ZERO-POINT-SYSTEMS

CLAMPING. SCREWING. LOCKING.

Catalogue 2013

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 AMF-Writer and AMF-Cleaner for automated labelling and cleaning via the tool spindle

WE GENERATE EXCITEMENT.

Since its founding by Andreas Maier in 1890, our company has lived though 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.

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.

PRODUCTS ON THE COVER
Installation clamping module, round Nr. 6206LA, Nr. 6206ILA, page 43

CONTENTS

For an overview in numerical / alphabetical order, see catalogue pages 102 - 103

NEW!

QUICK FITTING COUPLING, GALVANISED, PNEUMATIC

No. 6370ZSK, page 90

NEW!

INSTALLATION CLAMPING MODULE, ROUND

No. 6206LA, page 43

INSTALLATION CLAMPING MODULE, ROUND, WITH INDEXING

No. 6206ILA, page 43

NEW!

AIR-HYDRAULIC PUMP

No. 6370ZD-004, page 84

INSTALLATION CLAMPING MODULE, ROUND, SCREW-IN VERSION

No. 6203L-02, page 39

INSTALLATION CLAMPING MODULE FOR AUTOMATION SOLUTIONS

No. 6103HA-20-05, page 64

NEW!

CLAMPING FEMALE NIPPLE

No. 6370ZNM, page 77

INSTALLATION CLAMPING MODULE K10.2

No. 6204HA / No. 6204IHA, page 14

HOSE SET, HYDRAULIC

No. 6370ZS-06-2000
page 88

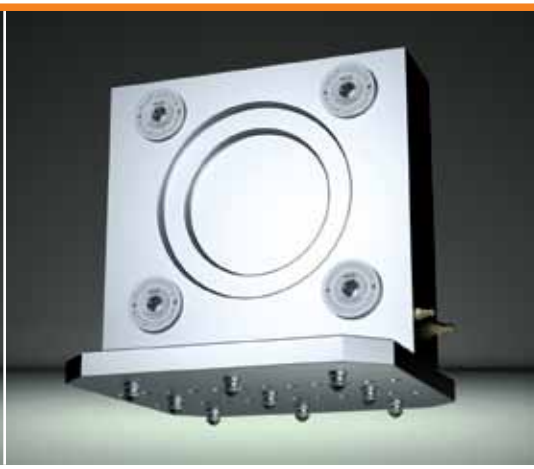
NEW!

COVER CAP

No. 6204ZS-02, page 31

NEW!





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.

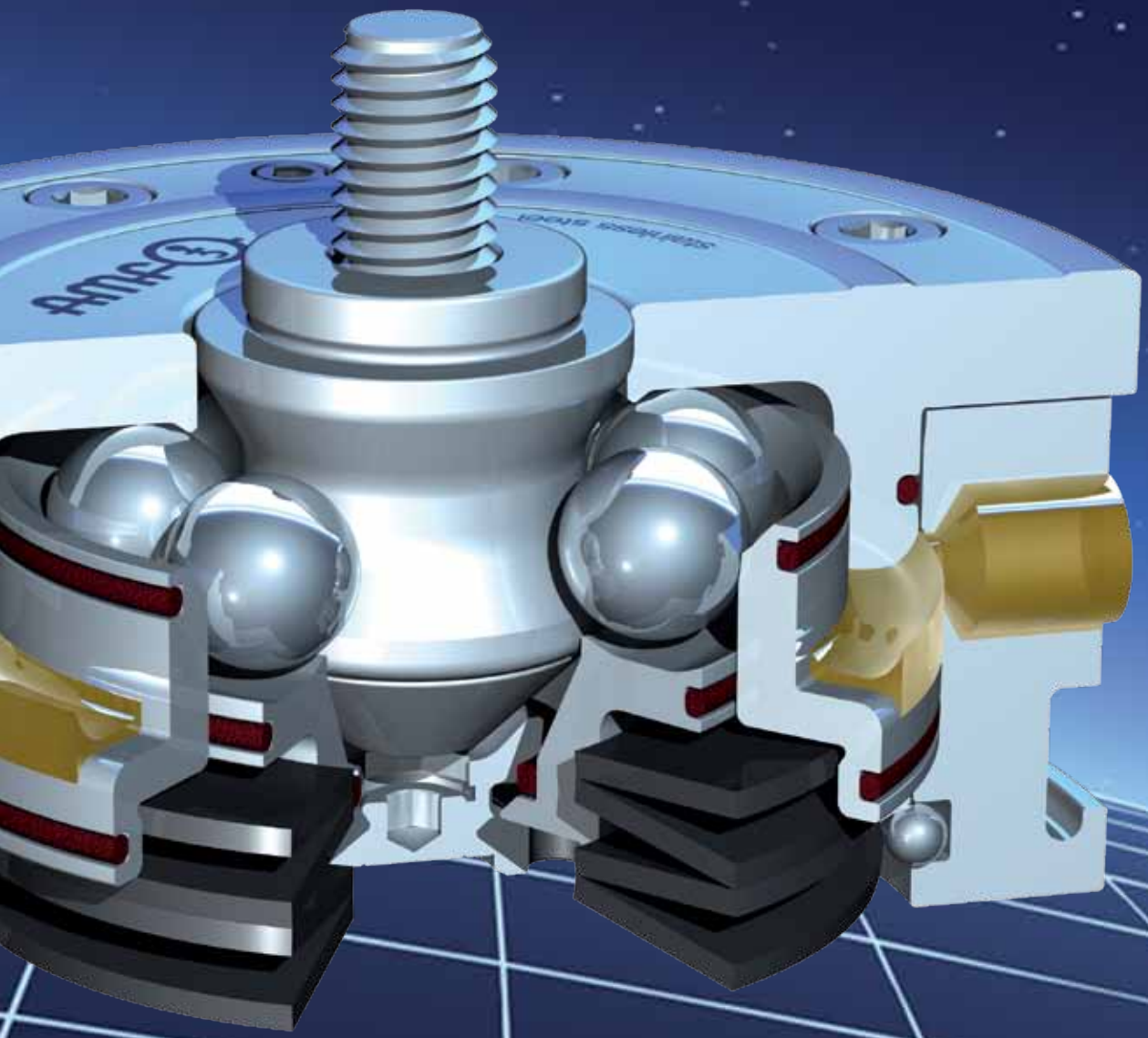


Subject to technical alterations.

YOUR ADVANTAGES - THOUGHT THROUGH IN

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.



DETAIL

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.

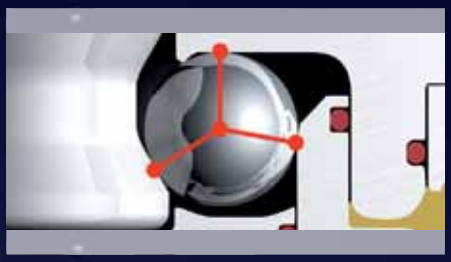
MEDIA FEED

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

FORM FIT

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

THREE-POINT PRINCIPLE



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

NO BALL CAGE

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

RUSTPROOF STAINLESS STEEL

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

BLOW OUT

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

SIMPLE CLEANING

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

GOOD HOLDING, PULL-IN AND LOCKING FORCES

Size	Holding force	Pull-in/locking force	
		hydr.	pneum.
K5	13	5	1,5
K10	25	10	8
K20	55	20	17
K40	105	40	30

LARGE BALL DIAMETER

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

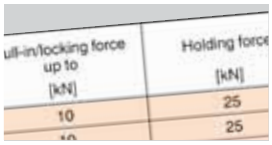
SAFETY SYSTEM

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

Subject to technical alterations.

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

WHAT IS PULL-IN FORCE / HOLDING FORCE?



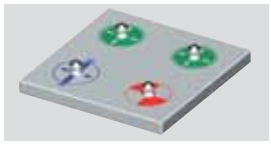
ull-in/locking force up to [kN]	Holding force [kN]
10	25
	25

> 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?

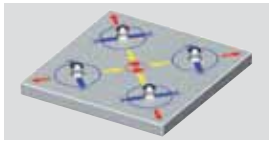


> These different types of nipples offset the spacing tolerances of nipples and clamping modules. The fixed reference point is achieved through the zero-point nipple; the slit nipple serves to compensate for the still-free axis. The undersize nipple does not have a centring function, but only a clamping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

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

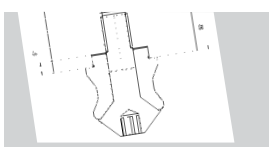
> The high costs for chucking fixtures and workpiece clamping can be effectively saved here if the clamping nipples are mounted in the workpiece, which is clamped directly using the clamping modules. As a result, a complete 5-sided processing of the workpiece is possible in one chucking. With the different 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 47 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.

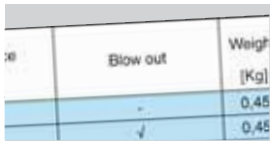
IS THE CLAMPING MODULE SUITABLE FOR USE ON INJECTION MOULDING MACHINES?

> 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

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 of 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...

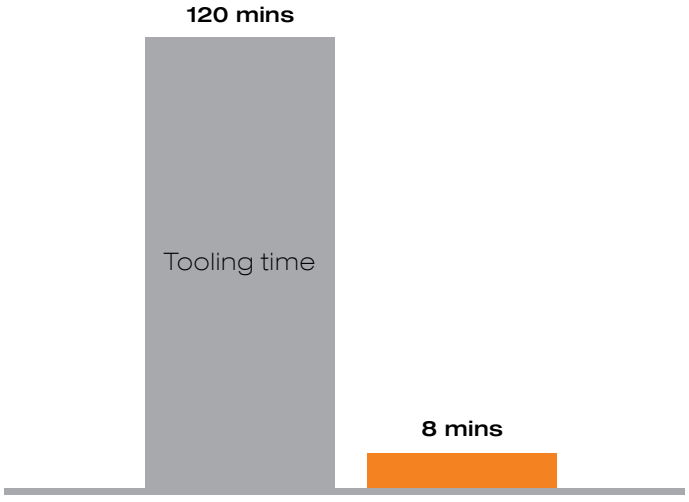
Take the time to calculate your savings potential with the AMF Zero-Point System very simply.

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

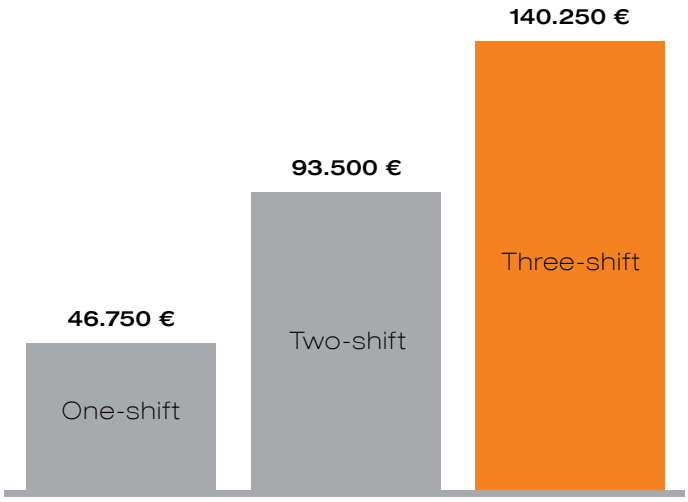
Procedure	Without zero-point clamping system	With the AMF Zero Point System
Machine costs	€ 100,–– / h	€ 100,–– / h
Number of set-ups per shift (8h)	4 x	4 x
Set-up time per procedure	30 mins	2 mins
Set-up time per shift (8h)	120 mins (2 h)	8 mins (0,13 h)
Set-up costs per shift (8h)	€ 200,––	€ 13,––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

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!

Subject to technical alterations.

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 Cat. p. 39	K5 Cat. p. 40 and 52		K10 and K10.2 Cat. p.. 16, 41, 44, 47, 53 and 68		K10.3 Cat. p. 43	K20 Cat. p. 42-47, 53, 64 and 68		K20.3 Cat. p. 43	K40 Cat. p. 41, 44, 47, 53 and 68	
	pneum.	hydr.	pneum.	hydr.	pneum.	pneum.	hydr.	pneum.	pneum.	hydr.	pneum.
Pull-in/locking force in the system up to [kN]	0,23	5,0	1,5	10,0	8,5	10,0	20,0	17,0	17,0	40,0	30,0
Holding force [kN]	6,0	13,0	13,0	25,0	25,0	25,0	55,0	55,0	55,0	105,0	105,0
Service according to ... clamping cycles [pc.]	150.000	250.000	800.000	400.000	400.000	2.000.000	1.500.000	150.000	2.000.000	100.000	150.000
Min./max. operating pressure for opening [bar]	6 / 14	50 / 60	8 / 12	50 / 60	8 / 12	5 / 8	50 / 60	8 / 12	4,5 / 8,0	50 / 60	8 / 12
Min./max. operating pressure for reclamping [bar]	-	-	5 / 6	-	5 / 6	-	-	5 / 6	-	-	5 / 6
Opening volume [cm³]	1,0	1,5	1,5	3,0	3,0	17,0	10,0	10,0	37,0	27,0	27,0
Closing volume [cm³]	-	-	-	-	-	-	-	-	-	-	-
Pre-positioning [mm]	1,0	4,0	4,0	6,5	6,5	6,5	12,0	12,0	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

	Horizontal K20 Cat. p. 56	Horizontal K40 Cat. p. 56	Compact K10 Cat. p. 58	Turbine K23 Cat. p. 66	Heavy duty K20 Cat. p. 45
	hydr.	hydr.	hydr.	hydr.	hydr.
Pull-in/locking force in the system up to [kN]	20	40	13	23	20
Holding force [kN]	55	105	25	23	105
Service according to ... clamping cycles [pc.]	1.500.000	100.000	150.000	150.000	150.000
Min./max. operating pressure for opening [bar]	50 / 60	50 / 60	50 / 60	25 / 50	50 / 60
Min./max. operating pressure for reclamping [bar]	-	-	-	20	-
Opening volume [cm³]	10,0	27,0	3,5	7,5	10,0
Closing volume [cm³]	-	-	-	10,7	-
Pre-positioning [mm]	11,0	11,0	4,0	1,0	12,0
Repeatability [mm]	< 0,005	< 0,005	< 0,005	< 0,005	< 0,005

Subject to technical alterations.

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 < 5um

> 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 ≤ 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.

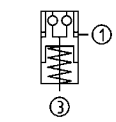
A The low installation depth of the clamping modules of 22 mm permits a height of the base plate of only 28 mm (without blow out, only 24 mm)..

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.

EDELSTAHL Rost frei STAINLESS STEEL



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

Application:

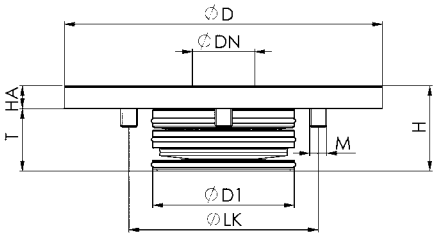
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

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:

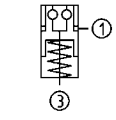
Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	M	T
427369	K10.2	112	22	50	30	8	77	M6	22

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.

EDELSTAHL Rost frei STAINLESS STEEL



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

Application:

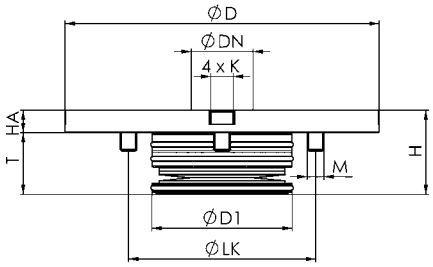
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.
The indexing function of the clamping module prevents the pallet from twisting, enabling exact positioning every 90°.

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:

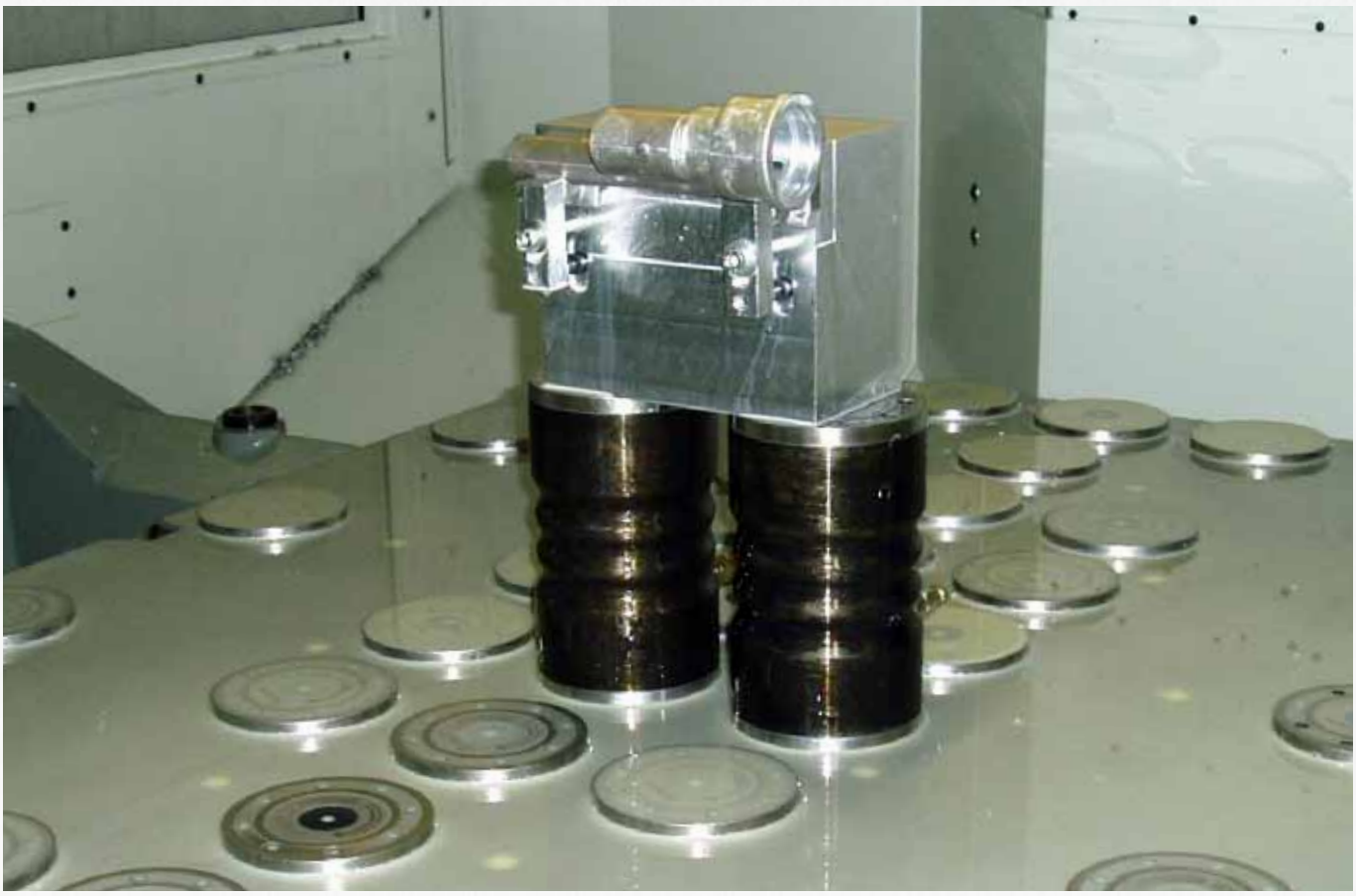
- Installation diagrams



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.

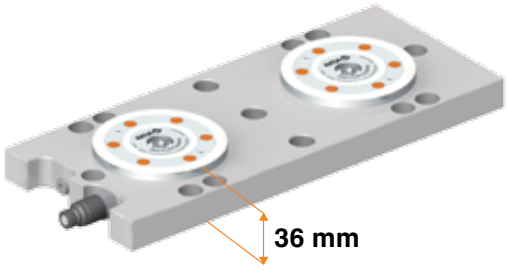


Subject to technical alterations.

