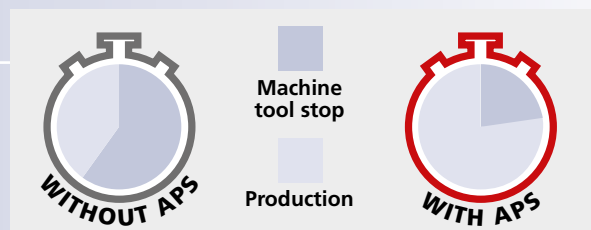




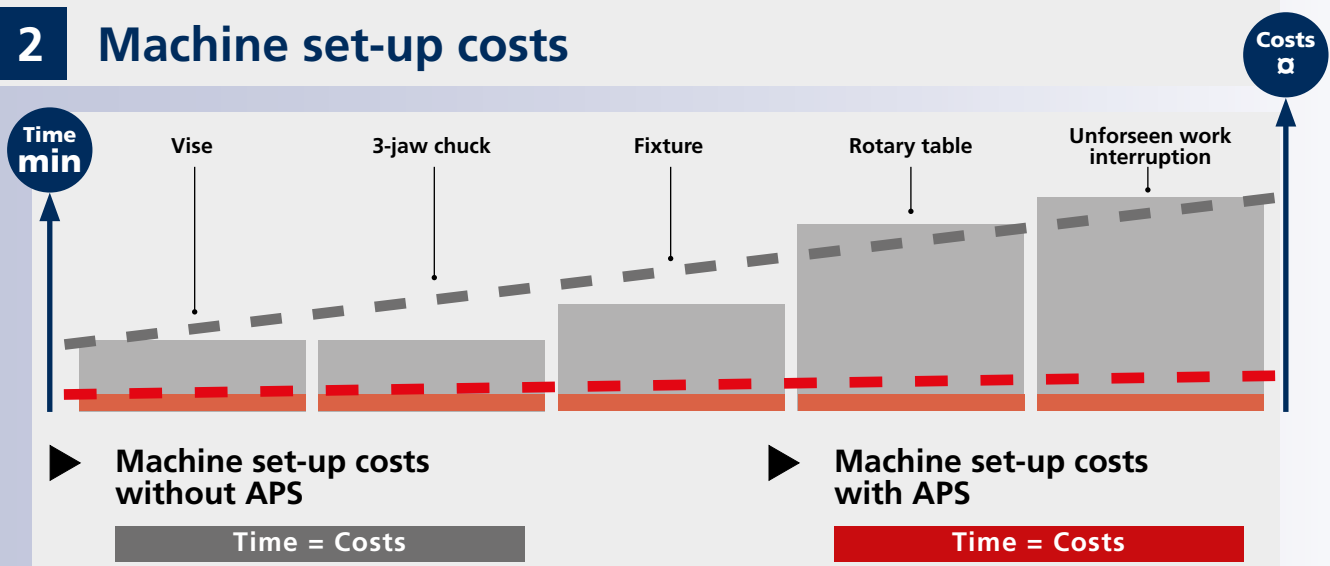
Industry 4.0 Product

1 Customer benefits

- ▶ Fully sealed (proofline)
- ▶ Highest stiffness by means of 3 clamping slides
- ▶ Low installation height due to the compact design
- ▶ Highest process reliability and repeat accuracy < 0.005 mm
- ▶ Modular construction kit system: Existing clamping systems can be modified very easy
- ▶ Significantly reduced costs due to reduced set-up times



2 Machine set-up costs



APS Zero Point clamping system



APS

Clamping units

- Fully assembled clamping unit
- Ready to use
- Customer-specific versions available in a short time

Page

38



APS

Clamping pins

- Large entry radii on the clamping pins for easy and safe loading
- Wear-resistant

Page

44



WATCH THE VIDEO

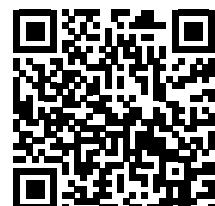


For more information:

consult the dedicated APS catalog or the General Catalog - Section 0



APS
catalogue



General Catalogue
sec. APS

APS

AUTOMATIC POSITIONING SYSTEM



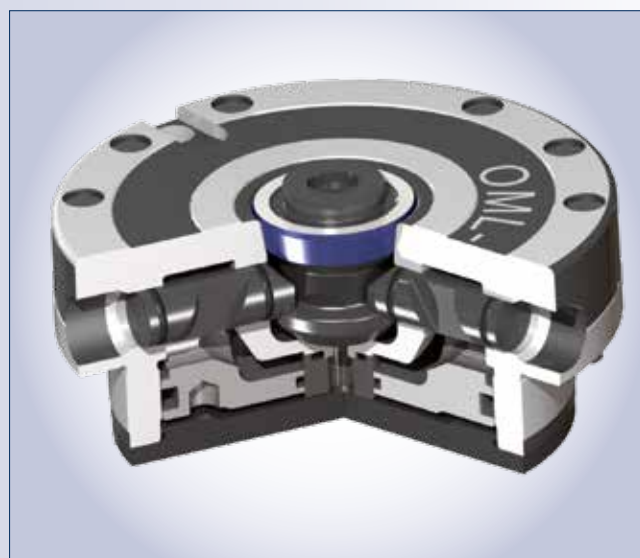
CLAMPING SYSTEM WITH 3 JAWS AT 120°

APS is the only one clamping system ZERO POINT with 3 jaws at 120° and thanks to special treatments antifriction and anticorrosion of the pins and the clamping jaws (already preliminarily treated to 62 HRC), further improves its performance.



MAXIMUM RIGIDITY!

- Monolithic piston with inclined planes
- Jaws with double inclined plane which generates the "PULL DOWN" effect



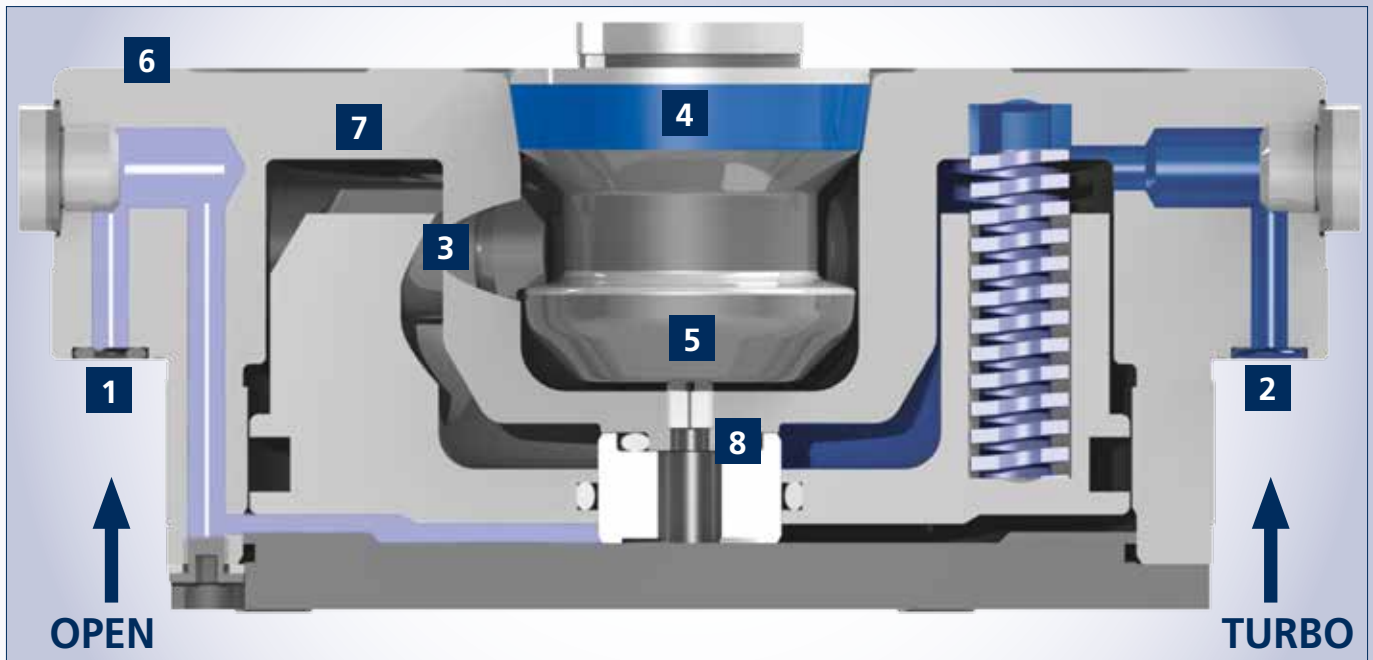
MAXIMUM ACCURACY!

Maximum accuracy of the tapered coupling between the pin and the module



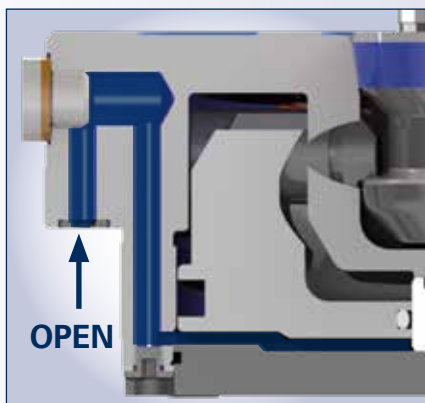
APS

AUTOMATIC POSITIONING SYSTEM

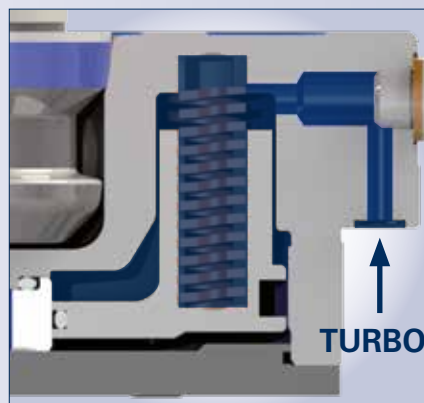


Functional Overview of the APS Zero Point Clamping System

- | | |
|--|---|
| 1 Unlocking function | 5 Large entry radii of the clamping pins for easy and safe loading |
| 2 Turbo function for increasing the pull-in forces | 6 Large flat surface for highest stiffness |
| 3 3 Clamping slides for maximum stiffness and protective coating (wear-resistant and rust protected) | 7 Hardened parts |
| 4 Clamping pins with precise short taper centering and protective coating (wear-resistant and rust protected) | 8 Air cleaning (while opening the modules) |

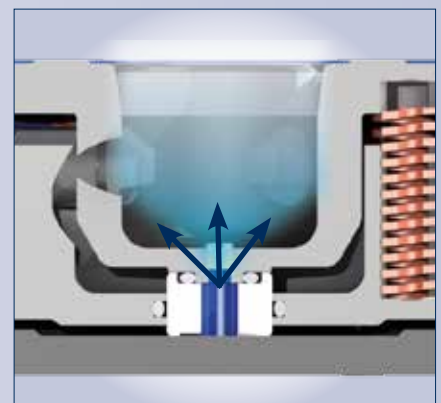


UNLOCKING FUNCTION
at 6 bar



TURBO FUNCTION

The Turbo function is always integrated in APS PREMIUM modules. Turbo is the function by means of which the compressed air increases the clamping force applied by the springs until reaching the "PULL DOWN" clamping force of 45 kN.



AUTOMATIC CLEANING FUNCTION (APS PREMIUM)



Application/customer benefits

- Pre-assembled clamping unit with 1 piece APS 140 Premium
- Universal applicable
- Fast and easy set-up

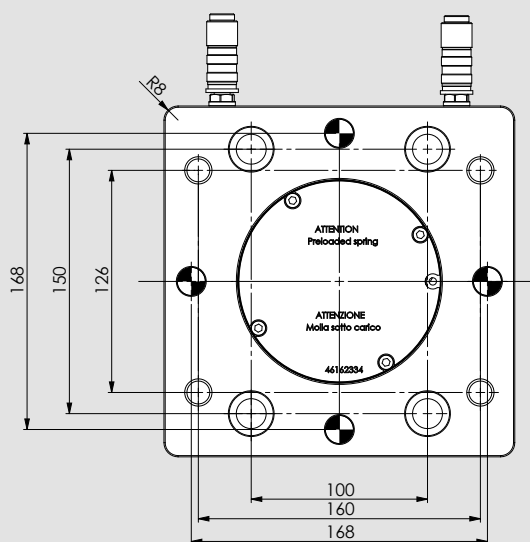
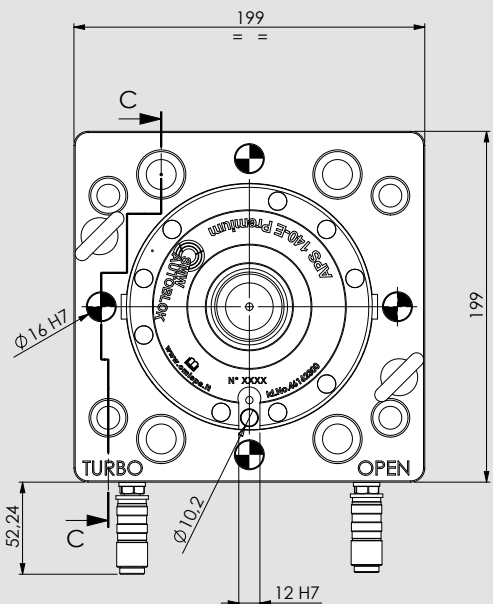
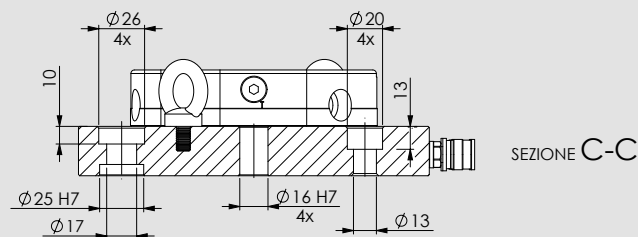
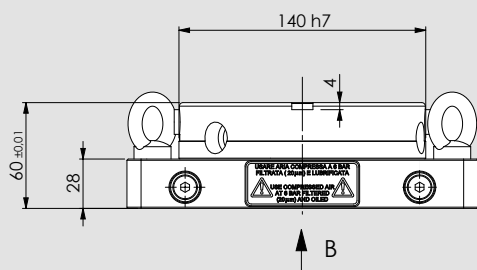
Technical features

- 3 clamping slides
- Repeatability < 0.005 mm
- Turbo function to increase the pull-in forces (pull-in force without Turbo 7.5 kN)
- Anti rotating protection
- Air cleaning

Standard equipment

Clamping unit with 1 piece APS 140 Premium
Quick pneumatic connections

For clamping pallets please see next catalog pages



VISTA B

Subject to technical changes.

Module height extensions (APS included)

Module extension with 1 APS 140 Premium

Id. No.

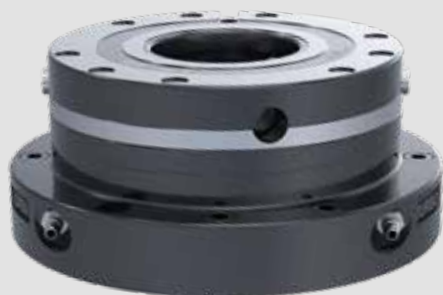
46168410

Height [mm]

60

Weight [kg]

11



Application/customer benefits

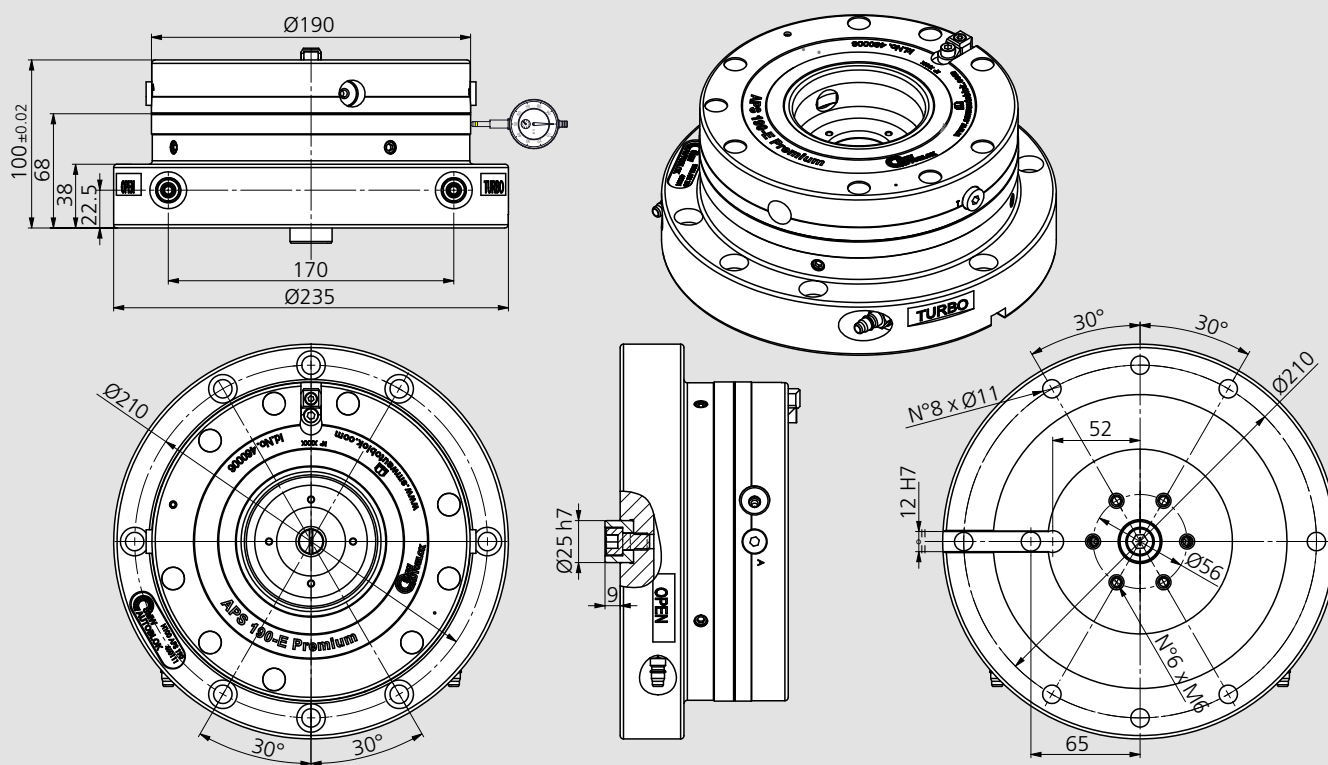
- Pre-assembled module extension unit with 1 piece APS 190 Premium
- Universal applicable
- Fast and easy set-up

Technical features

- 3 clamping slides
- Repeatability < 0.005 mm
- Turbo function to increase the pull-in forces (pull-in force without Turbo 7.5 kN)
- Anti rotating protection
- Air cleaning

Standard equipment

Module height extension with 1 piece APS 190 Premium



Subject to technical changes.

Module height extension (APS included)	Id. No.	Height [mm]	Weight [kg]
Module extension APS 190 PREMIUM H100	460111	100	20.5

Note 1: For every unit the key (Id. No. 46162133) is included

Note 2: Optional T-nuts sets: 46204100 with T-slot 12 / 46204101 with T-slot 14 / 46204102 with T-slot 18. Drawings and shares of these sets.

Note 3: Mountable also on APS 190 and APS 140.

Note 4: When use the module in rotation (200-1000 r.p.m.) request balancing (listed separately).

Note 5: The module extension is equipped with radial screws for the fine centering of the APS.

■ For 5-axis machining center



Application/customer benefits

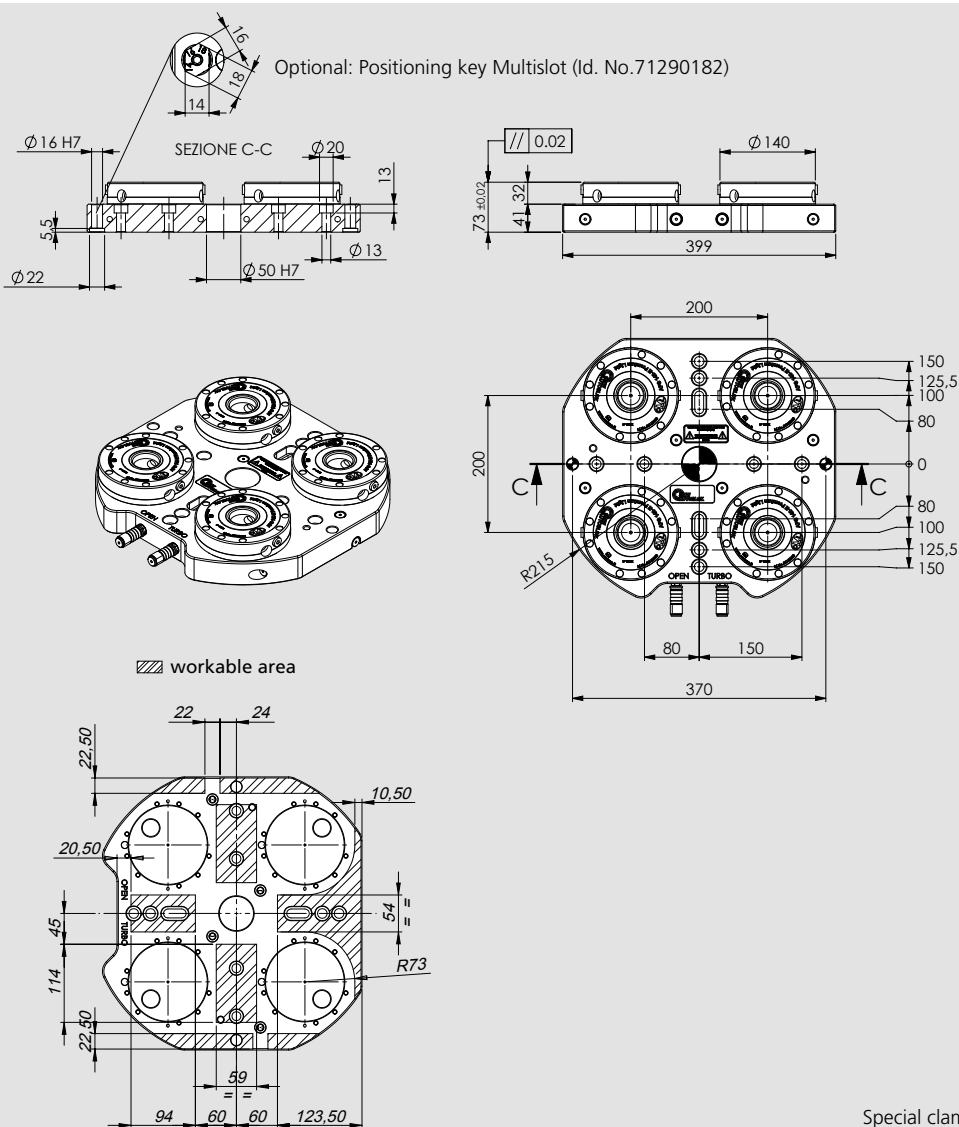
- Pre-assembled clamping unit with 4 pieces APS 140 Premium Light or Basic
- For 5-axis machining center
- Universal applicable
- Fast and easy set-up

Technical features

- 3 clamping slides (Basic: 2 clamping slides)
- Repeatability < 0.005 mm
- Turbo function to increase the pull-in forces (pull-in force without Turbo 7.5 kN)
- Air cleaning (only Premium Light)

Standard equipment

Clamping unit with 4 pieces APS 140 Premium Light or Basic
Quick pneumatic connections



Special clamping units on request
Subject to technical changes

Type	Id. No.	Pull-in force [kN]	Repeatability [mm]	Weight [kg]
Clamping unit with 4 APS 140-E Premium Light	46168020	26* (with turbo)	< 0.005	45
Clamping unit with 4 APS 140-E Basic NO TURBO	46168025	7,5* (without turbo)	< 0.005	45

* For each module.

■ For 5-axis machining center

**Application/customer benefits**

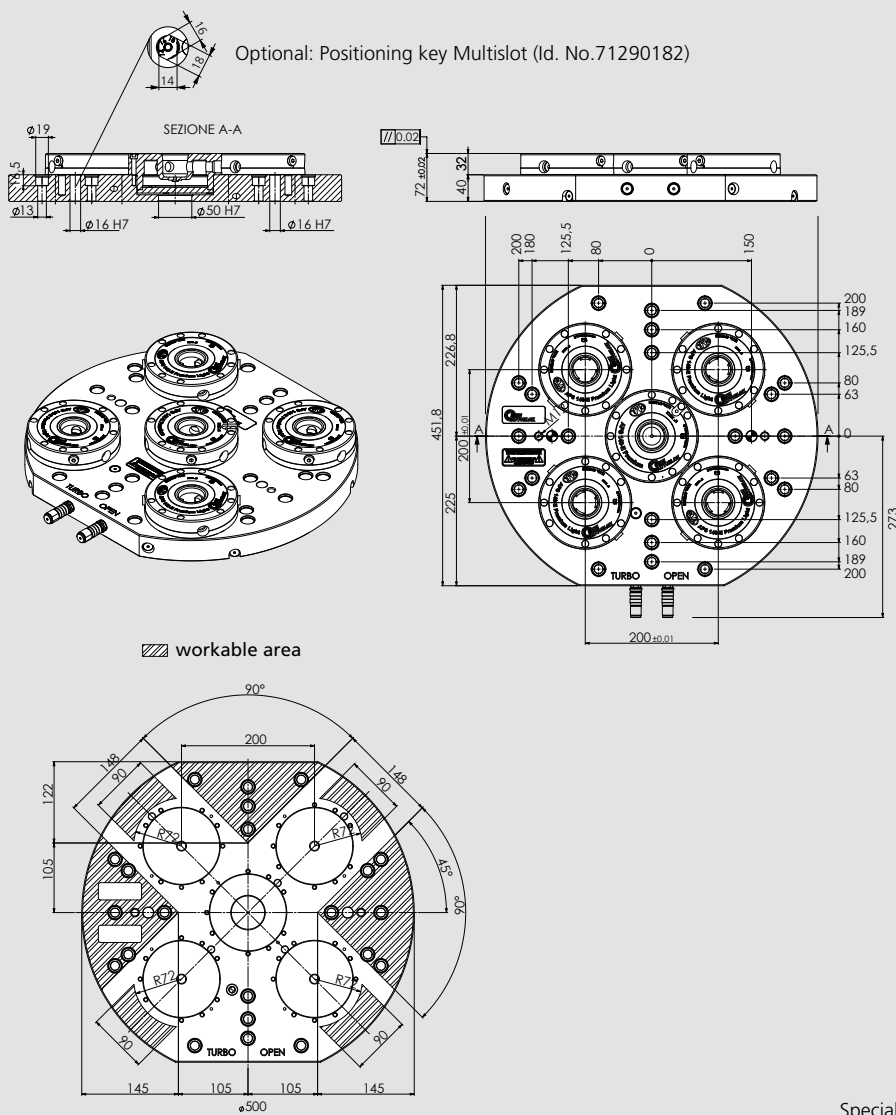
- Pre-assembled clamping unit with 5 pieces APS 140 Premium Light or Basic
- For 5-axis machining center
- Universal applicable
- Fast and easy set-up

Technical features

- 3 Clamping slides (Basic: 2 Clamping slides)
- Repeatability < 0.005 mm
- Turbo function for increasing the pull-in forces (pull-in force without Turbo 7.5 kN)
- Air cleaning (only Premium Light)
- Grid dimension 200 mm

Standard equipment

Clamping unit with 4 modules APS 140-E Premium Light or Basic + 1 modules APS 140-E Premium

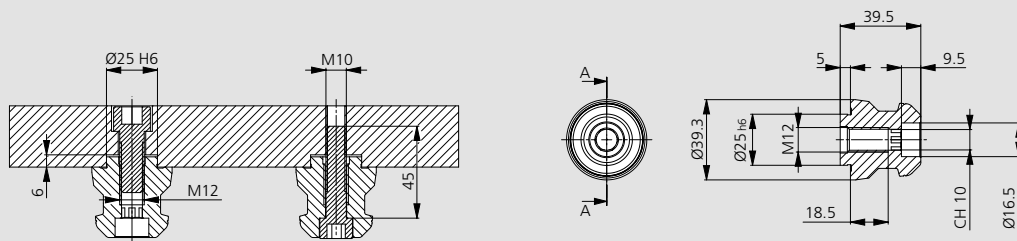


Special clamping units on request
Subject to technical changes

Type	Id. No.	Pull-in force [kN]	Repeatability [mm]	Weight [kg]
Clamping unit with 4 modules APS 140 Premium Light- 1 module APS-E 140 Premium	46168040	26* (with turbo)	< 0.005	68
Clamping unit with 4 modules APS-E 140 Basic + 1 module APS-E 140 Premium NO TURBO	46168045	7,5* (without turbo)	< 0.005	67

* For each module.

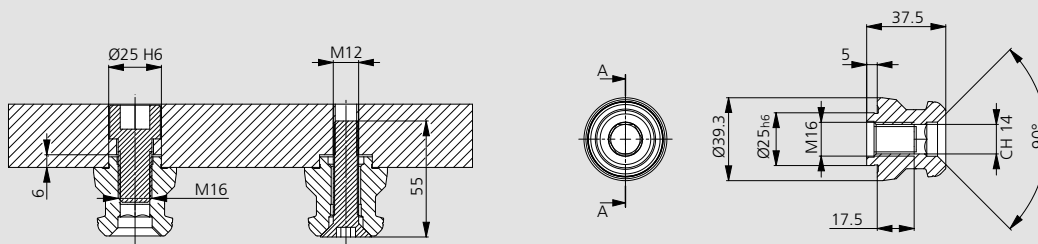
Pins - M12 thread



Subject to technical changes.

Id. No.	Type		Weight [kg]
46162355	A	M12	0.2
46162356	B	M12	0.2
46162357	C	M12	0.2

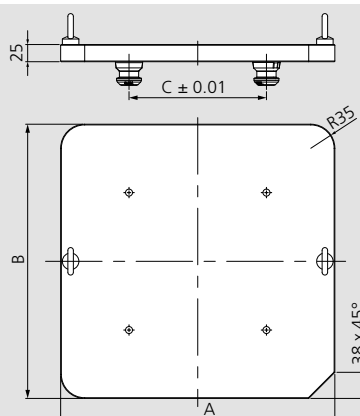
Pins - M16 thread



Subject to technical changes.

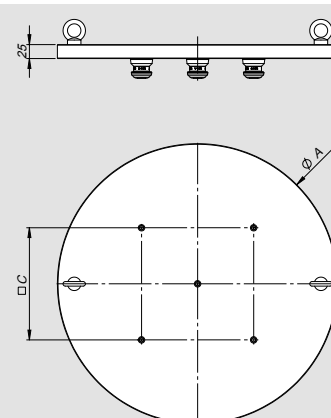
Id. No.	Type		Weight [kg]
46162455	A	M16	0.2
46162456	B	M16	0.2
46162457	C	M16	0.2

■ More info: General Catalogue A5 - page 0.50



Subject to technical changes.

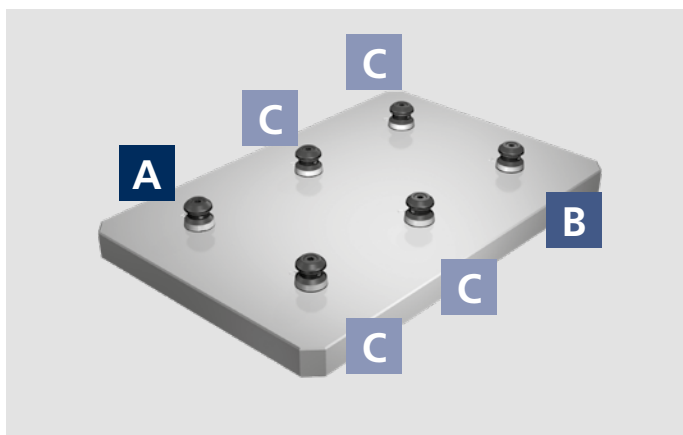
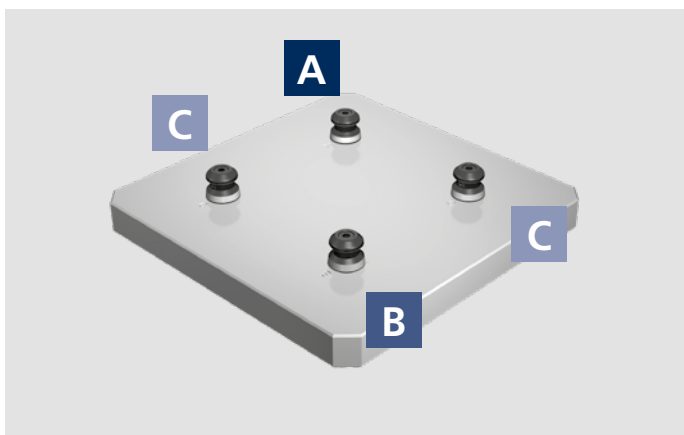
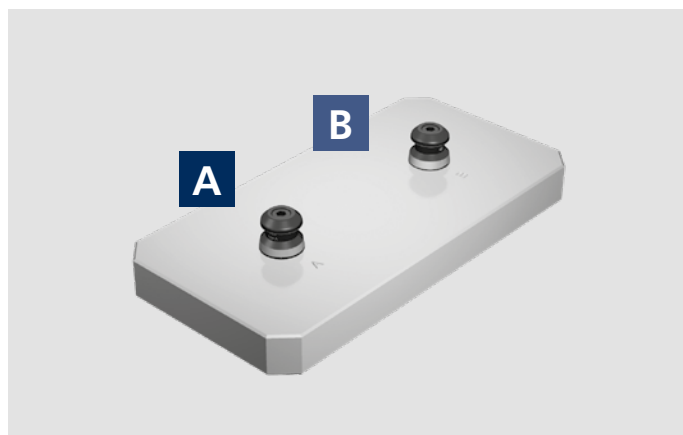
Type	Id. No.	A mm	B mm	C mm
Clamping pallet APS 140	46167726	399	399	200



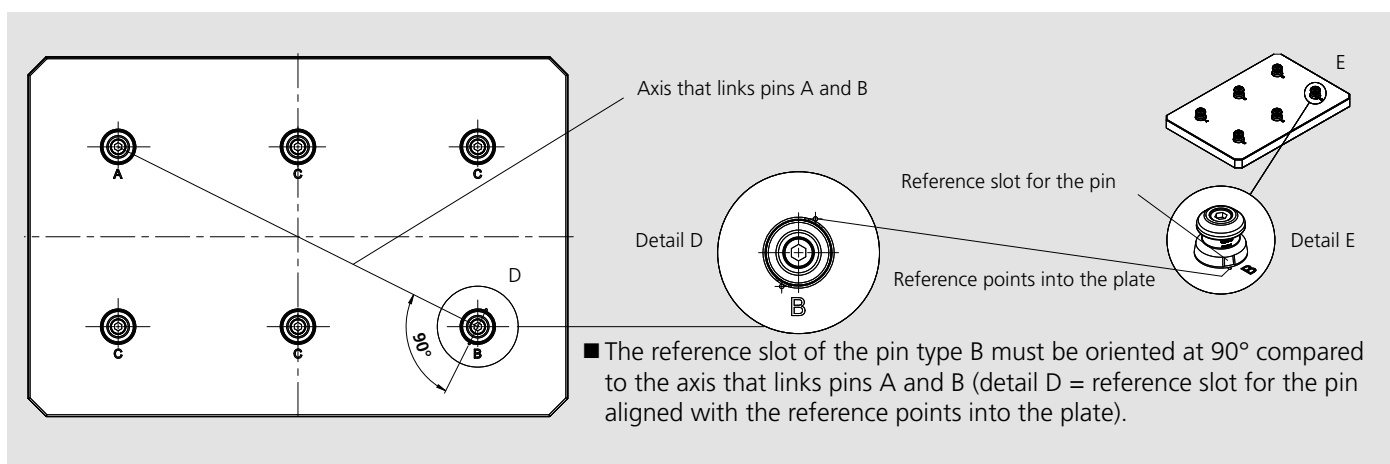
Subject to technical changes.

