

ZERO-POINT-SYSTEMS



## WE GENERATE EXCITEMENT.

Since its founding by Andreas Maier in 1890, our company has lived through many exciting times. Today we are the leading manufacturer in Europe, supplying over 5,000 different products from the fields of clamping, hand tools and locks. With this extensive product range we can meet all of our customers' needs and requirements. But providing optimal quality means meeting the challenges at all levels: Expert consultation, modern team organisation, individual solutions (including special developments), flexibility in response to changing conditions, etc. And we ourselves find this so exciting that we look forward every day to shaping the market together with our employees and our customers – both now and in the future. That is something you can count on.

### COMPANY HISTORY

- 1890** Company founded as a lock manufacturer by Andreas Maier.
- 1920** Product range extended to include spanners.
- 1928** Production line assembly of „Fellbach locks“.
- 1951** AMF introduces clamping elements and diversifies into workpiece and tool clamping technology.
- 1965** Toggle clamps extend the AMF product range. AMF catalogues are now printed in ten languages.
- 1975** Further specialisation into hydraulic clamping technology.
- 1982** Clamping and fixture systems round off AMF's clamping expertise.
- 1996** AMF team organisation in all sectors of the business. Quality management with certification to ISO 9001.
- 2001** AMF Service Guarantee for all products.
- 2004** Introduction of the ZPS zero-point clamping system.
- 2007** The magnetic clamping technology extends the AMF product range.
- 2009** Development and marketing of AMF Vacuum clamping technology
- 2012** Marking and cleaning tools included in the AMF product range.



#### MANAGING DIRECTORS

> Johannes Maier  
Volker Göbel



#### THE AMF SERVICE GUARANTEE

> Assuredly on the way to the top

#### 5 Individual development

And if the product you need doesn't exist? Just ask us: We will find the best solution for you – whether it is a special version or a completely new development.

#### 4 Warranty

We stand by our high quality standards. We handle customer complaints very liberally and without red tape – whenever possible even after the end of the warranty period.

#### 3 Guaranteed quality standard

AMF stands for manufacturing in-house with the utmost care. A tradition we have upheld since 1890 – and naturally for many years now with a modern quality management system to ISO 9001.

#### 2 Short delivery times

AMF's finished goods inventory with over 5,000 items guarantees a delivery readiness of 98%. You can also count on each warehouse item you order being shipped to you on the same day.

#### 1 Service from genuine experts

„Different tasks, different solutions. In AMF's professional product range, you can find the right solution quickly and reliably: either from your local dealer or with help from the specialists in our teams. A phone call is all it takes.“

#### E Made in Germany

It goes without saying that our range of products is developed and manufactured by our team of employees in Germany.

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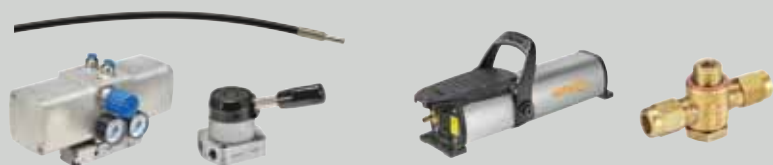
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New size!



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## **ECONOMICAL, PRECISE, QUICK** - THE AMF ZERO-POINT SYSTEM

By using modern AMF zero-point systems, you optimize fixture and workpiece changeover in your production, correspondingly reduce set-up times on the machine and so save money!

The benefits of zero-point clamping technology are obvious:

- > Increase in machine run-time
- > Very fast workpiece or fixture changeover
- > High repeatability
- > A uniform interface for all machines
- > Positioning and clamping in a single step





> The clamping nipple in our zero-point system is the interface between the machine table and the workpiece or fixture. It ensures exact positioning and secure clamping. The resulting work forces are transferred through the clamping nipple to the clamping module.

> The precisely manufactured clamping modules of the AMF Zero-Point System ensure a secure and firm hold of the workpiece or fixture to be clamped. With the high pull-in, closing and holding forces, they are suitable for every application.



# REPRESENTS GOOD VALUE FROM THE GROUND UP

## - THE K10.2 CLAMPING MODULE

Zero-point clamping does not have to be expensive. With the K10.2 clamping module we offer you the best technology at a favourable price.

The advantages speak for themselves:

- > Outstanding price-performance ratio
- > Drastically reduced tooling time
- > Immediate improvement of productivity
- > Repeat accuracy < 5µm
- > Stainless steel
- > Form fit
- > Fitting depth of only 22 mm!







**6 COMPONENTS FOR PERFECT CLAMPING -  
5 BAR COMPRESSED AIR FOR OPENING WITH  
THE AIR HYDRAULIC PUMP**

- 1** Absolutely insensitive to lateral and pull forces that arise. Precision ground support surfaces made of hardened stainless steel for plane-parallel clamping  $\leq 0.005$  mm.
  - 2** Hardened piston - the combination of form fit and self-locking results in reliable and constant clamping.
  - 3** Precision balls for optimal power transmission as well as vibration-inhibiting and wear-resistant use.
  - 4** Ball support made of stainless steel seals the clamping module against dirt and liquids.
  - 5** Robust plate springs for maximum pull-in, closing and holding forces.
  - 6** Module floor with integrated air jet function.
- A** The low installation depth of the clamping modules of 22 mm permits a height of the base plate of only 28 mm (without blow out, only 24 mm).



**LARGE INTAKE CATCHMENT**

No laborious searching for the holes anymore - self-centring via the diagonal side surfaces of the engagement nipple screw.



**SWING-FREE**

Swing-free run-in and run-out through the optimal contour of the clamping nipple



**FORM FIT**

The balls are optimally encapsulated on 3 sides. As a result, the clamping nipple always remains firmly clamped in the module.

**YOUR ADVANTAGES - THOUGHT THROUGH IN DETAIL**

Experience a zero point clamping system that, through its innovative and forward-looking features, presents its strengths in use in an advanced way.

Numerous advantages speak for themselves and make the AMF zero-point system into a technology that revolutionizes the zero-point clamping technology market.



**SIMPLE CLEANING**

Our zero-point clamping systems can be blown out very simply with a commercially available compressed air cleaning pistol and do not require complicated suctioning out.



**BLOW OUT**

Our system has a pneumatic blow-out installed at the factory. As a result, chips and dirt inside are effectively blown out.



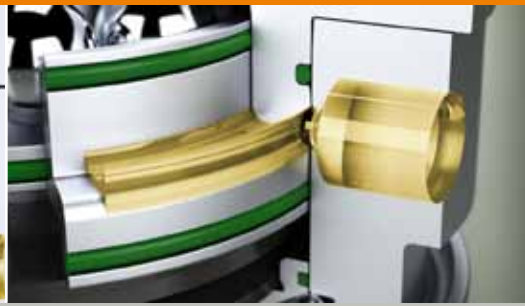
**RUSTPROOF STAINLESS STEEL**

High-alloy, hardened tool steel - and so no corrosion.



**THREE-POINT PRINCIPLE**

Power transmission by means of the three-point principle! This optimised force distribution prevents shearing load on the balls.



**MEDIA FEED**

Due to the lateral media feed, low pallet thicknesses are possible and fewer feed holes are necessary.



**NO BALL CAGE**

The balls lie freely in the ball canal. This freedom of movement enables the balls to continuously re-position themselves.



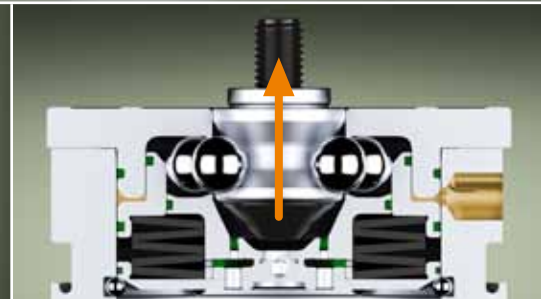
**LARGE BALL DIAMETER**

Ball surface is 784% greater than with traditional ball systems.



**SAFETY SYSTEM**

Process reliability - Clamping module always opens. A piston blockade is thus impossible.



**GOOD HOLDING, PULL-IN AND LOCKING FORCES**

Holding forces up to 105 kN. Pull-in and locking forces up to 40 kN.

# FAQS ABOUT ZERO-POINT CLAMPS AND THE AMF ZERO-POINT SYSTEM

## WHAT IS PULL-IN FORCE / HOLDING FORCE?

pull-in/locking force up to [kN]	Holding force [kN]
10	25
16	25

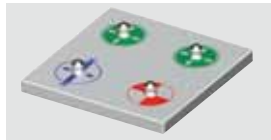
- > The pull-in force describes the force with which the nipple is pulled in and clamped with positive interlocking in the clamping module. The holding force, in contrast, specifies the maximum permissible pull force of the engagement nipple screw.

## WHAT IS REPEATABILITY?



- > The repeatability specifies the tolerance range within which the recorded reference points on the workpiece lie after removal and reclamping of the same workpiece. The repeatability, also called repetition accuracy, is below 0.005mm.

## WHAT ADVANTAGES RESULT FROM THE USE OF ZERO-POINT, SLIT AND UNDERSIZE NIPPLES?



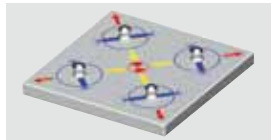
- > These different types of nipples offset the spacing tolerances of nipples and clamping modules. The fixed reference point is achieved through the zero-point nipple; the timing nipple serves to compensate for the still-free axis. The undersize nipple does not have a centring function, but only a clamping and holding function.

## CAN I INSERT THE CLAMPING NIPPLE DIRECTLY INTO THE WORKPIECE FOR MACHINE PROCESSING?



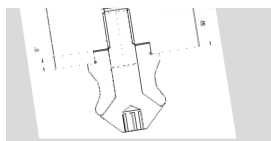
- > The high costs for chucking fixtures and workpiece clamping can be effectively saved here if the clamping nipples are mounted in the workpiece, which is clamped directly using the clamping modules. As a result, a complete 5-sided processing of the workpiece is possible in one chucking. With the different nipple sizes (attaching thread M6 to M16), workpieces of different sizes can be clamped..

## HOW DOES THE SYSTEM COMPENSATE FOR HEAT, SUCH AS FROM METAL CUTTING?



- > Through the different clamping nipple designs, the system can compensate for temperature differences between the workpiece and the clamping module easily and controllably. For a graphic depiction of the nipple array, see page 131 of the catalogue. If you have other technical questions, please contact us at any time.

## WHAT SHOULD BE THE SPACING TOLERANCE OF THE CLAMPING NIPPLES AND THE CLAMPING MODULES IF SELF-PRODUCED?



- > The recommended spacing tolerance of clamping nipples and clamping modules is +/- 0.01mm.

## WHERE CAN I GET AN INSTALLATION DIAGRAM OR INSTALLATION MANUAL?



- > We are happy to send them immediately when customers request them by e-mail.

## IS THE CLAMPING MODULE SUITABLE FOR ERODING?



- > The module is optimally suited for all normal processes, such as eroding, grinding, cutting and turning. Through the complete sealing, the clamping module can be used in liquids and under rough ambient conditions.

## IS THE CLAMPING MODULE SUITABLE FOR USE ON INJECTION MOULDING MACHINES?



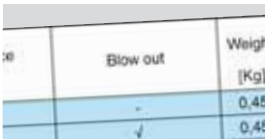
- > Especially when injection moulds are changed frequently, the costs for a zero-point solution are amortized within the shortest of times for such machines. Unlike with mechanical clamps, clamping takes place quickly and easily just by pressing a button.

## HOW HIGH IS THE MAX. OPERATING TEMPERATURE OF THE CLAMPING MODULES?



- > The maximum processing temperature is 80°C in the standard design. Clamping modules for use at higher temperatures can be requested at any time.

## WHAT IS BLOW-OUT AND HOW DOES IT WORK?



- > Blow-out using compressed air is guided through the floor of the clamping module and blows out contamination, such as chips, coolant or the like from the central opening and from the sphere space of the module.

## WHEN DO I USE THE HYDRAULIC PRESSURE INTENSIFIER AND WHEN THE PNEUMATIC PRESSURE INTENSIFIER?



- > Hydraulic pressure intensifier: This transforms the pneumatic into hydraulic pressure in a ratio of 1:8 to open hydraulic modules. Pneumatic pressure intensifier: This is used to intensify the pneumatic pressure in the ratio of 1:2 for pneumatic clamping modules and compensates for pressure fluctuations in the supply line.

## HOW DOES THE PATENTED SAFETY SYSTEM WORK IN THE HYDRAULIC CLAMPING MODULE AND WHEN IS IT USED?



- > If the piston seal begins to leak, the spring space quickly fills with oil. The result is: The piston blocks and the module can no longer be opened. Destruction of the clamped fixture of the clamping module would then be unavoidable. Here, the patented safety system ensures that the oil in the spring space can escape and the piston can be operated.

# ARE YOU PRODUCING YET OR STILL SETTING UP?

## THE CALCULATION IS VERY SIMPLE!

It has been shown that you can reduce your set-up times by over 90% through the use of the AMF Zero-Point System. High machine standstill times are avoided, set-up times minimized and cash saved...

Take the time to calculate your savings potential with the AMF Zero-Point System very simply.

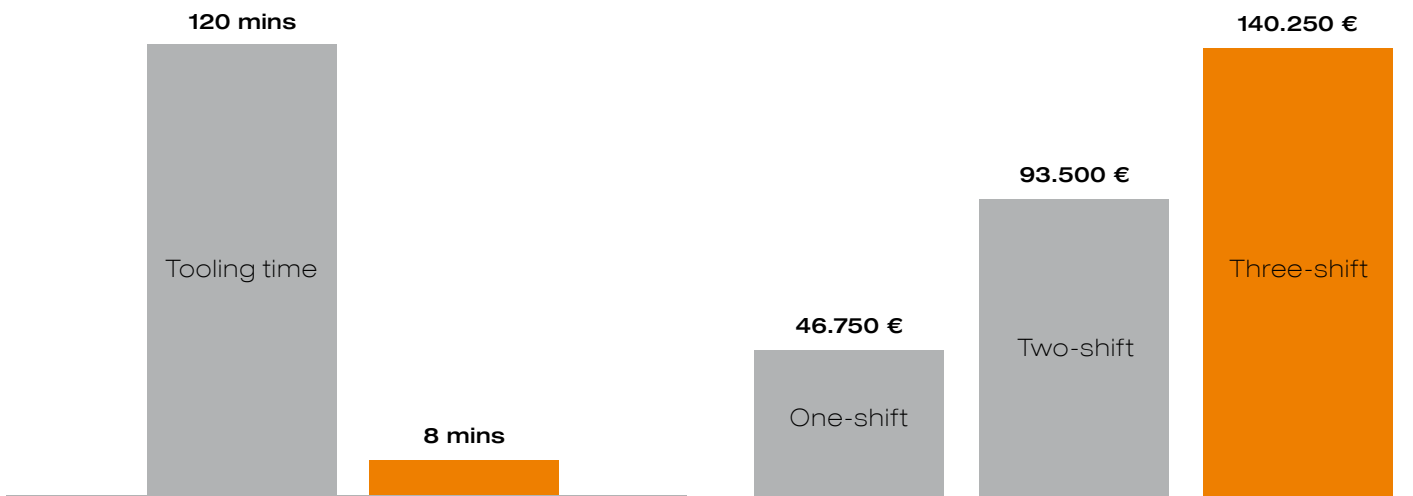
### SAMPLE CALCULATION OF A CUSTOMER BEFORE AND AFTER USE OF THE ZERO-POINT SYSTEM

Procedure	Without zero-point clamping system	With the AMF Zero Point System
Machine costs	€ 100,-- / h	€ 100,-- / h
Number of set-ups per shift (8h)	4 x	4 x
Set-up time per procedure	30 mins	2 mins
Set-up time per shift (8h)	120 mins (2 h)	8 mins (0,13 h)
Set-up costs per shift (8h)	€ 200,--	€ 13,--
Set-up costs per shift each year (250 working days)	€ 50.000,--	€ 3.250,--
Annual savings per shift (8h)	<b>€ 46.750,--</b>	

### DRASTICALLY REDUCED SET-UP TIMES GUARANTEE YOU WILL EXPERIENCE

#### A RAPID RATIONALISATION EFFECT

If previously 120 mins had to be invested in four tooling procedures in a shift, the use of the AMF Zero Point System will reduce this to only 8 mins. Rapid switching of equipment and workpieces as well as tooling in parallel with operating time outside of the machine results in the rationalisation effect described. The savings in our customer example of €140.250 per year, for three-shift production utilisation, guarantees rapid amortisation of the invested amounts of approx. €3,750 for a 4-capacity clamping station including accessories.



Tooling times drastically reduced from 120 mins to 8 mins - through the use of the AMF Zero Point System.

Whether one, two or three-shift operation - the savings from the AMF Zero Point System speak for themselves!

# COLOUR CODING SYSTEM FOR HYDRAULIC AND PNEUMATIC CLAMPING MODULES.

Table portion with bright ORANGE background: Open hydraulically!

Table portion with bright BLUE background: Open pneumatically!

	K02	K5		K5.3	K10		K10.2	K10.3	K20		K20.3
	pneum.	hydr.	pneum.	pneum.	hydr.	pneum.	hydr.	pneum.	hydr.	pneum.	pneum.
Pull-in/locking force in the system up to [kN]	0,23	5,0	1,5	1,5	10,0	8,5	10,0	10,0	20,0	17,0	17,0
Holding force [kN]	6,0	13,0	13,0	13,0	25,0	25,0	25,0	25,0	55,0	55,0	55,0
Service according to ... clamping cycles [pc.]	2.500.000	250.000	2.000.000	4.000.000	2.500.000	400.000	2.500.000	4.000.000	1.500.000	150.000	4.000.000
Min./max. operating pressure for opening [bar]	6 / 14	50 / 60	8 / 12	5 / 12	50 / 60	8 / 12	50 / 60	5 / 12	50 / 60	8 / 12	4,5 / 12,0
Min./max. operating pressure for reclamping [bar]	-	-	5 / 6	-	-	5 / 6	-	-	-	5 / 6	-
Opening volume [cm <sup>3</sup> ]	1,0	1,5	1,5	5,0	3,0	3,0	3,0	17,0	10,0	10,0	37,0
Closing volume [cm <sup>3</sup> ]	-	-	-	-	-	-	-	-	-	-	-
Pre-positioning [mm]	1,0	4,0	4,0	4,0	6,5	6,5	6,5	6,5	12,0	12,0	12,0
Repeatability [mm]	< 0,02	< 0,005	< 0,005	< 0,005	< 0,005	< 0,005	< 0,005	< 0,005	< 0,005	< 0,005	< 0,005

	K40		Horizontal K20	Compact K40	Kompakt K10	Turbine K23
	hydr.	pneum.	hydr.	hydr.	hydr.	hydr.
Pull-in/locking force in the system up to [kN]	40,0	30,0	20	40	1,3	23
Holding force [kN]	105,0	105,0	55	105	25	23
Service according to ... clamping cycles [pc.]	100.000	150.000	1.500.000	100.000	150.000	150.000
Min./max. operating pressure for opening [bar]	50 / 60	8 / 12	50 / 60	50 / 60	50 / 60	25 / 50
Min./max. operating pressure for reclamping [bar]	-	5 / 6	-	-	-	20
Opening volume [cm <sup>3</sup> ]	27,0	27,0	10,0	27,0	3,5	7,5
Closing volume [cm <sup>3</sup> ]	-	-	-	-	-	10,7
Pre-positioning [mm]	12,0	12,0	11,0	11,0	4,0	1,0
Repeatability [mm]	< 0,005	< 0,005	< 0,005	< 0,005	< 0,005	< 0,005





# INSTALLATION CLAMPING MODULES

The AMF installation clamping modules are used with low space requirement and low overall height. For installation in pallets, machine tables, clamping brackets and cubes. Usable when cutting, grinding, eroding and on plastic-processing machines as well as for fixture construction with mounting fixtures and handling systems. The AMF clamping modules can be installed in all positions. Whether vertical or overhead - mounting works completely without assembly tools.

Installation clamping modules come in nine different sizes:

- > **Clamping modules K02** - Ø 22 mm -  
Insertion/locking force up to 0.23 kN - retention force 6 kN
- > **Clamping modules K5** - Ø 45 mm -  
Insertion/locking force up to 5 kN - retention force 13 kN
- > **Clamping modules K5.3** - Ø 78 mm -  
Insertion/locking force up to 1.3 kN - retention force 13 kN
- > **Clamping modules K10** - Ø 78 mm -  
Insertion/locking force up to 10 kN - retention force 25 kN
- > **Clamping modules K10.2** - Ø 112 mm -  
Insertion/locking force up to 10 kN - retention force 25 kN
- > **Clamping modules K10.3** - Ø 112 mm -  
Insertion/locking force up to 10 kN - retention force 25 kN
- > **Clamping modules K20** - Ø 112 mm -  
Insertion/locking force up to 20 kN - retention force 55 kN
- > **Clamping modules K20.3** - Ø 138 mm -  
Insertion/locking force up to 17 kN - retention force 55 kN
- > **Clamping modules K40** - Ø 148 mm -  
Insertion/locking force up to 40 kN - retention force 105 kN



## No. 6203L-02

### Built-in clamping module, round, screw-in version

Pneumatic opening.  
 Opening operating pressure: min. 6 bar - max. 14 bar.  
 Cover and piston hardened.  
 Repeatability < 0.02 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[N]	[N]	[g]
427286	K02	235	6000	48

#### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

The installation clamping module has high holding, pull-in and locking forces. This is opened pneumatically (1) and mechanically locked through spring force. Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free).

The clamping module has one connection:

1x pneum. opening (1).

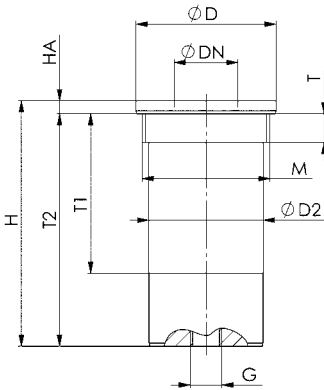
For simple installation, we recommend the AMF face spanner under order no. 50914.

#### On request:

- Installation diagrams

#### Dimensions:

Order no.	Size	dia. D	dia. DN	dia. D1	dia. D2	dia. D3	G	H	HA	M	T	T1	T2
427286	K02	22	10	M20x1,5	18	M5	M5	38,5	2,05	M20x1,5	4,5	25	36,45



Subject to technical alterations.

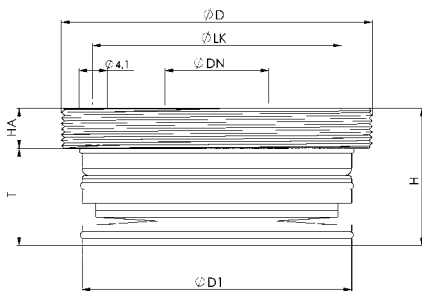
## No. 6370EARH

### Installation clamping module, round, screw-in version

Hydraulic opening.  
Opening operating pressure: min. 50 bar - max. 60 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



INOX  
STAINLESS STEEL



CAD



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[g]
305953	K 5	5	13	150

#### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry. With small space requirement and low overall height.

#### Note:

The installation clamping module has high holding, pull-in and locking forces. This is opened hydraulically (1) and mechanically locked through spring force. Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free).

The contact surface is the upper surface of the housing.

The clamping module has one connection: 1x hydr. opening (1).

For simple installation, we recommend the AMF face spanner under order no. 41046.

#### On request:

- Installation diagrams

#### Dimensions:

Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	T
305953	K 5	M45 x 1	15	39	19,8	5,8	36	14

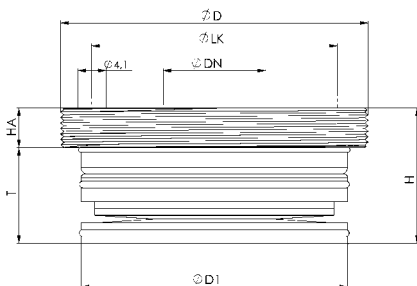
## No. 6370EARL

### Installation clamping module, round, screw-in version

Pneumatic opening.  
Opening operating pressure: min. 8 bar - max. 12 bar  
Retensioning operating pressure (turbo): min. 5 bar - max. 6 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



INOX  
STAINLESS STEEL



CAD



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[g]
305979	K 5	1,5	13	150

#### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry. With small space requirement and low overall height.

#### Note:

The installation clamping module has high holding, pull-in and locking forces. This is opened pneumatically (1) and mechanically locked through spring force. To achieve the specified pull-in and locking forces, it must be briefly retensioned pneumatically (turbo) (2). Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free). The contact surface is the upper surface of the housing. Use of the pneumatic pressure booster 6370ZVL is recommended.

The clamping module has two connections:

1x pneum. opening (1) / 1x pneum. retensioning (turbo) (2).

For simple installation, we recommend the AMF face spanner under order no. 41046.

#### On request:

- Installation diagrams

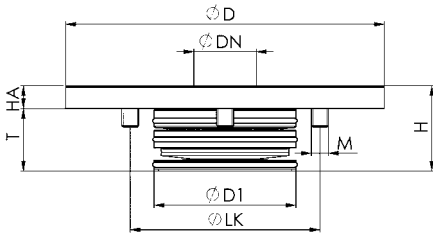
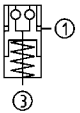
#### Dimensions:

Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	T
305979	K 5	M45 x 1	15	39	19,8	5,8	36	14

## No. 6204HA

### Installation clamping module K10.2

Hydraulic opening.  
Pneumatic blow-out.  
Opening operating pressure: min. 50 bar - max. 60 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



CAD



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
427369	K10.2	10	25	●	0,6

#### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

The installation clamping module K10.2 is opened with the air-hydraulic pump, order no. 426569, with 5 bar pneumatic input pressure.

The clamping module has high holding, pull-in and locking forces. It is opened hydraulically (1) and mechanically locked through spring force. Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free).

The clamping module with blow-out and support control has two connections: 1x hydr. opening (1) / 1x pneum. blow-out and support control (3). (The pneumatic blow-out and support control can optionally be connected.)

#### On request:

- Installation diagrams

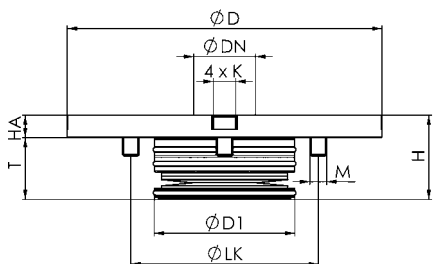
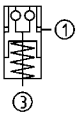
#### Dimensions:

Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	M	T
427369	K10.2	112	22	50	30	8	77	M6	22

## No. 6204IHA

### Installation clamping module K10.2 with 4-way indexing

Hydraulic opening.  
Pneumatic blow-out.  
Opening operating pressure: min. 50 bar - max. 60 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



CAD



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
428490	K10.2	10	25	●	0,6

#### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

The indexing function of the clamping module prevents the pallet from twisting, enabling exact positioning every 90°.

#### Note:

The installation clamping module K10.2 with 4-way indexing is opened with the air-hydraulic pump, order no. 426569, with 5 bar pneumatic input pressure.

The clamping module has high holding, pull-in and locking forces. It is opened hydraulically (1) and mechanically locked through spring force. Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free).

The clamping module with blow-out and support control has two connections: 1x hydr. opening (1) / 1x pneum. blow-out and support control (3). (The pneumatic blow-out and support control can optionally be connected.)

#### On request:

- Installation diagrams

#### Dimensions:

Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	K F6	dia. LK	M	T
428490	K10.2	112	22	50	30	8	8	77	M6	22



Subject to technical alterations.

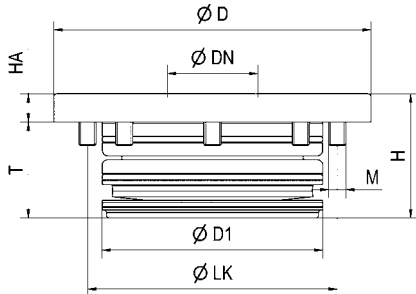
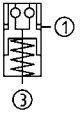
## No. 6370EARHA

### Installation clamping module, round

Hydraulic opening.  
Pneumatic blow-out.  
Opening operating pressure: min. 50 bar - max. 60 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



INOX  
STAINLESS STEEL



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
428680	K10	10	25	●	0,45
427971	K20	20	55	●	1,40
429845	K40	40	105	●	3,40

#### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

The installation clamping module has high holding, pull-in and locking forces. This is opened hydraulically (1) and mechanically locked through spring force. Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free). The clamping module with blow-out and support control has two connections: 1x hydr. opening (1) / 1x pneum. blow-out and support control (3). (The pneumatic blow-out and support control can optionally be connected.)  
Installation clamping module in flange version for simplified installation, see 6151HA.

#### On request:

- Installation diagrams
- Further automation options

#### Dimensions:

Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	M	T
428680	K10	78	22	50	30	7	60	M5	23
427971	K20	112	32	78	44	10	88	M6	34
429845	K40	148	40	102	57	15	118	M8	42

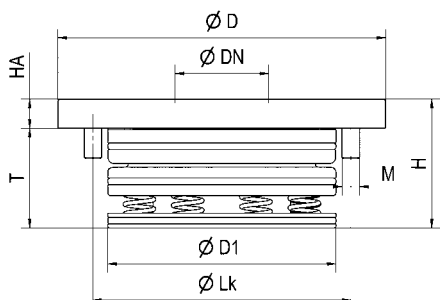
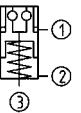
## No. 6370EARLA

### Installation clamping module, round

Pneumatic opening.  
Pneumatic blow-out.  
Opening operating pressure: min. 8 bar - max. 12 bar  
Retensioning operating pressure (turbo): min. 5 bar - max. 6 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



INOX  
STAINLESS STEEL



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
305375	K10	8	25	●	0,45
303016	K20	17	55	●	1,40
303057	K40	30	105	●	3,40

#### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

The installation clamping module has high holding, pull-in and locking forces. This is opened pneumatically (1) and mechanically locked through spring force. To achieve the specified pull-in and locking forces, it must be briefly retensioned pneumatically (turbo) (2). Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free). Use of the pneumatic pressure booster 6370ZVL is recommended.  
The clamping module with blow-out and support control has three connections: 1x pneum. opening (1) / 1x pneum. retensioning (turbo) (2), 1x pneum. blow-out and support control (3). (The pneumatic blow-out and support control can optionally be connected.)  
Installation clamping module in flange version for simplified installation, see no. 6151L.

#### On request:

- Installation diagrams
- Further automation options

#### Dimensions:

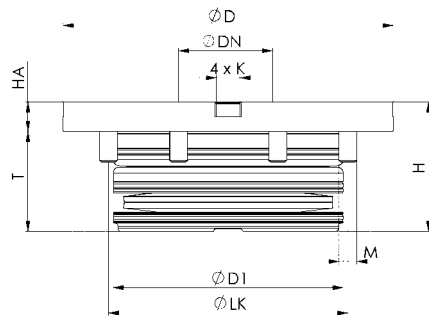
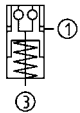
Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	M	T
305375	K10	78	22	50	30	7	60	M5	23
303016	K20	112	32	78	44	10	88	M6	34
303057	K40	148	40	102	57	15	118	M8	42

Subject to technical alterations.

## No. 6370EAIHA

### Installation clamping module with indexing

Hydraulic opening.  
Pneumatic blow-out.  
Opening operating pressure: min. 50 bar - max. 60 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
428425	K20	20	55	●	1,4

#### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry. The indexing function of the clamping module prevents the pallet from twisting, enabling exact positioning every 90°.

#### Note:

The installation clamping module has high holding, pull-in and locking forces. This is opened hydraulically (1) and mechanically locked through spring force. Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free). The clamping module with blow-out and support control has two connections: 1x hydr. opening (1) / 1x pneum. blow-out and support control (3). (The pneumatic blow-out and support control can optionally be connected.)

#### On request:

- Installation diagrams

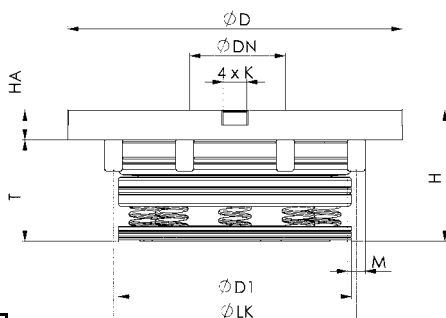
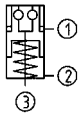
#### Dimensions:

Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	K F6	dia. LK	M	T
428425	K20	112	32	78	44	10	8	88	M6	34

## No. 6370EAILA

### Installation clamping module with indexing

Pneumatic opening.  
Pneumatic blow-out.  
Opening operating pressure: min. 8 bar - max. 12 bar  
Retensioning operating pressure (turbo): min. 5 bar - max. 6 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
428441	K20	17	55	●	1,4

#### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry. The indexing function of the clamping module prevents the pallet from twisting, enabling exact positioning every 90°.

#### Note:

The installation clamping module has high holding, pull-in and locking forces. This is opened pneumatically (1) and mechanically locked through spring force. To achieve the specified pull-in and locking forces, it must be briefly retensioned pneumatically (turbo) (2). Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free). Use of the pneumatic pressure booster 6370ZVL is recommended.

The clamping module with blow-out and support control has three connections: 1x pneum. opening (1) / 1x pneum. retensioning (turbo) (2), 1x pneum. blow-out and support control (3). (The pneumatic blow-out and support control can optionally be connected.)

#### On request:

- Installation diagrams

#### Dimensions:

Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	K F6	dia. LK	M	T
428441	K20	112	32	78	44	10	8	88	M6	34

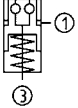
## No. 6206LA

### Installation clamping module, round

Pneumatic opening.  
 Pneumatic blow-out.  
 Opening operating pressure:  
 K5.3 min. 5 bar - max. 12 bar  
 K10.3 min. 5 bar - max. 12 bar  
 K20.3 min. 4.5 bar - max. 12 bar  
 Cover and piston hardened.  
 Repeat accuracy < 0.005 mm.



INOX  
STAINLESS STEEL



**ZERO-POINT CLAMPING  
FROM 4.5**

**NEW!**

Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
553152	K5.3	1,5	13	●	0,5
428730	K10.3	10,0	25	●	1,4
428755	K20.3	17,0	55	●	2,6

### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

### Note:

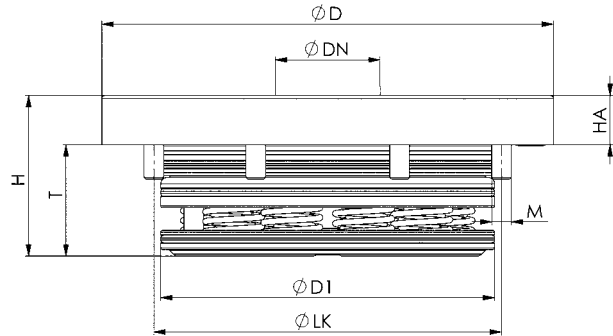
The installation clamping module has high holding, pull-in and locking forces. This is opened pneumatically (1) and mechanically locked through spring force. Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free).

The clamping module with blow-out and support control has two connections:

1x pneum. opening (1), 1x pneum. blow-out and support control (3). (The pneumatic blow-out and support control can optionally be connected.)

### On request:

- Installation diagrams



### Dimensions:

Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	M	T
553152	K5.3	78	15	54,5	29	8	62	6xM4	21
428730	K10.3	112	22	78,0	35	10	88	6xM6	25
428755	K20.3	138	32	102,0	49	15	115	8xM6	34

CAD



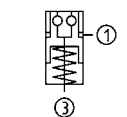
Subject to technical alterations.



## No. 6206ILA

### Installation clamping module, round, with indexing

Pneumatic opening.  
 Pneumatic blow-out.  
 Opening operating pressure:  
 K10.3 min. 5 bar - max. 12 bar  
 K20.3 min. 4.5 bar - max. 12 bar  
 Cover and piston hardened.  
 Repeat accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
428771	K10.3	10	25	●	1,4
428797	K20.3	17	55	●	2,6

### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry. The indexing function of the clamping module prevents the pallet from twisting, enabling exact positioning every 90°.

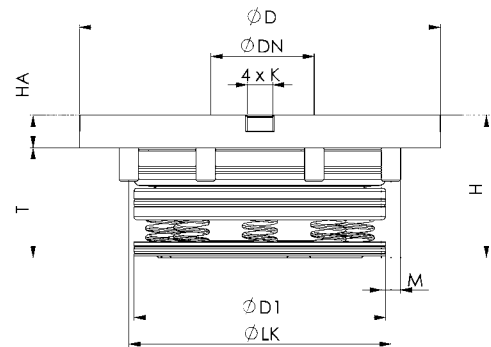
### Note:

The installation clamping module has high holding, pull-in and locking forces. This is opened pneumatically (1) and mechanically locked through spring force. Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free). The clamping module with blow-out and support control has two connections: 1x opening (1), 1x pneum. blow-out and support control (3). (The pneumatic blow-out and support control can optionally be connected.)

### On request:

- Installation diagrams

**ZERO-POINT CLAMPING FROM 4.5**



### Dimensions:

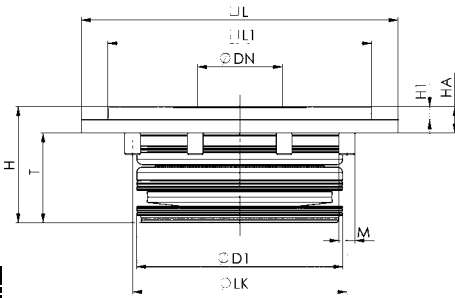
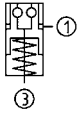
Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	K F6	dia. LK	M	T
428771	K10.3	112	22	78	35	10	8	88	6xM6	25
428797	K20.3	138	32	102	49	15	10	115	8xM6	34



## No. 6370EAQHA

### Installation clamping module, square

Hydraulic opening.  
Pneumatic blow-out.  
Opening operating pressure: min. 50 bar - max. 60 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
305250	K10	10	25	●	0,55
305276	K20	20	55	●	1,70
305292	K40	40	105	●	3,55

#### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry. A square clamping module prevents the pallet from twisting. The indexing function enables exact positioning every 90°.

#### Note:

The installation clamping module has high holding, pull-in and locking forces. This is opened hydraulically (1) and mechanically locked through spring force. Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free). The clamping module with blow-out and support control has two connections: 1x hydr. opening (1) / 1x pneum. blow-out and support control (3). (The pneumatic blow-out and support control can optionally be connected.)

#### On request:

- Installation diagrams
- Further automation options

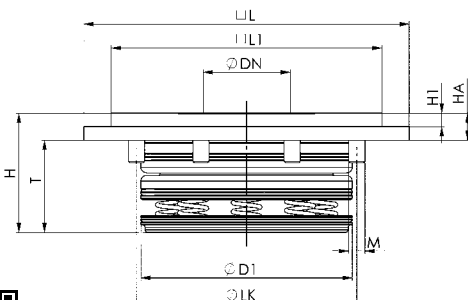
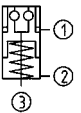
#### Dimensions:

Order no.	Size	dia. DN	dia. D1	H	HA	H1	L	L1	dia. LK	M	T
305250	K10	22	50	30	7	3,5	85	70	60	M5	23
305276	K20	32	78	44	10	5,0	120	100	88	M6	34
305292	K40	40	102	57	15	5,0	150	130	118	M8	42

## No. 6370EAQLA

### Installation clamping module, square

Pneumatic opening.  
Pneumatic blow-out.  
Opening operating pressure: min. 8 bar - max. 12 bar  
Retensioning operating pressure (turbo): min. 5 bar - max. 6 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
305318	K10	8	25	●	0,55
305334	K20	17	55	●	1,80
305359	K40	30	105	●	3,40

#### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry. A square clamping module prevents the pallet from twisting. The indexing function enables exact positioning every 90°.

#### Note:

The installation clamping module has high holding, pull-in and locking forces. This is opened pneumatically (1) and mechanically locked through spring force. To achieve the specified pull-in and locking forces, it must be briefly retensioned pneumatically (turbo) (2). Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free). Use of the pneumatic pressure booster 6370ZVL is recommended.

The clamping module with blow-out and support control has three connections: 1x pneum. opening (1) / 1x pneum. retensioning (turbo) (2), 1x pneum. blow-out and support control (3). (The pneumatic blow-out and support control can optionally be connected.)

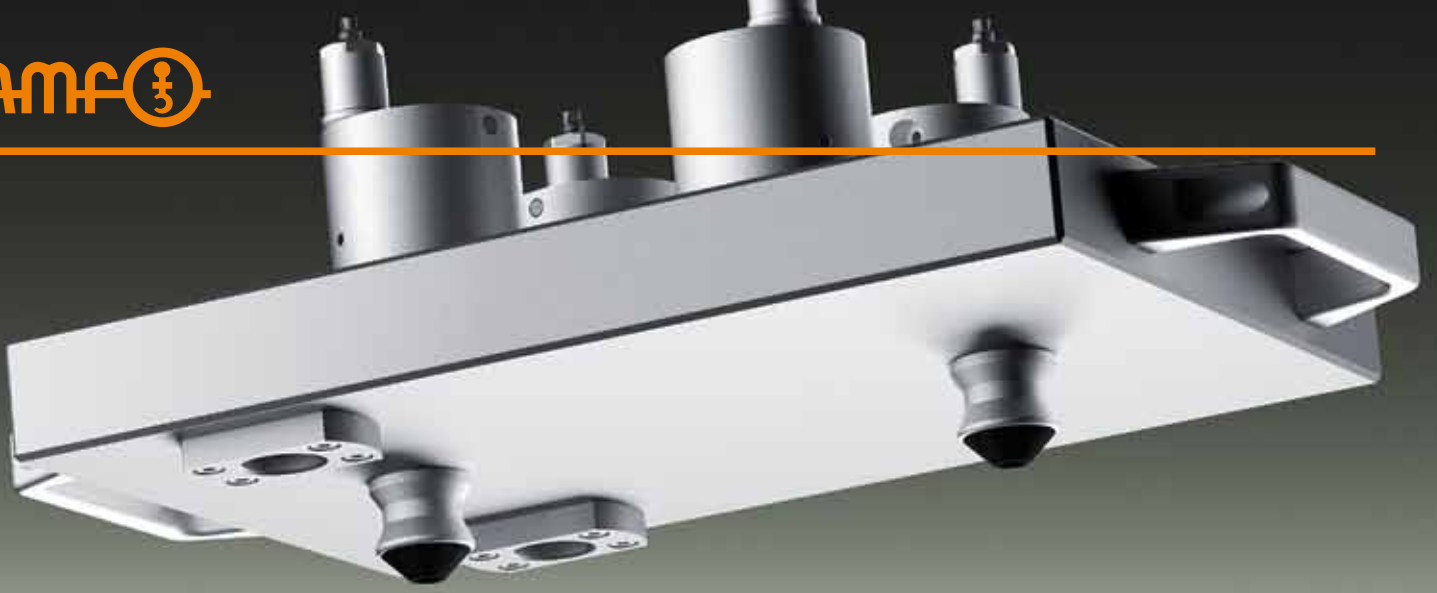
#### On request:

- Installation diagrams
- Further automation options

#### Dimensions:

Order no.	Size	dia. DN	dia. D1	H	HA	H1	L	L1	dia. LK	M	T
305318	K10	22	50	30	7	3,5	85	70	60	M5	23
305334	K20	32	78	44	10	5,0	120	100	88	M6	34
305359	K40	40	102	57	15	5,0	150	130	118	M8	42





## SIMPLIFIED INSTALLATION IN THE BODY

### - THE INSTALLATION CLAMPING MODULE AS FLANGE VERSION

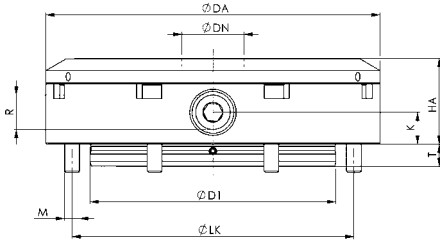
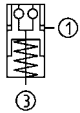
The flange version of the installation clamping module has a centring ring on the underside. This allows simplified and precisely positioned installation of the module in the body. Through the low depth of the required mounting hole for the centring ring, existing fixtures can be easily and inexpensively refitted with the AMF Zero-Point System. The clamping module can be operated from the outside via a tube connection or from the bottom via an O-ring connection.



## No. 6151HA

### Installation clamping module, round, flange version

Hydraulic opening.  
Pneumatic blow-out.  
Opening operating pressure: min. 50 bar - max. 60 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



CAD



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
424085	K10	10	25	●	1,35
423962	K20	20	55	●	3,75
424143	K40	40	105	●	4,97

### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

### Note:

The flange version permits a simplified installation in the body. This is exactly positioned via the centring function. The clamping module can be operated from the outside via a tube connection or from the bottom via an O-ring connection.

This is opened hydraulically (1) and mechanically locked through spring force. Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free).

The clamping module with blow-out and support control has two connections:

1x hydr. opening (1) / 1x pneum. blow-out and support control (3). (The pneumatic blow-out and support control can optionally be connected.)

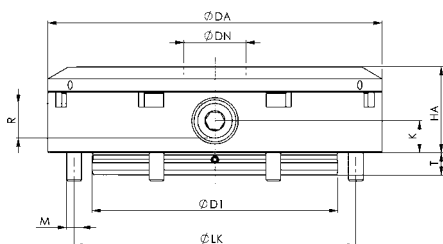
### Dimensions:

Order no.	Size	dia. DA	dia. DN	dia. D1	HA	K	dia. LK	M	R	T
424085	K10	100	22	67	24	9	90	M5	G1/8	5,9
423962	K20	136	32	100	35	13	124	M6	G1/8	8,9
424143	K40	180	40	125	45	15	163	M8	G1/4	11,9

## No. 6151L

### Installation clamping module, round, flange version

Pneumatic opening.  
Opening operating pressure: min. 8 bar - max. 12 bar  
Retensioning operating pressure (turbo): min. 5 bar - max. 6 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



CAD



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[Kg]
424101	K10	8	25	1,35
423988	K20	17	55	3,75
424168	K40	30	105	4,97

### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

### Note:

The flange version permits a simplified installation in the body. This is exactly positioned via the centring function. This is opened pneumatically (1) and mechanically locked through spring force.

To achieve the specified pull-in and locking forces, this must be briefly retensioned pneumatically (turbo) (2). Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free).

Use of the pneumatic pressure booster 6370ZVL is recommended.

The clamping module has two connections:

1x pneum. opening (1) / 1x pneum. retensioning (turbo) (2).

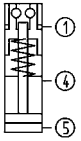
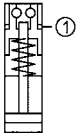
### Dimensions:

Order no.	Size	dia. DA	dia. DN	dia. D1	HA	K	dia. LK	M	R	T
424101	K10	100	22	67	24	9	90	M5	G1/8	5,9
423988	K20	136	32	100	35	13	124	M6	G1/8	8,9
424168	K40	180	40	125	45	15	163	M8	G1/4	11,9

## No. 6370HARH

### Horizontal rapid-clamping cylinder

Hydraulic opening.  
Opening operating pressure: min. 50 bar - max. 60 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Advance motion, hydr. suspension piston	max. weight per catching piston [kN]	Weight [Kg]
303065	K20	20	55	-	5	2,1
306217	K20	20	55	●	5	2,1
303107	K40	40	105	-	8	5,2
306258	K40	40	105	●	8	5,2

### Design:

As standard, there is a manual (hand power) or hydraulic run-out and run-in movements of the suspension piston.

- Cylinder has one connection: 1x hydr. opening (1),
- Cylinder with hydraulic advance motion has three connections: 1x hydr. opening (1), Run out 1x hydr. suspension piston opening (5), run in 1x hydr. suspension piston opening (4).

### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry. For installation in clamping brackets, cubes and towers. The horizontal rapid-clamping cylinder is used to change fixtures quickly and easily by means of the suspension piston with manual power, hydraulic or handling device.

### Note:

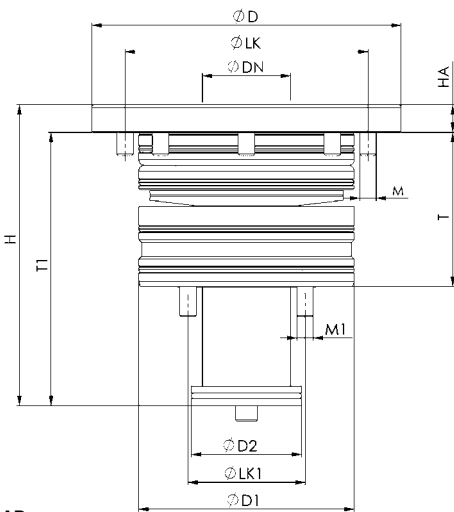
The horizontal rapid-clamping cylinder has high holding, pull-in and locking forces. This is opened hydraulically (1) and mechanically locked through spring force. Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free). The maximum weight per suspension piston must not exceed 5 kN at K20 and 8 kN at K40.

### On request:

- Installation diagrams

### Dimensions:

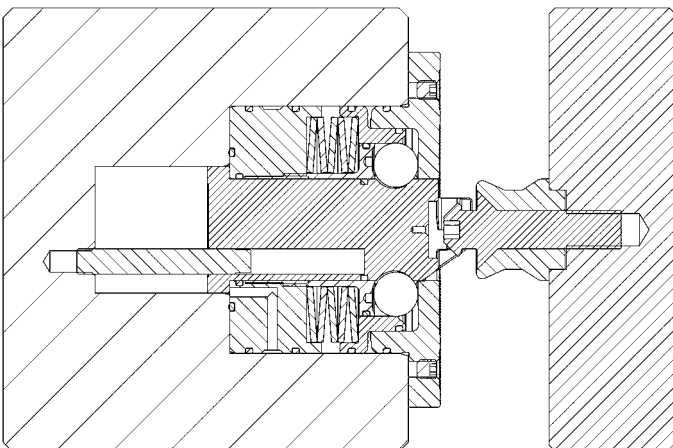
Order no.	Size	dia. D	dia. DN	dia. D1	dia. D2	H	HA	dia. LK	dia. LK1	M	M1	T	T1
303065	K20	112	32	78	40	109	10	88	60	M6	M6	56,5	99
306217	K20	112	32	78	40	109	10	88	60	M6	M6	56,5	99
303107	K40	148	40	102	48	144	15	118	76	M8	M8	73,0	129
306258	K40	148	40	102	48	144	15	118	76	M8	M8	73,0	129



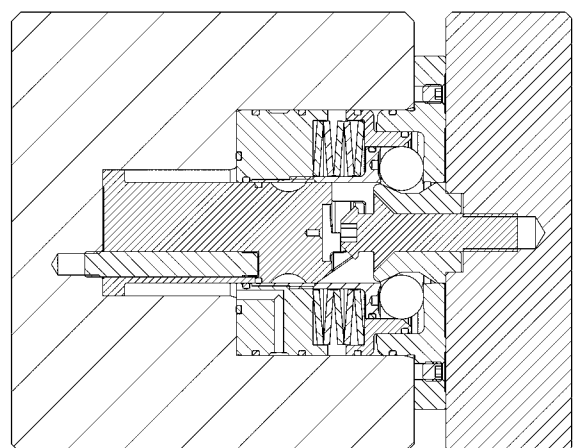
CAD



... extended condition



... retracted and locked condition



Subject to technical alterations.