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.



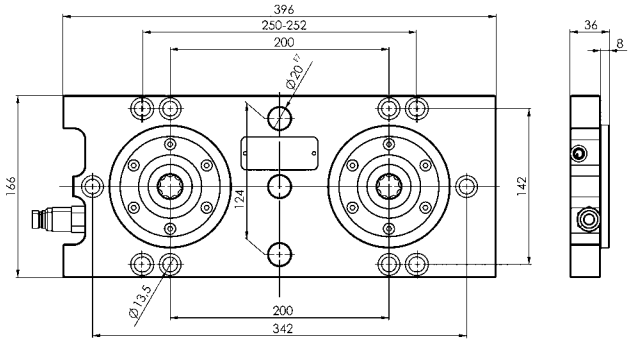
Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
427484	K10.2	2 x 10	2 x 25	●	14

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:

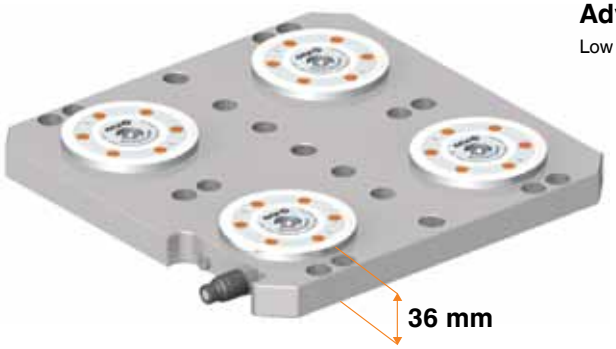
Low overall height of only 36 mm.



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.



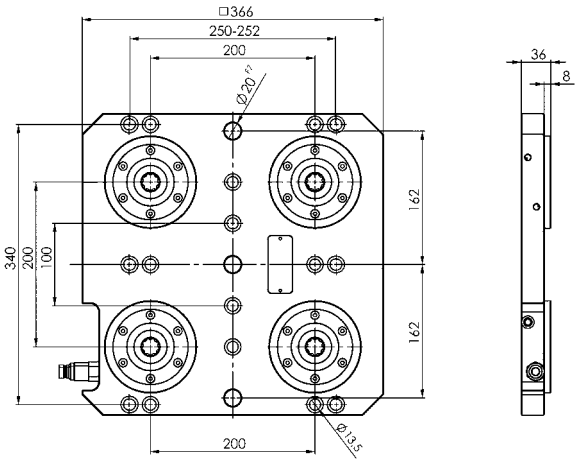
Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
427500	K10.2	4 x 10	4 x 25	●	30

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.



Subject to technical alterations.

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.

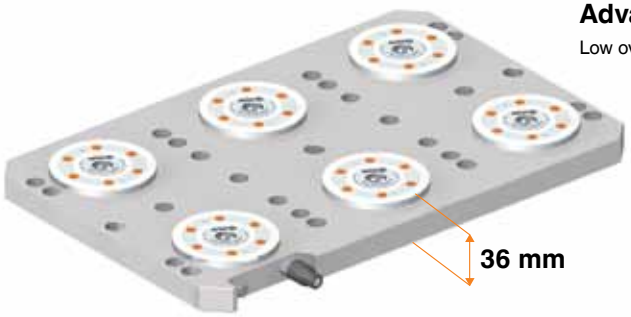
Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
427526	K10.2	6 x 10	6 x 25	●	46

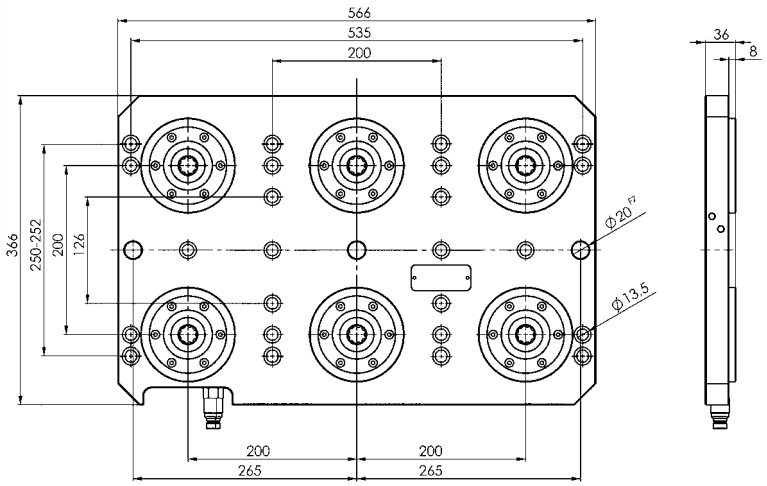
Design:

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.

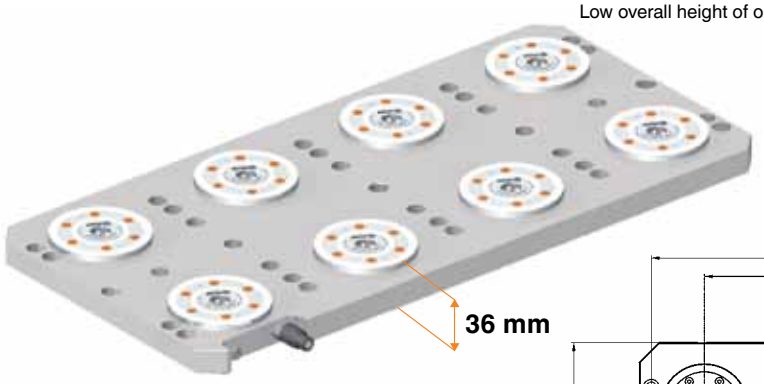
Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
427542	K10.2	8 x 10	8 x 25	●	63

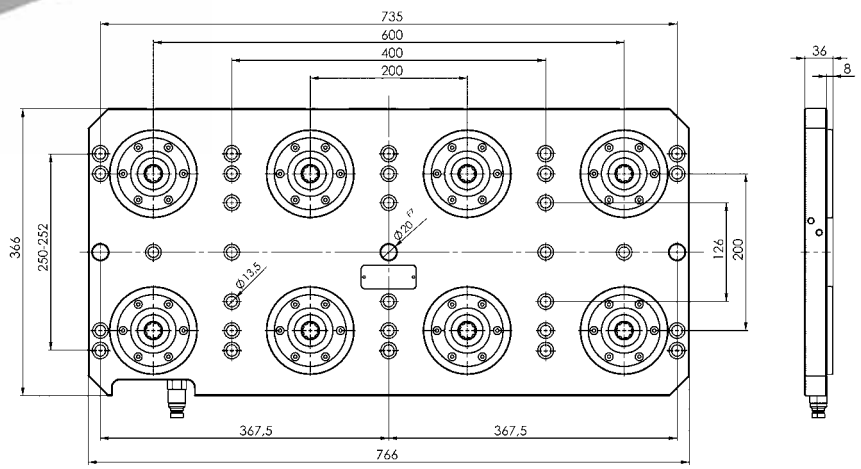
Design:

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 [kN]	Holding force [kN]	Blow out	Weight [Kg]
427492	K10.2	4 x 10	4 x 25	●	37

Design:

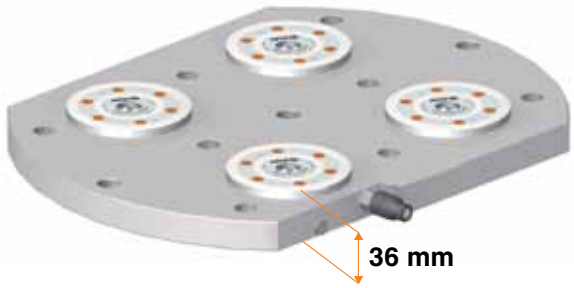
Hydraulic clamping station for optimised clamping times on machine tables with distance between slots of 63 mm. Clamping is with M12 socket head screws. At least two fitting holes are attached for alignment.
The insertion dimension of the clamping modules is 200 mm. The quick coupling plug is pre-mounted,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

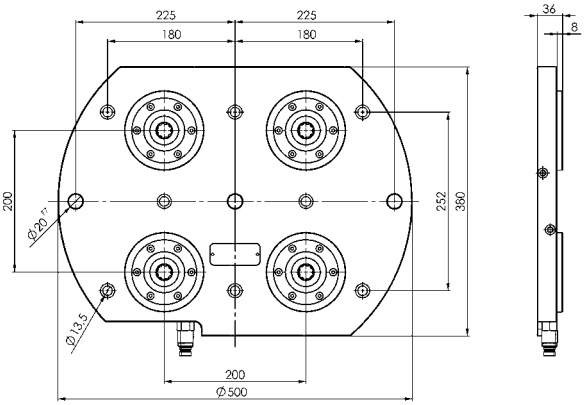
Application:

e.g. for DMG / DMU 50 EVO

Advantage:

Low overall height of only 36 mm.





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 [kN]	Holding force [kN]	Blow out	Weight [Kg]
427518	K10.2	4 x 10	4 x 25	●	38

Design:

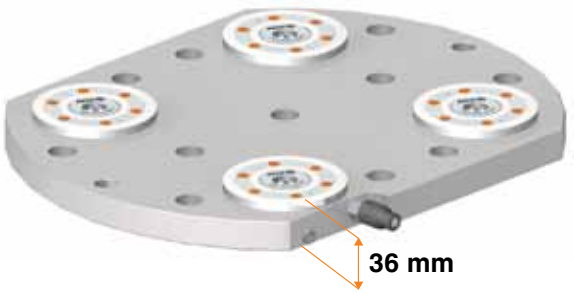
Hydraulic clamping station for optimised clamping times on machine tables with distance between slots of 80 mm. Clamping is with M16 socket head screws. At least two fitting holes are attached for alignment.
The insertion dimension of the clamping modules is 200 mm. The quick coupling plug is pre-mounted, and the integrated blow-out function can be individually connected.

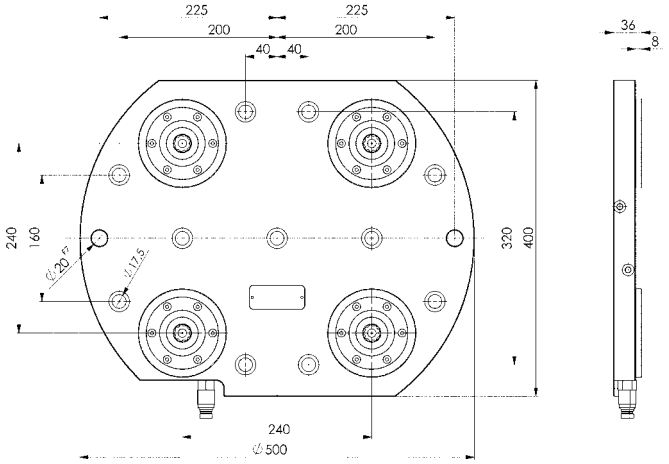
Application:

e.g. for Mazak Variaxis 500

Advantage:

Low overall height of only 36 mm.





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:

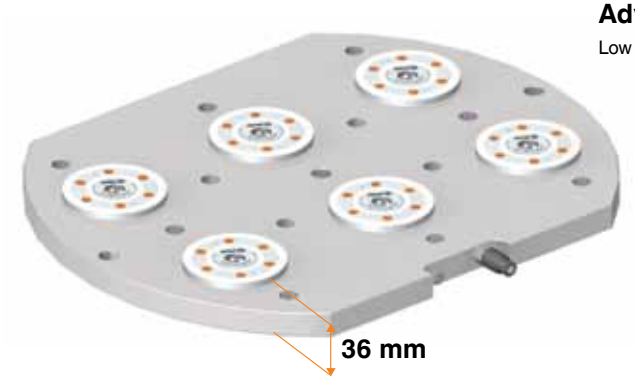
Hydraulic clamping station for optimised clamping times on machine tables with distance between slots of 63 mm. Clamping is with M12 socket head screws. At least two fitting holes are attached for alignment.
The insertion dimension of the clamping modules is 200 mm. The quick coupling plug is pre-mounted,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

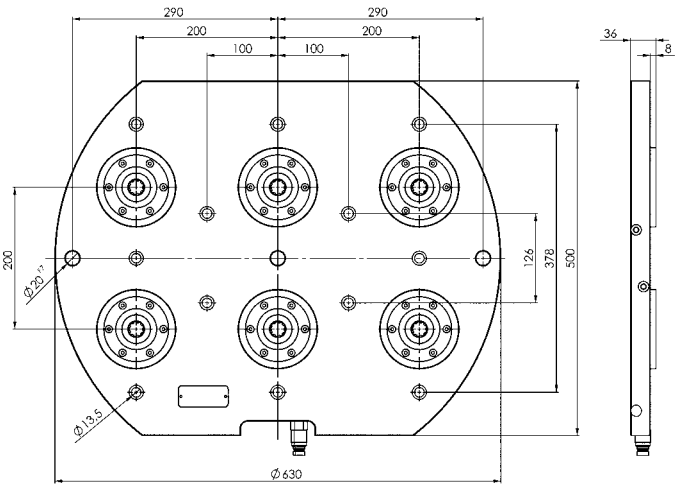
Application:

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:

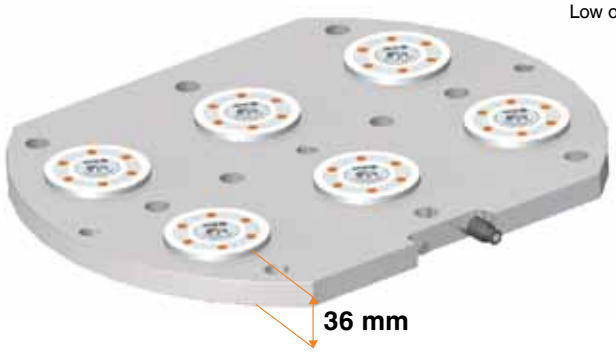
Hydraulic clamping station for optimised clamping times on machine tables with distance between slots of 100 mm. Clamping is with M16 socket head screws. At least two fitting holes are attached for alignment.
The insertion dimension of the clamping modules is 200 mm. The quick coupling plug is pre-mounted,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

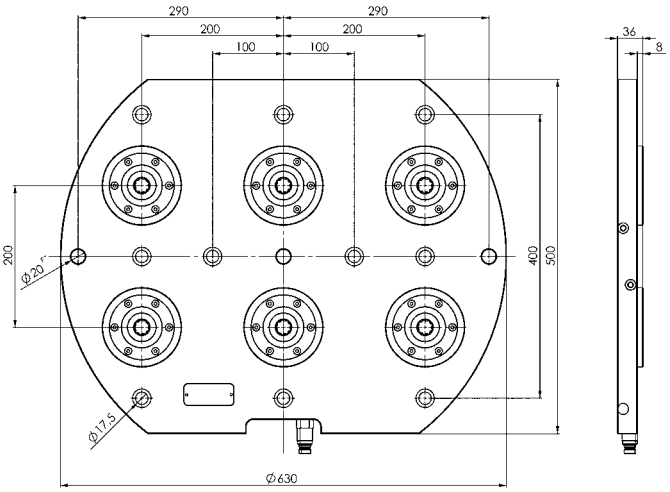
Application:

e.g. for Mazak Variaxis 630

Advantage:

Low overall height of only 36 mm.





Subject to technical alterations.

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:

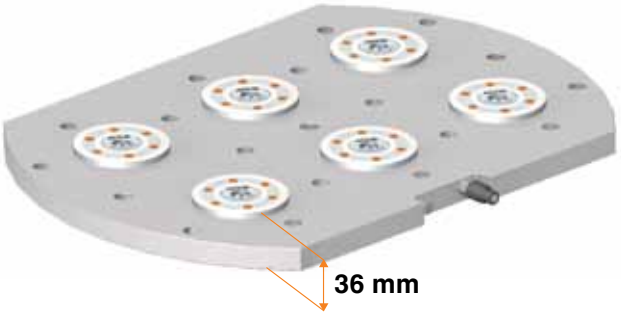
Hydraulic clamping station for optimised clamping times on machine tables with distance between slots of 63 mm. Clamping is with M12 socket head screws. At least two fitting holes are attached for alignment.
The insertion dimension of the clamping modules is 200 mm. The quick coupling plug is pre-mounted,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

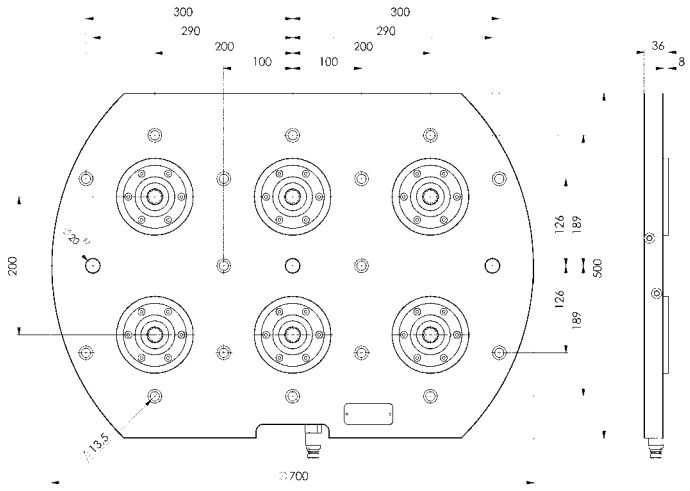
Application:

e.g. for DMG / DMU 70 EVO

Advantage:

Low overall height of only 36 mm.





No. 6204K2HA-015

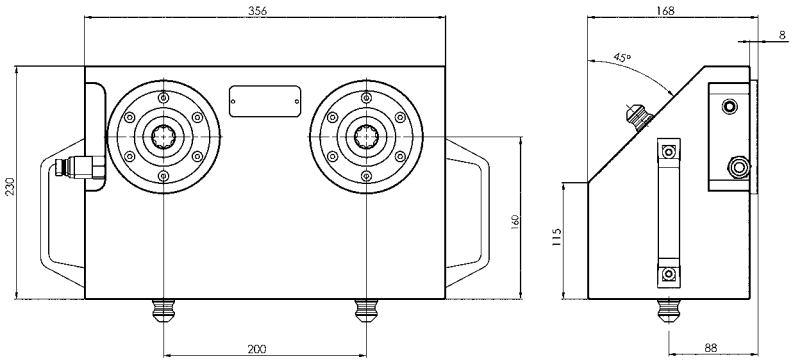
Double clamping bracket

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.



Subject to technical alterations.

No. 6204K1HA-001

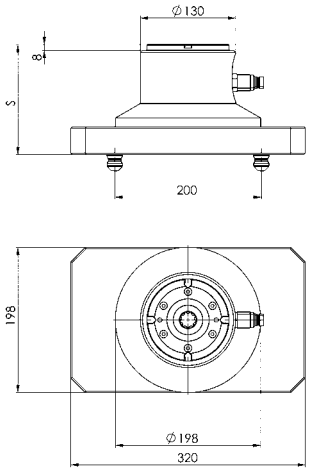
Single clamping bracket

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

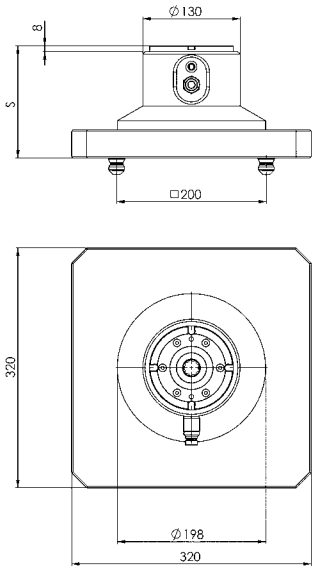
Single clamping bracket

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.



Subject to technical alterations.