Type	Id. No.	A (ø) mm	C mm
Clamping pallet APS 140	46167728	500	200

Positions of the clamping pins



Positioning of the Reference Pin Type B



IMG

Vice

Self-centering | Double Clamping | Fixed





Vice

Self-centering | Double Clamping | Fixed



IMG

Vice

- Self-centering
- Double Clamping
- Fixed

Page 48



IMG

Self-centering | Double Clamping | Fixed

- IMG 160 - 270

Page 66



IMG

Self-centering | Double Clamping | Fixed

- IMG 88 - 130

Page 56



IMG

Self-centering | Double Clamping | Fixed

- IMG 160 - 420

Page 68



IMG

Self-centering | Double Clamping | Fixed

- IMG 88 - 230

Page 58



IMG

Accessories

- Extension element
- Riser
- Alu Pyramid
- Triangular tombstone
- Tombstone

Page 70



IMG

Self-centering | Double Clamping | Fixed

- IMG 125 - 180

Page 60



Clamping Pins

Accessories

- For APS 140 and APS 190

Page 86



IMG

Self-centering | Double Clamping | Fixed

- IMG 125 - 220

Page 62



CLAK System

Accessories

Page 88



IMG

Self-centering | Double Clamping | Fixed

- IMG 125 - 320

Page 64



IMG

- Spare parts

Page 90



Self-centering vice | Double

SinterGrip jaws



BASIC jaws

without Sintergrip inserts for **IMG BASIC** models



Find out more

Wide clamping range

Maximum flexibility
For external and internal clamping

SinterGrip jaws:

Reversible jaws for minimum
clamping depth and without
pre-machining

Mechanical clamping

Totally protected with patented
telescopic system.

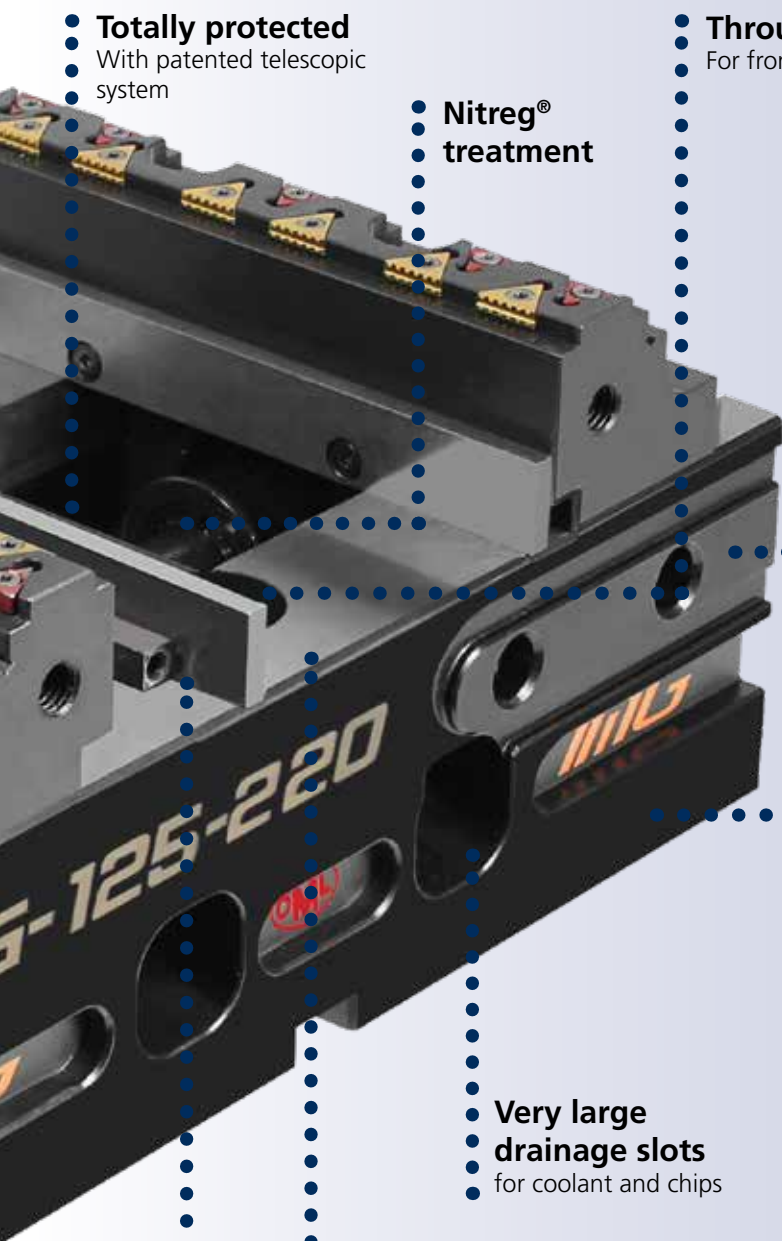
The large power transmission
allows high performance in the
manufacturing process

Interface

For Zero Point clamping
systems and mounting
holes as standard



le Clamping | Fixed



• **Totally protected**
• With patented telescopic system

• **Nitreg® treatment**

• **Through holes**
• For frontal clamping

• **Ideal**
• For automation and palletizing systems

• **Flexible mounting**
• on machine tool pallet using clamps (optional)

Double clamping jaw
(for double clamping)



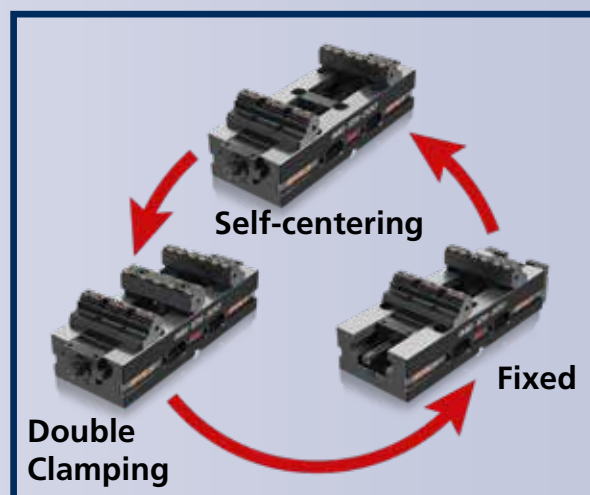
Retainer plate
(for fixed clamping)



• **Very large drainage slots**
• for coolant and chips

• **Treated and precision ground guides**
• for maximum accuracy and repeatability

• **Parallels**
• with quick change Clak System





Vice

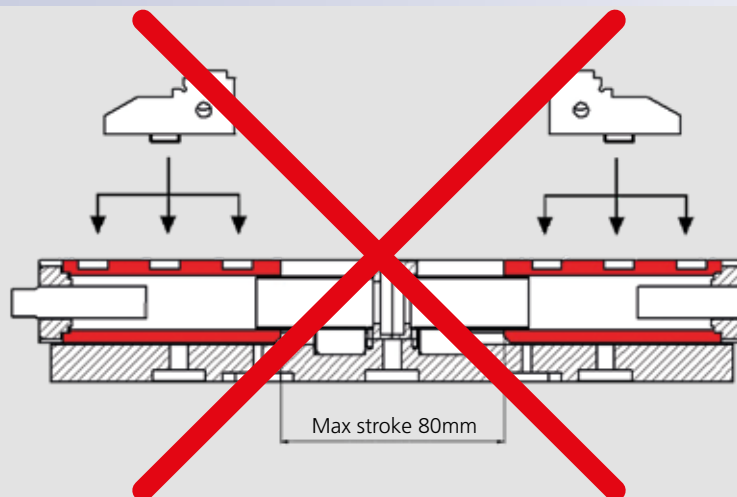
Self-centering | Double Clamping | Fixed

PATENTED PROTECTED SCREW



IMG vices have a fully protected operating screw with a patented telescopic system.

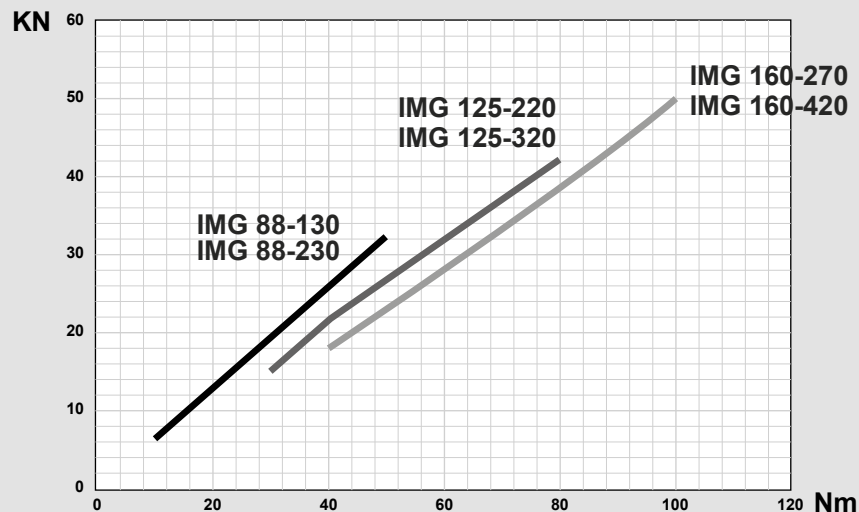
This innovation makes it possible to avoid having to remove the jaws in order to find the clamping position. In fact, normally, vices with protected screws use the slide-way as a protection.



This type of solution forces continuous displacement of the jaws in the appropriate seat.

IMG, on the contrary, while keeping the screw completely protected, allows the continuous movement of opening and closing of the vice.

Clamping force



Clamping forces valid for self-centering, Double clamping, Fixed jaw



Vice

Self-centering | Double Clamping | Fixed

IMG BASIC

The **IMG Basic** models have the same characteristics as the **IMG** vises with the only difference of mounting **Basic jaws** without SinterGrip inserts.

BASIC jaws

without Sintergrip inserts for **IMG BASIC** models





Vice

Self-centering | Double Clamping | Fixed

MODULAR

The IMG self-centering vices can be easily transformed into fixed vices or double clamping vices.

Self-centering



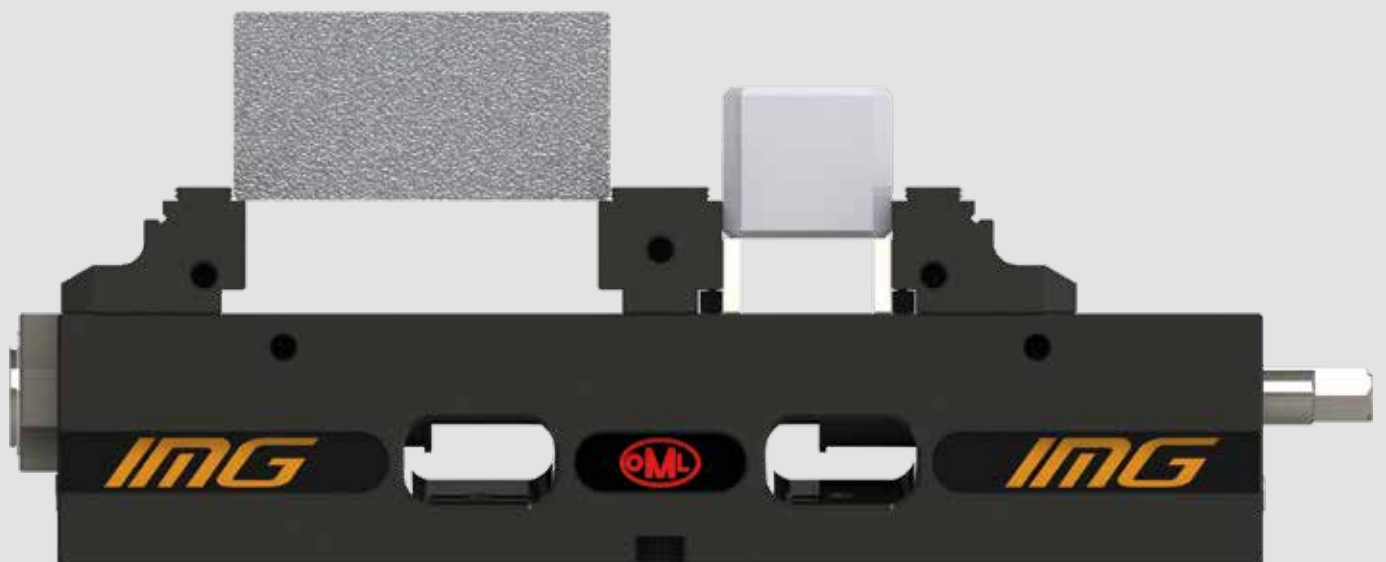
Double Clamping



Fixed

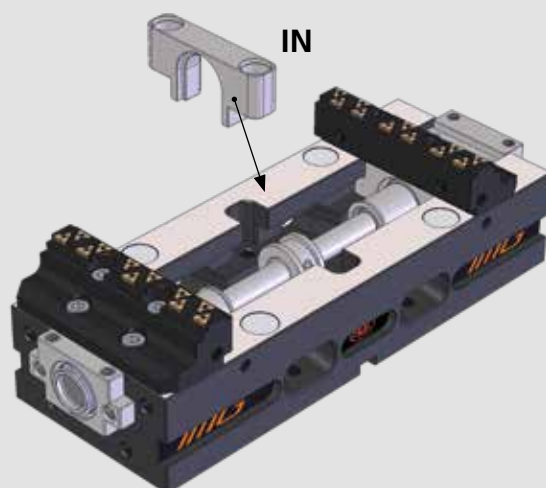


The double clamping vices have a completely compensating mechanism (until zero), therefore it is possible to clamp 2 pieces of different sizes.

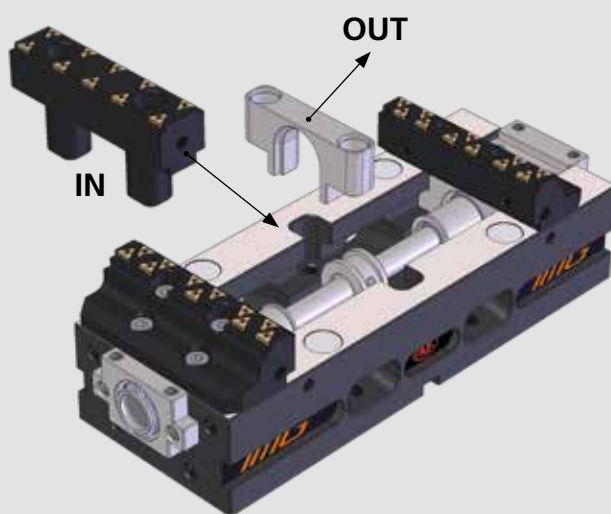




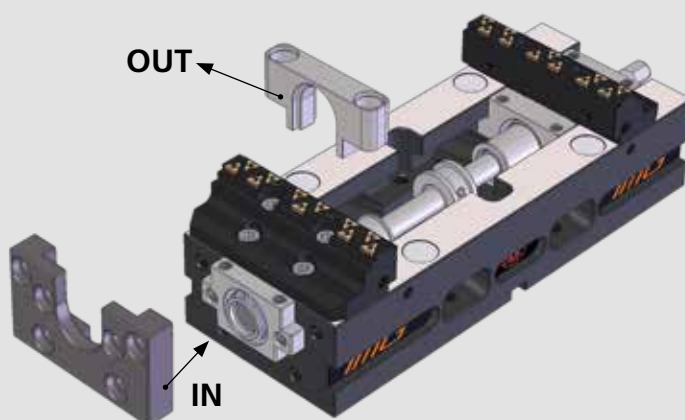
Modular



Self-centering



Double Clamping



Fixed



Vice

Self-centering | Double Clamping | Fixed

HIGH CLAMPING PERFORMANCE

IMG vices clamp up to 55 kN.

The clamping force combined with the patented SinterGrip system guarantees high performance.

1 OP.



2 OP.





SinterGrip

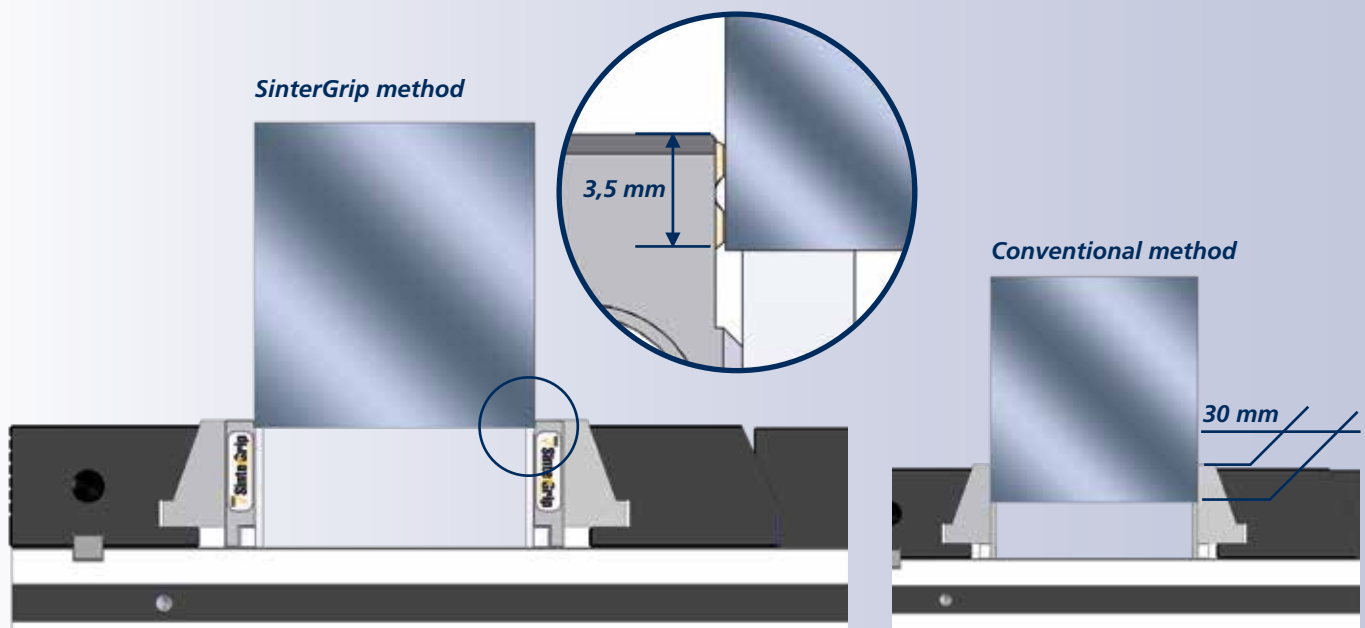
Our new patented product **SinterGrip** is born to satisfy the current need to clamp a workpiece for very few millimeters (with SinterGrip 3,5 mm clamping surface), and this for the following reasons:

- 1) In order to machine the workpiece completely in a single operation (especially for 5 axis machines);
- 2) In order to save money for the raw materials, especially when they have a big impact on the price (aluminum, titanium, etc.)

Indirectly to these reasons, and in order to improve the performance of the machine tool and the tools

**higher cutting speed +
higher feed rate =
bigger volume of metal removed =
less time to machine the workpiece**

the market requires safe clamping, which could at the same time possibly avoid the deformations of the piece itself.



Only 3,5 mm clamping surface, no need of pre-machining the workpiece, clamping stability, higher cutting rate: **SinterGrip** brings only advantages compared to the traditional systems.

On the contrary, traditional systems need, for the clamping of the workpiece, a bigger clamping surface, with the result of waste of raw materials and greater possibility of deformation of the workpiece.



Applications / Customer Benefits

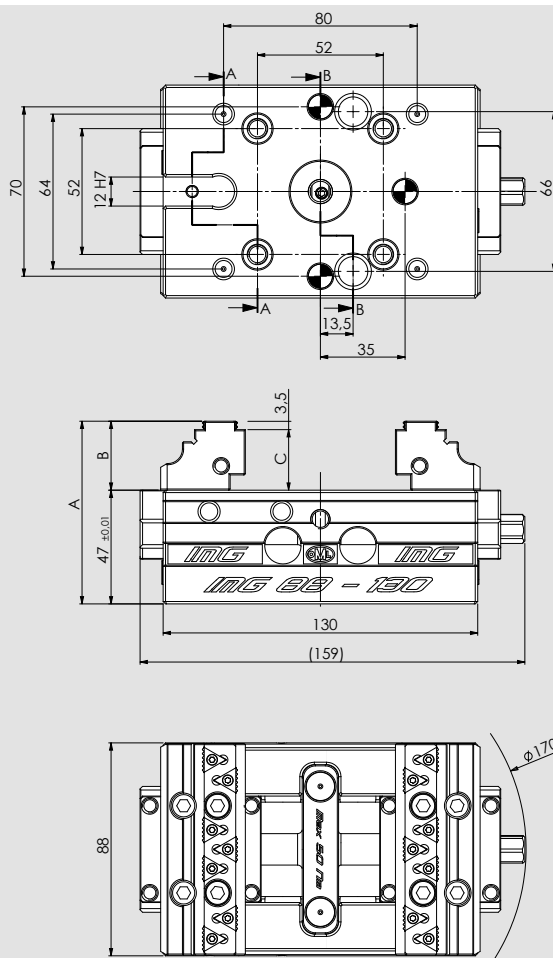
- Highly precise self-centering clamping with maximum repeatability
- Totally protected
- Compact design for better accessibility and very large drainage slots
- Jaws with SinterGrip clamping inserts for minimum workpiece clamping depth without pre-machining
- Type **IMG BASIC** with jaws without SinterGrip inserts
- Wide clamping range
- Ideal for OP 10 and OP 20

Technical features

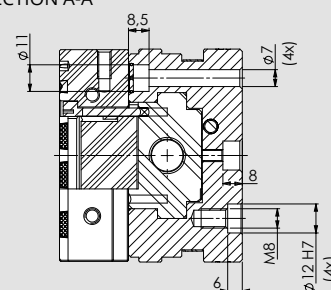
- Self-centering clamping
- Clamping force up to 32 kN (50 Nm)
- Jaw width 87,5 mm
- Interface for zero point systems APS / TDM and Plus 5 52 mm as standard

Standard equipment

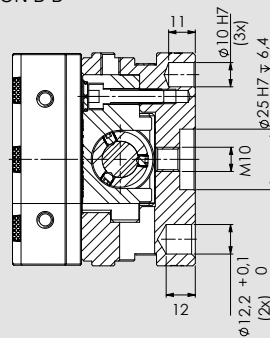
Wrench, jaws, nr. 10 Sintergrip inserts.



SECTION A-A



SECTION B-B



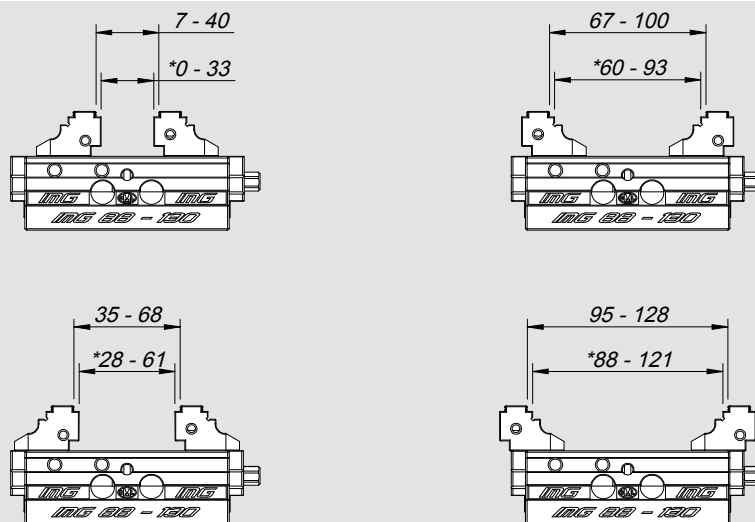
Subject to technical changes.

Type	Id. No.	A	B	C	Weight
IMG 88 - 130 with SinterGrip jaws STD	77583411	75,5	28,5	25,0	4,5 Kg
IMG 88 - 130 with SinterGrip jaws ALU	77583412	75,5	28,5	25,0	4,5 Kg
IMG 88 - 130 with SinterGrip jaws HRC	77583413	75,5	28,5	25,0	4,5 Kg
IMG 88 - 130 with SinterGrip jaws PLM (for polymer materials)	77583416	75,5	28,5	25,0	4,5 Kg
IMG 88 - 130 H1* with SinterGrip jaws STD	77583411H1	65,5	18,5	15,0	4,5 Kg
IMG 88 - 130 H1* with SinterGrip jaws ALU	77583412H1	65,5	18,5	15,0	4,5 Kg
IMG 88 - 130 H1* with SinterGrip jaws HRC	77583413H1	65,5	18,5	15,0	4,5 Kg
IMG 88 - 130 H1* with SinterGrip jaws PLM (for polymer materials)	77583416H1	65,5	18,5	15,0	4,5 Kg
IMG 88 - 130 Basic	77583414	75,5	28,5	25,0	4,5 Kg
IMG 88 - 130 Basic H1*	77583414H1	65,5	18,5	15,0	4,5 Kg
IMG 88 - 130 body only	77583401	-	-	-	3,5 Kg

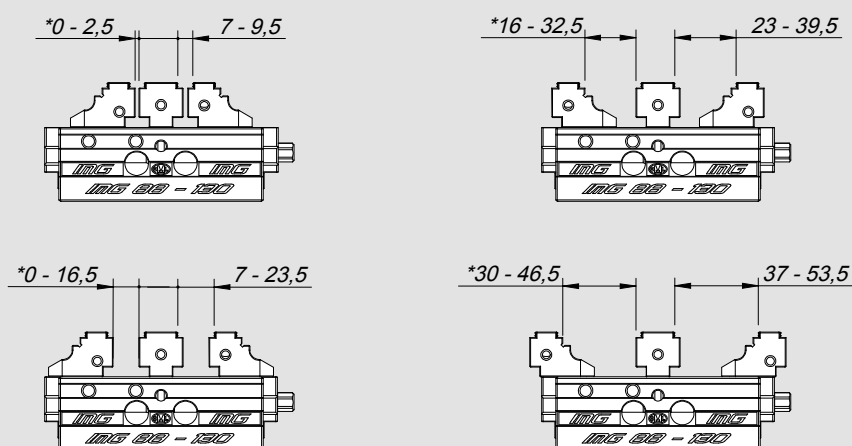
* Compatible in height with other vices on the market

■ Patented protected screw

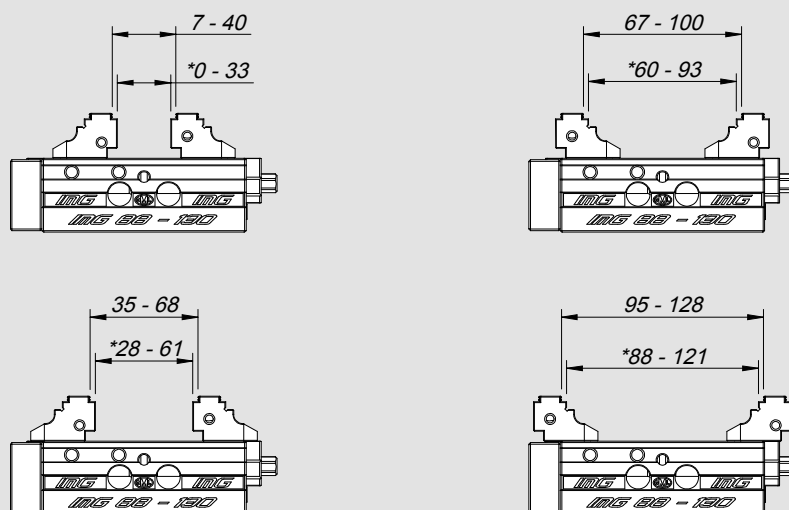
Self-centering



Double Clamping



Fixed



* Opening with smooth jaws

Valid dimensions for SinterGrip, H1 and Basic type

■ Patented protected screw



Applications / Customer Benefits

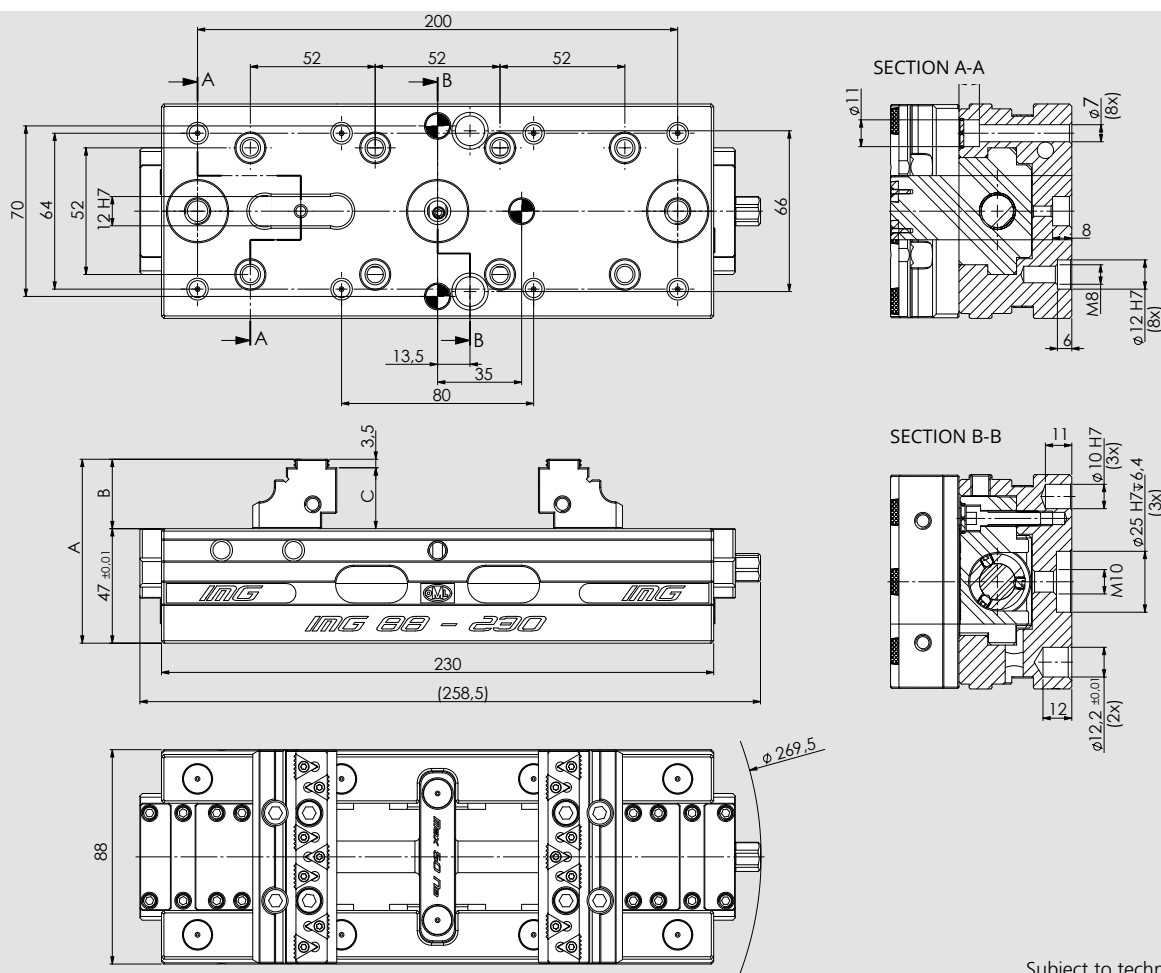
- Highly precise self-centering clamping with maximum repeatability
- Totally protected
- Compact design for better accessibility and very large drainage slots
- Jaws with SinterGrip clamping inserts for minimum workpiece clamping depth without pre-machining
- Type **IMG BASIC** with jaws without SinterGrip inserts
- Wide clamping range
- Ideal for OP 10 and OP 20

Technical features

- Self-centering clamping
- Clamping force up to 32 kN (50 Nm)
- Jaw width 87,5 mm
- Interface for zero point systems APS / TDM and Plus 5 52 mm as standard

Standard equipment

Wrench, jaws, nr. 10 Sintergrip inserts.