# HORIZONTAL RAPID-CLAMPING CYLINDER

This is how to make vertical palletization quick and uncomplicated:

- > No searching for the holes
- > No hydraulic or pneumatic pre-tensioning
- > No damage from zero-point hole and nipple
- > No risk of injury
- > Reduced set-up times and thus cost savings

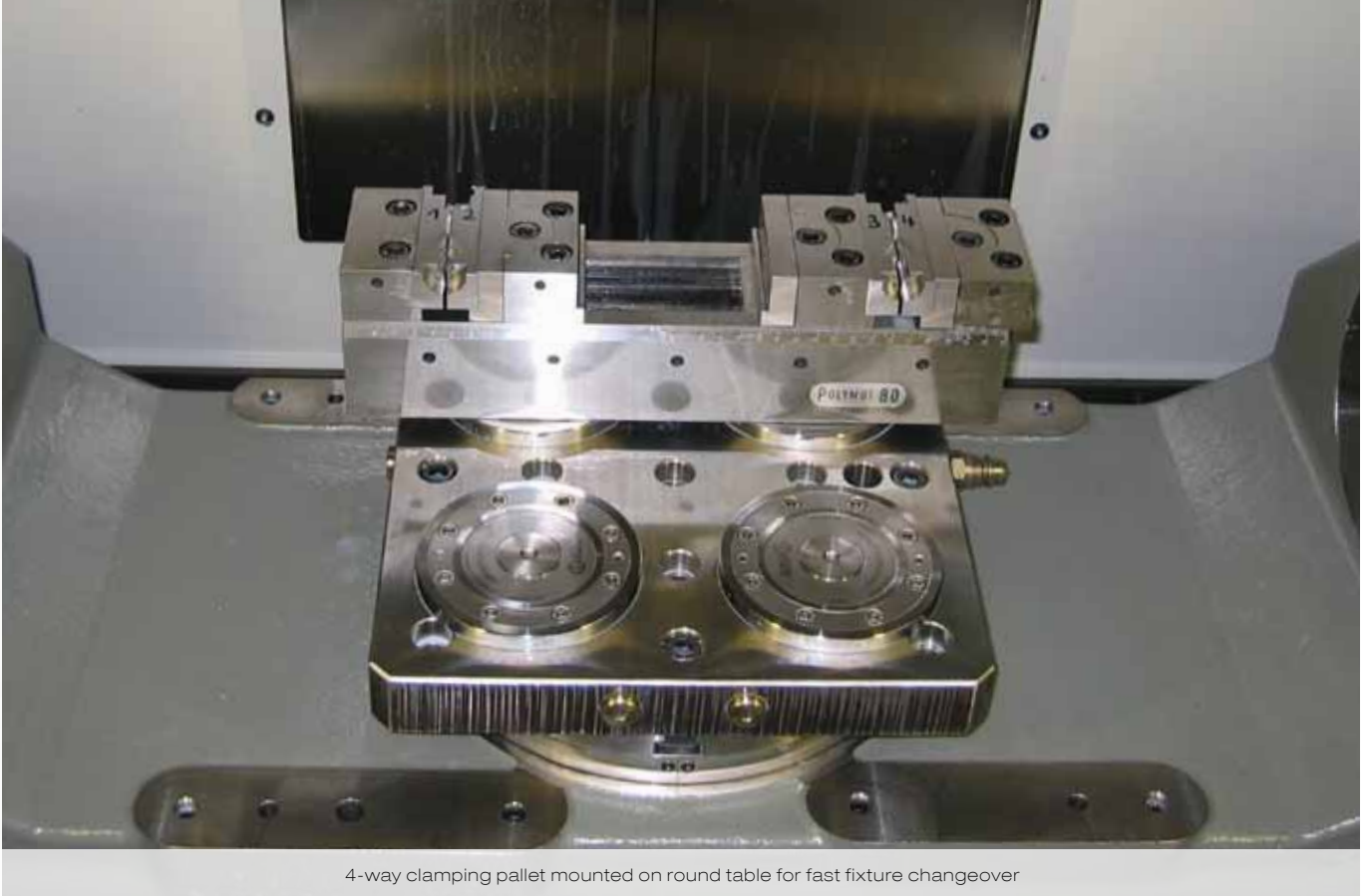
Flexibly usable in clamping towers, clamping brackets, automated handling devices or in general machine building.



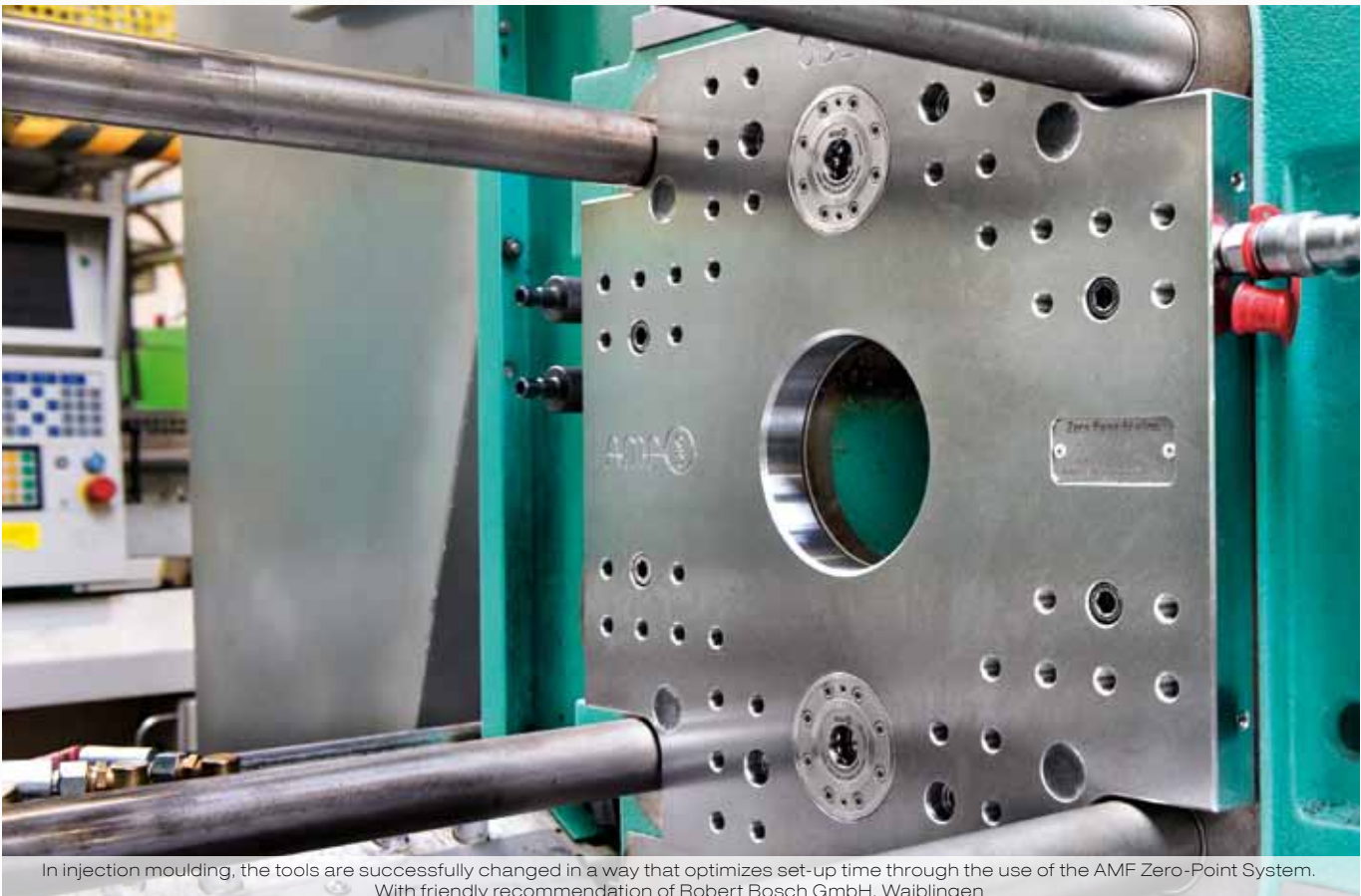
> Whether by hand, with crane, handling device or robot: Horizontal rapid-clamping cylinders offer maximum protection and comfort.



> After the pallet has been mounted, it can easily be pushed in and out. This process can be automated, if desired.



4-way clamping pallet mounted on round table for fast fixture changeover



In injection moulding, the tools are successfully changed in a way that optimizes set-up time through the use of the AMF Zero-Point System. With friendly recommendation of Robert Bosch GmbH, Waiblingen

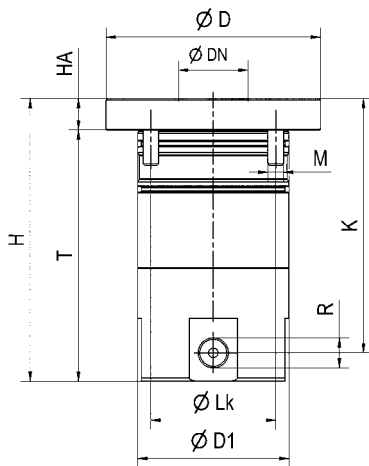
Subject to technical alterations.



## No. 6370KARH

### Compact cylinder

Hydraulic opening.  
 Opening operating pressure: min. 50 bar - max. 60 bar  
 Cover and piston hardened.  
 Repeatability < 0.005 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[Kg]
303503	K10	1,3	25	2,5

### Application:

For retrofitting to modular profiles, columns, tombstones and cubes. Can be used with thin wall sections.

### Note:

There are 5 standard connection options. 4 connections are installed laterally on the outside surface at a 90° angle. Connection is also possible in the base of the compact cylinder.

### On request:

- Installation diagrams
- Further automation options

### Dimensions:

Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	K	dia. LK	M	R	T
303503	K10	68	22	48	90	10	81	4x56	M6	G1/8	80



Subject to technical alterations.





Subject to technical alterations.

## SURFACE-MOUNTED CLAMPING MODULES

The AMF surface-mounted clamping modules are installed on pallets, machine tables, clamping brackets and cubes. Usable when cutting, grinding, eroding and on plastic-processing machines as well as for fixture construction with mounting fixtures and handling systems.

The AMF clamping modules can be installed in all positions. Whether vertical or overhead - mounting works completely without assembly tools.

Surface-mounted clamping modules are available in four different sizes:

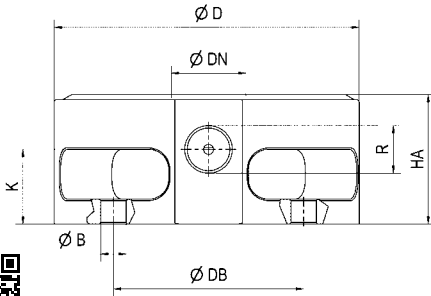
- > **Clamping modules K40** - dia. 148 mm -  
pull-in/locking force up to 40 kN - holding force 105 kN
- > **Clamping modules K20** - dia. 112 mm -  
pull-in/locking force up to 20 kN - holding force 55 kN
- > **Clamping modules K10** - dia. 78 mm -  
pull-in/locking force up to 10 kN - holding force 25 kN
- > **Clamping modules K5** - dia. 62 mm -  
pull-in/locking force up to 5 kN - holding force 13 kN



## No. 6370AARH

### Surface-mounted clamping module, round

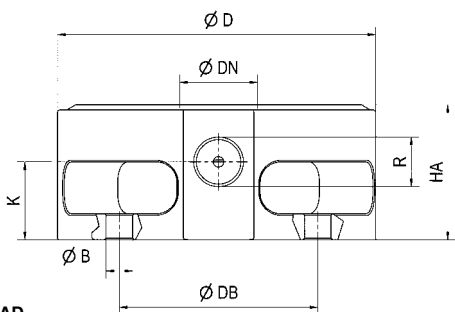
Hydraulic opening.  
Opening operating pressure: min. 50 bar - max. 60 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



## No. 6370AARL

### Surface-mounted clamping module, round

Pneumatic opening.  
Opening operating pressure: min. 8 bar - max. 12 bar  
Retensioning operating pressure (turbo): min. 5 bar - max. 6 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[g]
306159	K 5	5	13	300

#### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

The surface-mounted clamping module has high holding, pull-in and locking forces. This is opened hydraulically (1) and mechanically locked through spring force. Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free). The contact surface is the upper surface of the housing. The clamping module has one connection: 1x hydr. opening (1).

#### On request:

- Individual housing

#### Dimensions:

Order no.	Size	dia. B	dia. D	dia. DB	dia. DN	HA	K	R
306159	K 5	5,8	62	54	15	26	15	G1/8

Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[g]
306175	K 5	1,5	13	300

#### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

The surface-mounted clamping module has high holding, pull-in and locking forces. This is opened pneumatically (1) and mechanically locked through spring force. To achieve the specified pull-in and locking forces, it must be briefly retensioned pneumatically (turbo) (2). Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free). The contact surface is the upper surface of the housing.

Use of the pneumatic pressure booster 6370ZVL is recommended.

The clamping module has two connections:

1x pneum. opening (1) / 1x pneum. retensioning (turbo) (2).

#### On request:

- Individual housing

#### Dimensions:

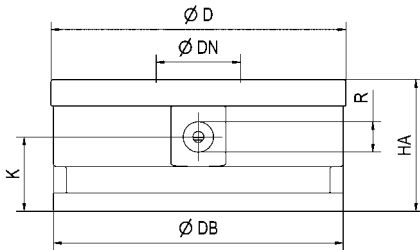
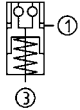
Order no.	Size	dia. B	dia. D	dia. DB	dia. DN	HA	K	R
306175	K 5	5,8	62	54	15	26	15	G1/8

Subject to technical alterations.

## No. 6370AARHA

### Surface-mounted clamping module, round

Hydraulic opening.  
Pneumatic blow-out.  
Opening operating pressure: min. 50 bar - max. 60 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
303545	K10	10	25	●	0,9
302836	K20	20	55	●	2,7
302877	K40	40	105	●	6,6

#### Application:

Zero-point clamping system in combination with clamping flanges 6370ZB for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

The surface-mounted clamping module has high holding, pull-in and locking forces. This is opened hydraulically (1) and mechanically locked through spring force. Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free).

The clamping module with blow-out and support control has two connections: 1x hydr. opening (1) / 1x pneum. blow-out and support control (3). (The pneumatic blow-out and support control can optionally be connected.)

#### On request:

- Individual housing
- Further automation options

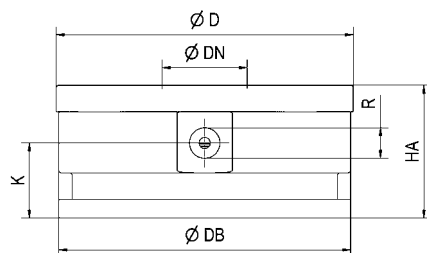
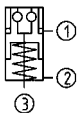
#### Dimensions:

Order no.	Size	dia. D	dia. DB	dia. DN	HA	K	R
303545	K10	78	77,5	22	32	16,50	G1/8
302836	K20	112	110,0	32	50	28,25	G1/4
302877	K40	148	146,0	40	62	32,50	G1/4

## No. 6370AARLA

### Surface-mounted clamping module, round

Pneumatic opening.  
Pneumatic blow-out.  
Opening operating pressure: min. 8 bar - max. 12 bar  
Retensioning operating pressure (turbo): min. 5 bar - max. 6 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
305193	K10	8	25	●	0,9
302851	K20	17	55	●	2,6
302893	K40	30	105	●	6,6

#### Application:

Zero-point clamping system in combination with clamping flanges 6370ZB for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

The surface-mounted clamping module has high holding, pull-in and locking forces. This is opened pneumatically (1) and mechanically locked through spring force. To achieve the specified pull-in and locking forces, it must be briefly retensioned pneumatically (turbo) (2). Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free).

Use of the pneumatic pressure booster 6370ZVL is recommended.

The clamping module with blow-out and support control has three connections: 1x pneum. opening (1) / 1x pneum. retensioning (turbo) (2), 1x pneum. blow-out and support control (3). (The pneumatic blow-out and support control can optionally be connected.)

#### On request:

- Individual housing
- Further automation options

#### Dimensions:

Order no.	Size	dia. D	dia. DB	dia. DN	HA	K	R
305193	K10	78	77,5	22	32	16,50	G1/8
302851	K20	112	110,0	32	50	28,25	G1/4
302893	K40	148	146,0	40	62	32,50	G1/4

No. 6370ZB

## Clamping flange, Set

consisting of two single-clamp buckles, nitrided.

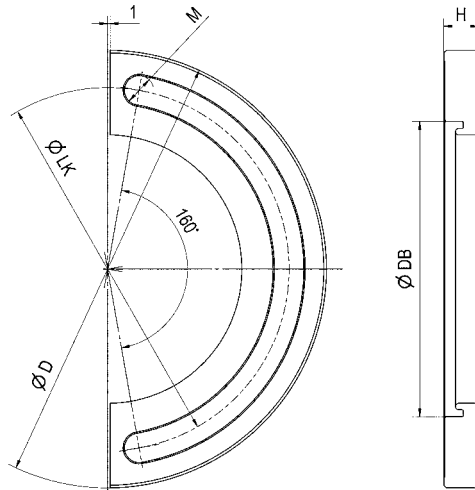
Order no.	Size	Set contents [St]	dia. D	dia. DB	H	dia. LK	M	Weight [g]
426825	K10	2	114	77,5	7,75	94	8,5	360
426833	K20	2	164	110,0	13,00	136	11,0	800
426841	K40	2	202	146,0	16,00	172	13,0	1100

### Application:

Clamping flanges are used to fasten surface-mounted clamping modules on the machine table.

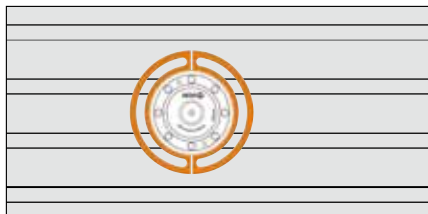
### On request:

- Special clamping flanges for various T-slot tables
- Clamping flange and housing manufactured as a single piece

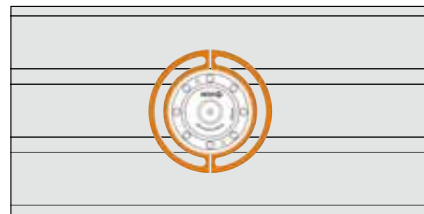


## Examples of machine-table mounting:

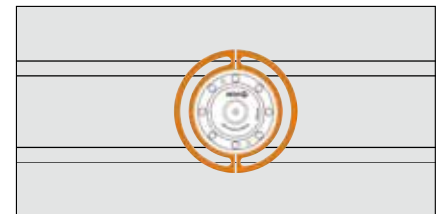
K10 - Groove distance 50 mm



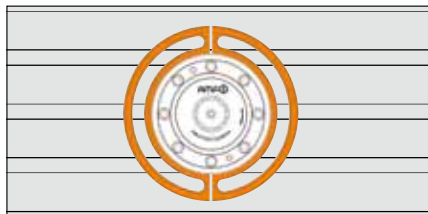
Groove distance 63 mm



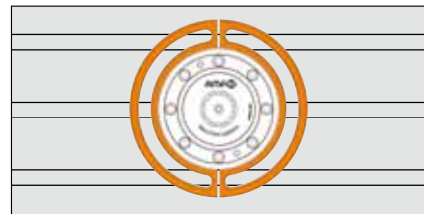
Groove distance 80 mm



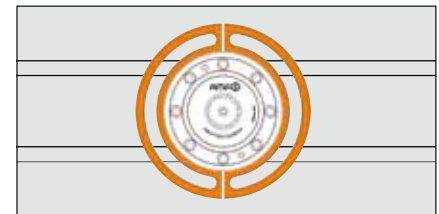
K20 - Groove distance 50 mm



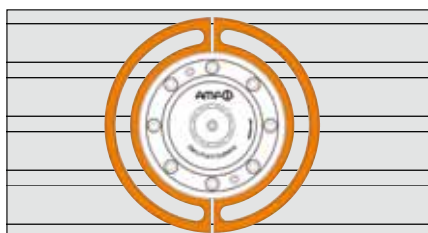
Groove distance 63 mm



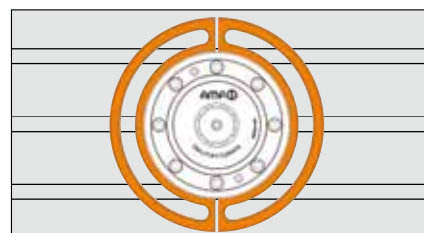
Groove distance 80 mm



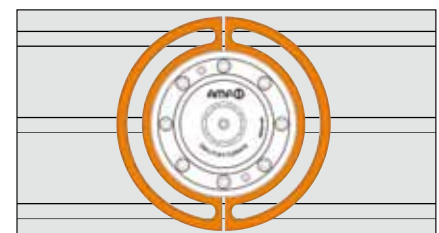
K40 - Groove distance 50 mm



Groove distance 63 mm



Groove distance 80 mm



Subject to technical alterations.



Subject to technical alterations.

## No. 6208M

### Clamping module, mechanical

Mechanical opening and closing.  
 Quenched and tempered steel, plasma-nitrated.  
 Repeat accuracy 0.01 mm.

Order no.	Size	Pull-in/locking force up to	Holding force	Tightening torque	Weight
		[kN]	[kN]	[Nm]	[g]
546085	K10	6	25	30	1064
535617	K20	10	55	30	3330

### Application:

Mechanical zero point clamping system for time-optimised clamping during cutting and non-cutting machining. Especially suitable for the modular design of clamping solutions via zero point clamping system.

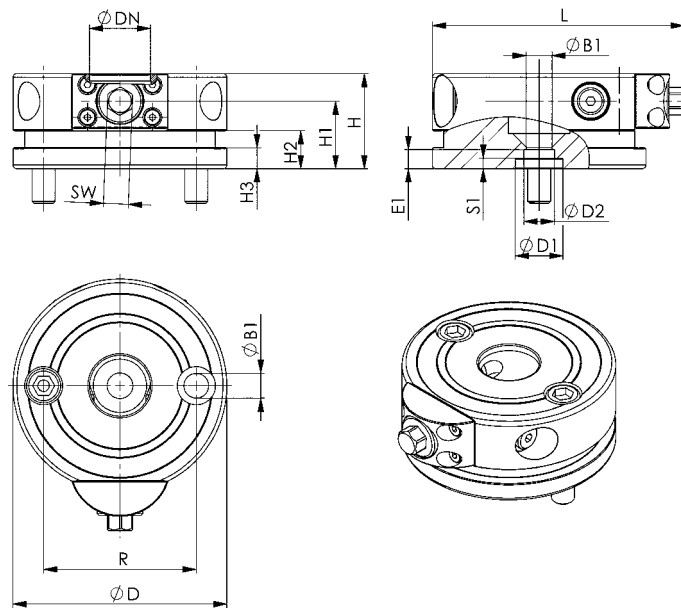
### Note:

The mechanical assembly clamping module has high retention, insertion and closing forces. The clamping module can be positioned on the machine table and fastened via mechanical clamping elements at the circumferential clamping edge.

The positioning bore for marking sleeves and a through bore for fastening via M12 countersunk screw on the grid pallets are provided on the underside. The locating bore for the K20 clamping nipple is also already made in the module.

### Clamping nipple:

With this mechanical clamping module, the K10 and/or K20 versions of the clamping nipples are used. The zero point, sword or undersize nipple can be used, depending on application. This clamping module can be used at ambient temperatures of up to max. 80°C.



### Dimensions:

Order no.	Size	dia. B1	dia. D	dia. D1	dia. D2	dia. DN	E1	H ±0.01	H1	H2	H3	L	R	S1	SW
546085	K10	9,0	78	15	15	22	4,5	32	22,0	-	-	93	50	-	10
535617	K20	13,5	112	25	16	32	10	50	35,5	20	11	132	80	5,5	13

CAD



Subject to technical alterations.



## No. 6208IM

### Clamping module, mechanical, with indexing

Mechanical opening and closing.  
 Quenched and tempered steel, plasma-nitrated.  
 Repeat accuracy 0.01 mm.



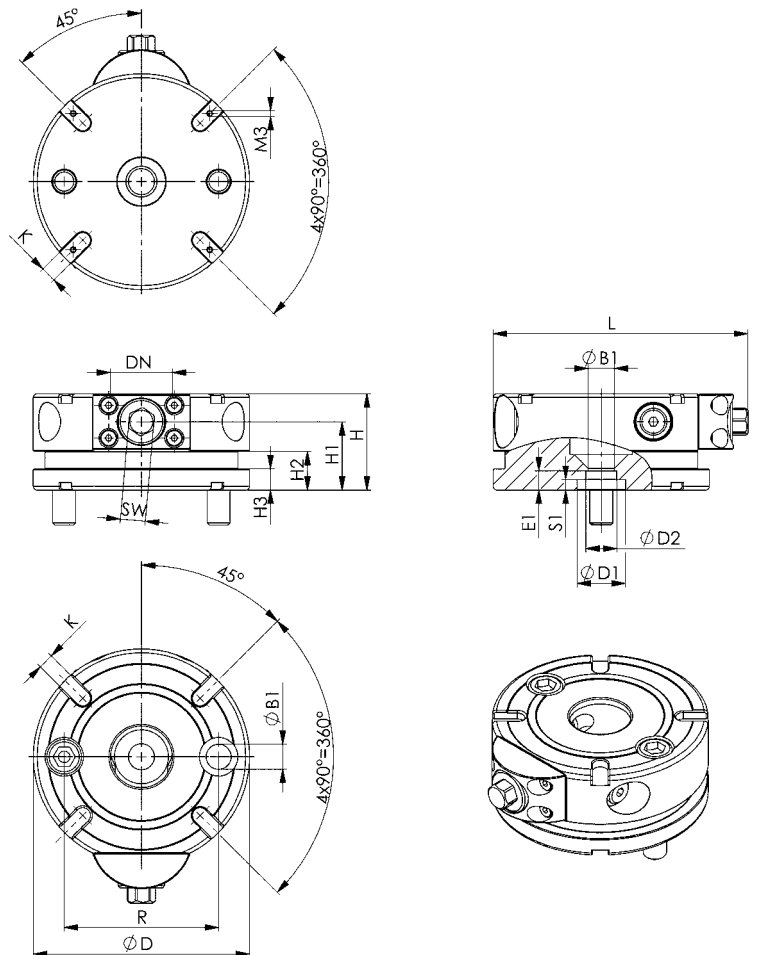
Order no.	Size	Pull-in/locking force up to	Holding force	Tightening torque	Weight
		[kN]	[kN]	[Nm]	[g]
546697	K10	6	25	30	1031
535633	K20	10	55	30	3295

### Application:

Mechanical zero point clamping system with indexing grooves offset by 90° for time-optimised clamping during cutting and non-cutting machining.  
 Especially suitable for the modular design of clamping solutions via zero point clamping system.

### Note:

The mechanical assembly clamping module with indexing grooves offset by 90° has high retention, insertion and closing forces.  
 The clamping module can be positioned on the machine table and fastened via mechanical clamping elements at the circumferential clamping edge.  
 The positioning bore for marking sleeves and a through bore for fastening via M12 countersunk screw on the grid pallets are provided on the underside. The locating bore for the K20 clamping nipple is also already made in the module.  
**Clamping nipple:**  
 With this mechanical clamping module, the K10 and/or K20 versions of the clamping nipples are used. The zero point, sword or undersize nipple can be used, depending on application.  
 This clamping module can be used at ambient temperatures of up to max. 80°C.



### Dimensions:

Order no.	Size	dia. B1	dia. D	dia. D1	dia. D2	dia. DN	E1	H ±0.01	H1	H2	H3	K F6	L	R	S1	SW
546697	K10	9,0	78	15	15	22	4,5	32	22,0	-	-	8	93	50	-	10
535633	K20	13,5	112	25	16	32	10,0	50	35,5	20	11	8	132	80	5,5	13



## No. 6208MD

### Double clamping module, mechanical

Mechanical opening and closing.  
 Quenched and tempered steel, plasma-nitrated.  
 Repeat accuracy 0.01 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Tightening torque	Weight
		[kN]	[kN]	[Nm]	[Kg]
550188	K10	6	25	30	1,6
550189	K20	10	55	30	5,1



### Application:

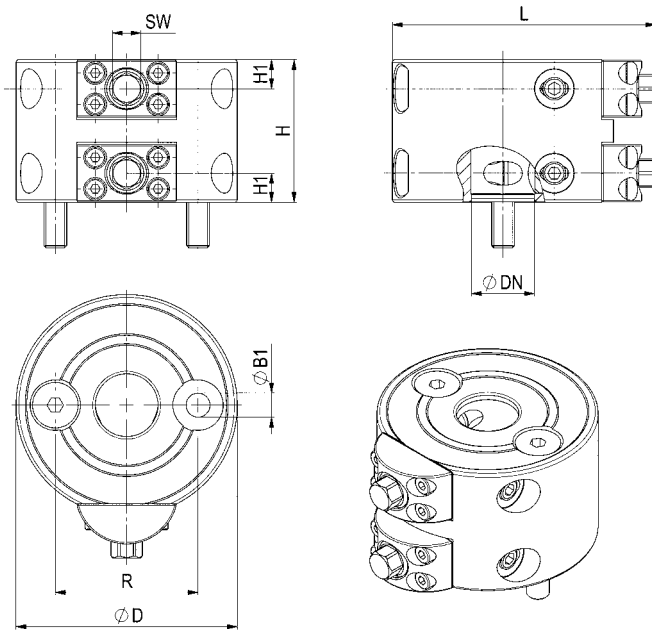
Mechanical „double clamping module“ for setting time-optimised clamping during cutting and non-cutting machining. Especially suitable for the modular design of clamping solutions via zero point clamping system.

### Note:

This clamping system combines two separately operable mechanical zero point clamping systems. In conjunction with the clamping nipple for T-grooves, this clamping module is simply and quickly fastened to the machine table via clamping grooves. Further height adapters, workpieces or fixtures can be fastened to the top via clamping nipples.

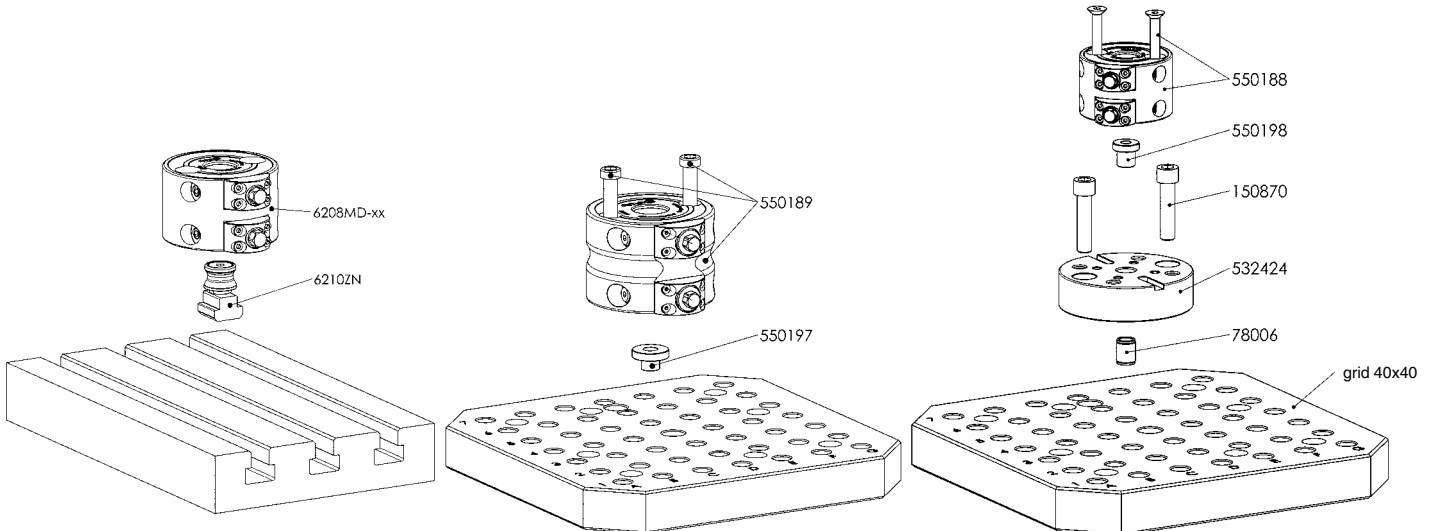
### Clamping nipple:

With this mechanical clamping module, the K10 and/or K20 versions of the clamping nipples are used. The zero point, sword or undersize nipple can be used, depending on application. This clamping module can be used at ambient temperatures of up to max. 80°C.



### Dimensions:

Order no.	Size	dia. B1	dia. D	dia. DN	H ±0.01	H1	L	R	SW
550188	K10	9,0	77,5	22	50	10,2	92	50	10
550189	K20	13,5	112,0	32	80	15,0	132	80	13



Subject to technical alterations.

No. 6210ZN

Clamping nipple for T-grooves



Order no.	Size	A	dia. DN	G	H	L	Weight [g]
550438	K10	10	22	M8	16	30	48
550439	K10	12	22	M8	16	35	51
550440	K10	14	22	M8	16	35	54
550441	K20	14	32	M12	23	45	143
550442	K20	16	32	M12	23	45	147
550443	K20	18	32	M12	23	50	157

### Application:

The clamping nipple for T-grooves enables the AMF zero point clamping system to be positioned and clamped directly to the machine table by means of clamping grooves.

These clamping nipples can be used for pneumatic, hydraulic and mechanical clamping modules, and also for mechanical double clamping modules.

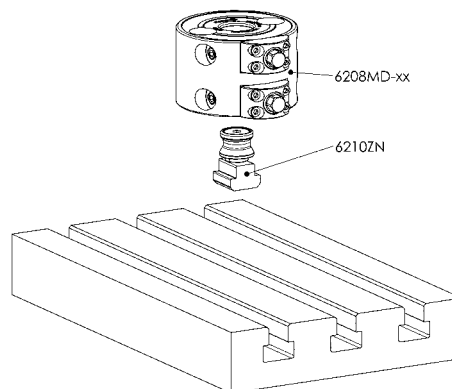
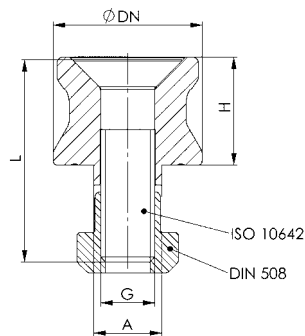
### Advantage:

Simple, quick and flexible clamping of workpieces on the machine table with varying clearances of the clamping nipple bores.

### Note:

The supply scope contains, as shown:

- Zero point clamping nipple with groove (dimension A)
- T-nut
- countersunk screw (resistance class 10.9)





No. 6212M

## Clamping module, mechanical

Open and close mechanically.  
tool steel, hardened.  
repetition accuracy < 0.01 mm



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[g]
553405	K10	10	25	360

**NEW!**

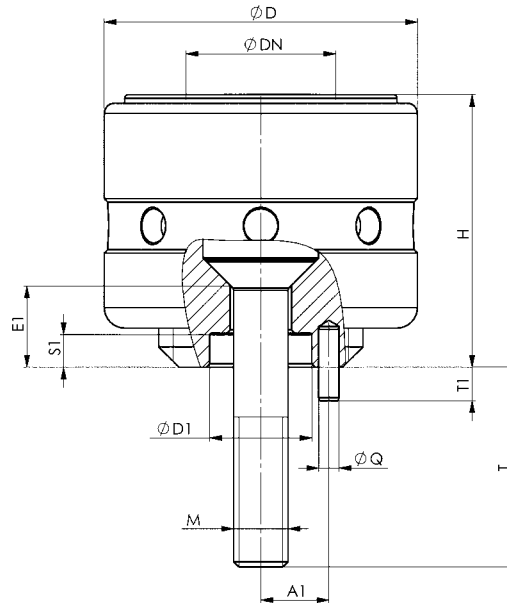


### Application:

Mechanical zero point clamping system for setting time-optimised clamping during cutting or non-cutting machining. Particularly suitable for the modular design of clamping solutions via zero point clamping system.

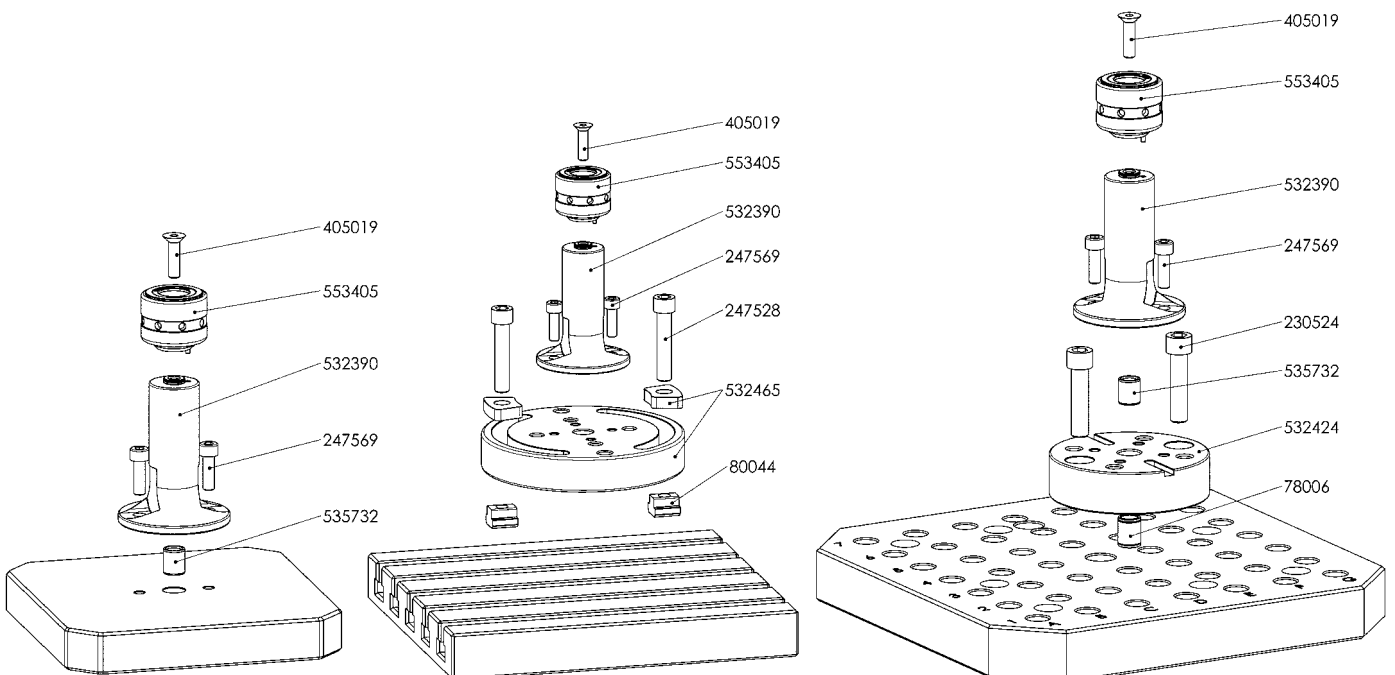
### Note:

The mechanical zero-point clamping system has high retention, insertion and closing forces. The clamping module is attached centrally using a flat-head screw M8. A dowel hole for a cylinder pin for positioning is supplied as standard. To open and close the clamping module, we recommend the AMF face spanner with Order Number 54940.



### Dimensions:

Order no.	Size	A1	dia. D	dia. D1	dia. DN	E1	H ±0.01	M	dia. Q	S1	T	T1
553405	K10	10	46	15	22	12	40	M8	3	5	29	4,9



Subject to technical alterations.

## No. 6207S4

### 4-point clamping station, mechanical

Case-hardened steel, plasma-nitrided.  
 Repetition accuracy 0.005 mm.  
 Mechanical opening and closing.

Order no.	Size	Pull-in/locking force up to	Holding force	Tightening torque	Weight
		[kN]	[kN]	[Nm]	
535658	52	6	50	20	3500
546788	96	6	50	20	5890

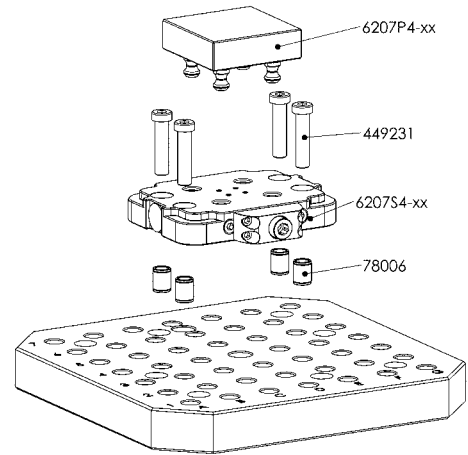
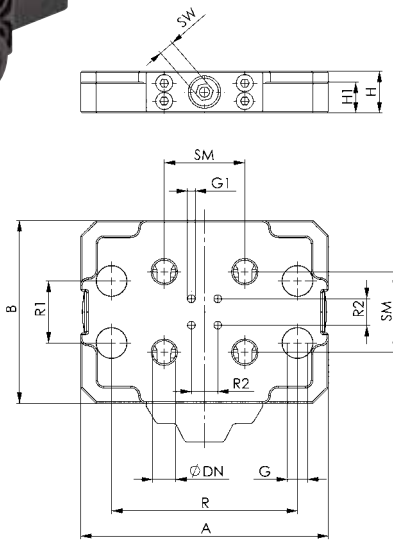
#### Application:

For quick, simple and time-optimised positioning and clamping of workpieces or fixtures on the machine table. Actuating the clamping screw opens or closes all four clamping points at the same time.

Extremely high retraction and retention forces are achieved thanks to the stable, high-quality design of this clamping station.

#### Note:

The 4-point clamping station is opened and closed using a WAF 10 hexagon wrench key. It can be fastened to the machine table either by the four M12 fastening bores or via mechanical clamping devices. The threaded bores acc. to dimensions table G1 can be used for positioning the interchangeable pallet or workpiece. A diverse range of suitable clamping devices for fastening can be found in our AMF Catalogue „Mechanical clamping elements“.



#### Dimensions:

Order no.	Size	A	B	dia. DN	G	G1	H ±0.01	H1	R	R1	R2	SM	SW
535658	52	160	118	15	M12	M5	27	20	120	40	17	52	10
546788	96	200	165	20	M12	M6	27	22	160	80	30	96	10



Subject to technical alterations.

## No. 6207P4-52

### Interchangeable pallet

Steel, burnished.  
Complete with 4 clamping nipples.  
Repeat accuracy 0.005 mm.



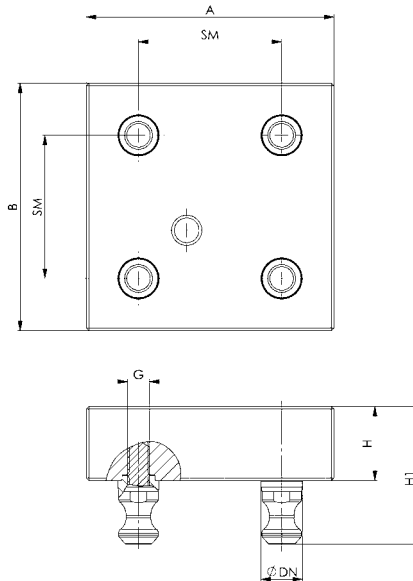
Order no.	Size	A	B	dia. DN	G	H	H1	SM	Weight [g]
535674	52	90	90	15	M8	27	50	52	1793
548784	96	150	150	20	M10	27	51	96	4845

### Application:

On the interchangeable plate, workpieces or fixtures are mounted and then positioned and clamped on the mechanical 4-point clamping station. The interchangeable plate is populated during machining, thus permitting longer machine operation.

### Note:

On request, we can incorporate mounting holes according to your specifications in the change pallet. The 4 clamping nipples are supplied as standard.



## No. 6207ZN

### Clamping nipple

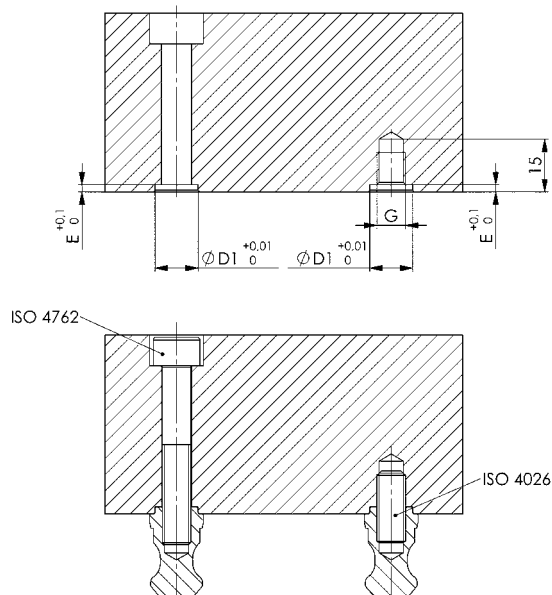
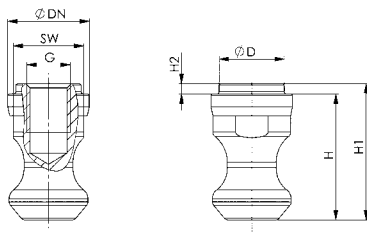
Tempered steel, burnished.



Order no.	Size	dia. D	dia. D1	dia. DN	E	G	H	H1	H2	Screw ISO 4762	Threaded pin ISO 4026	SW	Weight [g]
535690	52	12	12	15	2	M8	23	25,0	1,9	M8	M8x20	13	21
549865	96	16	16	20	5	M10	24	27,5	3,5	M10	M10x25	17	37

### Application:

Clamping nipples suitable for mechanical 4-point clamping stations. 4 clamping nipples are required for clamping on the 4-point clamping station. These nipples can, for example, be screwed into fixtures or into the workpieces themselves.



No. 6377

Centering vice soft clamping jaws  
„Black-Edition“

Order no.	Size	Clamping force F max. [kN]	Tightening torque Md max. [Nm]	Centering accuracy [mm]	Weight [g]
550656	65	14	60	+/- 0,01	3400

### Design:

Base element and chuck with smooth clamping surfaces from case hardened steel, nitro-carburised and oxidised.

The spindle with trapezoidal thread is rated for extremely high clamping and retaining forces and fabricated from special steel.

For optimal force transmission onto the workpiece, the chuck is one part and the clamping force is transmitted directly onto the chuck via the drive spindle with trapezoidal thread.

The max. clamping force is 14 kN. Due to these extremely high clamping forces, workpieces are not required to be pre-embossed and/or contour-embossed.

Fastening:

- 1) Clamping grooves on both sides for fastening directly on the machine table with mechanical clamping elements.
- 2) Prepared for adapting to the mechanical 4-point clamping station with insertion dimension of 52 mm, see drawing. Clamping nipples under order no. 535690 are required for this purpose.
- 3) Two 8H7 bores are provided on the underside for precise positioning on adapter and intermediate plates.

### Application:

For the central clamping of workpieces.

The compact design of this centering vice makes it especially suitable for the 5-axis machining of workpieces. But it is also universally usable and offers many day-to-day applications, thanks to the replaceable clamping jaws.

The clamping jaws are easy to exchange and can, for example, be replaced by clamping jaws with claws, order no. 550659.

### Note:

Extending the chucks beyond the max. dimension (L) of the outside contour of the main body is not recommended.

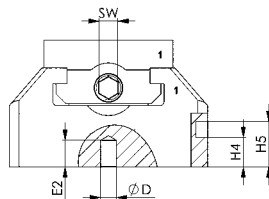
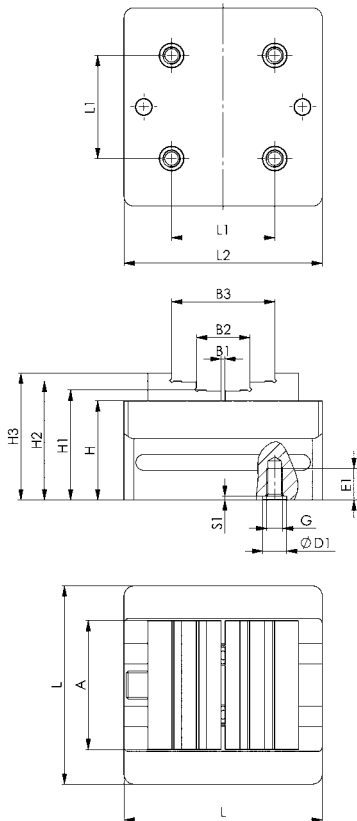
The max. clamping force is 14kN with a tightening torque of 60Nm, for further details on the clamping force, see clamping force diagram.

The clamping force is initiated on the spindle via the hexagon head with AF 10mm using either the crank handle provided or a torque wrench.

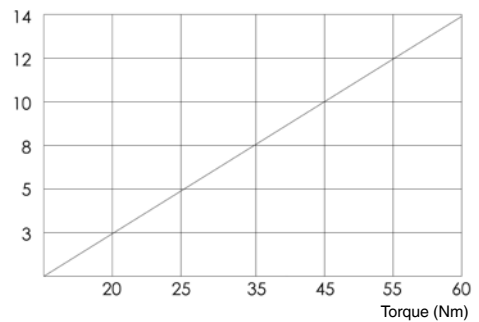
The inner hexagon on the rear of the spindle is suitable only for unscrewing and replacing the chucks. Initiating the clamping force using an inner hexagon is not permitted.



Smooth clamping jaws



Clamping force (kN)



### Dimensions:

Order no.	Size	A	B1	B2	B3	dia. D	dia. D1	E1	E2	G	H	H1	H2	H3	H4	H5	L	L1	L2	S1	SW
550656	65	65	2-26	27-51	52-76	8	12	16	13,5	M8	50	55,5	60	64	15	23	100	52	80	2	10

Subject to technical alterations.



No. 6377G

Centring vice with claw jaws  
„Black-Edition“

Order no.	Size	Clamping force F max. [kN]	Tightening torque Md max. [Nm]	Centering accuracy [mm]	Weight [g]
550657	65	14	60	+/- 0,01	3380

### Design:

Base element and claw jaws made of hardened steel, nitro-carburised and oxidised.

The spindle with trapezoidal thread is rated for extremely high clamping and retaining forces and fabricated from special steel.

For optimal power transmission onto the workpiece, the clamping jaw is made of one piece and the clamping force is transmitted directly onto the clamping jaw via the drive spindle with trapezoidal thread.

The max. clamping force is 14 kN. Due to these extremely high clamping forces, workpieces are not required to be pre-embossed and/or contour-embossed.

Fastening:

- 1) Clamping grooves on both sides for fastening directly to the machine table with mechanical clamping elements.
- 2) Prepared for adapting to the mechanical 4-point clamping station with pitch spacing of 52 mm, see drawing. Clamping nipples under order no. 535690 are required for this purpose.
- 3) Two 8H7 holes are provided on the underside for precise positioning on the adapter and intermediate plates.

### Application:

For the central clamping of workpieces.

The compact design of this centering vice makes it especially suitable for the 5-axis machining of workpieces. But it is also universally usable and offers many day-to-day applications, thanks to the replaceable clamping jaws.

The clamping jaws are easy to exchange and can, for example, be replaced by clamping jaws with smooth clamping surface, order no. 550658.

### Note:

Extending the chucks beyond the max. dimension (L) of the outside contour of the main body is not recommended.

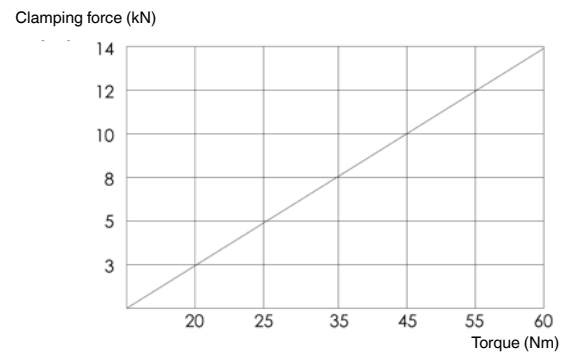
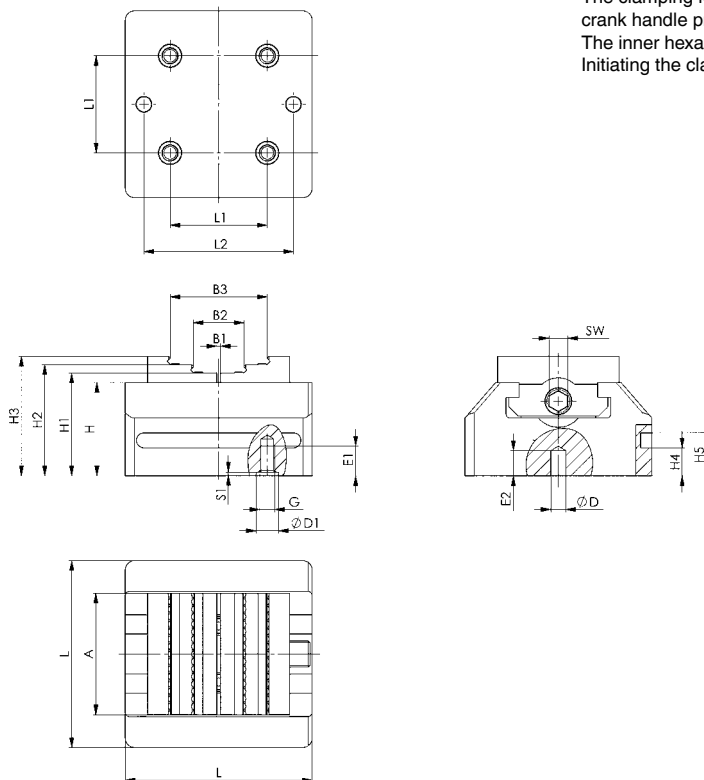
The max. clamping force is 14kN with a tightening torque of 60Nm, for further details on the clamping force, see clamping force diagram.

The clamping force is initiated on the spindle via the hexagon head with AF 10mm, either using the crank handle provided or a torque wrench.

The inner hexagon on the rear of the spindle is suitable only for unscrewing and replacing the chucks. Initiating the clamping force using an inner hexagon is not permitted.



with claw jaws



### Dimensions:

Order no.	Size	A	B1	B2	B3	dia. D	dia. D1	E1	E2	G	H	H1	H2	H3	H4	H5	L	L1	L2	S1	SW
550657	65	65	2-26	27-51	52-76	8	12	16	13,5	M8	50	55,5	60	64	15	23	100	52	80	2	10

Subject to technical alterations.