No. 6204K2HA-011

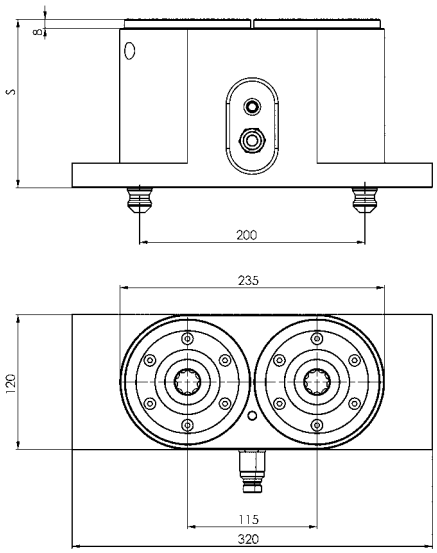
Double clamping bracket

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

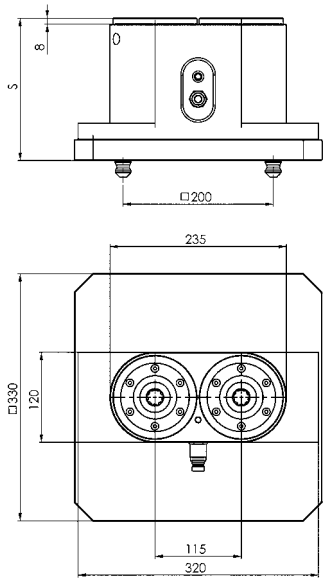
Double clamping bracket

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.



Subject to technical alterations.

No. 6204K2HA-001

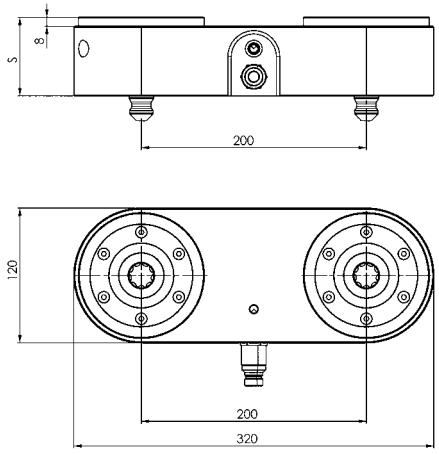
Double clamping bracket

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

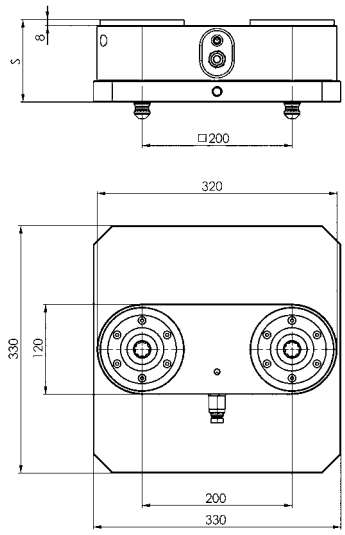
Double clamping bracket

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.



Subject to technical alterations.

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.

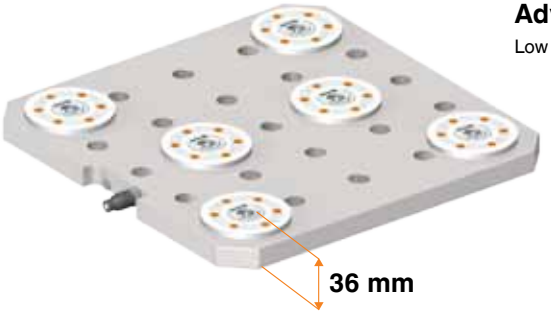
Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
427625	K10.2	6x10	6x25	●	55

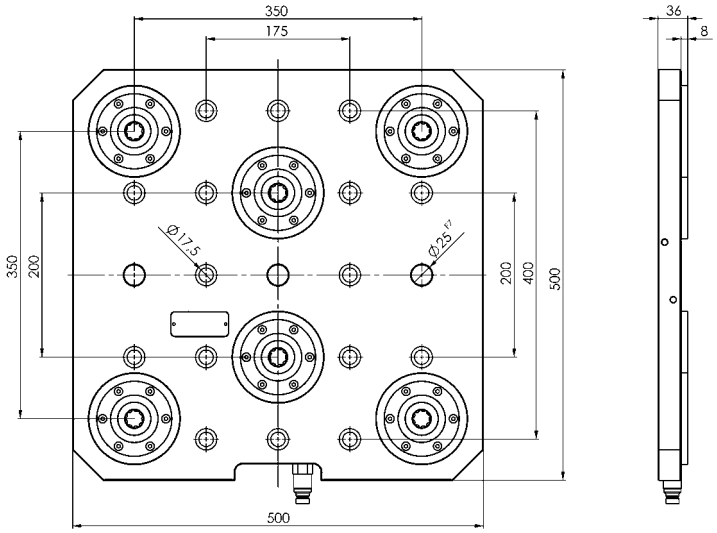
Design:

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

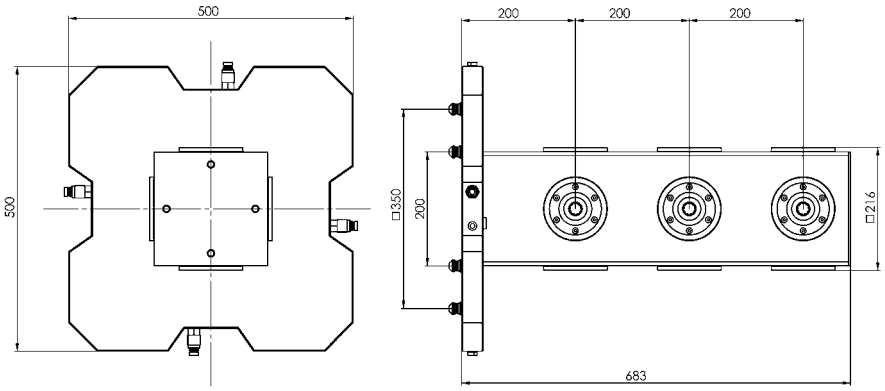
12-fold clamping cube

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. 6204P-S2

Fixture plate

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

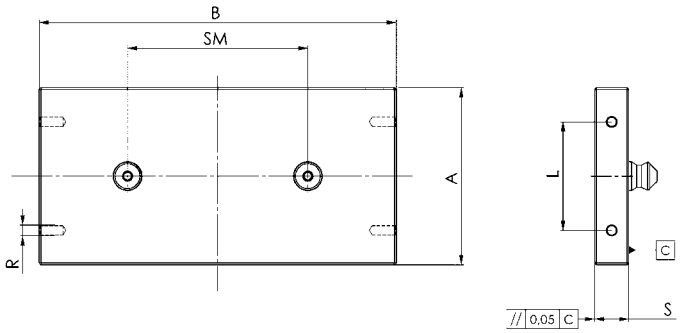
Order no.	Size	A	B	L	R	S	SM	Weight [Kg]
429266	K10.2	166	396	120	M12	30	200	6

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

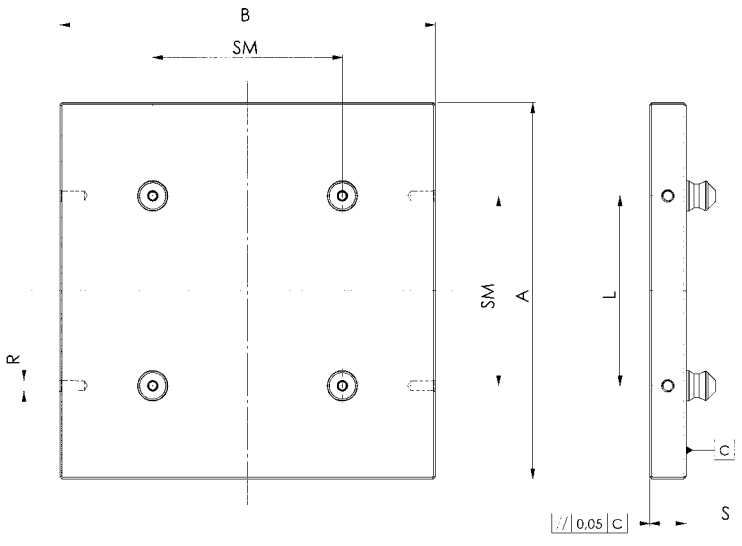
Order no.	Size	A	B	L	R	S	SM	Weight [Kg]
429282	K10.2	366	366	200	M12	30	200	10

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.



Subject to technical alterations.

No. 6204P-S6

Fixture plate

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

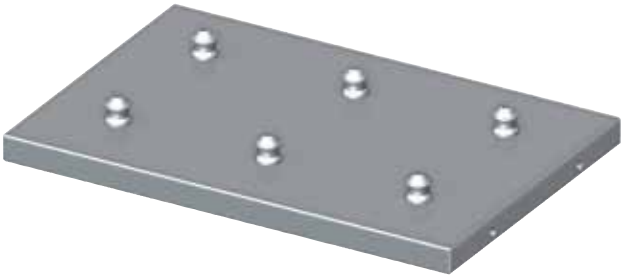
Order no.	Size	A	B	L	R	S	SM	Weight [Kg]
429308	**K10.2**	366	566	200	M12	30	200	16

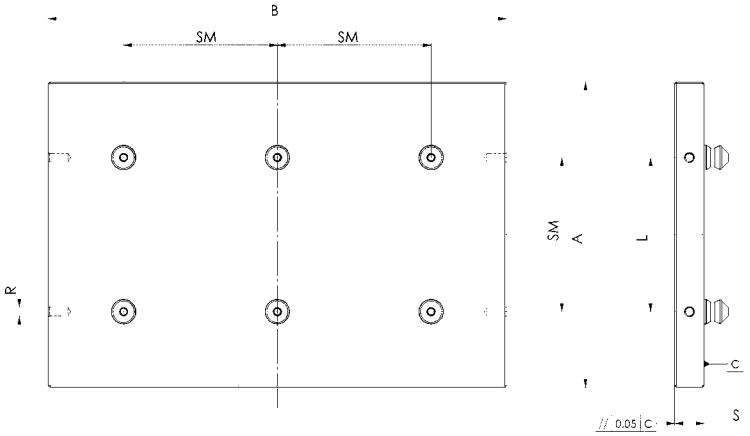
Note:

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.





No. 6204P-S8

Fixture plate

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

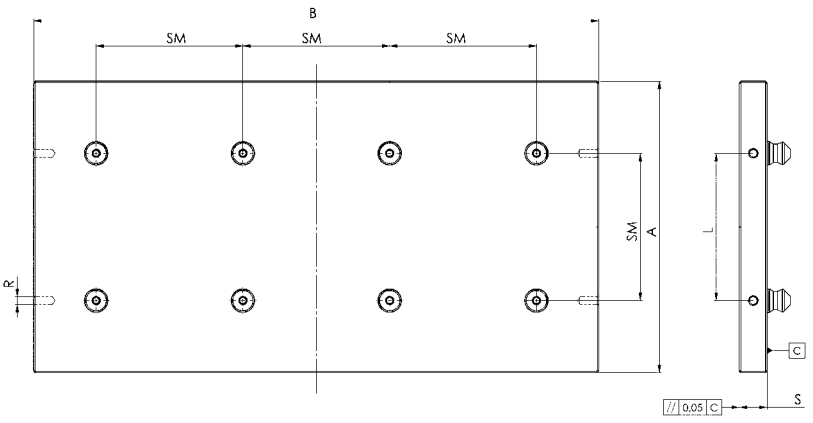
Order no.	Size	A	B	L	R	S	SM	Weight [Kg]
429324	**K10.2**	366	770	200	M12	30	200	22

Note:

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

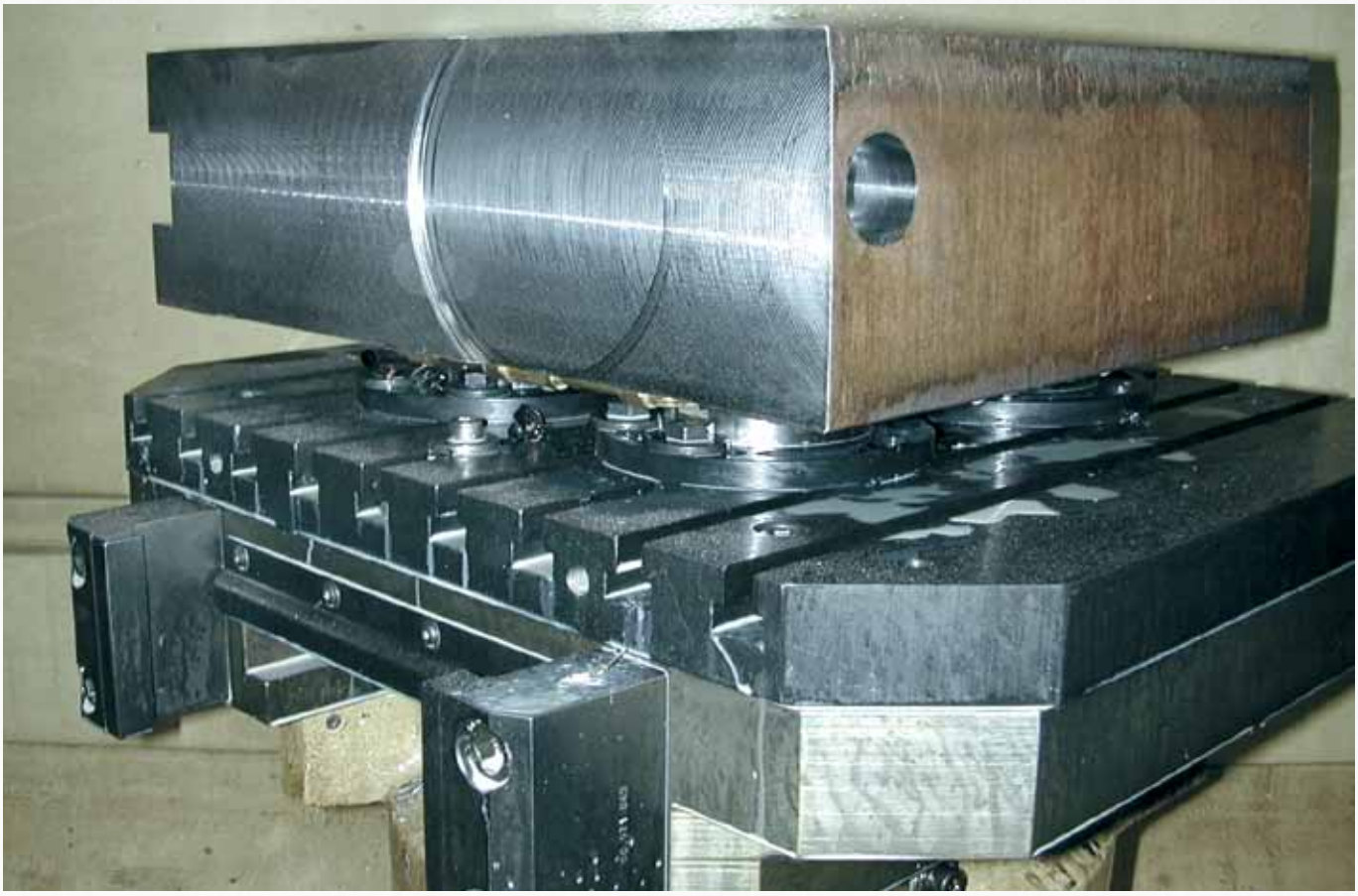
On request:

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



Subject to technical alterations.

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



Subject to technical alterations.

No. 6370ZN-10

Clamping nipple for clamping modules K10

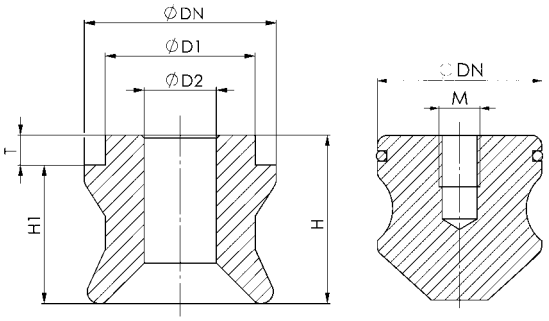
Hardened, for hydraulic and pneumatic clamping modules size K10.

EDELSTAHL Rostfrei® STAINLESS STEEL

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



303610, 303636, 304519 — 304535

No. 6370ZNS-001

Engagement nipple screw

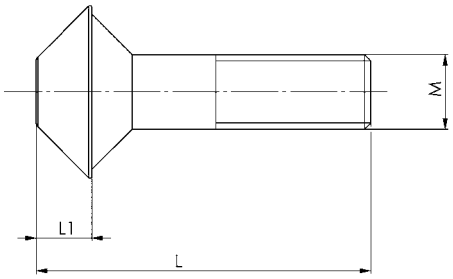
Strength class 10.9.

Suitable for clamping nipple, article no. 6370ZN.

Order no.	Size	M	L	L1	Weight [g]
303578	K10	M 8	37	6	30

On request:

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



Subject to technical alterations.

No. 6370ZNM

Clamping female nipple

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

NEW!

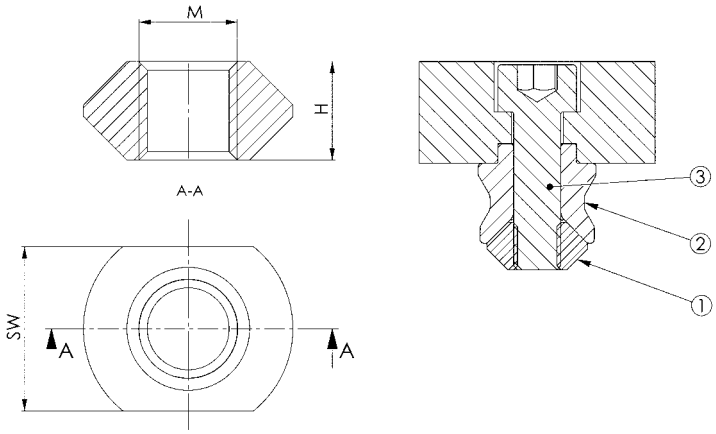
Order no.	Size	M	SW	H	Weight [g]
429985	**K10**	M8	14	8	8

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. 6204ZS

Cover cap

Material: polyethylene

Order no.	Packaging unit [St]	Weight [g]
428664	8	4

Application:

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

No. 6204ZS

Cover cap

Polyethylene

NEW!

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.

Subject to technical alterations.

No. 6370ZS

High Pressure Hose

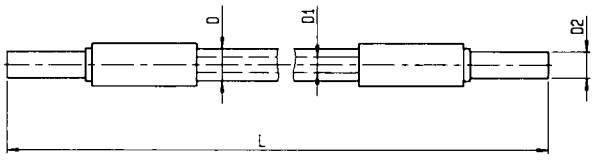
Order no.	Test pressure [bar]	Operating pressure dynamic at +50 °C [bar]	dia. D [mm]	dia. D1 [mm]	dia. D2 [mm]	L [mm]	Weight [g]
430017	750	375	9,8	4,8	8	2000	265

Design:

Steel fitting, galvanized and passivated. Hose of synthetic material with high tensile brassed steel-wire braid.

Application:

High pressure hose is used for hydraulic connection of surface-mounted clamping modules or clamping stations to the pressure generator, such as the pressure intensifier or air-hydraulic pump.



No. 6370ZSK

Quick Disconnect Coupler

zinc-plated.
Max. operating pressure 325 bar.

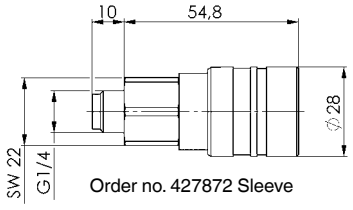
Order no.	Nominal bore [NW]	Nominal flow [l/min]	SW [mm]	Weight [g]
427856	6	12	22	100
427872	6	12	22	170

Application:

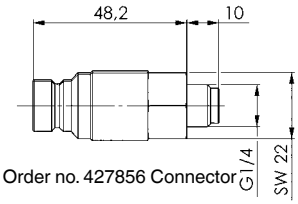
Since the clamping modules after blow-off of the opening pressure are mechanically locked, the hose is then uncoupled by means of the quick couplings. The advantage of this is that there are no interfering lines.