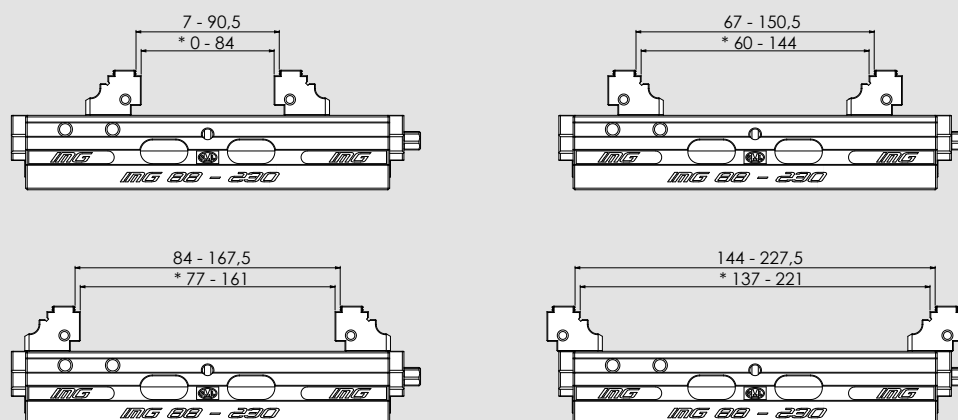
Subject to technical changes.

Type	Id. No.	A	B	C	Weight
IMG 88 - 230 with SinterGrip jaws STD	77583421	75,5	28,5	25,0	7,5 Kg
IMG 88 - 230 with SinterGrip jaws ALU	77583422	75,5	28,5	25,0	7,5 Kg
IMG 88 - 230 with SinterGrip jaws HRC	77583423	75,5	28,5	25,0	7,5 Kg
IMG 88 - 230 with SinterGrip jaws PLM (for polymer materials)	77583426	75,5	28,5	25,0	7,5 Kg
IMG 88 - 230 H1* with SinterGrip jaws STD	77583421H1	65,5	18,5	15,0	7,5 Kg
IMG 88 - 230 H1* with SinterGrip jaws ALU	77583422H1	65,5	18,5	15,0	7,5 Kg
IMG 88 - 230 H1* with SinterGrip jaws HRC	77583423H1	65,5	18,5	15,0	7,5 Kg
IMG 88 - 230 H1* with SinterGrip jaws PLM (for polymer materials)	77583426H1	65,5	18,5	15,0	7,5 Kg
IMG 88 - 230 Basic	77583424	75,5	28,5	25,0	7,5 Kg
IMG 88 - 230 H1* Basic	77583424H1	65,5	18,5	15,0	7,5 Kg
IMG 88 - 230 body only	77583402	-	-	-	6,5 Kg

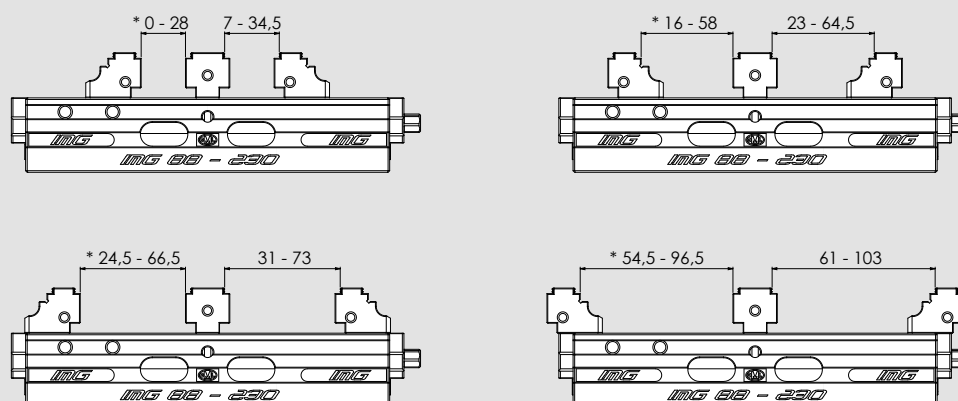
* Compatible in height with other vices on the market

■ Patented protected screw

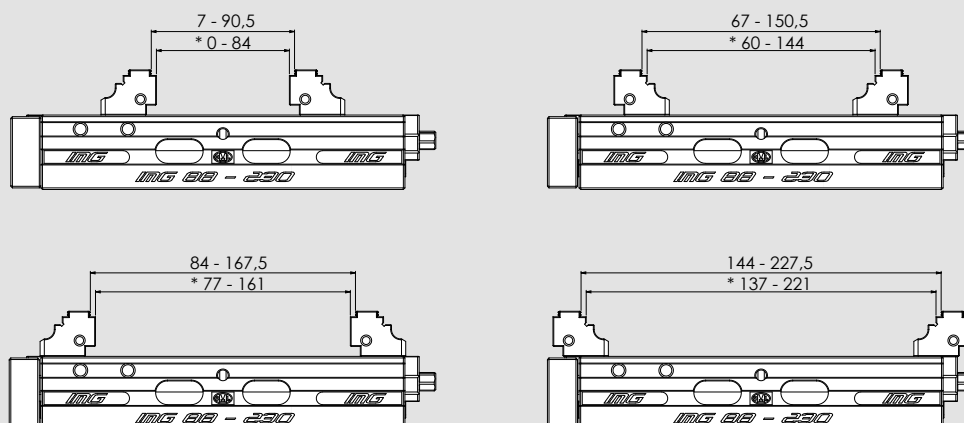
Self-centering



Double Clamping



Fixed



* Opening with smooth jaws

Valid dimensions for SinterGrip, H1 and Basic type



Applications / Customer Benefits

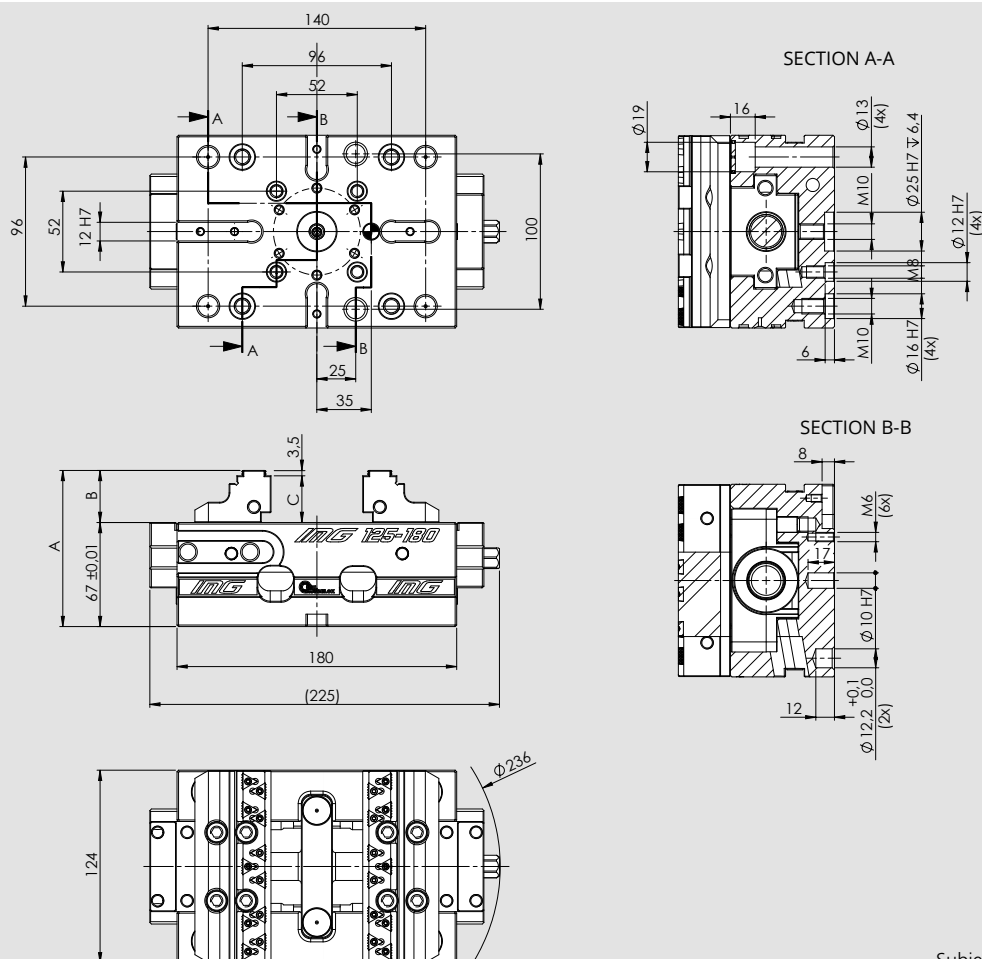
- Highly precise self-centering clamping with maximum repeatability
- Totally protected
- Compact design for better accessibility and very large drainage slots
- Jaws with SinterGrip clamping inserts for minimum workpiece clamping depth without pre-machining
- Type **IMG BASIC** with jaws without SinterGrip inserts
- Wide clamping range
- Ideal for OP 10 and OP 20

Technical features

- Self-centering clamping
- Clamping force up to 32 kN (50 Nm)
- Jaw width 87,5 mm
- Interface for zero point systems APS / TDM and Plus 5 52 mm as standard

Standard equipment

Wrench, jaws, nr. 10 Sintergrip inserts.



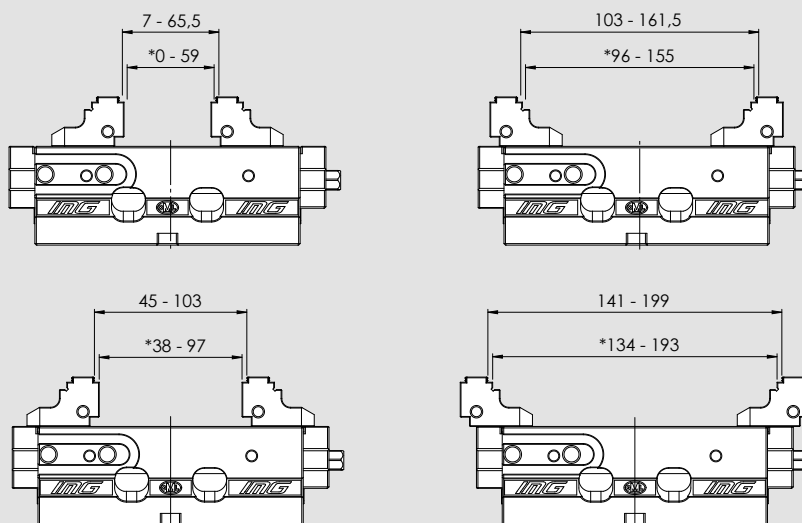
Subject to technical changes.

Type	Id. No.	A	B	C	Weight
IMG 125 - 180 with SinterGrip jaws STD	77583531	100,5	33,5	30,0	12 Kg
IMG 125 - 180 with SinterGrip jaws ALU	77583532	100,5	33,5	30,0	12 Kg
IMG 125 - 180 with SinterGrip jaws HRC	77583533	100,5	33,5	30,0	12 Kg
IMG 125 - 180 with SinterGrip jaws PLM (for polymer materials)	77583536	100,5	33,5	30,0	12 Kg
IMG 125 - 180 H1* with SinterGrip jaws STD	77583531H1	89,5	22,5	19,0	12 Kg
IMG 125 - 180 H1* with SinterGrip jaws ALU	77583532H1	89,5	22,5	19,0	12 Kg
IMG 125 - 180 H1* with SinterGrip jaws HRC	77583533H1	89,5	22,5	19,0	12 Kg
IMG 125 - 180 H1* with SinterGrip jaws PLM (for polymer materials)	77583536H1	89,5	22,5	19,0	12 Kg
IMG 125 - 180 Basic	77583534	100,5	33,5	30,0	12 Kg
IMG 125 - 180 H1* Basic	77583534H1	89,5	22,5	19,0	12 Kg
IMG 125 - 180 body only	77583503	-	-	-	10 Kg

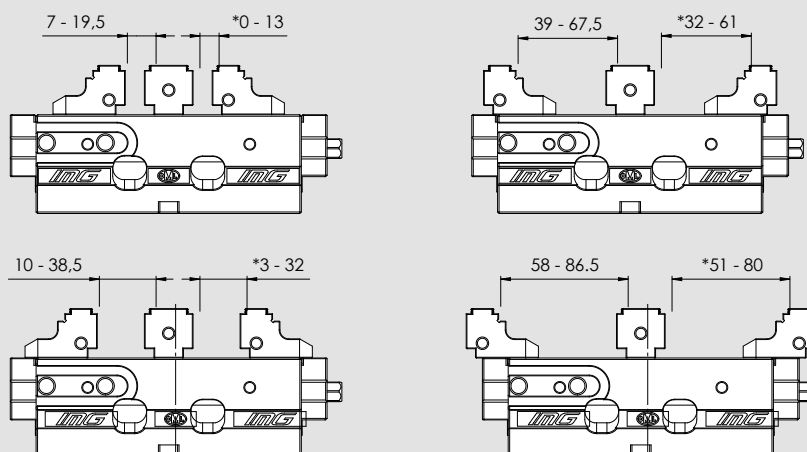
* Compatible in height with other vices on the market

■ Patented protected screw

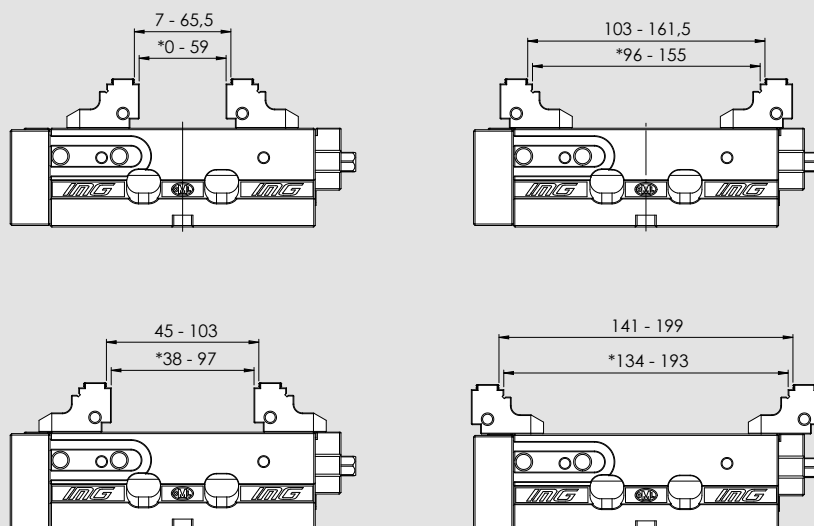
Self-centering



Double Clamping



Fixed



* Opening with smooth jaws

Valid dimensions for SinterGrip, H1 and Basic type

■ Patented protected screw



Applications / Customer Benefits

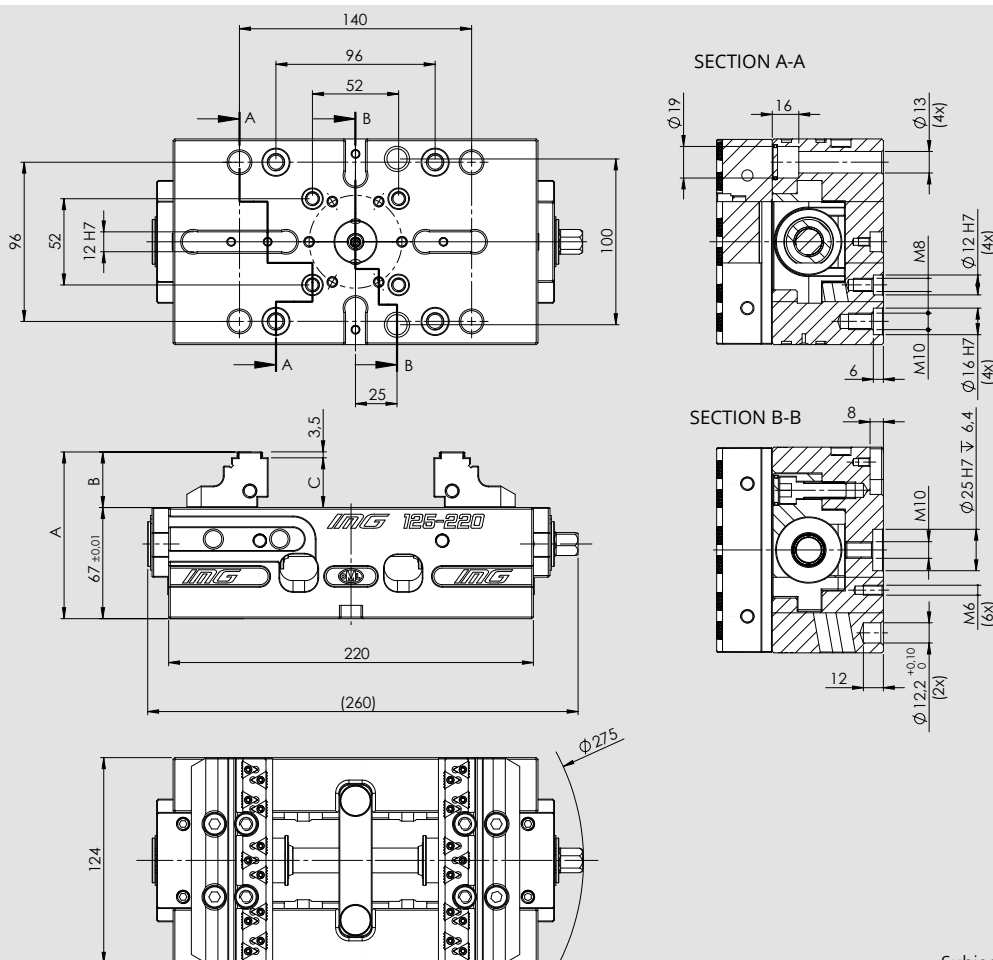
- Highly precise self-centering clamping with maximum repeatability
- Totally protected
- Compact design for better accessibility and very large drainage slots
- Jaws with SinterGrip clamping inserts for minimum workpiece clamping depth without pre-machining
- Type **IMG BASIC** with jaws without SinterGrip inserts
- Wide clamping range
- Ideal for OP 10 and OP 20

Technical features

- Self-centering clamping
- Clamping force up to 40 kN (80 Nm)
- Jaw width 125 mm
- Interface for zero point systems APS / TDM and Plus 5 52 / 96 mm as standard

Standard equipment

Wrench, jaws, nr. 10 Sintergrip inserts.



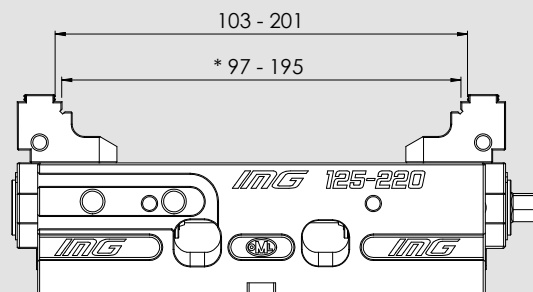
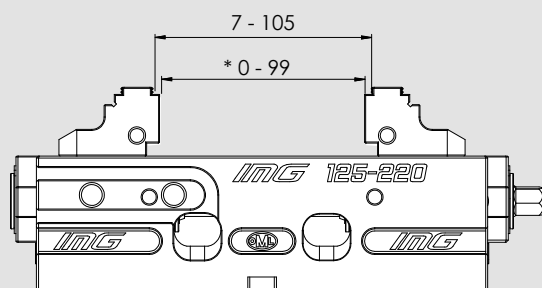
Subject to technical changes.

Type	Id. No.	A	B	C	Weight
IMG 125 - 220 with SinterGrip jaws STD	77583511	100,5	33,5	30,0	15 Kg
IMG 125 - 220 with SinterGrip jaws ALU	77583512	100,5	33,5	30,0	15 Kg
IMG 125 - 220 with SinterGrip jaws HRC	77583513	100,5	33,5	30,0	15 Kg
IMG 125 - 220 with SinterGrip jaws PLM (for polymer materials)	77583516	100,5	33,5	30,0	15 Kg
IMG 125 - 220 H1* with SinterGrip jaws STD	77583511H1	89,5	22,5	19,0	15 Kg
IMG 125 - 220 H1* with SinterGrip jaws ALU	77583512H1	89,5	22,5	19,0	15 Kg
IMG 125 - 220 H1* with SinterGrip jaws HRC	77583513H1	89,5	22,5	19,0	15 Kg
IMG 125 - 220 H1* with SinterGrip jaws PLM (for polymer materials)	77583516H1	89,5	22,5	19,0	15 Kg
IMG 125 - 220 Basic	77583514	100,5	33,5	30,0	15 Kg
IMG 125 - 220 H1* Basic	77583514H1	89,5	22,5	19,0	15 Kg
IMG 125 - 220 body only	77583501	-	-	-	10 Kg

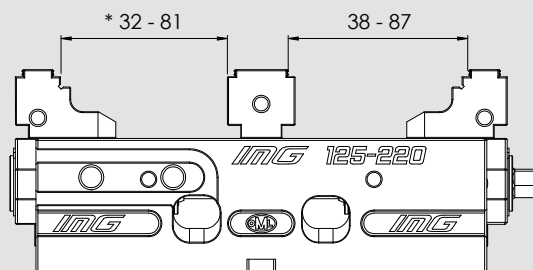
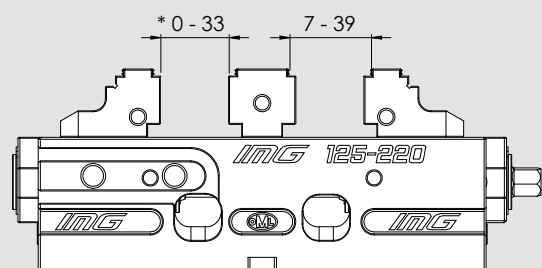
* Compatible in height with other vices on the market

■ Patented protected screw

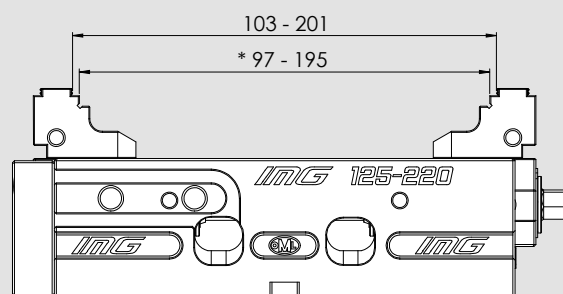
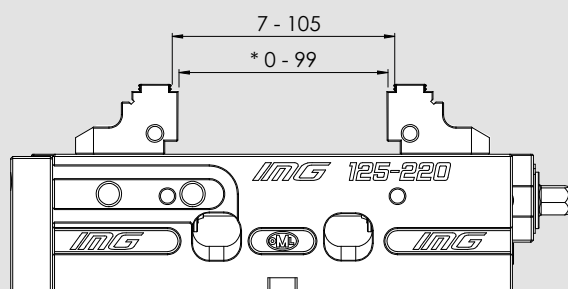
Self-centering



Double Clamping



Fixed



* Opening with smooth jaws

Valid dimensions for SinterGrip, H1 and Basic type

■ Patented protected screw



Applications / Customer Benefits

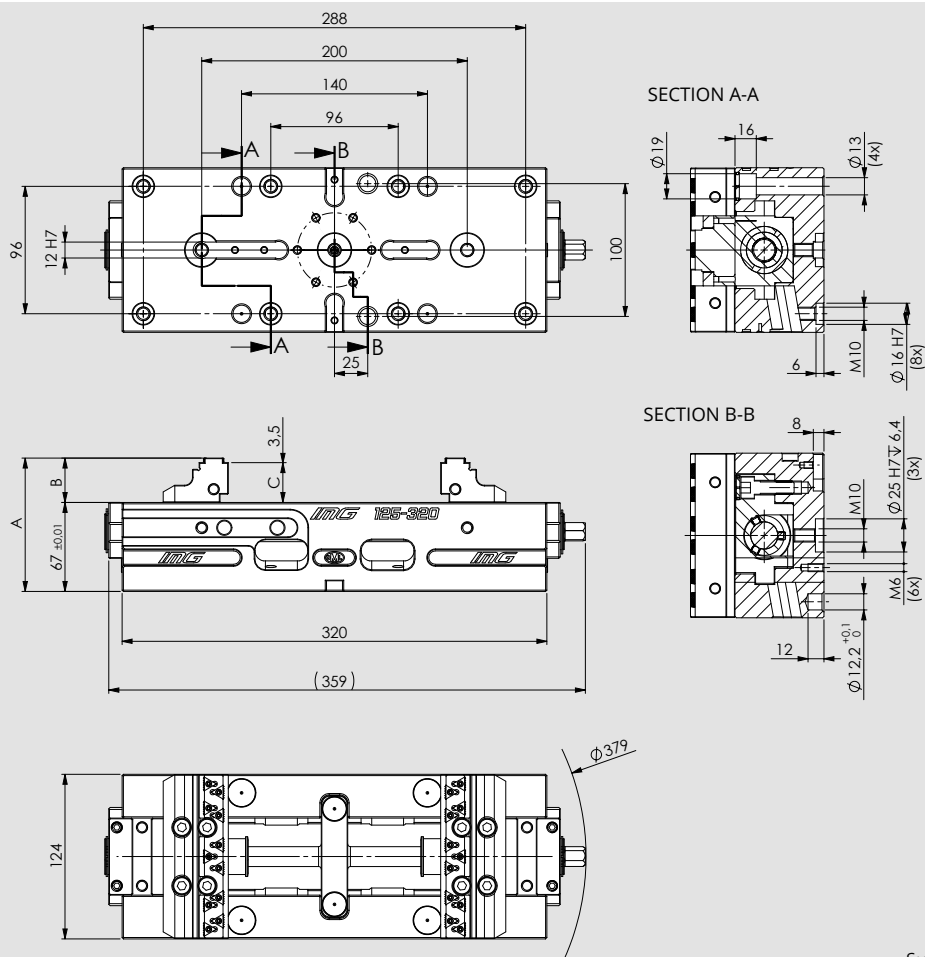
- Highly precise self-centering clamping with maximum repeatability
- Totally protected
- Compact design for better accessibility and very large drainage slots
- Jaws with SinterGrip clamping inserts for minimum workpiece clamping depth without pre-machining
- Type **IMG BASIC** with jaws without SinterGrip inserts
- Wide clamping range
- Ideal for OP 10 and OP 20

Technical features

- Self-centering clamping
- Clamping force up to 40 kN (80 Nm)
- Jaw width 125 mm
- Interface for zero point systems APS / TDM and Plus 5 96 mm as standard

Standard equipment

Wrench, jaws, nr. 10 Sintergrip inserts.



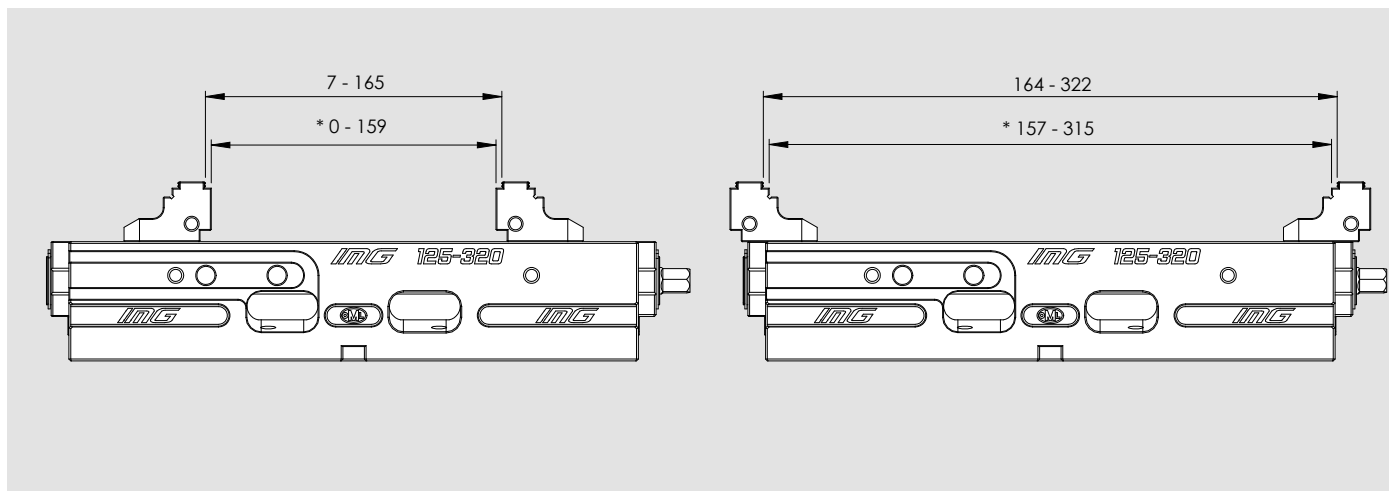
Subject to technical changes.