## No. 6377B

### Clamping Jaws, soft

for centering vice, size 65.



Order no.	Size	A	B	B2	B3	H	H1	H2	H3	Weight [g]
550658	65	65	37	12,5	25	32	5,5	10	14	520

#### Design:

Base element and chuck with smooth clamping surfaces from case hardened steel, nitro-carburised and oxidised.

Suitable for „Black-Edition“ centering chuck, size 65.

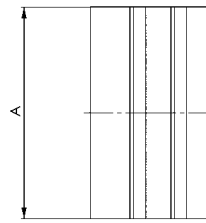
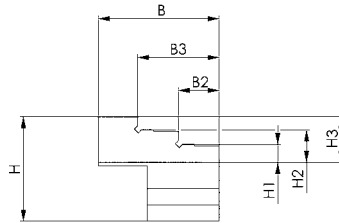
#### Application:

The chucks can be simply and quickly interchanged and/or replaced on the „Black-Edition“ centering chuck, size 65.

#### Note:

To interchange the chucks, only an AF8 inner hexagon is required.

The chucks are supplied in pairs.



## No. 6377BG

### Clamping Jaws with claws

for centering vice, size 65.



Order no.	Size	A	B	B2	B3	H	H1	H2	H3	P	Weight [g]
550659	65	65	37	12,5	25	32	5,5	10	14	3	510

#### Design:

Clamping jaws with claws made of hardened steel, nitro-carburised and oxidised.

Suitable for „Black-Edition“ centering vice, size 65.

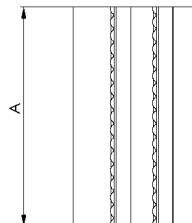
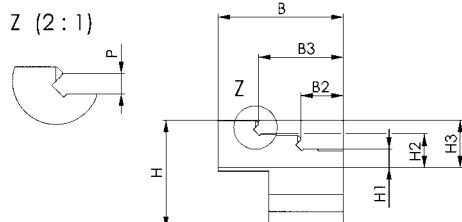
#### Application:

The chucks can be simply and quickly interchanged and/or replaced on the „Black-Edition“ centering chuck, size 65.

#### Note:

To interchange the chucks, only an AF8 inner hexagon is required.

The chucks are supplied in pairs.



Subject to technical alterations.

**FAST, PRECISE AND FLEXIBLE -**  
THE PERFECT COMBINATION  
FOR FAST  
VICE CHANGING



Centring vice  
„Black-Edition“

Clamping nipple



4-point clamping station,  
mechanical



Subject to technical alterations.

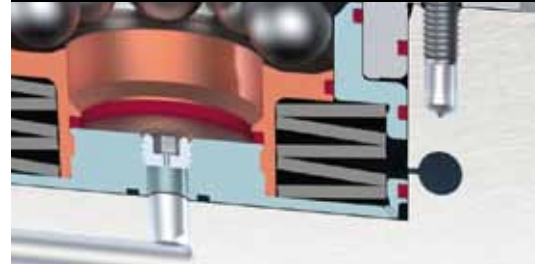
# AUTOMATION SOLUTIONS FROM AMF

The enormous capability and flexibility of use of modern processing machines is undisputed. To be able to use these capabilities in reality requires more than just fast machines. An automation solution consists today of a number of multiply linked, versatile products and technologies.

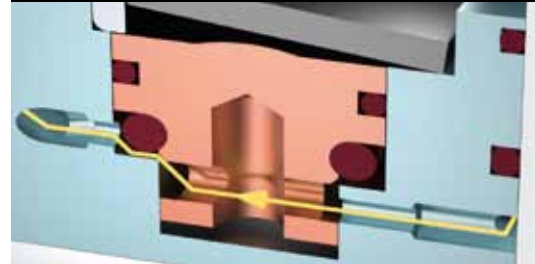
Through the possibility of a fully automatic and process-sure machine configuration, our automation solutions meet the requirements for seamless integration into the automation system. Numerous sensing options, optional media ducts and blow-out and blow-off of the modules speak for themselves!

**Persuade yourself of the automation potential of the AMF zero-point clamping modules!**

## 1A LOCKING CONTROL



## 1B LOCKING CONTROL

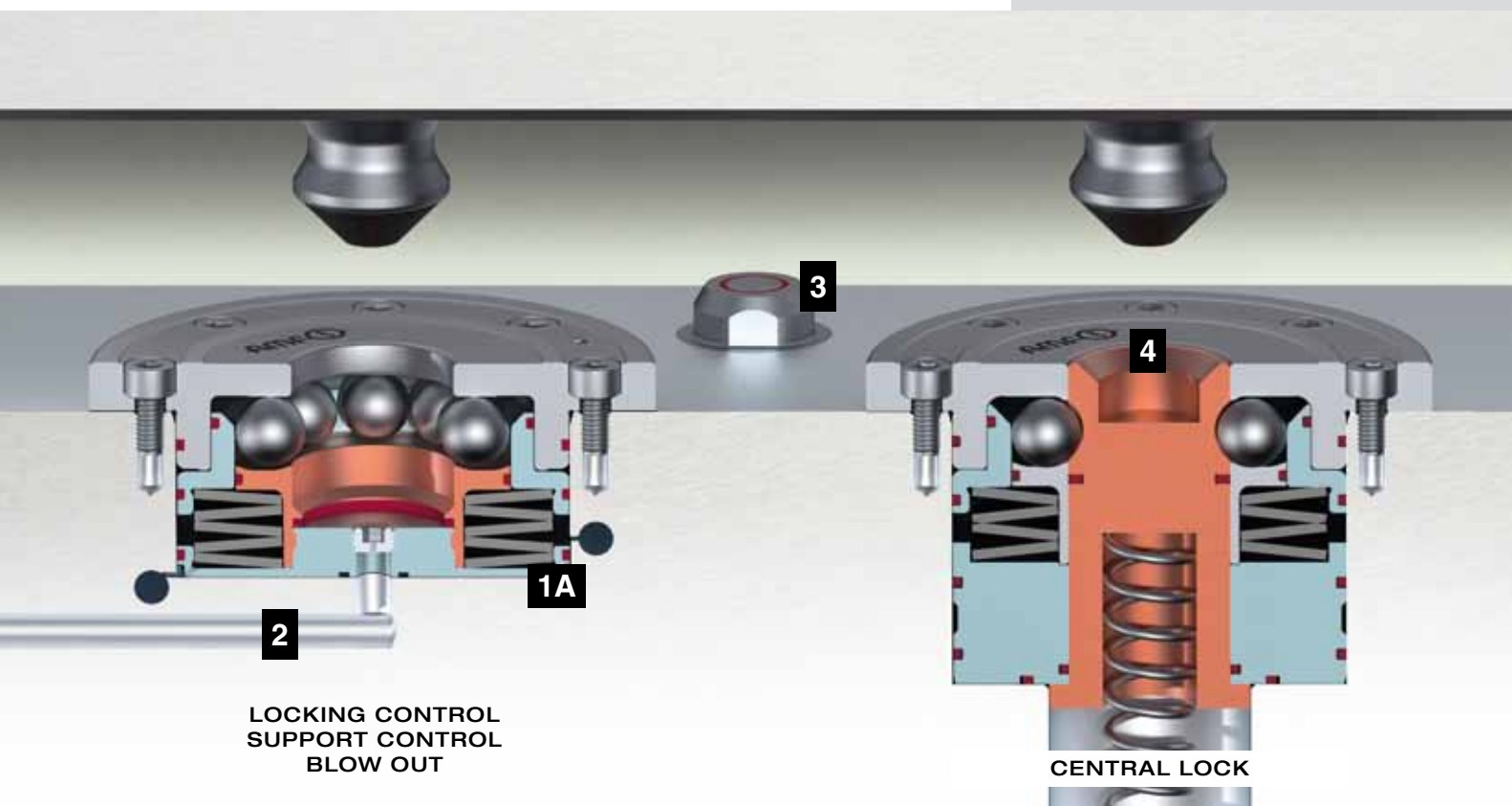


### 1A IS THE MODULE LOCKED?

Through the direct monitoring of the piston position (opened) by means of pneumatic back pressure, the position can be sensed by means of a differential pressure switch.

### 1B IS THE MODULE LOCKED?

With an open module, the integrated stop valve creates a pneumatic or hydraulic static pressure, which is sensed via a differential pressure switch.



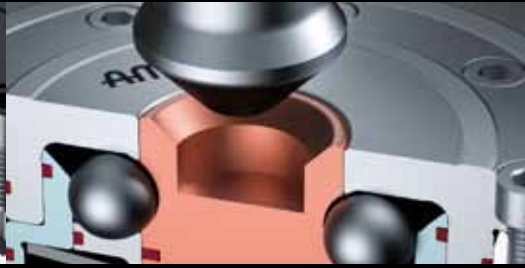
**2 INTERNAL BLOW-OUT**



**3 MEDIA DUCTS**



**4 CENTRAL LOCK**



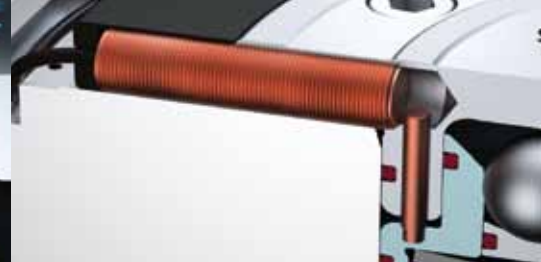
**5 BLOW-OFF/SUPPORT CONTROL**



**6 NIPPLE SENSING**



**7 ELECTRICAL SENSING**



**\_2 DIRT AND CHIPS IN THE CLAMPING MODULE?**  
Blowing out with compressed air cleans the inside from all dirt and chips and can be used simultaneously for workpiece support control by means of a differential pressure sensor.

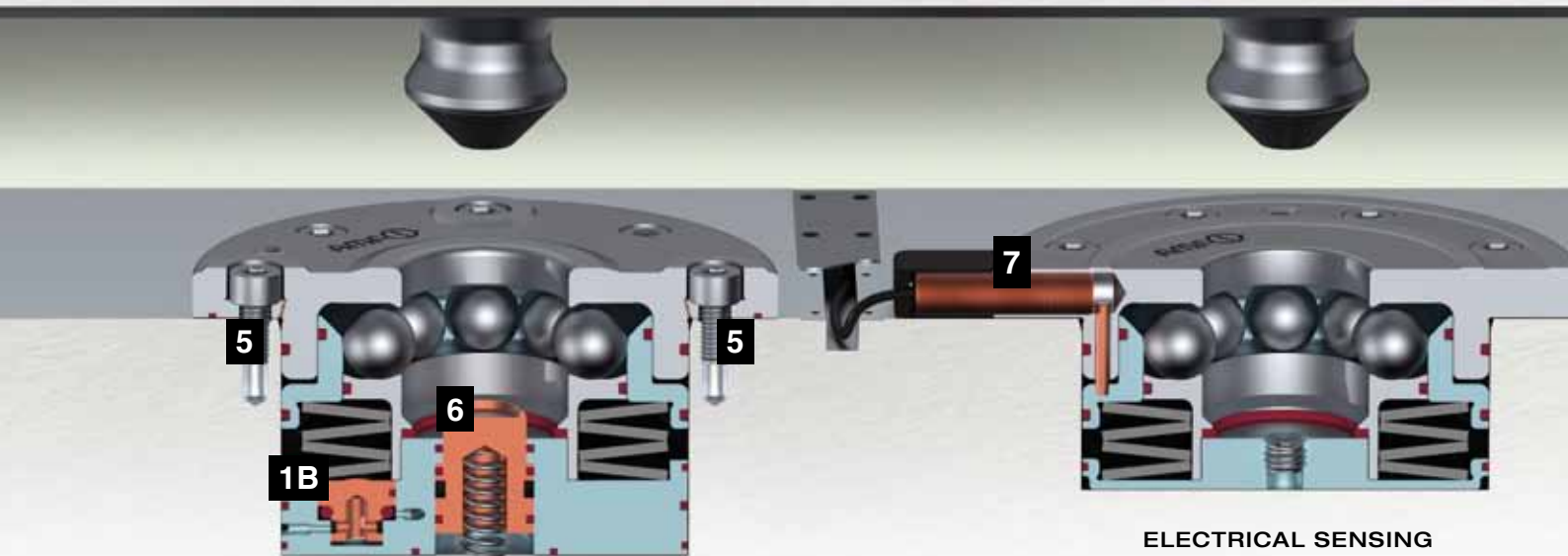
**\_3 ARE MEDIA DUCTS TO A FIXTURE NECESSARY?**  
Oil, compressed air, water, etc. can be run through our couplings without leaks.

**\_4 DIRT AND CHIPS UNWELCOME IN THE MODULE?**  
The lagging central lock prevents penetration of dirt and chips when the clamping nipple is being run out. The central lock replaces the previously required protection nipple.

**\_5 CHIPS AND DIRT? IS A WORKPIECE LYING WITHOUT GAP OR NOT?**  
The blow-out function with compressed air cleans the support surfaces and can be used simultaneously for workpiece support control by means of a differential pressure sensor.

**\_6 IS THE CLAMPING NIPPLE PRESENT ON THE FIXTURE?**  
The retracting nipple actuates a stop valve, which eliminates the pneumatic or hydraulic static pressure. This condition is sensed via a differential pressure switch.

**\_7 IS THE MODULE OPEN OR CLOSED?**  
The integrated inductive sensor can sense the piston position (open/closed) of the clamping module.



**NIPPLE SENSING  
LOCKING CONTROL  
BLOW-OFF  
SUPPORT CONTROL**

**ELECTRICAL SENSING**

# OUR AUTOMATION SOLUTIONS -

## THE RIGHT CLAMPING MODULE FOR EVERY APPLICATION

	<b>K10</b> Order no. 552963	<b>K10</b> Order no. 552966	<b>K10.3</b> Order no. 552967	<b>K10.3</b> Order no. 552969	<b>K10.3</b> Order no. 550257	<b>K10.3</b> Order no. 550259	<b>K10.3</b> Order no. 550261	<b>K20</b> Order no. 428409
	pneum.	pneum.	pneum.	pneum.	pneum.	pneum.	pneum.	hydr.
Support diameter max. [mm]	78	78	112	112	112	112	-	112
Support surfaces with integrated blow-out							●	
Pull-in/locking force in the system up to [kN]	8	8	10	10	10	10	10	20
Holding force [kN]	25	25	25	25	25	25	25	55
Operating pressure for pneum. opening min. - max. [bar]	8 - 12	8 - 12	<b>5 - 12</b>	<b>5 - 12</b>	<b>5 - 12</b>	<b>5 - 12</b>	<b>5 - 12</b>	
Operating pressure for pneum. re-clamping min. - max. [bar]	5 - 6	5 - 6						
Operating pressure for hydr. opening min. - max. [bar]								60 - 70
Operating pressure for hydr. re-clamping min. - max. [bar]								
Pneum. blow-out					●	●	●	●
Pneum. support control					●	●	●	●
Pneum. locking control					●	●	●	
Pneum. opening control					●	●	●	●
Hydr. locking control								
Hydr. opening control								
Pneum. clamping nipple sensing						●	●	
Hydr. clamping nipple sensing								
Sensor monitor opened	●	●	●	●				
Sensor monitor closed	●	●	●	●				
Sensor monitor clamping nipple		●		●				
Central lock with pneum. turbine blow-out								
Central lock with pneum. blow-out								

K20 Order no. 427161	K20 Order no. 550279	K20 Order no. 552964	K20.3 Order no. 552968	K20.3 Order no. 550258	K20.3 Order no. 550260	K20.3 Order no. 550262	K23 Order no. 420919	K40 Order no. 552965	
hydr.	hydr.	pneum.	pneum.	pneum.	pneum.	pneum.	hydr.	pneum.	
-	112	112	138	138	138	-	-	148	Support diameter max. [mm]
●						●	●		Support surfaces with integrated blow-out
20	20	17	17	17	17	17	23	30	Pull-in/locking force in the system up to [kN]
55	55	55	55	55	55	55	23	105	Holding force [kN]
		8 - 12	4,5 - 12,0	4,5 - 12,0	4,5 - 12,0	4,5 - 12,0		8 - 12	Operating pressure for pneum. opening min. - max. [bar]
		5 - 6						5 - 6	Operating pressure for pneum. re-clamping, min. - max. [bar]
50 - 60	60 - 70						25 - 50		Operating pressure for hydr. opening min. - max. [bar]
							20		Operating pressure for hydr. re-clamping, min. - max. [bar]
	●			●	●	●	●		Pneum. blow-out
●	●			●	●	●	●		Pneum. support control
				●	●	●			Pneum. locking control
●	●			●	●	●			Pneum. opening control
							●		Hydr. locking control
●									Hydr. opening control
●					●	●			Pneum. clamping nipple sensing
●									Hydr. clamping nipple sensing
		●	●					●	Sensor monitor opened
		●	●					●	Sensor monitor closed
									Sensor monitor clamping nipple
							●		Central lock with pneum. turbine blow-out
	●						●		Central lock with pneum. blow-out

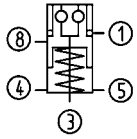
## No. 6108LA-XX-08

### Installation clamping module for automation solutions

Pneumatic opening.  
 Pneumatic blow-out.  
 Opening operating pressure:  
 K10.3 min. 5 bar  
 K20.3 min. 4.5 bar  
 Cover and piston hardened.  
 Repeat accuracy < 0.005 mm.  
 With locking control (pneum.)  
 and support control (pneum.).



INOX  
 STAINLESS STEEL



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
550257	K10.3	10	25	●	1,4
550258	K20.3	17	55	●	2,6

#### Design:

Centric blow-out, support control and locking control.

#### Application:

Zero-point clamping system for automation solutions for set-up-time-optimised clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

Locking control: Static pressure with opened clamping module, flow-through only with locked clamping module.

Support control via the blow-out function: Static pressure with supported interchangeable pallet.

The installation clamping module is opened pneumatically and locked mechanically by spring force.

Subsequent uncoupling of the pressure line is possible at any time (module is clamped at normal pressure).

The clamping module has five connections:

- 1 = pneum. opening
- 3 = pneum. blow-out
- 4 = pneum. opening control, inlet
- 5 = ventilation
- 8 = pneum. locking control, inlet

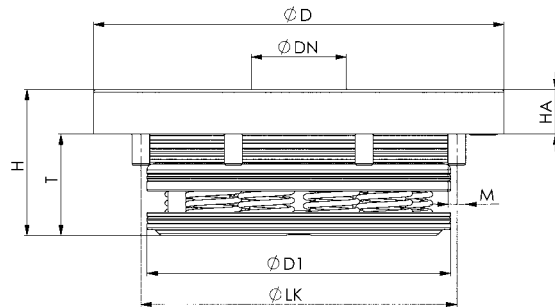
#### On request:

- Installation diagram
- Further automation options



K10.3

K20.3



#### Dimensions:

Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	M	T
550257	K10.3	112	22	78	35	10	88	6 x M6	25
550258	K20.3	138	32	102	49	15	115	8 x M6	34



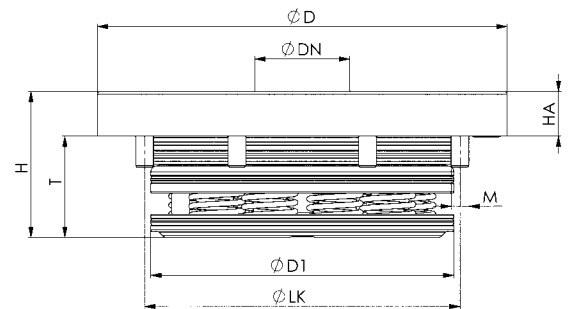
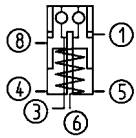
CAD



## No. 6108LA-XX-09

### Installation clamping module for automation solutions

Pneumatic opening.  
 Pneumatic blow-out.  
 Opening operating pressure:  
 K10.3 min. 5 bar  
 K20.3 min. 4.5 bar  
 Cover and piston hardened.  
 Repeat accuracy < 0.005 mm. With locking control (pneum.) and support control (pneum.) and clamping nipple sensing (pneum.).



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
550259	K10.3	10	25	●	1,4
550260	K20.3	17	55	●	2,6

### Design:

Centric blow-out, support control, locking control and clamping nipple sensing.

### Application:

Zero-point clamping system for automation solutions for set-up-time-optimised clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

### Note:

Locking control: Static pressure with opened clamping module, flow-through only with locked clamping module.  
 Clamping nipple sensing: Static pressure with clamping nipple present, flow-through if clamping nipple is not present.  
 Support control via the blow-out function: Static pressure with supported interchangeable pallet.  
 The installation clamping module is opened pneumatically and locked mechanically by spring force. Subsequent uncoupling of the pressure line is possible at any time (module is clamped at normal pressure).  
 The clamping module has six connections:  
 1 = pneum. opening  
 3 = pneum. blow-out  
 4 = pneum. opening control, inlet  
 5 = ventilation  
 6 = pneum. Clamp nipple control, inlet  
 8 = pneum. locking control, inlet

### On request:

- Installation diagram
- Further automation options

### Dimensions:

Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	M	T
550259	K10.3	112	22	78	35	10	88	6 x M6	25
550260	K20.3	138	32	102	49	15	115	8 x M6	34



## No. 6108LA-XX-10

### Installation clamping module for automation solutions

Pneumatic opening.  
Pneumatic blow-out.

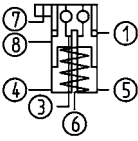
Opening operating pressure:  
K10.3 min. 5 bar  
K20.3 min. 4.5 bar

Cover and piston hardened.

Repeat accuracy < 0.005 mm. With locking control (pneum.) and support control (pneum.) and clamping nipple sensing (pneum.) and isolated solution.



INOX  
STAINLESS STEEL



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
550261	K10.3	10	25	●	1,4
550262	K20.3	17	55	●	2,6

#### Design:

Support surfaces as isolated design with integrated blow-out, centric blow-out, support control, locking control and clamping nipple sensing.

#### Application:

Zero-point clamping system for automation solutions for set-up-time-optimised clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

Locking control: Static pressure with opened clamping module, flow-through only with locked clamping module.

Clamping nipple sensing: Static pressure with clamping nipple present, flow-through if clamping nipple is not present.

Support control: Static pressure with supported interchangeable pallet.

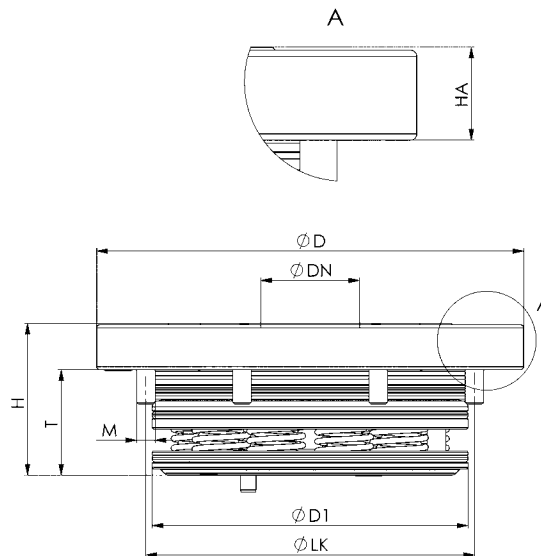
The installation clamping module is opened pneumatically and locked mechanically by spring force. Subsequent uncoupling of the pressure line is possible at any time (module is clamped at normal pressure).

The clamping module has seven connections:

- 1 = pneum. opening
- 3 = pneum. blow-out
- 4 = pneum. opening control, inlet
- 5 = ventilation
- 6 = pneum. Clamp nipple control, inlet
- 7 = pneum. Support control
- 8 = pneum. locking control, inlet

#### On request:

- Installation diagram
- Further automation options



#### Dimensions:

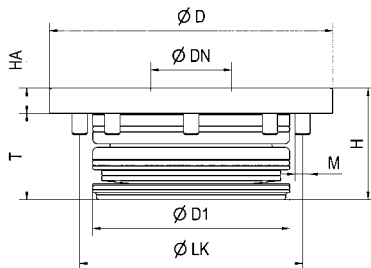
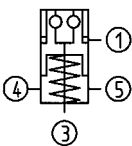
Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	M	T
550261	K10.3	112	22	78	35	10	88	6 x M6	25
550262	K20.3	138	32	102	49	15	115	8 x M6	34



## No. 6103HA-20-05

### Installation clamping module for automation solutions

Hydraulic opening.  
Pneumatic blow-out.  
Opening operating pressure: min. 60 bar - max. 70 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.  
With locking control (pneumatic) and support control (pneumatic).



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
428409	K20	20	55	●	1,4

#### Design:

Central blow-out, support control and locking control.

#### Application:

Zero-point clamping system for automation solutions for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

Locking control: Static pressure with opened clamping module, flow-through only with locked clamping module.  
Support control via the blow-out function: Static pressure with supported interchangeable pallet.  
The installation clamping module is opened hydraulically (1) and locked mechanically by spring force. Subsequent uncoupling of the pressure lines is possible at any time (module is tensioned pressure-free).  
The clamping module has four connections:  
1 = hydr. opening  
3 = pneum. blow-out and support control  
4 = pneum. Opening control inlet  
5 = pneum. Opening control outlet

#### On request:

- Installation diagrams
- Further automation options

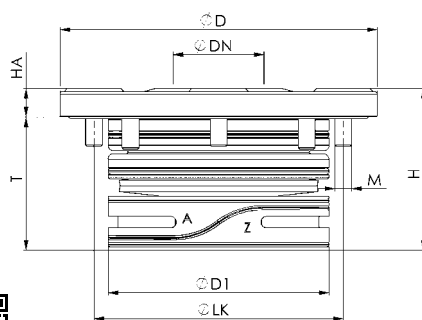
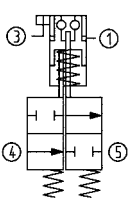
#### Dimensions:

Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	M	dia. LK	T
428409	K20	112	32	78	44	10	M6	88	34

## No. 6100H-20-06

### Installation clamping module for automation solutions

Hydraulic opening.  
Opening operating pressure: min. 50 bar - max. 60 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.  
With locking control (hydraulic or pneumatic), support control (pneumatic) and nipple sensing.



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[Kg]
427161	K20	20	55	2,8

#### Design:

Support surfaces as island design with integrated blow-out, locking control and nipple sensing.

#### Application:

Zero-point clamping system for automation solutions for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

Locking control: Static pressure with opened clamping module, flow-through only with locked clamping module and presence of clamping nipple.  
Support control: Static pressure with supported interchangeable pallet.  
This is opened hydraulically (1) and locked mechanically by spring force. Subsequent uncoupling of the pressure lines is possible at any time (module is tensioned pressure-free).  
The clamping module has four connections:  
1 = hydr. opening  
3 = pneum. Support control  
4 = hydr. or pneum. Opening control and nipple sensing inlet  
5 = hydr. or pneum. Opening control and nipple sensing outlet

#### On request:

- Installation diagrams
- Further automation options

#### Dimensions:

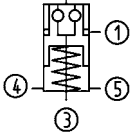
Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	M	T
427161	K20	112	32	78	57	10	88	M6	47

Subject to technical alterations.

## No. 6107HA-20-07

### Installation clamping module with central lock for automation solutions

Hydraulic opening.  
Pneumatic blow-out.  
Operating pressure: 60 bar - 70 bar  
Cover and piston hardened.  
Repeat accuracy < 0.005 mm.  
With locking control (pneum.) and support control (pneum.).



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
550279	K20	20	55	●	1,4

#### Design:

With central lock, blow-out, support control and locking control.

#### Application:

Zero-point clamping system for automation solutions for set-up-time-optimised clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

Central lock with pneum. cleaning function of support surfaces.

Fastening and mounting of the clamping nipple control by means of DIN ISO countersunk head screw M12.

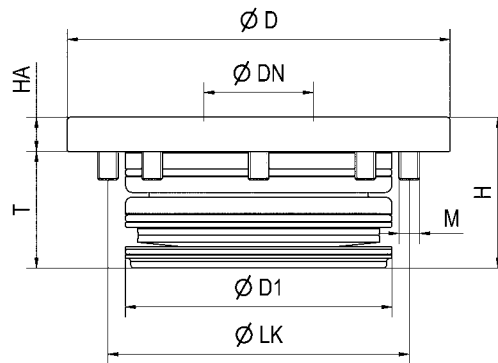
Locking control: Static pressure with opened clamping module, flow-through with locked clamping module.

Support control via the blow-out function: Static pressure with supported interchangeable pallet.

The installation clamping module is opened hydraulically and locked mechanically by spring force. Subsequent uncoupling of the pressure line is possible at any time (module is clamped at normal pressure).

The clamping module has four connections:

- 1 = hydr. opening
- 3 = pneum. blow-out and support control
- 4 = pneum. Opening control inlet
- 5 = pneum. Opening control outlet



#### Dimensions:

Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	M	T
550279	K20	112	32	78	44	10	88	M6	34





Automation solution (order no. 427161) with lock and support control as well as nipple sensing in use in a fully automated production process with robot loading.

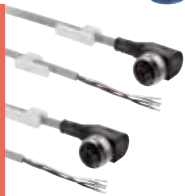


„Turbine“ high-end clamping module (order no. 420919) in use in a fully automated production process with robot loading.

No. 6370ZSA-02

Pneumatic sensor unit,  
Control and sensor module

**NEW!**



Order no.	Operating pressure [bar]	Weight [g]
553182	4-7	510

### Design:

Pneumatic sensor unit with a control module, preassembled sensor module with integrated LCD display for displaying the operating status and two connecting cables each 5 meters in length and one open end.

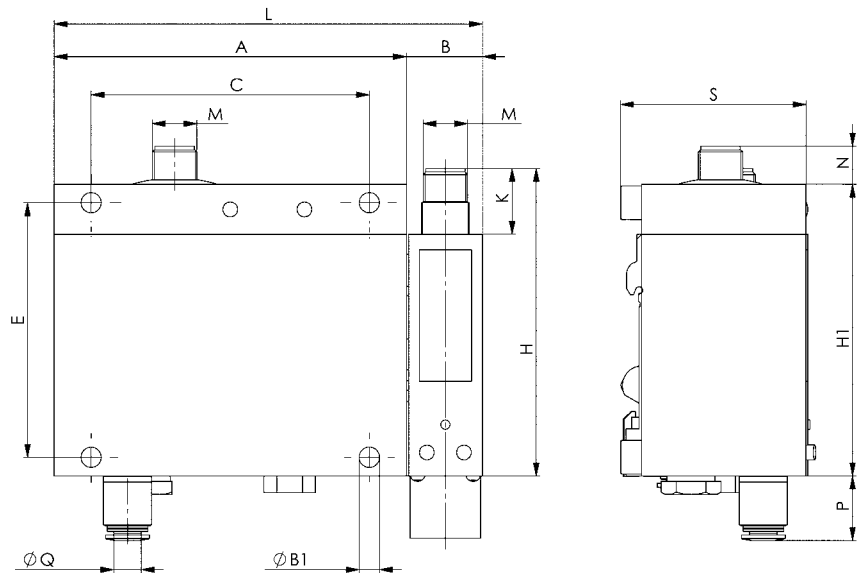
Technical data per sensor module:  
Distance measuring range: 0.02 - 0.2 mm  
Pneumatic connection: Q6 Plug connection 6 mm  
Electrical output: 2 switch outputs PNP  
Electrical connection: M12 plug, A-coded

### Application:

Pneumatic sensor unit for querying and condition monitoring of the AMF zero-point clamping system for the automation. The switchpoints of the sensor modules are applied directly in the teach-in process and can then be finely adjusted and adapted manually to the individual requirements.

### Note:

A maximum of four sensor modules can be mounted and connected per control module.



### Dimensions:

Order no.	A	B	dia. B1	C	E	H	H1	K	L	M	N	P	dia. Q	S
553182	95	20,5	5,5	75	68,5	83	78,5	18	115,5	M12 x 1	10,2	17,4	6	50

No. 6370ZSA-03

Sensor module for pneumatic sensor unit

**NEW!**



Order no.	Operating pressure [bar]	Weight [g]
553183	4-7	60

**Design:**

Sensor module as extension module for the pneumatic sensor unit with integrated LCD display for displaying the operating status and one connecting cable with 5 meters in length and one open end.

**Technical data:**

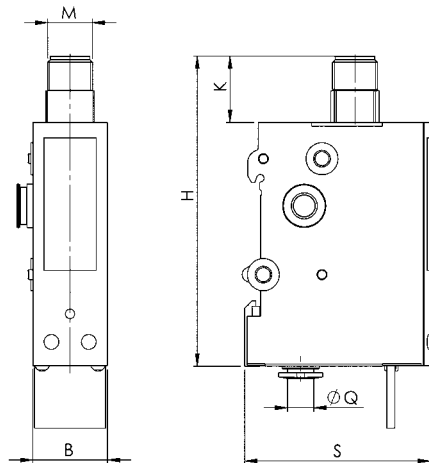
Distance measuring range: 0.02 - 0.2 mm  
 Pneumatic connection: Q6 Plug connection 6 mm  
 Electrical output: 2 switch outputs PNP  
 Electrical connection: M12 plug, A-coded

**Application:**

Sensor module for querying and condition monitoring of the AMF zero-point clamping system for the automation. The switchpoints of the sensor modules are applied directly in the teach-in process and can then be finely adjusted and adapted manually to the individual requirements.

**Note:**

A maximum of four sensor modules can be mounted and connected per control module.



**Dimensions:**

Order no.	B	H	K	M	dia. Q	S
553183	20,5	83	18	M12 x 1	6	50

No. 6370ZSA-01

## Flow meter

Hydraulic

**NEW!**



Order no.	Q [l/min]	Nominal bore [NW]	Weight [g]
553154	0,02-2	8	700

### Design:

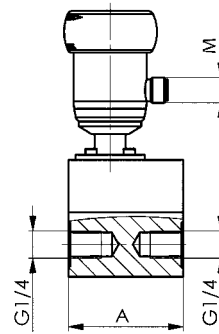
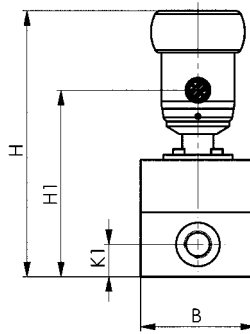
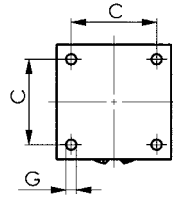
Flow meter for hydraulic volume flow of 0.02 - 2.0 l/min incl. 5-metre connecting cable.

#### Technical data:

Nominal diameter: DN008  
 Connection: Internal thread G1/4  
 Compressive strength: PN 200  
 Measurement range: 0.02 - 2.0 l/min  
 Medium temperature: - 25 .. + 80 °C  
 Ambient temperature: - 20 .. + 70 °C  
 Programming: via adjusting ring POM  
 Electrical connection: Round plug M12 x 1.5-polig  
 Power supply: 18 .. 30 V DC  
 Protection class: IP 67  
 Hysteresis: adjustable  
 Display: LCD Display + LED

### Application:

Through the very exact measurement resolution of this unit, it is possible to check and monitor whether the zero-point clamping system is in opened or closed state. The gearwheel flow meter measures the hydraulic flow in the connection lines of the AMF zero-point clamping system for the automation and emits an output signal after reaching the preset threshold value.



### Dimensions:

Order no.	A	B	C	G	H	H1	K1	M
553154	55	55	41	M6	128	90	15,5	M12 x 1

Subject to technical alterations.





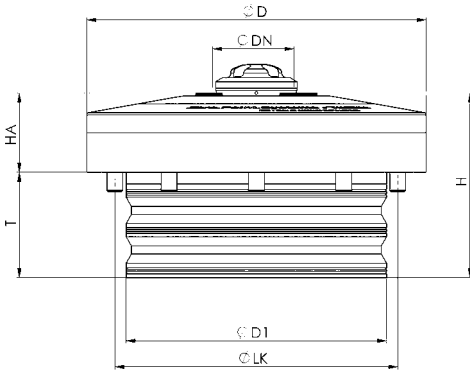
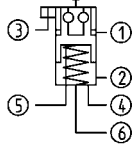
- + Economical and flexible automation solution
- + Combined application of various gripper types
- + Cassette buffer magazine serves as storage and/or transport unit for workpieces
- + Modular linear feed system
- + Production of different workpieces in one loading



## No. 6102H

### „Turbine“ high-end clamping module for full automation

Hydraulic opening.  
 Opening operating pressure: 25-50 bar  
 Retensioning operating pressure: 20 bar  
 Cover and piston hardened.  
 Repeatability < 0.005 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[Kg]
420919	K23	23	23	4,8

#### Application:

For fully automatic clamping solutions for use as machine table support in processing centres with automatic pallet changing system or robot loading and for installation in pallets, machine tables, clamping brackets and cubes. Many possible versatile uses in automation.

#### Note:

Hardened support surfaces as island design with integrated support control. Additional blowing off of the support surfaces by centrally running-out turbine spindles and blowing out of the sphere space. Additional hydraulic 6 mm lift-out of the pallet to be changed for easier pallet removal.

Sensing options:

- Support control (pneumatic)
- Locking control (hydraulic)

Turbine has six connections:

1x hydr. opening (1) / 1x hydr. retensioning (2) / 1x pneum. support control (3) / 1x blow-off, blow-out and pneum. turbine blow-off (4) / 1x hydr. locking control (5) / 1x run out short stroke piston (6).

#### On request:

- Installation diagrams

#### Dimensions:

Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	T
420919	K23	129	32	99	70	30	115	40

CAD



Subject to technical alterations.



## „TURBINE“ HIGH-END CLAMPING MODULE FOR FULL AUTOMATION

This high-end clamping module is used for optimised tool clamping times in fully automatic processing centres with pallet changing systems or robot loading.

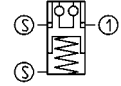
- > Turbine blow-off of the hardened support and housing surface
- > Pneumatic support control
- > Hydraulic unlocking control
- > Hydraulic lifting of the pallet (6 mm) after opening of the clamping module
- > Material: stainless steel
- > Hardened support surface on the connection fitting with defined, measurable height



No. 6104L

## Clamping module with sensor monitor and mounting flange

Pneumatic opening.  
 Opening operating pressure: min. 5 bar - max. 12 bar  
 Cover and piston hardened.  
 Flange housing: Aluminium  
 Repeat accuracy < 0.005 mm.



**NEW!**

Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[Kg]
552967	K10.3	10	25	2,6
552968	K20.3	17	55	5,0

### Application:

Zero point clamping system for automation solutions for time-optimised clamping during cutting and non-cutting machining in all sectors, as well as in the food, pharmaceutical and chemical industries.

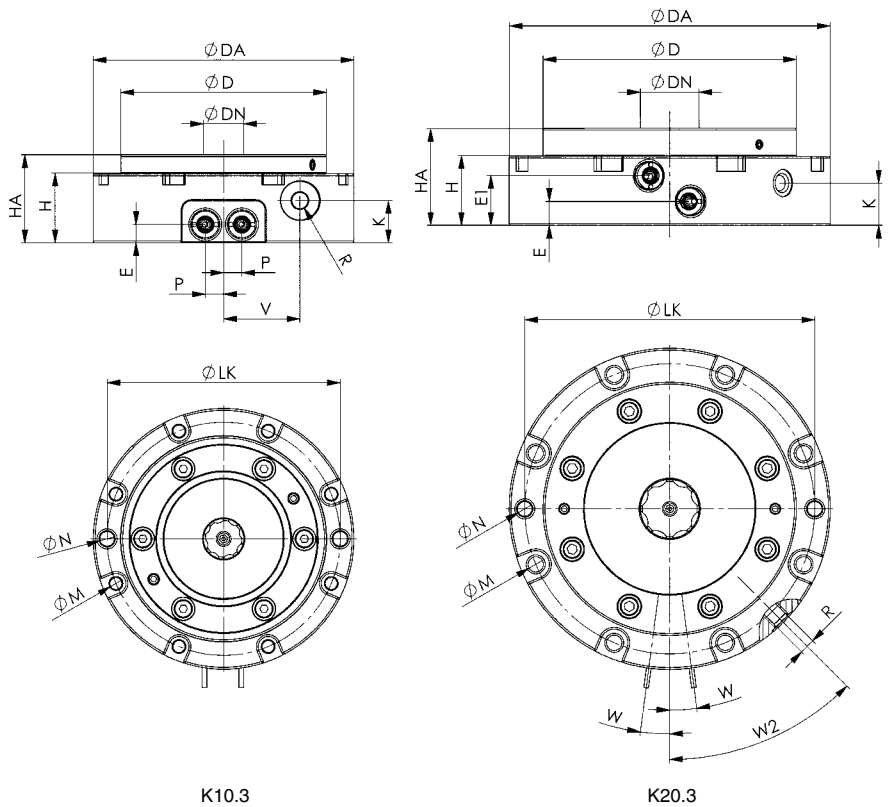
### Note:

The clamping module has two inductive sensors (connection type: connector S8, cable length 150 mm) for the status check (opened / locked). This is opened pneumatically (1) and mechanically locked through spring force. The pressure line can be subsequently decoupled at any time (module is clamped depressurised).

The clamping module has one connection: 1 x pneum. opening (1).

### On request:

- Installation diagrams
- Further automation options



### Dimensions:

Order no.	Size	dia. DA	dia. D	dia. DN	E	E1	H	HA	K	dia. LK	dia. M	dia. N H7	P	R	V	W	W2
552967	K10.3	142	112	22	10	-	38	48	23	127	6,6	8	10	G1/8	41,5	-	-
552968	K20.3	175	138	32	13	27	38	53	23	158	8,4	8	-	G1/8	-	7,5°	45°

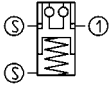


Subject to technical alterations.

## No. 6105L

### Clamping module with sensor monitor and nipple sensing

Pneumatic opening.  
 Opening operating pressure: min. 5 bar - max. 12 bar  
 Cover and piston hardened.  
 Flange housing: Aluminium  
 Repeat accuracy < 0.005 mm.



**NEW!**



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[Kg]
552969	K10.3	10	25	2.6

#### Application:

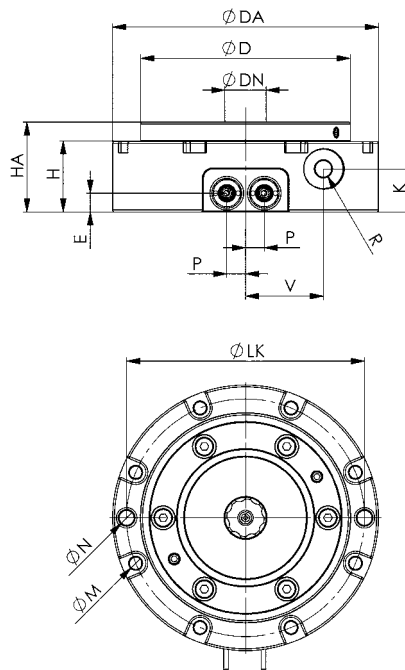
Zero point clamping system for automation solutions for time-optimised clamping during cutting and non-cutting machining in all sectors, as well as in the food, pharmaceutical and chemical industries.

#### Note:

The clamping module has two inductive sensors (connection type: connector S8, cable length 150 mm) for the status check for opened/locked and the presence of the clamping nipple. This is pneumatically opened (1) and mechanically locked by spring force. The pressure line can be subsequently decoupled at any time (module is clamped depressurised). The clamping module has one connection: 1 x pneum. opening (1).

#### On request:

- Installation diagrams
- Further automation options



#### Dimensions:

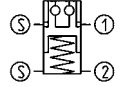
Order no.	Size	dia. DA	dia. D	dia. DN	E	H	HA	K	dia. LK	dia. M	dia. N H7	P	R	V
552969	K10.3	142	112	22	10	38	48	23	127	6,6	8	10	G1/8	41,5



No. 6106L

## Clamping module with sensor monitor and nipple sensing

Pneumatic opening.  
 Opening operating pressure: min. 8 bar - max. 12 bar  
 Re-clamping operating pressure: min. 5 bar - max. 6 bar  
 Cover and piston hardened.  
 Flange housing: Aluminium  
 Repeat accuracy < 0.005 mm.



**NEW!**

Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[Kg]
552966	K10	8	25	1,0

### Application:

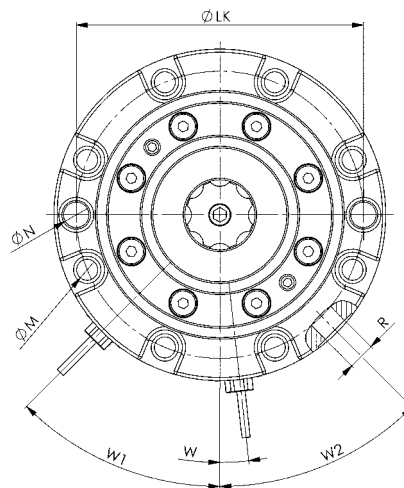
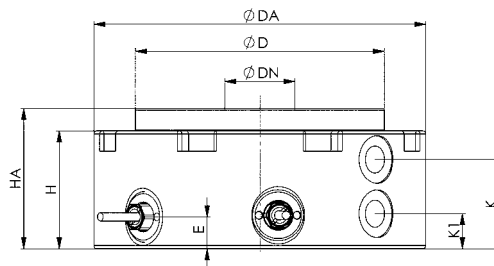
Zero point clamping system for automation solutions for time-optimised clamping during cutting and non-cutting machining in all sectors, as well as in the food, pharmaceutical and chemical industries.

### Note:

The clamping module has two inductive sensors (connection type: connector S8, cable length 150 mm) for the status check for opened/locked and the presence of the clamping nipple. This is pneumatically opened (1) and mechanically locked by spring force. The pressure line can be subsequently decoupled at any time (module is clamped depressurised).  
 The clamping module has two connections: 1 x pneum. opening (1) / 1 x pneum. re-clamping (turbo) (2).

### On request:

- Installation diagrams
- Further automation options



### Dimensions:

Order no.	Size	dia. DA	dia. D	dia. DN	E	H	HA	K	K1	dia. LK	dia. M	dia. N H7	R	W	W1	W2
552966	K10	104	78	22	10	37	44	28	11	90	6,6	8	G1/8	6,4°	45°	45°

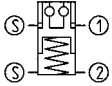


Subject to technical alterations.

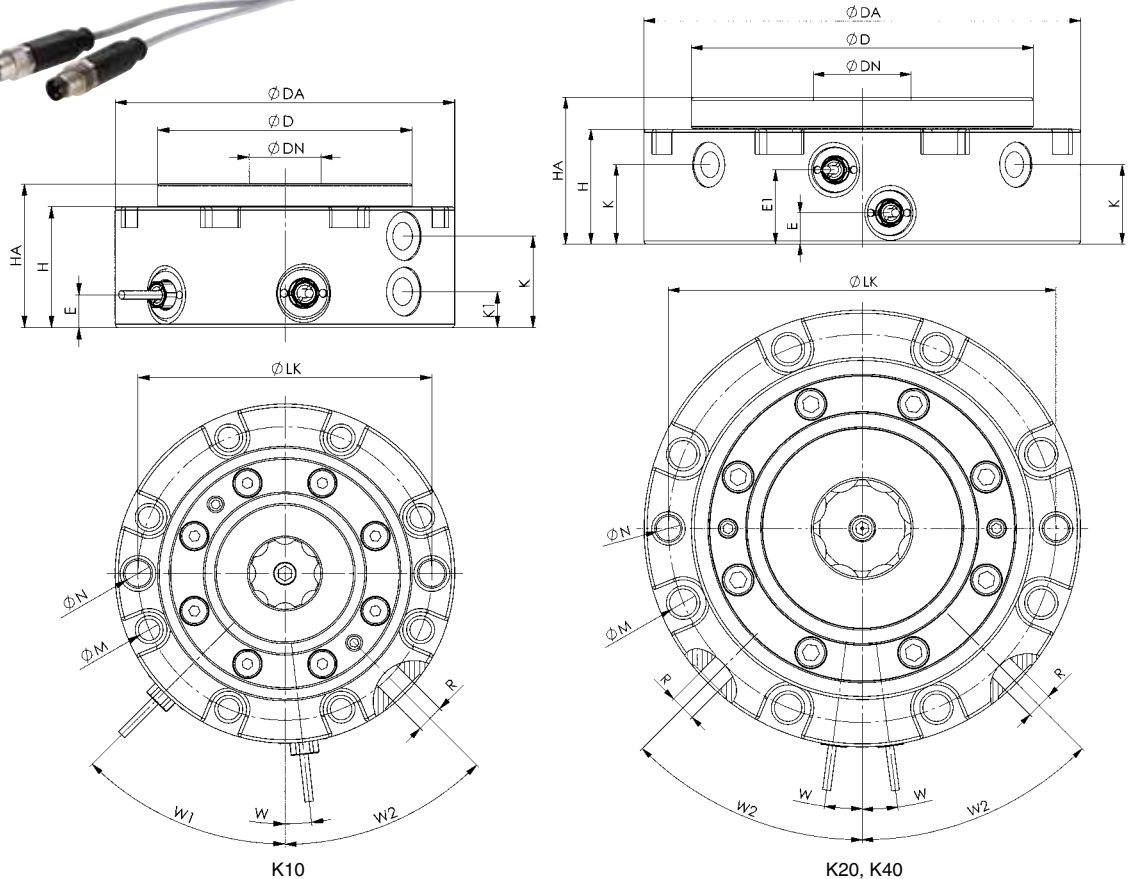
## No. 6101L

### Clamping module with sensor monitor and mounting flange

Pneumatic opening.  
 Opening operating pressure: min. 8 bar - max. 12 bar  
 Retensioning operating pressure (turbo): min. 5 bar - max. 6 bar  
 Cover and piston hardened.  
 Repeatability < 0.005 mm.



**NEW!**



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[Kg]
552963	K10	8	25	2,4
552964	K20	17	55	6,9
552965	K40	30	105	11,0

### Application:

Zero-point clamping system for automation solutions for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

### Note:

The installation clamping module with sensor monitor contains 2 inductive sensors (connection type: S8 plug, cable length: 150 mm) for condition control (open / locked). This is pneumatically opened (1) and mechanically locked through spring force. To achieve the specified pull-in and locking forces, it must be briefly retensioned pneumatically (turbo) (2). Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free).

Use of the pneumatic pressure intensifier 6370ZVL is recommended.

Clamping module has two connections: 1x pneum. opening (1) / 1x pneum. retensioning (turbo) (2).

### On request:

- Installation diagrams
- Further automation options

### Dimensions:

Order no.	Size	dia. DA	dia. D	dia. DN	E	E1	H	HA	K	K1	dia. LK	dia. M	dia. N H7	R	W	W1	W2
552963	K10	104	78	22	10,0	-	37	44	28	11	90	6,6	8	G1/8	6,4°	45°	45°
552964	K20	143	112	32	10,0	24	38	48	26	-	127	9,0	8	G1/8	7,5°	-	45°
552965	K40	188	148	40	13,6	31	47	62	32	-	168	11,0	10	G1/8	5,0°	-	45°



## No. 6203S4L-001

### 4-point clamping station

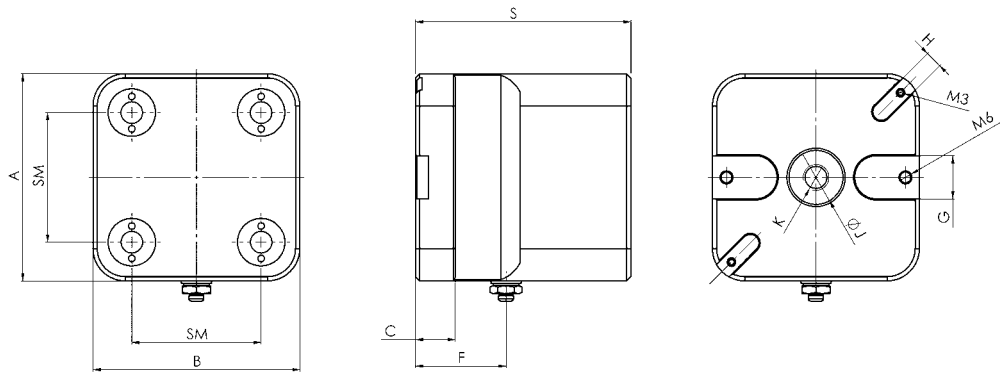
Main body: Aluminium, anodised  
Repeat accuracy <0.02 mm



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[N]	[N]	[g]
533034	K02	4 x 235	4 x 6000	2400

#### Design:

Pneumatic 4-point clamping station with air gun valve for quick opening and closing via air gun. The clamping station has two clamping grooves on the side for fastening to the machine table. In addition, positioning grooves for aligning on the machine table are made on the underside. The holder for a K20 clamping nipple is also provided.