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. 6370ZR-011

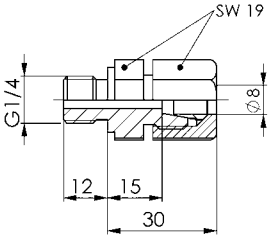
Tube fittings

for high-pressure hose with outer diameter 8 mm and internal diameter 4 mm, with olive ring.

Order no.	SW	Weight [g]
429910	19	55

Note:

Sealing in accordance with DIN 3852 Form B through edge seal and cutting ring.



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^3]	Flow rate max. [cm^3/min]	Weight [Kg]
426569	4	6	1000	750	5,9

Design:

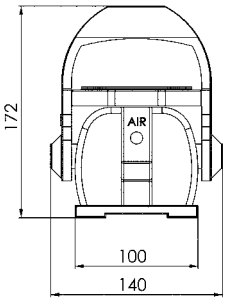
Compact, air-pressure-operated hydraulic intensification pump for single-acting circuits. The pump is fitted with an integrated safety valve that regulates the hydraulic output pressure. The safety valve is set in the factory to the max. operating pressure of 60 bar.
The extension element in the oil tank allows the pump to be adjusted horizontally and vertically.
Air connection thread: G1/4
Oil connection thread: G1/4

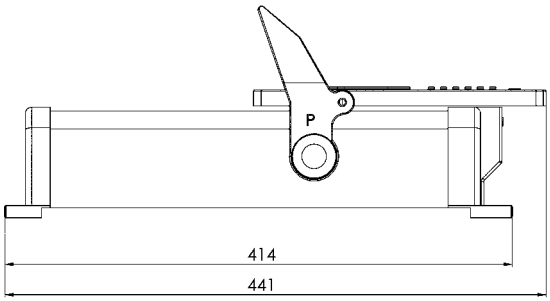
Application:

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.





Subject to technical alterations.

COMPONENTS FOR EVERY REQUIREMENT
– THE ZERO POINT SYSTEM FROM AMF

The market requirements for a modern zero-point system are widely varied. Different model sizes, holding forces or integrated automation solutions - with our “Zero Point” system we offer components for every requirement and for every standard.

Convince yourself!

TRY IT FOR YOURSELF AND TAKE ADVANTAGE OF THE MANY FEATURES THAT MAKE THE AMF ZERO POINT SYSTEM SO SPECIAL:

- Clamping module in built-in or external mount versions
- Various model sizes for different processing forces and applications
- Heavy-load clamping module for even more extreme holding forces
- Clamping module as flange version for simplified installation
- Horizontal rapid-clamp cylinder for fast, vertical palettisation
- A wide range of automated solutions
- High-end clamping module for full automation
- Various hydraulic clamping stations
- Air-hydraulic pump for rapid opening of the clamping module
- Comprehensive accessories offer the perfect complement

Subject to technical alterations.

INSTALLATION CLAMPING MODULES

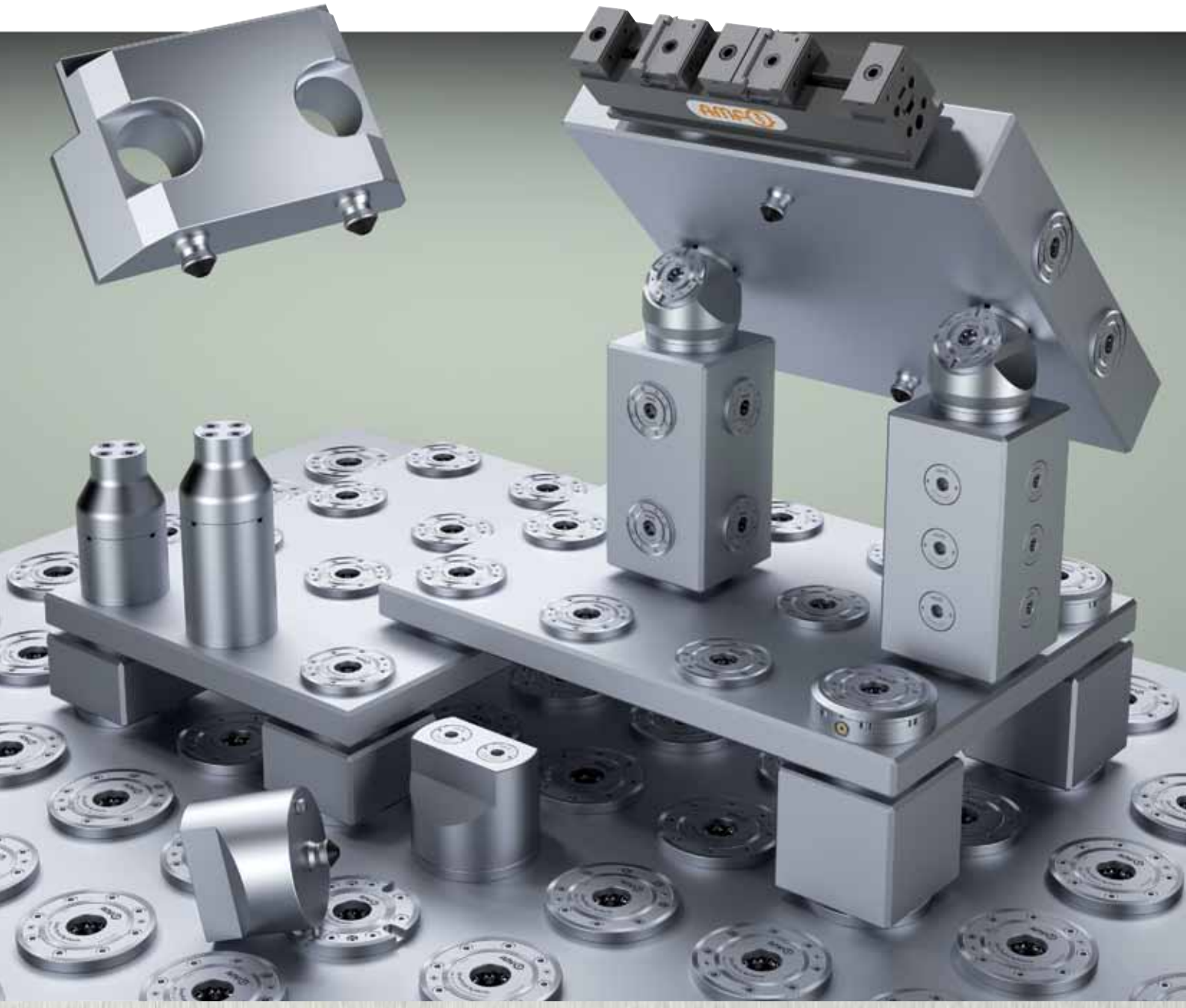
The AMF installation clamping modules are used with low space requirement and low overall height. For installation in pallets, machine tables, clamping brackets and cubes. Usable when cutting, grinding, eroding and on plastic-processing machines as well as for fixture construction with mounting fixtures 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 are available in five 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. 45 mm - pull-in/locking force up to 5 kN - holding force 13 kN
- **Clamping modules K02** - dia. 22 mm - pull-in/locking force up to 0,23 kN - holding force 6 kN

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

> Differing AMF clamping modules from Ø 22 to Ø 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.



No. 6203L-02

Installation 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.

EDELSTAHL Rostfrei
STAINLESS STEEL

Order no.	Size	Pull-in/locking force up to [N]	Holding force [N]	Weight [g]
427286	K02	235	6000	60

Application:

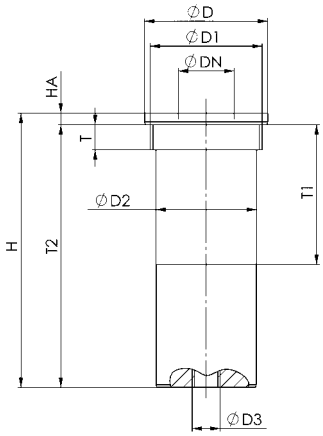
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

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	H	HA	T	T1	T2
427286	K02	22	10	M20x1,5	18	M5	49,05	2,05	4,5	25	47

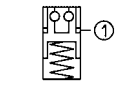
Subject to technical alterations.

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.

EDELSTAHL Rostfrei STAINLESS STEEL



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

Application:

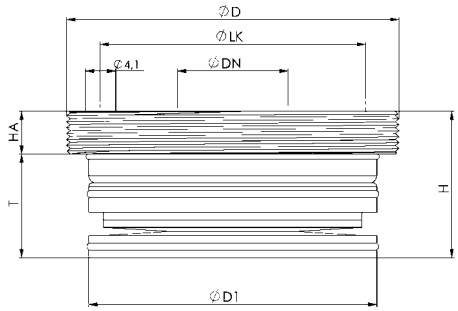
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry. With small space requirement and low overall height.

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:

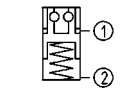
Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	T
305953	K 5	M45 x 1	15	39	19,8	5,8	36	14

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.

EDELSTAHL Rostfrei STAINLESS STEEL



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

Application:

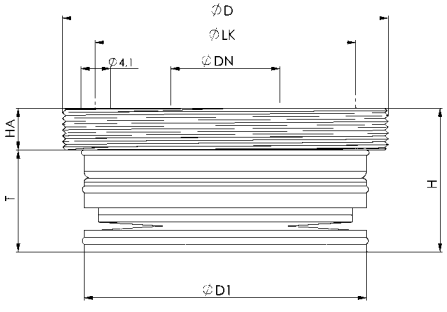
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry. With small space requirement and low overall height.

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-005 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

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.

EDELSTAHL Rostfrei STAINLESS STEEL

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

Application:

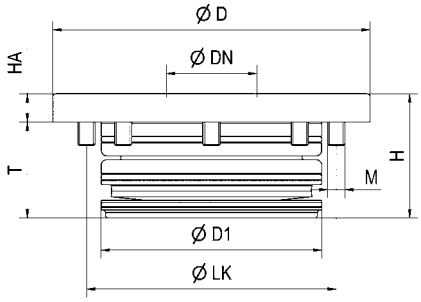
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

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 6151H/6151L.

On request:

- Installation diagrams
- Automation solutions



Dimensions:

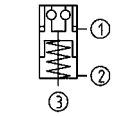
Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	M	T
428680	K10	78	22	50	30	7	60	M5	23
427971	K20	112	32	78	44	10	88	M6	34
429845	K40	148	40	102	57	15	118	M8	42

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.

EDELSTAHL Rostfrei STAINLESS STEEL



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

Application:

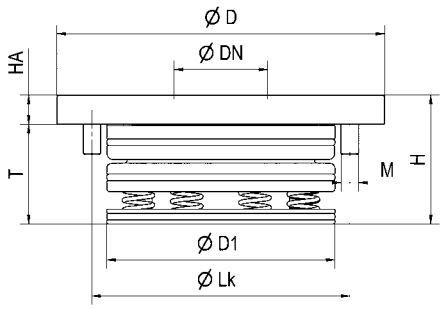
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

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-005 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
- Automation solutions



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 [kN]	Holding force [kN]	Blow out	Weight [Kg]
428425	K20	20	55	●	1,4

Application:

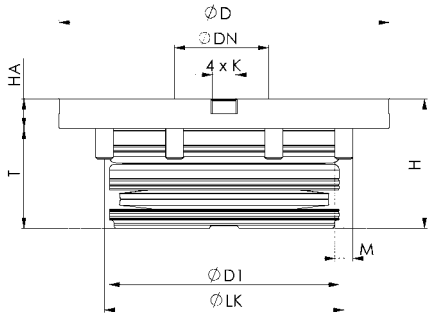
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

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 [kN]	Holding force [kN]	Blow out	Weight [Kg]
428441	K20	17	55	●	1,4

Application:

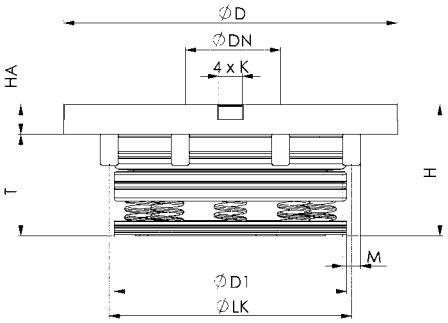
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

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 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

Subject to technical alterations.

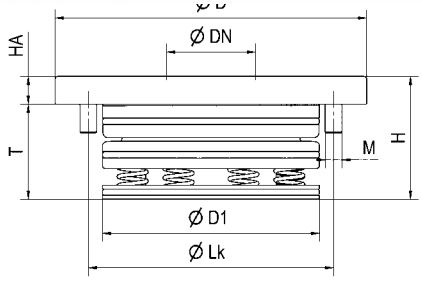
No. 6206LA

Installation clamping module, round

Pneumatic opening. Pneumatic blow-out.
Opening operating pressure:
K10.3 min. 5 bar
K20.3 min. 4,5 bar
Cover and piston hardened. Repeatability < 0.005 mm.

EDELSTAHL Rostfrei STAINLESS STEEL

NEW!



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
428730	**K10.3**	10	25	●	1,4
428755	**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.

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
428730	**K10.3**	112	22	78	35	10	88	6xM6	25
428755	**K20.3**	138	32	102	49	15	115	8xM6	34

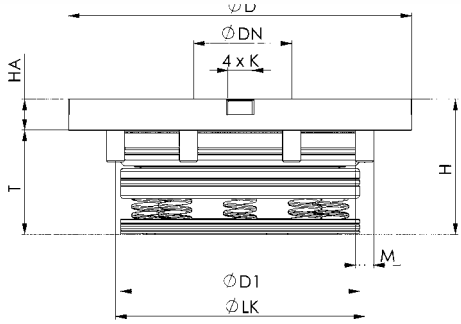
No. 6206ILA

Installation clamping module, round, with indexing

Pneumatic opening. Pneumatic blow-out.
Opening operating pressure:
K10.3 min. 5 bar
K20.3 min. 4,5 bar
Cover and piston hardened. Repeatability < 0.005 mm.

EDELSTAHL Rostfrei STAINLESS STEEL

NEW!



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 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	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

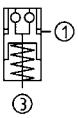
Subject to technical alterations.

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.

EDELSTAHL Rostfrei STAINLESS STEEL



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

Application:

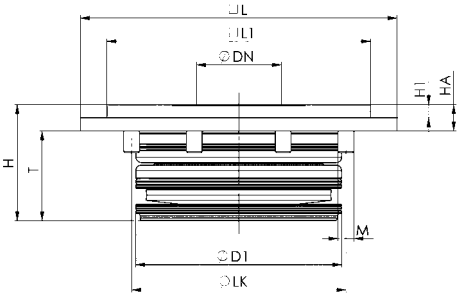
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry. A square clamping module prevents the pallet from twisting. The indexing function enables exact positioning every 90°.

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
- Automation solutions



Dimensions:

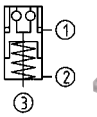
Order no.	Size	dia. DN	dia. D1	H	HA	H1	L	L1	dia. LK	M	T
305250	K10	22	50	30	7	3,5	85	70	60	M5	23
305276	K20	32	78	44	10	5,0	120	100	88	M6	34
305292	K40	40	102	57	15	5,0	150	130	118	M8	42

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.

EDELSTAHL Rostfrei STAINLESS STEEL



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

Application:

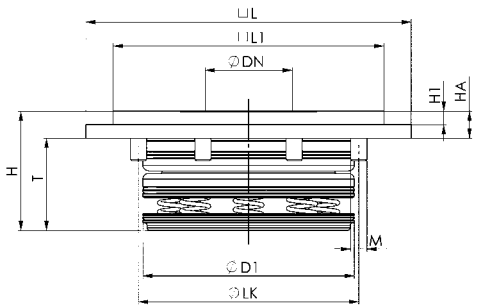
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry. A square clamping module prevents the pallet from twisting. The indexing function enables exact positioning every 90°.

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-005 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
- Automation solutions



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

Subject to technical alterations.

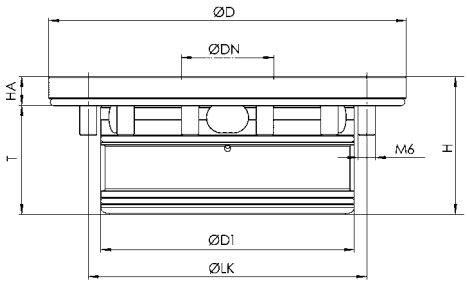
Installation clamping module, heavy-duty

No. 6201H

Installation clamping module, heavy-duty, round

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

EDELSTAHL Rostfrei STAINLESS STEEL



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Weight [Kg]
306084	K20	20	105	1,94

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 installed heavy-duty clamping module K20 has the same max. holding force as the clamping module K40. The example here is that the clamping nipple has the same outside dimensions as the clamping nipple in the clamping module K20. As a result, a uniform clamping nipple size can be achieved in all fixtures, and the same module size can be achieved on the machine tables.

Note:

The heavy duty installation clamping module, despite small installation dimensions, has increased holding force through the reinforced design. Due to the cartridge construction, simplified installation in the body is possible.