Type	Id. No.	A	B	C	Weight
IMG 125 - 320 with SinterGrip jaws STD	77583521	100,5	33,5	30,0	20 Kg
IMG 125 - 320 with SinterGrip jaws ALU	77583522	100,5	33,5	30,0	20 Kg
IMG 125 - 320 with SinterGrip jaws HRC	77583523	100,5	33,5	30,0	20 Kg
IMG 125 - 320 with SinterGrip jaws PLM (for polymer materials)	77583526	100,5	33,5	30,0	20 Kg
IMG 125 - 320 H1* with SinterGrip jaws STD	77583521H1	89,5	22,5	19,0	20 Kg
IMG 125 - 320 H1* with SinterGrip jaws ALU	77583522H1	89,5	22,5	19,0	20 Kg
IMG 125 - 320 H1* with SinterGrip jaws HRC	77583523H1	89,5	22,5	19,0	20 Kg
IMG 125 - 320 H1* with SinterGrip jaws PLM (for polymer materials)	77583526H1	89,5	22,5	19,0	20 Kg
IMG 125 - 320 Basic	77583524	100,5	33,5	30,0	20 Kg
IMG 125 - 320 H1* Basic	77583524H1	89,5	22,5	19,0	20 Kg
IMG 125 - 320 body only	77583502	-	-	-	18 Kg

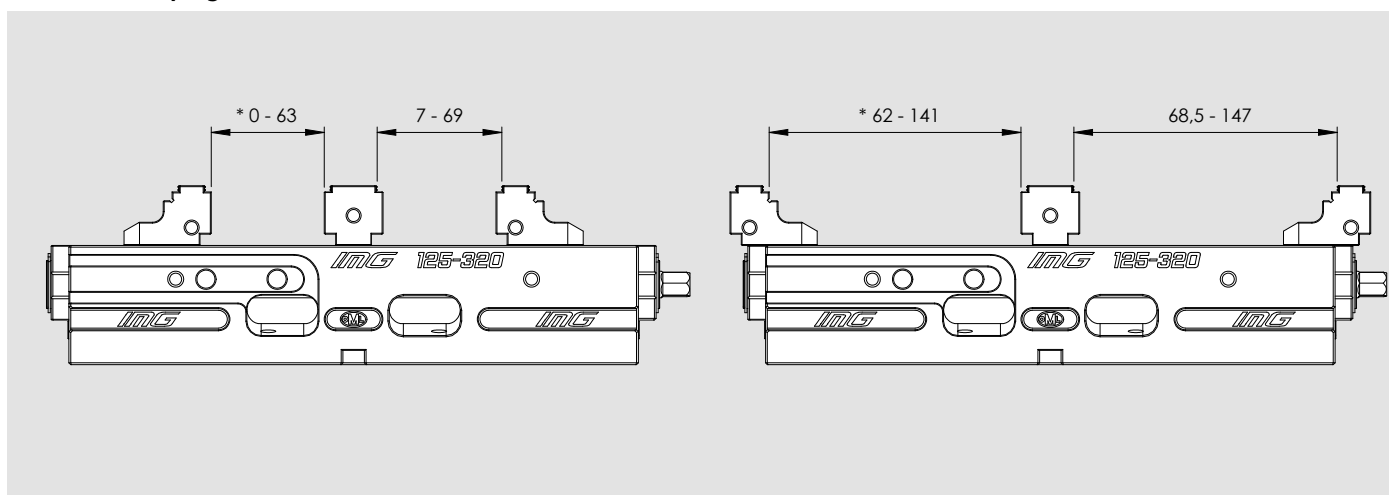
* Compatible in height with other vices on the market

■ Patented protected screw

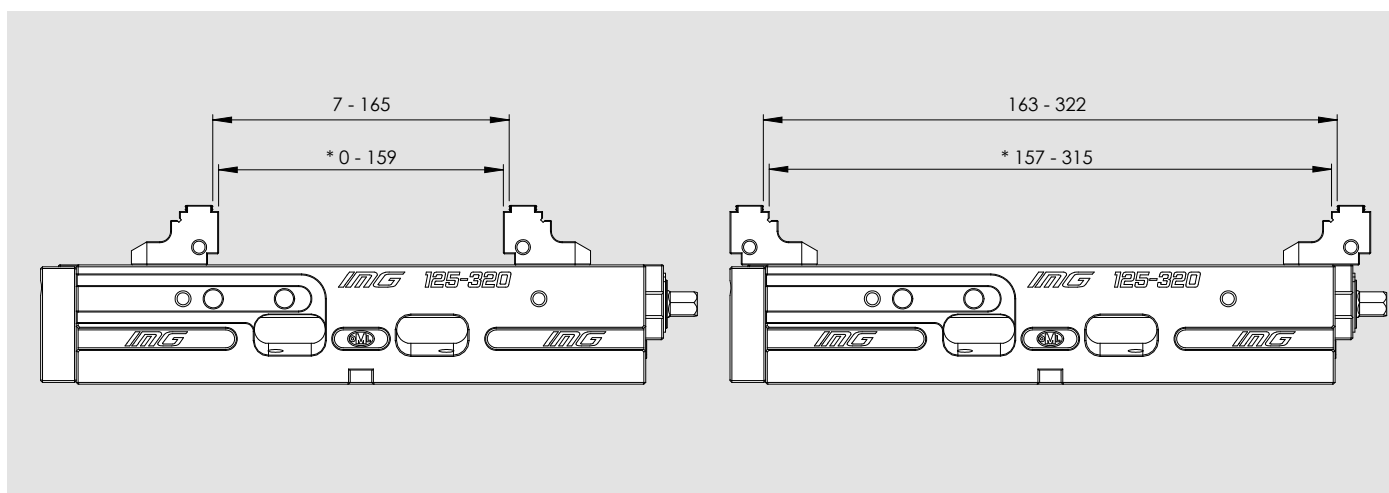
Self-centering



Double Clamping



Fixed



* Opening with smooth jaws

Valid dimensions for SinterGrip, H1 and Basic type

■ Patented protected screw



Applications / Customer Benefits

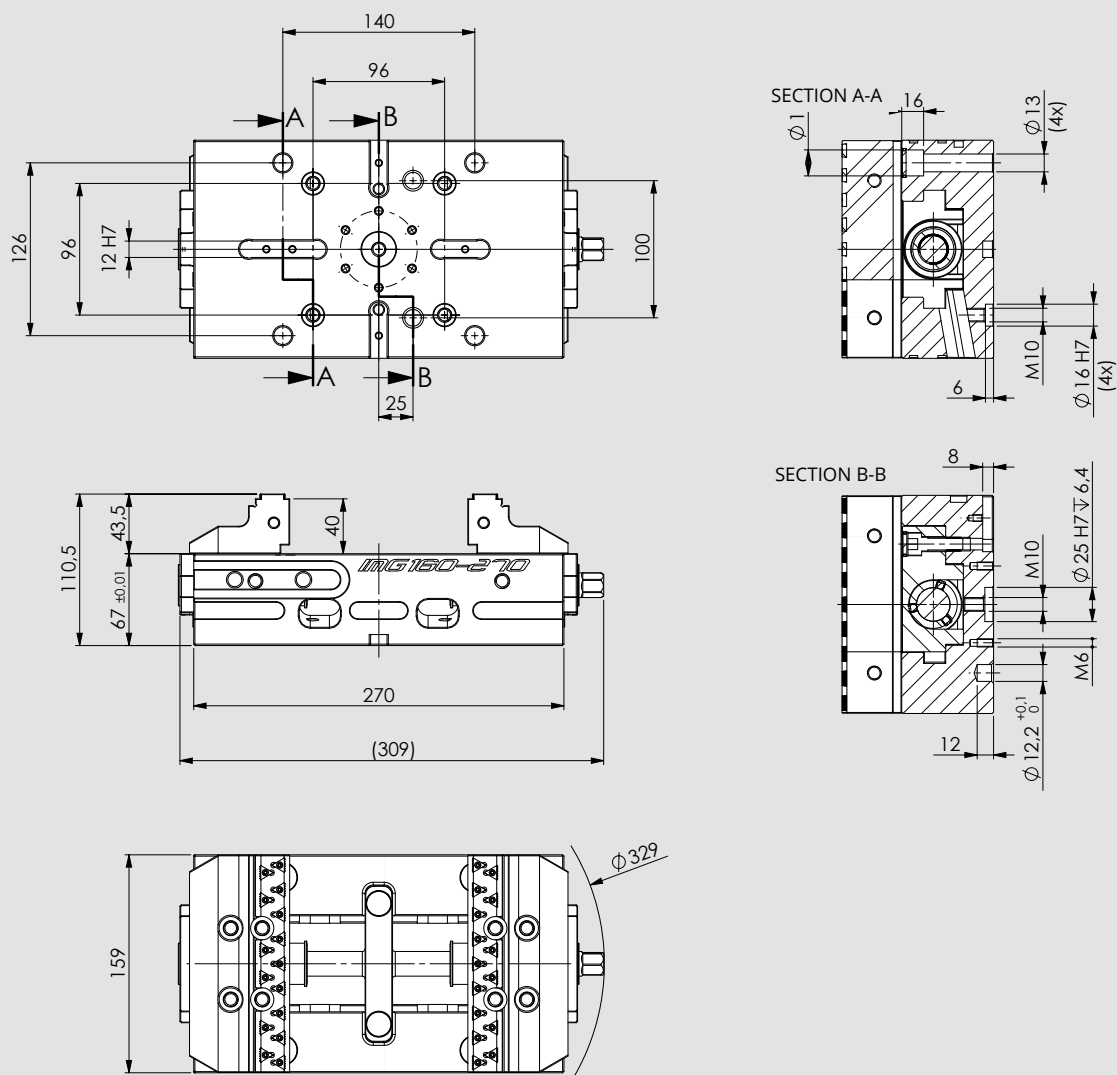
- Highly precise self-centering clamping with maximum repeatability
- Totally protected
- Compact design for better accessibility and very large drainage slots
- Jaws with SinterGrip clamping inserts for minimum workpiece clamping depth without pre-machining
- Type **IMG BASIC** with jaws without SinterGrip inserts
- Wide clamping range
- Ideal for OP 10 and OP 20

Technical features

- Self-centering clamping
- Clamping force up to 50 kN (100 Nm)
- Jaw width 160 mm
- Interface for zero point systems APS / TDM and Plus 5 96 mm as standard

Standard equipment

Wrench, jaws, nr. 10 Sintergrip inserts.

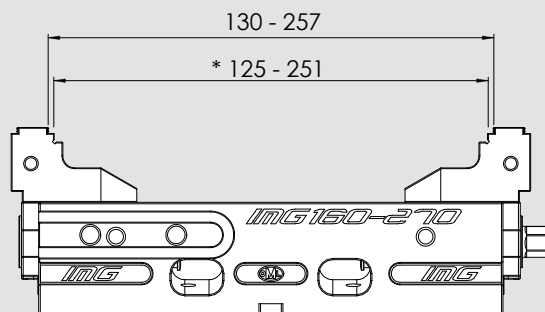
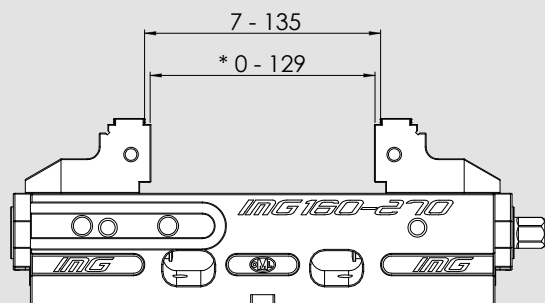


Subject to technical changes.

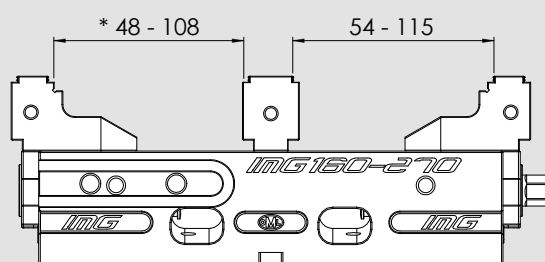
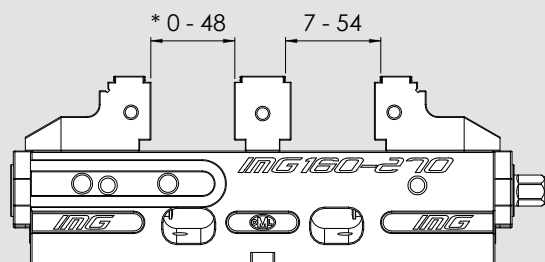
Type	Id. No.	Weight
IMG 160 - 270 with SinterGrip jaws STD	77583611	22 Kg
IMG 160 - 270 with SinterGrip jaws ALU	77583612	22 Kg
IMG 160 - 270 with SinterGrip jaws HRC	77583613	22 Kg
IMG 160 - 270 with SinterGrip jaws PLM (for polymer materials)	77583616	22 Kg
IMG 160 - 270 Basic	77583614	22 Kg
IMG 160 - 270 body only	77583601	17 Kg

■ Patented protected screw

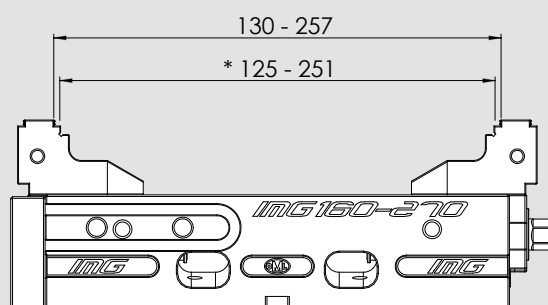
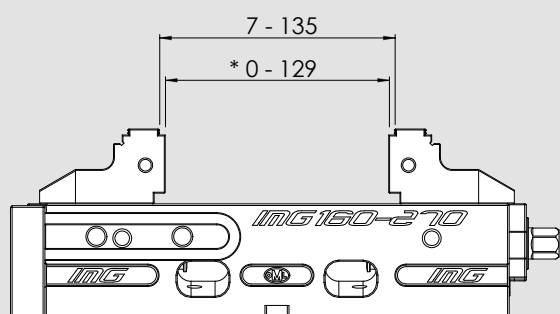
Self-centering



Double Clamping



Fixed



* Opening with smooth jaws

Valid dimensions for both SinterGrip and Basic type

■ Patented protected screw



Applications / Customer Benefits

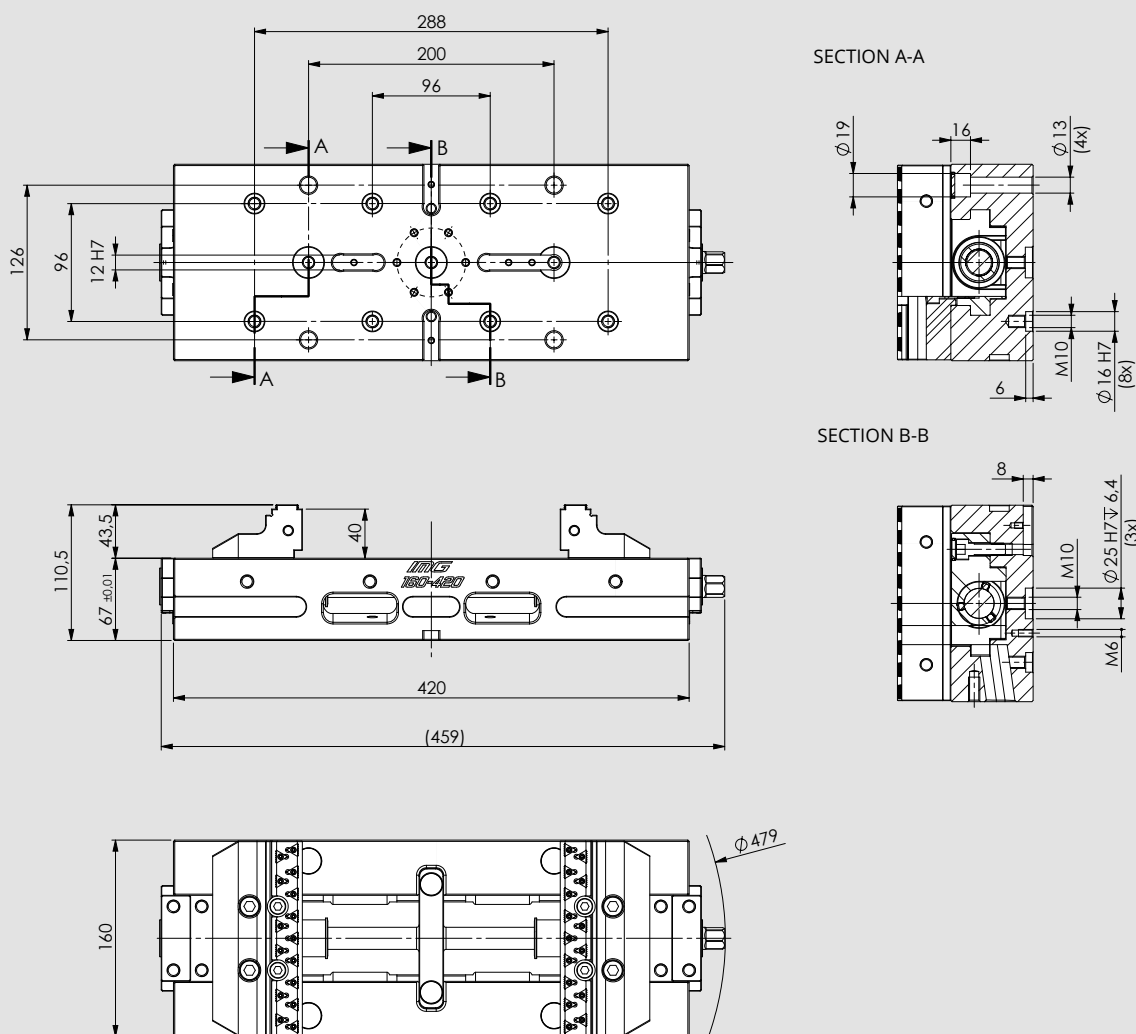
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- Totally protected
- Compact design for better accessibility and very large drainage slots
- Jaws with SinterGrip clamping inserts for minimum workpiece clamping depth without pre-machining
- Type **IMG BASIC** with jaws without SinterGrip inserts
- Wide clamping range
- Ideal for OP 10 and OP 20

Technical features

- Self-centering clamping
- Clamping force up to 50 kN (100 Nm)
- Jaw width 160 mm
- Interface for zero point systems APS / TDM and Plus 5 96 mm as standard

Standard equipment

Wrench, jaws, nr. 10 Sintergrip inserts.

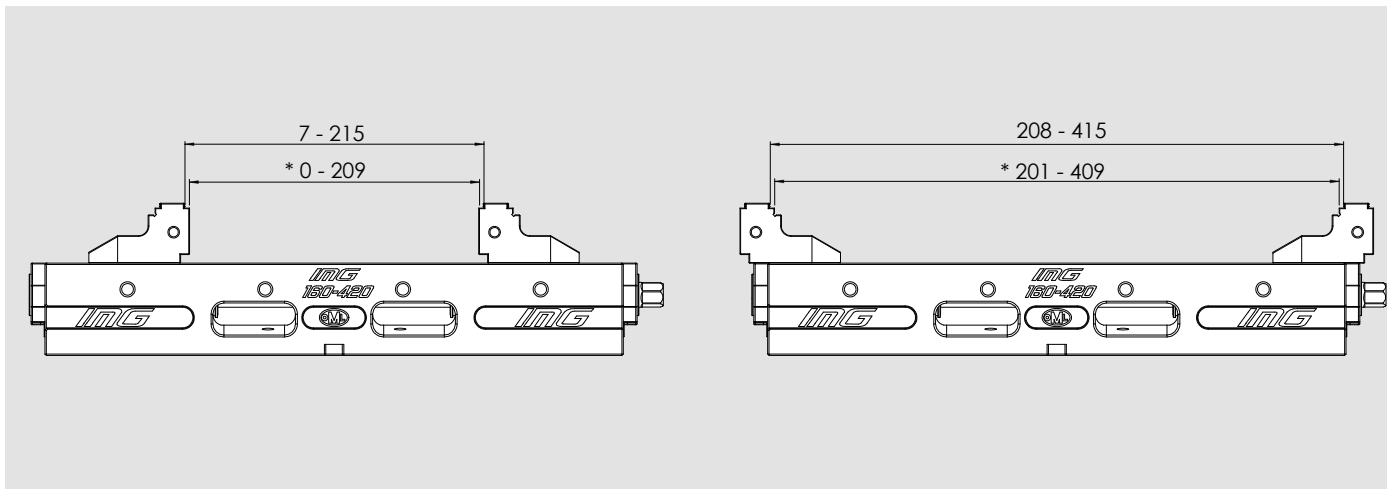


Subject to technical changes.

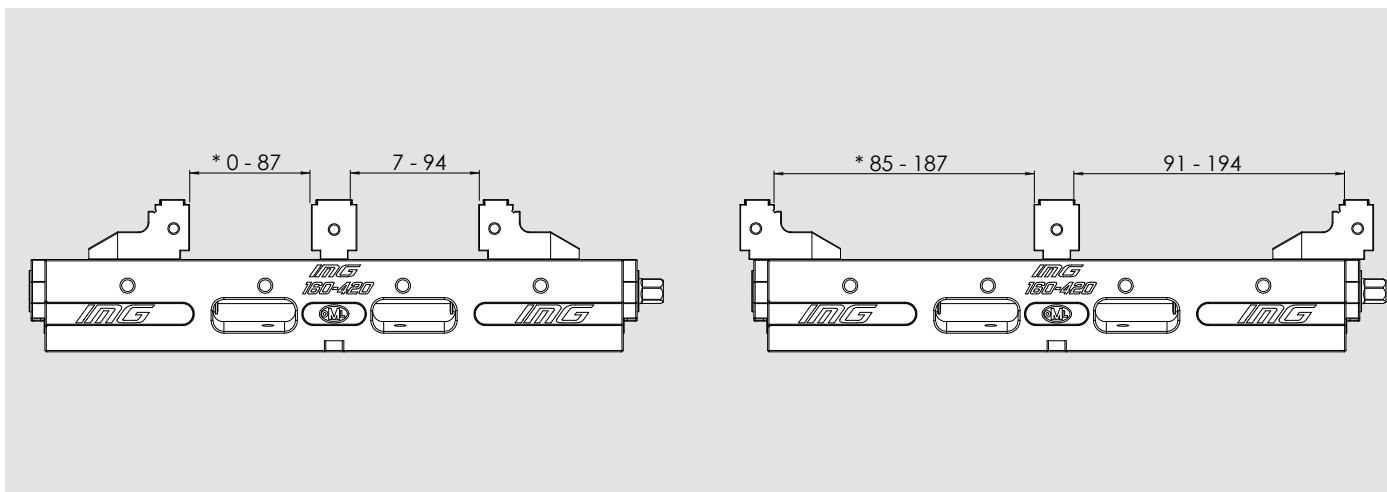
Type	Id. No.	Weight
IMG 160 - 420 with SinterGrip jaws STD	77583621	32 Kg
IMG 160 - 420 with SinterGrip jaws ALU	77583622	32 Kg
IMG 160 - 420 with SinterGrip jaws HRC	77583623	32 Kg
IMG 160 - 420 with SinterGrip jaws PLM (for polymer materials)	77583626	32 Kg
IMG 160 - 420 Basic	77583624	32 Kg
IMG 160 - 420 body only	77583602	27 Kg

■ Patented protected screw

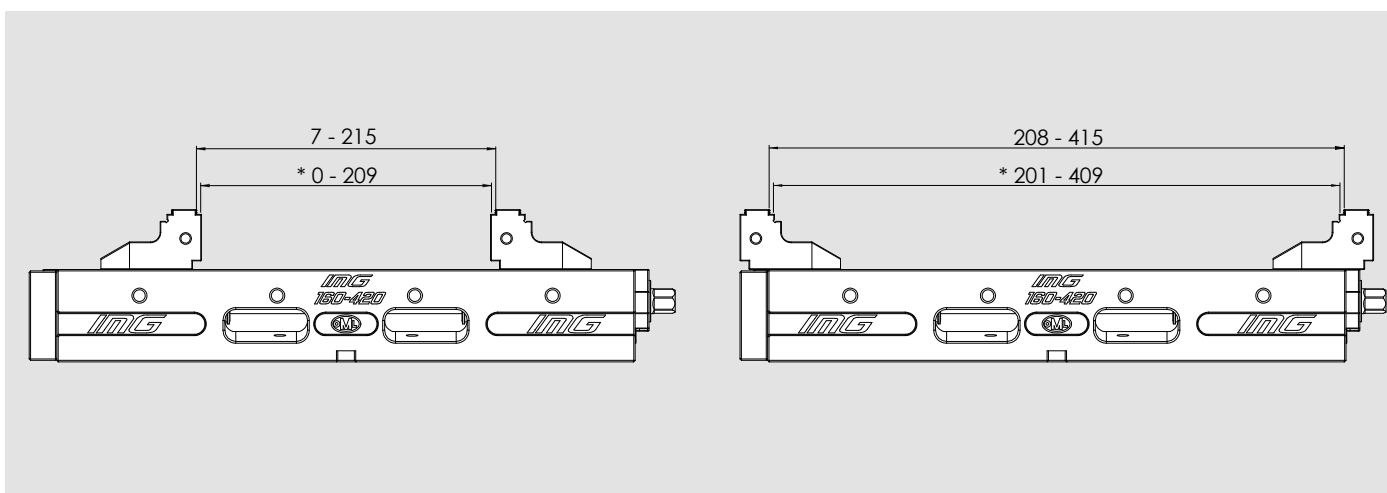
Self-centering



Double Clamping



Fixed



* Opening with smooth jaws

Valid dimensions for both SinterGrip and Basic type



Applications / Customer Benefits

- Ideal for 5 axis machines
- Compact design
- Possibility to be mounted directly on machine tools with T slots
- Possibility to be mounted directly on single plate

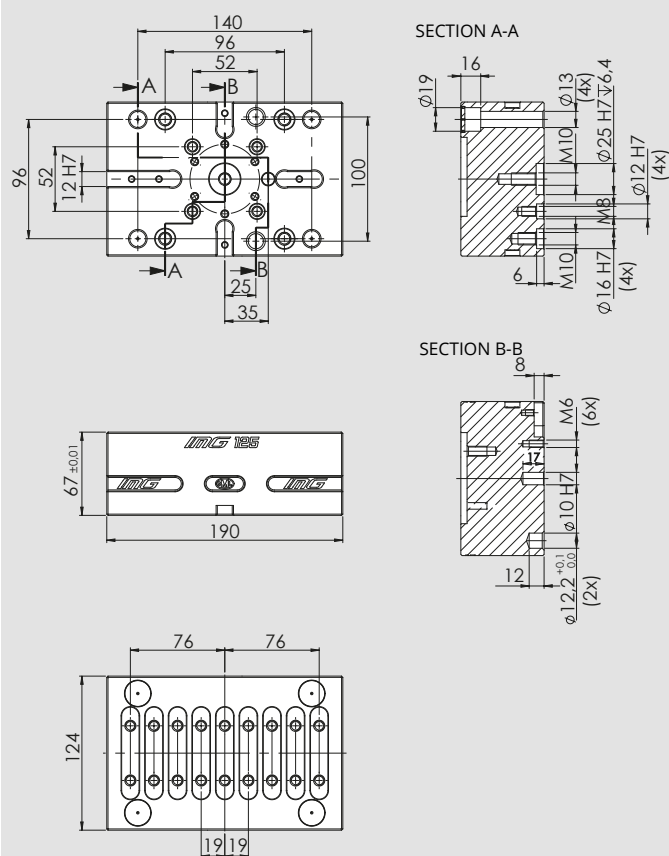
Technical features

- Material: steel

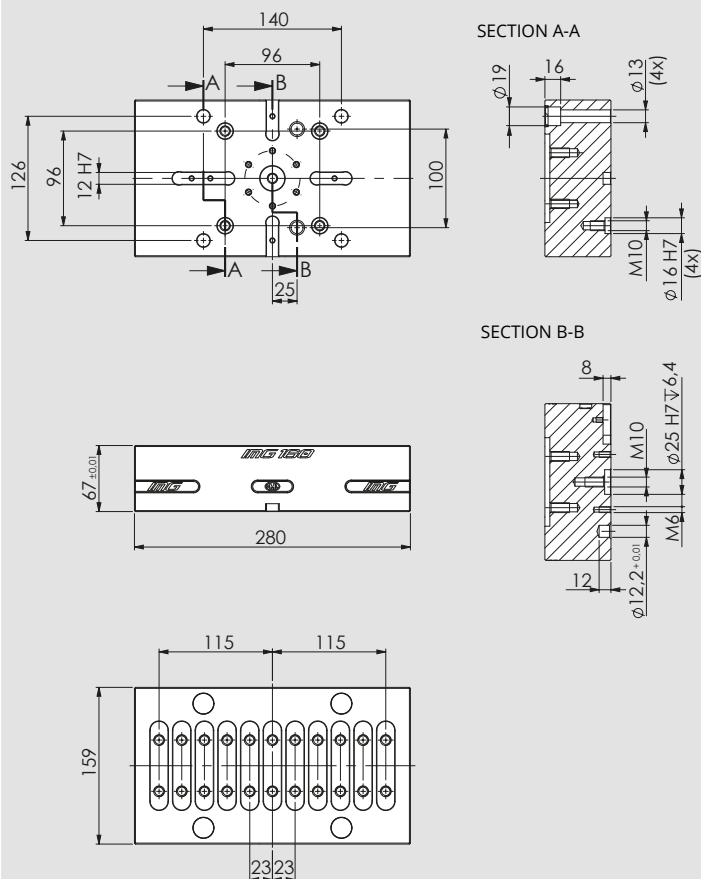
Standard equipment

On request: Positioning keys for IMG / APS pins / Positioning keys for machine tool

IMG 125



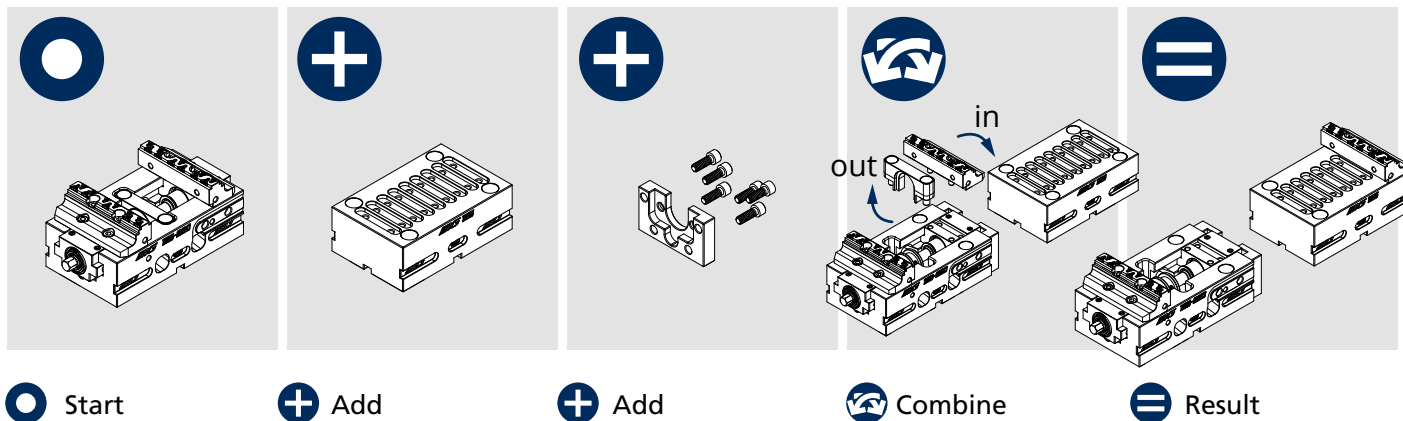
IMG 160



Subject to technical changes.

Type	Id. No.
IMG 125	58352119
IMG 160	58362119

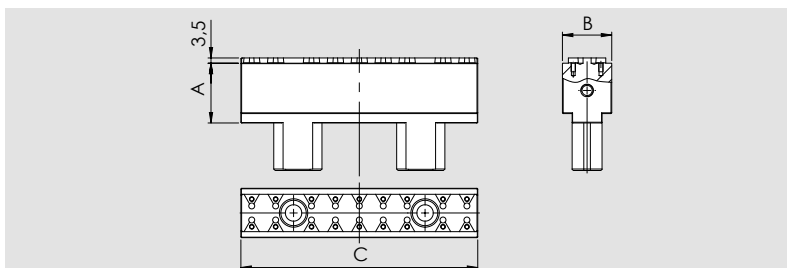
The advantages of modularity



Application examples

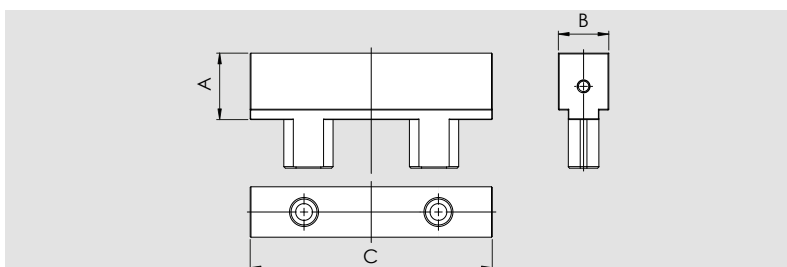


Double clamping jaw (SinterGrip not included, to be specified when ordering)



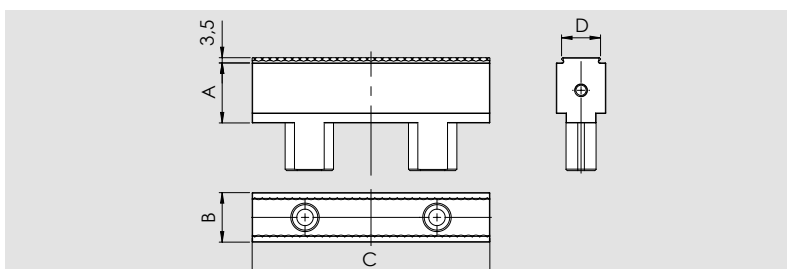
Type	Id. No.	A	B	C	n. seats
IMG 88	58341719	25	28	87,5	8
IMG 88 H1	58341769	15	28	87,5	8
IMG 125	58351719	30	33	123,5	10
IMG 125 H1	58351769	19	33	123,5	10
IMG 160	58361719	40	33	158,5	18

Double clamping smooth jaw



Type	Id. No.	A	B	C
IMG 88	58341739	28,5	28	87,5
IMG 125	58351739	33,5	33	123,5
IMG 160	58361739	43,5	33	158,5

Double clamping jaw BASIC



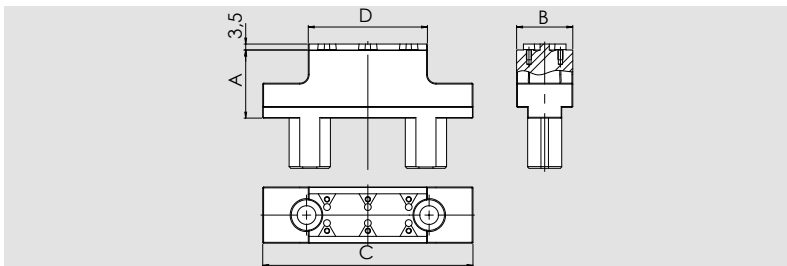
Type	Id. No.	A	B	C	D
IMG 88	58341759	25	28	87,5	21
IMG 88 H1	58341779	15	28	87,5	21
IMG 125	58351759	30	33	123,5	26
IMG 125 H1	58351779	19	33	123,5	26
IMG 160	58361759	40	33	158,5	26

Retainer plate



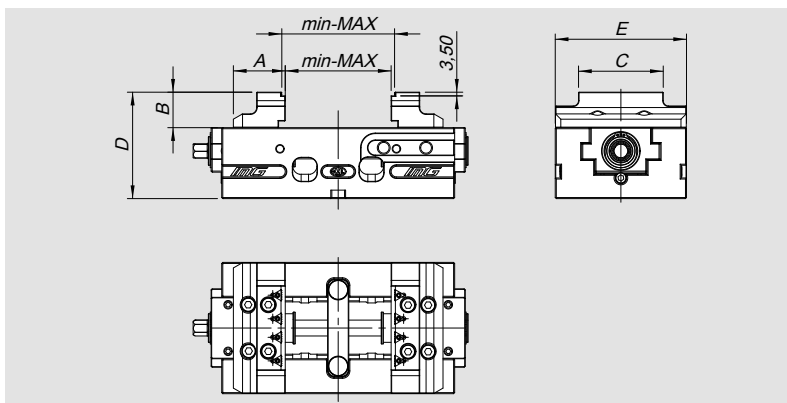
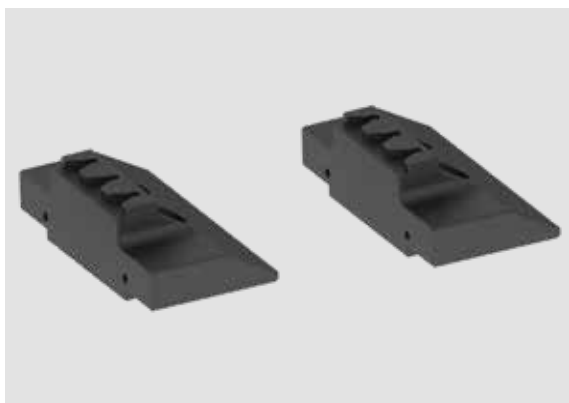
Type	Id. No.
IMG 88	58341019
IMG 125 - 180	58351039
IMG 125 - 220 / 320	58351019
IMG 160	58361019