#### Dimensions:

Order no.	Size	A	B	C	F	G	H	dia. J	K	S	SM
533034	K02	96	96	15	42	20	8	25	M12	100	60



## No. 6203PS4-001

### Interchangeable pallet

High-strength aluminium, anodised



Order no.	Size	A	B	S	SM	Weight [g]
533059	K02	98	98	20	60	530

#### Design:

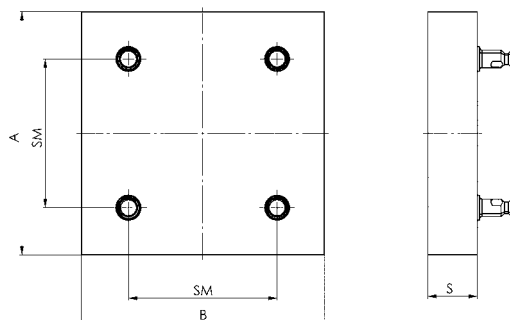
Interchangeable pallet for 4-point clamping station K02 with 4 clamping nipples.

#### Note:

On request, we can incorporate mounting holes according to your specifications in the change pallet.

#### On request:

Further dimensions, actual dimensions and number of clamping nipple tips.

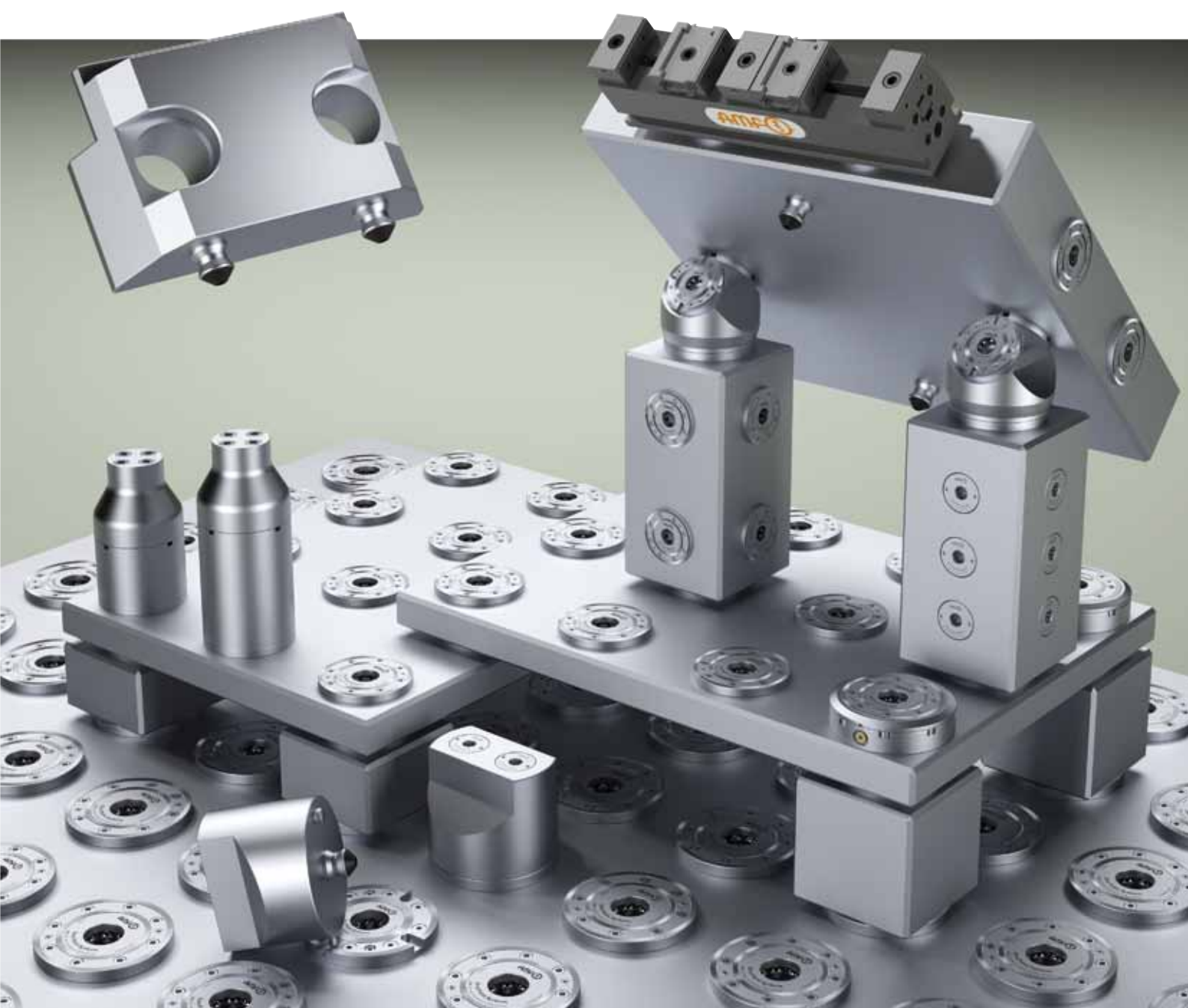


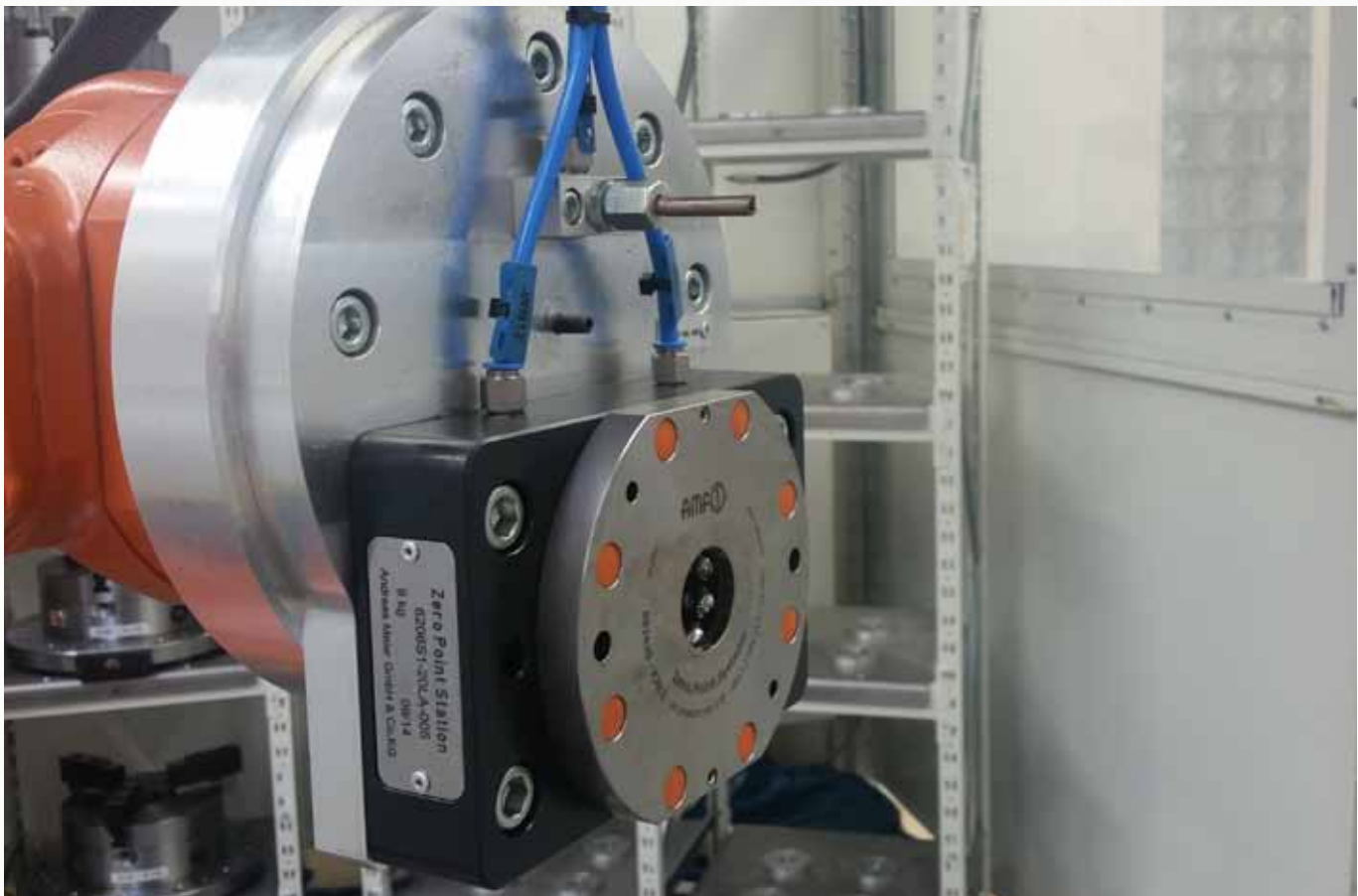
Subject to technical alterations.



## **FLEXIBLE SYSTEM** - THE ZERO-POINT-SYSTEM ADAPTS PERFECTLY TO YOUR REQUIREMENTS

- > Differing AMF clamping modules from  $\varnothing 22$  to  $\varnothing 148$  mm can be used in combination.
- > Smallest depth gauges from 23 mm are realised simply, flexibly and quickly.
- > Thanks to the innumerable possible combinations between differently sized clamping modules and nipples, direct workpiece clamping is straightforward and specific.





Subject to technical alterations.



## No. 6204S2HA-001

### Double clamping station

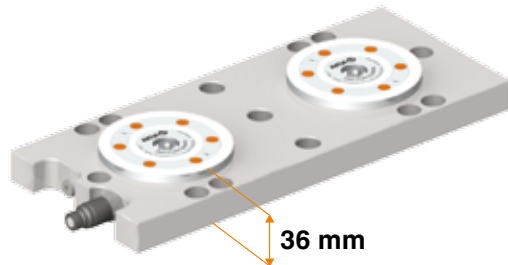
Hydraulic unlocking.

Pneumatic blow-out.

Clamping modules' contact surface: Steel, stainless and hardened.

Base plate: Steel, unhardened.

Repetition accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
427484	K10.2	2 x 10	2 x 25	●	14

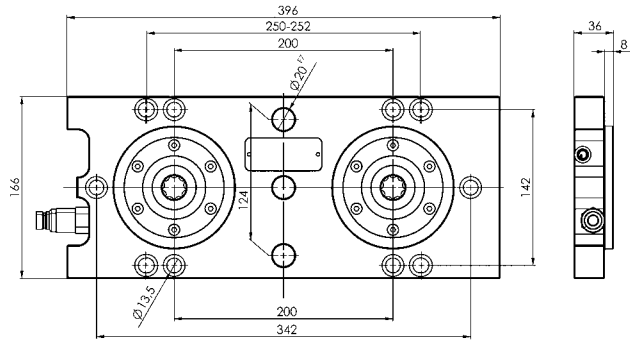
### Design:

Hydraulic clamping station for optimised clamping times on machine tables with distance between slots of 63, 100 and 125 mm. Clamping is with M12 socket head screws. At least two fitting holes are attached for alignment.

The insertion dimension of the clamping modules is 200 mm. The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.

### Advantage:

Low overall height of only 36 mm.



CAD



## No. 6204S4HA-001

### Quadruple clamping station

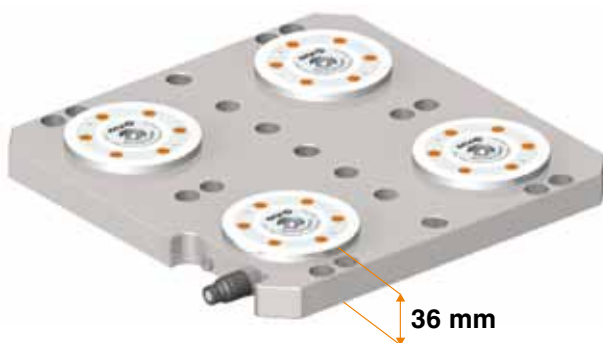
Hydraulic unlocking.

Pneumatic blow-out.

Clamping modules' contact surface: Steel, stainless and hardened.

Base plate: Steel, unhardened.

Repetition accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
427500	K10.2	4 x 10	4 x 25	●	30

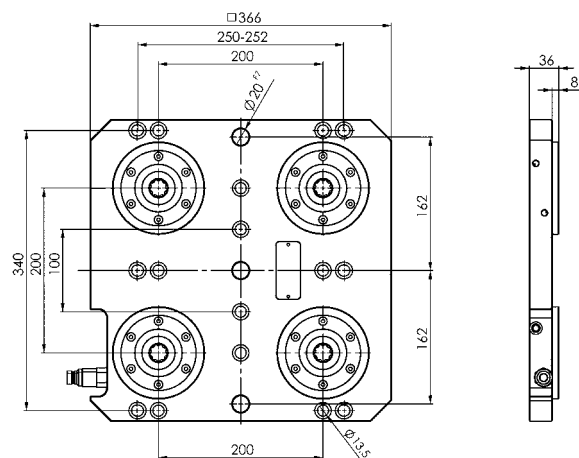
### Design:

Hydraulic clamping station for optimised clamping times on machine tables with distance between slots of 63, 100 and 125 mm. Clamping is with M12 socket head screws. At least two fitting holes are attached for alignment.

The insertion dimension of the clamping modules is 200 mm. The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.

### Advantage:

Low overall height of only 36 mm.



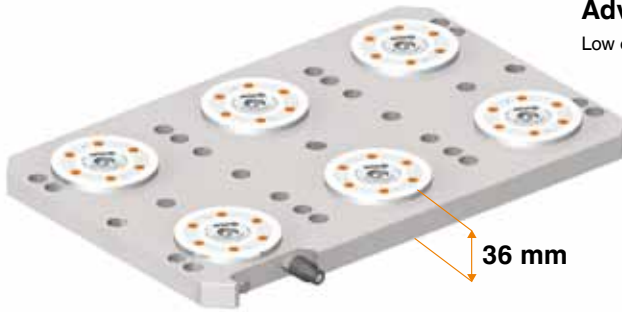
CAD



## No. 6204S6HA-001

### Sextuple clamping station

Hydraulic unlocking.  
Pneumatic blow-out.  
Clamping modules' contact surface: Steel, stainless and hardened.  
Base plate: Steel, unhardened.  
Repetition accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
427526	K10.2	6 x 10	6 x 25	●	46

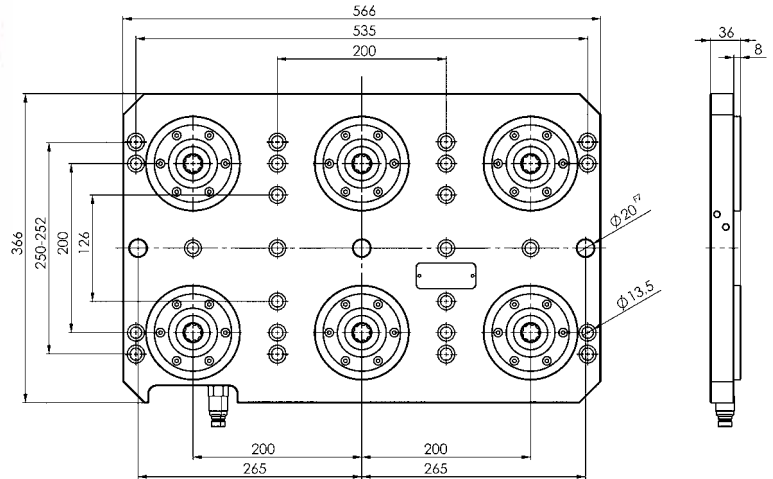
#### Design:

Hydraulic clamping station for optimised clamping times on machine tables with distance between slots of 63, 100 and 125 mm. Clamping is with M12 socket head screws. At least two fitting holes are attached for alignment.

The insertion dimension of the clamping modules is 200 mm. The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.

#### Advantage:

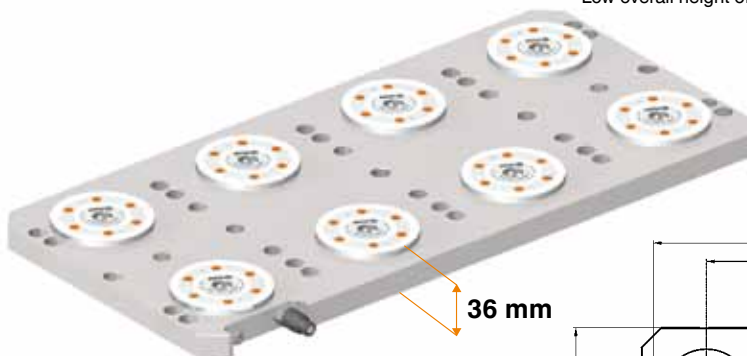
Low overall height of only 36 mm.



## No. 6204S8HA-001

### 8-fold clamping station

Hydraulic unlocking.  
Pneumatic blow-out.  
Clamping modules' contact surface: Steel, stainless and hardened.  
Base plate: Steel, unhardened.  
Repetition accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
427542	K10.2	8 x 10	8 x 25	●	63

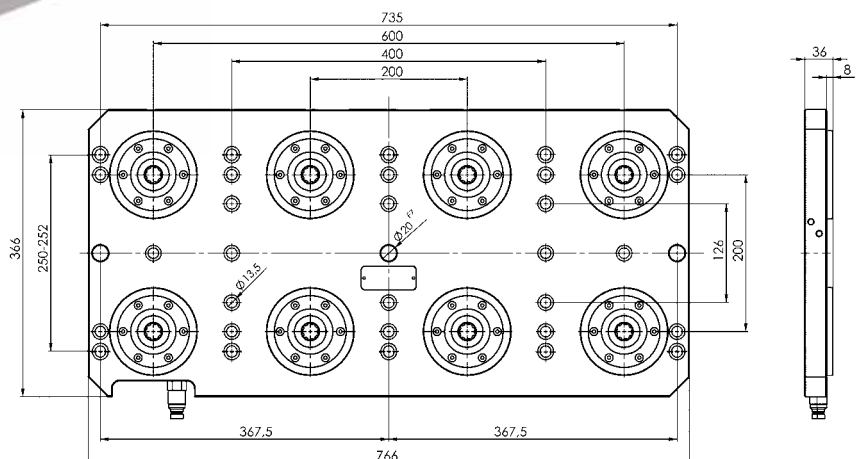
#### Design:

Hydraulic clamping station for optimised clamping times on machine tables with distance between slots of 63, 100 and 125 mm. Clamping is with M12 socket head screws. At least two fitting holes are attached for alignment.

The insertion dimension of the clamping modules is 200 mm. The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.

#### Advantage:

Low overall height of only 36 mm.



Subject to technical alterations.

## No. 6204S4HA-002

### Quadruple clamping station

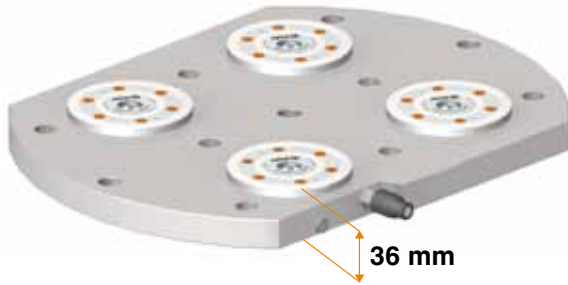
Hydraulic unlocking.

Pneumatic blow-out.

Clamping modules' contact surface: Steel, stainless and hardened.

Base plate: Steel, unhardened.

Repetition accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
427492	K10.2	4 x 10	4 x 25	●	37

#### Design:

Hydraulic clamping station for optimised clamping times on machine tables with distance between slots of 63 mm. Clamping is with M12 socket head screws. At least two fitting holes are attached for alignment.

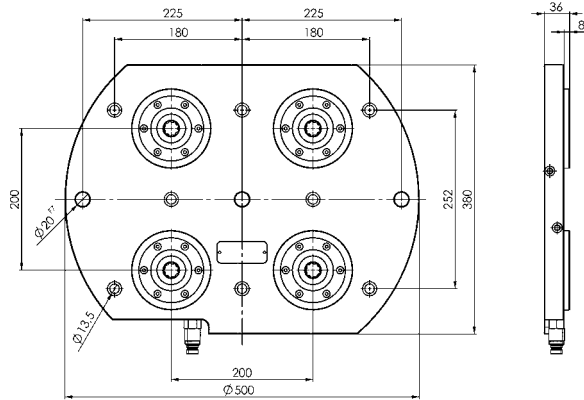
The insertion dimension of the clamping modules is 200 mm. The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.

#### Application:

e.g. for DMG / DMU 50 EVO

#### Advantage:

Low overall height of only 36 mm.



CAD



## No. 6204S4HA-003

### Quadruple clamping station

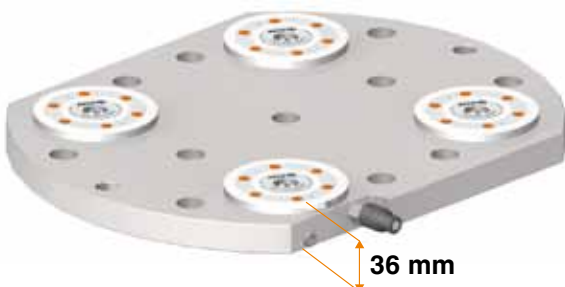
Hydraulic unlocking.

Pneumatic blow-out.

Clamping modules' contact surface: Steel, stainless and hardened.

Base plate: Steel, unhardened.

Repetition accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Blow out	Weight
		[kN]	[kN]		[Kg]
427518	K10.2	4 x 10	4 x 25	●	38

#### Design:

Hydraulic clamping station for optimised clamping times on machine tables with distance between slots of 80 mm. Clamping is with M16 socket head screws. At least two fitting holes are attached for alignment.

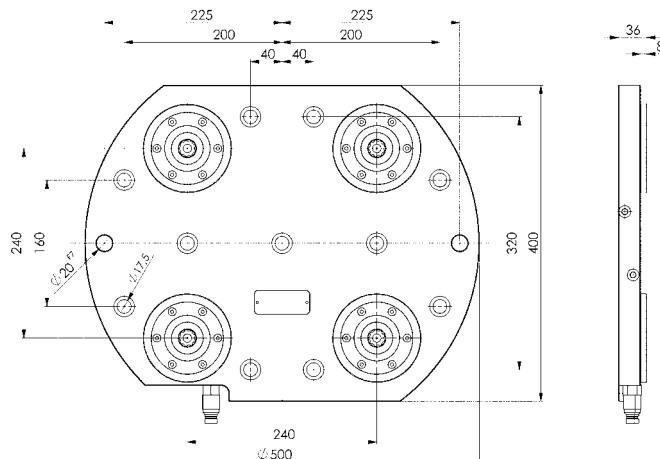
The insertion dimension of the clamping modules is 240 mm. The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.

#### Application:

e.g. for Mazak Variaxis 500

#### Advantage:

Low overall height of only 36 mm.



CAD



Subject to technical alterations.

## No. 6204S6HA-002

### Sextuple clamping station

Hydraulic unlocking.  
Pneumatic blow-out.  
Clamping modules' contact surface: Steel, stainless and hardened.  
Base plate: Steel, unhardened.  
Repetition accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
427534	K10.2	6 x 10	6 x 25	●	62

#### Design:

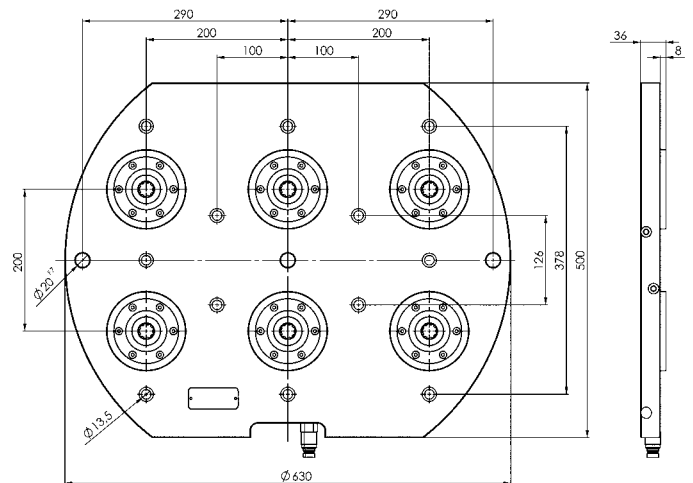
Hydraulic clamping station for optimised clamping times on machine tables with distance between slots of 63 mm. Clamping is with M12 socket head screws. At least two fitting holes are attached for alignment.  
The insertion dimension of the clamping modules is 200 mm. The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.

#### Application:

e.g. for DMG / DMU 50

#### Advantage:

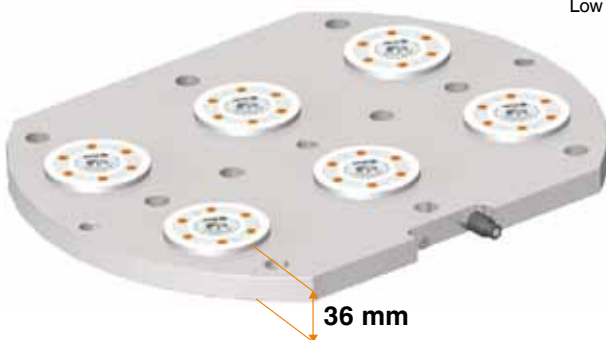
Low overall height of only 36 mm.



## No. 6204S6HA-003

### Sextuple clamping station

Hydraulic unlocking.  
Pneumatic blow-out.  
Clamping modules' contact surface: Steel, stainless and hardened.  
Base plate: Steel, unhardened.  
Repetition accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
427559	K10.2	6 x 10	6 x 25	●	62

#### Design:

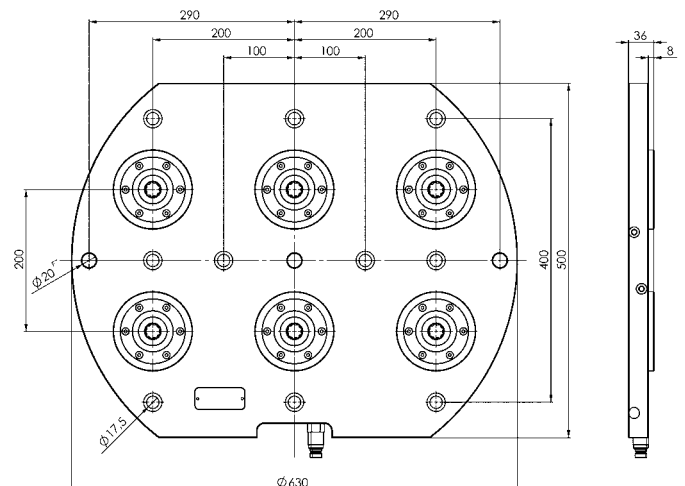
Hydraulic clamping station for optimised clamping times on machine tables with distance between slots of 100 mm. Clamping is with M16 socket head screws. At least two fitting holes are attached for alignment.  
The insertion dimension of the clamping modules is 200 mm. The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.

#### Application:

e.g. for Mazak Variaxis 630

#### Advantage:

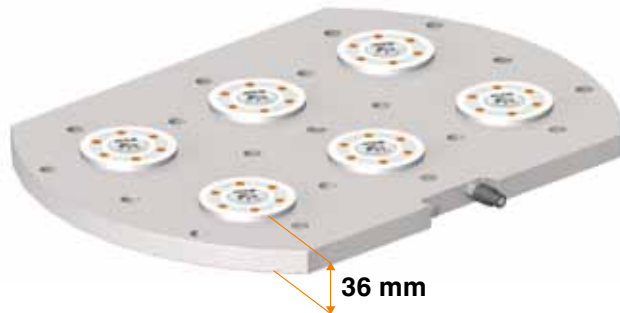
Low overall height of only 36 mm.



## No. 6204S6HA-004

### Sextuple clamping station

Hydraulic unlocking.  
Pneumatic blow-out.  
Clamping modules' contact surface: Steel, stainless and hardened.  
Base plate: Steel, unhardened.  
Repetition accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
427567	K10.2	6 x 10	6 x 25	●	62

#### Design:

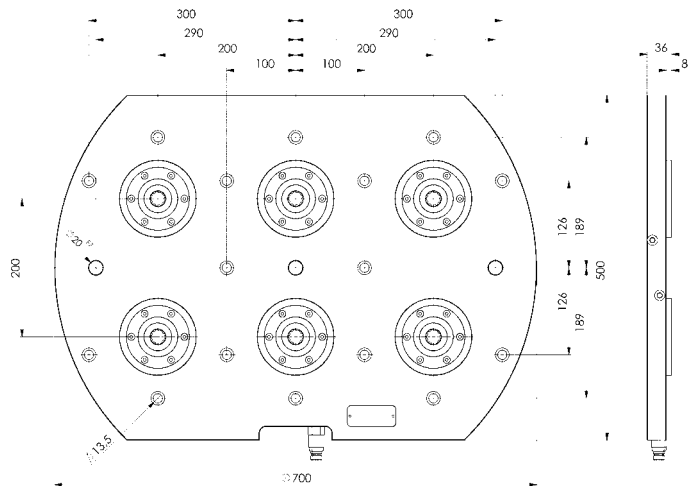
Hydraulic clamping station for optimised clamping times on machine tables with distance between slots of 63 mm. Clamping is with M12 socket head screws. At least two fitting holes are attached for alignment.  
The insertion dimension of the clamping modules is 200 mm. The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.

#### Application:

e.g. for DMG / DMU 70 EVO

#### Advantage:

Low overall height of only 36 mm.



CAD



## No. 6204K2HA-015

### Double clamping bracket

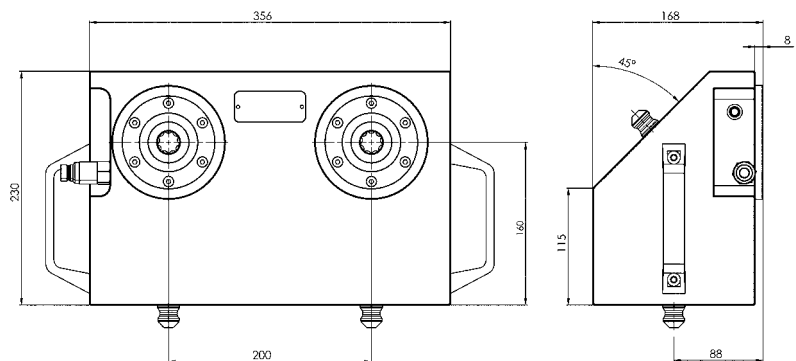
Hydraulic unlocking.  
Pneumatic blow-out.  
High-strength aluminium.  
Repeatability < 0.005 mm.



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
427591	K10.2	2 x 10	2 x 25	●	31

#### Design:

Hydraulic clamping bracket for optimised clamping times on K10.2 clamping stations. Bottom-mounted clamping nipple.  
The insertion dimension of the clamping modules is 200 mm. The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.



CAD



Subject to technical alterations.



## No. 6204K1HA-001

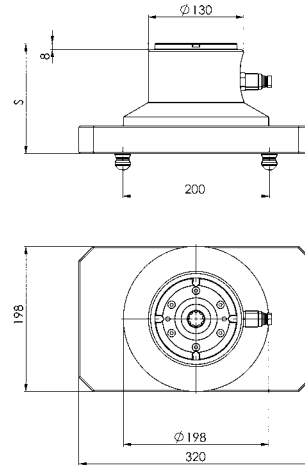
### Single clamping bracket

Hydraulic unlocking.  
 Pneumatic blow-out.  
 Clamping modules' contact surface: Steel, stainless and hardened.  
 Base plate: Steel, unhardened.  
 Repetition accuracy < 0.005 mm.

Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	S [mm]	Weight [Kg]
428060	K10.2	10	25	●	150	32
428086	K10.2	10	25	●	200	38
428102	K10.2	10	25	●	240	42

### Design:

Hydraulic clamping bracket for optimised clamping times on K10.2 clamping stations. Installation clamping module K10.2 with 4-way indexing. Bottom-mounted clamping nipple. The insertion dimension is 200 mm. The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.



## No. 6204K1HA-004

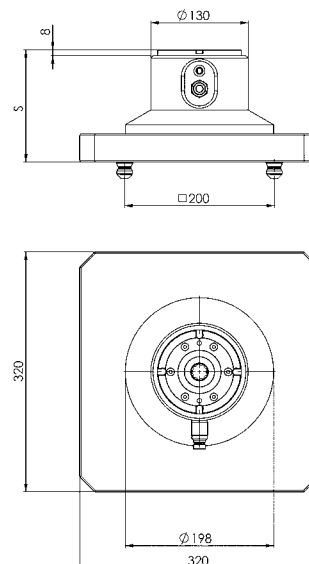
### Single clamping bracket

Hydraulic unlocking.  
 Pneumatic blow-out.  
 Clamping modules' contact surface: Steel, stainless and hardened.  
 Base plate: Steel, unhardened.  
 Repetition accuracy < 0.005 mm.

Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	S [mm]	Weight [Kg]
428128	K10.2	10	25	●	150	45
428144	K10.2	10	25	●	200	50
428169	K10.2	10	25	●	240	54

### Design:

Hydraulic clamping bracket for optimised clamping times on K10.2 clamping stations. Installation clamping module K10.2 with 4-way indexing. Bottom-mounted clamping nipple. The insertion dimension is 200 mm. The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.



## No. 6204K2HA-011

### Double clamping bracket

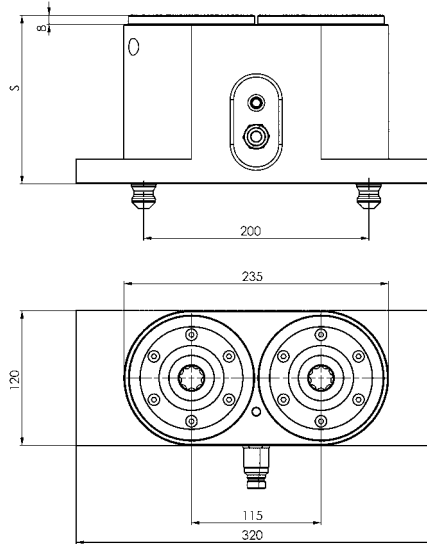
Hydraulic unlocking.  
 Pneumatic blow-out.  
 Clamping modules' contact surface: Steel, stainless and hardened.  
 Base plate: Steel, unhardened.  
 Repetition accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	S [mm]	Weight [Kg]
427864	K10.2	2 x 10	2 x 25	●	150	31
427880	K10.2	2 x 10	2 x 25	●	180	37

### Design:

Hydraulic clamping bracket for optimised clamping times on K10.2 clamping stations. Bottom-mounted clamping nipple.  
 The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.



## No. 6204K2HA-013

### Double clamping bracket

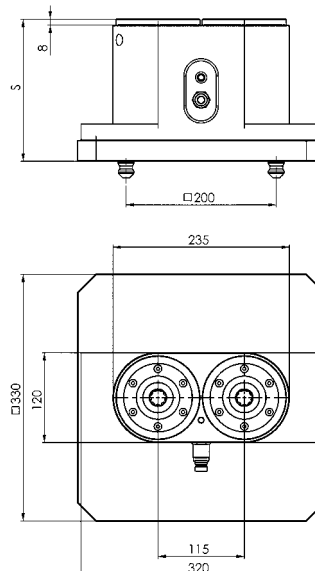
Hydraulic unlocking.  
 Pneumatic blow-out.  
 Clamping modules' contact surface: Steel, stainless and hardened.  
 Base plate: Steel, unhardened.  
 Repetition accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	S [mm]	Weight [Kg]
427906	K10.2	2 x 10	2 x 25	●	190	57
427575	K10.2	2 x 10	2 x 25	●	220	63

### Design:

Hydraulic clamping bracket for optimised clamping times on K10.2 clamping stations. Bottom-mounted clamping nipple.  
 The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.



## No. 6204K2HA-001

### Double clamping bracket

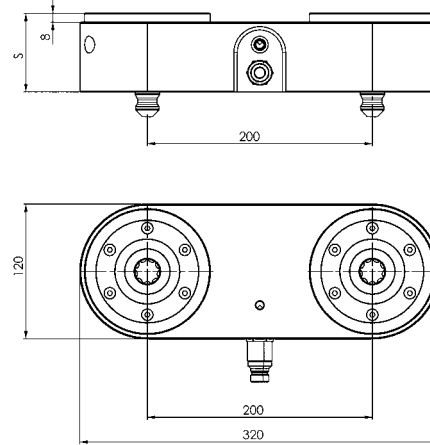
Hydraulic unlocking.  
Pneumatic blow-out.  
Clamping modules' contact surface: Steel, stainless and hardened.  
Base plate: Steel, unhardened.  
Repetition accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	S [mm]	Weight [Kg]
427666	K10.2	2 x 10	2 x 25	●	70	18
427682	K10.2	2 x 10	2 x 25	●	100	26
427708	K10.2	2 x 10	2 x 25	●	120	31
427724	K10.2	2 x 10	2 x 25	●	160	42
427740	K10.2	2 x 10	2 x 25	●	200	54

### Design:

Hydraulic clamping bracket for optimised clamping times on K10.2 clamping stations. Bottom-mounted clamping nipple.  
The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.



## No. 6204K2HA-006

### Double clamping bracket

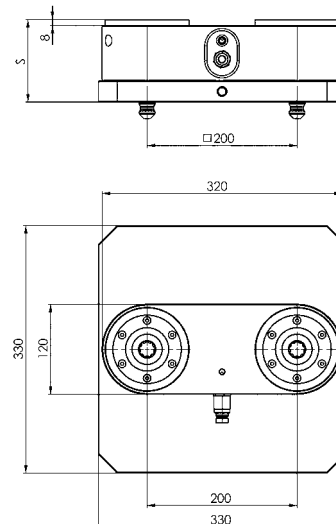
Hydraulic unlocking.  
Pneumatic blow-out.  
Clamping modules' contact surface: Steel, stainless and hardened.  
Base plate: Steel, unhardened.  
Repetition accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	S [mm]	Weight [Kg]
427765	K10.2	2 x 10	2 x 25	●	110	45
427781	K10.2	2 x 10	2 x 25	●	140	53
427807	K10.2	2 x 10	2 x 25	●	160	58
427823	K10.2	2 x 10	2 x 25	●	200	69
427849	K10.2	2 x 10	2 x 25	●	240	81

### Design:

Hydraulic clamping bracket for optimised clamping times on K10.2 clamping stations. Bottom-mounted clamping nipple.  
The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.



## No. 6204S6HA-008

### Sextuple clamping station

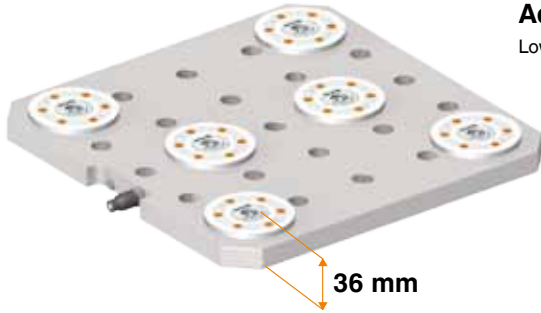
Hydraulic unlocking.

Pneumatic blow-out.

Clamping modules' contact surface: Steel, stainless and hardened.

Base plate: Steel, unhardened.

Repetition accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
427625	K10.2	6x10	6x25	●	55

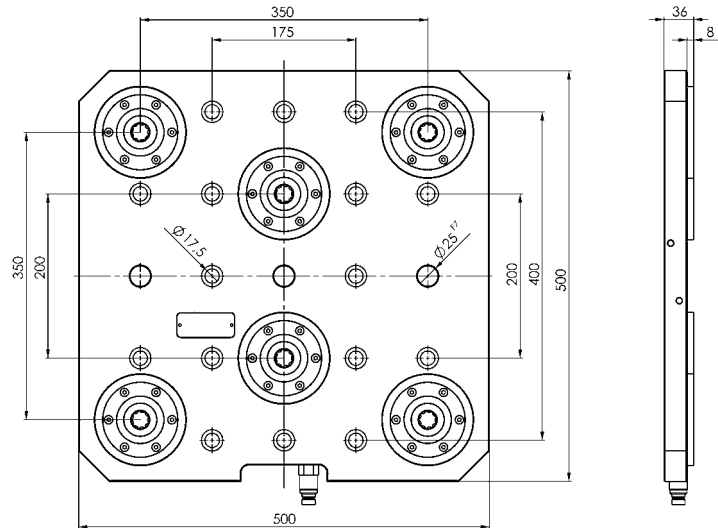
#### Design:

Hydraulic clamping station for optimised clamping times on machine tables with distance between slots of 100 mm. Clamping is with M16 socket head screws. At least two fitting holes are attached for alignment.

The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.

#### Advantage:

Low overall height of only 36 mm.



## No. 6204WU12HA-001

### 12-fold clamping cube

Hydraulic unlocking.

Pneumatic blow-out.

Clamping modules' contact surface: Steel, stainless and hardened.

Base plate: Steel, unhardened.

Repetition accuracy < 0.005 mm.

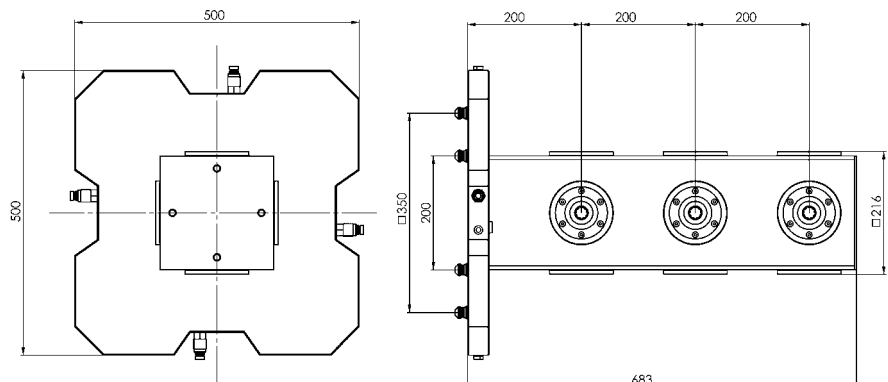


Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
427641	K10.2	12x10	12x25	●	210

#### Design:

Hydraulic clamping cube for set-up-time-optimized clamping on clamping station 6204S6HA-008. It is fastened with the clamping nipple below.

The insertion dimension of the clamping modules is 200 mm. The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.



Subject to technical alterations.



## No. 6206S2L

### Double clamping station

Pneumatic unlocking.  
Opening operating pressure:  
K10.3 min. 5 bar  
K20.3 min. 4.5 bar  
Steel, unhardened.  
Repeat accuracy <0.005 mm.



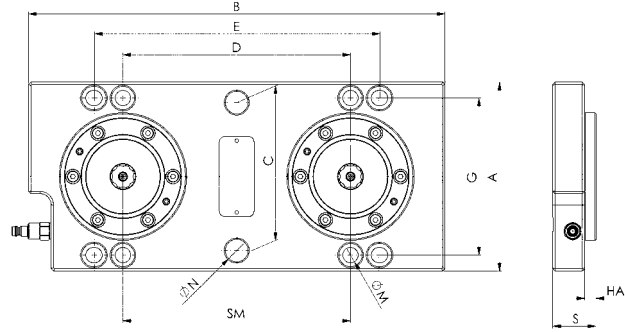
Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[Kg]
550249	K10.3	2 x 10	2 x 25	13
550254	K20.3	2 x 17	2 x 55	24

### Design:

Pneumatic clamping station for setting time-optimised clamping on machine tables with groove spacing of 63, 100 and 125 mm. Fastening is via M12 socket head screws. At least two fitting bores are attached for alignment.  
The insertion dimension of the clamping modules is 200 mm.  
The pneumatic quick-coupler is premounted.

### Advantage:

- Low overall height



### Dimensions:

Order no.	Size	A	B	C	D	E	G	HA	dia. N	dia. M	S	SM
550249	K10.3	166	366	133	200	250 - 252	138	10	20	13,5	38	200
550254	K20.3	196	366	160	200	250 - 252	165	15	20	13,5	53	200

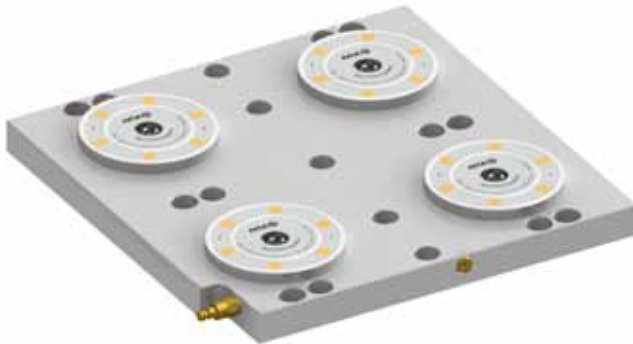
CAD



## No. 6206S4L

### Quadruple clamping station

Pneumatic unlocking.  
Opening operating pressure:  
K10.3 min. 5 bar  
K20.3 min. 4.5 bar  
Steel, unhardened.  
Repeat accuracy <0.005 mm.



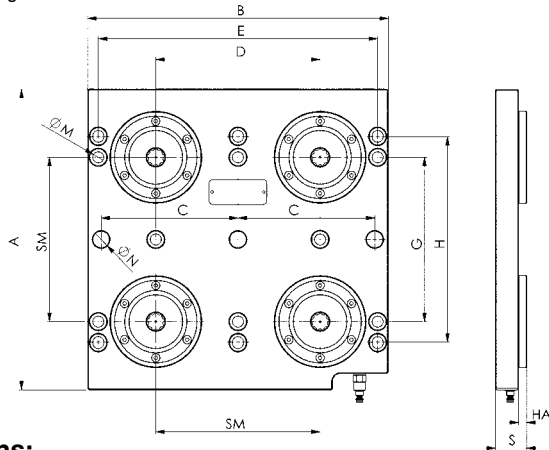
Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[Kg]
550251	K10.3	4 x 10	4 x 25	30
550255	K20.3	4 x 17	4 x 55	51

### Design:

Pneumatic clamping station for setting time-optimised clamping on machine tables with groove spacing of 63, 100 and 125 mm. Fastening is via M12 socket head screws. At least two fitting bores are attached for alignment.  
The insertion dimension of the clamping modules is 200 mm.  
The pneumatic quick-coupler is premounted.

### Advantage:

- Low overall height



### Dimensions:

Order no.	Size	A	B	C	D	E	G	H	HA	dia. N	dia. M	S	SM
550251	K10.3	366	366	166,5	200	340	200	250 - 252	10	20	13,5	38	200
550255	K20.3	399	399	183,5	200	370	200	250 - 252	15	20	13,5	53	200

CAD



Subject to technical alterations.

## No. 6206S6L

### Sextuple clamping station

Pneumatic unlocking.  
 Opening operating pressure:  
 K10.3 min. 5 bar  
 K20.3 min. 4.5 bar  
 Steel, unhardened.  
 Repeat accuracy <0.005 mm.

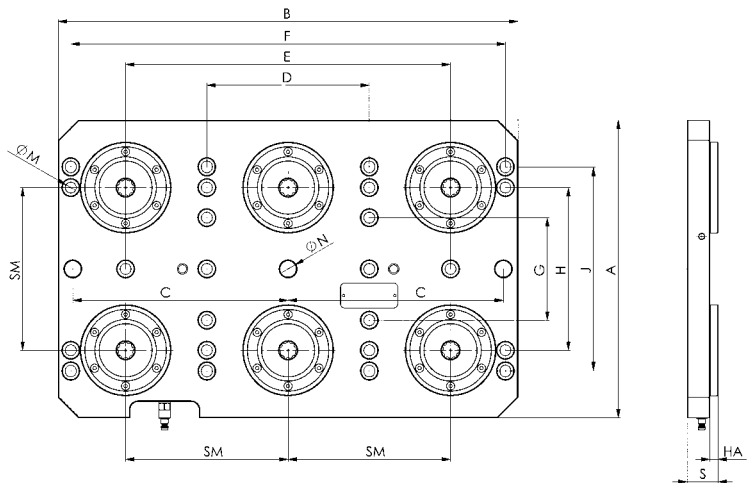
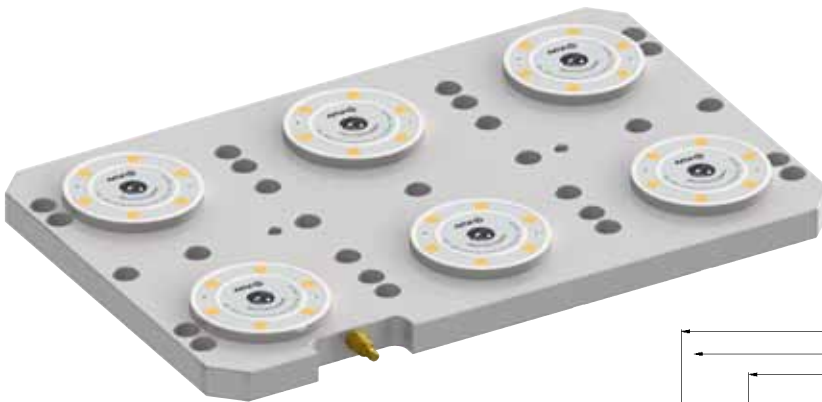
Order no.	Size	Pull-in/locking force up to	Holding force	Weight [Kg]
		[kN]	[kN]	
550252	K10.3	6 x 10	6 x 25	46
550256	K20.3	6 x 17	6 x 55	76

### Design:

Pneumatic clamping station for setting time-optimised clamping on machine tables with groove spacing of 63, 100 and 125 mm. Fastening is via M12 socket head screws. At least two fitting bores are attached for alignment.  
 The insertion dimension of the clamping modules is 200 mm.  
 The pneumatic quick-coupler is premounted.

### Advantage:

- Low overall height



### Dimensions:

Order no.	Size	A	B	C	D	E	F	G	H	HA	J	dia. N	dia. M	S	SM
550252	K10.3	366	566	265	200	400	535	126	200	10	250 - 252	20	13,5	38	200
550256	K20.3	396	596	265	200	400	565	126	200	15	250 - 252	20	13,5	53	200



## No. 6370S2-001

### Double clamping station

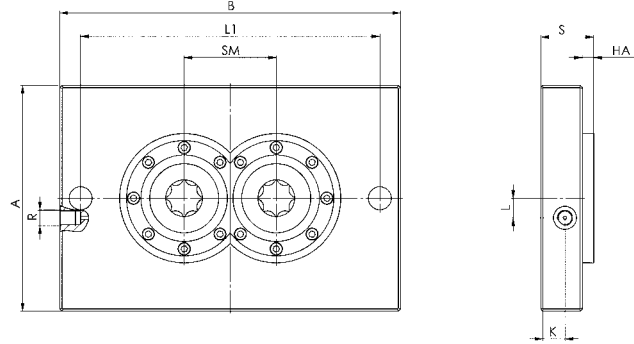
Hydraulic unlocking.  
Clamping modules' contact surface: Steel, stainless and hardened.  
Base plate: Steel, unhardened.  
Repetition accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[Kg]
303263	K20	2 x 20	2 x 55	16,5
303271	K40	2 x 40	2 x 105	32,0

#### Note:

On request, we can incorporate mounting holes to your requirements in the base plate.



#### Dimensions:

Order no.	Size	A	B	HA	K	L	L1	dia. N	R	S	SM
303263	K20	196	296	10	21	17	260	20	G1/4	46	80
303271	K40	246	346	15	30	21	300	25	G1/4	61	110



## No. 6370S2-002

### Double clamping station

Hydraulic unlocking.  
Clamping modules' contact surface: Steel, stainless and hardened.  
Base plate: Steel, unhardened.  
Repetition accuracy < 0.005 mm.



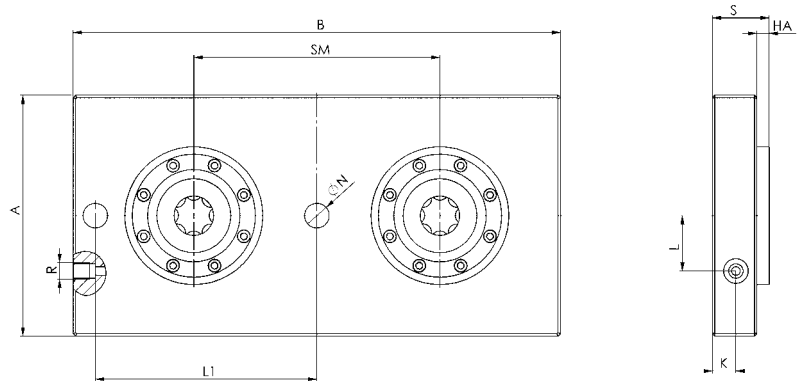
Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[Kg]
426726	K10	2 x 10	2 x 25	7,5
303289	K20	2 x 20	2 x 55	21,9
303297	K40	2 x 40	2 x 105	59,5

#### Note:

On request, we can incorporate mounting holes to your requirements in the base plate.