The 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:

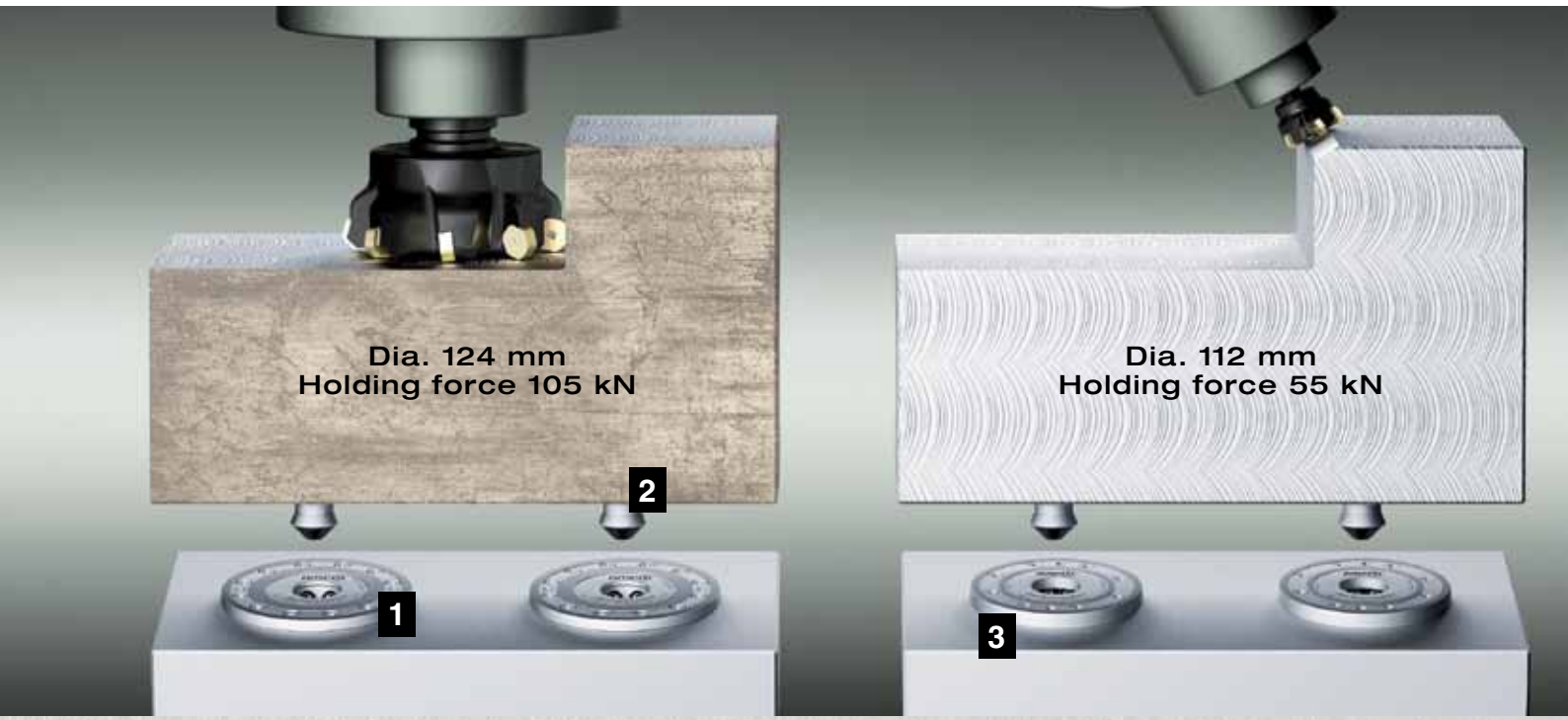
- Installation diagrams
- Automation solutions

Dimensions:

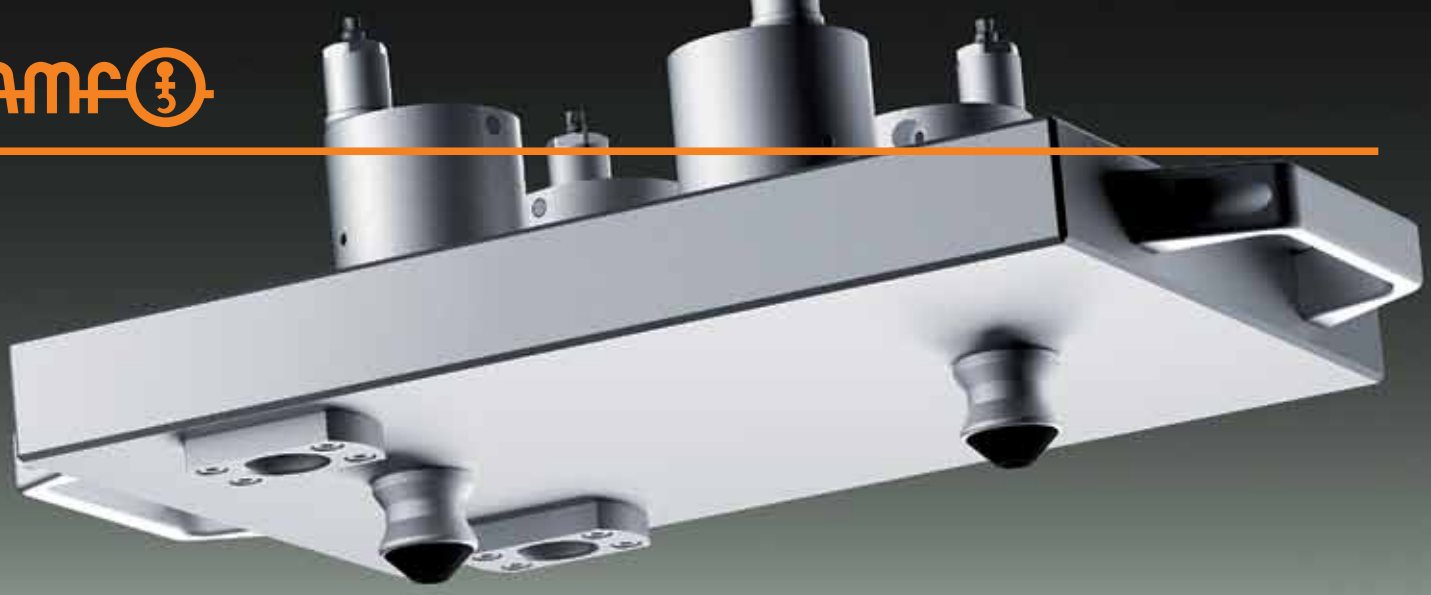
Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	T
306084	K20	124	32	88	47,8	10	100	37,8

MORE EXTREME HOLDING FORCES - WITH SAME INTERFACE

1. Heavy duty clamping modules for extreme processing forces
2. Clamping nipple K20 as the same interface between the two clamping modules
3. Clamping module K20 for all other applications



Subject to technical alterations.



SIMPLIFIED INSTALLATION IN THE BODY
- THE INSTALLATION CLAMPING MODULE AS FLANGE VERSION

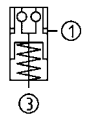
The flange version of the installation clamping module has a centring ring on the underside. This allows simplified and precisely positioned installation of the module in the body. Through the low depth of the required mounting hole for the centring ring, existing fixtures and be easily and inexpensively 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.

EDELSTAHL Rostfrei STAINLESS STEEL



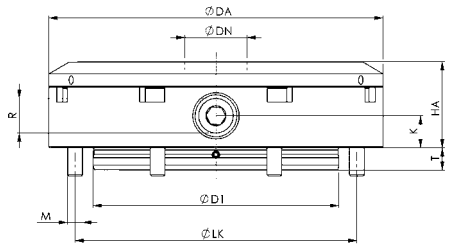
Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Blow out	Weight [Kg]
424085	K10	10	25	●	1,35
423962	K20	20	55	●	3,75
424143	K40	40	105	●	4,97

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	ØDA	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.

EDELSTAHL Rostfrei STAINLESS STEEL

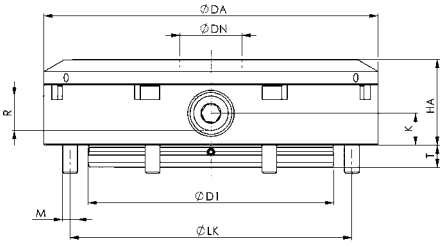
Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Weight [Kg]
424101	K10	8	25	1,35
423988	K20	17	55	3,75
424168	K40	30	105	4,97

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-005 is recommended.
The clamping module has two connections:
1x pneum. opening (1) / 1x pneum. retensioning (turbo) (2).



Dimensions:

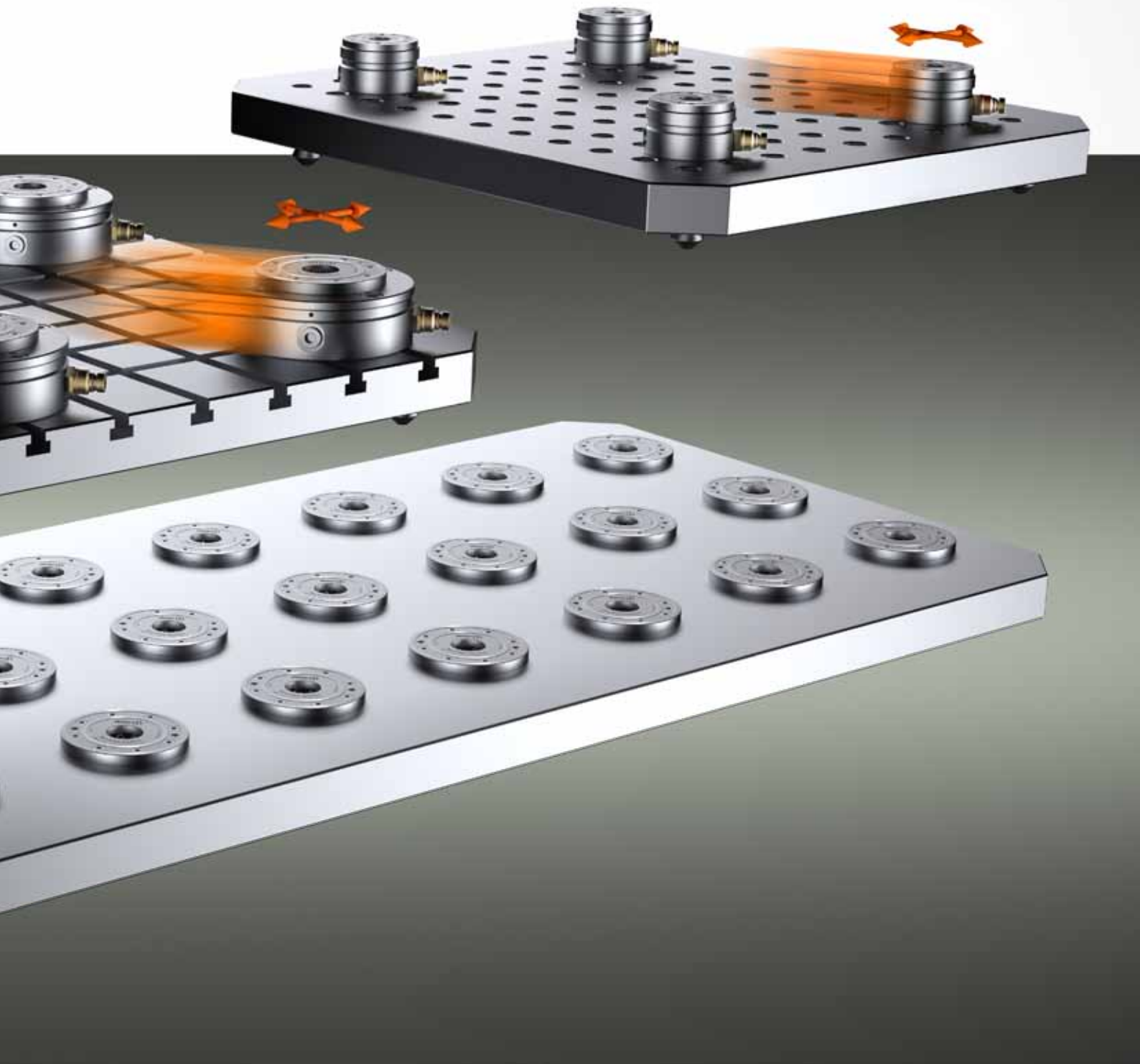
Order no.	Size	ØDA	dia. DN	dia. D1	HA	K	dia. LK	M	R	T
424101	K10	100	22	67	24	9	90	M5	G1/8	5,9
423988	K20	136	32	100	35	13	124	M6	G1/8	8,9
424168	K40	180	40	125	45	15	163	M8	G1/4	11,9

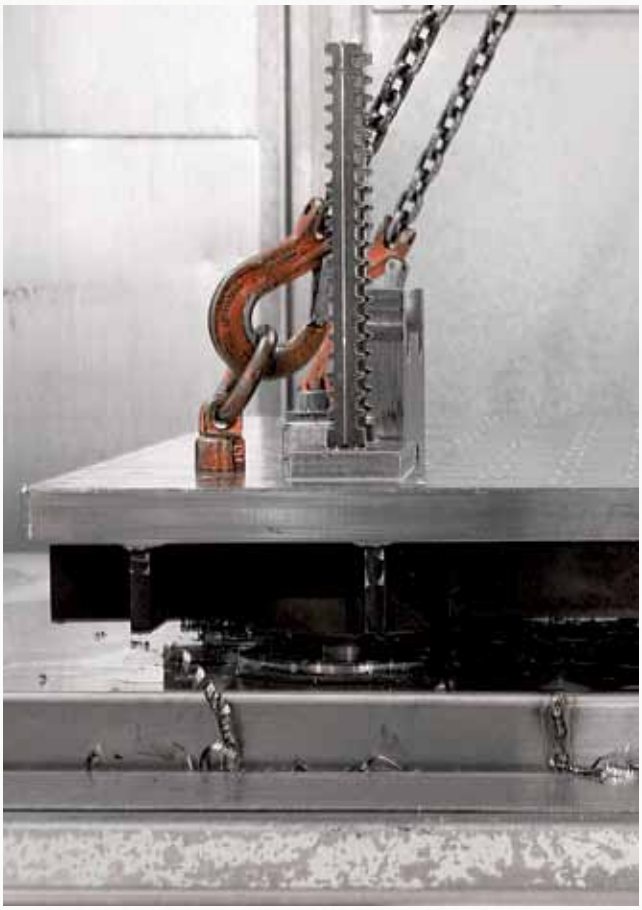
Subject to technical alterations.

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.





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.

EDELSTAHL Rostfrei STAINLESS STEEL

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

Application:

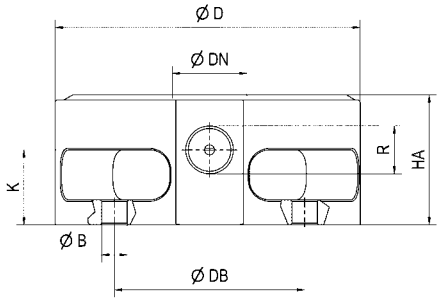
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

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 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

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.

EDELSTAHL Rostfrei STAINLESS STEEL

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

Application:

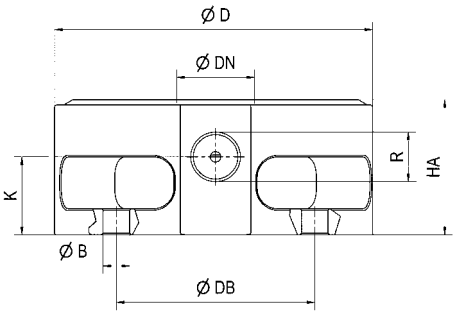
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

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).
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).

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

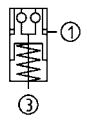
Subject to technical alterations.

No. 6370AARH

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.

EDELSTAHL Rostfrei STAINLESS STEEL



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

Application:

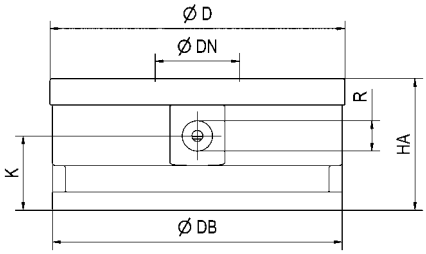
Zero-point clamping system in combination with clamping flanges 6370ZB for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

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
- Automation solutions



Dimensions:

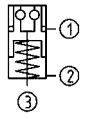
Order no.	Size	dia. D	dia. DB	dia. DN	HA	K	R
303545	**K10**	78	77,5	22	32	16,50	G1/8
302836	**K20**	112	110,0	32	50	28,25	G1/4
302877	**K40**	148	146,0	40	62	32,50	G1/4

No. 6370AARL

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.

EDELSTAHL Rostfrei STAINLESS STEEL



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

Application:

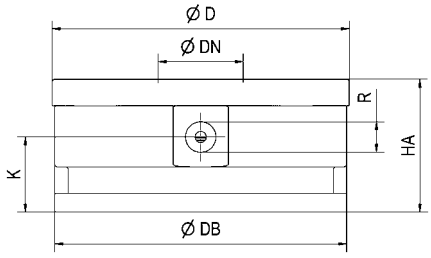
Zero-point clamping system in combination with clamping flanges 6370ZB for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

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-005 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
- Automation solutions



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

Subject to technical alterations.

No. 6370ZB

Clamping flange, Set

consisting of two single-clamp buckles. Nitrided and burnished.

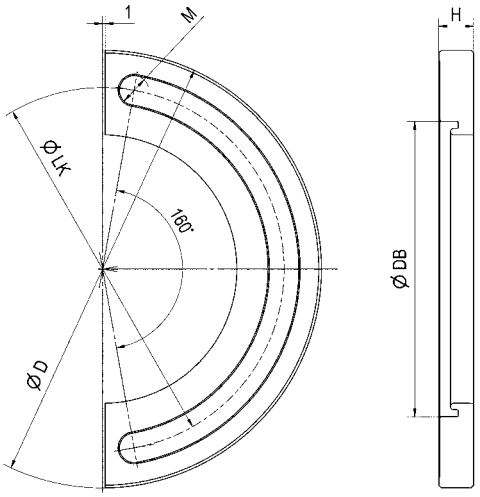
Order no.	Size	Set contents [St]	dia. D	dia. DB	H	dia. LK	M	Weight [g]
426825	K10	2	114	77,5	7,75	94	8,5	360
426833	K20	2	164	110,0	13,00	136	11,0	800
426841	K40	2	202	146,0	16,00	172	13,0	1100

Application:

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

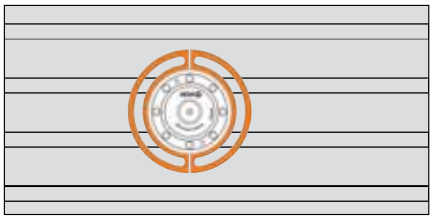
On request:

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

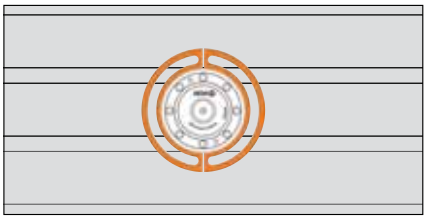


Examples of machine-table mounting:

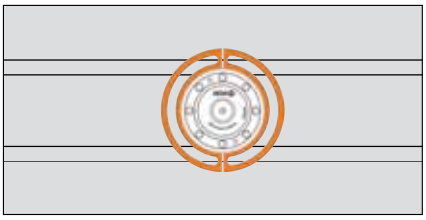
K10 - Groove distance 50 mm



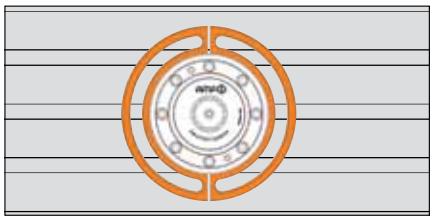
Groove distance 63 mm



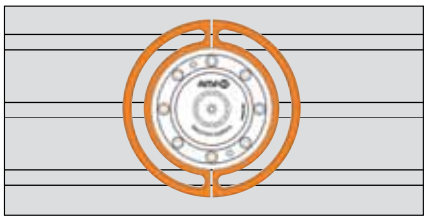
Groove distance 80 mm



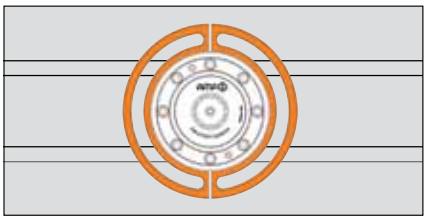
K20 - Groove distance 50 mm



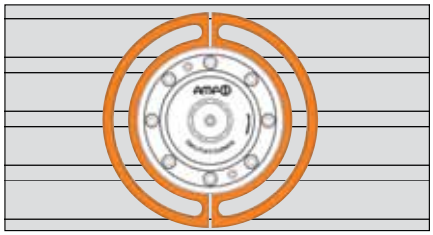
Groove distance 63 mm



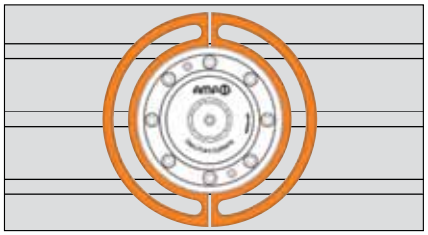
Groove distance 80 mm



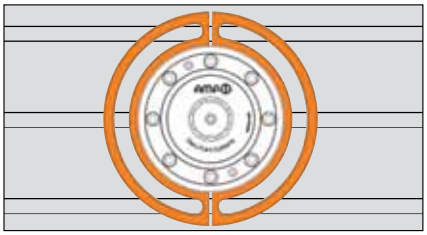
K40 - Groove distance 50 mm



Groove distance 63 mm



Groove distance 80 mm



Subject to technical alterations.

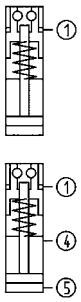
Subject to technical alterations.