Reduced double clamping jaw (SinterGrip not included, to be specified when ordering)



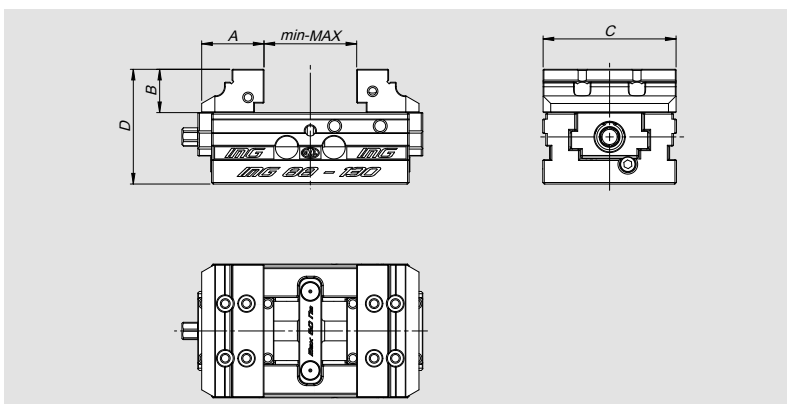
Type	Id. No.	A	B	C	D	n. seats
IMG 88	58341729	35	28	87,5	48	4
IMG 125	58351729	40	33	123,5	70	6
IMG 160	58361729	50	33	158,5	82	10

Pair of reduced jaws - SinterGrip not included, to be specified when ordering



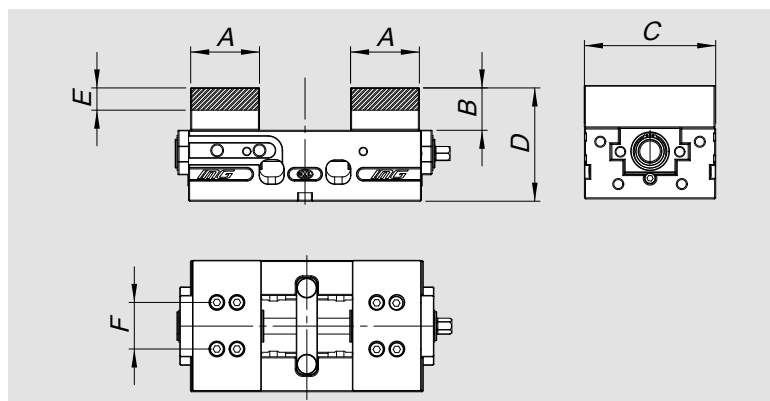
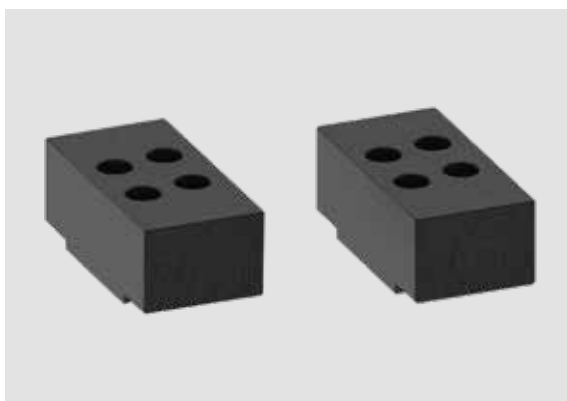
Type	Id. No.	A	B	C	D	E	min.	max.	n. seats
IMG 88-130 / V5 88-130	58341519	35	38,5	48	85,5	87,5	0 - 7	61 - 67	2
IMG 88-230	58341519	35	38,5	48	85,5	87,5	0 - 7	161 - 167	2
IMG 125-180 / V5 125-180	58351519	49	43,5	74	110,5	123,5	0 - 7	97 - 103	4
IMG 125-220	58351519	49	43,5	74	110,5	123,5	0 - 7	99 - 105	4
IMG 125-320	58351519	49	43,5	74	110,5	123,5	0 - 7	159 - 165	4
IMG 160-270	58361519	73	53,5	82	120,5	158,5	0 - 7	129 - 135	5
IMG 160-420	58361519	73	53,5	82	120,5	158,5	0 - 7	209 - 215	5

Pair of smooth jaws



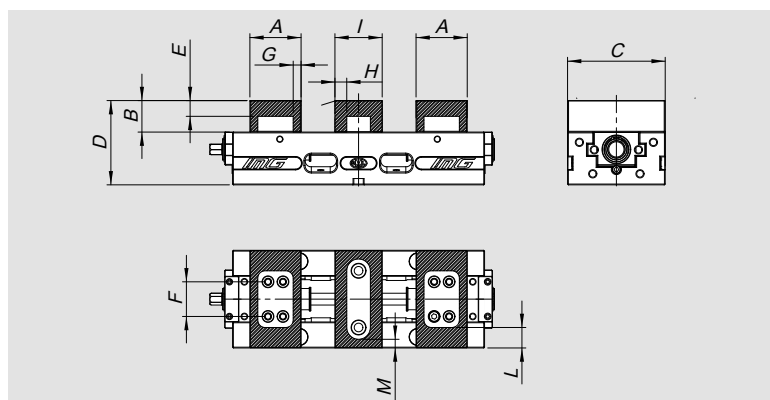
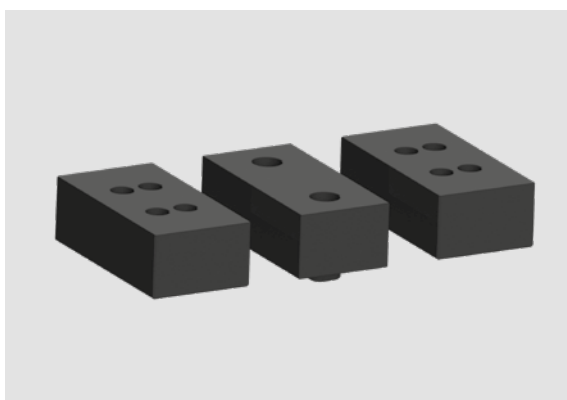
Type	Id. No.	A	B	C	D	min-max
IMG 88 / V5 88	58341819	41	28,5	87,5	74,5	see page 47 / 49
IMG 125 / V5 125	58351819	49	33,5	123,5	100,5	see page 51 / 53 / 55
IMG 160	58361819	73	43,5	158,5	110,5	see page 57 / 59

Pair of soft jaws (soft steel – ALU)



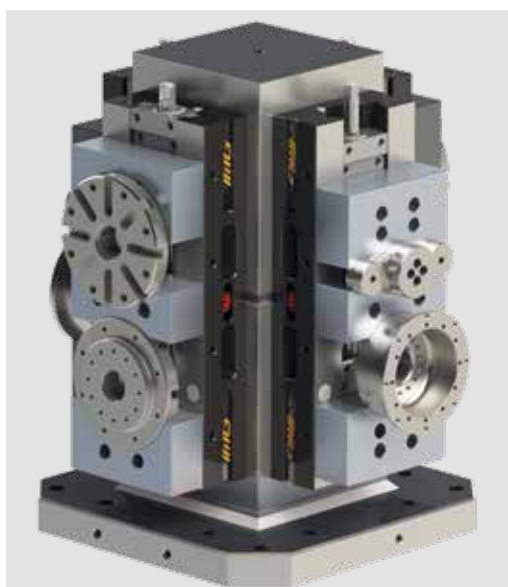
Type		Id. No.	A	B	C	D	E	F
IMG 88 / V5 88	ALU	58341619	45	40	87.5	87	23	36
IMG 88 / V5 88	Fe	58341629	45	40	87.5	87	23	36
IMG 125 / V5 125	ALU	58351619	65	40	123,5	107	20	44
IMG 125 / V5 125	Fe	58351629	65	40	123,5	107	20	44
IMG 160	ALU	58361619	85	50	158.5	117	25	52
IMG 160	Fe	58361629	85	50	158.5	117	25	52

Set of soft jaws for double clamping



Type		Id. No.	A	B	C	D	E	F	G	H	I	L	M
IMG 125	ALU	58359519	65	40	123,5	107	20	44	10	15	60	25	11
IMG 125	Fe	58359619	65	40	123,5	107	20	44	10	15	60	25	11
IMG 160	ALU	58369519	85	50	158.5	117	25	52	16.5	15	60	35	28
IMG 160	Fe	58369619	85	50	158.5	117	25	52	16.5	15	60	35	28

Application example



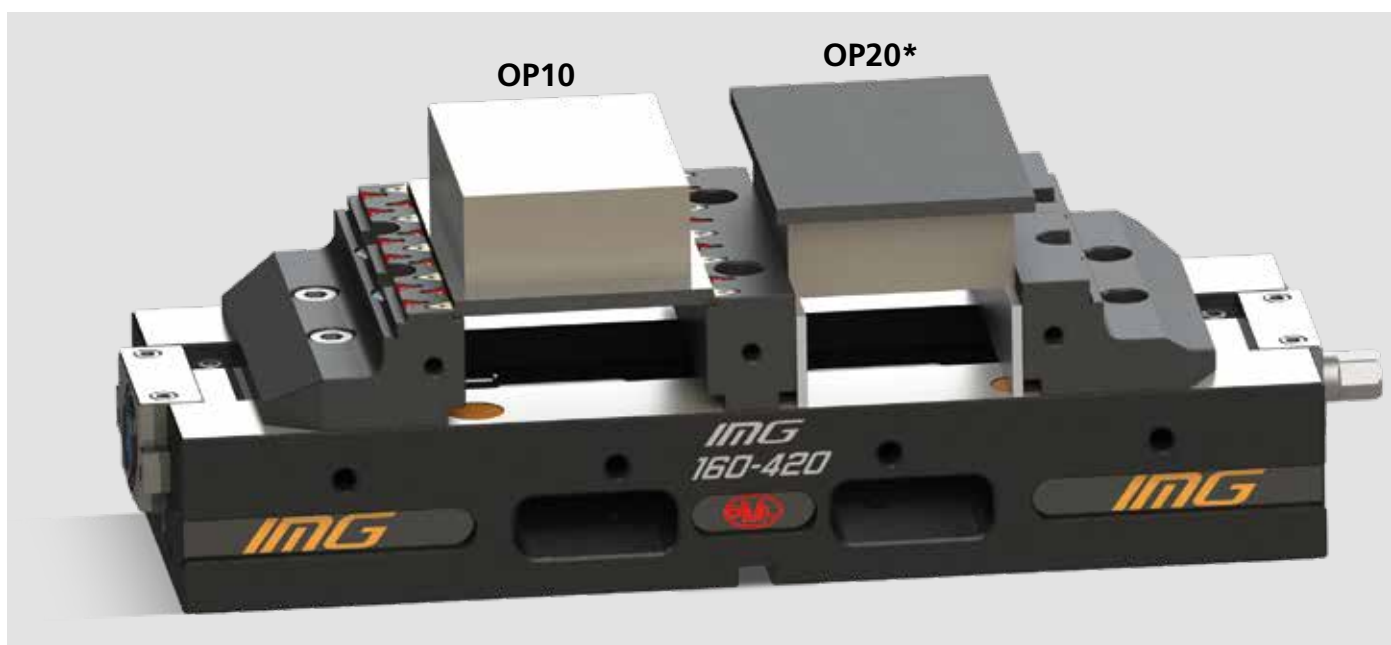
OP10 - OP20 Kit double clamping



- One pair OP20 parallel H included
- SinterGrip not included, to be specified when ordering

Type	Id. No.	Parallels H
IMG 88	58349719	20
IMG 125	58359719	25
IMG 160	58369719	35

Application example



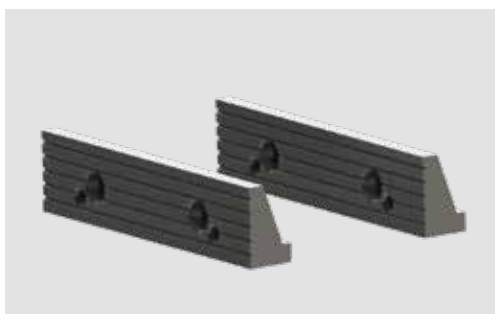
* **OP20** with smooth jaws and parallels CLAK System.

Pair of supports with pull down jaws



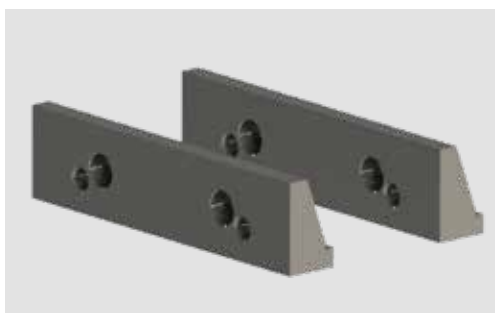
Type	Id. No.	Weight (Kg)
IMG / V5 125	58351419	4,100
IMG 160	58361419	8,300

Pair of grooved jaws



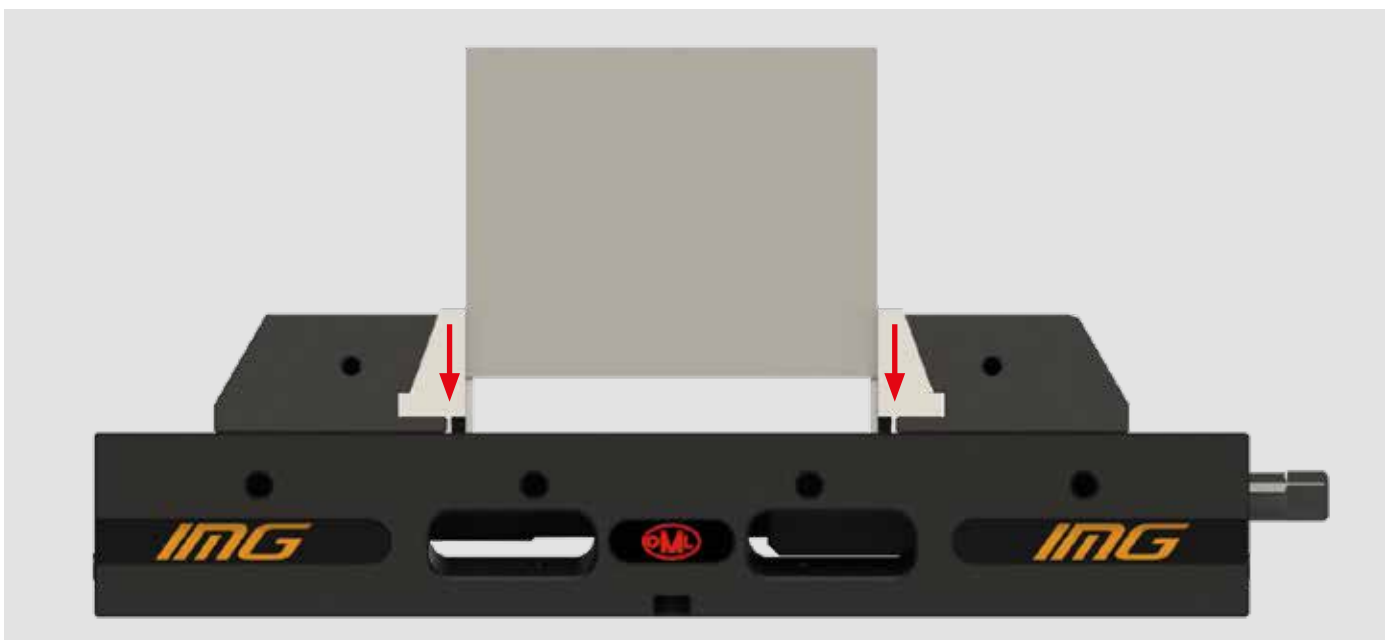
Type	Id. No.	Weight (Kg)
IMG / V5 125	58351425	0,600
IMG 160	58361425	1,400

Pair of smooth jaws

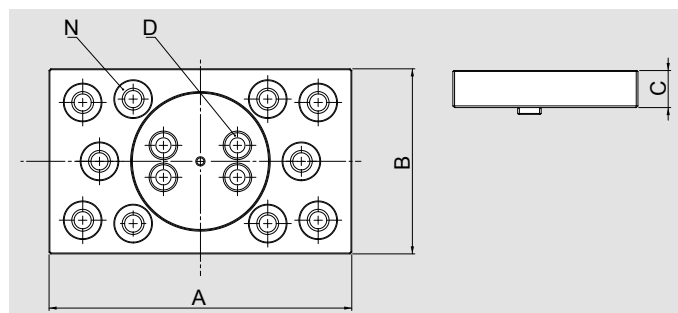
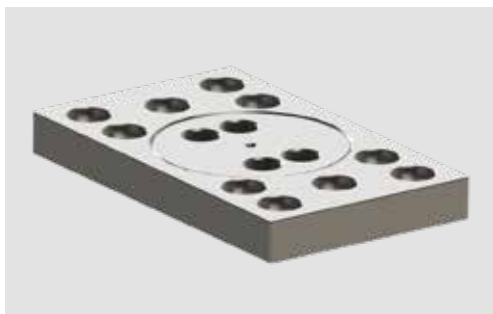


Type	Id. No.	Weight (Kg)
IMG / V5 125	58351415	0,600
IMG 160	58361415	1,450

Application example

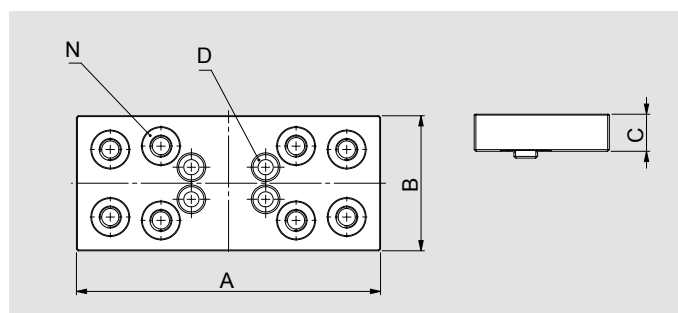
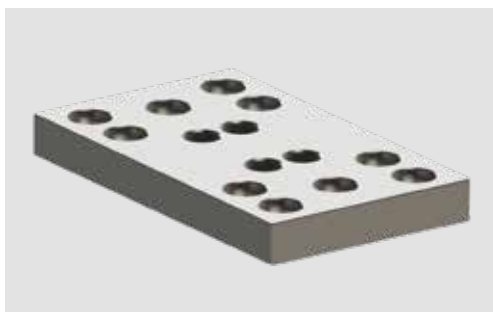


Floating jaw gripper



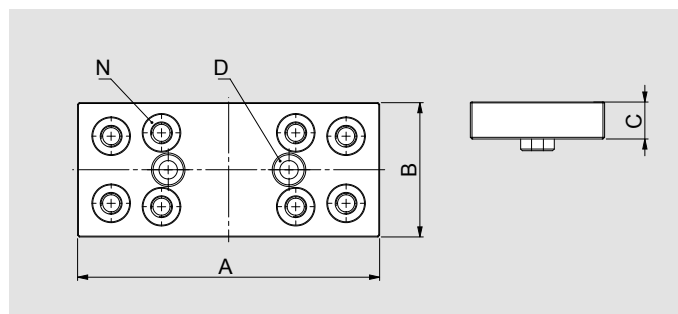
Type	Id. No.	A (mm)	B (mm)	D (mm)	N	C (mm)	Weight (Kg)
IMG / V5 125	58352520	180	110	M8	10	22	3,100
IMG 160	58362520	200	120	M10	10	22	2,700

Fixed/movable jaw gripper



Type	Id. No.	A (mm)	B (mm)	D (mm)	N	C (mm)	Weight (Kg)
IMG / V5 125	58352510	180	80	M10	8	22	2,300
IMG 160	58362510	200	120	M10	8	22	3,700

Fixed jaw for double clamping gripper

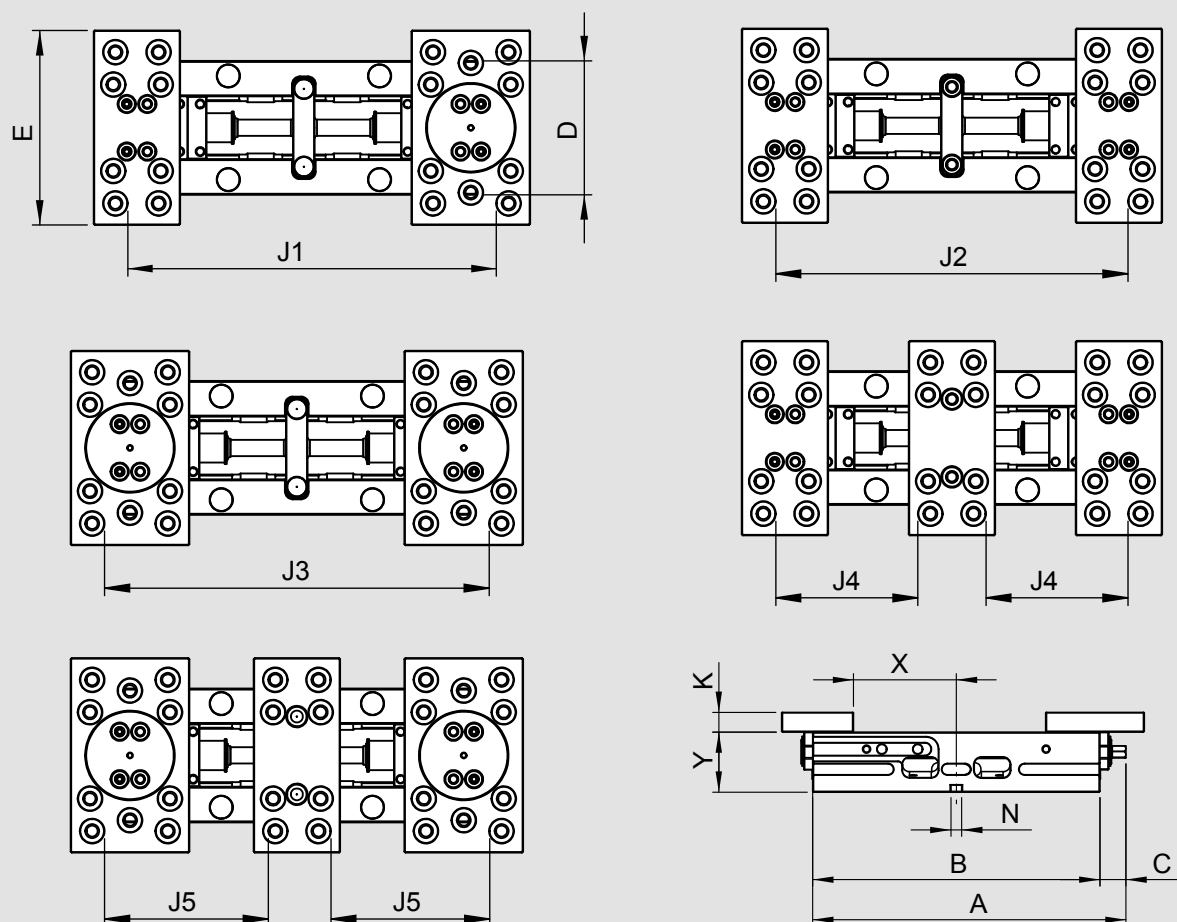


Type	Id. No.	A (mm)	B (mm)	D (mm)	N	C (mm)	Weight (Kg)
IMG / V5 125	58352530	180	80	M8	8	22	2,300
IMG 160	58362530	200	90	M10	10	22	2,900

Application example

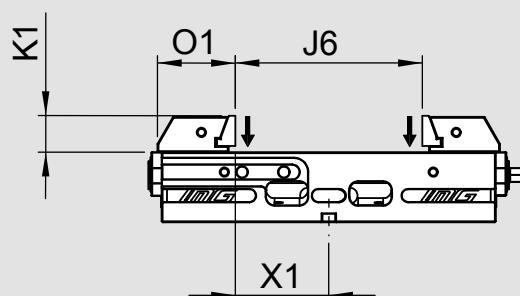


Floating jaws dimensions



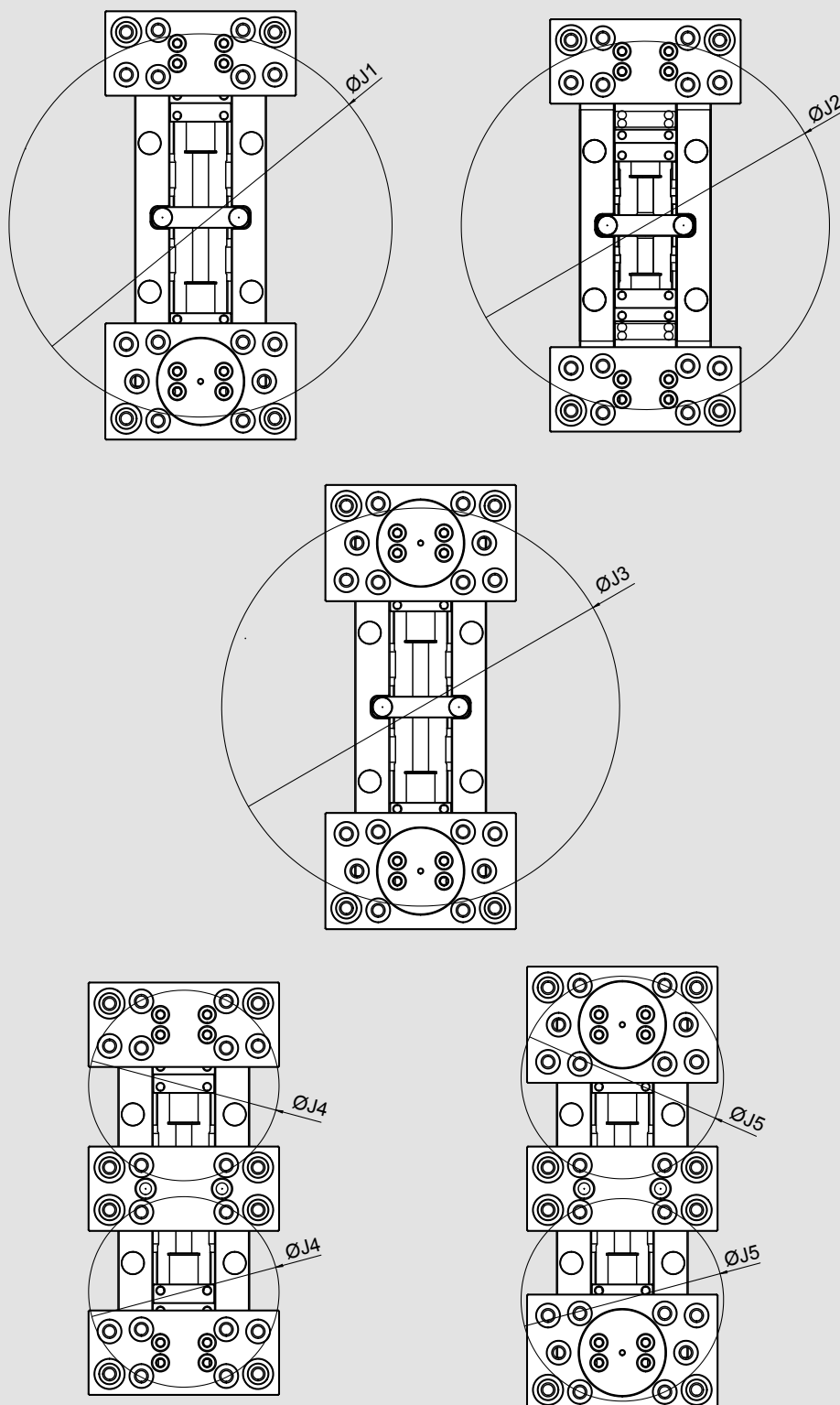
Type	A	B	C	D	E	K	N	X	Y	J1	J2	J3	J4	J5
IMG 125-220	247	220	27	124	180	22	12	54	67	215	200	230	65,5	X
IMG 125-320	349	320	29	124	180	22	12	115	67	335	349	350	125,5	140,5
IMG 160-270	299	270	29	159	200	22	12	59,5	67	290	290	290	105,5	105,5
IMG 160-420	449	420	29	160	200	22	12	150	67	448	448	448	184,5	184,5

Pull down jaws dimensions



Type	K1	O1	X1	J6
IMG 125-180	35	74,4	57,5	115
IMG 125-220	35	74,4	59,5	119
IMG 125-320	35	74,4	119,5	239
IMG 160-270	45	91,5	76	152
IMG 160-420	45	91,5	155	310

Maximum diameters of floating jaws

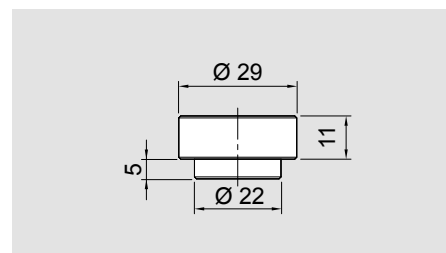


Type	Ø J1	Ø J2	Ø J3	Ø J4	Ø J5
IMG 125-220	252	239	265	122	X
IMG 125-320	360	347	375	179	190
IMG 160-270	327	327	327	180	180
IMG 160-420	441	441	441	224	224

Set of 4 grippers h11 smooth



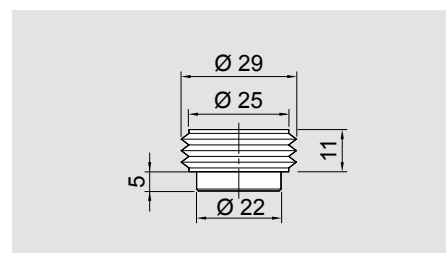
Id. No.
58906114



Set of 4 grippers h11 serrated



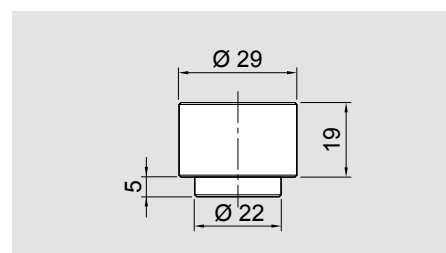
Id. No.
58906124



Set of 4 grippers h19 smooth



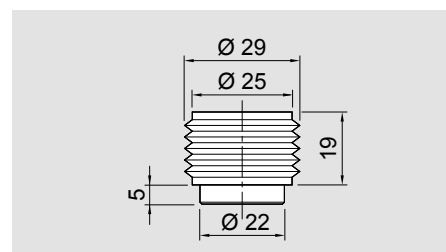
Id. No.
58906214



Set of 4 grippers h19 serrated



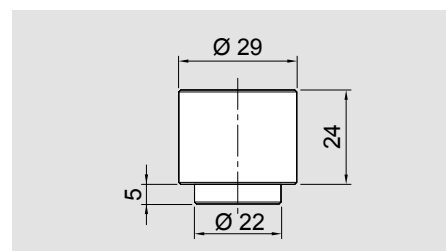
Id. No.
58906224



Set of 4 grippers h24 smooth



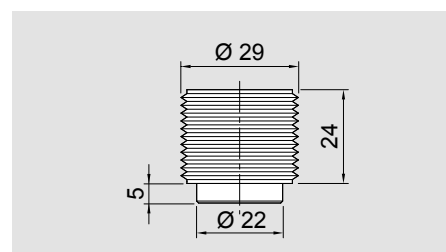
Id. No.
58906314



Set of 4 grippers h24 serrated



Id. No.
58906324





Applications / Customer Benefits

- Ideal for 5 axis machines
- Compact design
- Possibility to be mounted directly on machine tools with T slots
- Possibility to be mounted directly on single plate or DUO APS (pitch 200)

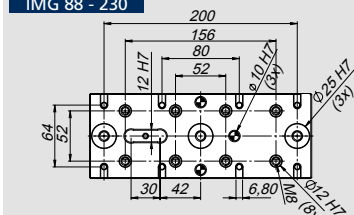
Technical features

- Material: steel

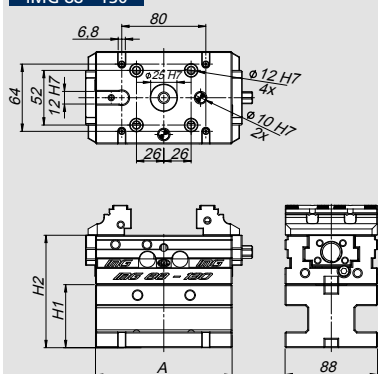
Standard equipment

On request: Positioning keys for IMG / APS pins / Positioning keys for machine tool