#### On request:

Other dimensions, insertion dimensions and number of clamping nipples equipped.



#### Dimensions:

Order no.	Size	A	B	HA	K	L	L1	dia. N	R	S	SM
426726	K10	146	240	7	14,5	35	100	20	G1/4	33	100
303289	K20	196	396	10	19,0	45	180	20	G1/4	46	200
303297	K40	296	546	15	26,0	57	250	25	G1/4	61	320

Subject to technical alterations.





## No. 6370S4-001

### Quadruple clamping station

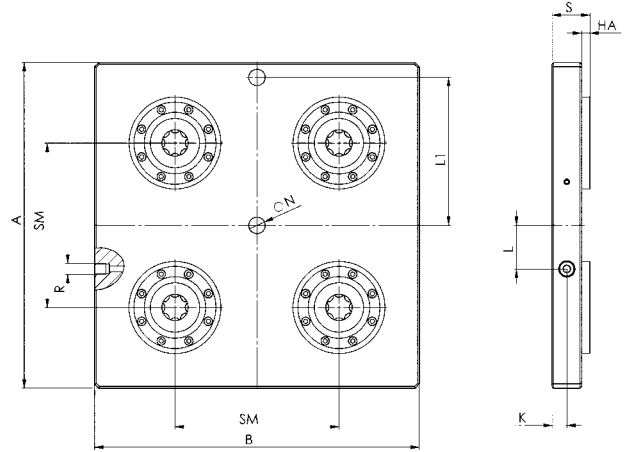
Hydraulic unlocking.  
Clamping modules' contact surface: Steel, stainless and hardened.  
Base plate: Steel, unhardened.  
Repetition accuracy < 0.005 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Weight [Kg]
		[kN]	[kN]	
426742	K10	4 x 10	4 x 25	12,5
303321	K20	4 x 20	4 x 55	44,0
303339	K40	4 x 40	4 x 105	110,0

#### Note:

On request, we can incorporate mounting holes to your requirements in the base plate.



#### Dimensions:

Order no.	Size	A	B	HA	K	L	L1	dia. N	R	S	SM
426742	K10	240	240	7	14,5	16	100	20	G1/4	33	100
303321	K20	395	395	10	19,0	50	180	20	G1/4	46	200
303339	K40	546	546	15	26,0	95	250	25	G1/4	61	320



## No. 6370S6-001

### Sextuple clamping station

Hydraulic unlocking.  
Clamping modules' contact surface: Steel, stainless and hardened.  
Base plate: Steel, unhardened.  
Repetition accuracy < 0.005 mm.



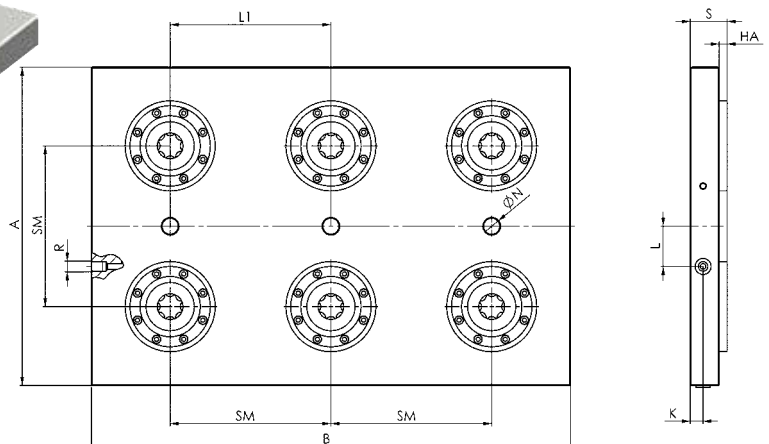
Order no.	Size	Pull-in/locking force up to	Holding force	Weight [Kg]
		[kN]	[kN]	
426734	K10	6 x 10	6 x 25	17,5
424119	K20	6 x 20	6 x 55	75,0
426759	K40	6 x 40	6 x 105	175,0

#### Note:

On request, we can incorporate mounting holes to your requirements in the base plate.

#### On request:

Other dimensions, insertion dimensions and number of clamping nipples equipped.



#### Dimensions:

Order no.	Size	A	B	HA	K	L	L1	dia. N	R	S	SM
426734	K10	240	340	7	14,5	84	100	20	G1/4	33	100
424119	K20	396	596	10	20,0	50	200	20	G1/4	46	200
426759	K40	546	846	15	24,0	96	320	20	G1/4	61	320



## No. 6211S4-20LA-03

### Quadruple clamping station

Pneumatic or hydraulic unlocking.  
Pneumatic blow-out.  
repetition accuracy < 0.005 mm.

Size	pneum.	hydr.	Pull-in/locking force up to [kN]	Holding force [kN]	Speed [1/min]
K20	-	●	4 x 20	4 x 55	2200
K20.3	●	-	4 x 17	4 x 55	2200

#### Application:

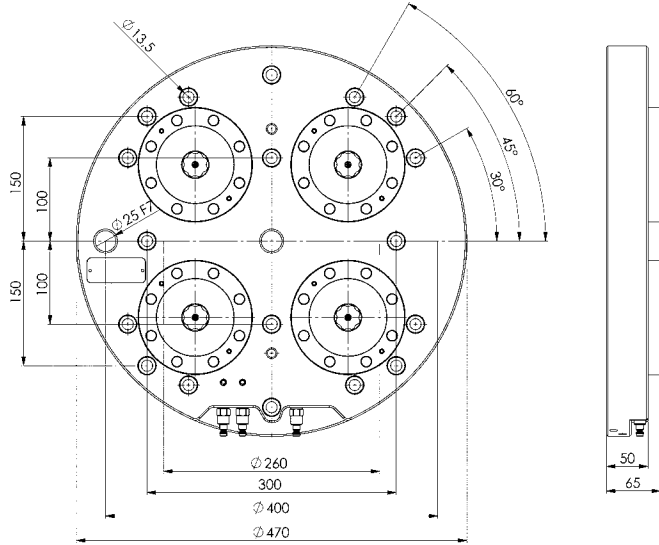
Pneumatic or hydraulic clamping station for setting time-optimised clamping for milling-turning machining.

#### Note:

Fastening to the machine table is via socket head screws.

#### On request:

Further dimensions, different pitch circles and number of modules.



CAD



## No. 6211P-20S4-03

### Fixture plate

Steel, unhardened, suitable for 4-point clamping station

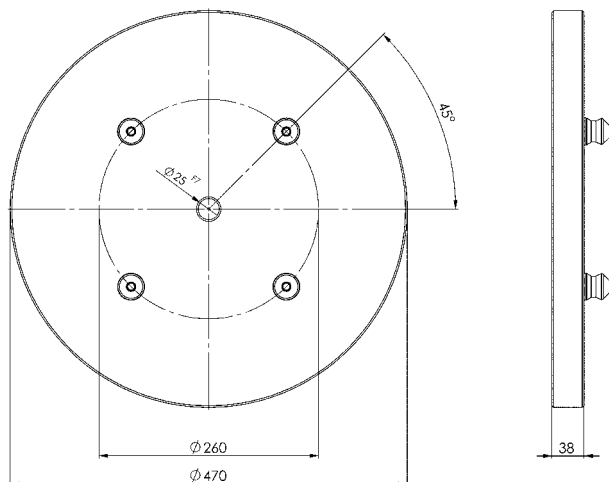
Size	pneum.	hydr.
K20	-	●
K20.3	●	-

#### Note:

The interchangeable pallet is designed for milling-turning machining and is suitable for clamping stations with 4 clamping modules K20 and K20.3, which are arranged on the 260 mm pitch circle.

#### On request:

Further dimensions, different pitch circles and number of clamping nipples.



CAD



Subject to technical alterations.

# OUR ZERO-POINT SYSTEM FOR YOUR MILLING-TURNING MACHINING - QUICK, PRECISE, DURABLE, SIMPLY CONVINCING!

## The benefits to you at a glance:

- > Connection for opening the clamping station via the media duct in the machine table or a side connection for manual actuation.
- > Opening pressure for unlocking the clamping modules just 4.5 bar.
- > Only one pneumatic connection required to open the clamping modules.
- > Locking via the self-locking and positive fit mechanism of the clamping modules.
- > Cylindrical clamping nipple mount - hence high precision and durability.





AMF-Clean-Stick in use: automated cleaning of clamping fixture and machine table.



Setup of clamping modules in combination with hydraulic clamping technology from AMF in cutting production.

## No. 6204P-S2

### Fixture plate

High-strength aluminium, suitable for double clamping station K10.2

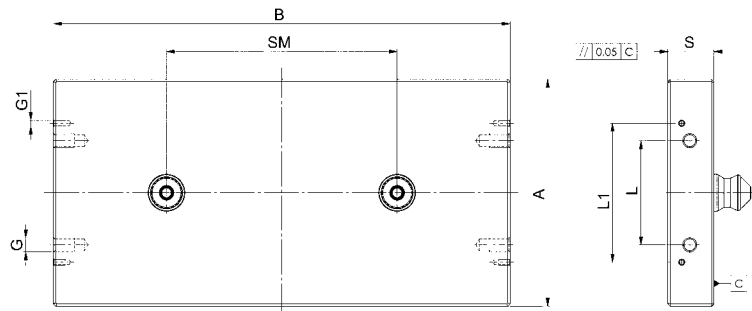
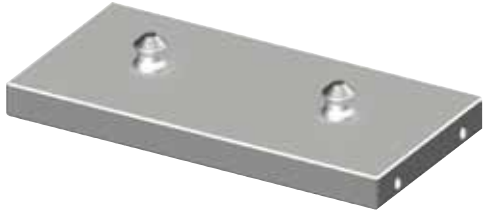
Order no.	Size	A	B	G	G1	L	L1	S	SM	Weight [Kg]
429266	K10.2	166	396	M12	M5	90	120	30	200	6

#### Note:

On request, we can incorporate mounting holes according to your specifications in the fixture plate.

#### On request:

Other dimensions, insertion dimensions and number of clamping nipples equipped.



## No. 6204P-S4

### Fixture plate

High-strength aluminium, suitable for quadruple clamping station K10.2

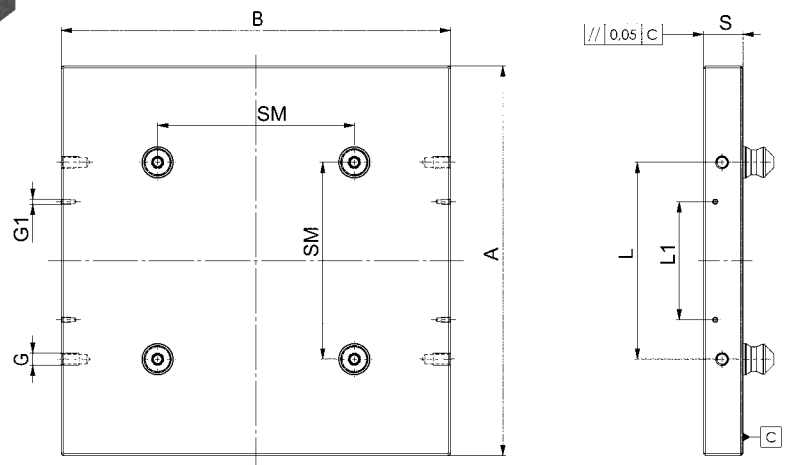
Order no.	Size	A	B	G	G1	L	L1	S	SM	Weight [Kg]
429282	K10.2	366	366	M12	M5	200	120	30	200	10

#### Note:

On request, we can incorporate mounting holes according to your specifications in the fixture plate.

#### On request:

Other dimensions, insertion dimensions and number of clamping nipples equipped.



## No. 6204P-S6

### Fixture plate

High-strength aluminium, suitable for sextuple clamping station K10.2

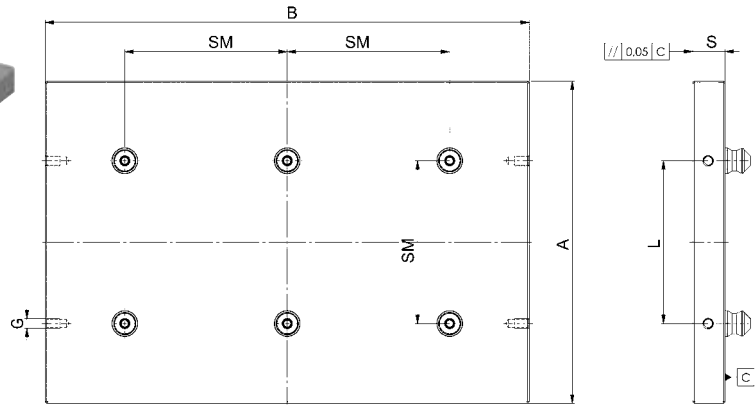
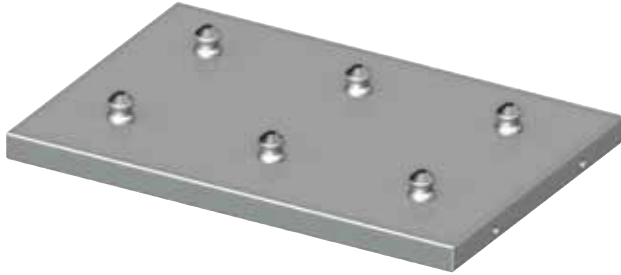
Order no.	Size	A	B	G	L	S	SM	Weight [Kg]
429308	K10.2	366	566	M12	200	30	200	16

#### Note:

On request, we can incorporate mounting holes according to your specifications in the fixture plate.

#### On request:

Other dimensions, insertion dimensions and number of clamping nipples equipped.



CAD



## No. 6204P-S8

### Fixture plate

High-strength aluminium, suitable for octuple clamping station K10.2

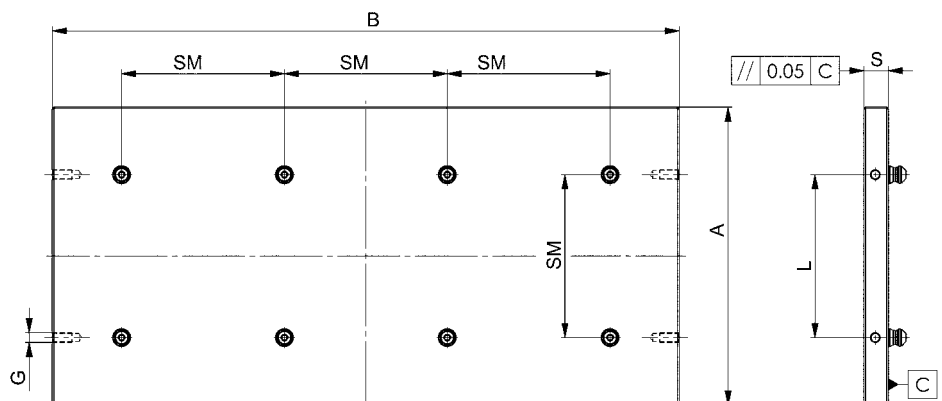
Order no.	Size	A	B	G	L	S	SM	Weight [Kg]
429324	K10.2	366	770	M12	200	30	200	22

#### Note:

On request, we can incorporate mounting holes according to your specifications in the fixture plate.

#### On request:

Other dimensions, insertion dimensions and number of clamping nipples equipped.



CAD



Subject to technical alterations.



- + Fully automatic cleaning of the fixture and the complete inside space of the machine
- + Removes from employees the burden of disliked and unproductive tasks



- + Economical marking of workpieces directly in the machine tool
- + Reduces throughput times of parts in production



## No. 6370P2

### Fixture plate

High-strength aluminium, suitable for double clamping station

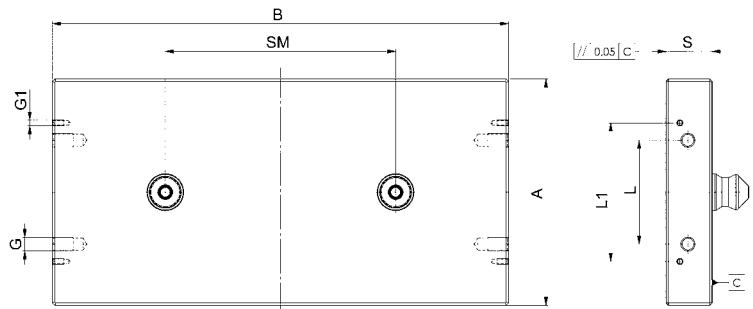
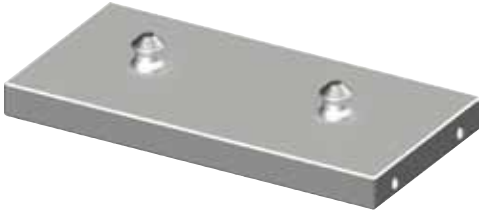
Order no.	Size	A	B	G	G1	L	L1	S	SM	Weight [Kg]
426700	K10	146	240	M12	M5	90	120	30	100	2,5
425041	K20	196	396	M12	M5	90	120	40	200	6,0
426783	K40	296	546	M12	-	120	-	45	320	19,0

#### Note:

Fastening bores for handles are attached to the end faces of the interchangeable pallets. See dimensions table L1 and G1. We can incorporate additional fastening bores according to your specifications in the change pallet on request.

#### On request:

Other dimensions, insertion dimensions and number of clamping nipples equipped.



CAD



## No. 6370P4

### Fixture plate

High-strength aluminium, suitable for quadruple clamping station

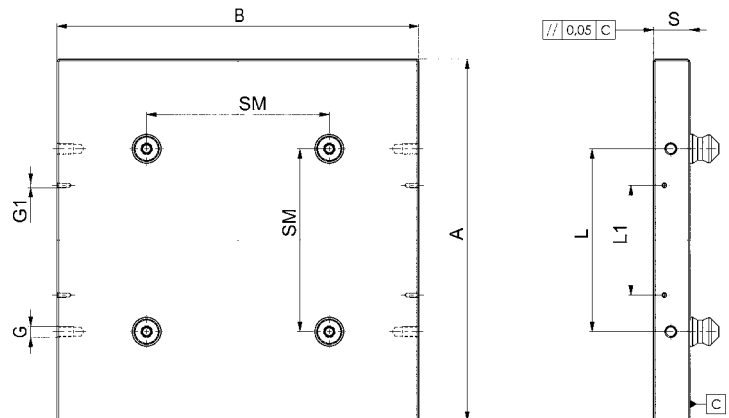
Order no.	Size	A	B	G	G1	L	L1	S	SM	Weight [Kg]
426767	K10	240	240	-	-	-	-	30	100	4,5
425033	K20	396	396	M12	M5	200	120	40	200	16,0
426809	K40	546	546	M12	-	320	-	45	320	35,0

#### Note:

Fastening bores for handles are attached to the end faces of the interchangeable pallets. See dimensions table L1 and G1. We can incorporate additional fastening bores according to your specifications in the change pallet on request.

#### On request:

Other dimensions, insertion dimensions and number of clamping nipples equipped.



CAD



Subject to technical alterations.



## No. 6370P6

### Fixture plate

High-strength aluminium, suitable for sextuple clamping station

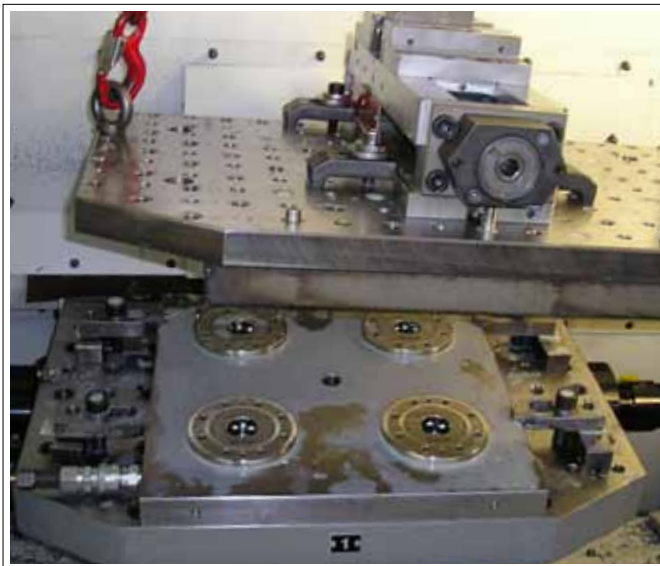
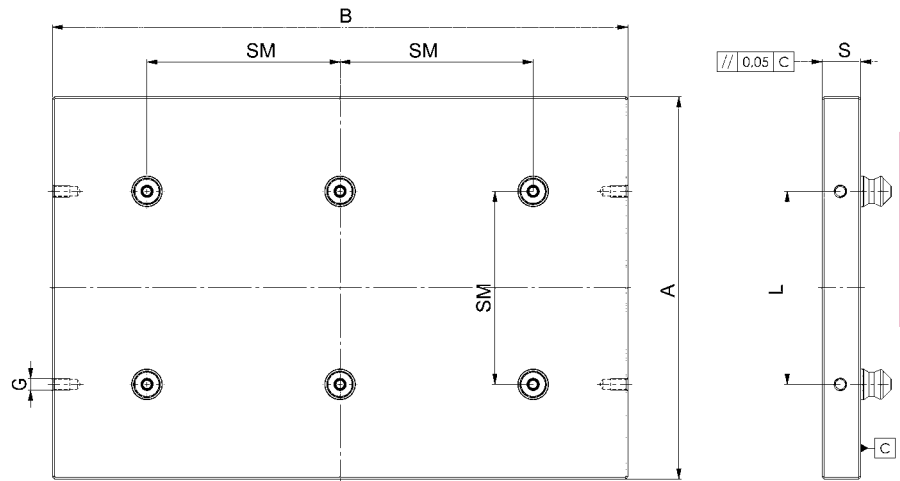
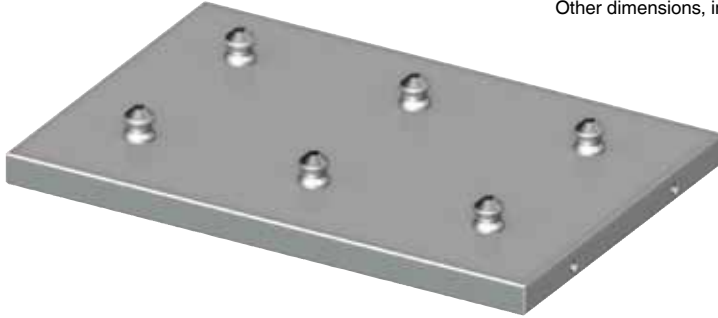
Order no.	Size	A	B	G	L	S	SM	Weight [Kg]
426775	K10	240	386	M10	120	30	100	7,5
426791	K20	396	596	M12	200	40	200	25,0
426817	K40	546	866	M12	320	45	320	56,0

#### Note:

On request, we can incorporate mounting holes according to your specifications in the change pallet.

#### On request:

Other dimensions, insertion dimensions and number of clamping nipples equipped.



Subject to technical alterations.

## VARIABLE CENTRE DISTANCE - THE SIMPLEST SOLUTION FOR FLEXIBLE MANUFACTURING

Looking for a simple, flexible and modular clamping solution that satisfies your requirements for a modern, cost-efficient and cost-optimised manufacturing process?

This is guaranteed by the immensely varied AMF zero point clamping system „Zero-Point“.

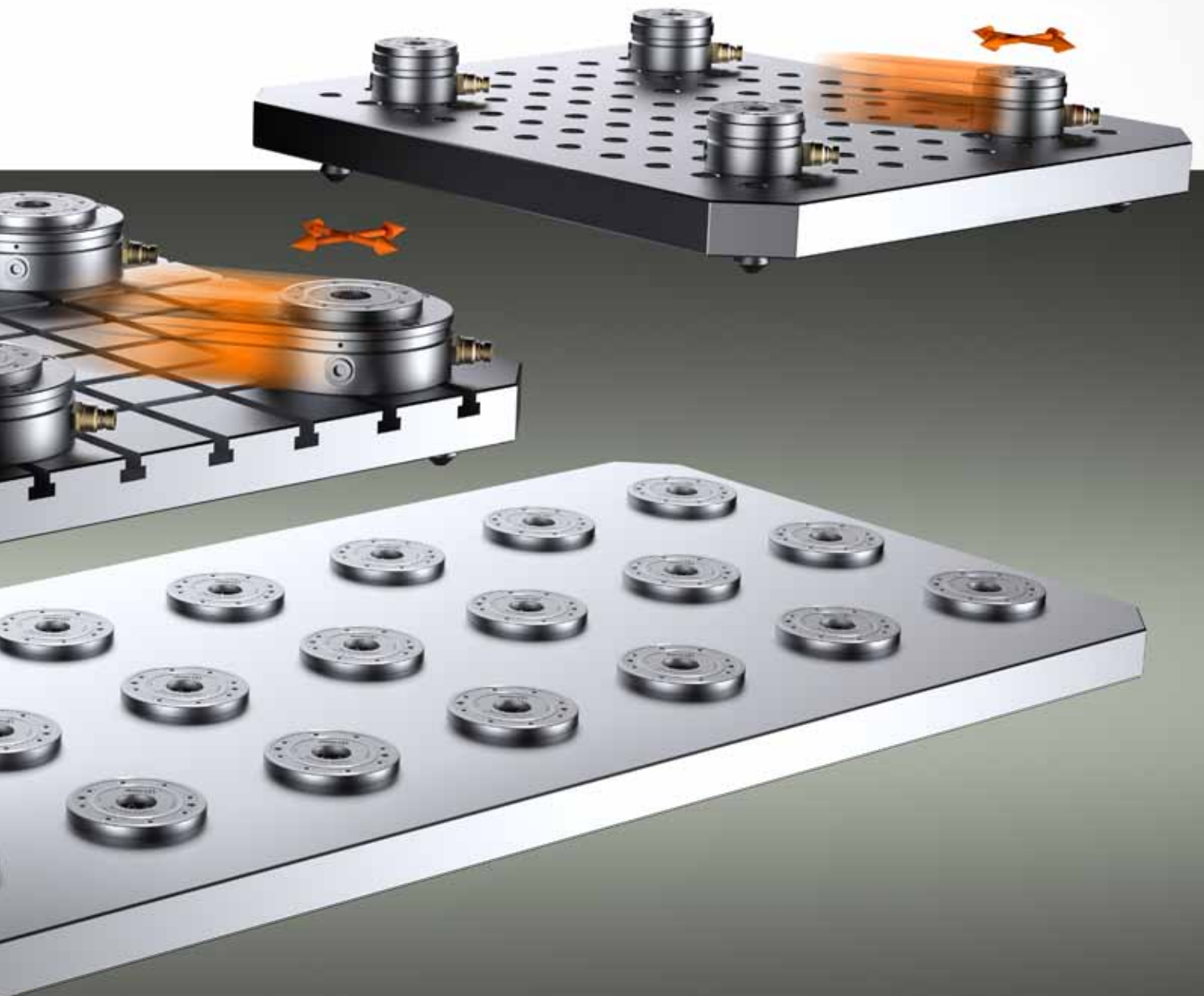
The manufacture of prototypes, small batch series and testing and measuring fixtures used to be a challenging field of application. Flexibility was to some degree limited by a fixed depth gauge.

The variable depth gauge recently developed by AMF has eliminated these boundaries. A simple displacement of the clamping modules enables the depth gauges to be quickly adapted to your specific needs.

This additional flexibility drastically cuts your tooling costs and machine downtimes, not only for medium and large batch series, but also for prototypes and small batch series, as well as test devices.



- > Clamping brackets for direct workpiece clamping in simple 5-sided machining
- > Variable depth gauge by easily displacing the clamping modules on a grooved or grid plate
- > Easy to adapt various module sizes to suit the application at hand.
- > Five standard thread sizes for the clamping nipple in the workpiece to choose from - M5, M6, M8, M12, M16
- > Use of threaded adapter sleeves enables the clamping nipple to be mounted in any size of locating bores in the workpiece.
- > Direct workpiece clamping can be realised by the simplest of means
- > Prototypes, small batch series, test and measuring devices, installation devices can be clamped using the AMF-Zero-Point-System in a manner that fulfills your future needs.



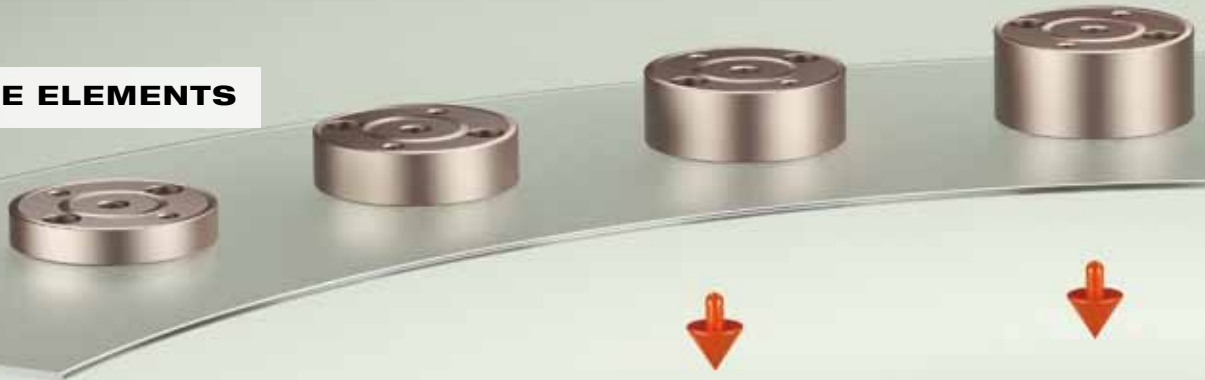
# **SIMPLY CLEVER COMBINATIONS** - MODULAR HEIGHT ADAPTER FOR YOUR FLEXIBLE PRODUCTION

With the new modular height adapters from AMF, your production becomes even more flexible and economical. Cleverly combined, you now have an efficient opportunity to adapt your production process more simply, flexibly and quickly to constantly changing requirements.

## **ASSEMBLY ELEMENT**



## **INTERMEDIATE ELEMENTS**



## **FOOT ELEMENTS**



## **BASE ELEMENTS**

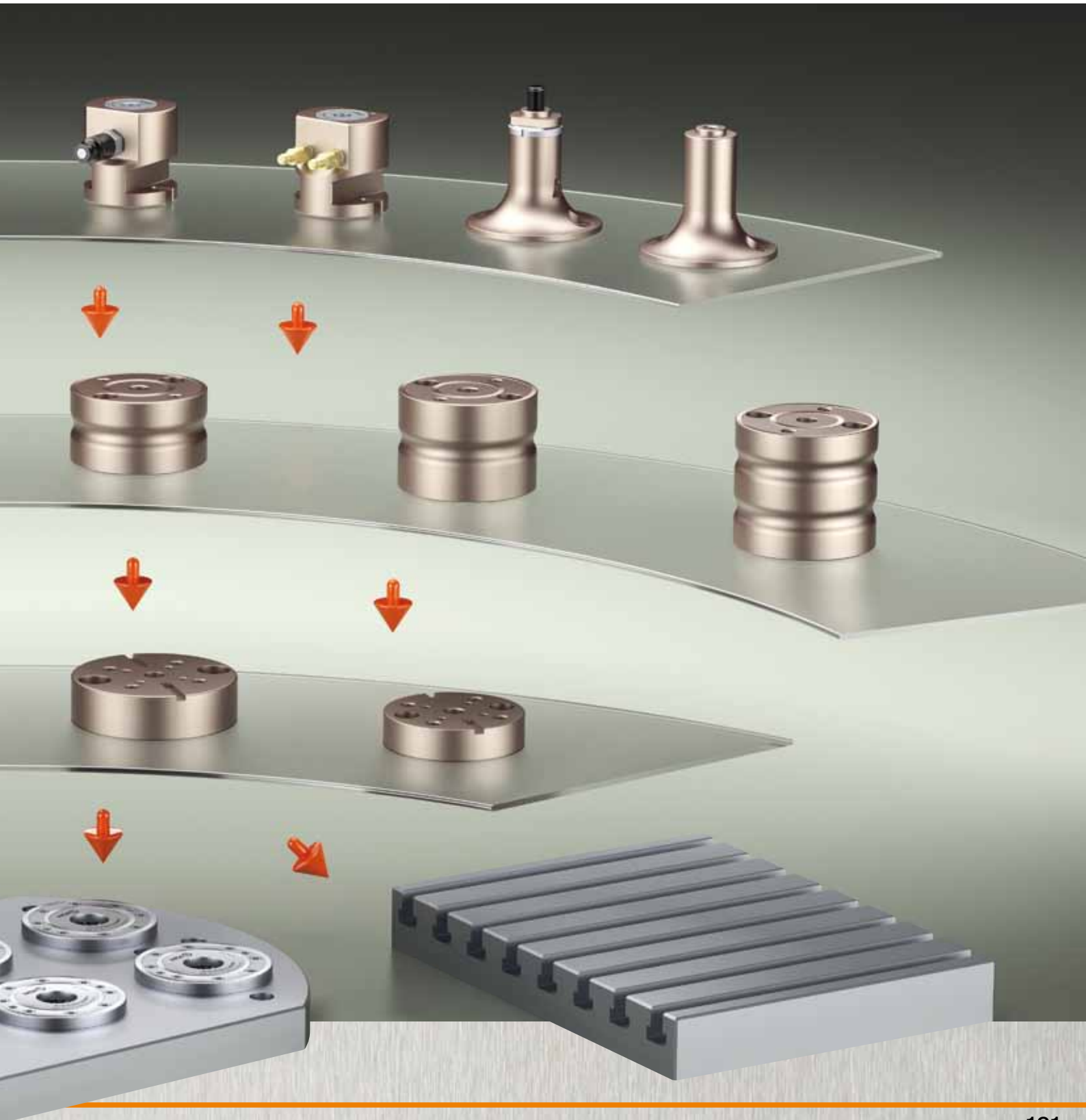


The modular height adapters consist of three levels. The foot elements form the interface to the existing machine table. Building on this and with the use of intermediate elements, every clamping height can be achieved and, by combining different sizes, adapted flexibly to the contour of the workpiece.

Assembly elements with integrated zero point clamping modules of the AMF Zero Point system complete the adapters. Through this, the workpiece is clamped in a process-reliable way.

**THE ADVANTAGES:**

- > Simple direct clamping of the workpiece
- > Flexibly adaptable to every workpiece size and thickness
- > Convenient 5-sided processing
- > Freely selectable standard dimension



No. 6210H-10-05

Adapter clamping module K5,  
hydr. to K10



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[g]
534776	K05	5	13	2328

### Application:

The adapter element is used to reduce the intermediate element size K10 to the hydraulic clamping module K5. Workpieces or fixtures can be clamped with repeat accuracy directly onto the hydraulic clamping module K5 via clamping nipples.

This clamping system can be used to move workpieces to the required machining height in the machine for 5-sided machining, or for the safe and quick clamping of workpieces with ledges and different clamping heights on the machine table.

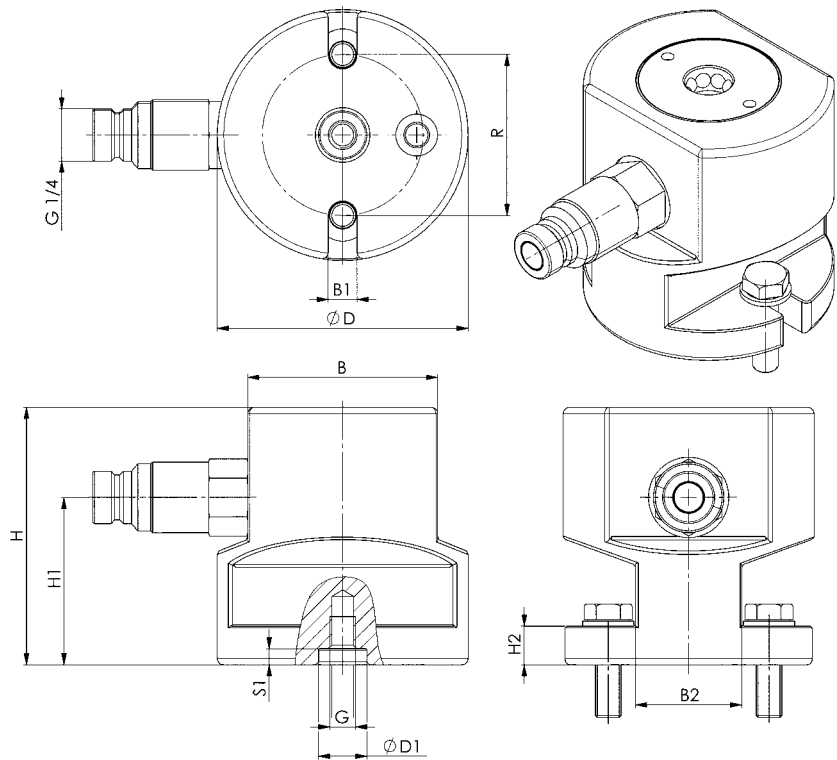
### Advantage:

Simple, quick and flexible clamping of complex workpiece contours on the machine table. Especially suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool and for the reliable clamping of same.

### Note:

Order no. for the centering sleeve  $\varnothing$  16 mm: 78006

The hydr. quick-release coupling, connector version, and the fastening screws are supplied as standard.



### Dimensions:

Order no.	Size	B	B1	B2	dia. D	dia. D1 0/+0,01	G	H $\pm 0.01$	H1	H2	R	S1
534776	K05	59	9	33	78	15	M8	80	52	12	50	5



CAD

Subject to technical alterations.

No. 6210IH-10-05

Adapter clamping module K5,  
hydr. to K10, with indexing



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[g]
534719	K05	5	13	2318

### Application:

The adapter element is used to reduce the intermediate element size K10 to the hydraulic clamping module K5. Workpieces or fixtures can be clamped with repeat accuracy directly onto the hydraulic clamping module K5 via clamping nipples.

This clamping system can be used to move workpieces to the required machining height in the machine for 5-sided machining, or for the safe and quick clamping of workpieces with ledges and different clamping heights on the machine table.

Thanks to the indexing option, workpieces under large machining forces can be secured to prevent radial distortion.

### Advantage:

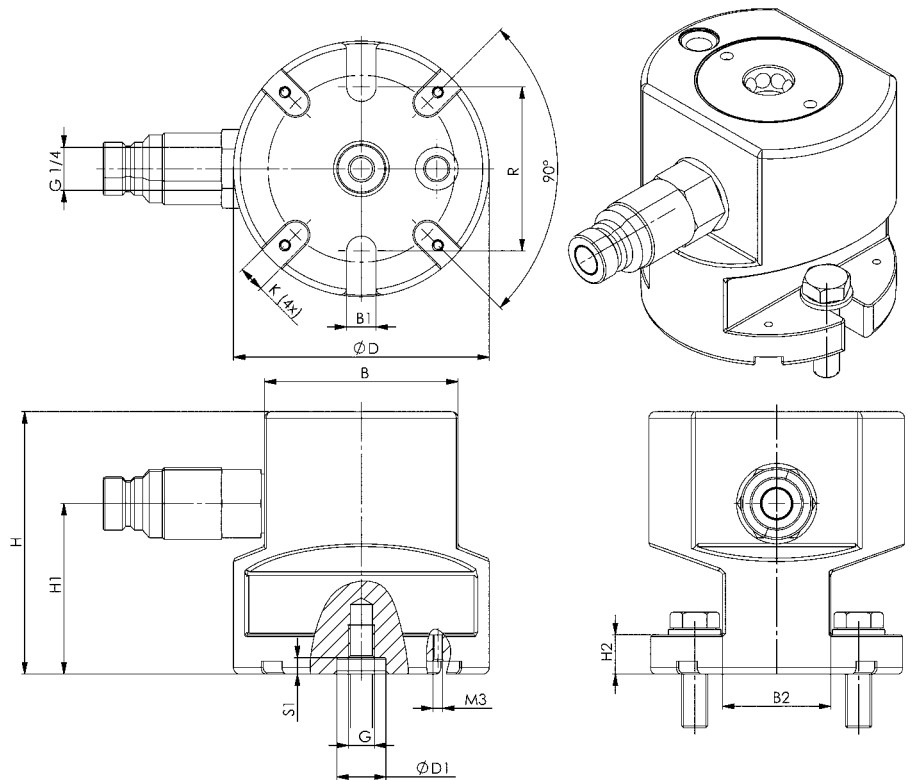
Simple, quick and flexible clamping of complex workpiece contours on the machine table. Especially suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool and for the reliable clamping of same.

### Note:

Order no. for the centering sleeve  $\varnothing$  16 mm: 78006

Order no. for the slot nuts: 430264

The hydr. quick-release coupling, connector version, and the fastening screws are supplied as standard.



### Dimensions:

Order no.	Size	B	B1	B2	dia. D	dia. D1 0/+0,01	G	H $\pm 0.01$	H1	H2	K F6	R	S1
534719	K05	59	9	33	78	15	M8	80	52	12	8	50	5



CAD

No. 6210L-10-05

Adapter clamping module K5,  
pneum. to K10



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[g]
534768	K05	1,5	13	2272

### Application:

The adapter element is used to reduce the intermediate element size K10 to the pneumatic clamping module K5. Workpieces or fixtures can be clamped with repeat accuracy directly onto the pneumatic clamping module K5 via clamping nipples.

This clamping system can be used to move workpieces to the required machining height in the machine for 5-sided machining, or for the safe and quick clamping of workpieces with ledges and different clamping heights on the machine table.

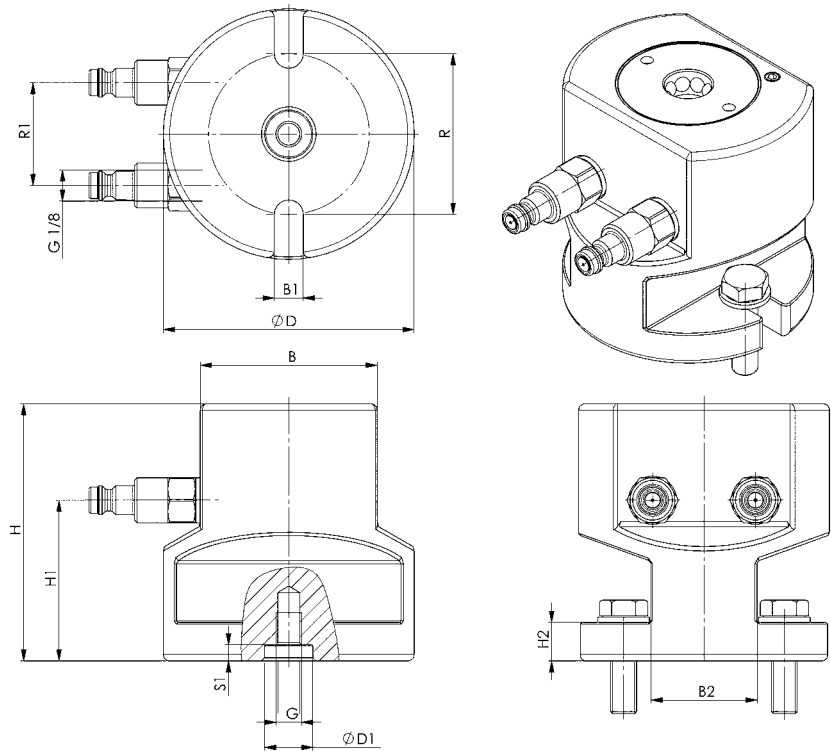
### Advantage:

Simple, quick and flexible clamping of complex workpiece contours on the machine table. Especially suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool and for the reliable clamping of same.

### Note:

Order no. for the centering sleeve  $\varnothing$  16 mm: 78006

The pneum. quick-release coupling, connector version, and the fastening screws are supplied as standard.



### Dimensions:

Order no.	Size	B	B1	B2	dia. D	dia. D1 0/+0,01	G	H $\pm 0.01$	H1	H2	R	R1	S1
534768	K05	59	9	33	78	15	M8	80	52	12	50	32	5



CAD

Subject to technical alterations.



No. 6210IL-10-05

Adapter clamping module K5,  
pneum. to K10, with indexing



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[g]
532853	K05	1,5	13	2248

### Application:

The adapter element is used to reduce the intermediate element size K10 to the pneumatic clamping module K5. Workpieces or fixtures can be clamped with repeat accuracy directly onto the pneumatic clamping module K5 via clamping nipples.

This clamping system can be used to move workpieces to the required machining height in the machine for 5-sided machining, or for the safe and quick clamping of workpieces with ledges and different clamping heights on the machine table.

Thanks to the indexing option, workpieces under large machining forces can be secured to prevent radial distortion.

### Advantage:

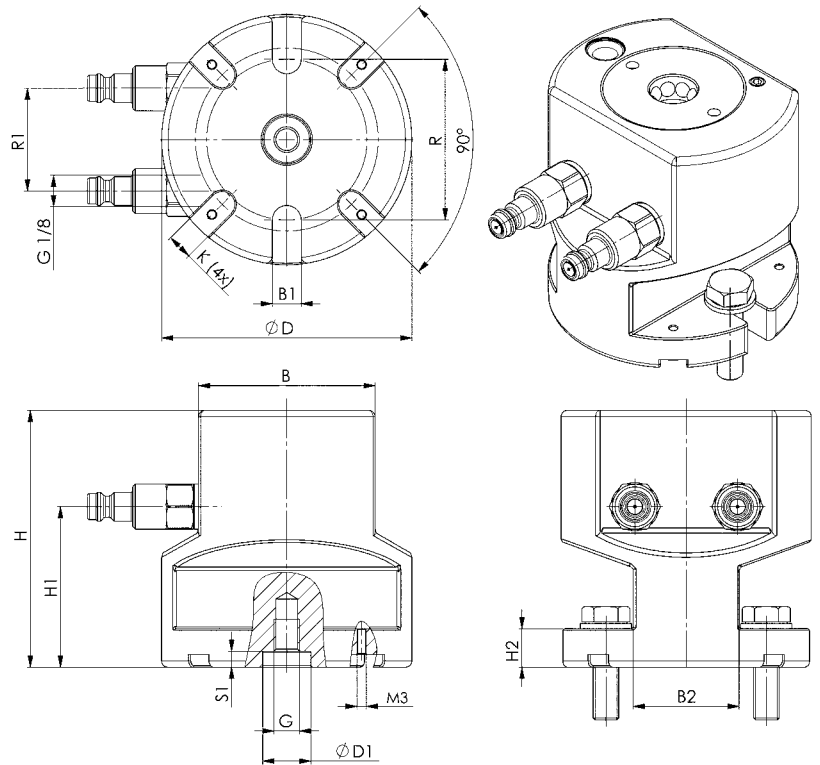
Simple, quick and flexible clamping of complex workpiece contours on the machine table. Especially suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool and for the reliable clamping of same.

### Note:

Order no. for the centering sleeve  $\varnothing$  16 mm: 78006

Order no. for the slot nuts: 430264

The pneum. quick-release coupling, connector version, and the fastening screws are supplied as standard.



### Dimensions:

Order no.	Size	B	B1	B2	dia. D	dia. D1 0/+0,01	G	H $\pm 0,01$	H1	H2	K F6	R	R1	S1
532853	K05	59	9	33	78	15	M8	80	52	12	8	50	32	5



CAD

No. 6210H

Assembly element K10 and K20,  
hydraulic

Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[g]
534883	K10	10	25	2835
534800	K20	20	55	7311

### Application:

The assembly element is used to clamp with repeat accuracy workpieces or fixtures directly onto the hydraulic clamping modules K10 or K20 via clamping nipples.

This clamping system can be used to move workpieces to the required machining height in the machine for 5-sided machining, or for the safe and quick clamping of workpieces with ledges and different clamping heights on the machine table.

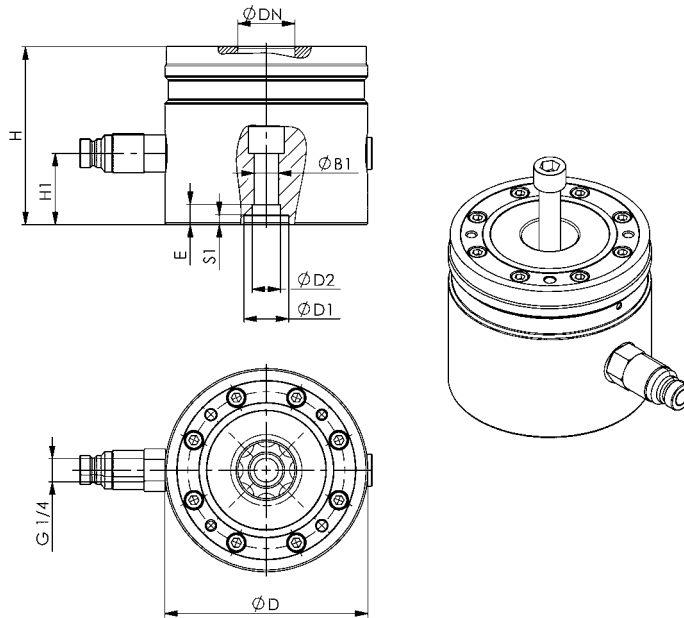
### Advantage:

Simple, quick and flexible clamping of complex workpiece contours on the machine table. Especially suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool and for the reliable clamping of same.

### Note:

Order no. for the centering sleeve  $\varnothing$  16 mm: 78006

The hydr. quick-release coupling, connector version, and the fastening screw are supplied as standard.



### Dimensions:

Order no.	Size	dia. B1	dia. D	dia. D1	dia. D2	dia. DN	E	H $\pm 0.01$	H1	S1
534883	K10	9,0	80	-	15	22	5,0	80	35	-
534800	K20	13,5	114	25	16	32	11,25	100	40	5,5



CAD

Subject to technical alterations.

No. 6210IH

**Assembly element K20, hydraulic, with indexing**



Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[g]
534412	K20	20	55	7154

### Application:

The assembly element is used to clamp with repeat accuracy workpieces or fixtures directly onto the hydraulic clamping module K20 with 4-point indexing via clamping nipples.

This clamping system can be used to move workpieces to the required machining height in the machine for 5-sided machining, or for the safe and quick clamping of workpieces with ledges and different clamping heights on the machine table.

### Advantage:

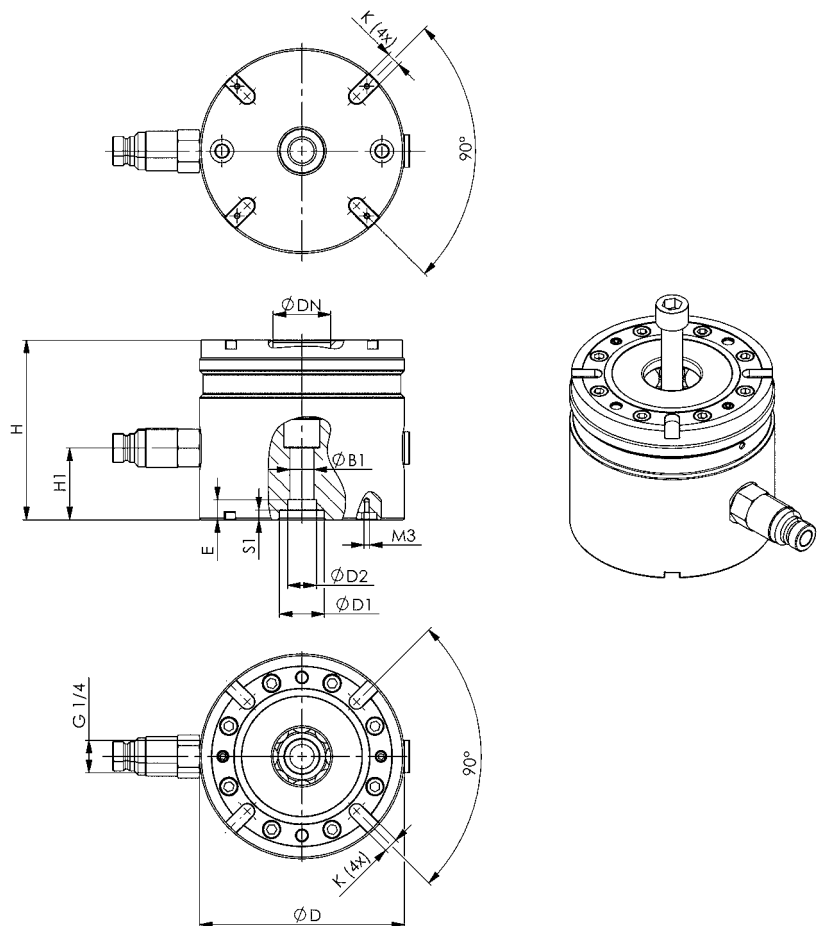
Simple, quick and flexible clamping of complex workpiece contours on the machine table. Especially suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool and for the reliable clamping of same.