No. 6370HARH

Horizontal rapid-clamping cylinder

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

EDELSTAHL Rostfrei STAINLESS STEEL



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 manaul (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:

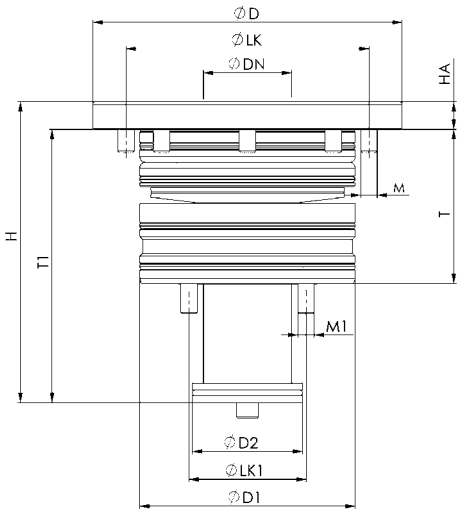
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry. For installation in clamping brackets, cubes and towers. The horizontal rapid-clamping cylinder is used to change fixtures quickly 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:

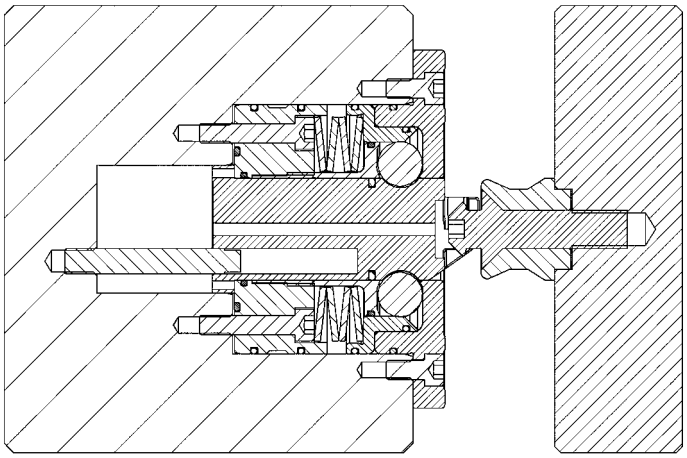
- Installation diagrams



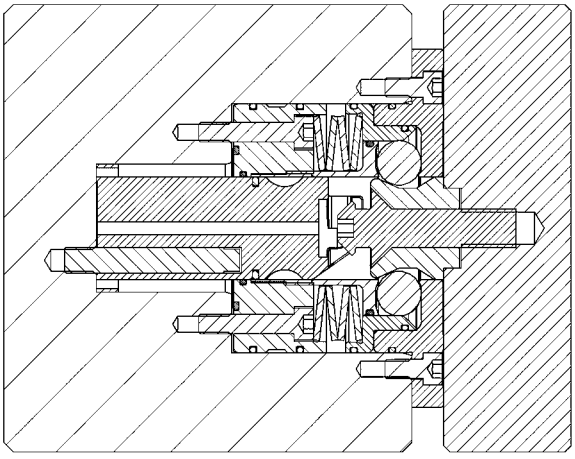
Dimensions:

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

... 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 nipplel
> 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.

EDELSTAHL Rostfrei STAINLESS STEEL

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

Application:

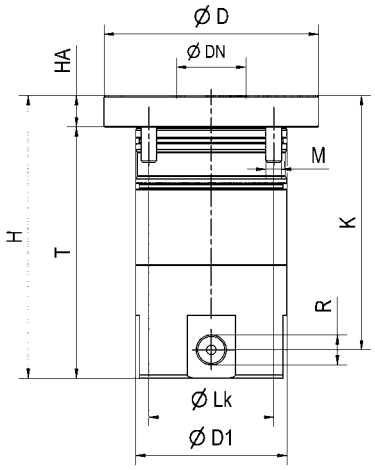
For retrofitting to modular profiles, columns, tombstones and cubes. Can be used with thin wall sections.

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.

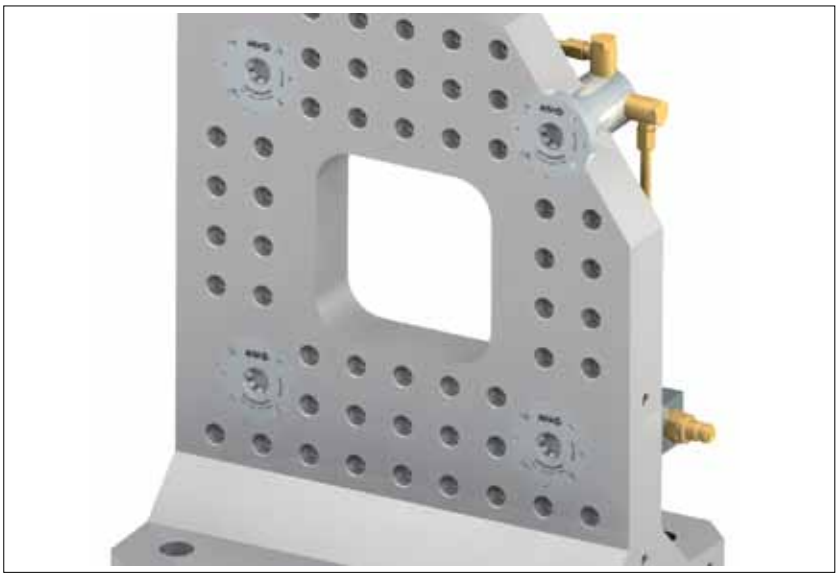
On request:

- Installation diagrams
- Automation solutions



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.

With friendly recommendation of Bäuml CNC-Fertigungs-GmbH & Co. KG, Weiden

Subject to technical alterations.

With friendly recommendation of Bäuml CNC-Fertigungs-GmbH & Co. KG, Weiden

The high precision of the AMF Zero-Point System permits use in grinding

Use in the food industry

Subject to technical alterations.

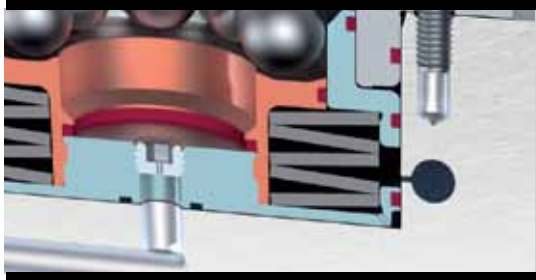
AUTOMATION SOLUTIONS FROM AMF

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.

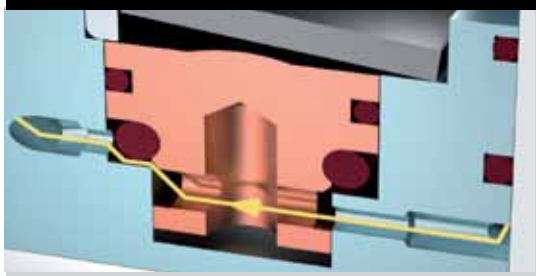
Through the possibility of a fully automatic and process-sure machine configuration, our automation solutions meet the requirements for seamless integration into the automation system. Numerous sensing options, optional media ducts and blow-out and blow-off of the modules speak for themselves!

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

1A LOCKING CONTROL

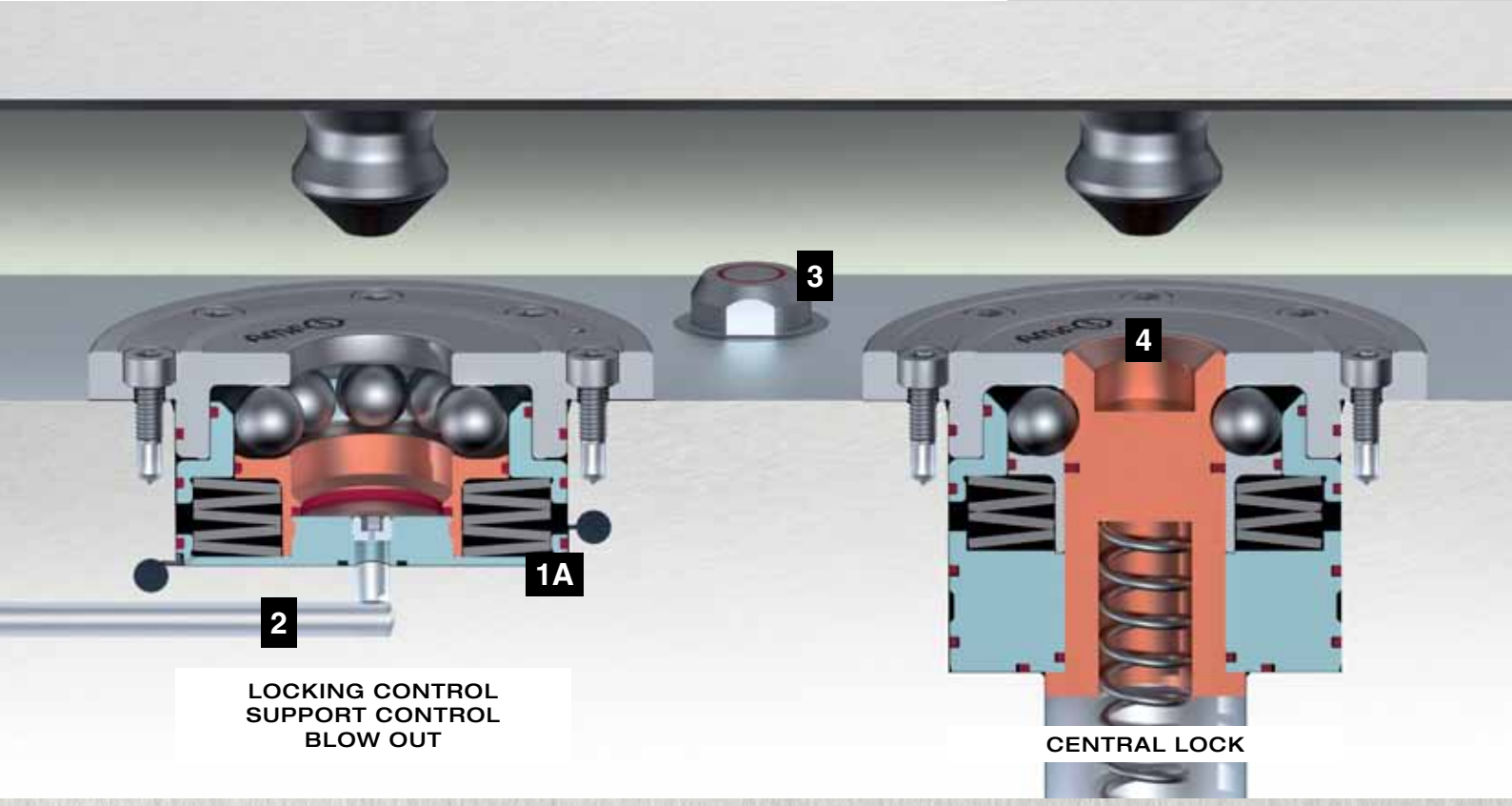


1B LOCKING CONTROL



_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.



LOCKING CONTROL
SUPPORT CONTROL
BLOW OUT

CENTRAL LOCK

2 INTERNAL BLOW-OUT

4 CENTRAL LOCK

6 NIPPLE SENSING

3 MEDIA DUCTS

5 BLOW-OFF/SUPPORT CONTROL

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.

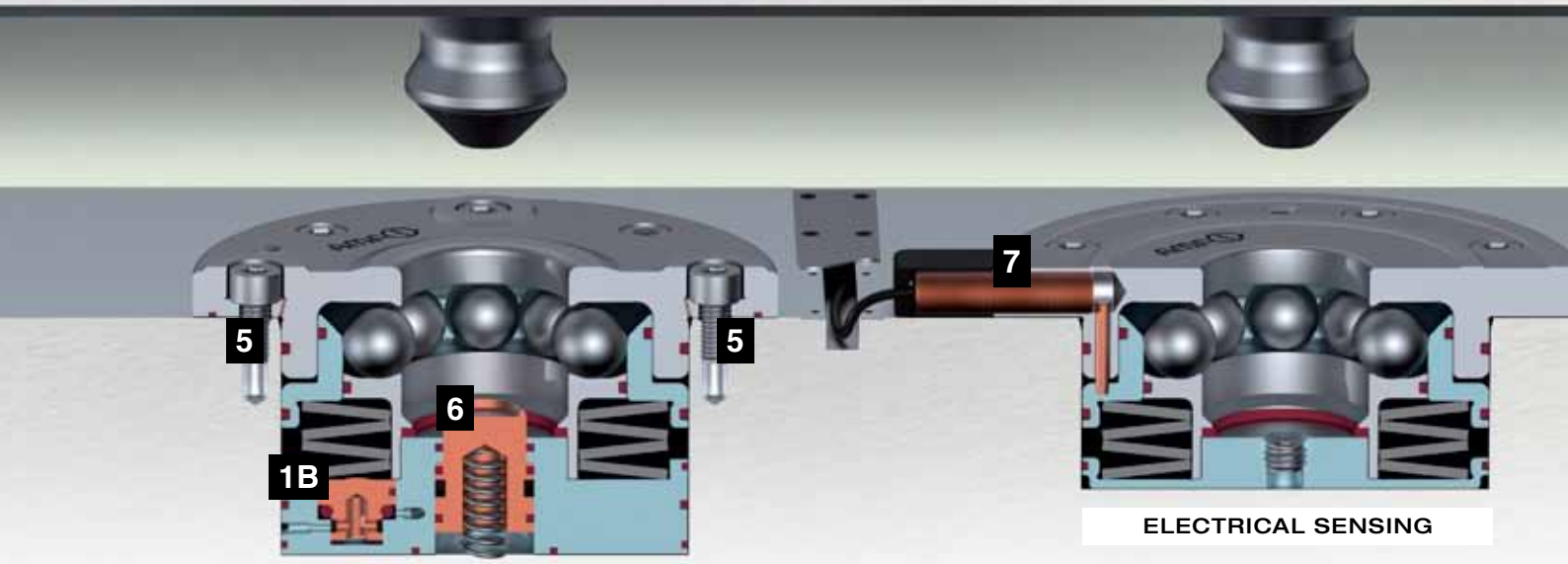
_3 ARE MEDIA DUCTS TO A FIXTURE NECESSARY?
Oil, compressed air, water, etc. can be run through our couplings without leaks.

_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

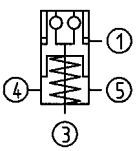
Subject to technical alterations.

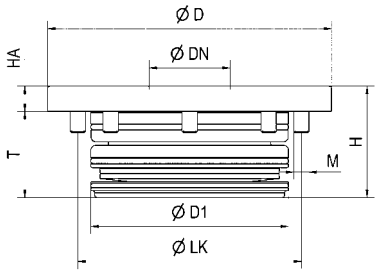
No. 6103HA-20-05

Installation clamping module for automation solutions

Hydraulic opening.
Pneumatic blow-out.
Opening operating pressure: min. 50 bar - max. 60 bar
Cover and piston hardened.
Repeatability < 0.005 mm.
With locking control (pneumatic) and support control (pneumatic).

EDELSTAHL Rostfrei STAINLESS STEEL





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

Design:

Centrical 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 change pallet.
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 four connections:
1x hydr. opening (1) / 1x pneum. blow-out and support control (3) /
1x pneum. locking control input (4) /
1x pneum. locking control output (5).

On request:

- Installation diagrams
- Additional automation options

Dimensions:

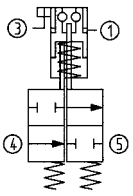
Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	M	dia. LK	T
428409	K20	112	32	78	44	10	M6	88	34

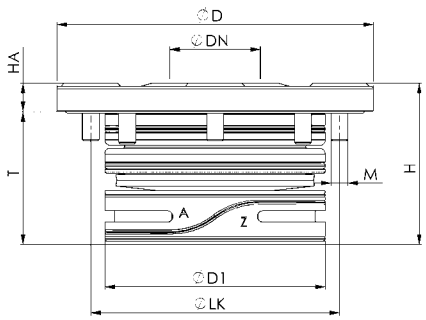
No. 6100H-20-06

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.

EDELSTAHL Rostfrei STAINLESS STEEL





Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Weight [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 change pallet.
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 has four connections:
1x hydr. opening (1) / 1x pneum. support control (3) /
1x hydr. or pneum. locking control and nipple sensing input (4) /
1x hydr. or pneum. locking control and nipple sensing output (5).

On request:

- Installation diagrams
- Additional 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.

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.

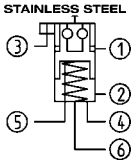
Subject to technical alterations.

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.

EDELSTAHL Rost frei
STAINLESS STEEL



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

Application:

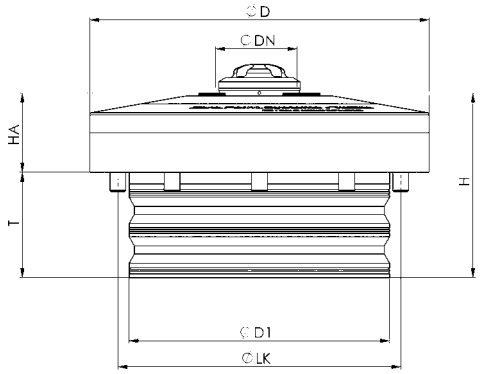
For fully automatic clamping solutions for use as machine table support in processing centres with automatic pallet changing system or robot loading and for installation in pallets, machine tables, clamping brackets and cubes. Many possible versatile uses in automation.

Note:

Hardened support surfaces as island design with integrated support control. Additional blowing off of the support surfaces by centrically 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

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.

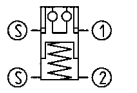
- Turbine blow-off of the hardened support and housing surface
- Pneumatic support control
- Hydraulic unlocking control
- Hydraulic lifting of the pallet (6 mm) after opening of the clamping module
- Material: stainless steel
- Hardened support surface on the connection fitting with defined, measurable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

No. 6101L

Installation clamping module with sensor monitor, 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.

EDELSTAHL Rostfrei
STAINLESS STEEL



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Weight [Kg]
424580	**K10**	8	25	2,4
424192	**K20**	17	55	6,9
424564	**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-005 is recommended.

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

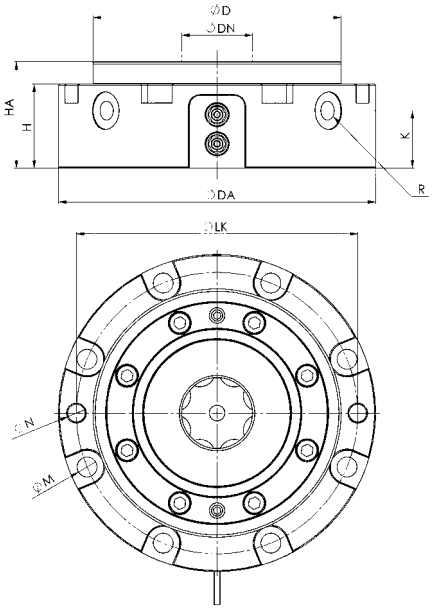
1x pneum. retensioning (turbo) (2).

On request:

- Installation diagrams
- Additional automation options

Dimensions:

Order no.	Size	ØDA	dia. D	dia. DN	H	HA	K	dia. LK	dia. M	ØN H7	R
424580	**K10**	104	78	22	37	44	12	90	6,6	8	G1/8
424192	**K20**	143	112	32	38	48	26	127	9,0	8	G1/8
424564	**K40**	188	148	40	47	62	32	168	11,0	10	G1/4



Subject to technical alterations.

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

Customer solution for an increased clamping of the workpiece

Subject to technical alterations.

No. 6370S2-001

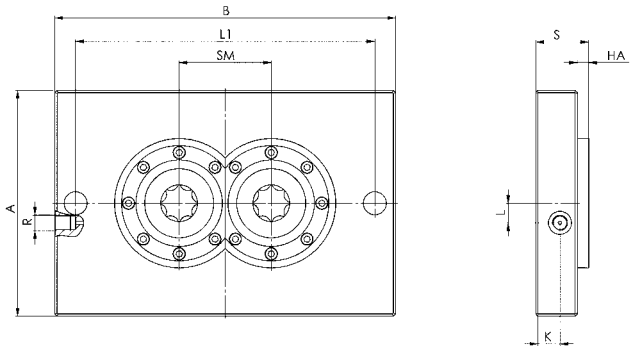
Double clamping station

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 [kN]	Holding force [kN]	Weight [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.