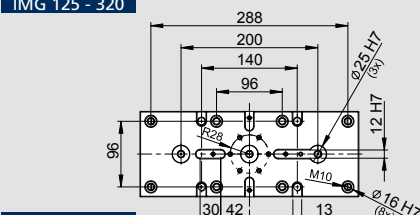
IMG 88 - 230



IMG 88 - 130



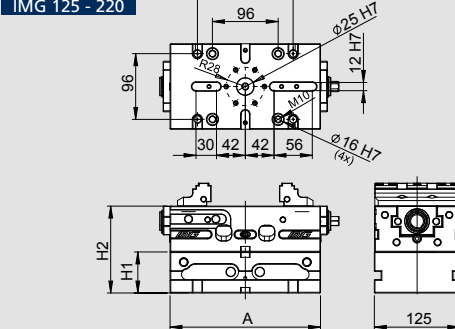
IMG 125 - 320



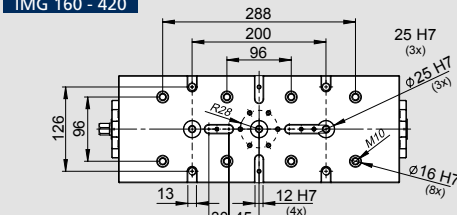
IMG 125 - 180

V5 125 - 180

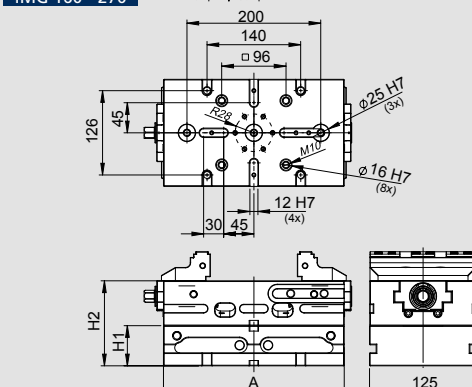
IMG 125 - 220



IMG 160 - 420

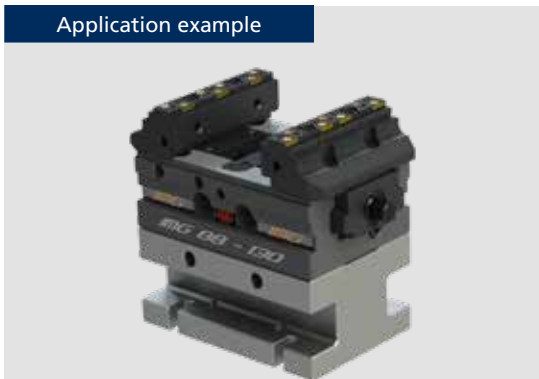


IMG 160 - 270



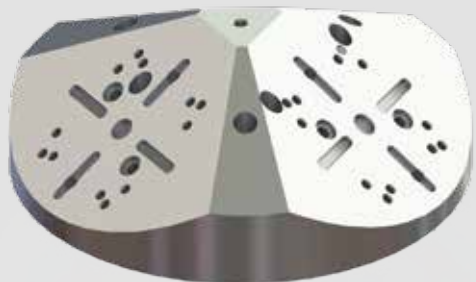
Type	Id. No.	H1	H2	A	Weight
For IMG 88 - 130 / V5 88 - 130	58342018	60	107	130	4 Kg
For IMG 88 - 130 / V5 88 - 130	58342028	100	207	130	6 Kg
For IMG 88 - 130	58342019	60	107	230	5 Kg
For IMG 88 - 230	58342029	100	207	230	7 Kg
For IMG 125 - 180 / V5 125 - 180	58352017	60	124	180	8 Kg
For IMG 125 - 180 / V5 125 - 180	58352027	100	147	180	12 Kg
For IMG 125 - 220	58352018	60	127	220	10 Kg
For IMG 125 - 220	58352028	100	167	220	15 Kg
For IMG 125 - 320	58352019	60	127	320	15 Kg
For IMG 125 - 320	58352029	100	167	320	21 Kg
For IMG 160 - 270	58362018	60	127	270	17 Kg
For IMG 160 - 270	58362028	100	167	270	25 Kg
For IMG 160 - 420	58362019	60	127	420	26 Kg
For IMG 160 - 420	58362029	100	167	420	38 Kg

Application example



Working examples





Applications / Customer Benefits

- Ideal for 5 axis machines
- Compact design
- Possibility to be mounted directly on machine tools with radial slots at 45 / 60 degrees
- Possibility to be mounted directly on single plate or DUO APS (pitch 200/250mm) and Plus 5

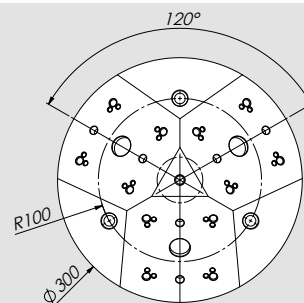
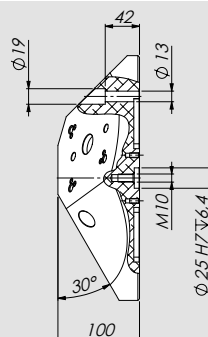
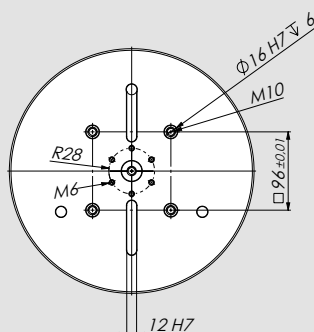
Technical features

- Material: ALU

Standard equipment

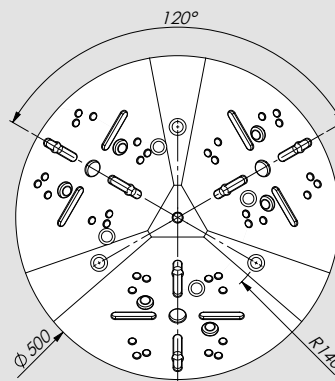
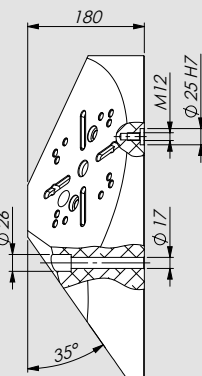
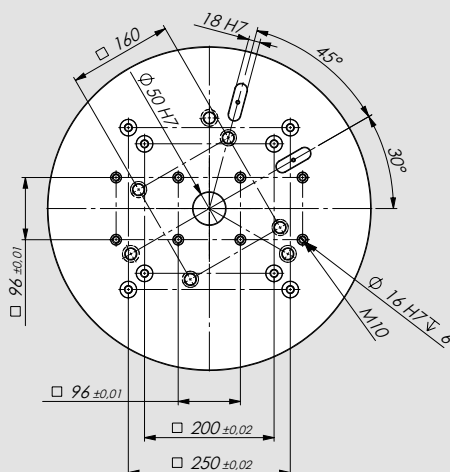
Positioning keys and screws for IMG
Pins and screws for Plus 5

IMG 88 - 130



IMG 125 - 180

IMG 125 - 220



Subject to technical changes.

Type	Id. No.	Weight
Alu Pyramid for IMG 88-130	58343210	12 Kg
Alu Pyramid for IMG 125-180 and IMG 125-220	58353210	55 Kg

Application example





Applications / Customer Benefits

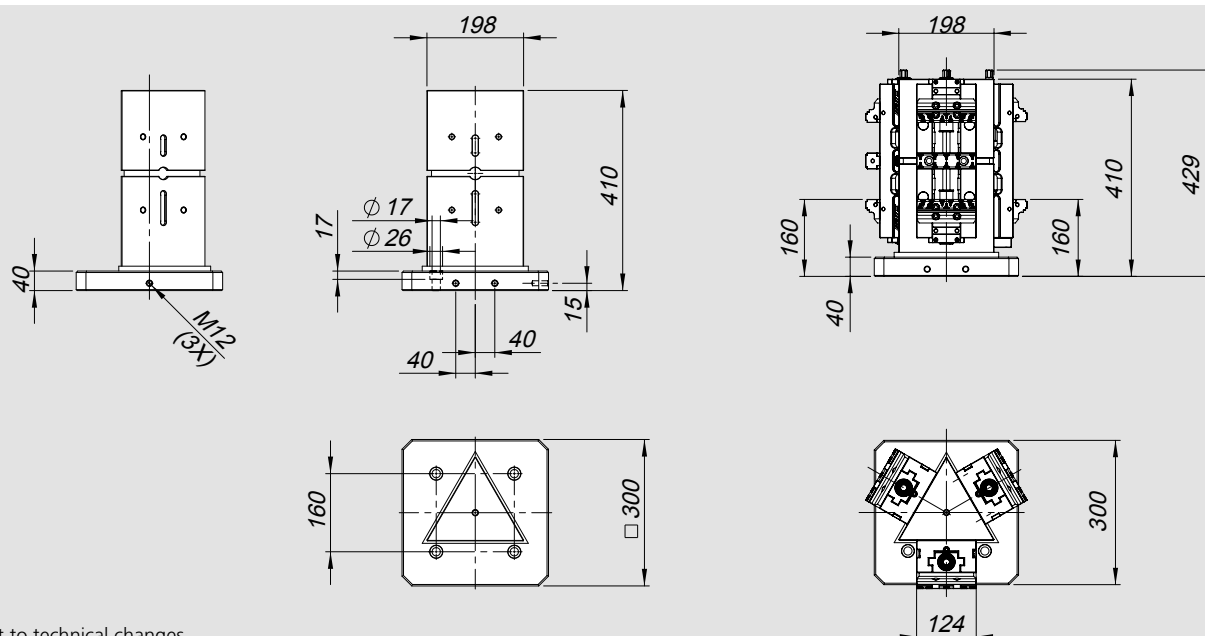
- Ideal for 5 axis machines
- Ideal for horizontal machines
- Compact design
- Wide clamping range

Technical features

- Material: steel

Standard equipment

Steel tombstone



Subject to technical changes.

Type	Id. No.	Weight
Triangular tombstone for IMG 125-320	58353010	74 Kg

Application example





Applications / Customer Benefits

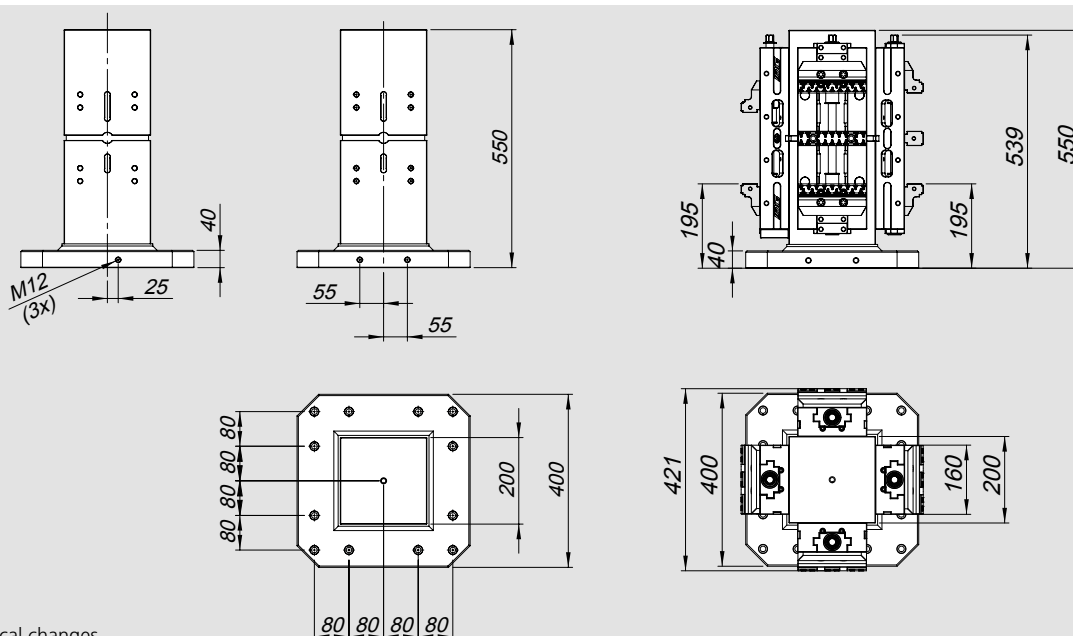
- Ideal for horizontal machines
- Compact design
- Wide clamping range

Technical features

- Material: steel

Standard equipment

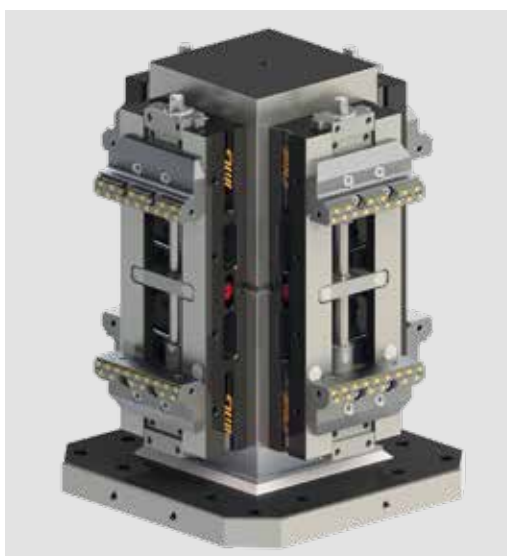
Steel tombstone



Subject to technical changes.

Type	Id. No.	Weight
Tombstone for IMG 160-420	58363120	140 Kg

Application example



Clamping pins APS 140



Typo A
centering pin



Typo B
reference pin

Application/customer benefits

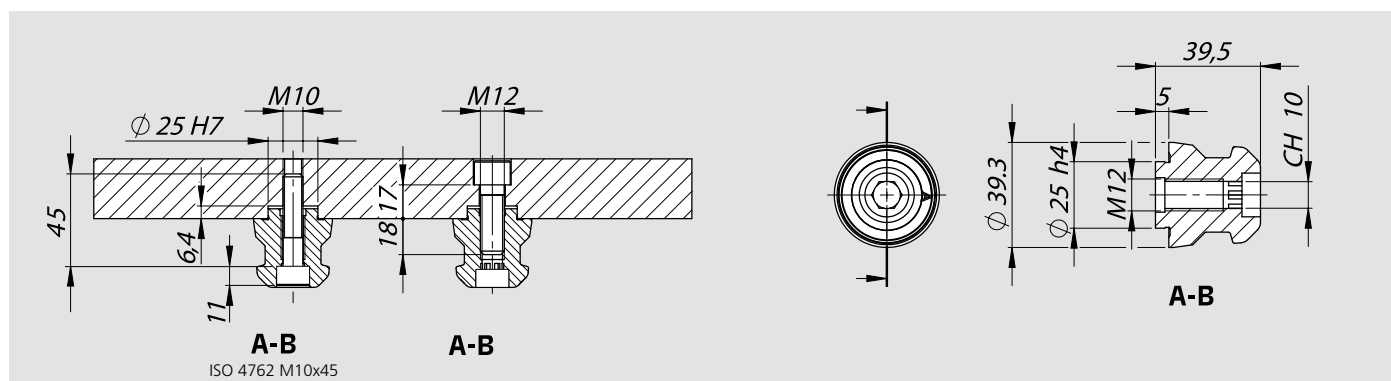
- Fixation and positioning on the clamping systems APS 140
- Wear-resistant due to an extra hard protective coating
- Large entry radii of the clamping pins for easy and safe loading

Technical features

- Centering pin Type A (Standard)
- Sword pin Type B (Positioning pin)

Standard equipment

Clamping pin with mounting screw M10x45



	Thread	Type A	Type B	Weight
Clamping pins APS 140	M12	46162355	46162356	0.3 Kg

Clamping pins APS 190



Application/customer benefits

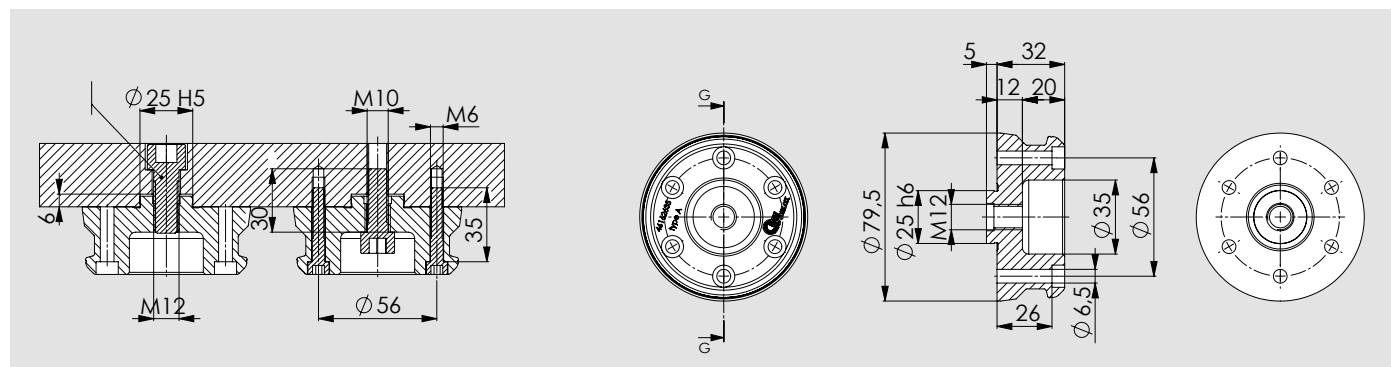
- Fixation and positioning on the clamping systems APS 190
- Large entry radii of the clamping pins for easy and safe loading

Technical features

- Centering pin Type A (Standard)

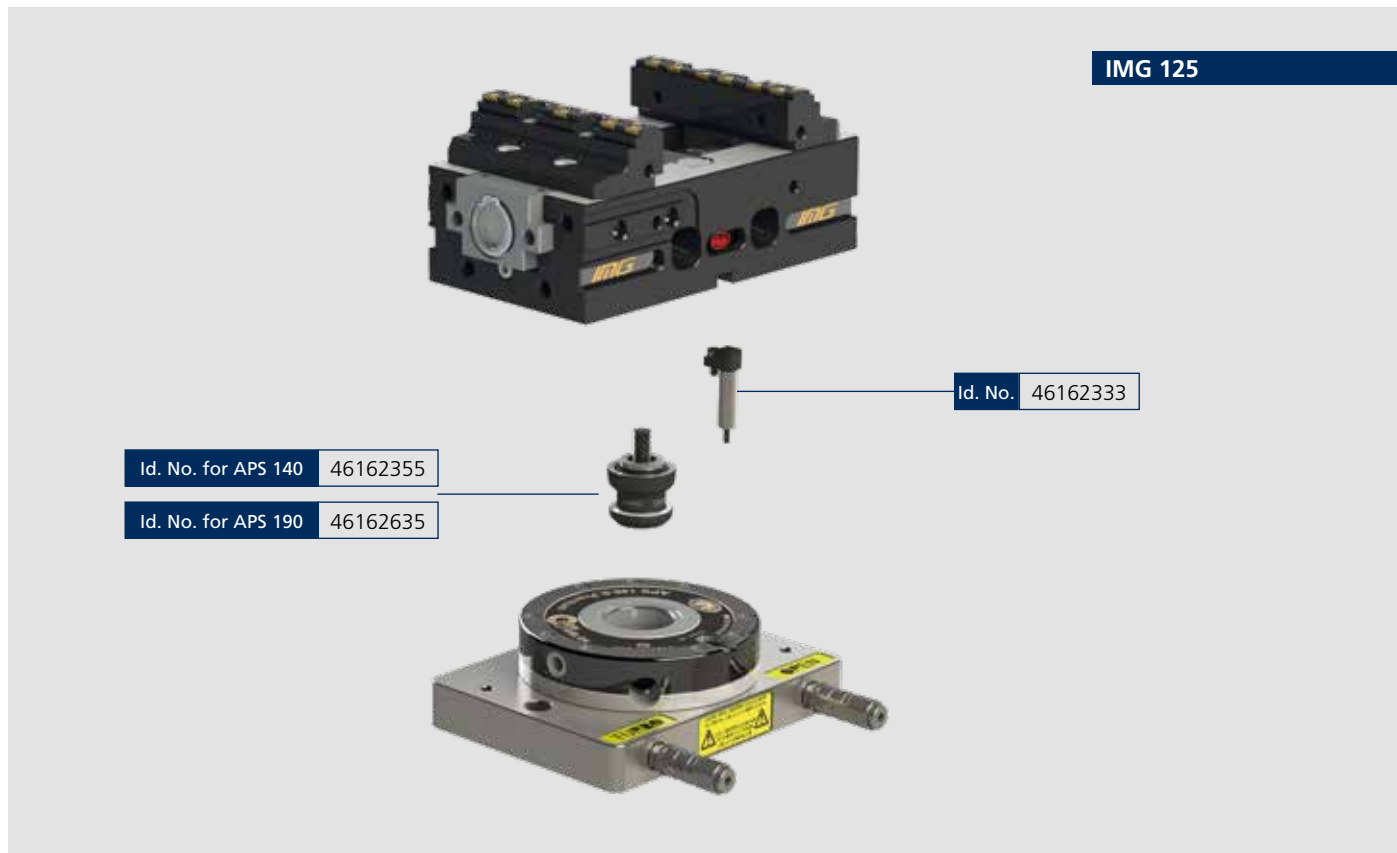
Standard equipment

Clamping pin with mounting screw M8x40 (6 pieces)

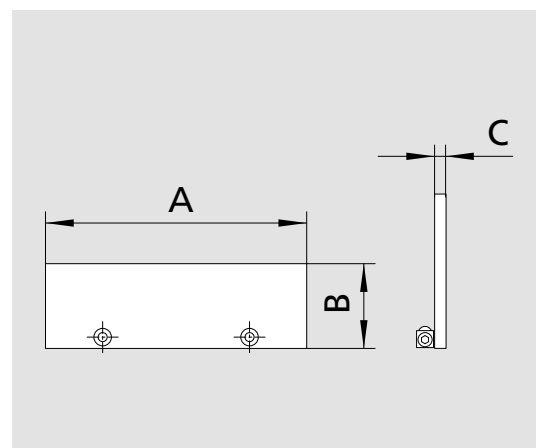
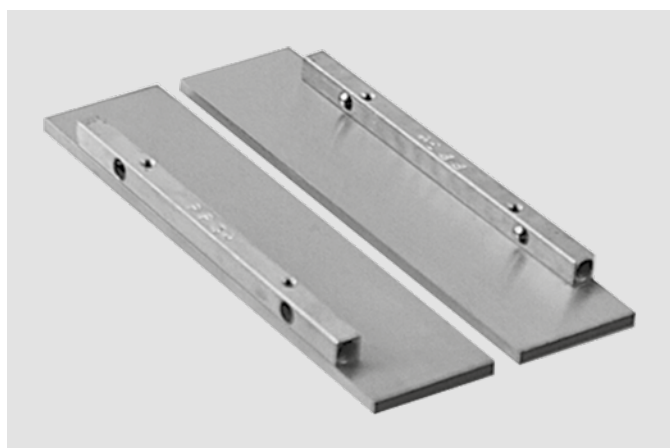


Id. No.	Type	Weight
46 16 26 35	A $\phi 25 = \text{at pin APS-140 M12}$	0,85Kg

Application examples



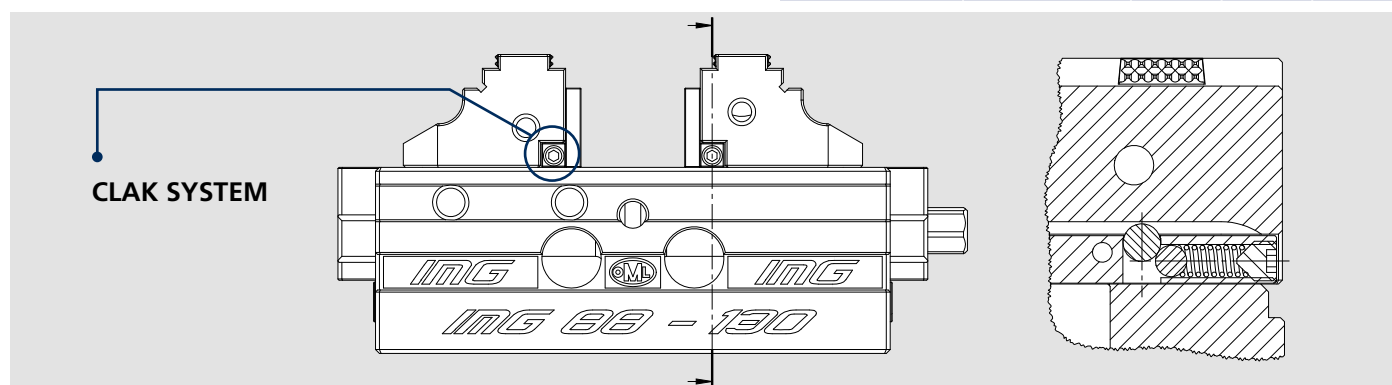
Quick change modular parallels



Type	Id. No.	B	A	C
For IMG / V5 88	58343510	10	87	4
For IMG / V5 88	58343515	15	87	4
For IMG / V5 88	58343520	20	87	4
For IMG / V5 88	58343525	25	87	4

Type	Id. No.	B	A	C
For IMG / V5 125	58455115	15	124	4
For IMG / V5 125	58455120	20	124	4
For IMG / V5 125	58455125	25	124	4
For IMG / V5 125	58455130	30	124	4
For IMG 160	58455315	15	159	4
For IMG 160	58455325	25	159	4
For IMG 160	58455335	35	159	4
For IMG 160	58455340	40	159	4

Application example



Torque Wrench



Type	Id. No.
IMG 88	51501026
IMG 125	51501021
IMG 160	51501022

Workstop



Type	Id. No.
IMG 88	58415030
IMG 125-160	58315020

Key for APS for single use (APS side)



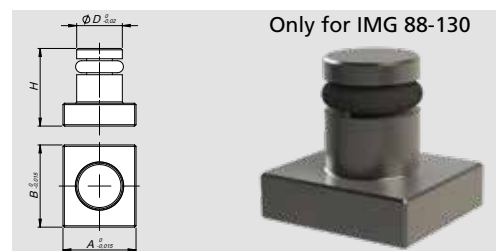
Type	Id. No.
APS 140 / 190	46162333

Pair of positioning keys for T Slot

Only for IMG 125-160



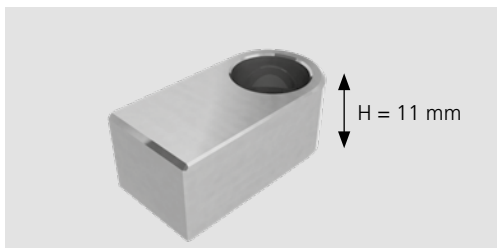
IMG / V5 125 - IMG 160	mm 12 - h6
mm 12 - h6	58351392
mm 14 - h6	58351393
mm 16 - h6	58351394
mm 18 - h6	58351395
mm 20 - h6	58351396
mm 22 - h6	58351397



Only for IMG 88-130

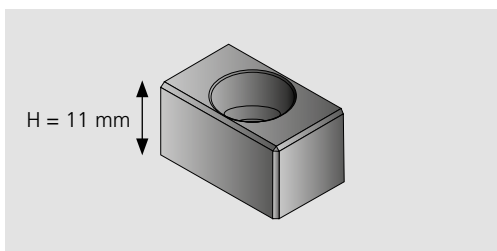
IMG / V5 88 - IMG 130	A	B	H	D
58341393	12	14	17	10
58341395	16	18	17	10

Key for single use on APS 140 for IMG 88-125 (vice body side)



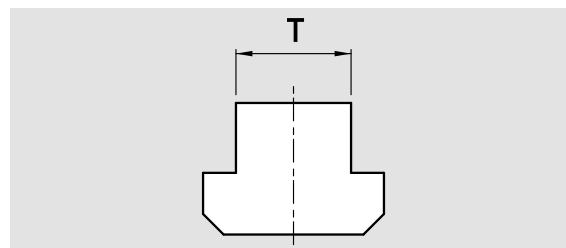
Type	Id. No.
IMG 88	58351312
IMG 125	

Key for single use on APS 190 for IMG 160 (vice body side)



Type	Id. No.
IMG 160	58361312

Pair of Clamps



Type	mm 12	mm 14	mm 16	mm 18	mm 20	mm 22
IMG 88	58012792	58012793	58012794	58012795	58012796	58012797
IMG 125 / 160	58022792	58022793	58022794	58022795	58022796	58022797

SinterGrip



Id. No.	Description
58450119	Set of 10 SinterGrip inserts STD for steel

Id. No.	Description
58450129	Set of 10 SinterGrip inserts HRC for hardened steel / titanium until 50-54 HRC



Id. No.	Description
58450139	Set of 10 SinterGrip inserts for ALU

Id. No.	Description
58450149	Set of 10 SinterGrip inserts PLM for polymeric materials



Id. No.	Description
58450219	Set 10VTX30 for inserts SINTERGRIP

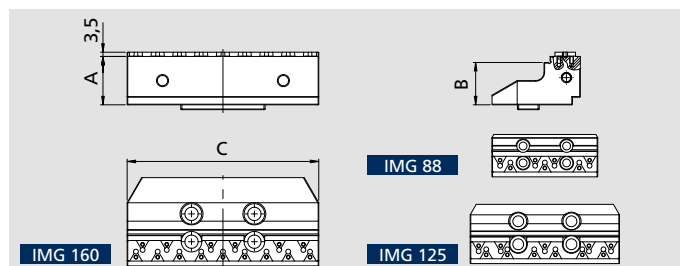
Id. No.	Description
58450519	Set 10 protection inserts in aluminum



Find out more

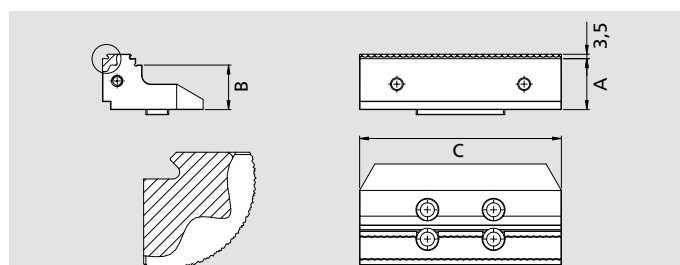
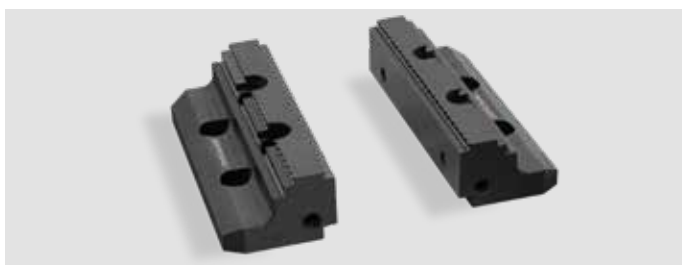


Pair of SINTERGRIP jaws



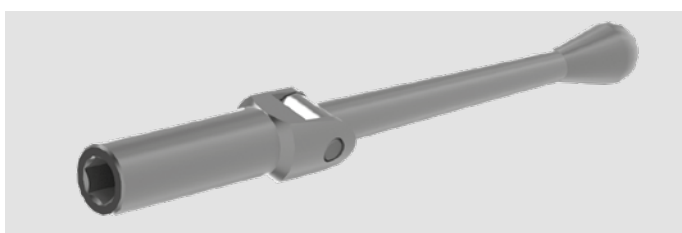
Type	Id. No.	A	B	C	n. seats
IMG / V5 88 SinterGrip	58341219	25	20	87,5	7
IMG / V5 88 SinterGrip H1	58341229	15	10	87,5	7
IMG / V5 125 SinterGrip	58351219	30	25	123,5	11
IMG / V5 125 SinterGrip H1	58351229	19	14	123,5	11
IMG 160 SinterGrip	58361219	40	35	158,5	15

Pair of BASIC jaws (for materials up to 30 HRC)



Type	Id. No.	A	B	C
IMG / V5 88 Basic	58341259	25	20	87,5
IMG / V5 88 Basic H1	58341269	15	10	87,5
IMG / V5 125 Basic	58351259	30	25	123,5
IMG / V5 125 Basic H1	58351269	19	14	123,5
IMG 160 Basic	58361259	40	35	158,5

Wrench



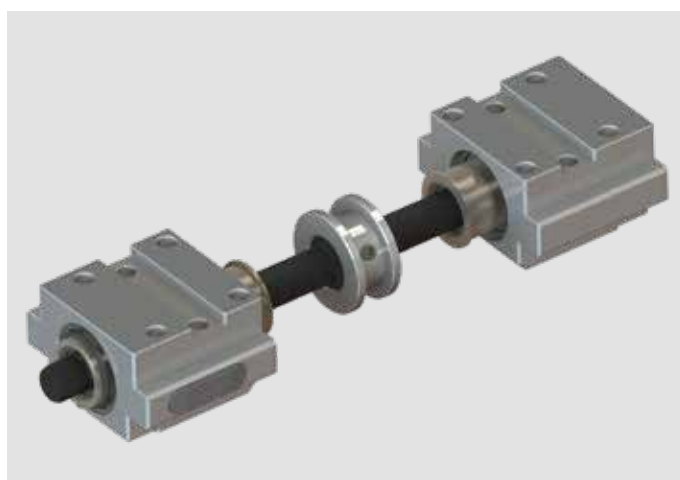
Type	Id. No.
IMG 125 / V5	58351910
IMG 160	58361910