### Note:

Order no. for the centering sleeve  $\varnothing$  16 mm: 78006

Order no. for the slot nuts: 430264

The hydr. quick-release coupling, connector version, and the fastening screw are supplied as standard.



### Dimensions:

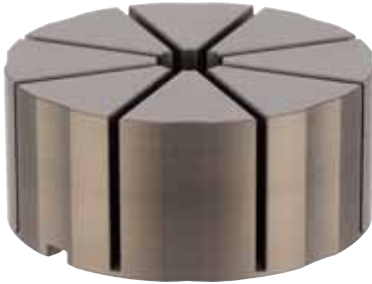
Order no.	Size	dia. B1	dia. D	dia. D1	dia. D2	dia. DN	E	H $\pm 0.01$	H1	K F6	S1
534412	K20	13,5	114	25	16	32	11,25	100	40	8	5,5



## No. 6370ZSZ-112

### Collet attachment for clamping module K20, hydr.

Material: high-strength aluminium.



Order no.	dia. D	dia. D1	dia. D2	Clamping stroke Ø [mm]	H	H1	Weight [g]
550286	112	20	25	0,5	50	30	1133

#### Design:

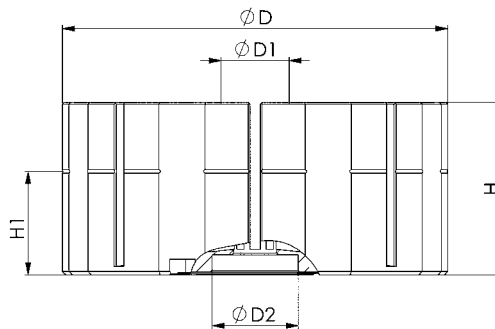
The 112 mm diameter collet attachment is suitable for the hydraulic AMF zero-point clamping system K20 with indexing, order no. 428425. The collet is made from anodised, high-strength aluminium.

#### Application:

The collet attachment is placed on the AMF Zero Point clamping system K20 in the hydraulic version and guides the radial clamping force to the workpiece after the clamping module is closed.

The workpiece contour is milled into the collet attachment with a minimum clamping depth of 2 mm. The collet attachment can be milled off to a height of H1, allowing new workpiece contours to be introduced.

The maximum workpiece diameter is 100 mm.



CAD



## No. 6370ZSB

### Mounting kit for collet attachment

for collet No. 6370ZSZ-112

Order no.	Size	Weight [g]
550287	K20	190

#### Design:

The mounting set includes:

- 1 clamping nipple K20, design: strut
- 1 clamping nipple screw K20
- 1 lock nut M12
- 2 indexing slot nuts, width 8 mm

#### Application:

The mounting set is mounted with the collet attachment 112 mm, order no. 550286.

After installation, the collet attachment can be securely and hydraulically clamped onto the AMF clamping modules, size K20.



CAD

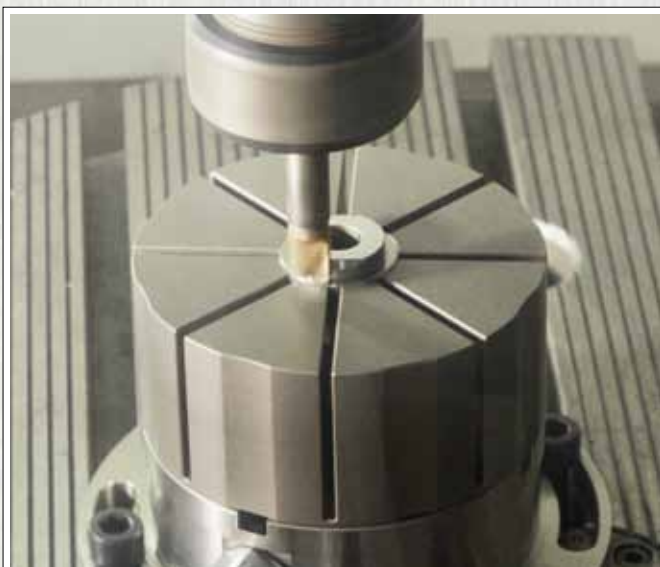


Subject to technical alterations.

**Collet attachment for clamping module K20, hydr.**  
Order no. 550286

**Mounting kit for collet attachment**  
Order no. 550287

**Assembly element K20, hydraulic, with indexing**  
Order no. 534412



Subject to technical alterations.

## No. 6210L

### Assembly element K10, K10.3 and K20, pneumatic

Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[g]
534925	K10	8	25	2720
534537	K10.3	10	25	7708
534842	K20	17	55	7185

#### Application:

The assembly element is used to clamp with repeat accuracy workpieces or fixtures directly onto the pneumatic clamping modules K10, K10.3 and K20 via clamping nipples. This clamping system can be used to move workpieces to the required machining height in the machine for 5-sided machining, or for the safe and quick clamping of workpieces with ledges and different clamping heights on the machine table.

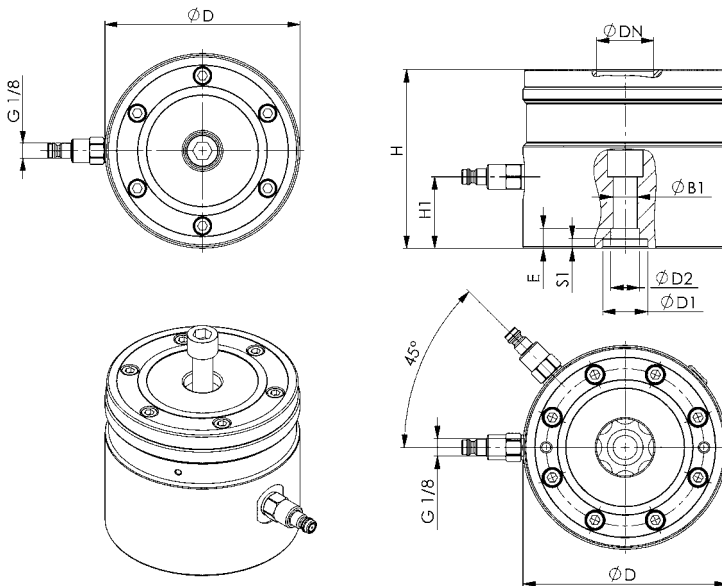
#### Advantage:

Simple, quick and flexible clamping of complex workpiece contours on the machine table. Especially suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool and for the reliable clamping of same.

#### Note:

Order no. for the centering sleeve  $\varnothing$  16 mm: 78006

The pneum. quick-release coupling, connector version, and the fastening screw are supplied as standard.



K10.3

K10, K20

#### Dimensions:

Order no.	Size	dia. B1	dia. D	dia. D1	dia. D2	dia. DN	E	H $\pm 0.01$	H1	S1
534925	K10	9,0	80	-	15	22	5,0	80	35	-
534537	K10.3	13,5	114	25	16	22	11,25	100	40	5,5
534842	K20	13,5	114	25	16	32	11,25	100	40	5,5



CAD

## No. 6210IL

### Assembly element K10.3 and K20, pneumatic, with indexing

Order no.	Size	Pull-in/locking force up to	Holding force	Weight
		[kN]	[kN]	[g]
534495	K10.3	10	25	7668
534453	K20	17	55	7162

#### Application:

The assembly element is used to clamp with repeat accuracy workpieces or fixtures directly onto the pneumatic clamping modules K10.3 and K20 via clamping nipples. This clamping system can be used to move workpieces to the required machining height in the machine for 5-sided machining, or for the safe and quick clamping of workpieces with ledges and different clamping heights on the machine table. Thanks to the 4-point 90° indexing option, workpieces under strong machining forces can be secured to prevent radial distortion.

#### Advantage:

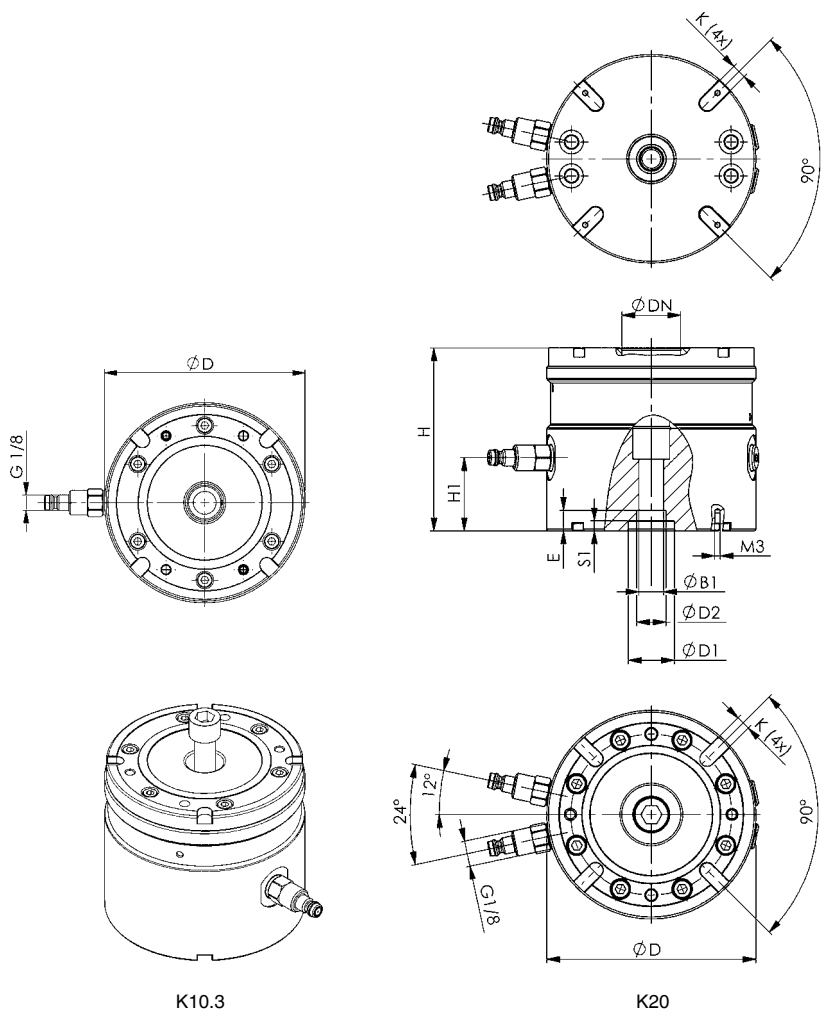
Simple, quick and flexible clamping of complex workpiece contours on the machine table. Especially suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool and for the reliable clamping of same.

#### Note:

Order no. for the centering sleeve  $\varnothing$  16 mm: 78006

Order no. for the slot nuts: 430264

The pneum. quick-release coupling, connector version, and the fastening screw are supplied as standard.



#### Dimensions:

Order no.	Size	dia. B1	dia. D	dia. D1	dia. D2	dia. DN	E	H $\pm 0.01$	H1	K F6	S1
534495	K10.3	13	114	25	16	22	11,25	100	40	8	5,5
534453	K20	13	114	25	16	32	11,25	100	40	8	5,5



CAD

No. 6210S

Support element, fixed

Order no.	Size	H ±0.01	Weight [g]
532390	K10	100	995
532374	K20	100	1790

### Application:

The support element allows workpieces or fixtures to be received into the bore for the clamping nipple, K10 or K20 depending on the version, and clamped to the main or intermediate elements. This clamping system can be used to move workpieces to the required machining height in the machine for 5-sided machining, or for the safe and quick clamping of workpieces with ledges and different clamping heights on the machine table.

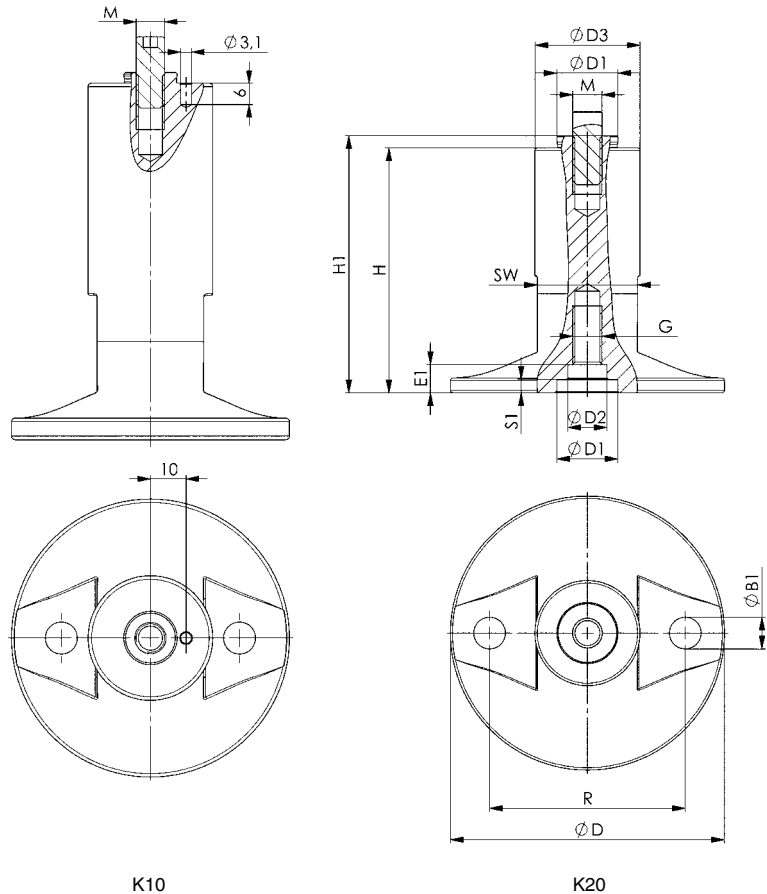
### Advantage:

Simple, quick and flexible clamping of complex workpiece contours on the machine table. Especially suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool and for the reliable clamping of same.

### Note:

Order numbers for the centering sleeves:

- Ø15: Order no. 535732
- Ø16: Order no. 78006
- Ø22: Order no. 78238



### Dimensions:

Order no.	Size	dia. B1	dia. D	dia. D1	dia. D2	dia. D3	E1	G	H1	M	R	S1	SW
532390	K10	9	78	15	15	35	5,0	M8	103	M8	50	5	30
532374	K20	13	112	25	16	43	12,0	M12	105	M12	80	6	41



CAD

Subject to technical alterations.



No. 6210S

Support element, adjustable  $\pm 5$  mm



Order no.	Size	H $\pm 0.01$	Weight [g]
532416	K10	95-105	974
532432	K20	95-105	2020

### Application:

The adjustable support element allows workpieces or fixtures to be received into the bore for the clamping nipple, K10 or K20 depending on the version, and clamped to the main or intermediate elements. Thanks to the adjustment and counter option, the support element can be steplessly adapted to the workpiece contour by  $\pm 5$  mm.

This clamping system can be used to move workpieces to the required machining height in the machine for 5-sided machining, or for the safe and quick clamping of workpieces with ledges and different clamping heights on the machine table.

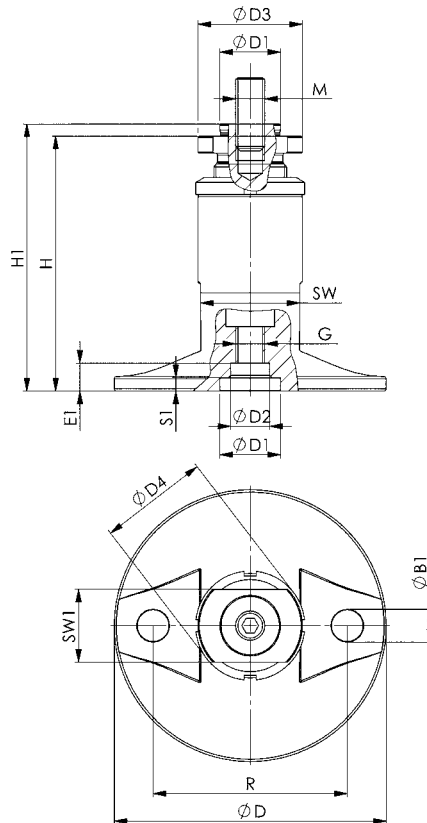
### Advantage:

Simple, quick and flexible clamping of complex workpiece contours on the machine table. Especially suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool and for the reliable clamping of same.

### Note:

Order numbers for the centering sleeves:

- $\varnothing 15$ : Order no. 535732
- $\varnothing 16$ : Order no. 78006
- $\varnothing 22$ : Order no. 78238



K10, K20

### Dimensions:

Order no.	Size	dia. B1	dia. D	dia. D1	dia. D2	dia. D3	dia. D4	E1	G	H1	M	R	S1	SW	SW1
532416	K10	9	78	15	15	35	38	5,0	M8	98-108	M8	50	4,5	30	27
532432	K20	13	112	25	16	43	45	11,5	M12	100-110	M12	80	5,5	41	30



No. 6209MZ

Height adjustment element

**NEW!**



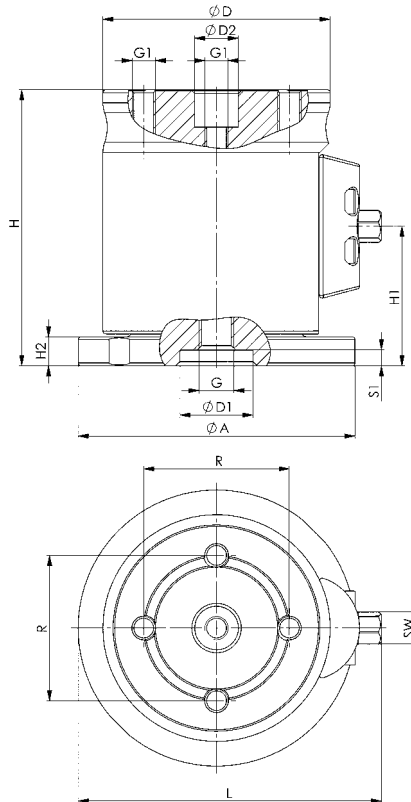
Order no.	Size	Supporting force	Tightening torque Md max.	Weight
		[kN]	[Nm]	[Kg]
554058	K10	12	30	3,5

### Application:

The height adjustment element can adjust a height difference of up to 10 mm. It is used to clamp a workpiece distortion-free on the third or fourth point of support. The element attaches itself by spring force and is then fastened by turning the clamping screw. The height adjustment element is normally extended. This element can also be used as a support element to prevent sagging and vibration of a workpiece.

### Advantage:

Simple, quick and flexible clamping of complex workpiece contours on the machine table. Particularly suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool for clamping these securely.



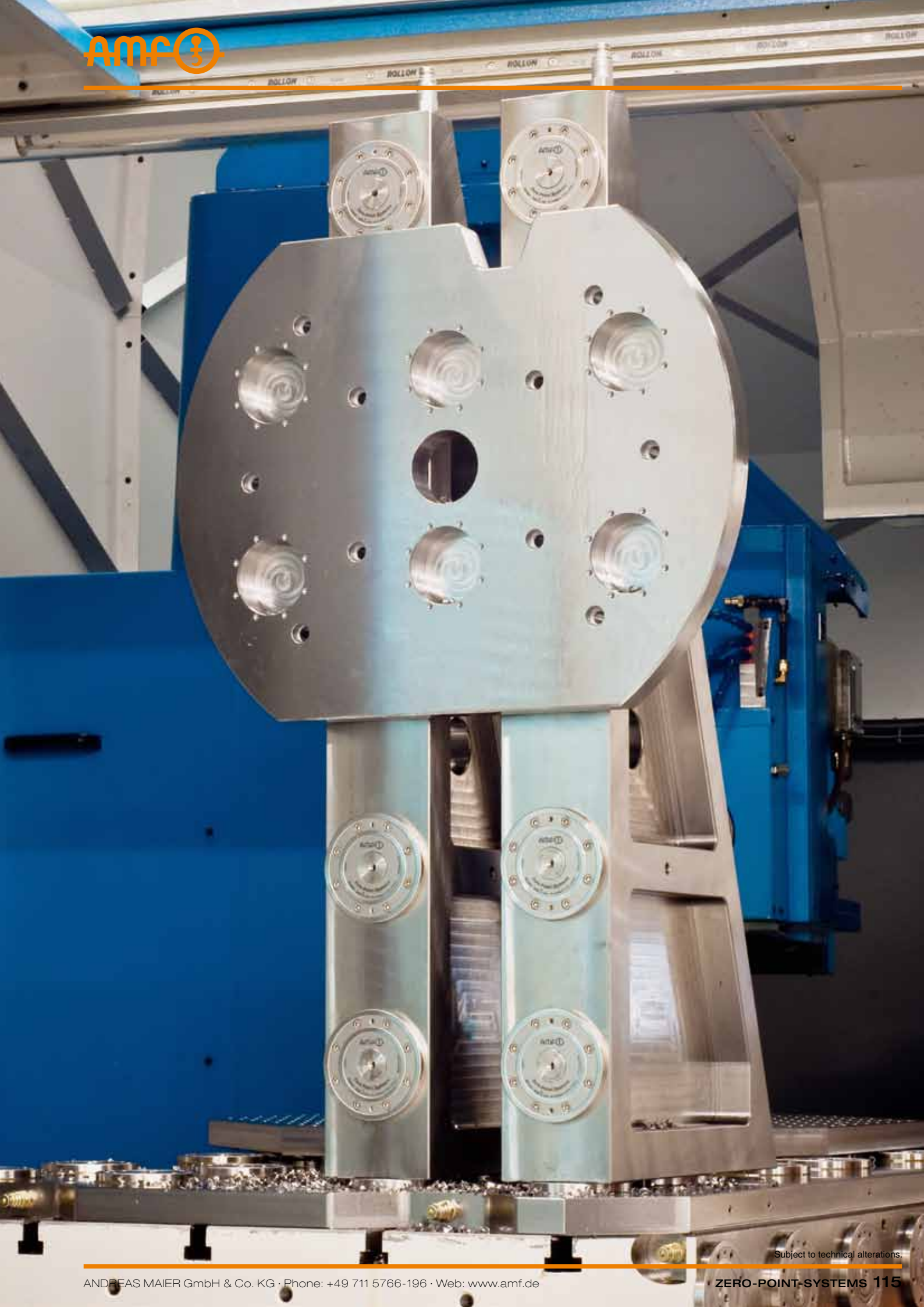
### Dimensions:

Order no.	Size	dia. A	dia. D	dia. D1	dia. D2	G	G1	H	H1	H2	L	R	SW	S1
554058	K10	95	78	25	15	M12	M8	95-105	48	10	104	50	10	5,5



CAD

Subject to technical alterations.



Subject to technical alterations.

## No. 6210Z

### Intermediate element

Quenched and tempered steel, plasma-nitrated.



Order no.	Size	H ±0.01	Weight [g]
534487	K10	20	667
534503	K10	30	1012
534529	K10	40	1353
534545	K10	50	1698
534560	K10	60	2043
534586	K10	80	2731
534602	K10	100	3443
534628	K20	20	1394
534644	K20	30	2092
534669	K20	40	2800
534685	K20	50	3508
534701	K20	60	4225
534727	K20	80	5661
534743	K20	100	7012

### Application:

The intermediate elements are used as height adapters for workpieces and clamping fixtures, and are mounted to the main elements. Workpieces are clamped by means of assembly elements. This clamping system can be used to move workpieces to the required machining height in the machine for 5-sided machining, or for the safe and quick clamping of workpieces with ledges and different clamping heights on the machine table.

### Advantage:

Simple, quick and flexible clamping of complex workpiece contours on the machine table. Especially suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool and for the reliable clamping of same.

### Note:

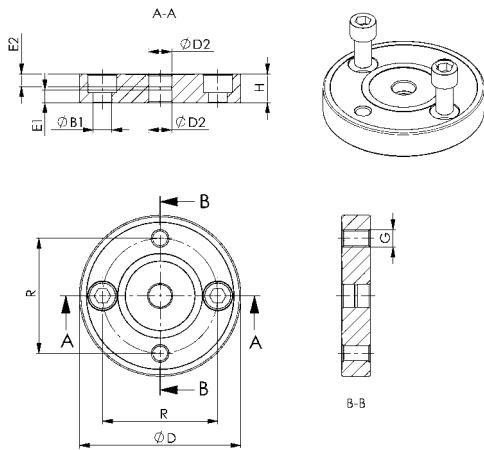
With the exception of overall heights H20 and 30, the locating bore for the clamping nipple, corresponding to size K10 and K20 is already made for the modification to zero point clamping modules.

If two or more intermediate elements are used, they can be axially aligned and then bolted using centering sleeves. The 2 screws are supplied as standard.

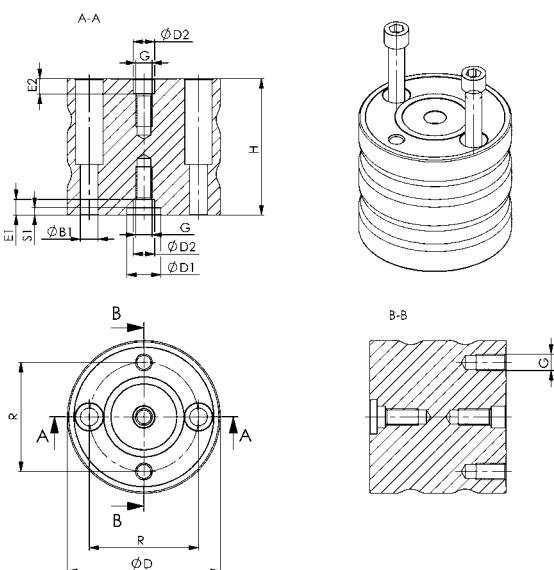
Order numbers for the centering sleeves:

- Size K10: Order no. 535732
- Size K20: Order no. 78006

Height 20 and 30 mm

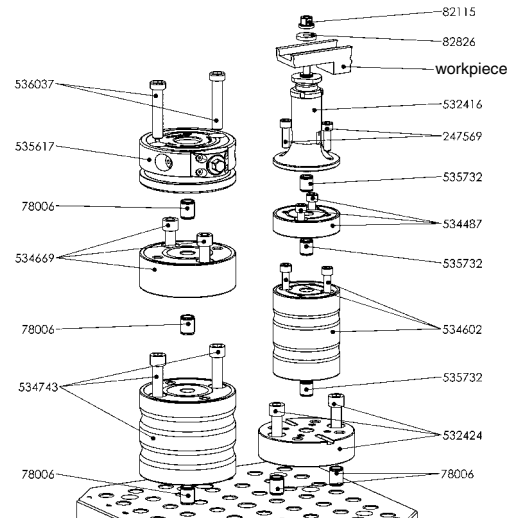


From height 40 mm



### Dimensions:

Order no.	Size	dia. B1	dia. D	dia. D1	dia. D2	Screw DIN84 or ISO4762	E1	E2	G	R	S1
534487	K10	9	78	-	15	M8x30	5,0	13,0	M8	50	-
534503	K10	9	78	-	15	M8x30	5,0	13,0	M8	50	-
534529	K10	9	78	15	15	M8x30	5,0	13,0	M8	50	3,5
534545	K10	9	78	15	15	M8x50	5,0	13,0	M8	50	3,5
534560	K10	9	78	15	15	M8x50	5,0	13,0	M8	50	3,5
534586	K10	9	78	15	15	M8x50	5,0	13,0	M8	50	3,5
534602	K10	9	78	15	15	M8x50	5,0	13,0	M8	50	3,5
534628	K20	13	112	-	16	M12x25	9,0	9,0	M12	80	-
534644	K20	13	112	-	16	M12x25	11,5	11,25	M12	80	-
534669	K20	13	112	25	16	M12x25	11,5	11,25	M12	80	5,5
534685	K20	13	112	25	16	M12x55	11,5	11,25	M12	80	5,5
534701	K20	13	112	25	16	M12x55	11,5	11,25	M12	80	5,5
534727	K20	13	112	25	16	M12x55	11,5	11,25	M12	80	5,5
534743	K20	13	112	25	16	M12x55	11,5	11,25	M12	80	5,5



## No. 6210IZ

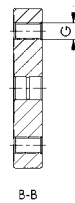
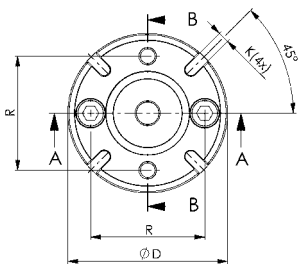
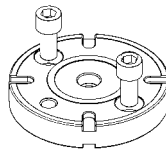
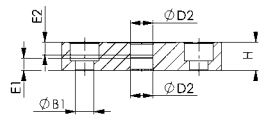
### Intermediate element, with indexing

Quenched and tempered steel, plasma-nitrated.



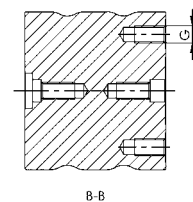
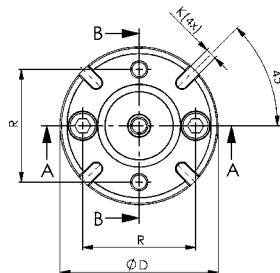
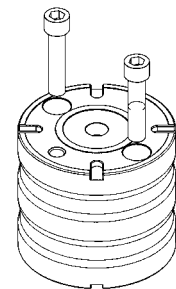
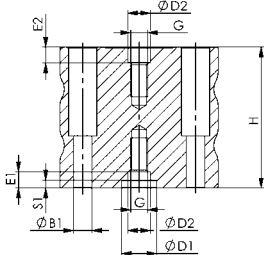
Height 20 and 30 mm

A-A



From height 40 mm

A-A



Order no.	Size	H ±0.01	Weight [g]
531996	K10	20	632
532010	K10	30	987
532036	K10	40	1327
532051	K10	50	1651
532077	K10	60	2001
532093	K10	80	2713
532119	K10	100	3429
532135	K20	20	1361
532150	K20	30	2087
532176	K20	40	2788
532192	K20	50	3439
532218	K20	60	4165
532234	K20	80	5632
532242	K20	100	6980

### Application:

The intermediate elements with indexing are used as height adapters for workpieces and clamping fixtures, and are mounted to the main elements. Workpieces are clamped by means of assembly elements.

This clamping system can be used to move workpieces to the required machining height in the machine for 5-sided machining, or for the safe and quick clamping of workpieces with ledges and different clamping heights on the machine table.

Thanks to the 4-point 90° indexing option, workpieces under strong machining forces can be secured to prevent radial distortion.

### Advantage:

Simple, quick and flexible clamping of complex workpiece contours on the machine table. Especially suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool and for the reliable clamping of same.

### Note:

With the exception of overall heights H20 and 30, the locating bore for the clamping nipple, corresponding to size K10 and K20 is already made for the modification to zero point clamping modules.

If two or more intermediate elements are used, they can be axially aligned and then bolted using centering sleeves. The 2 screws are supplied as standard.

Order numbers for the centering sleeves:

- Size K10: Order no. 535732

- Size K20: Order no. 78006

Slot nuts: Order no. 430264.

### Dimensions:

Order no.	Size	dia. B1	dia. D	dia. D1	dia. D2	Screw DIN84 or ISO4762	E1	E2	G	K F6	R	S1
531996	K10	9	78	-	15	M8x30	5,0	13,0	M8	8	50	-
532010	K10	9	78	-	15	M8x30	5,0	13,0	M8	8	50	-
532036	K10	9	78	15	15	M8x30	5,0	13,0	M8	8	50	3,5
532051	K10	9	78	15	15	M8x50	5,0	13,0	M8	8	50	3,5
532077	K10	9	78	15	15	M8x50	5,0	13,0	M8	8	50	3,5
532093	K10	9	78	15	15	M8x50	5,0	13,0	M8	8	50	3,5
532119	K10	9	78	15	15	M8x50	5,0	13,0	M8	8	50	3,5
532135	K20	13	112	-	16	M12x25	9,0	9,0	M12	8	80	-
532150	K20	13	112	-	16	M12x25	11,5	11,25	M12	8	80	-
532176	K20	13	112	25	16	M12x25	11,5	11,25	M12	8	80	5,5
532192	K20	13	112	25	16	M12x55	11,5	11,25	M12	8	80	5,5
532218	K20	13	112	25	16	M12x55	11,5	11,25	M12	8	80	5,5
532234	K20	13	112	25	16	M12x55	11,5	11,25	M12	8	80	5,5
532242	K20	13	112	25	16	M12x55	11,5	11,25	M12	8	80	5,5

Subject to technical alterations.



## No. 6210IFR

### Base element, with indexing for grid plates



Order no.	Size	H ±0.01	Weight [g]
532424	M12	30	2018
532440	M16	40	3881

#### Application:

The main element with indexing is positioned on grid plates M12 and M16 via a centering sleeve and then bolted. Intermediate elements or assembly elements can be adapted.

This clamping system can be used to move workpieces to the required machining height in the machine for 5-sided machining, or for the safe and quick clamping of workpieces with ledges and different clamping heights on the machine table.

#### Advantage:

Simple, quick and flexible clamping of complex workpiece contours on the machine table. Especially suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool and for the reliable clamping of same.

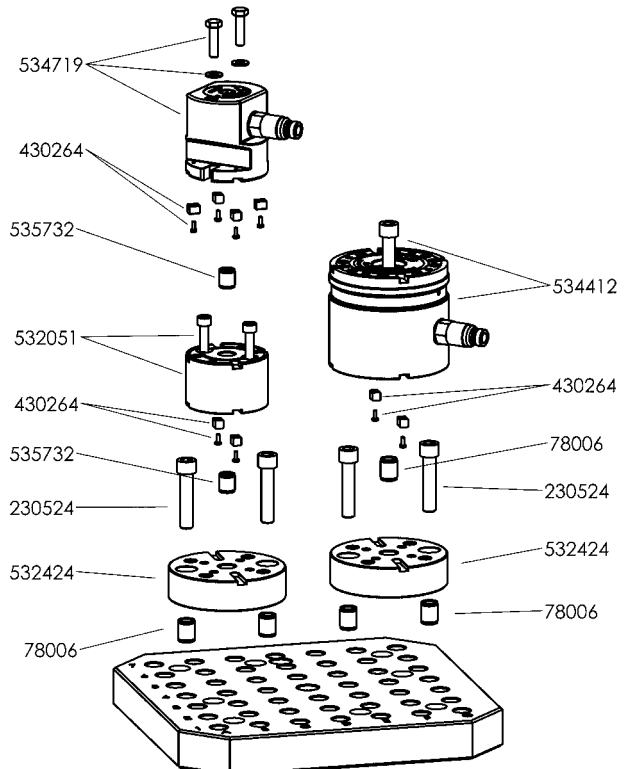
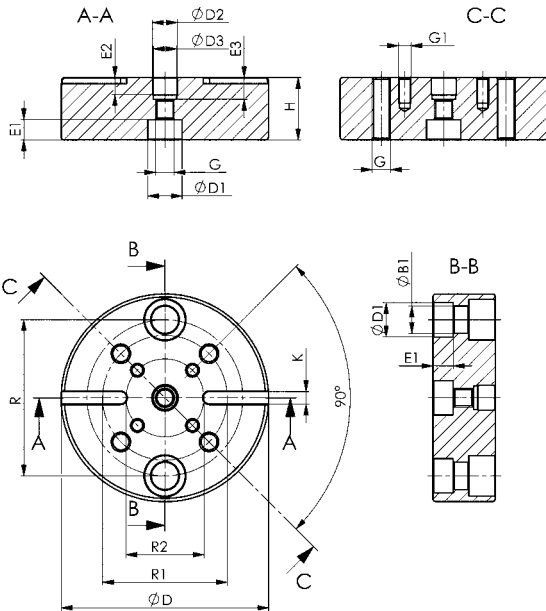
#### Note:

Order numbers for the centering sleeves:

- Ø15: Order no. 535732
- Ø16: Order no. 78006
- Ø22: Order no. 78238

#### Dimensions:

Order no.	Size	dia. B1	dia. D	dia. D1	dia. D2	dia. D3	E1	E2	E3	G	G1	K F6	R	R1	R2
532424	M12	13,5	112	16	16	15	9	11	14	M12	M8	8	80	80	50
532440	M16	17,5	133	22	16	15	13	11	14	M12	M8	8	100	80	50



CAD

Subject to technical alterations.

No. 6210FN

Base element for T-grooved plate

Order no.	Size	H ±0.01	Weight [g]
532465	M12	30	3681

### Application:

The main element can be freely positioned and fastened on the grooved machine table at the circumferential clamping edge. Intermediate elements or assembly elements can be adapted. This clamping system can be used to move workpieces to the required machining height in the machine for 5-sided machining, or for the safe and quick clamping of workpieces with ledges and different clamping heights on the machine table.

### Advantage:

Simple, quick and flexible clamping of complex workpiece contours on the machine table. Especially suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool and for the reliable clamping of same.

### Note:

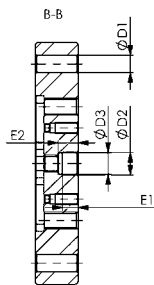
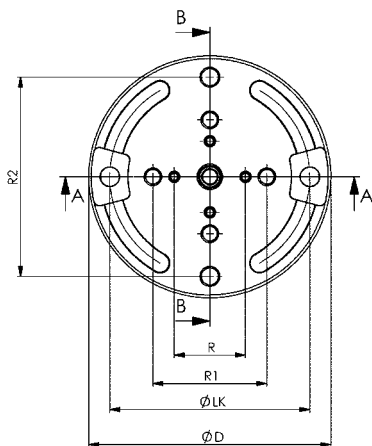
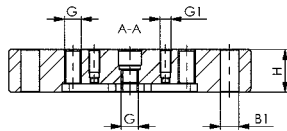
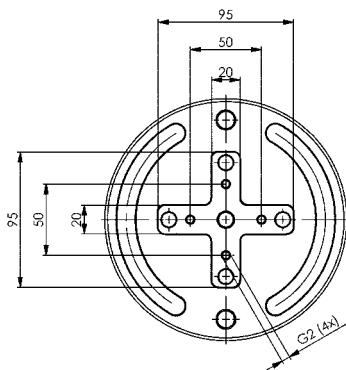
Centering sleeves:

- Ø15: Order no. 535732
- Ø16: Order no. 78006
- Ø22: Order no. 78238

Curved washer:

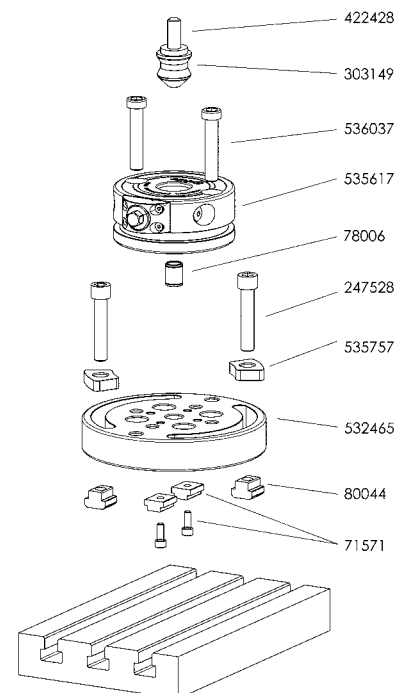
Order no. 535757.

T-nut no. 6322A with ISO 4762, M6x10 socket head screws can be used for positioning on a grooved plate.



### Dimensions:

Order no.	Size	B1	dia. D	dia. D1 H7	dia. D2	dia. D3	E1	E2	G	G1	G2	dia. LK	R	R1	R2 ± 0,01
532465	M12	13	170	12	16	15	11	14	M12	M8	M6	140	50	80	140



Subject to technical alterations.

No. 6210FN-M12-01

Spring washer for groove adapter



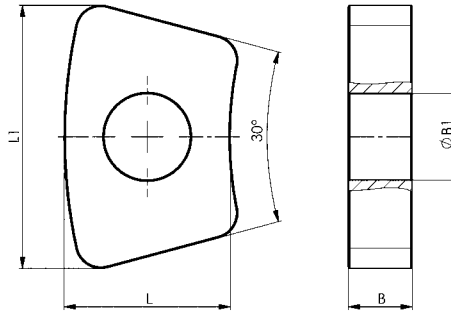
Order no.	Size	Weight [g]
535757	M12	62

**Application:**

The spring washer is used to securely fasten the base element for T-grooved plates with M12 cheese head screws onto the machine table.

**Note:**

Suitable for base element for T-grooved plate Order no. 532465



**Dimensions:**

Order no.	Size	B	dia. B1	L	L1
535757	M12	10	13,5	26	41





No. 6210A-20-10

Adapter reduction from K20 to K10

Order no.	Size	H ±0.01	Weight [g]
534750	K20 - K10	50	2923

### Application:

The adapter element is used to reduce the intermediate element size K20 and K10.3 to size K10. Intermediate elements or assembly elements can be adapted. This clamping system can be used to move workpieces to the required machining height in the machine for 5-sided machining, or for the safe and quick clamping of workpieces with ledges and different clamping heights on the machine table.

### Advantage:

Simple, quick and flexible clamping of complex workpiece contours on the machine table. Especially suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool and for the reliable clamping of same.

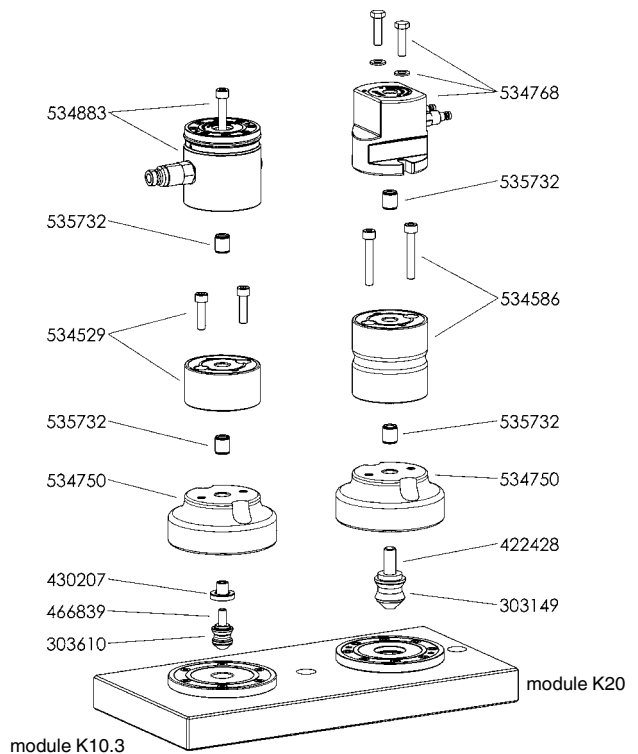
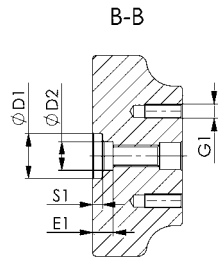
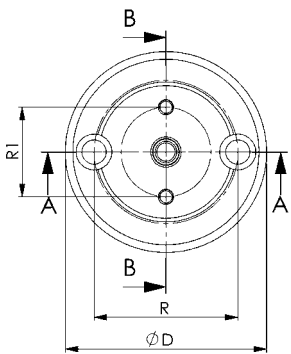
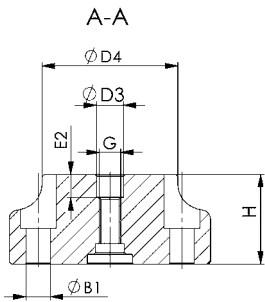
### Note:

Order numbers for the centering sleeves:  
 - Ø15: Order no. 535732  
 - Ø16: Order no. 78006  
 - Ø22: Order no. 78238  
 The fastening screws are supplied as standard.



### Dimensions:

Order no.	Size	dia. B1	dia. D	dia. D1	dia. D2	dia. D3	dia. D4	Screw DIN84 or ISO4762	E1	E2	G	G1	R	R1	S1
534750	K20 - K10	13,5	112	25	16	15	78	M12x50	11,5	13	M12	M8	80	50	5,5



CAD

Subject to technical alterations.

## No. 6210IA-20-10

### Adapter reduction from K20 to K10, with indexing



Order no.	Size	H ±0.01	Weight [g]
532499	K20 - K10	50	2892

#### Application:

The adapter element with indexing is used to reduce the intermediate element size K20 and K10.3 to size K10. Intermediate elements or assembly elements can be adapted.

This clamping system can be used to move workpieces to the required machining height in the machine for 5-sided machining, or for the safe and quick clamping of workpieces with ledges and different clamping heights on the machine table.

Thanks to the 4-point 90° indexing option, workpieces under strong machining forces can be secured to prevent radial distortion.

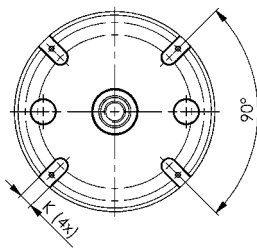
#### Advantage:

Simple, quick and flexible clamping of complex workpiece contours on the machine table. Especially suitable for levelling workpieces or clamping fixtures at the necessary machine heights in the machine tool and for the reliable clamping of same.

#### Note:

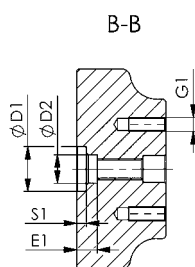
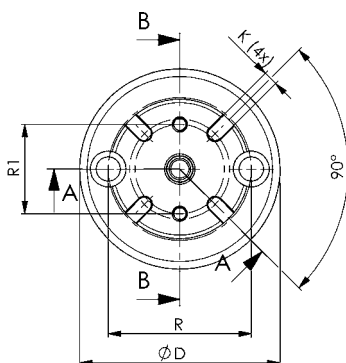
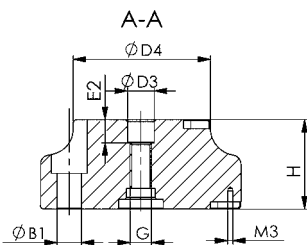
Order numbers for the centering sleeves:

- Ø15: Order no. 535732
- Ø16: Order no. 78006
- Ø22: Order no. 78238
- Slot nuts: Order no. 430264.



#### Dimensions:

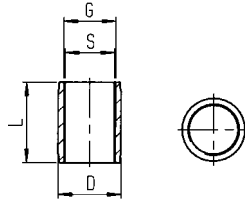
Order no.	Size	dia. B1	dia. D	dia. D1	dia. D2	dia. D3	dia. D4	Screw DIN84 or ISO4762	E1	E2	G	G1	K F6	R	R1	S1
532499	K20 - K10	13,5	112	25	16	15	78	M12x50	9	13	M12	M8	8	80	50	5,5



No. 6363-\*\*-005

Centring sleeve, cylindrical

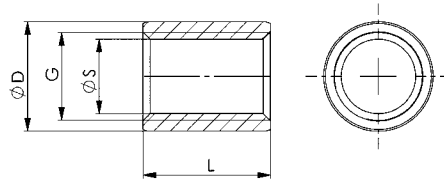
Order no.	Size	dia. D	G	L -0.2	dia. S	Weight [g]
78006	12	16 +0,011/0	R1/4	20,5	12,5	9
78238	16	22 +0,015/+0,002	M18	16,5	25	



No. 6210-15-01

Centering sleeve Ø 15

Order no.	Size	dia. D	G	L -0.2	dia. S	Weight [g]
535732	15	15 +0,011/0	M12	17,4	10,1	12



No. 6210-XX

Centring pin

Order no.	dia. D	dia. D1	dia. D2	L	L1	Weight [g]
550198	22	15	8,5	20	14	28
550197	32	16	12,5	18	11	44



### Application:

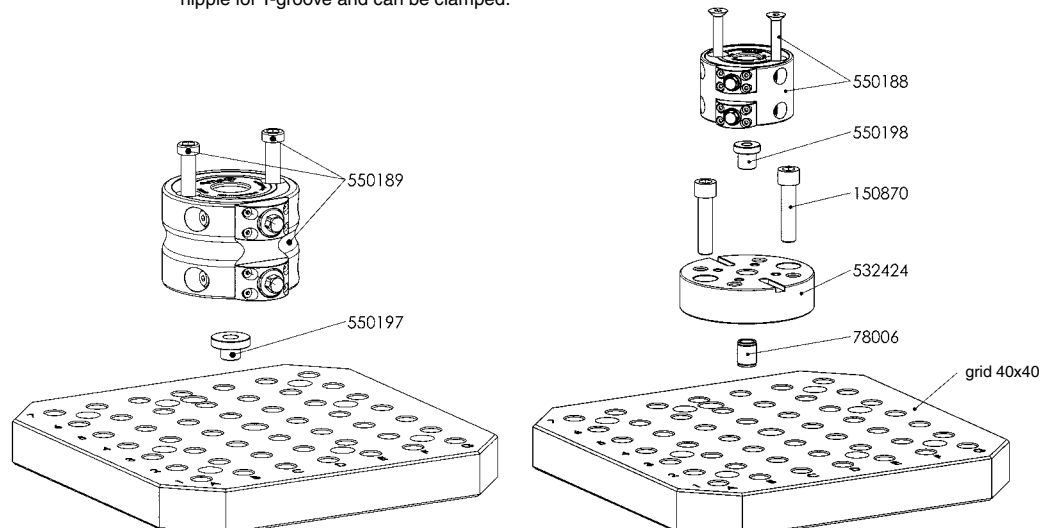
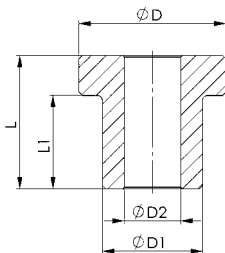
To position the double clamping modules on a clamping plate with clearance holes or a foot element from the „Modular height adapter“ AMF clamping system.

### Advantage:

Highly-precise positioning of the double clamping module.

### Note:

The centring pin is used when the double clamping module is not yet positioned with a clamping nipple for T-groove and can be clamped.



Subject to technical alterations.



The module interior is completely sealed. As a result, the system is optimally protected against liquids and dirt.



Use in the food industry



No. 6213

## Magnetic ZPS flange

Force / pole = 4 kN

**NEW!**

Order no.	Size	Pole size [mm]	Number of poles [St]	H	K	Weight [g]
554499	K10.2	50	4	108	88,0	24,1
554500	K10.3	50	4	110	90,0	24,0
554501	K20	50	4	110	85,0	24,5
554502	K20.3	50	4	115	89,5	24,3

### Design:

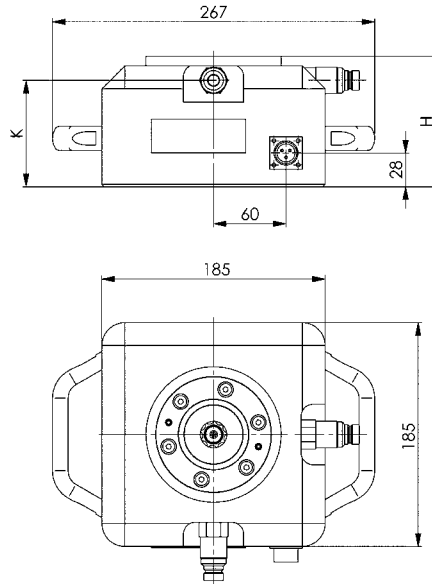
The magnetic ZPS flange with square pole technology in monoblock construction with metallic surface and four poles for clamping on the machine table. On the upper side, the AMF clamping module is inserted into the flange and is operated pneumatically or hydraulically depending on the design.

### Application:

This clamping equipment is particularly suitable for clamping solutions directly on the machine table from batch size 1. It adjusts itself to the various pitch spacings of the ZPS clamping nipple and clamps the workpiece distortion-free on the machine table.

### Note:

The magnetic ZPS flange can be controlled for the magnetic clamping technology using all available AMF control device and control units.



No. 2950-50-2x2

## Magnetic flange blank

Force / pole = 4 kN

**NEW!**



Order no.	Pole size [mm]	Number of poles [St]	Weight [Kg]
554505	50	4	23,4

### Design:

Magnetic flange blank with square pole technology in monoblock construction with metallic surface and four poles for clamping on the machine table.

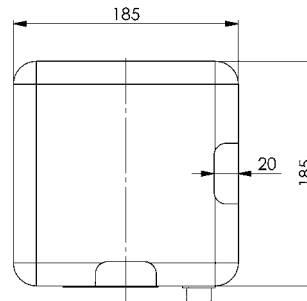
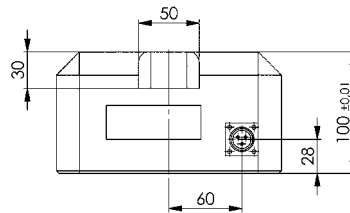
The upper side can be reworked to a machining depth of 50 mm.

### Application:

This magnetic flange blank is particularly suitable for customised clamping solutions. By allowing 50 mm on the upper side, it is possible to incorporate boreholes and a thread for mechanical, pneumatic or hydraulic clamping elements.

### Note:

The magnetic flange blank can be controlled for the magnetic clamping technology using all available AMF control devices and control units.



## No. 2970SG-10

### Control unit for a magnetic chuck



Order no.	Length [mm]	Width [mm]	Height [mm]	Weight [Kg]
550738	300	300	120	10

#### Application:

Control unit for a magnetic chuck.