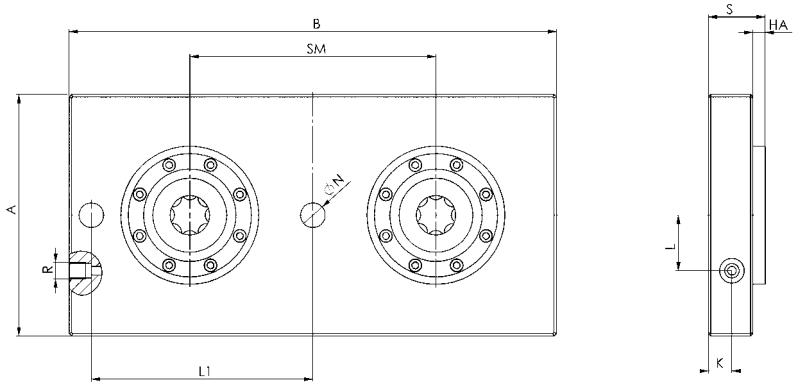
Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Weight [Kg]
426726	K10	2 x 10	2 x 25	7,5
303289	K20	2 x 20	2 x 55	21,9
303297	K40	2 x 40	2 x 105	59,5

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

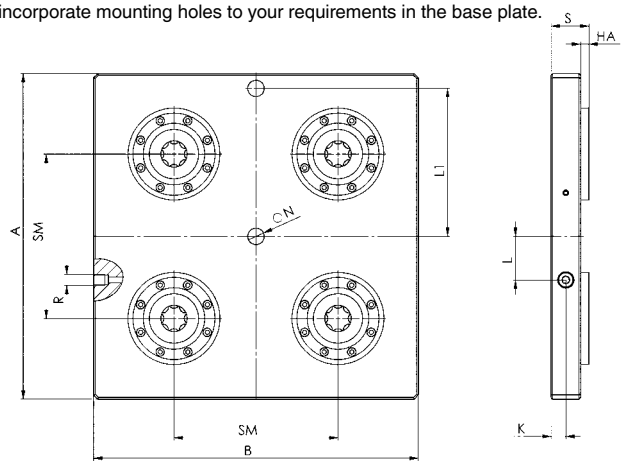
Quadruple clamping station

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 [kN]	Holding force [kN]	Weight [Kg]
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	396	396	10	19,0	53	180	20	G1/4	46	200
303339	K40	546	546	15	26,0	217	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.

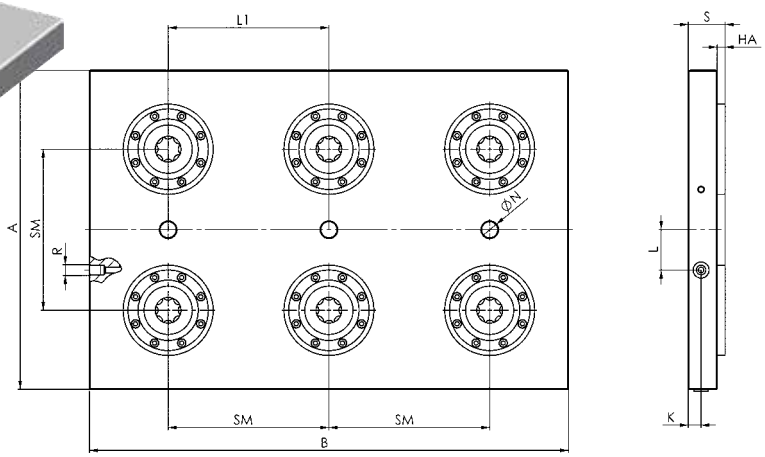
Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Weight [Kg]
426734	K10	6 x 10	6 x 25	17,5
424119	K20	6 x 20	6 x 55	75,0
426759	K40	6 x 40	6 x 105	175,0

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

Subject to technical alterations.

No. 6370P2

Fixture plate

High-strength aluminium, suitable for double clamping station

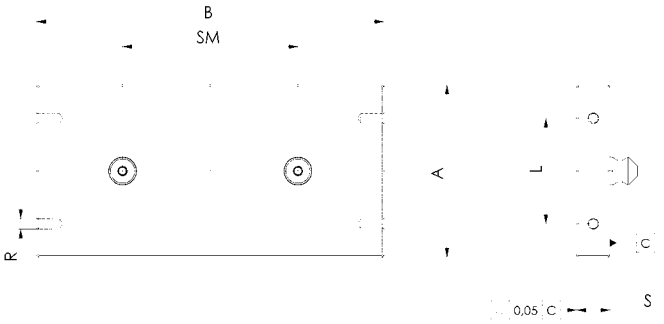
Order no.	Size	A	B	L	R	S	SM	Weight [Kg]
426700	**K10**	146	240	-	-	30	100	2,5
425041	**K20**	196	396	120	M12	40	200	6,0
426783	**K40**	296	546	120	M12	45	320	19,0

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.



No. 6370P4

Fixture plate

High-strength aluminium, suitable for quadruple clamping station

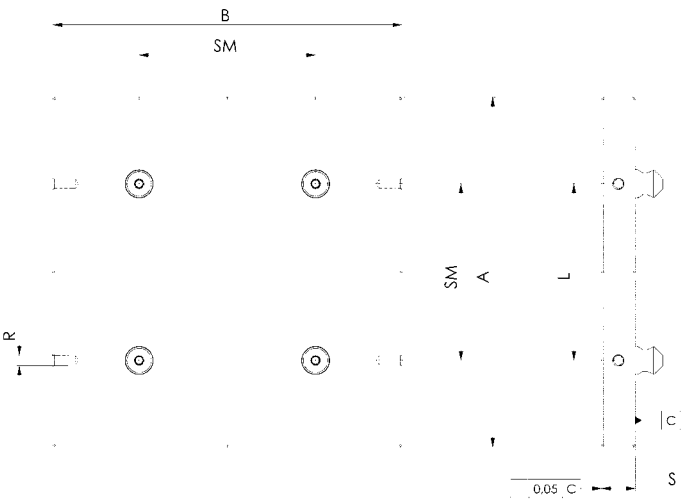
Order no.	Size	A	B	L	R	S	SM	Weight [Kg]
426767	**K10**	240	240	-	-	30	100	4,5
425033	**K20**	396	396	200	M12	40	200	16,0
426809	**K40**	546	546	320	M12	45	320	35,0

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.

No. 6370P6

Fixture plate

High-strength aluminium, suitable for sextuple clamping station

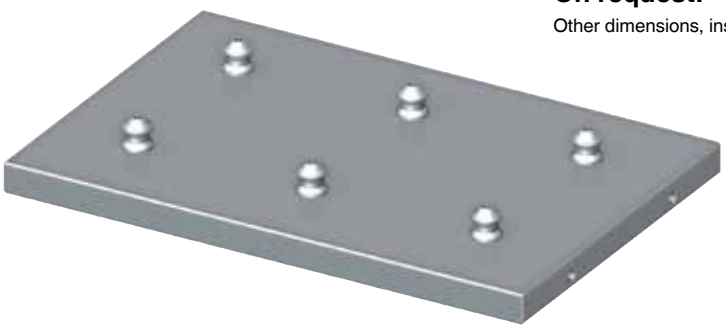
Order no.	Size	A	B	L	R	S	SM	Weight [Kg]
426775	**K10**	240	386	120	M10	30	100	7,5
426791	**K20**	396	596	200	M12	40	200	25,0
426817	**K40**	546	866	320	M12	45	320	56,0

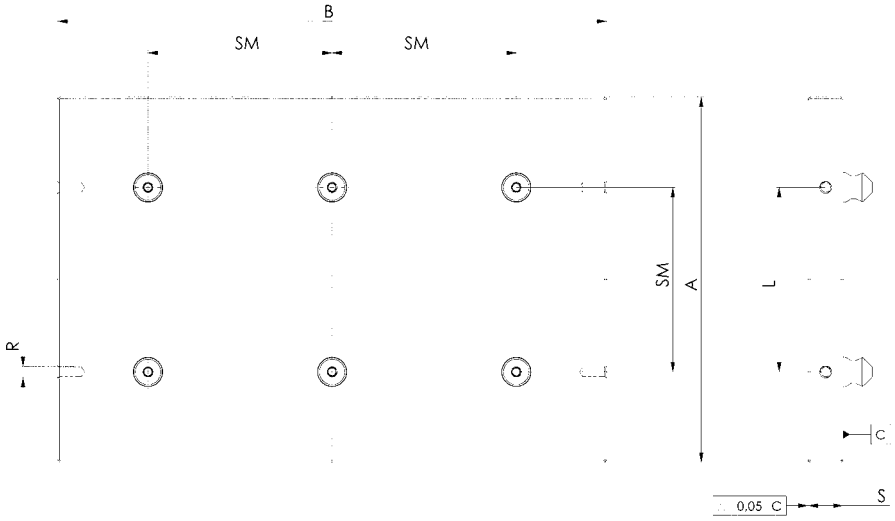
Note:

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.





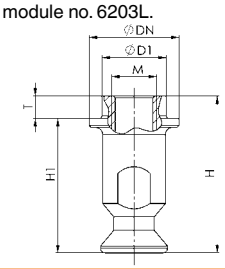
Subject to technical alterations.

No. 6203ZN-02

Clamping nipple for clamping modules K02

Hardened, for pneumatic clamping module no. 6203L.

EDELSTAHL Rost frei STAINLESS STEEL



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 for clamping modules K5

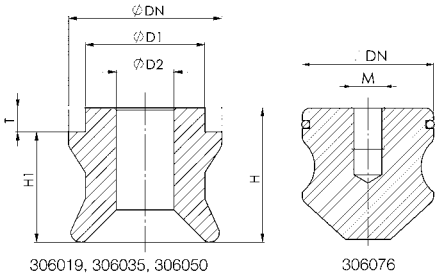
Hardened, for hydraulic and pneumatic clamping modules size K5.

EDELSTAHL Rost frei STAINLESS STEEL

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-10

Clamping nipple for clamping modules K10

Hardened, for hydraulic and pneumatic clamping modules size K10.

EDELSTAHL Rost frei STAINLESS STEEL

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

No. 6370ZN-20

Clamping nipple for clamping modules K20

Hardened, for hydraulic and pneumatic clamping modules size K20.

EDELSTAHL Rost frei STAINLESS STEEL

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

No. 6370ZN-40

Clamping nipple for clamping modules K40

Hardened, for hydraulic and pneumatic clamping modules size K40.

EDELSTAHL Rost frei 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

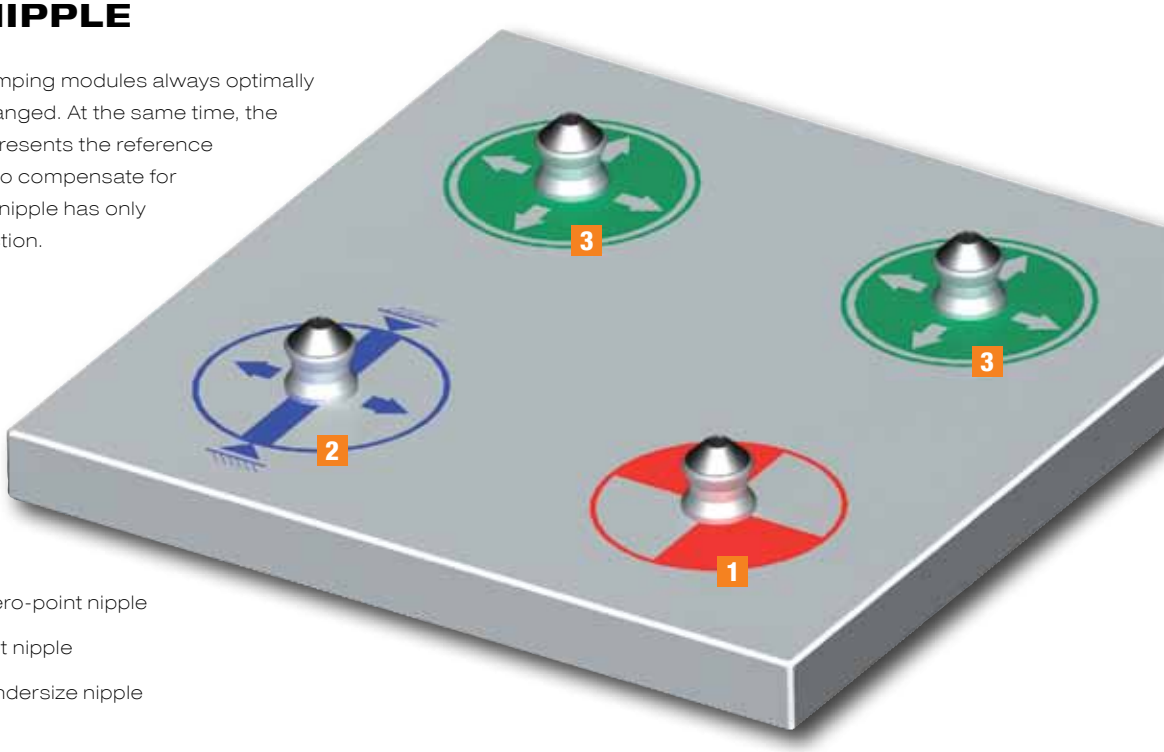
Design:

Order no. 303180: Zero point nipple
Order no. 303198: Slit nipple
Order no. 303206: Undersized nipple
Order no. 303214: Protection nipple

Subject to technical alterations.

ARRANGEMENT OF CLASSIC CLAMPING NIPPLE

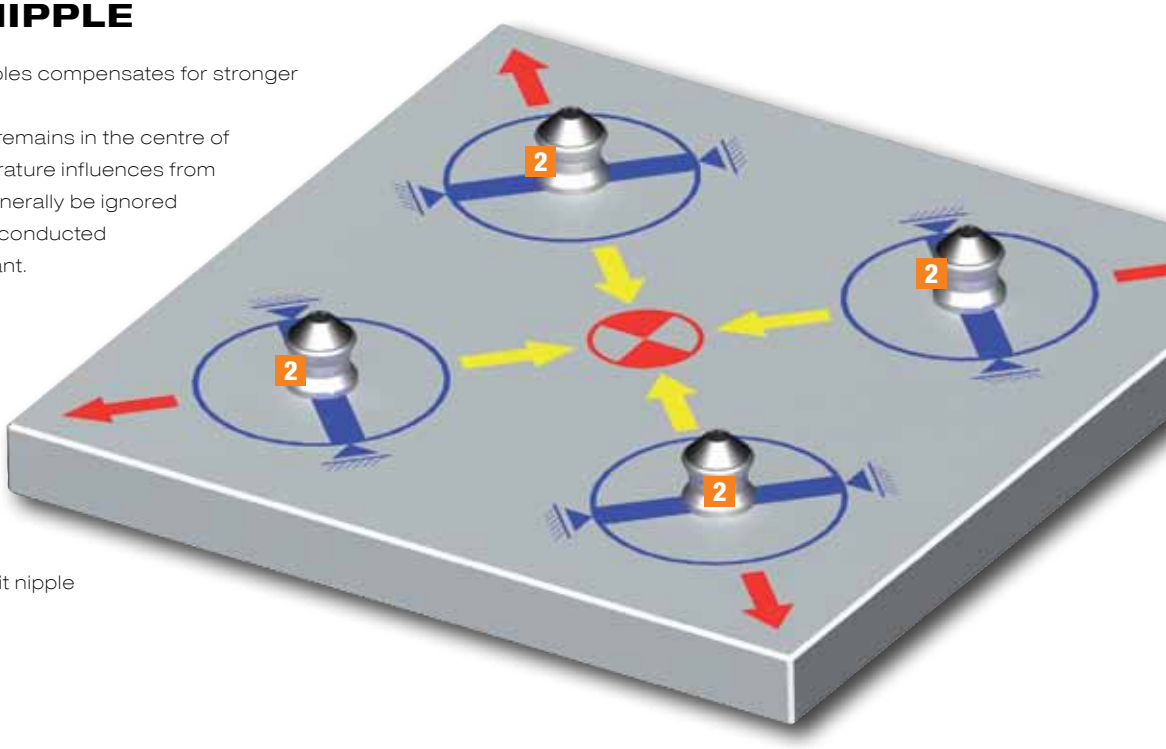
This arrangement of the clamping modules always optimally positions the pallet to be changed. At the same time, the zero-point nipple always represents the reference point. The slit nipple serves to compensate for the free axis. The undersize nipple has only a clamping and holding function.



1 zero-point nipple
2 slit nipple
3 undersize nipple

ARRANGEMENT OF OPTIONAL CLAMPING NIPPLE

The exclusive use of slit 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 slit nipple

No. 6370ZNS-001

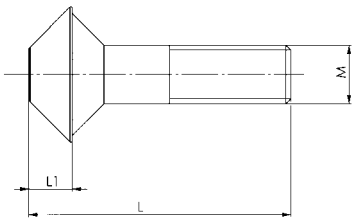
Engagement nipple screw

Strength class 10.9.
Suitable for clamping nipple, article no. 6370ZN.

Order no.	Size	M	L	L1	Weight [g]
306092	K 5	M 6	25	3,4	18
303578	K10	M 8	37	6	30
303222	K20	M12	54	9,0	70
303230	K40	M16	69	10,0	130

On request:

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



No. 6370ZNS-002

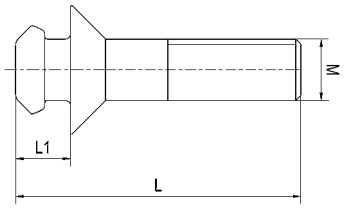
Horizontal engagement nipple screw

Strength class 10.9.
Suitable for clamping nipple, article no. 6370ZN.

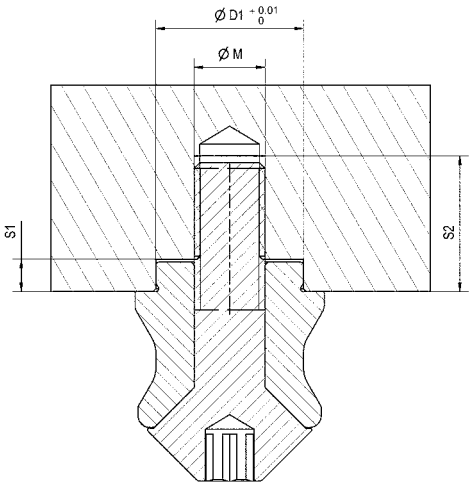
Order no.	Size	M	L	L1	Weight [g]
303248	K20	M12	56	10,5	100
303255	K40	M16	73	13,0	200

On request:

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



Dimensions for machining nipple mountings.



Size	ØD1	ØM	S1	S2
K02	7,17	M 5	3,6	14
K5	10,00	M 6	2,5	12
K10	15,00	M 8	3,5	16
K20	25,00	M12	5,5	23
K40	25,00	M16	5,5	30

Figure:

Shown with clamping nipple and engagement nipple screw.

Subject to technical alterations.

No. 6370ZNM

Clamping female nipple

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

NEW!

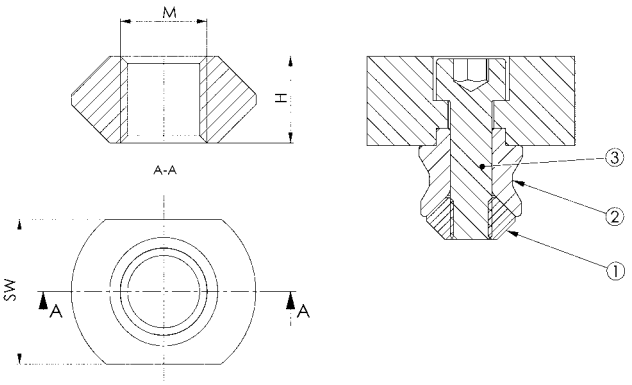
Order no.	Size	M	SW	H	Weight [g]
429969	K 5	M6	10	6	3
429985	K10	M8	14	8	8
430009	K20	M12	21	14	26
430025	K40	M16	28	17	50

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. 6370ZNSN

Floating nipple

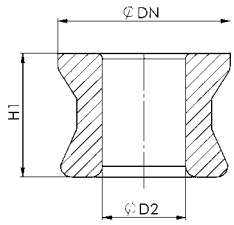
Hardened, for hydraulic and pneumatic clamping modules.