Wrench



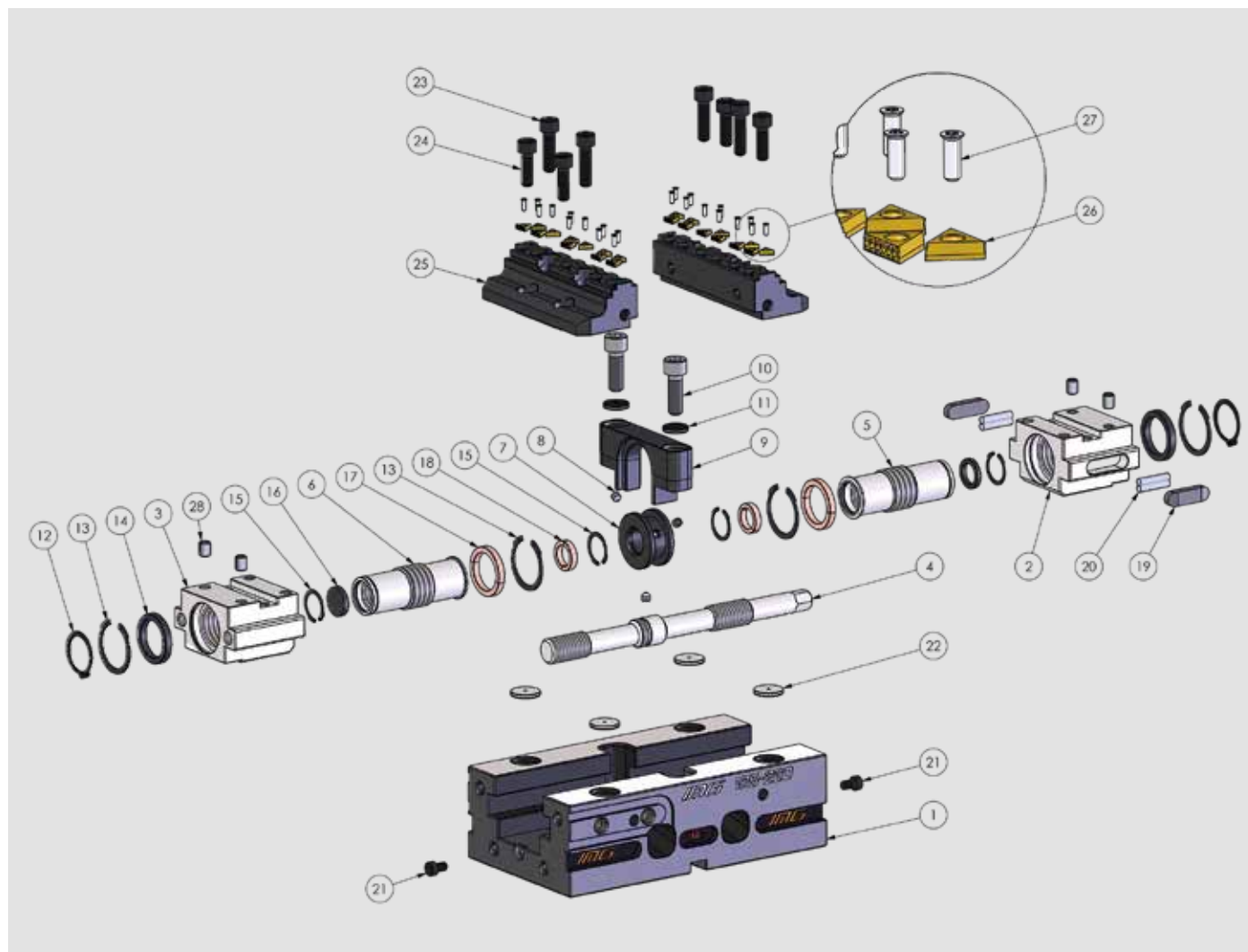
Type	Id. No.
IMG 88 / V5	58341910

Spindel group



Type	Id. No.
IMG 88-130	58349010
IMG 125-180	58359030
IMG 125-220	58359010
IMG 125-320	58359020
IMG 160-270	58369010
IMG 160-420	58369020

Exploded



	Description
1	IMG BASE
2	LEFT SLIDE WAY
3	RIGHT SLIDE WAY
4	OPERATING SCREW
5	LEFT BUSHING
6	RIGHT BUSHING
7	SCREW STOP
8	SCREW
9	UPPER SUPPORT
10	SCREW

	Description
11	ALU PLUG FOR M10
12	SEEGER RING
13	SEEGER RING
14	O - RING
15	SEEGER RING
16	PLUG
17	BRONZE RING
18	SNAP RING
19	STOP KEY
20	RUBBER KEY

	Description
21	SCREW
22	ALU PLUG FOR M12
23	SCREW
24	SCREW
25	SINTERGRIP JAW
26	SINTERGRIP INSERTS
27	SCREW FOR SINTERGRIP
28	GRUB SCREW

Working examples



V5



Self-centering vice for 5-axis machines

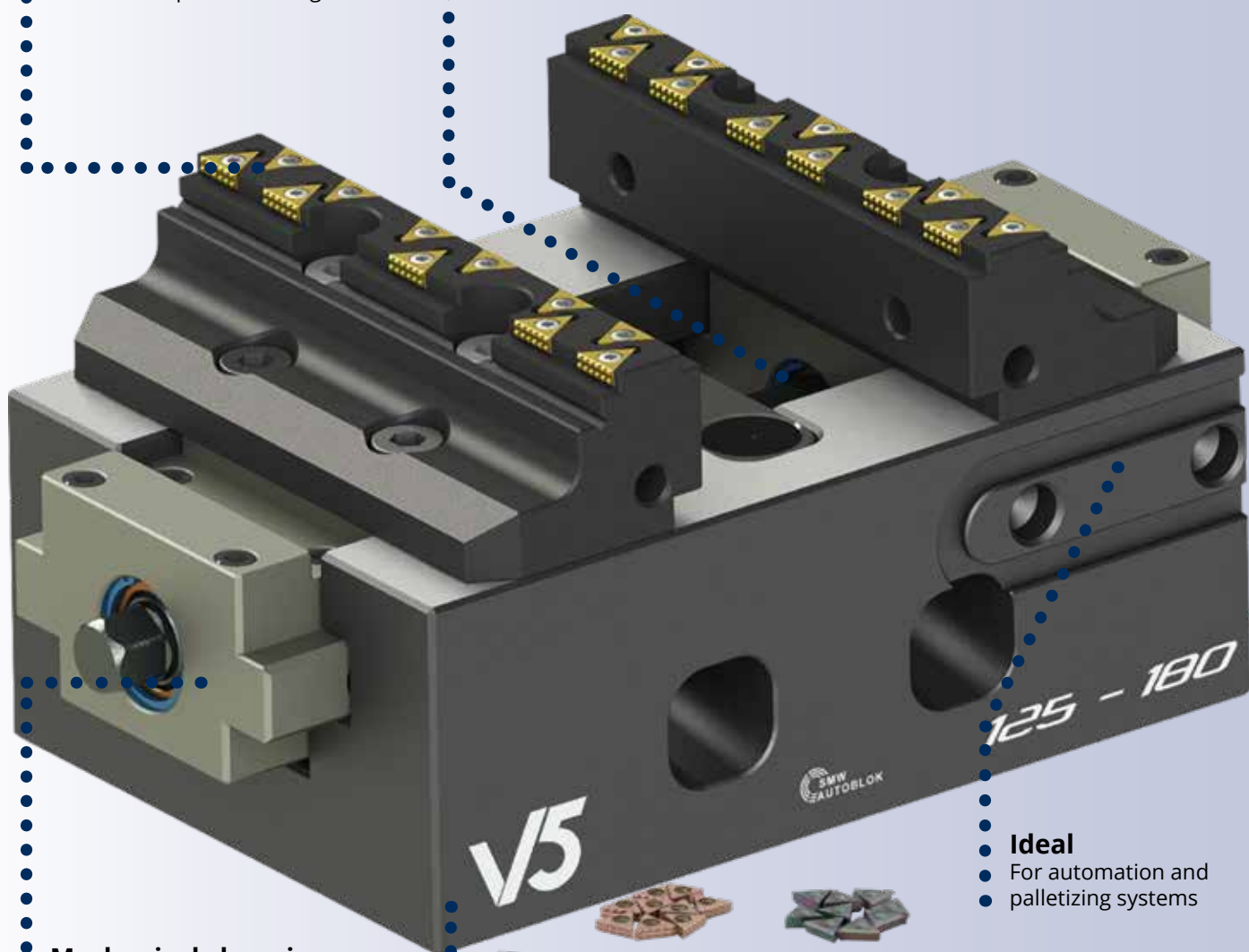


V5

Self-centering vice for 5-axis machines

- **SinterGrip jaws:**
- Reversible jaws for
- minimum clamping depth
- and without pre-machining

- **Totally protected**
- **screw**



- **Mechanical clamping**
- Totally protected screw.
- The large power transmission
- allows high performance in the
- manufacturing process

- **Interface**
- For Zero Point clamping systems
- and Plus5 52 / 96

- **Ideal**
- For automation and
- palletizing systems



V5 BASIC

Basic jaws, without Sintergrip inserts



■ Protected screw



Applications / Customer Benefits

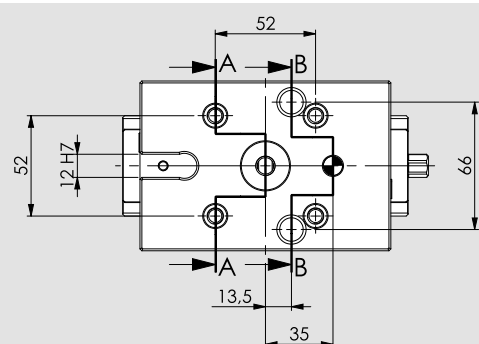
- Highly precise **only** self-centering clamping with maximum repeatability
- Totally protected
- Compact design for better accessibility and very large drainage slots
- Jaws with SinterGrip clamping inserts for minimum workpiece clamping depth without pre-machining
- Wide clamping range
- Ideal for OP 10 and OP 20

Technical features

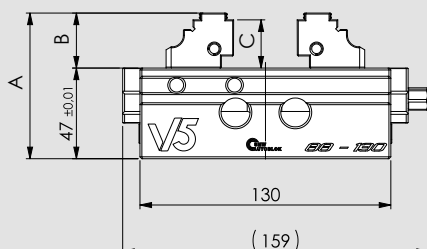
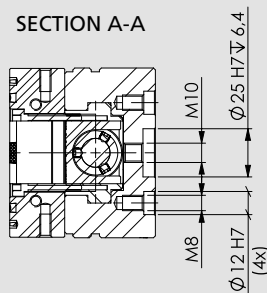
- Self-centering clamping
- Clamping force up to 32 kN (50 Nm)
- Jaw width 87,5 mm
- Interface for Zero Point system APS / TDM and Plus5 52
- **The jaws for V5 88 are compatible with IMG 88. See pages 46/49**

Standard equipment

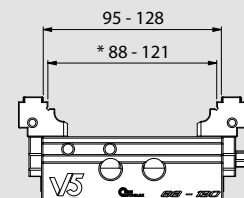
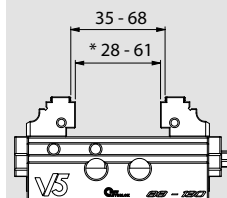
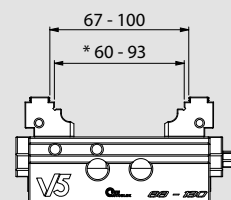
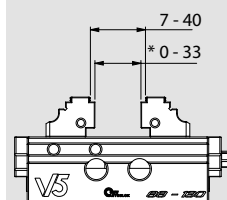
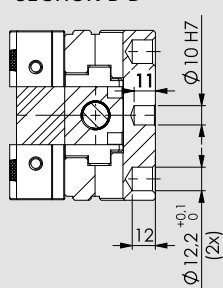
Wrench, jaws, nr. 10 Sintergrip inserts.



SECTION A-A



SECTION B-B



* Opening with smooth jaws
Valid dimensions for both SinterGrip and Basic type

Subject to technical changes.

Subject to technical changes.

Type	Id. No.	A	B	C	Weight
V5 88 - 130 with SinterGrip jaws STD	77583303	75,5	28,5	25	4,5 Kg
V5 88 - 130 with SinterGrip jaws ALU	77583304	75,5	28,5	25	4,5 Kg
V5 88 - 130 with SinterGrip jaws HRC	77583305	75,5	28,5	25	4,5 Kg
V5 88 - 130 with SinterGrip jaws PLM (for polymer materials)	77583306	75,5	28,5	25	4,5 Kg
V5 88 - 130 H1* with SinterGrip jaws STD	77583303H1	65,5	18,5	15	4,5 Kg
V5 88 - 130 H1* with SinterGrip jaws ALU	77583304H1	65,5	18,5	15	4,5 Kg
V5 88 - 130 H1* with SinterGrip jaws HRC	77583305H1	65,5	18,5	15	4,5 Kg
V5 88 - 130 H1* with SinterGrip jaws PLM (for polymer materials)	77583306H1	65,5	18,5	15	4,5 Kg
V5 88 - 130 Basic	77583302	75,5	28,5	25	4,5 Kg
V5 88 - 130 H1* Basic	77583302H1	65,5	18,5	15	4,5 Kg
V5 88 - 130 body only	77583301	-	-	-	3,5 Kg

* Compatible in height with other vices on the market

■ Protected screw



Applications / Customer Benefits

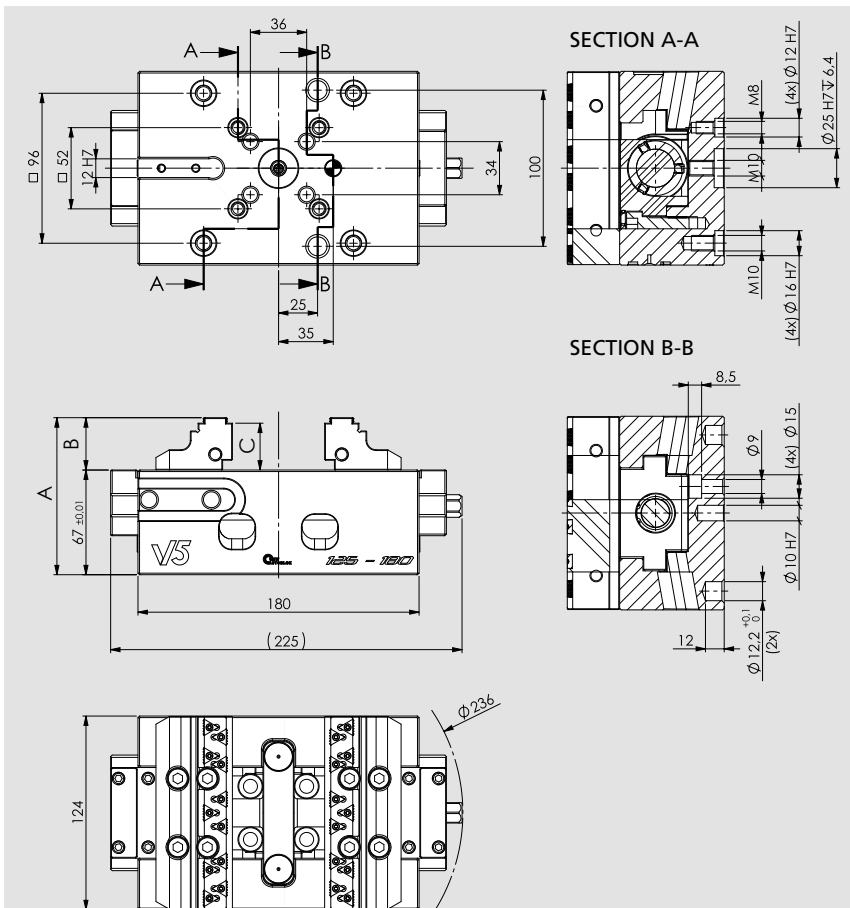
- Highly precise **only** self-centering clamping with maximum repeatability
- Totally protected
- Compact design for better accessibility and very large drainage slots
- Jaws with SinterGrip clamping inserts for minimum workpiece clamping depth without pre-machining
- Wide clamping range
- Ideal for OP 10 and OP 20

Technical features

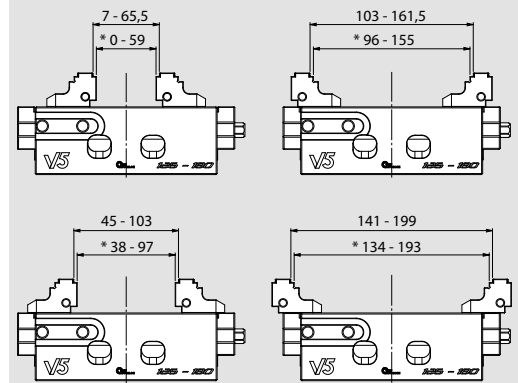
- Self-centering clamping
- Clamping force up to 40 kN (80 Nm)
- Jaw width 125 mm
- Interface for Zero Point system APS / TDM and Plus 5 52 - 96
- **The jaws for V5 125 are compatible with IMG 125. See pages 50/55**

Standard equipment

Wrench, jaws, nr. 10 Sintergrip inserts.



Subject to technical changes.



* Opening with smooth jaws
Valid dimensions for both SinterGrip and Basic type

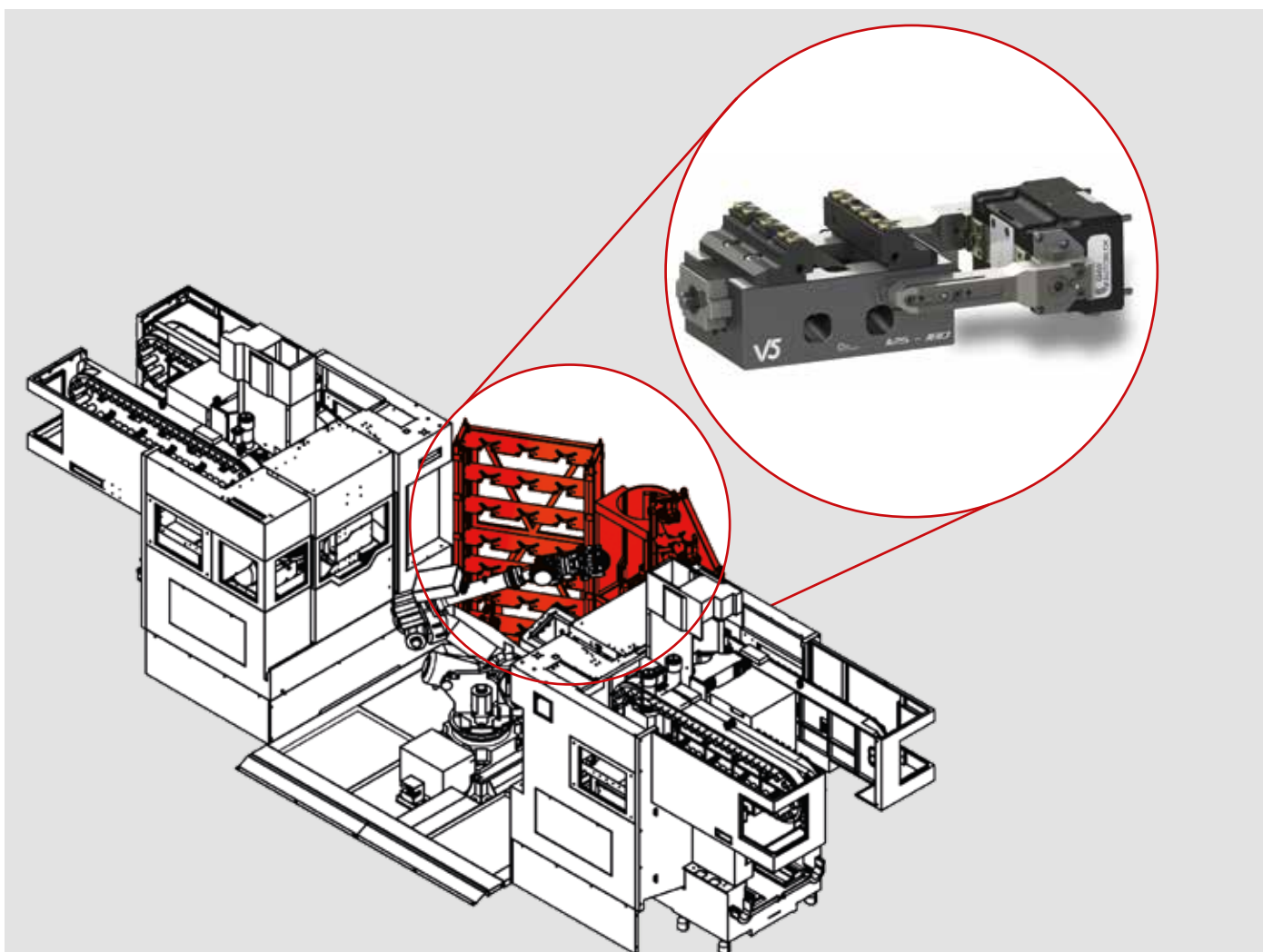
Subject to technical changes.

Type	Id. No.	A	B	C	Weight
V5 125 - 180 with SinterGrip jaws STD	77583333	100,5	33,5	30	12 Kg
V5 125 - 180 with SinterGrip jaws ALU	77583334	100,5	33,5	30	12 Kg
V5 125 - 180 with SinterGrip jaws HRC	77583335	100,5	33,5	30	12 Kg
V5 125 - 180 with SinterGrip jaws PLM (for polymer materials)	77583336	100,5	33,5	30	12 Kg
V5 125 - 180 H1* with SinterGrip jaws STD	77583333H1	89,5	22,5	19	12 Kg
V5 125 - 180 H1* with SinterGrip jaws ALU	77583334H1	89,5	22,5	19	12 Kg
V5 125 - 180 H1* with SinterGrip jaws HRC	77583335H1	89,5	22,5	19	12 Kg
V5 125 - 180 H1* with SinterGrip jaws PLM (for polymer materials)	77583336H1	89,5	22,5	19	12 Kg
V5 125 - 180 Basic	77583332	100,5	33,5	30	12 Kg
V5 125 - 180 H1* Basic	77583332H1	89,5	22,5	19	12 Kg
V5 125 - 180 body only	77583331	-	-	-	10 Kg

* Compatible in height with other vices on the market

The self-centering **only** V5 vice is added to the IMG range with an excellent quality-price ratio, ideal for multi-vice integrated automation systems.

Working example





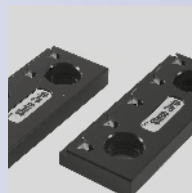
GENIUS 5

Genius & SinterGrip
Precision vise for 5-axis machine tools



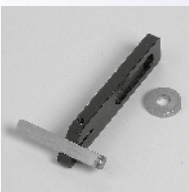
GENIUS VISE

Page 103



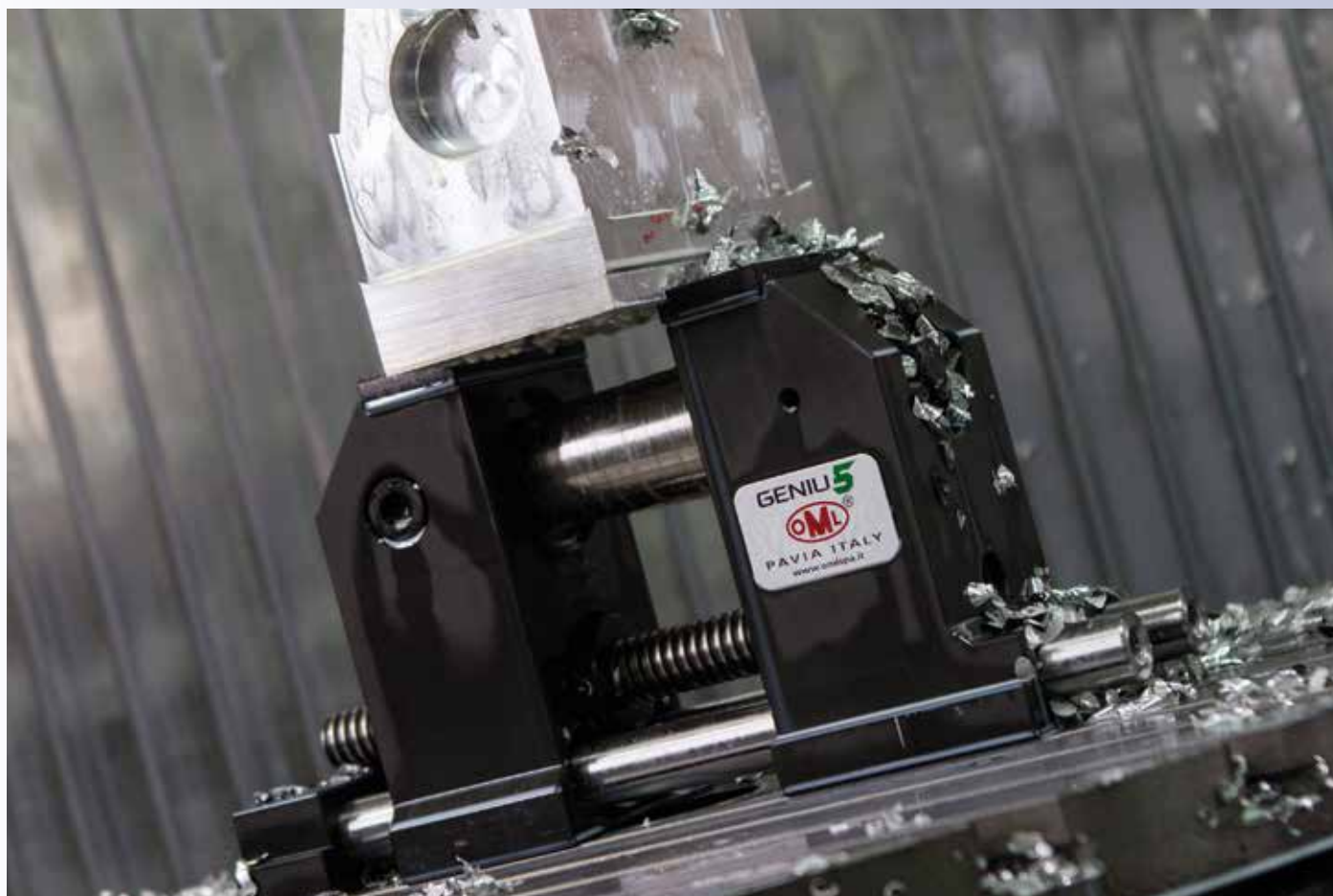
SPARE PARTS

Page 108



ACCESSORIES

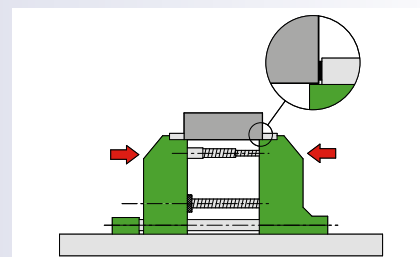
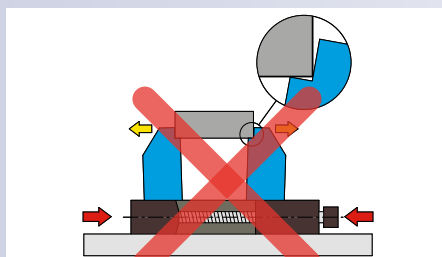
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MAIN FEATURES

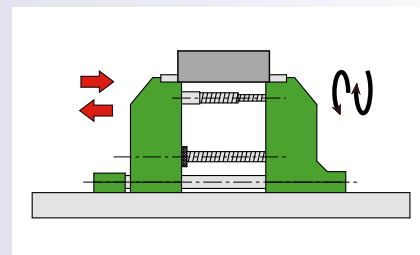
1

The clamping force (up to 40 kN) is generated right where it is needed: at the part.



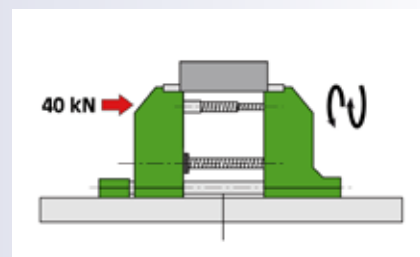
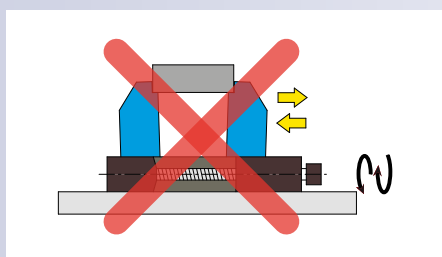
2

Thanks to its own expanding screw, GENIUS can clamp workpieces up to 200 mm with just one set-up.



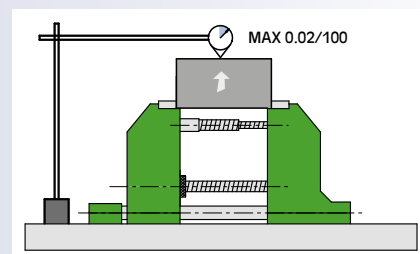
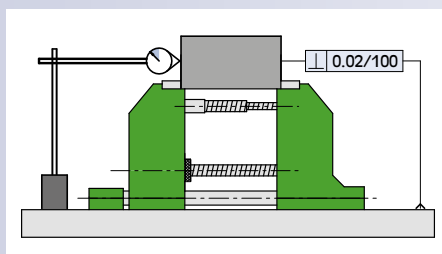
3

Unlike traditional vises, GENIUS clamps the workpieces by means of traction clamping.



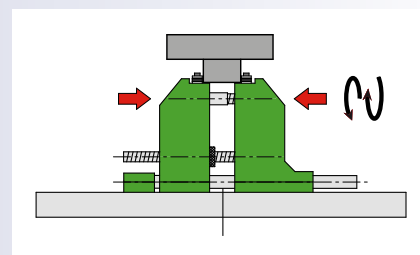
4

GENIUS is the first vise designed for 5 axis-machine tools that can be used for high precision milling operations.



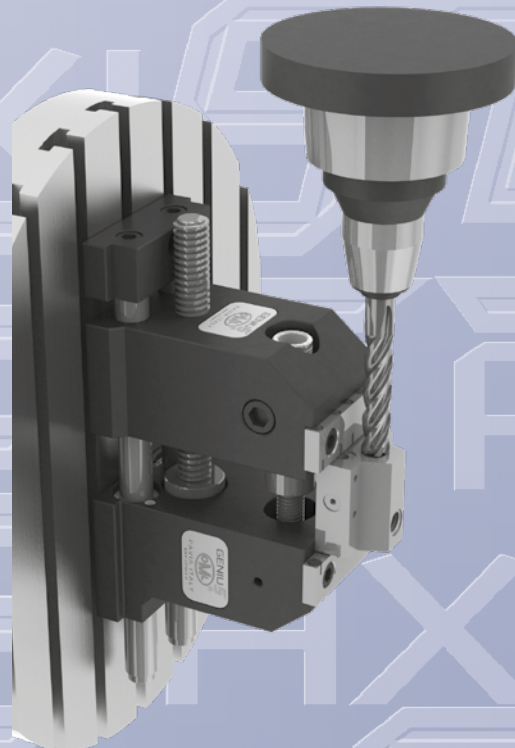
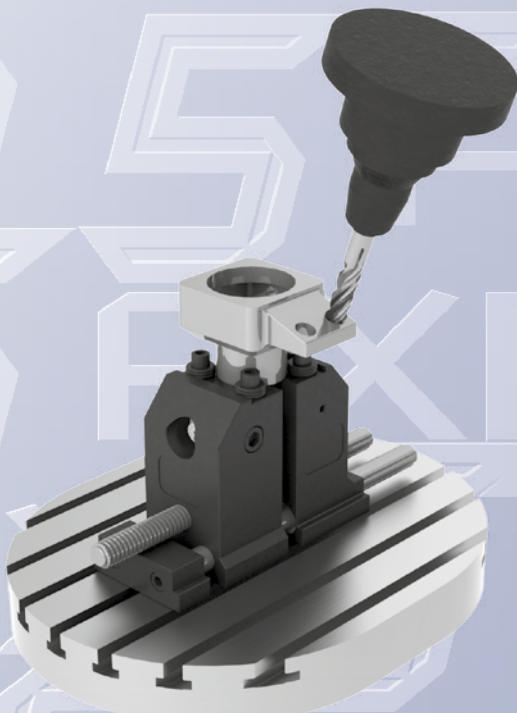
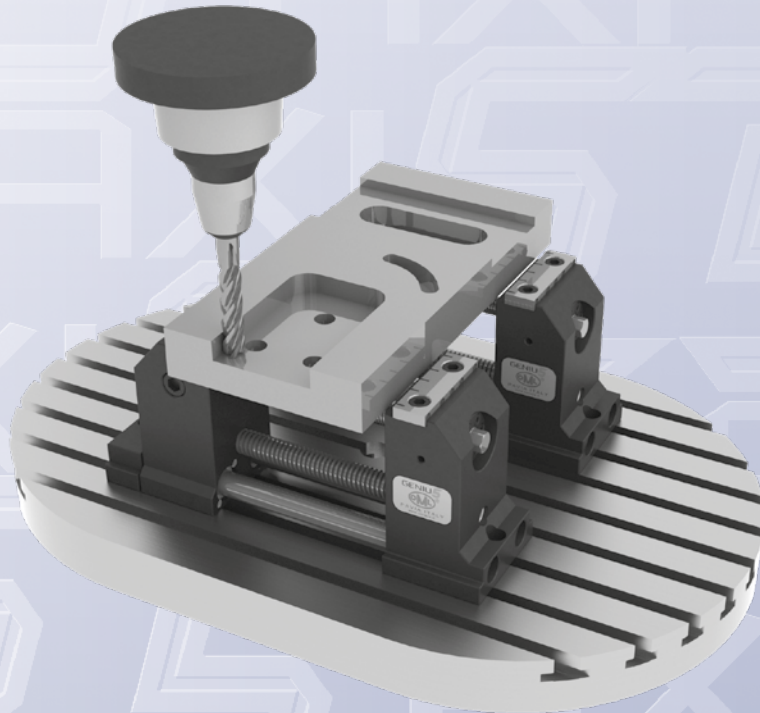
5

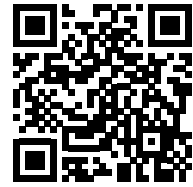
The movement of the jaws is not on a base, but on hardened and ground shafts. This allows for quicker and more accurate positioning of both the same axis with the centre of the machine tool pallet.