The control device has three control buttons:

- 1 x magnetisation (MAG)
- 1 x demagnetisation (DEMAG)
- 1 x release

To start the magnetisation or demagnetisation cycle, the following button combinations must be pressed simultaneously:

- Magnetisation = MAG + Release
- Demagnetisation = DEMAG + Release

#### Features:

The connection cable and control lead have a length of 3 metres each.

The connection cable has a plug for 400V / 32A and is preassembled ready for connection. The high-quality control lead has a steel mesh sheath and push-pull plug for connecting to the magnetic chuck.

- DB-9 Plug available for:
- 1 x machine locking
- 1 x hand-held controller

#### Advantage:

- Compact and ready-to-connect control for a magnetic chuck
- Short cycle times of less than 1 second for magnetisation and demagnetisation
- No further installation of e.g. connecting plugs necessary
- Very strong and robust construction

## No. 2970SV-10

### Distributor box with 4 outputs

**NEW!**



Order no.	Number of magnetic flanges to control [St]	Weight [Kg]
554506	4	5,6

#### Application:

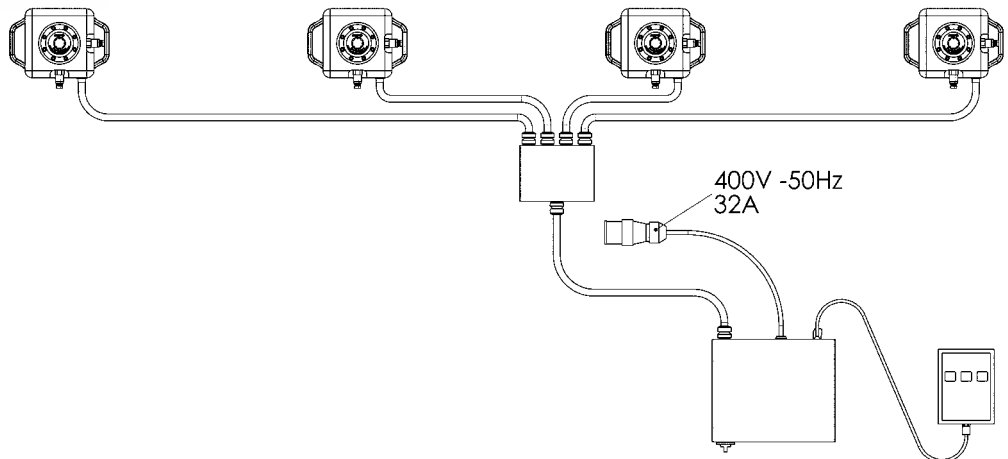
Distributor box for the magnetic clamping technology with one input (control) and four outputs (magnetic flange blank or magnetic ZPS flange).

This distributor box is designed for up to four magnetic flange blanks or magnetic ZPS flanges with one input signal for magnetisation or demagnetisation simultaneously.

#### Features:

Input distributor box: Designed for AMF control unit with Order No. 550738.

Output distributor box: 4 control cables with a length of 3 metres each and a metal sheath made of steel mesh and a push-pull connector for connecting to the magnetic flange.



Subject to technical alterations.



No. 2970HBG-10

Hand-held controller for control units without channel selection

Order no.	Length of connecting cable		Weight [Kg]
	[m]		
550744	3		1



### Application:

The hand-held controller is used for controlling the magnetic chucks by means of the control device or control unit.

The hand-held controller has three function buttons:

- 1 x magnetisation (MAG)
- 1 x demagnetisation (DEMAG)
- 1 x release

To start the magnetisation or demagnetisation cycle, the following button combinations must be pressed simultaneously:

- Magnetisation = MAG + Release
- Demagnetisation = DEMAG + Release

### Features:

The hand-held controller is suitable for all AMF control devices of the series 2970 without channel selection and is connected directly to the control device or control unit by means of the DB-9 plug. The connection cable is 3 metres long.

### Advantage:

- Light and practical hand-held controller
- Ready-to-connect delivery
- Can be connected directly to the control device or control unit.

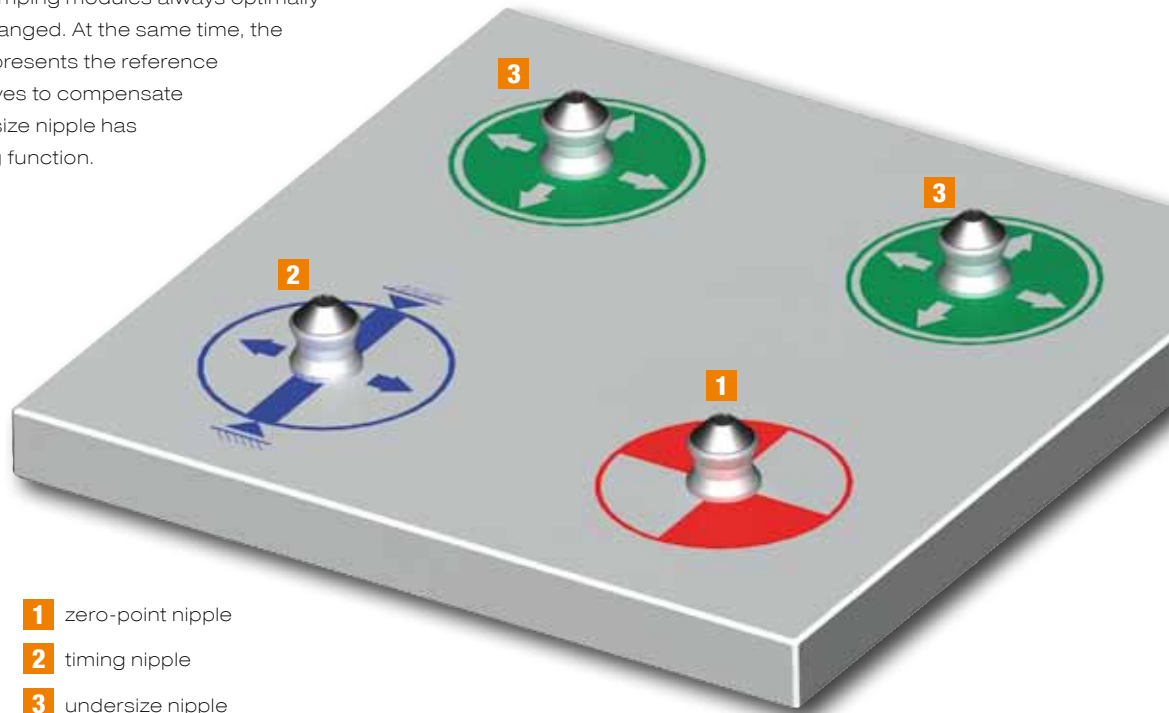


Subject to technical alterations.



## ARRANGEMENT OF CLASSIC CLAMPING NIPPLE

This arrangement of the clamping modules always optimally positions the pallet to be changed. At the same time, the zero-point nipple always represents the reference point. The timing nipple serves to compensate for the free axis. The undersize nipple has only a clamping and holding function.

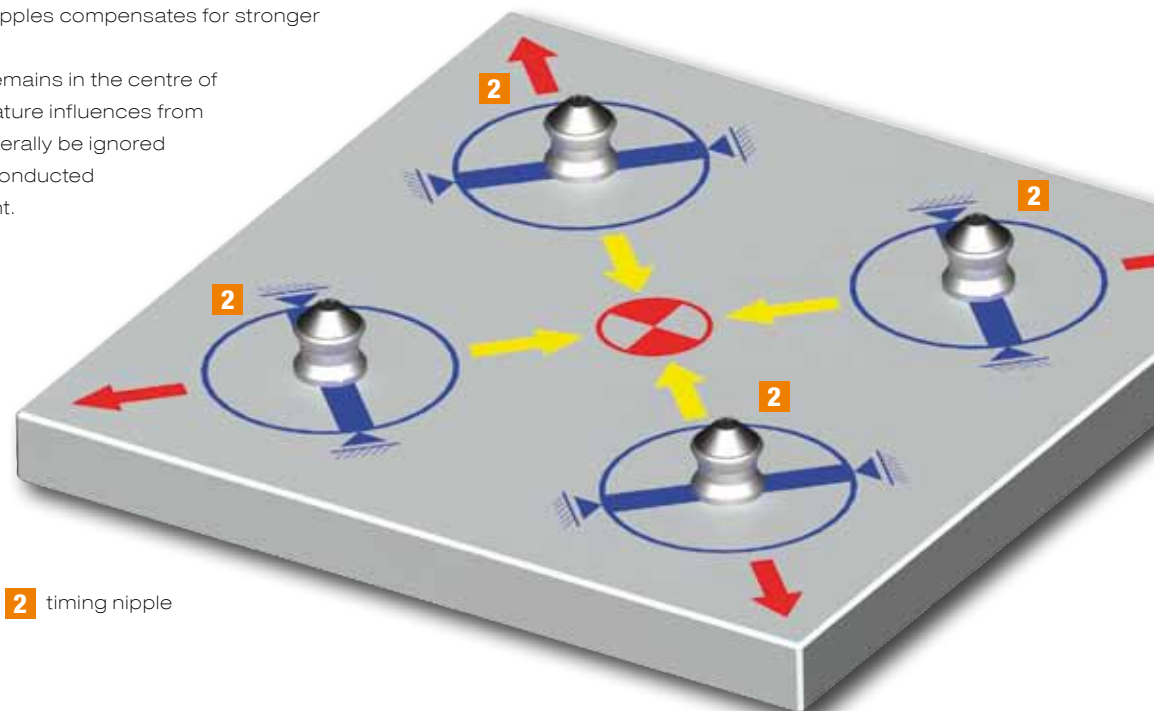


- 1** zero-point nipple
- 2** timing nipple
- 3** undersize nipple

## ARRANGEMENT OF OPTIONAL CLAMPING NIPPLE

The exclusive use of timing nipples compensates for stronger temperature influences.

The reference point always remains in the centre of the pallet. Of course, temperature influences from machine processing can generally be ignored since the heat generated is conducted away by the chips and coolant.



- 2** timing nipple

## No. 6203ZN-02

### Clamping nipple K02

Hardened, for pneumatic clamping module no. 6203L.



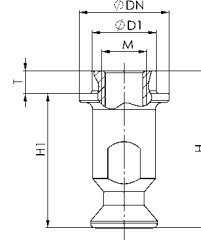
Order no.	Size	dia. DN	dia. D1	H	H1	M	T	Weight [g]
427302	K02	10,0	7,14	17,5	15	M5	2,5	4
427328	K02	10,0	7,14	17,5	15	M5	2,5	4
427344	K02	9,95	7,14	17,5	15	M5	2,5	4

#### Design:

Order no. 427302: Zero point nipple

Order no. 427328: Slit nipple

Order no. 427344: Undersized nipple



## No. 6370ZN-5

### Clamping nipple K5 for engagement nipple screw M6

Hardened, for clamping modules size K5.



Order no.	Size	dia. DN	dia. D1	dia. D2	H	H1	M	T	Weight [g]
306019	K 5	15,0	10	6	12,7	10,2	-	2,5	15
306035	K 5	15,0	10	6	12,7	10,2	-	2,5	15
306050	K 5	14,8	10	6	12,7	10,2	-	2,5	15
306076	K 5	14,8	-	-	-	-	M 6	-	12

#### Design:

Order no. 306019: Zero point nipple, Order no. 306035: Slit nipple,

Order no. 306050: Undersized nipple, Order no. 306076: Protection nipple

## No. 6370ZN-5

### Clamping nipple K5 for engagement nipple screw M8

Hardened, for clamping modules size K5.

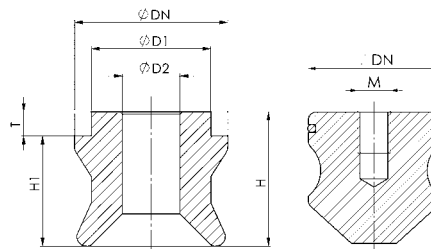


Order no.	Size	dia. DN	dia. D1	dia. D2	H	H1	M	T	Weight [g]
554933	K 5	15,0	11	8	12,7	10,2	-	2,5	8
554934	K 5	15,0	11	8	12,7	10,2	-	2,5	8
554935	K 5	14,8	11	8	12,7	10,2	-	2,5	8
306076	K 5	14,8	-	-	-	-	M 6	-	12

#### Design:

Order no. 554933: Zero point nipple, Order no. 554934: Slit nipple,

Order no. 554935: Undersized nipple, Order no. 306076: Protection nipple



## No. 6370ZN-10

### Clamping nipple K10 for engagement nipple screw M8

Hardened, for clamping modules size K10.



CAD

Order no.	Size	dia. DN	dia. D1	dia. D2	H	H1	M	T	Weight [g]
303610	K10	22,0	15	8	19	16	-	3	30
303636	K10	22,0	15	8	19	16	-	3	30
304519	K10	21,8	15	8	19	16	-	3	30
304535	K10	21,8	-	-	-	-	M 8	-	30

#### Design:

Order no. 303610: Zero point nipple, Order no. 303636: Slit nipple

Order no. 304519: Undersized nipple, Order no. 304535: Protection nipple

#### Note:

The slit nipple has an additional auxiliary bore, which can be optionally used for simple installation.

## No. 6370ZN-10

### Clamping nipple K10 for engagement nipple screw M10

Hardened, for clamping modules size K10.



Order no.	Size	dia. DN	dia. D1	dia. D2	H	H1	M	T	Weight [g]
554936	K10	22,0	15	10	19	16	-	3	27
554937	K10	22,0	15	10	19	16	-	3	27
554938	K10	21,8	15	10	19	16	-	3	27
304535	K10	21,8	-	-	-	-	M 8	-	30

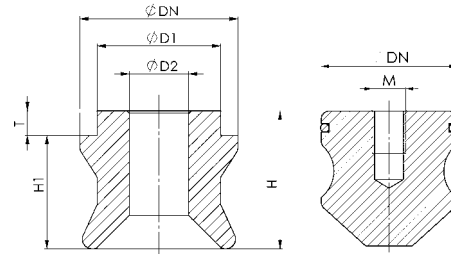
#### Design:

Order no. 554936: Zero point nipple, Order no. 554937: Slit nipple

Order no. 554938: Undersized nipple, Order no. 304535: Protection nipple

#### Note:

The slit nipple has an additional auxiliary bore, which can be optionally used for simple installation.



## No. 6370ZN-10

### Clamping nipple K10 with colour marking for engagement nipple screw M8

Hardened, for clamping modules size K10.



Order no.	Size	dia. DN	dia. D1	dia. D2	H	H1	T	Weight [g]
430280	K10	22,0	15	8	19	16	3	30
430306	K10	22,0	15	8	19	16	3	30

#### Design:

Extremely wear-resistant surface coating.

Order no. 430280: Zero point nipple „Gold“, Order no. 430306: Slit nipple „Black“.

#### Application:

For simple, visual differentiation of the various clamping nipple types.

#### Note:

The slit nipple has an additional auxiliary bore, which can be optionally used for simple installation.



CAD

## No. 6370ZN-20

### Clamping nipple K20 for engagement nipple screw M12

Hardened, for clamping modules size K20.



Order no.	Size	dia. DN	dia. D1	dia. D2	H	H1	M	T	Weight [g]
303149	K20	32,0	25	12	28	23	-	5	110
303156	K20	32,0	25	12	28	23	-	5	110
303164	K20	31,8	25	12	28	23	-	5	110
303172	K20	31,8	-	-	-	-	M 8	-	110



#### Design:

Order no. 303149: Zero point nipple, Order no. 303156: Slit nipple  
Order no. 303164: Undersized nipple, Order no. 303172: Protection nipple

#### Note:

The slit nipple has an additional auxiliary bore, which can be optionally used for simple installation.

## No. 6370ZN-20

### Clamping nipple K20 for engagement nipple screw M16

Hardened, for clamping modules size K20.

Order no.	Size	dia. DN	dia. D1	dia. D2	H	H1	M	T	Weight [g]
554939	K20	32,0	25	16	28	23	-	5	85
554940	K20	32,0	25	16	28	23	-	5	85
554941	K20	31,8	25	16	28	23	-	5	85
303172	K20	31,8	-	-	-	-	M 8	-	110

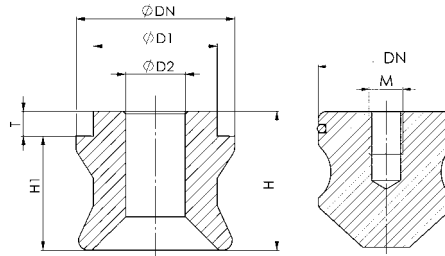


#### Design:

Order no. 554939: Zero point nipple, Order no. 554940: Slit nipple  
Order no. 554941: Undersized nipple, Order no. 303172: Protection nipple

#### Note:

The slit nipple has an additional auxiliary bore, which can be optionally used for simple installation.



## No. 6370ZN-20

### Clamping nipple K20 with colour marking for engagement nipple screw M12

Hardened, for clamping module size K20.

Order no.	Size	dia. DN	dia. D1	dia. D2	H	H1	T	Weight [g]
430322	K20	32,0	25	12	28	23	5	110
430348	K20	32,0	25	12	28	23	5	110



#### Design:

Extremely wear-resistant surface coating.  
Order no. 430322: Zero point nipple „Gold“, Order no. 430348: Slit nipple „Black“

#### Application:

For simple, visual differentiation of the various clamping nipple types.

#### Note:

The slit nipple has an additional auxiliary bore, which can be optionally used for simple installation.



## No. 6370ZN-40

### Clamping nipple K40 for engagement nipple screw M16

Hardened, for clamping modules size K40.



CAD



INOX  
STAINLESS STEEL



Order no.	Size	dia. DN	dia. D1	dia. D2	H	H1	M	T	Weight [g]
303180	K40	40,0	25	16	34	29	-	5	180
303198	K40	40,0	25	16	34	29	-	5	180
303206	K40	39,8	25	16	34	29	-	5	180
303214	K40	39,8	-	-	-	-	M 8	-	180

### Design:

Order no. 303180: Zero point nipple, Order no. 303198: Slit nipple

Order no. 303206: Undersized nipple, Order no. 303214: Protection nipple

### Note:

The slit nipple has an additional auxiliary bore, which can be optionally used for simple installation.

## No. 6370ZN-40

### Clamping nipple K40 for engagement nipple screw M18

Hardened, for clamping modules size K40.



INOX  
STAINLESS STEEL



Order no.	Size	dia. DN	dia. D1	dia. D2	H	H1	M	T	Weight [g]
554942	K40	40,0	30	18	34	29	-	5	170
554943	K40	40,0	30	18	34	29	-	5	170
554944	K40	39,8	30	18	34	29	-	5	170
303214	K40	39,8	-	-	-	-	M 8	-	180

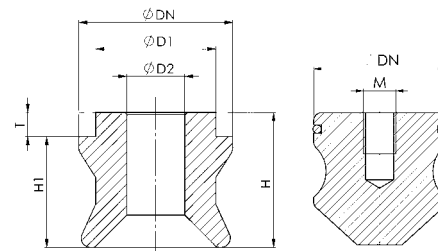
### Design:

Order no. 554942: Zero point nipple, Order no. 554943: Slit nipple

Order no. 554944: Undersized nipple, Order no. 303214: Protection nipple

### Note:

The slit nipple has an additional auxiliary bore, which can be optionally used for simple installation.



Subject to technical alterations.

No. 6370ZNS-001

## Engagement nipple screw

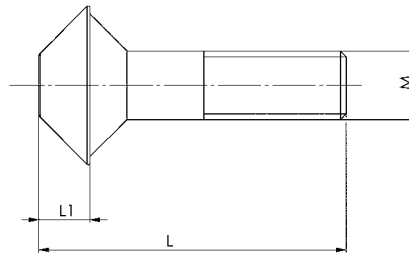
Strength class 12.9.



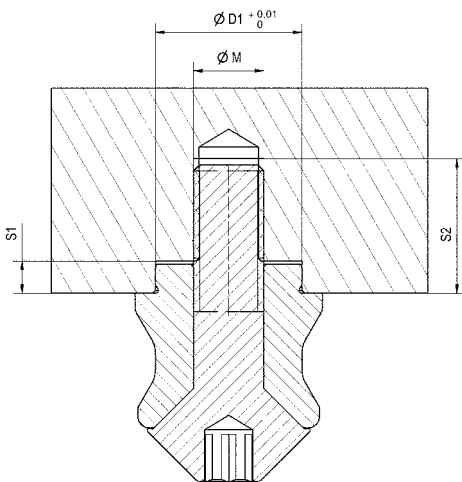
Order no.	Size	M	L	L1	Holding force [kN]	Weight [g]
306092	K 5	M6	25	3,4	8,5	10
554926	K 5	M8	29	3,4	13,0	13
303578	K10	M8	37	6,0	17,0	25
554927	K10	M10	41	6,0	25,0	32
303222	K20	M12	54	9,0	43,0	70
554928	K20	M16	63	9,5	55,0	125
303230	K40	M16	69	10,0	75,0	130
554929	K40	M18	73	11,0	105,0	195

### On request:

Engagement nipple screws in various lengths and materials (e.g. high-grade stainless steel).



## Dimensions for machining nipple mountings



Size	ØD1	ØM	S1	S2
K02	7,17	M5	3,6	14
K 5	10,00	M6	2,8	12
K 5	11,00	M8	2,8	17
K10	15,00	M8	3,5	16
K10	15,00	M10	3,5	20
K20	25,00	M12	5,5	23
K20	25,00	M16	5,5	32
K40	25,00	M16	5,5	30
K40	30,00	M18	5,5	35

### Figure:

Shown with clamping nipple and engagement nipple screw.



## No. 6370ZNSN

### Floating nipple

Hardened, for hydraulic and pneumatic clamping modules.

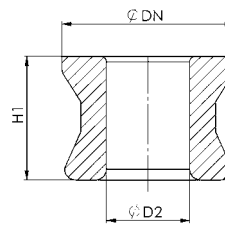


CAD

Order no.	Size	dia. DN	dia. D2	H1	Weight [g]
340059	K10	21,8	12,0	16	25
305912	K20	31,8	15,5	23	80
426882	K40	39,8	20,0	29	160

#### Note:

The floating nipple is supported by bearings so that it is axially mobile and is used when large distance and angle tolerances between the nipple holes have to be compensated. The nipple has only a holding function and does not take on any lateral load.



## No. 6370ZNSSN

### Engagement nipple screw

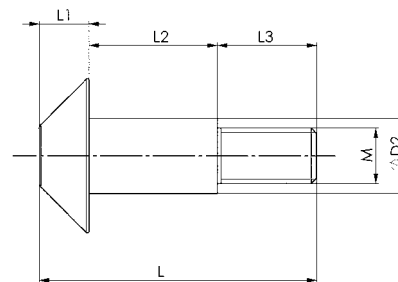
Strength class 10.9.

Suitable for floating nipple, article no. 6370ZNSN.



CAD

Order no.	Size	dia. D2	M	L	L1	L2	L3	Holding force [kN]	Weight [g]
340034	K10	11,0	M8	35	6	16,1	12,9	10	24
305938	K20	13,5	M10	50	9	23,1	17,9	20	55
426908	K40	17,0	M12	59	10	29,1	19,9	30	100



## No. 6370ZNM

### Clamping female nipple

Strength class 10.  
Suitable for clamping nipple No. 6370ZN



Order no.	Size	M	SW	H	Weight [g]
429969	K 5	M6	10	6	3
429985	K10	M8	14	8	8
430009	K20	M12	21	14	26
430025	K40	M16	28	17	50

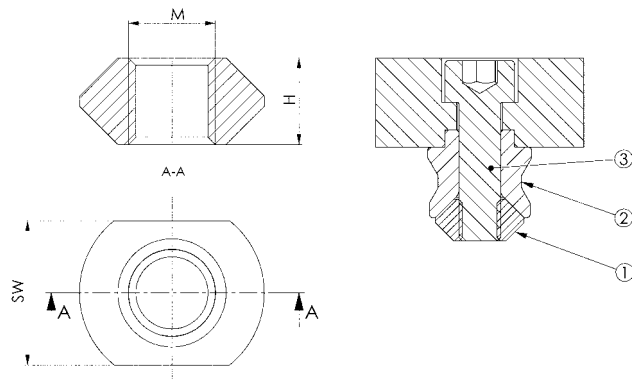
### Application:

Clamping female nipple for fastening the clamping nipple.

### Note:

By gluing the clamping female nipple in the clamping nipple with medium adhesive it is protected against twisting when loosening the socket head screw.

- 1 = Clamping female nipple
- 2 = Clamping nipple
- 3 = Socket head screw



## No. 6370ZNS-002

### Horizontal engagement nipple screw

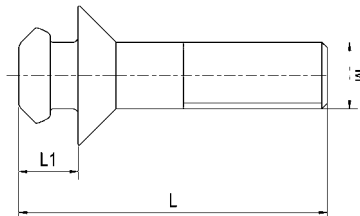
Strength class 10.9.



Order no.	Size	M	L	L1	Holding force [kN]	Weight [g]
303248	K20	M12	56	10,5	20	100
303255	K40	M16	73	13,0	45	200

### On request:

Horizontal engagement nipple screw in various lengths and materials (e.g. high-grade stainless steel).



## No. 6370ZA

### Protective shield

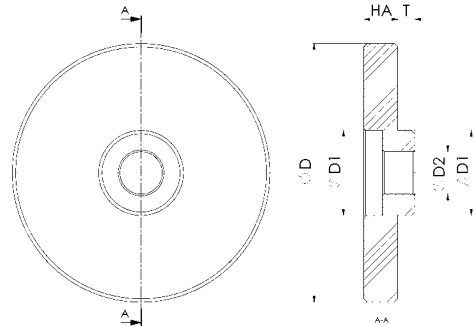


CAD

Order no.	Size	dia. D	dia. D1	dia. D2	HA	T	Weight [g]
422345	K10	50	15	8,5	7	3	100
422360	K20	76	25	12,5	10	5	340
422386	K40	112	25	16,8	15	5	1130

### Application:

The protective shield is used when through-holes must be set in the area of the module cover. As a result, the module cover is protected from damage.



## No. 6370ZNSA

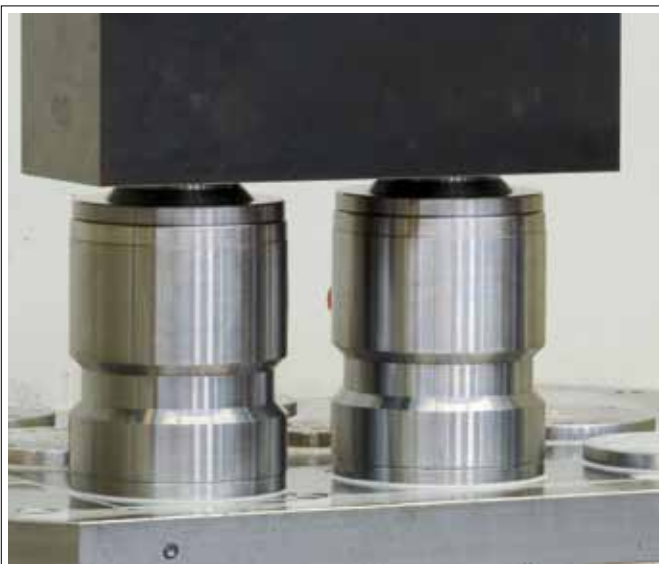
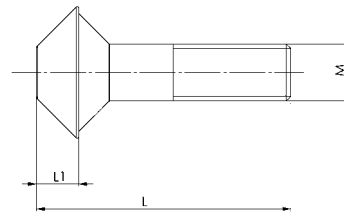
### Engagement nipple screw for protective shield

Strength class 10.9.



CAD

Order no.	Size	M	L	L1	Holding force [kN]	Weight [g]
422402	K10	M8	44	6	17	33
422428	K20	M12	64	9	43	80
422444	K40	M16	84	10	75	145



Subject to technical alterations.

No. 6102ZN

## Clamping nipple for „Turbine“ high-end clamping module

Hardened, for hydraulic high-end clamping module article no. 6102H.



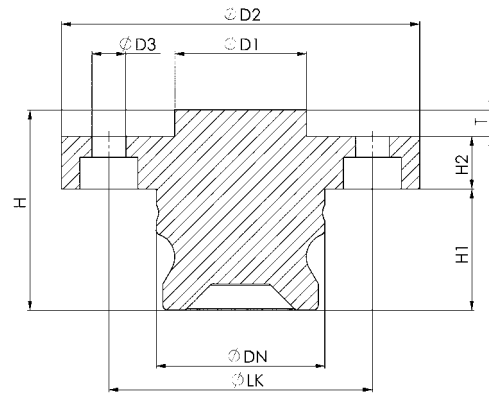
Order no.	Size	dia. DN	dia. D1	dia. D2	dia. D3	dia. LK	H	H2	H1	T	Weight [g]
426502	K23	32,0	25	68	6,4	50	38	23	10	5	370
426528	K23	32,0	25	68	6,4	50	38	23	10	5	370
426544	K23	31,8	25	68	6,4	50	38	23	10	5	370

### Design:

Order no. 426502: Zero point nipple

Order no. 426528: Slit nipple

Order no. 426544: Undersized nipple



CAD



Subject to technical alterations.

## No. 6370ZN-20-029

### Puller

Order no.	Size	Thread	Weight [g]
526517	K20	M10	150

#### Design:

Aluminium puller is suitable for AMF K20 clamping nipple.

#### Application:

Clamping nipples can be simply and quickly removed from the workpiece or fixture. For this purpose, the K20 puller is mounted on a pin puller and the clamping nipples are pulled out without damaging the locating bore.



## No. 6370ZZ

### Positioning nipple

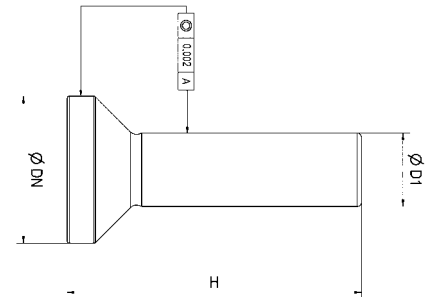
Hardened.



Order no.	for clamping modules	dia. D1	dia. DN	H	Weight [g]
306241	K 5	8	15	48	60
306167	K10	12	22	48	85
306183	K20 / G1000	16	32	64	225
306209	K40	20	40	82	455

#### Application:

The positioning nipple makes all of the surface-mounted modules easier to align. It can be clamped directly in the machine spindle, thus achieving the desired gauges when the machine is traversed.



## No. 6370ZMSH

### Mounting key for horizontal rapid-clamping cylinder

Suitable for article-nos. 6370HARH.

Order no.	Size	Weight [g]
424556	K20	520
426866	K40	940

#### Application:

The mounting key is needed for installation of the threaded sleeve of the horizontal rapid-clamping cylinder.



## No. 6370ZAS

### Cover ring for clamping modules

Material: Aluminium

**NEW!**



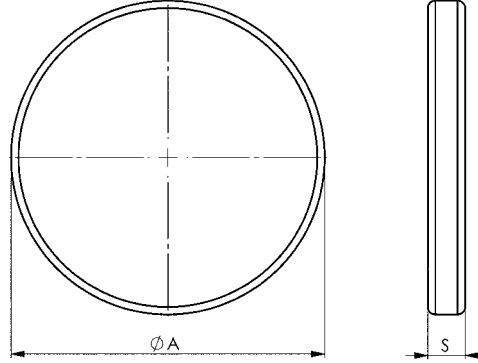
Order no.	Size	dia. A	S	Weight [g]
552810	K10	84	10	80
552811	K10.2, K10.3, K20	118	11	160
552812	K20.3	146	13	260
552813	K40	156	13	290

#### Design:

Cover and protective shield made of aluminium for ZPS clamping modules. These protect the contact surface of the clamping modules and are attached to the outside diameter by a pretensioned O-ring.

#### Application:

Cover and protective shields are used to protect the contact surface of the ZPS clamping modules from environmental influences.



## No. 6370ZAR

### Cover ring for clamping module

Stainless steel, self-adhesive.



Order no.	Size	Weight [g]
550281	K10.2	4
550282	K10.3	4
550283	K10	4
550284	K20	5
550285	K40	6

#### Design:

Stainless steel, one-side self-adhesive with removable film. Selected sizes are suitable for installation and construction clamping modules.

#### Application:

Protective cover for clamping modules prevents build-up of dirt and chips.

#### Note:

Not suitable for clamping module with indexing, square clamping module and heavy-duty module. It must be noted that the adhesive used has only limited suitability for the use of coolant lubricants.



Subject to technical alterations.

## No. 6206ZS

### Cover cap for clamping module

Material: Polyethylene

**NEW!**



Order no.	Packaging unit	Weight [g]
553995	8	3

#### Application:

Cover and protective caps for the mounting screws of the K5.3 clamping modules.

## No. 6204ZS

### Cover caps for clamping module

Material: polyethylene



Order no.	Packaging unit [St]	Weight [g]
428664	10	4

#### Application:

Cover and protective caps for mounting screws of the K10.2, K10.3, K20.3 clamping modules.

## No. 6204ZS-02

### Cover caps for clamping pallets

Material: polyethylene



Order no.	Size	Packaging unit [St]	Weight [g]
430165	M12	12	15
430181	M16	12	15

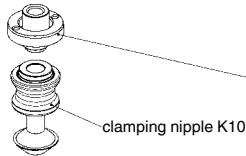
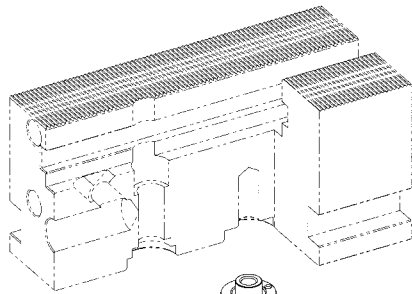
#### Application:

Cover and protective cap for cylinder and positioning boreholes in clamping stations.

## No. 6376Z

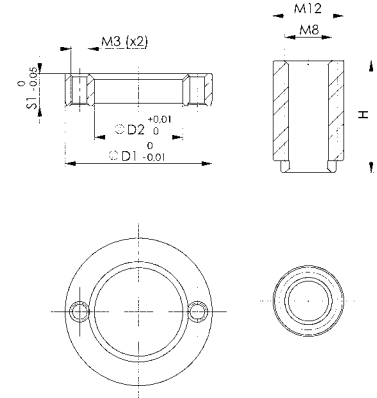
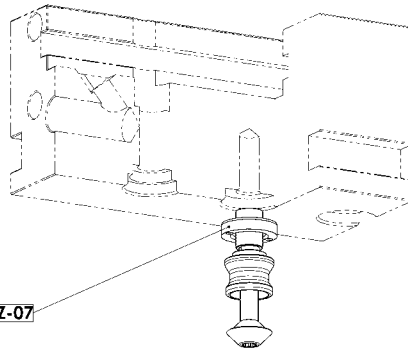
### Adapter set for ZPS clamping nipple K10

Supply scope:  
 - 1 Adapter sleeve  
 - 1 Positioning bush



6376Z-07

clamping nipple K10



Order no.	dia. D1	dia. D2	S1	H	Weight [g]
430207	25	15	5,5	19	23

#### Design:

For blind hole thread and clamping rail, see article no. 6376G.  
 The threaded sleeve is produced from alloyed heat-treated steel, the adapter ring from case-hardened steel.

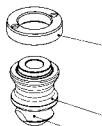
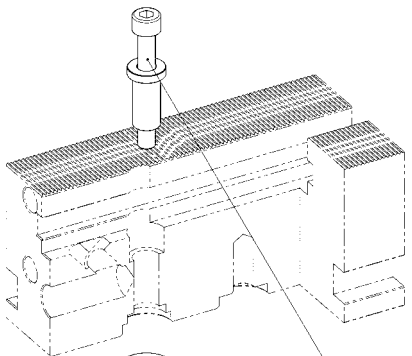
#### Application:

Adapter set for reducing the locating bore from K20 to K10 ZPS clamping nipple.

## No. 6376Z

### Adapter set for ZPS clamping nipple K10

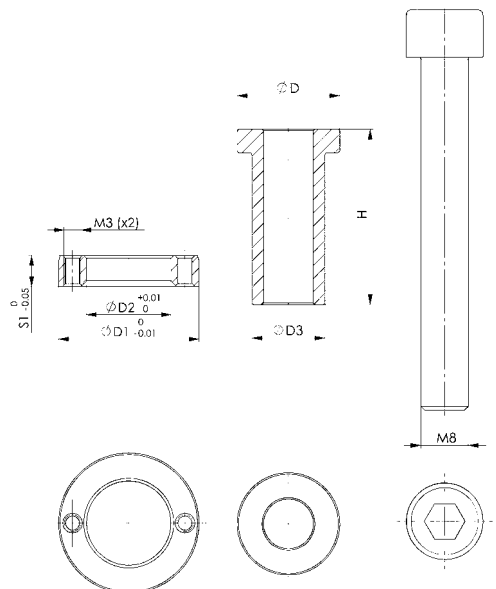
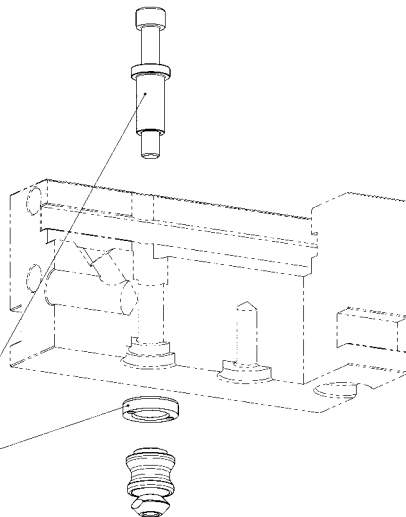
Supply scope:  
 - 1 Cylinder head screw  
 - 1 Adapter sleeve  
 - 1 Positioning bush



clamping nipple K10

Clamping female nipple K10  
 (Order no.: 429985)

6376Z-08



Order no.	dia. D	dia. D1	dia. D2	dia. D3	H	S1	Weight [g]
430223	17,5	25	15	12,5	30	5,5	62

#### Design:

For through-bores in the clamping rail, see Item No. 6376G.  
 The threaded sleeve is produced from alloyed heat-treated steel, the adapter ring from case-hardened steel.  
 The fastening bolt conforms to strength class 10.9.

#### Application:

Adapter set for reducing the locating bore from K20 to K10 ZPS clamping nipple.

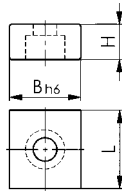
Subject to technical alterations.



## No. 6370ZI

### Indexing T-nut

for clamping modules with indexing.  
Case-hardened, burnished and ground, incl. fastening bolt.



Order no.	Size	B	H	L	Weight [g]
430264	K10.2, K10.3, K20	8	8	10	6
550288	K20.3	10	8	20	15

### Application:

Indexing T-nut is used for the precise positioning of workpieces or fixtures on a clamping module with indexing function.

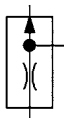
### Note:

Order no. 430264 incl. M3 fastening bolt.  
Order no. 550288 incl. M4 fastening bolt.

## No. 6984-30

### Support control, pneumatic

max. operating pressure 10 bar.



Order no.	Article no.	Stroke max. [mm]	Spring force min. [N]	Spring force max. [N]	Weight [g]
325217	6984-30	5	1,9	2,6	36

### Design:

Housing from hardened and burnished steel. Pistons are tempered, nitrided and ground.  
Compression spring from stainless steel.

### Application:

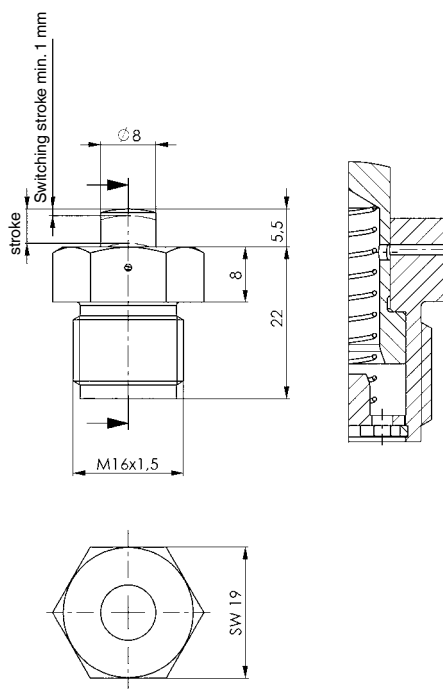
The support control is used in fixtures where a signal indicating a correctly supported workpiece is required to enable machining. Lightweight workpieces should be clamped before being pressurised with compressed air.

### Features:

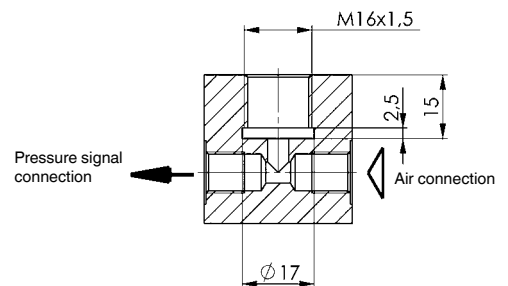
The support control works like a pneumatic back-pressure nozzle. The position is extended from its initial position by a pressure spring. Once applied, the air jet flows through the hollow piston and the radial discharge hole on the support control housing to outside. The discharge hole is sealed as soon as a workpiece is mounted and the piston is pushed downwards by min. 1 mm. The air flow backs up, the internal air pressure rises. The pressure value must be transferred to the control by an appropriate pressure signal converter. The system is relatively insensitive to fine chips.

### Note:

The pressure signal converter is not included in the supply scope.  
Effective piston surface with closed nozzle = 0.95 cm<sup>2</sup>  
Piston force = piston surface x air pressure + spring force



### Installation drawing



## No. 6370ZMMG

### Coupling mechanism adapter

Suitable for installation clamping module nos. 6151HA / 6151L.



Order no.	Size	Nominal bore [NW]	A	A1	A2	B	HA	K	dia. N	dia. P	R	T	U	Weight [Kg]
424002	K20	5	56	33	18	65	35	13	6 H7	9	G1/8	12	45	0,9
424184	K40	5	56	33	18	65	45	13	6 H7	9	G1/8	12	45	1,0

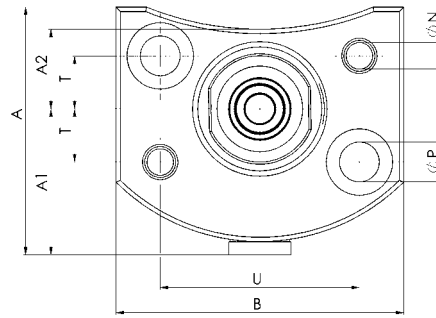
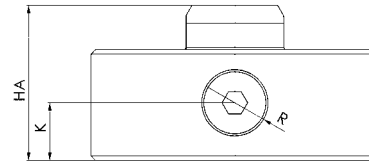
### Application:

Couplings are used for loss-free transfer of liquid and gaseous media and are adjusted to the cover height of the installation clamping modules.

### Note:

The coupling mechanism and nipple must be guided approx. 2-3 mm before contact with the axial sealing surfaces. The radial position tolerance (+/- 0.2mm) must not be exceeded. The couplings can only be coupled in a depressurised state.

The separating force due to hydraulic pressure between the coupling nipple and mechanism is given by the formula  $F [N] = 15.4 \times p [\text{bar}]$  and must be taken into account.



CAD



## No. 6370ZMM

### Screw-in coupling mechanism

max. operating pressure 400 bar.



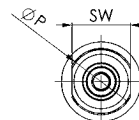
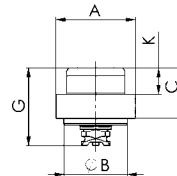
Order no.	Size	Nominal bore [NW]	A	dia. B	C	G	K	dia. P	SW	Weight [g]
424267	K10	5	M30x1,5	24	19	29,0	7	25	22	74
424200	K20	5	M30x1,5	24	19	29,0	10	25	22	65
424226	K40	5	M30x1,5	24	24	31,5	15	25	22	96

### Application:

Couplings are used for loss-free transfer of liquid and gaseous media and are adjusted to the cover height of the installation clamping modules.

### Note:

The coupling mechanism and nipple must be guided approx. 2-3 mm before contact with the axial sealing surfaces. The radial position tolerance (+/- 0.2 mm) must not be exceeded. The couplings can only be coupled in a depressurised state. The separating force due to hydraulic pressure between the coupling nipple and mechanism is given by the formula  $F [N] = 15.4 \times p [\text{bar}]$  and must be taken into account.



CAD



Subject to technical alterations.

## No. 6370ZMNG

### Coupling nipple adapter

Suitable for coupling mechanism no. 6370ZMMG / ZMM



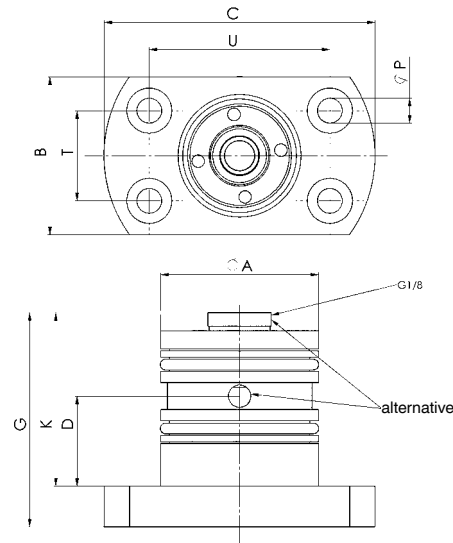
Order no.	Size	Nominal bore [NW]	dia. A	B	C	D	G	K	dia. P	T	U	Weight [g]
424242	K20/K40	5	35	35	60	20	47,5	38,5	5,5	20	40	320

### Application:

The coupling nipple adapter is the counterpart to the coupling mechanicals and is used in the change pallet, in which the clamping nipples are also located. Couplings are used for loss-free transfer of liquid and gaseous media and are adjusted to the height of the installation clamping modules.

### Note:

The mounting housings of the two parts must be guided approx. 2-3 mm before contact with the axial sealing surfaces. This function is taken over by the coupling nipple adapter through the centring function. The medium can be passed on at the top over the pipe connection or over the O-ring connection. The radial position tolerance (+/- 0.2 mm) must not be exceeded. The couplings can only be coupled in a depressurised state. The separating force due to hydraulic pressure between the coupling nipple and mechanism is given by the formula  $F [N] = 15.4 \times p [\text{bar}]$  and must be taken into account.



## No. 6370ZMN

### Screw-in coupling nipple

max. operating pressure 400 bar.



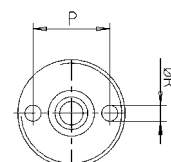
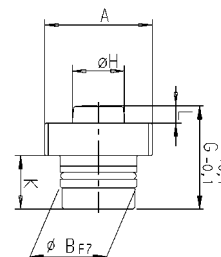
Order no.	Nominal bore [NW]	A	dia. B	G	dia. H	K	L	Weight [g]
430058	5	M24x1,5	20	27	13,5	14	4,5	56

### Application:

Couplings are used for the leakage-free connection of hydraulic oil supplies.

### Note:

The coupling mechanism and nipple must be guided approx. 2-3 mm before contact with the axial sealing surfaces. The radial position tolerance (+/- 0.2 mm) must not be exceeded. The couplings can only be coupled in a depressurised state. The separating force due to hydraulic pressure between the coupling nipple and mechanism is given by the formula  $F [N] = 15.4 \times p [\text{bar}]$  and must be taken into account.



Subject to technical alterations.

## No. 6370ZD-004

### Air-Hydraulic Pump

Max. operating pressure 60 bar.



Order no.	Pneum. pressure min. [bar]	Pneum. pressure max. [bar]	Oil capacity usable [cm <sup>3</sup> ]	Flow rate max. [cm <sup>3</sup> /min]	Weight [Kg]
426569	4	6	1000	750	5,9

#### Design:

Compact, air-pressure-operated hydraulic intensification pump for single-acting circuits. The pump is fitted with an integrated safety valve that regulates the hydraulic output pressure. The safety valve is set in the factory to the max. operating pressure of 60 bar.

The extension element in the oil tank allows the pump to be adjusted horizontally and vertically.

Air connection thread: G1/4

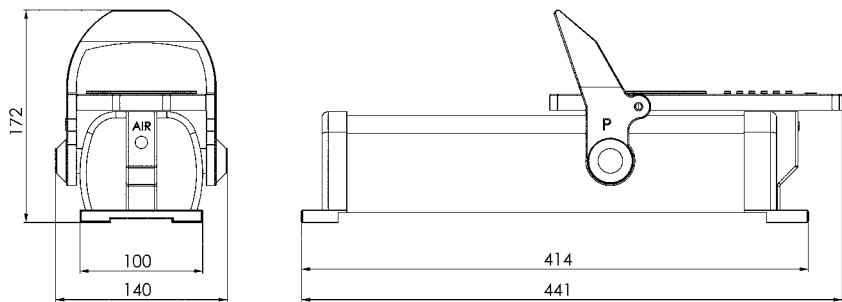
Oil connection thread: G1/4

#### Application:

The air-hydraulic pump is used for opening for hydraulic clamping modules or hydraulic clamping stations.

#### Note:

The use of purified, lubricated compressed air is recommended for operation of the pump.



CAD



## No. 6370ZD

### Pressure intensifier

Max. operating pressure 60 bar.



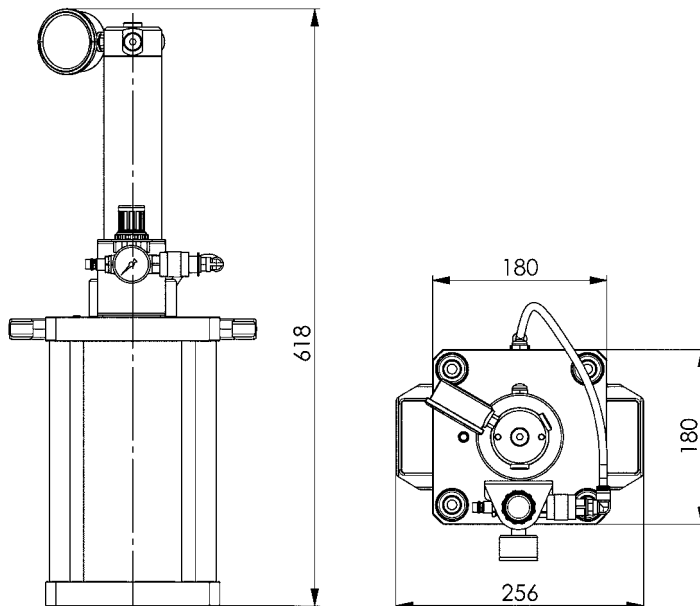
Order no.	Oil capacity [cm <sup>3</sup> ]	Flow rate [cm <sup>3</sup> /min]	Ratio	max. no. of clamping cylinders	Weight [Kg]
554493	400	400	1 : 10	22 (Typ 20), 9 (Typ 40)	17,4

#### Design:

Compact, air-pressure-operated pressure intensifier for single-acting hydraulic circuits. With pneumatic control unit for the hydraulic output pressure, pressure gauge and fill level indicator.

#### Application:

The pressure intensifier is used for opening for hydraulic clamping modules or hydraulic clamping stations.



Subject to technical alterations.

No. 6370ZS-06-2000

## Hose set, hydraulic

Max. operating pressure 100 bar.

Order no.	Length	Weight
	[m]	[g]
430082	2	730

### Design:

The connection set includes:  
 1x hydraulic connecting tube, length 2 m  
 2x straight screw pipe connections  
 2x straight screwed sockets  
 1x T-screw connection  
 1x manometer 0-100 bar  
 1x straight female stud coupling  
 2x quick fitting coupling sleeves  
 2x quick fitting coupling plugs  
 2x Cu sealing washers for G1/4

### Application:

This set is used for the hydraulic connection of extension clamping modules or clamping stations for pressure generators such as pressure boosters or air-hydraulic pumps.



Subject to technical alterations.

## No. 6370ZR

### Pipe fittings, brass

for pipes external Ø 8 mm, internal Ø 4 mm.  
Max. operating pressure 100 bar.

#### Application:

Fittings for piping of surface-mounted clamping modules and flange versions.

#### Note:

\* Article 429936:

Seamless hydraulic pipe, phosphate-coated and lubricated, Ø 8x2 mm, length 2.0 m, made of steel (fully killed cast steel) in accordance with DIN 2391 C normalised, bright-annealed (NBK) cold-drawn.