GENIUS

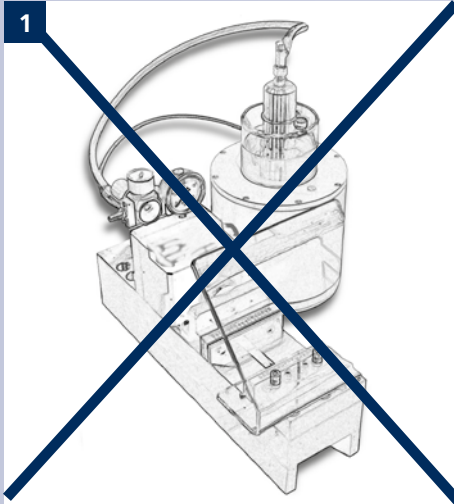
Genius & SinterGrip
Precision vise for 5-axis machine tools





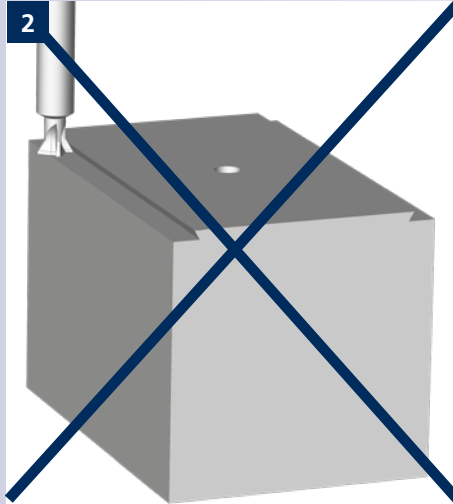
Lowest clamping depth of workpieces
No pre-marking

Benefits



No pre-marking necessary

- Elimination of the costs for a pre-mark machine and set-up times

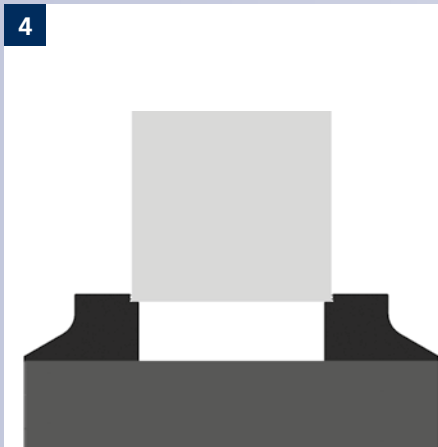


No dove tail pre-machining of the workpiece necessary

- Elimination of the costs for the pre-machining

3 4 different versions for all materials:

	
Steel	Polymers
	
Aluminium	Hardened Steel or Titanium (until 54 HRC)



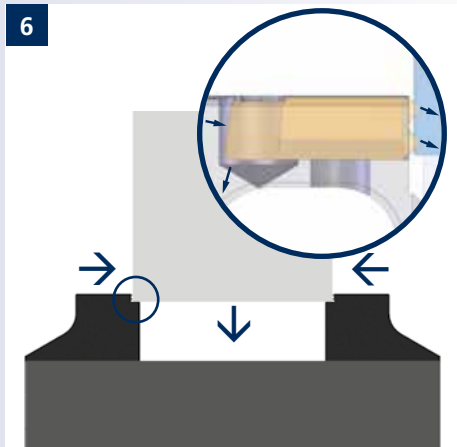
Best accessibility and highest holding forces

- Safe clamping of workpieces
- Ideal for 5-axis machining
- High material saving due to lowest clamping depth only 3.5 mm



Maximum lifetime | No wear costs Huge metal removal rate = less time to machine the workpiece

- SinterGrip clamping inserts are made from coated carbide steel and have maximum lifetime



Pull-down effect | Active vibration absorption

- Even distribution of the clamping forces and active vibration absorption
- Geometric couplings without any clearance

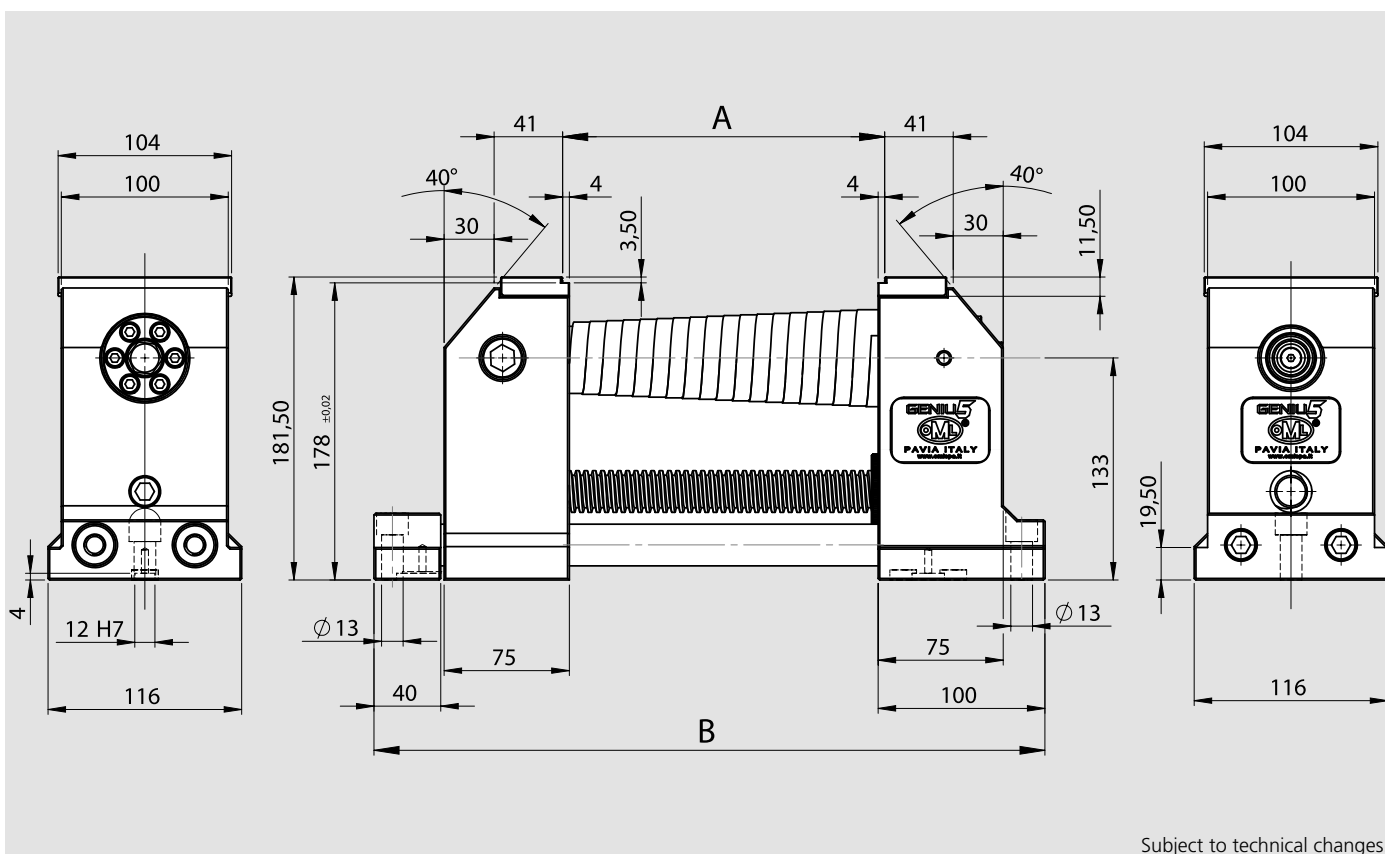


GENIUS vise

supplied with:

- Wrench
- Pair of positioning keys
- SinterGrip inserts for steel*
- Work stop

* on request SinterGrip inserts HRC or ALU



Subject to technical changes.

type	Id. No.	A*	B	Weight
GENIUS 100	77585011	100	321	23 Kg
GENIUS 200	77585012	200	412	25 Kg

* Special opening "A" upon request

Special applications upon request



WORK STOP

Id. No.

58505000



PAIR OF SMOOTH/GROOVED JAWS

Id. No.

58504119

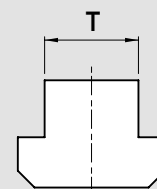


PAIR OF CLAMPS

complete with screw and T-nuts

Id. No.

mm 12	mm 14	mm 16	mm 18	mm 20	mm 22
58022792	58022793	58022794	58022795	58022796	58022797

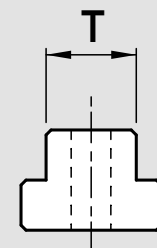


PAIR OF NUTS

complete with screws M12

Id. No.

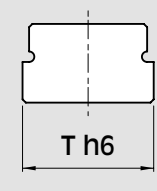
T mm 14	T mm 16	T mm 18	T mm 20	T mm 22
58502593	58502594	58502595	58502596	58502597



PAIR OF POSITIONING KEY

Id. No.

mm 12 h6	mm 14 h6	mm 16 h6	mm 18 h6	mm 20 h6	mm 22 h6
58011592	58011593	58011594	58011595	58011596	58011597



TORQUE WRENCH

Id. No.

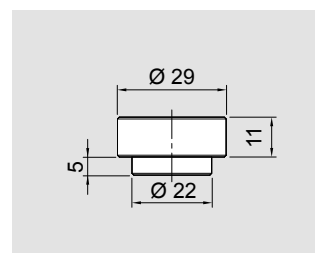
51501006



SET OF 4 "GRIPPERS" H11 SMOOTH

Id. No.

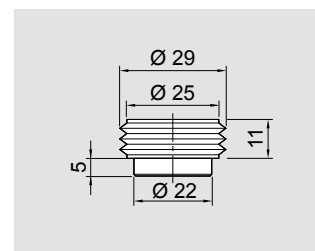
58906114



SET OF 4 "GRIPPERS" H11 SERRATED

Id. No.

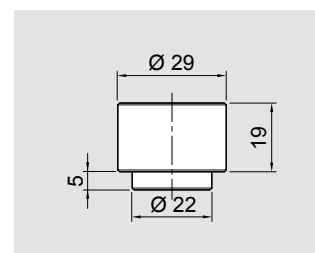
58906124



SET OF 4 "GRIPPERS" H19 SMOOTH

Id. No.

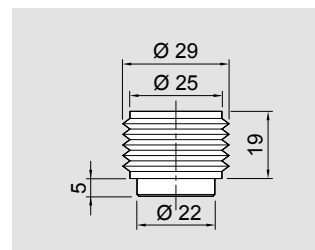
58906214



SET OF 4 "GRIPPERS" H19 SERRATED

Id. No.

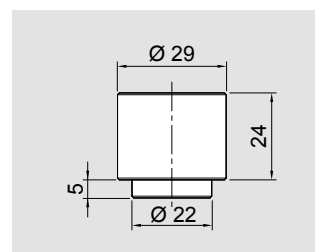
58906224



SET OF 4 "GRIPPERS" H24 SMOOTH

Id. No.

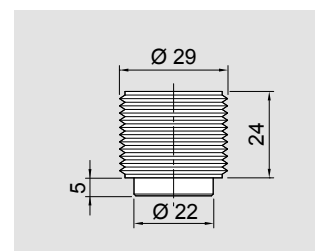
58906314



SET OF 4 "GRIPPERS" H24 SERRATED

Id. No.

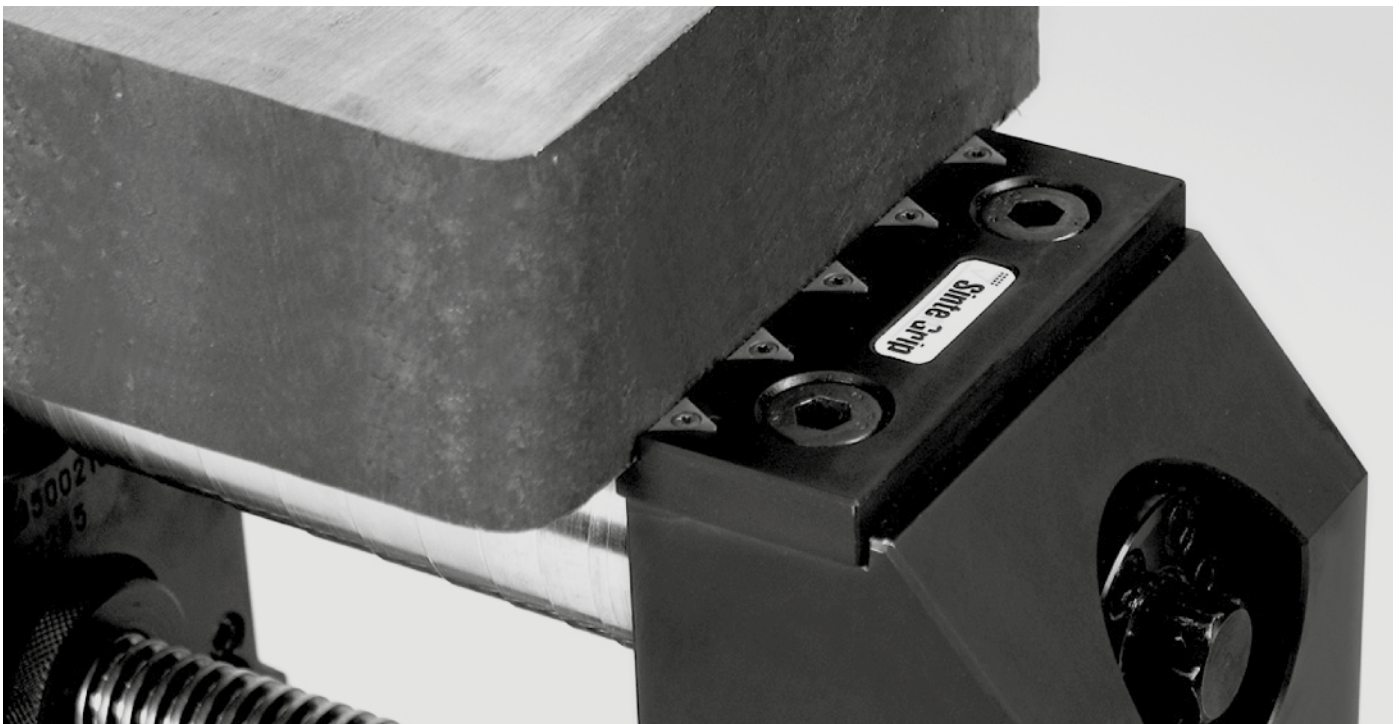
58906324

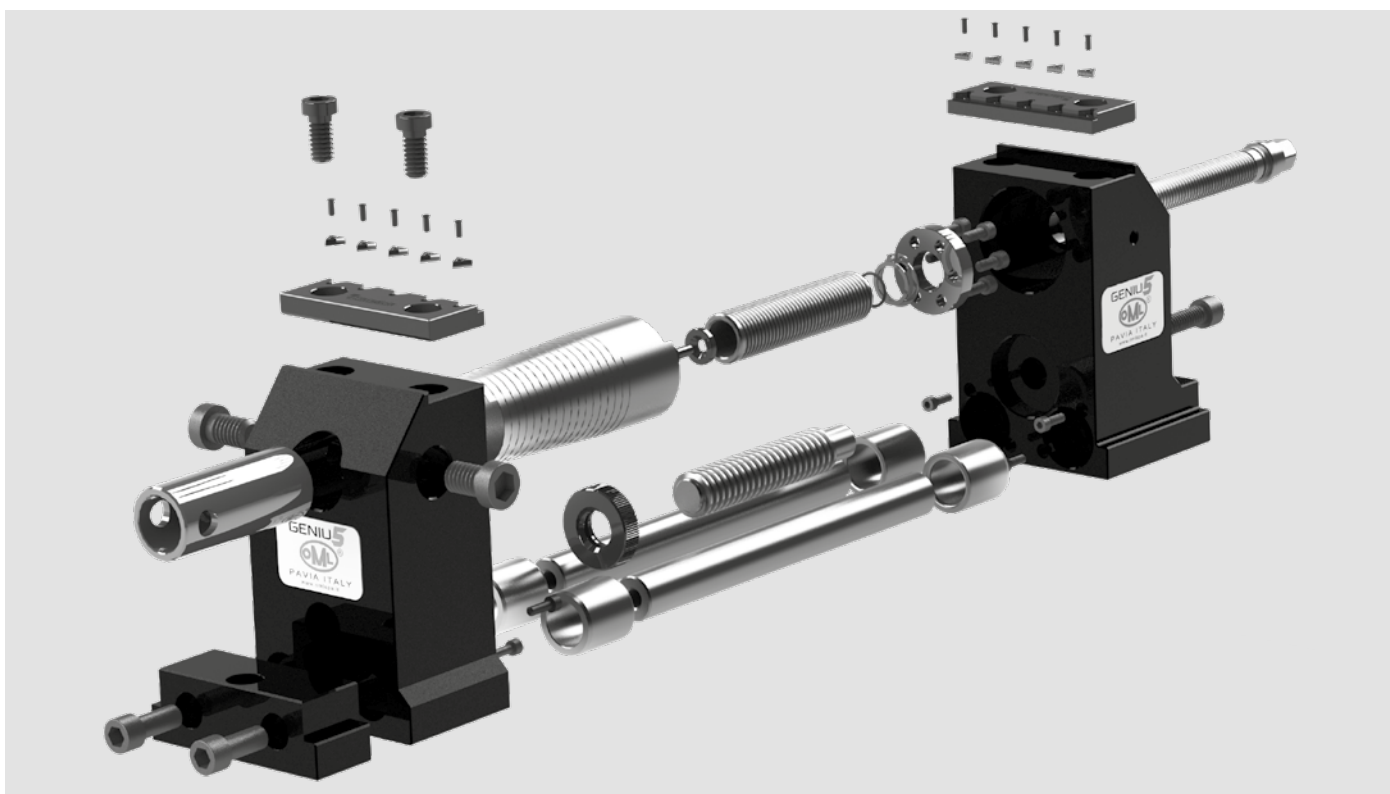
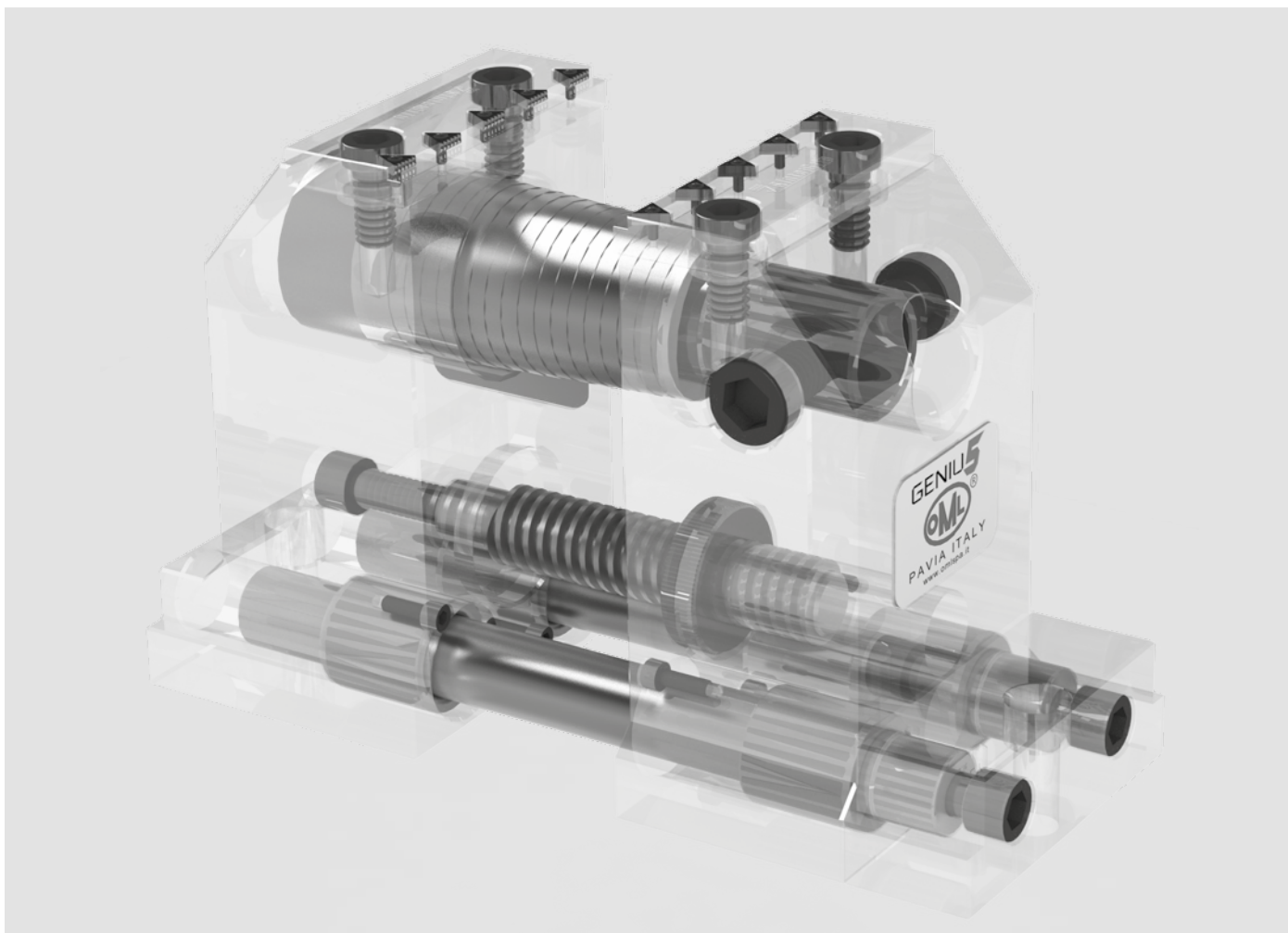


WORKING EXAMPLE WITH GRIPPERS



WORKING EXAMPLE WITH SINTERGRIP







PAIR OF JAWS FOR SINTERGRIP

(SinterGrip inserts: see page S.17)

Id. No.

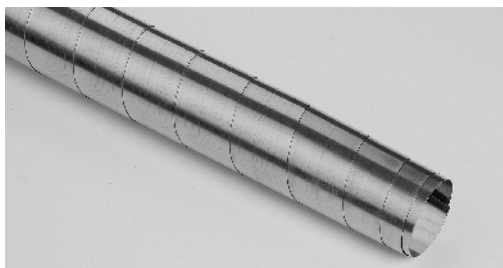
58451519



CLAMPING KEY

Id. No.

51502910



TELESCOPIC STAINLESS STEEL CARTER

Id. No.

71290218

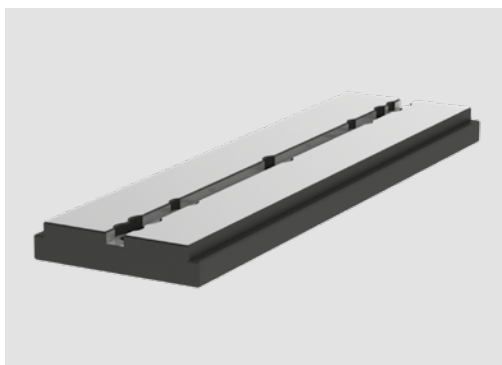


SPINDLE GROUP

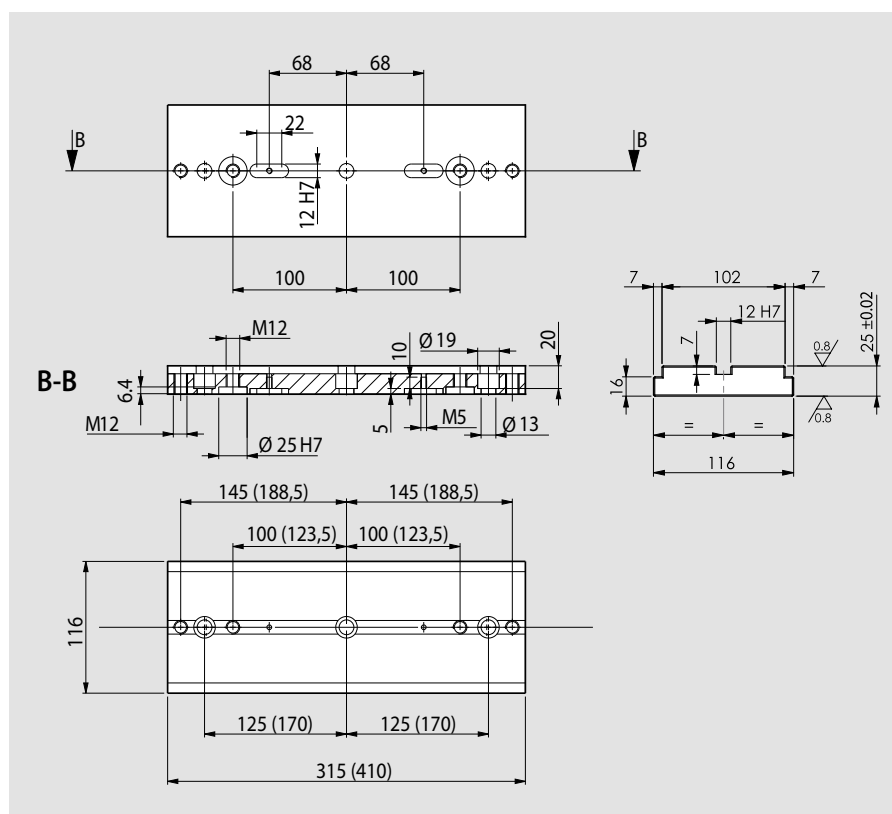
Id. No.

77585010

PLATE FOR VISE GENIUS



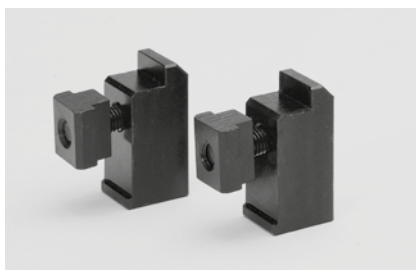
Type	Id. No.	Weight (Kg)
GENIUS 100	58502010	7
GENIUS 200	(58502020)	9



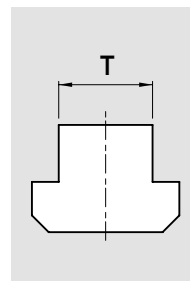
WORKING EXAMPLE



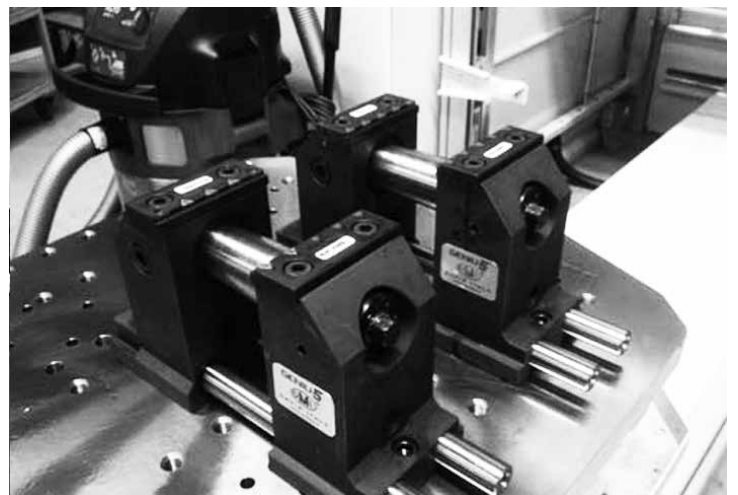
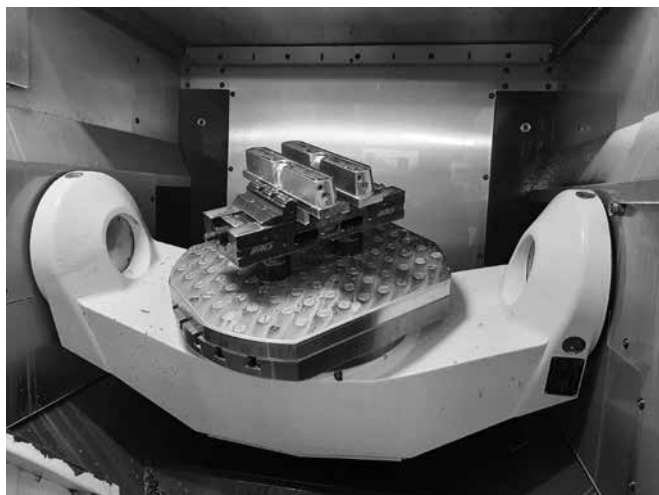
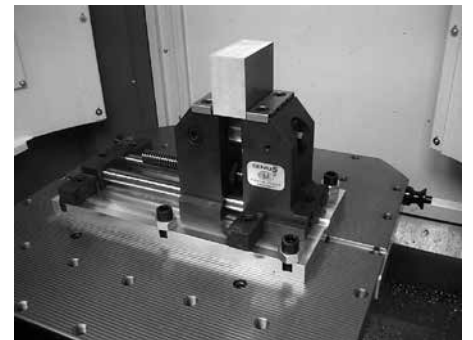
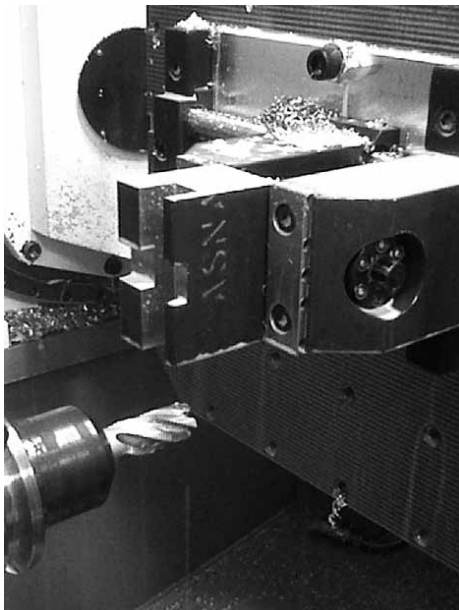
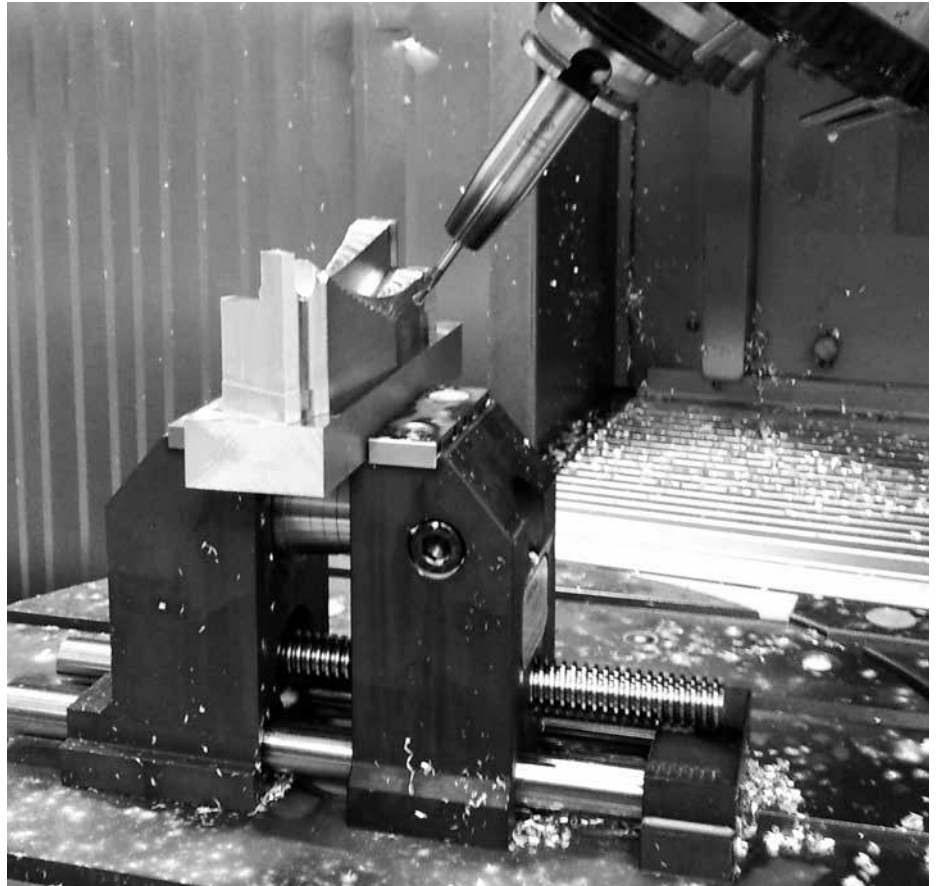
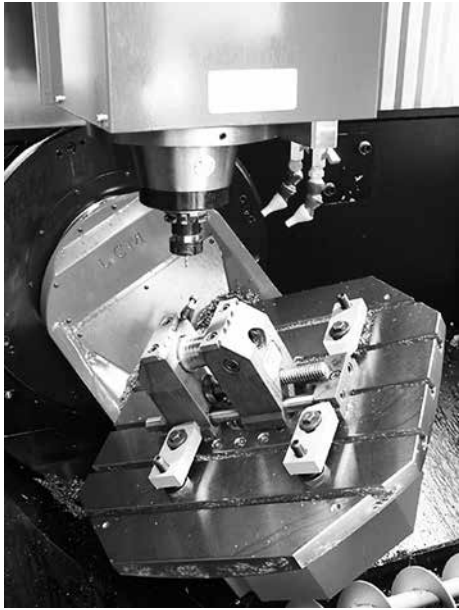
PAIR OF CLAMPS



Id. No.					
mm 12	mm 14	mm 16	mm 18	mm 20	mm 22
58012792	58012793	58012794	58012795	58012796	58012797



WORKING EXAMPLES





5-AXIS WORKHOLDING



Technical characteristics and dimensions are not obliged. OML S.r.l. may give in every time some modifications



SINTERGRIP



APS



PLUS 5



TDM



FMS



TC



MC



CLAK SYSTEM



IMG



V5



GENIUS



CIVI SINTERGRIP



CAM SYSTEM



HOLDING CLAMPS



VARI CLAMP



TWIN VISE



JAWS



FAST CLAMPS



A COMPANY OF THE GROUP



OFFICINA MECCANICA LOMBARDA S.r.l.

Viale dell'Industria 6 - 27020 Trivolzio (PV) ITALY
Tel. +39 0382 93 00 00

E-mail ► omlspa@omlspa.it
Web ► www.omlspa.it