Order no.	Fig. No.	Connection	Weight [g]
320986	1	G1/4	80
305409	1	G1/8	44
321000	2	G1/4	31
305417	2	G1/8	23
321026	3	G1/4	95
305425	3	G1/8	60
321042	4	-	37
321067	5	-	56
427963	6	G1/8	16
429019	6	G1/4	44
429936	7	*	475



1)



2)



3)



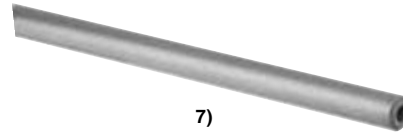
4)



5)



6)



7)

CAD



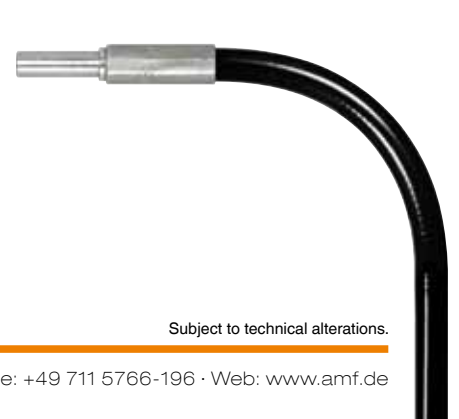
CU seal  
Order no.  
69823



Order no.  
427856



Order no.  
427872



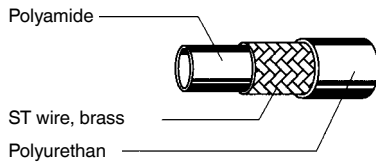
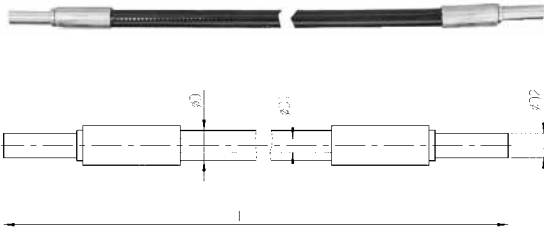
Order no.  
321000

Subject to technical alterations.

## No. 6985R

### High Pressure Hose

Max. operating pressure dyn. at +50°C 375 bar



Order no.	Test pressure [bar]	Bending radius min. [mm]	dia. D [mm]	dia. D1 [mm]	dia. D2 [mm]	L [mm]	Weight [g]
63198	750	30	9,8	4,8	8	300	65
63206	750	30	9,8	4,8	8	500	90
63214	750	30	9,8	4,8	8	800	120
63222	750	30	9,8	4,8	8	1250	180
63230	750	30	9,8	4,8	8	2000	265
63248	750	30	9,8	4,8	8	3000	380

#### Design:

Steel fitting, galvanized and passivated. Hose of synthetic material with high tensile brassed steel-wire braid.

#### Application:

Insert hose and tighten with 1/4 turn maximum.

#### Note:

We recommend only using the 3-metre long high pressure hose for double-acting elements. These high pressure hoses can be used directly in pipe connections. The period of use of a hydraulic hose, including any storage period, should not exceed six years. The serviceability must be assessed according to fixed inspection criteria. See DIN 20066, Section 5 for further details.

## No. 6370ZSK

### Quick Disconnect Coupler

zinc-plated.

Max. operating pressure 325 bar.



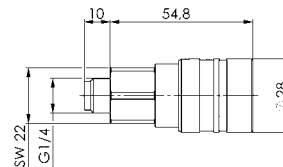
Order no.	Nominal bore [NW]	Nominal flow [l/min]	SW [mm]	Weight [g]
427856	6	12	22	100
427872	6	12	22	170

#### Application:

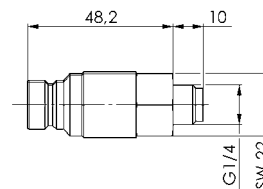
Since the clamping modules after blow-off of the opening pressure are mechanically locked, the hose is then uncoupled by means of the quick couplings. The advantage of this is that there are no interfering lines.

#### Note:

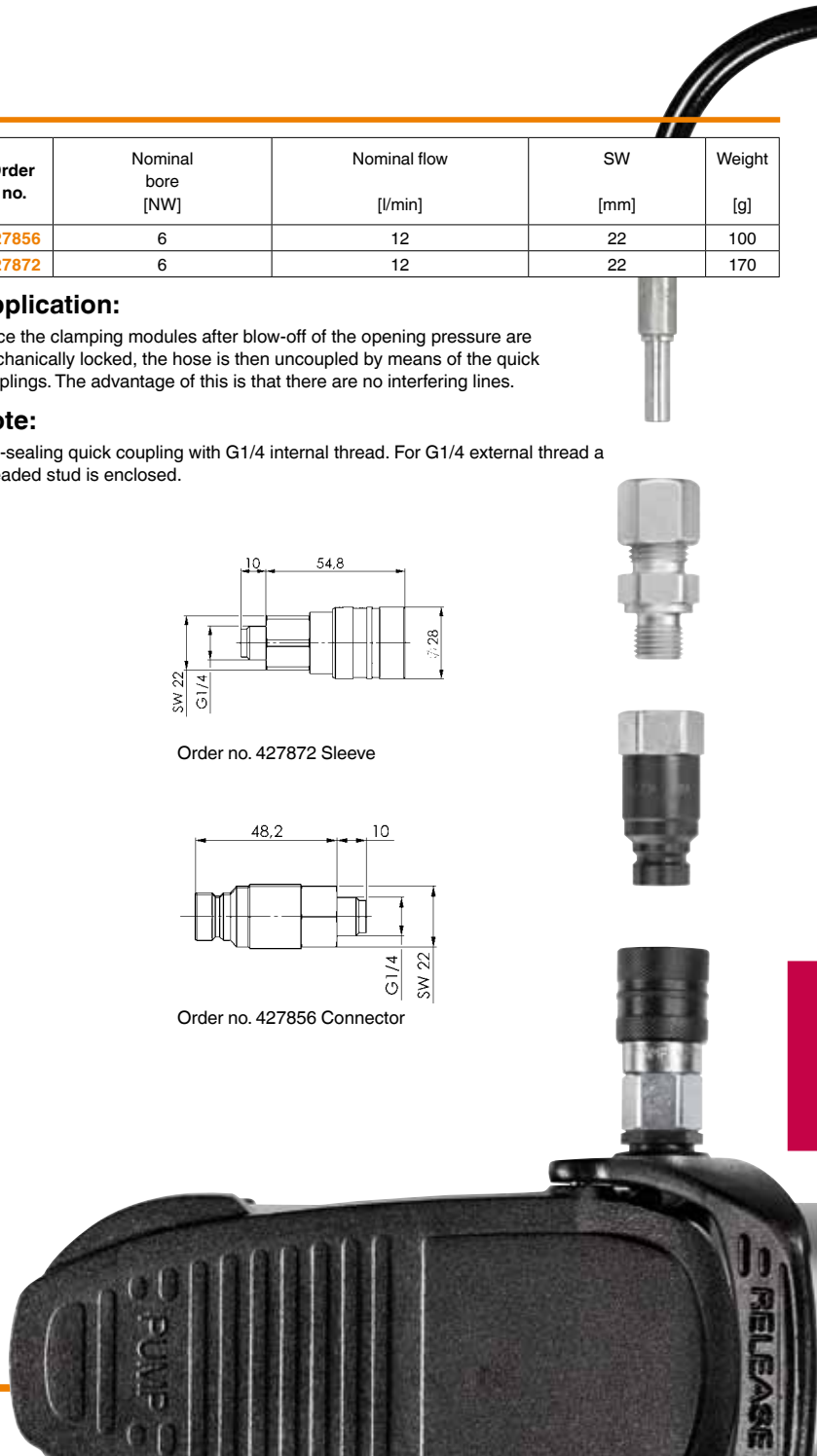
Flat-sealing quick coupling with G1/4 internal thread. For G1/4 external thread a threaded stud is enclosed.



Order no. 427872 Sleeve



Order no. 427856 Connector



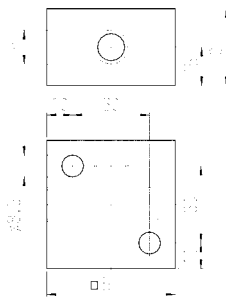
## No. 6988

### Manifold

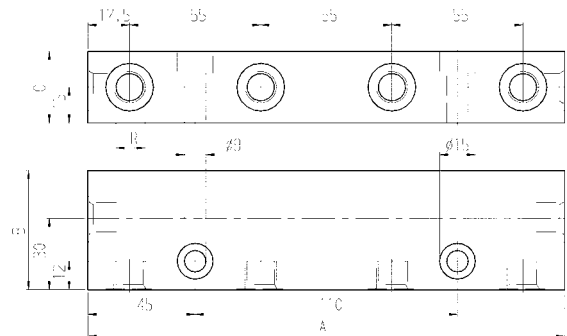
Order no.	Article no.	Operating pressure [bar]	NG	A	B	C	R	Oil connections	Weight [g]
68825	6988-G1/4x4	400	6	-	50	30	G1/4	4	480
68817	6988-G1/4x6	400	6	200	50	30	G1/4	6	2025

### Design:

Housing from steel, burnished.



No. 6988 G1/4x4



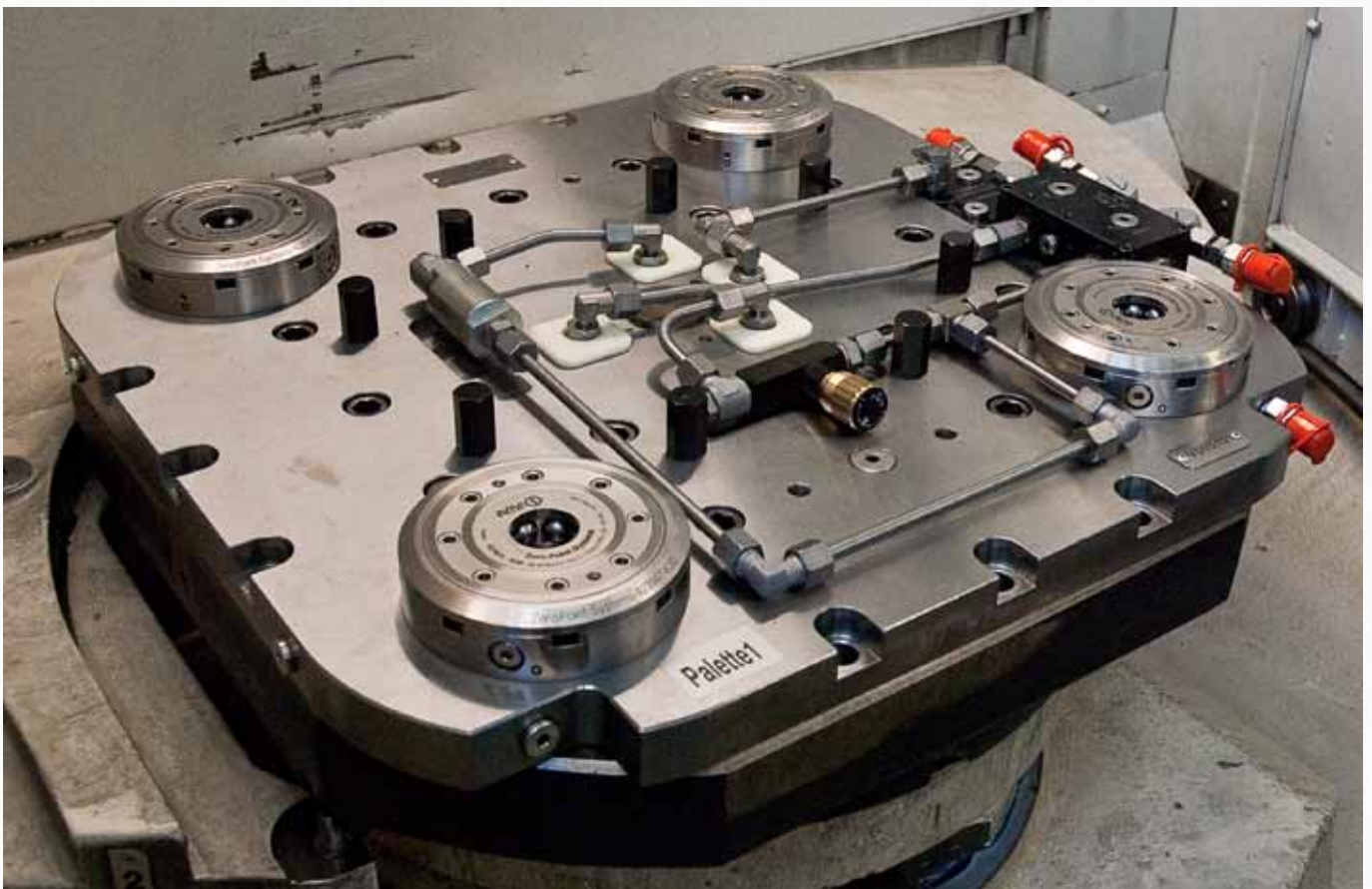
No. 6988 G1/4x6

CAD



Subject to technical alterations.





## No. 6370ZVL-005

### Pneumatic pressure booster



Order no.	Input pressure [bar]	Output pressure [bar]	Connection	Weight [Kg]
427088	2,5-8	4,5-10	G1/4	1,5

#### Design:

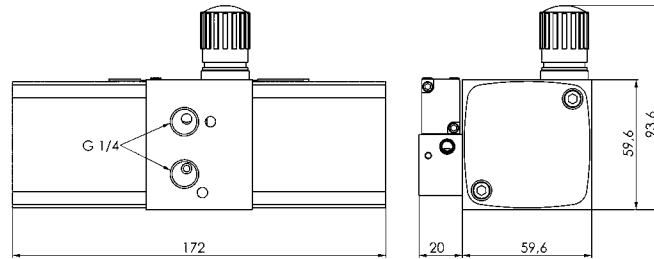
Pressure intensifier with possibility to adjust the pneumatic output pressure, incl. manometer construction kit, sound absorbers and flange mounting.

#### Application:

For strengthening the operating pressure with pneumatic clamping modules and compensation for pressure fluctuations in the supply line.

#### Note:

The pressure intensifier can be mounted in every installation position. For operation, filtered (40µm), unlubricated compressed air as per ISO 8573-1 is required. The pressure intensifier is suitable for ambient temperatures of +5 – +60 °C.



## No. 6370ZVL-004

### Pneumatic pressure booster set



Order no.	Input pressure [bar]	Output pressure [bar]	Connection	Weight [Kg]
421396	2,5-8	4,5-10	G1/4	2,5

#### Design:

Pressure intensifier group with possibility to adjust the pneumatic output pressure, incl. manometer construction kit, sound absorbers, flange mounting, pressure control valve, manual direction valve, coupling plug, connections and plastic tube.

#### Application:

For strengthening the operating pressure with pneumatic clamping modules and compensation for pressure fluctuations in the supply line.

#### Note:

The pressure intensifier can be mounted in every installation position. For operation, filtered (40µm), unlubricated compressed air as per ISO 8573-1 is required. The pressure intensifier sub-assembly is suitable for ambient temperatures of +5 – +60 °C.

## No. 6370ZVL-006

### Pneumatic pressure booster cabinet



Order no.	Input pressure [bar]	Output pressure [bar]	B x H x T	Connection	Weight [Kg]
427104	2,5-8	4,5-10	200 x 300 x 155	G1/4	7,0

#### Design:

Connection-ready pressure-intensifier cabinet with possibility to adjust the pneumatic output pressure.

#### Application:

For strengthening the operating pressure with pneumatic clamping modules and compensation for pressure fluctuations in the supply line.

#### Note:

The connection-ready pressure intensifier cabinet is shipped with wall-mounting bracket and can be mounted in every installation position. For operation, filtered (40µm), unlubricated compressed air as per ISO 8573-1 is required. The pressure cabinet is suitable for ambient temperatures of 0 – +40 °C.

## No. 6370ZSK

### Quick fitting coupling, pneumatic

Max. operating pressure 12 bar.

**NEW!**



Order no.	Nominal bore [NW]	Nominal flow [l/min]	SW [mm]	Weight [g]
430041	4,2	563	14	23
430066	5,0	563	14	27

### Application:

This pneumatic quick-release coupling is particularly suitable for use in the AMF zero-point clamping technology of the zero-point system.

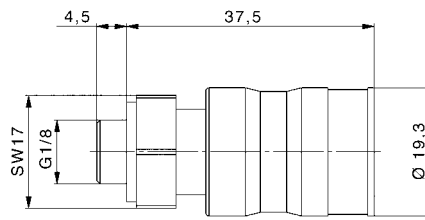
### Note:

Sleeve with Order No. 430066:

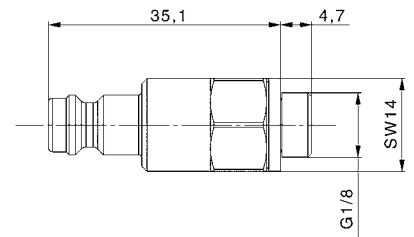
Coupling valve with venting function and check valve. External thread G1/8.

Connector with Order No. 430041:

Dirt and shaving-repellent coupling connector with borehole for forced venting of the clamping station, fixture or zero-point clamping module. External thread G1/8.



Order no. 430066 Sleeve



Order no. 430041 Connector

## No. 6370ZS-07

### Hose, pneumatic

Polyurethane, outside calibrated.  
Max. operating pressure 10 bar.



Order no.	Hose dia. [mm]	Length [m]	Weight [g]
430140	8	3	100

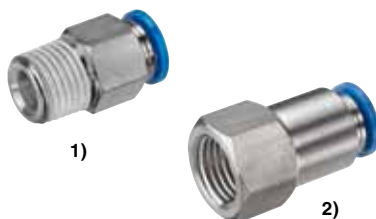
### Application:

Hoses are used for the pneumatic connection of extension clamping modules or clamping stations.

## No. 6370ZR-02

### Push-in fittings, pneumatic

Max. operating pressure 12 bar.  
For hose diameter 8 mm.



Order no.	Fig. No.	Connection	Weight [g]
421479	1	G1/8	14
421453	1	G1/4	16
430108	2	G1/8	19
430124	2	G1/4	27

### Application:

Screwed connections are used for the pneumatic connection of extension clamping modules or clamping stations.

## No. 6370ZVL-007

### Footrest valve, pneumatic

Max. operating pressure 10 bar.

Order no.	Air connection	Weight [g]
477570	G1/4	610

#### Application:

For controlling pneumatic clamping modules.

#### Note:

manual Footrest valve  
valve function: 3/2 closed, monostable, latching



## No. 6370ZSK-08

### Air gun valve, pneumatic

Max. operating pressure 10 bar.

Order no.	Nominal bore [NW]	Nominal flow [l/min]	SW	Weight [g]
533075	2,5	240	13	10

#### Design:

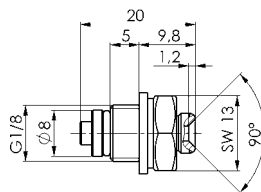
Pneumatic air gun with integrated non-return valve.

#### Application:

For simple and quick opening of the pneumatic zero point clamping plates. When the air gun is positioned on the valve, the air pressure is released and then held by the non-return valve. Venting is effected by briefly and manually pushing the valve, which then resets under spring force.

#### On request:

- Installation diagrams



CAD

Subject to technical alterations.

## No. 6370ZF

### Special grease for zero-point clamping modules



Order no.	Suitable for ambient temperature (°C)	Weight [g]
	[°C]	
426494	0-80	250

#### Application:

Special grease for maintenance work on zero-point clamping modules.

## No. 6370ZVL

### Manual directional valves

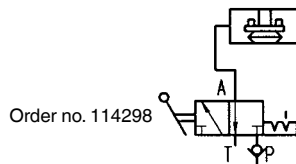


Order no. 305383

Order no. 305391

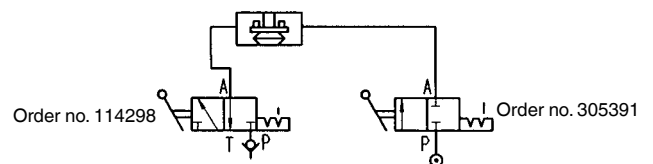
Order no.	Type	Air connection	Weight [g]
	305383	4/3	
305391	2/2	G1/4	

Circuit: hydraulic clamping module



Order no. 114298

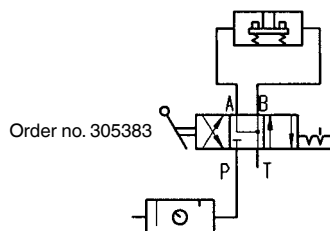
Circuit: hydraulic clamping module with blow-out



Order no. 114298

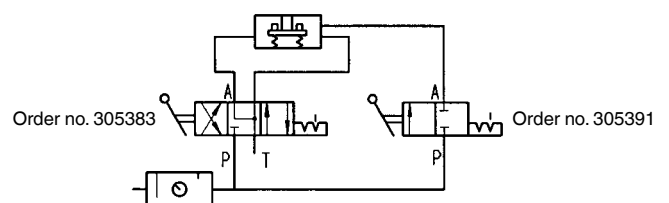
Order no. 305391

Circuit: pneumatic clamping module



Order no. 305383

Circuit: pneumatic clamping module with turbo and blow-out



Order no. 305383

Order no. 305391

# YOU ALREADY HAVE A CLAMPING SYSTEM?! YOU CAN STILL TAKE ADVANTAGE OF OUR BENEFITS ...

With our „Gonzales“ and „Unitool“ clamping modules, we offer you flexibility in retrofitting and expanding your existing zero-point clamping technology. As a result, a complete replacement of the system you currently use is no longer absolutely necessary. You keep your investment as low as possible and still take advantage of the benefits of the AMF Zero-Point System.



## „GONZALES“ CLAMPING MODULE (FIG. LEFT)

Your existing Speedy 1000/2000 or DockLock 1000 modules can be exchanged for our corresponding „Gonzales“ modules if you meet the following requirements:

- > Unlike Speedy 1000/2000 and DockLock 1000, „Gonzales“ requires a hydraulic unclamping pressure of min. 50 bar / max. 60 bar.
- > With countersunk installation, replacement is only possible if there is enough space for the larger covers of the „Gonzales“ modules (cover dia. 112 mm or 140 mm).
- > Modules with media ducts cannot be exchanged
- > Use „Gonzales“ modules exclusively with „Gonzales“ modules in one clamping.

With the „Gonzales“ modules, the corresponding nipples of the systems Speedy 1000/2000 and DockLock 1000 can be clamped.

„Gonzales“ nipples can be clamped with the corresponding Speedy 1000/2000 and DockLock 1000 modules.

## „UNITOOL“ CLAMPING MODULE (FIG. RIGHT)

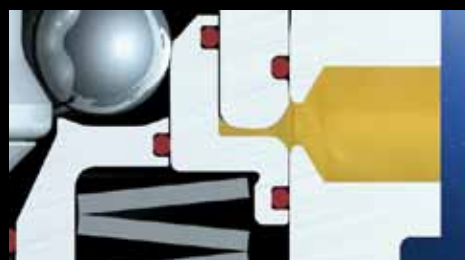
Our „Unitool“ clamping module fits the nipple of the Unilock system (dia. 40 mm). The Unitool nipple also fits the Unilock system module (NSE-138).

### STAINLESS STEEL



High-alloy, hardened tool steel - and so no corrosion.

### SAFETY SYSTEM



Process reliability - Clamping module always opens. A piston blockade is thus impossible (only Gonzales modules).

### FORM FIT



The balls are optimally encapsulated on 3 sides. As a result, the clamping nipple always remains firmly clamped in the module.



### NO BALL CAGE



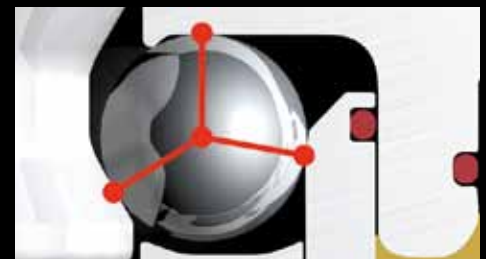
The balls lie freely in the ball canal. This freedom of movement enables the balls to continuously re-position themselves.

### SWING-FREE



Swing-free run-in and run-out through the optimal contour of the clamping nipple (only Gonzales modules).

### THREE-POINT PRINCIPLE



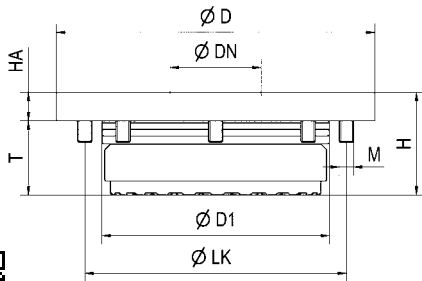
Power transmission by means of the three-point principle! This optimised force distribution prevents shearing load on the balls.

All depictions are model presentations of the functional principle.

## No. 6370EGRH

### Installation clamping module “Gonzales”, round

Hydraulic opening.  
Opening operating pressure: min. 50 bar - max. 60 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Speedy	DockLock	Weight [Kg]
		[kN]	[kN]			
305201	1000	15	25	●	-	2,3
306043	1000	15	25	-	●	2,3
305219	2000	25	55	●	-	3,5

#### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

Use „Gonzales“ modules exclusively with „Gonzales“ modules in one clamping. When changing systems, observe the following: Unlike Speedy 1000/2000 and DockLock 1000, „Gonzales“ modules require an unclamping pressure of min. 50 bar / max. 60 bar. With recessed installation, observe the cover diameter D 112 mm / 140 mm. The installation clamping module is opened hydraulically (1) and mechanically locked through spring force. Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free). The clamping module has one connection: 1x hydr. opening (1).

#### On request:

- Installation diagrams
- Further automation options

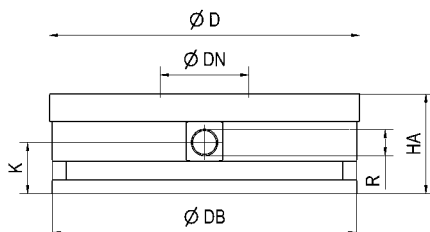
#### Dimensions:

Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	M	T
305201	1000	112	32	80	36	10	92	8 x M5	26
306043	1000	112	32	80	36	10	91	10 x M5	26
305219	2000	140	47	110	36	10	122	8 x M5	26

## No. 6370AGRH

### Surface-mounted clamping module “Gonzales”, round

Hydraulic opening.  
Opening operating pressure: min. 50 bar - max. 60 bar  
Cover and piston hardened.  
Repeatability < 0.005 mm.



Order no.	Size	Pull-in/locking force up to	Holding force	Weight [Kg]
		[kN]	[kN]	
303362	1000	15	25	2,3
303388	2000	25	55	3,5

#### Application:

Zero-point clamping system in combination with clamping flanges 6370ZB for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

Use „Gonzales“ modules exclusively with „Gonzales“ modules in one clamping. When changing systems, observe the following: Unlike Speedy 1000/2000 and DockLock 1000, „Gonzales“ modules require an unclamping pressure of min. 50 bar / max. 60 bar. The surface-mounted clamping module is opened hydraulically (1) and mechanically locked through spring force. Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free). The clamping module has one connection: 1x hydr. opening (1).

#### On request:

- Further automation options

#### Dimensions:

Order no.	Size	dia. D	dia. DB	dia. DN	HA	K	R
303362	1000	112	110	32	40	18,5	G1/8
303388	2000	140	139	47	40	18,5	G1/8

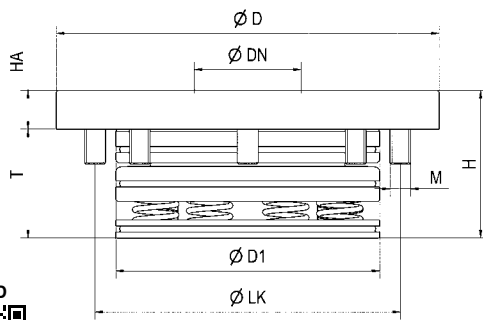
Subject to technical alterations.



## No. 6370EURL

### Installation clamping module „Unitool“, round

Pneumatic opening.  
 Opening operating pressure: min. 8 bar - max. 12 bar  
 Retensioning operating pressure (turbo): min. 5 bar - max. 6 bar  
 Cover and piston hardened.  
 Repeatability < 0.005 mm.



Order no.	Pull-in/locking force up to	Holding force	Weight
	[kN]	[kN]	[Kg]
303560	30	55	3,2

#### Application:

Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

The installation clamping module has high holding, pull-in and locking forces. This is opened pneumatically (1) and mechanically locked through spring force. To achieve the specified pull-in and locking forces, it must be briefly retensioned pneumatically (turbo) (2). Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free). Use of the pneumatic pressure booster 6370ZVL-005 is recommended.

The clamping module has two connections:

1x pneum. opening (1) / 1x pneum. retensioning (turbo) (2).

Use „Unitool“ modules exclusively with „Unitool“ modules in one clamping.

#### On request:

- Installation diagrams
- Further automation options

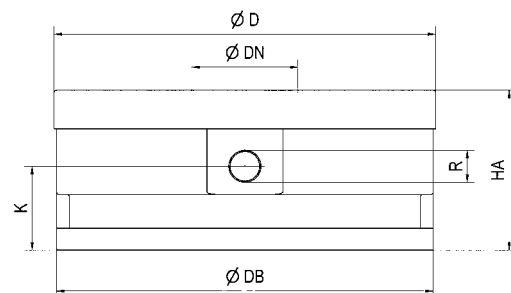
#### Dimensions:

Order no.	dia. D	dia. DN	dia. D1	H	HA	dia. LK	M	T
303560	148	40	102	57	15	118	M8	42

## No. 6370AURL

### Surface-mounted clamping module „Unitool“, round

Pneumatic opening.  
 Opening operating pressure: min. 8 bar - max. 12 bar  
 Retensioning operating pressure (turbo): min. 5 bar - max. 6 bar  
 Cover and piston hardened.  
 Repeatability < 0.005 mm.



Order no.	Pull-in/locking force up to	Holding force	Weight
	[kN]	[kN]	[Kg]
303586	30	55	6,5

#### Application:

Zero-point clamping system in combination with clamping flanges 6370ZB for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

#### Note:

The surface-mounted clamping module has high holding, pull-in and locking forces. This is opened pneumatically (1) and mechanically locked through spring force. To achieve the specified pull-in and locking forces, it must be briefly retensioned pneumatically (turbo) (2). Subsequent uncoupling of the pressure lines is possible at all times (module is tensioned pressure-free). Use of the pneumatic pressure booster 6370ZVL is recommended.

The clamping module has two connections:

1x pneum. opening (1) / 1x pneum. retensioning (turbo) (2).

Use „Unitool“ modules exclusively with „Unitool“ modules in one clamping.

#### On request:

- Further automation options

#### Dimensions:

Order no.	dia. D	dia. DB	dia. DN	HA	K	R
303586	148	146	40	62	32,5	G1/4

Subject to technical alterations.

## No. 6370ZNG-10

### Clamping nipple „Gonzales 1000“

Hardened.  
Clamping nipples can also be used in the modules Speedy 1000 and DockLock 1000.



Order no.	Size	dia. DN	dia. D1	H	M	T	Weight [g]
303404	1000	32	25	34,0	M8	4,8	70
303420	1000	32	25	34,0	M8	4,8	70
303446	1000	32	25	34,0	M8	4,8	70
303461	1000	32	-	29,2	M8	12,0	55

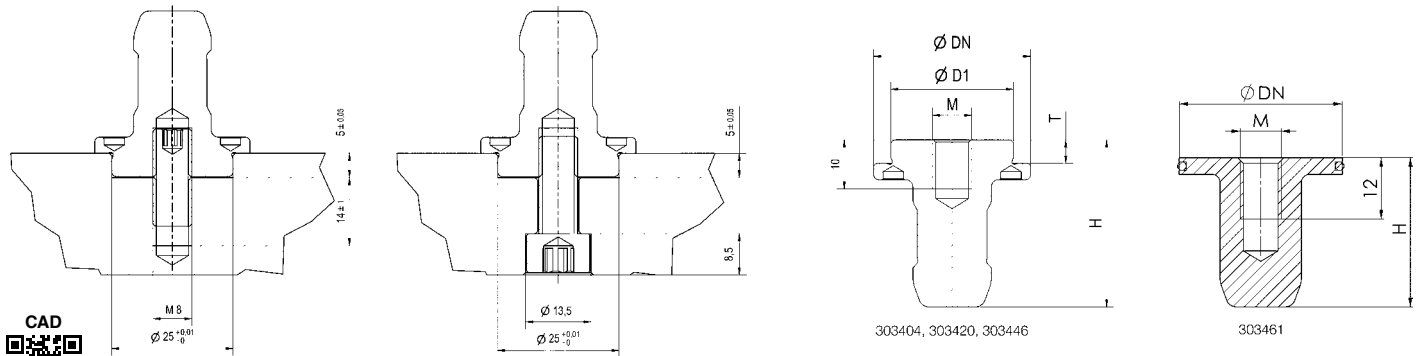
#### Design:

Order no. 303404: Zero point nipple  
Order no. 303420: Slit nipple  
Order no. 303446: Undersized nipple  
Order no. 303461: Protection nipple

#### Note:

Tightening torque of the clamping nipple max. 20 Nm. Min. screw grade 8.8.

### Dimensions for the nipple mounting:



## No. 6370ZNGH-10

### Clamping nipple „Gonzales 1000“

with high collar, hardened.  
Clamping nipples can also be used in the modules Speedy 1000 and DockLock 1000.



Order no.	Size	dia. DN	dia. D1	H	M	T	Weight [g]
305128	1000	32	25	49	M8	19,8	125
305144	1000	32	25	49	M8	19,8	125
305169	1000	32	25	49	M8	19,8	125
303461	1000	32	-	29,2	M8	12,0	55

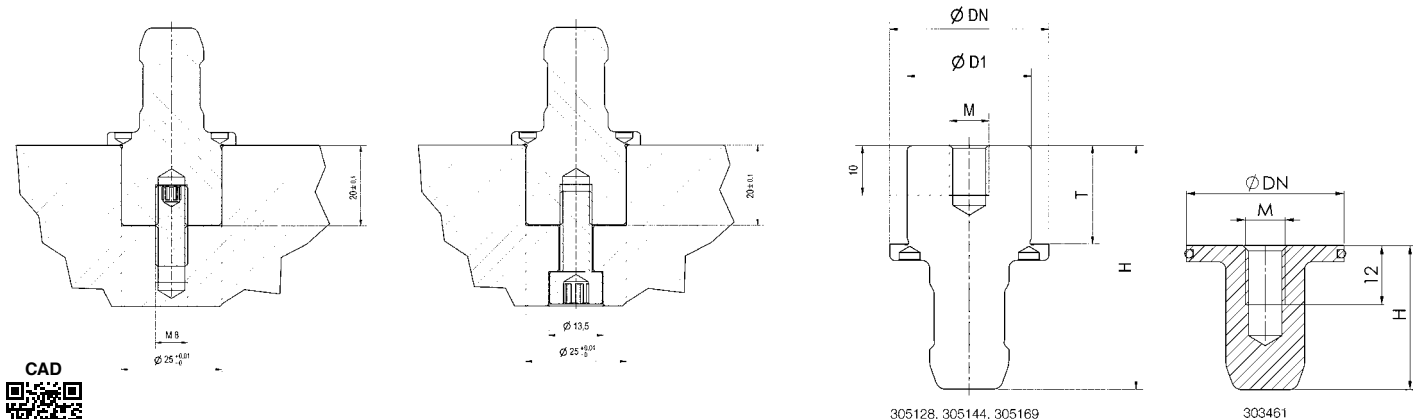
#### Design:

Order no. 305128: Zero point nipple  
Order no. 305144: Slit nipple  
Order no. 305169: Undersized nipple  
Order no. 303461: Protection nipple

#### Note:

Tightening torque of the clamping nipple max. 20 Nm. Min. screw grade 8.8.

### Dimensions for the nipple mounting:



Subject to technical alterations.

## No. 6370ZNG-20

### Clamping nipple „Gonzales 2000“

Hardened.

Clamping nipples can also be used in Speedy 2000.



INOX  
STAINLESS STEEL



Order no.	Size	dia. DN	dia. D1	dia. D2	H	M	T	Weight [g]
303412	2000	47	25	10,8	34,0	M12	4,8	170
303438	2000	47	25	10,8	34,0	M12	4,8	170
303453	2000	47	25	10,8	34,0	M12	4,8	170
303479	2000	47	-	-	29,2	M 8	12,0	180

#### Design:

Order no. 303412: Zero point nipple

Order no. 303438: Slit nipple

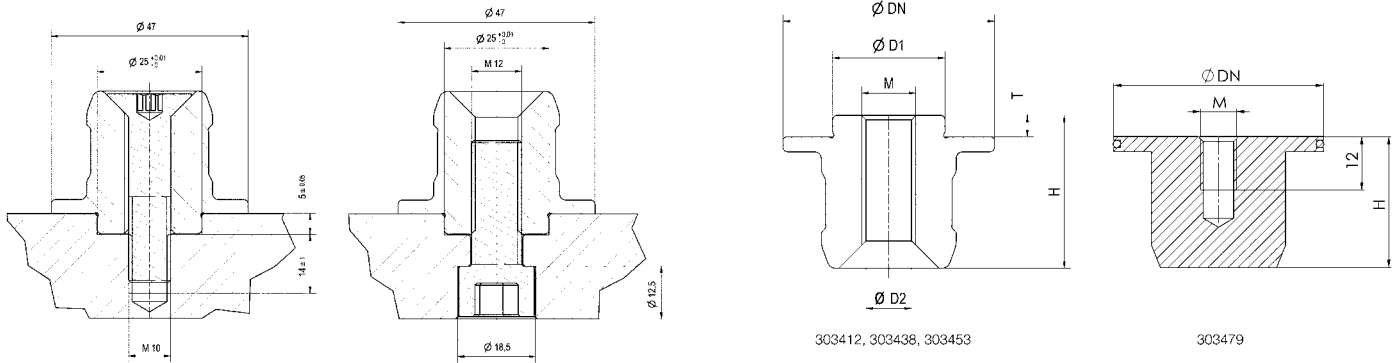
Order no. 303453: Undersized nipple

Order no. 303479: Protection nipple

#### Note:

Tightening torque of the clamping nipple max. 20 Nm. Min. screw grade 8.8.

### Dimensions for the nipple mounting:



CAD

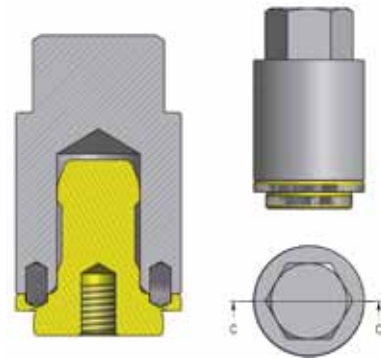


## No. 6370ZNSG

### Nipple key „Gonzales“

for clamping nipple no. 6370ZNG/ZNGH „Gonzales 1000“.

Order no.	SW [mm]	Weight [g]
306001	22	80





The high precision of the AMF Zero-Point System permits use in grinding



With friendly recommendation of Fa. Bäuml CNC-Fertigungs-GmbH & Co. KG, Weiden

Subject to technical alterations.

## No. 6370ZNU

### Clamping nipple „Unitool“

Hardened.

Clamping nipples can also be used in the Unilock system (Ø 40 mm).



Order no.	dia. DN	dia. D1	dia. D2	H	M	T	Weight [g]
304352	40	25	10	40,0	M12	4,8	230
304592	40	25	10	40,0	M12	4,8	230
304618	40	25	10	40,0	M12	4,8	230
304634	40	-	-	34,7	M 8	12,0	220

### Design:

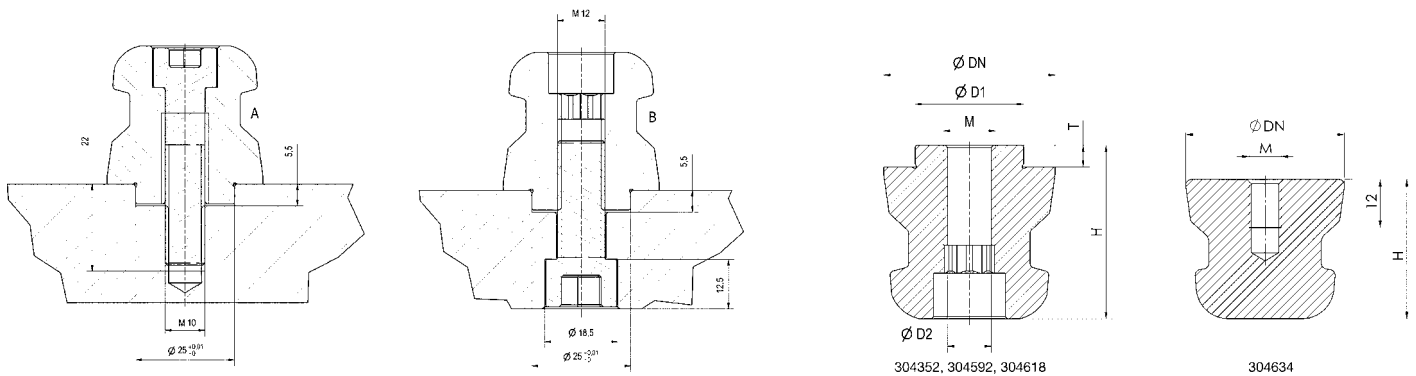
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Order no. 304592: Slit nipple

Order no. 304618: Undersized nipple

Order no. 304634: Protection nipple

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# WE GENERATE EXCITEMENT - ON YOUR MOBILE DEVICE TOO



The "Clamping technology APP" offers you an overview of AMF's exciting clamping product range. No matter whether mechanical, pneumatic, hydraulic or magnetic clamping technology, as well as vacuum and zero point clamping systems - all the products are presented in detail in this APP, and you can see the numerous application options of AMF clamping technology at a glance.

All products can be downloaded as 2D and 3D CAD models, and be conveniently imported into all standard CAD programs.

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**THE CLAMPING TECHNOLOGY APP -  
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A large, empty grid area for taking notes, consisting of many small squares.

These Terms of Payment apply for companies, legal entities governed by public law and public law special funds. Our goods and services are supplied exclusively on the basis of the following conditions. Any deviating purchasing conditions of the customer not expressly recognised by us will not become part of the contract through acceptance of the order. By placing the order and accepting the goods we deliver, the customer confirms its consent to our terms and conditions.

## 1. Offer and contractual conclusion

All our offers are always subject to change without notice unless otherwise explicitly agreed. Our delivery contracts are based on the latest version of our catalogue. Dimension and weight values, as well as illustrations, drawings and data, are non-binding and can be changed by us at any time. Therefore, deviations cannot be ruled out and do not justify any compensation claims against us.

Orders are considered accepted only when confirmed by us in writing. If, for organisational reasons, the customer does not receive a separate confirmation upon the delivery of goods, the invoice shall also be deemed the order confirmation.

## 2. Prices

The prices are in EURO, ex-works, excluding VAT, packing, freight, postage and insurance. Unless otherwise agreed, our list prices valid on the day of delivery shall apply. For orders below 50 EUR goods net, we must make a minimum quantity surcharge of a 10 EURO for cost reasons.

## 3. Tool costs

Unless any other agreements have been reached, the tools fabricated for the purpose of executing the order shall remain our property in all cases, even if we have invoiced a tool cost component separately.

## 4. Payment

Unless otherwise stated on the invoice, the purchase price falls due for net payment within 30 days of the invoice date (without deduction of discount). Invoice amounts of below 50 EURO are due for payment immediately.

In case of payment default, we shall be entitled to charge default interest. The amount corresponds to our interest rate for current account credits at our main bank; the minimum however being 8 percentage points above the relevant base interest rate applied by the European Central Bank. Moreover, in case of default following written notice to the customer, we shall be entitled to cease to fulfil our obligations until payments are received.

## 5. No set-off

The customer can set-off only with legally confirmed or undisputed counterclaims.

## 6. Right of withdrawal in case of delayed acceptance or payment and insolvency

If the customer fails to accept the goods in due time, we shall be entitled to set a reasonable period of grace, after which we can dispose of the goods elsewhere and supply the customer on a reasonably longer term. Our rights to withdraw from the contract under the provisions of Section 326 BGB and demand damages for non-performance shall not be affected. If the customer fails to pay for the goods once payment is due, we shall be entitled, at the end of a reasonable period of grace we have set, to withdraw from the contract and demand the return of any goods already supplied. Section 323 BGB remains unaffected in all other cases.

If the customer applies for the opening of insolvency proceedings, we shall be entitled, prior to the ordering of security measures by the insolvency court, to withdraw from the contract and demand the immediate return of the goods.

## 7. Customer-specific fabrications/project fabrications (custom fabrications)

Customer-specific fabrications require binding information on design, quantity etc. in written form at the time of ordering. For manufacturing reasons, we reserve the right to supply up to 10% above or below the order quantity. Technical modifications or cancellations are subject to any costs incurred. The return of customer-specific fabrications is impossible.

## 8. Delivery and packaging, transfer of risk

The delivery date is non-binding; although stated to the best of our knowledge. It is subject to us receiving correct, defect-free and complete deliveries. The stated delivery dates relate to completion in the factory, starting on the day the order is accepted by us. Delivery is EXW (ex-works) in accordance with Incoterms 2010. Therefore, the costs are borne by the customer. The risk is transferred to the customer when the goods are passed to the person, company or facility nominated to execute the shipment. This applies also for partial deliveries, or if we have assumed responsibility for delivery and installation. The risk shall be transferred to the customer even in the case of delayed acceptance.

In the absence of specific shipping instructions, we shall proceed as we deem fit and without any obligation to the cheapest or most expedient method. The customer agrees that the order can also be delivered in parts, insofar as this is reasonable for the customer. We shall charge a 5 EURO processing free for shipping to third parties that we supply on behalf of the customer.

The packaging complies with the packaging ordinance. Disposable packaging shall be charged at cost price. The packaging cannot be taken back.

## 9. Performance impediment and/or impossibility

If we are hindered in the fulfilment of our obligation due to the onset of unforeseeable circumstances, which we are unable to avoid despite reasonable effort in relation to the nature of the circumstances (e.g. operational interruption, delay in the delivery of important raw materials, defects in the delivery), the delivery time shall be extended by a reasonable period, insofar as the supply of goods or services is not rendered unreasonably difficult or impossible.

If we have to accept that these circumstances are not only temporary, we shall be entitled to withdraw from the contract either in whole or in part.

If the supply of goods or services becomes impossible, the customer shall not be obliged to furnish its own contractual service. Section 275 BGB applies mutatis mutandis. If, however, the customer is solely or predominantly responsible for the

circumstances that led to impossibility, it shall remain under an obligation to render the return service. The same applies if this circumstance occurs at a time when the customer is behind schedule with acceptance.

## 10. Samples/returns

Samples shall be provided only against payment. If samples or models are provided, a credit note shall be issued with the subsequent order if the order value is 125 EURO net or more. Goods can be returned only by agreement, although custom fabrications are excluded from such return.

In the case of returns for which we are not responsible (e.g. incorrect order), we shall charge a processing fee of 10%, the minimum value, however, being 7.50 EURO.

## 11. Retention of title

The goods shall remain our property unless full payment of all claims and/or until the cheques provided for this purpose are honoured. The itemisation of claims in an ongoing invoice, as well as balancing the account and the recognition thereof does not affect the retention of title. The customer is entitled to sell on the retained goods during the ordinary course of business. However, the customer is not permitted to pledge the goods or transfer them by way of security. It shall assign its claim ensuing from the selling on of the retained goods to us in advance. The customer shall be entitled to collect the claim to the extent that it has fulfilled its obligations towards us. At our request, the customer shall be obliged to state third-party debtors and we shall be entitled to report this and the assignment.

## 12. Property rights

We reserve property rights and copyrights to all contractual documents such as drafts, drawings, calculations and cost estimates. Such documents must not be reproduced or disclosed to third parties without our consent. Any rights to patents, utility models etc. reside solely with us, insofar as such patents have not yet been filed. Our products are allowed to be replicated only with our written consent.

If objects are fabricated according to drawings or samples, the customer shall warrant that any third party property rights are not infringed by manufacture or delivery. If a third party forbids manufacture and delivery on account of property rights, we shall be entitled to stop manufacture and delivery immediately. The customer shall be obliged to reimburse us with all costs incurred and indemnify us from third party compensation claims. Compensation claims by the customer are impossible.

## 13. Warranty

If the customer agrees with us a particular quality of the goods, we shall base this agreement on our technical delivery specifications. If we have to deliver according to customer drawings, specifications, samples etc., the customer shall assume the risk for suitability for the intended purpose. If, after the contract is concluded, the scope of goods or services is changed at the customer's request and this impairs the quality or suitability of the goods, claims for defects on the part of the customer shall be ruled out, insofar as such impairments are caused by the customer's requests for change. The time at which the risk is transferred is decisive for the contractual state of the goods. Wear and tear of wearing parts caused by ordinary use does not constitute a defect. Claims for defects are ruled out in the following cases in particular: Unsuitable or improper use, incorrect installation and/or commissioning by the customer or third party, normal wear and tear, incorrect or negligent handling - in particular excessive use -, unsuitable equipment, replacement materials, chemical, electrochemical or electrical influences, unless such defects are caused by ourselves.

If the goods contain a defects, we shall provide, following a reasonable period of grace set by the customer, either a replacement or a repair as we deem fit. If such subsequent performance fails, the customer shall be entitled to either reduce the purchase price or withdraw from the contract. Any further warranty claims are ruled out. In case of negligible deviations from the agreed quality, no claims for defects shall be recognised.

The discovery of defects must be communicated to us immediately in writing. In the case of recognisable defects, however, within 10 days of acceptance, in the case of non-recognisable defects immediately after they become evident. The warranty is 12 months, starting with delivery of the goods ex-works.

## 14. Liability

With the exception of harm to life, body or health on account of a breach of duty by ourselves, our liability shall be limited to intent or gross negligence.

## 15. Place of fulfilment, place of jurisdiction and governing law

The place of fulfilment for all obligations ensuing from this contractual relationship is D-70734 Fellbach.

The place of jurisdiction for all legal disputes ensuing from the contractual relationship is the court responsible for the headquarters of Andreas Maier GmbH & Co. KG.

All disputes ensuing from the contract or regarding the validity thereof shall be finally decided by a court of arbitration in accordance with the Court of Arbitration Ordinance of the German Committee for Arbitration Court Procedures or the Conciliation and Arbitration Arrangement of the International Chamber of Commerce, recourse to ordinary courts of law being excluded. The legal dunning process, however, remains permissible.

German law shall govern (BGB and HGB). The applicability of the UN Convention on Contracts for the International Sale of Goods (CISG) is ruled out.

## 16. Severability clause

If individual provisions become legally invalid, the remaining provisions shall not be affected. The legally invalid provision shall be replaced by regulations that most closely reflect the economic purpose of the contract with reasonable consideration for the mutual interests. The publication of these Terms of Sale, Delivery and Payment renders all previous versions invalid. This does not apply for any contracts concluded prior to announcement.

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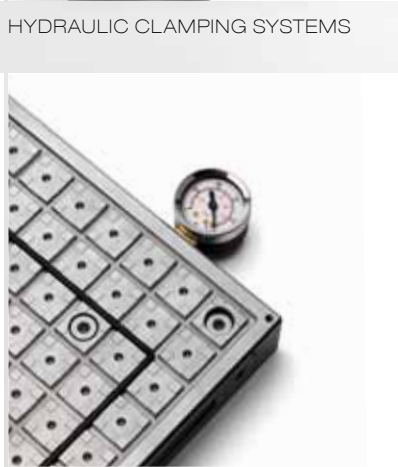
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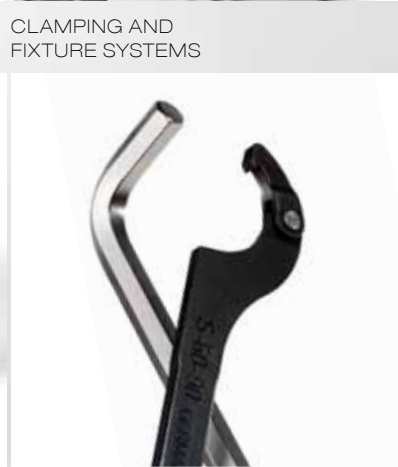
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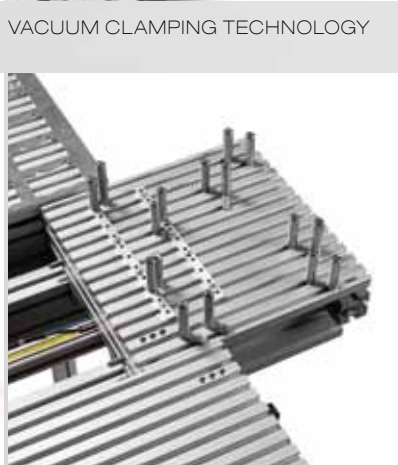
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## ANDREAS MAIER GmbH & Co. KG

Waiblinger Straße 116 · D-70734 Fellbach

Phone: +49 711 5766-0

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