EDELSTAHL Rostfrei STAINLESS STEEL

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.

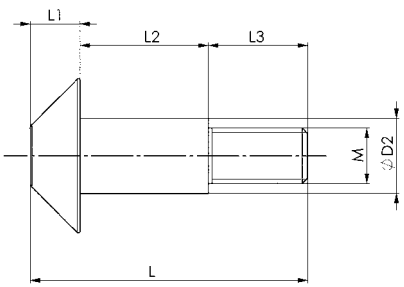


No. 6370ZNSSN

Engagement nipple screw

Strength class 10.9.
Suitable for floating nipple, article no. 6370ZNSN.

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



Subject to technical alterations.

No. 6201ZN

Clamping nipple for clamping modules „Heavy duty“

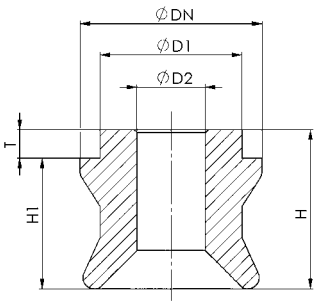
Hardened, for hydraulic clamping modules
article-nos. 6201H-20.

EDELSTAHL Rostfrei STAINLESS STEEL

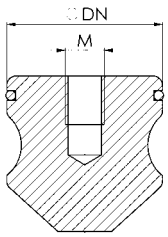
Order no.	Size	dia. DN	dia. D1	dia. D2	H	H1	M	T	Weight [g]
423970	K20	32,0	25	16	28	23	-	5	80
423996	K20	32,0	25	16	28	23	-	5	80
424010	K20	31,8	25	16	28	23	-	5	80
303172	K20	31,8	-	-	-	-	M 8	-	110

Design:

Order no. 423970: Zero point nipple
Order no. 423996: Slit nipple
Order no. 424010: Undersized nipple
Order no. 303172: Protection nipple



423970, 423996, 424010



303172

No. 6201ZS

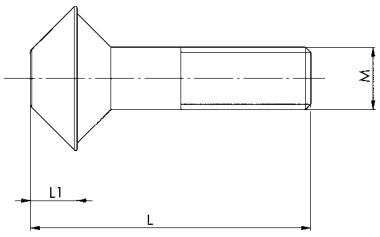
Engagement nipple screw „Heavy duty“

Strength class 10.9.
Suitable for clamping nipple article-nos. 6201ZN.

Order no.	Size	M	L	L1	Weight [g]
424036	K20	M16	70	9	120

On request:

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



Subject to technical alterations.

No. 6370ZA

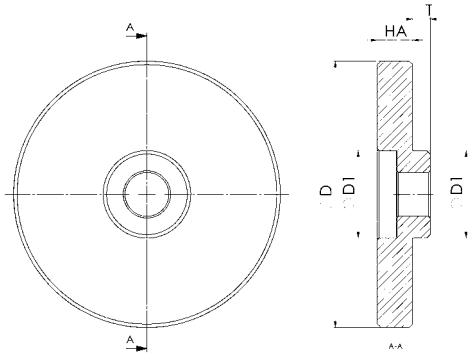
Protective shield

made of tempering steel, suitable for article-nos. 6370 A, E, S.

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

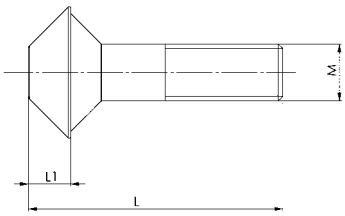


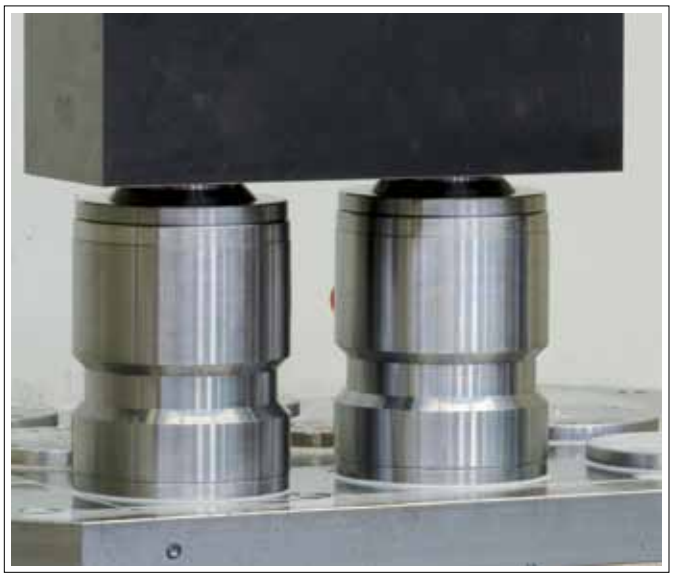
No. 6370ZNSA

Engagement nipple screw for protective shield

Strength class 10.9.
Suitable for article-nos. 6370 A, E, S.

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





Subject to technical alterations.

No. 6102ZN

Clamping nipple for „Turbine“ high-end clamping module

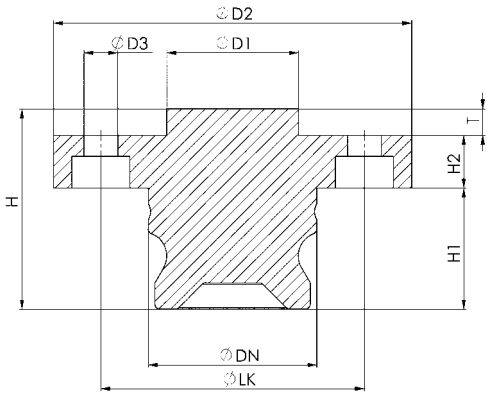
Hardened, for hydraulic high-end clamping module article no. 6102H.

EDELSTAHL Rostfrei® STAINLESS STEEL

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



No. 6370ZZ

Positioning nipple

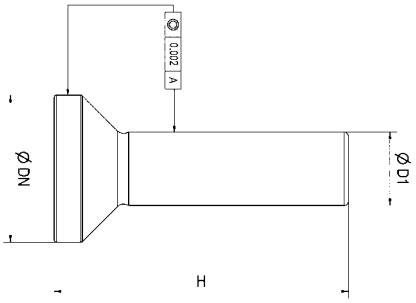
Hardened.

EDELSTAHL Rostfrei® STAINLESS STEEL

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
306225	G2000	20	47	82	550

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:

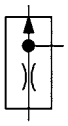
The mounting key is needed for installation of the threaded sleeve of the horizontal rapid-clamping cylinder.

Subject to technical alterations.

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:

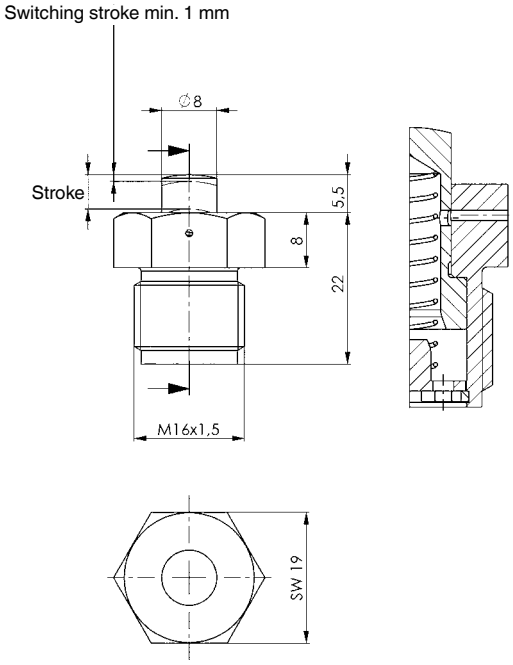
The support control is used in fixtures where a signal indicating a correctly supported workpiece is required to enable machining. Lightweight workpieces should be clamped before being pressurised with compressed air.

Features:

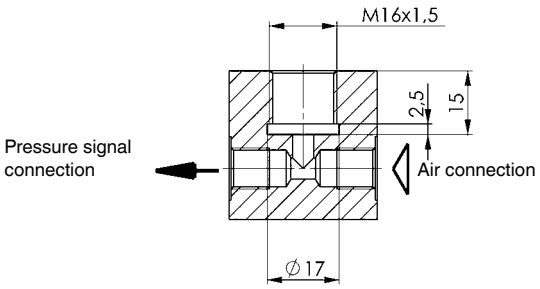
The support control works like a pneumatic back-pressure nozzle. The position is extended from its initial position by a pressure spring. Once applied, the air jet flows through the hollow piston and the radial discharge hole on the support control housing to outside. The discharge hole is sealed as 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^2
Piston force = piston surface x air pressure + spring force



Installation drawing



Subject to technical alterations.

No. 6370ZMMG

Coupling mechanism adapter

Suitable for installation clamping module nos. 6370FARH / FARL.

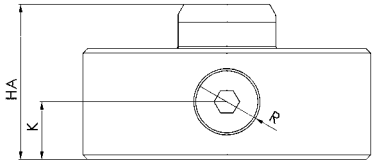
Order no.	Size	Nominal bore [NW]	A	A1	A2	B	HA	K	dia. N	dia. P	R	T	U	Weight [Kg]
424002	**K20**	5	56	33	18	65	35	13	6 H7	9	G1/8	12	45	0,9
424184	**K40**	5	56	33	18	65	45	13	6 H7	9	G1/8	12	45	1,0

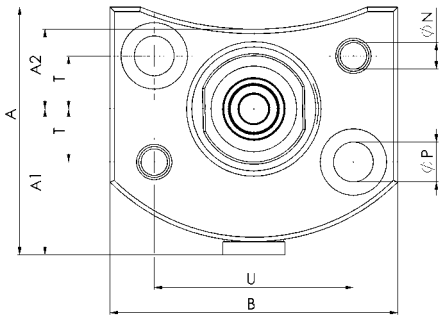
Application:

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 x p [bar] and must be taken into account.





No. 6370ZMM

Screw-in coupling mechanism

max. operating pressure 400 bar.

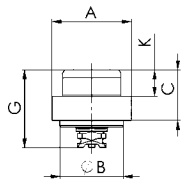
Order no.	Size	Nominal bore [NW]	A	dia. B	C	G	K	dia. P	SW	Weight [g]
424267	**K10**	5	M30x1,5	24	19	29,0	7	25	22	74
424200	**K20**	5	M30x1,5	24	19	29,0	10	25	22	65
424226	**K40**	5	M30x1,5	24	24	31,5	15	25	22	96

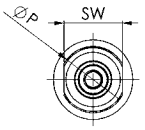
Application:

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 x p [bar] and must be taken into account.





Subject to technical alterations.

No. 6370ZMNG

Coupling nipple adapter

Suitable for coupling mechanism no. 6370ZMMG / ZMM

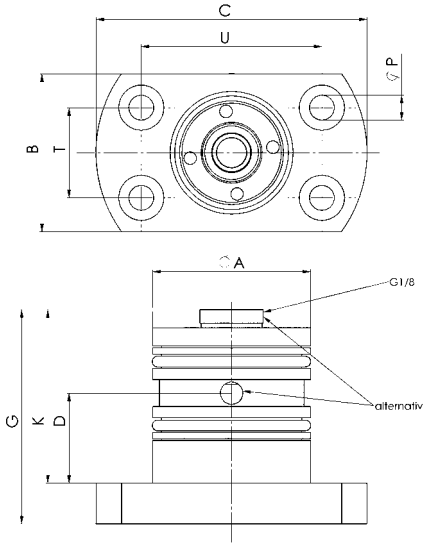
Order no.	Size	Nominal bore [NW]	dia. A	B	C	D	G	K	dia. P	T	U	Weight [g]
424242	**K20/K40**	5	35	35	60	20	47,5	38,5	5,5	20	40	320

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 x p [bar] and must be taken into account.



No. 6370ZMN

Screw-in coupling nipple

max. operating pressure 400 bar.

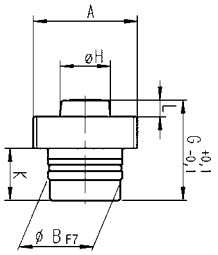
Order no.	Nominal bore [NW]	A	dia. B	G	dia. H	K	L	Weight [g]
430058	5	M24x1,5	20	27	13,5	14	4,5	56

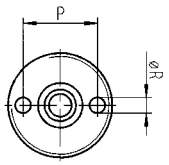
Application:

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 x p [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^3]	Flow rate max. [cm^3/min]	Weight [Kg]
426569	4	6	1000	750	5,9

Design:

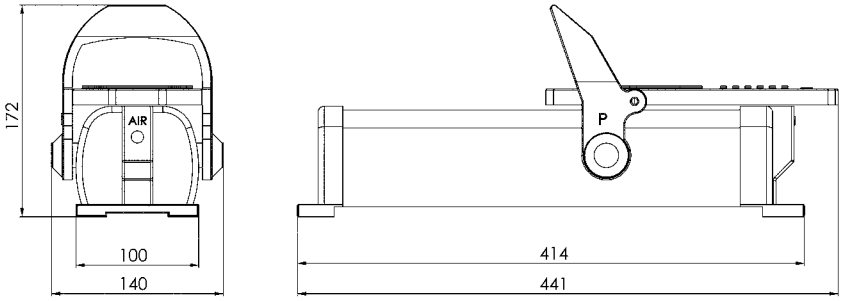
Compact, air-pressure-operated hydraulic intensification pump for single-acting circuits. The pump is fitted with an integrated safety valve that regulates the hydraulic output pressure. The safety valve is set in the factory to the max. operating pressure of 60 bar.
The extension element in the oil 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.



No. 6370ZD

Pressure intensifier

Max. operating pressure 60 bar.

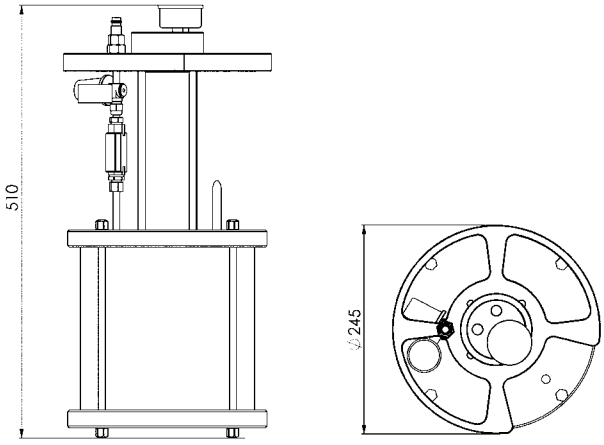
Order no.	Size	Oil capacity [cm^3]	Flow rate [cm^3/min]	Rato	max. no. of clamping cylinders	Weight [Kg]
303354	2	653	431	1 : 8,1	36 (Typ 20), 16 (Typ 40)	9,5

Design:

Compact, air-pressure-operated hydraulic pressure intensifier for single-acting circuits. Complete with air-pressure regulator, air manometer, oil manometer and oil fill level display.

Application:

The pressure intensifier is used for opening for hydraulic clamping modules or hydraulic clamping stations.



Subject to technical alterations.

No. 6370ZVL-005

Pneumatic pressure booster

Order no.	Input pressure (bar) [bar]	Output pressure (bar) [bar]	Connection	Weight [Kg]
427088	2,5-8	4,5-10	G1/4	1,5

Design:

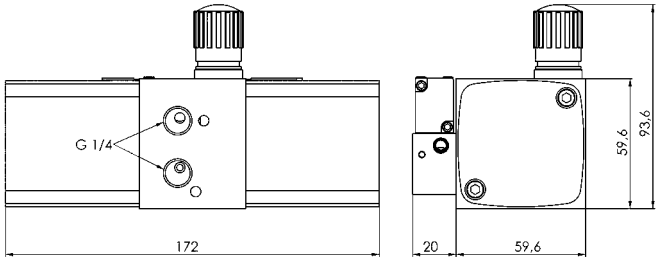
Pressure intensifier with possibility to adjust the pneumatic output pressure, incl. manometer construction kit, sound absorbers and flange mounting.

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) [bar]	Output pressure (bar) [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) [bar]	Output pressure (bar) [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.

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:

Fitttings 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)

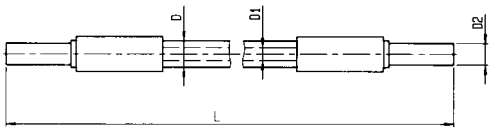

6)


7)

No. 6370ZS

High Pressure Hose

Order no.	Test pressure [bar]	Operating pressure dynamic at +50 °C [bar]	dia. D [mm]	dia. D1 [mm]	dia. D2 [mm]	L [mm]	Weight [g]
429951	750	375	9,8	4,8	8	500	90
429977	750	375	9,8	4,8	8	800	120
429993	750	375	9,8	4,8	8	1250	180
430017	750	375	9,8	4,8	8	2000	265
430033	750	375	9,8	4,8	8	3000	380

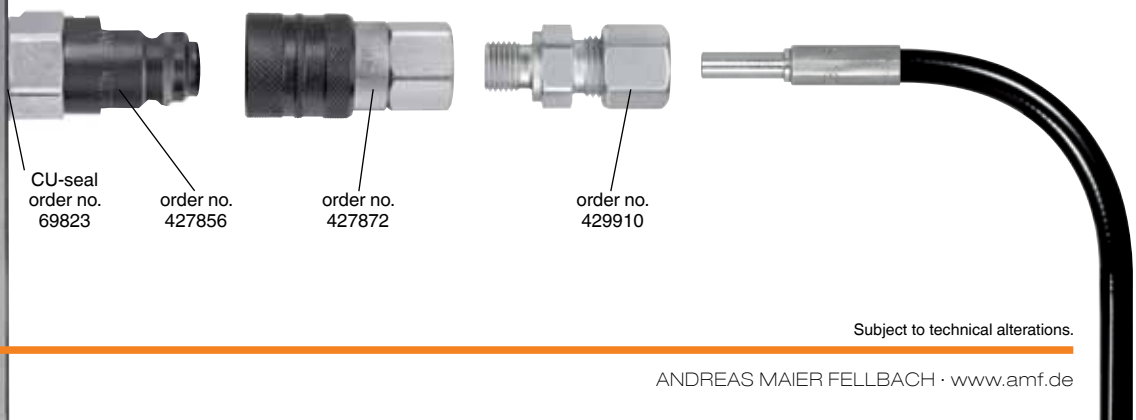


Design:

Steel fitting, galvanized and passivated. Hose of synthetic material with high tensile brassed steel-wire braid.

Application:

High pressure hose is used for hydraulic connection of surface-mounted clamping modules or clamping stations to the pressure generator, such as the pressure intensifier or air-hydraulic pump.



Subject to technical alterations.

No. 6370ZSK

Quick Disconnect Coupler

zinc-plated.
Max. operating pressure 325 bar.

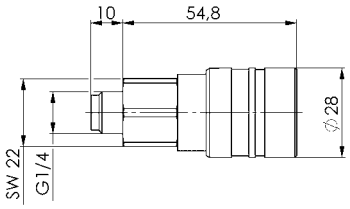
Order no.	Nominal bore [NW]	Nominal flow [l/min]	SW [mm]	Weight [g]
427856	6	12	22	100
427872	6	12	22	170

Application:

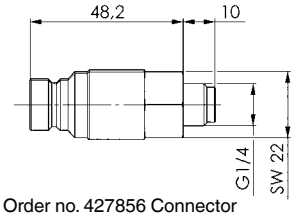
Since the clamping modules after blow-off of the opening pressure are mechanically locked, the hose is then uncoupled by means of the quick couplings. The advantage of this is that there are no interfering lines.

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. 6370ZR-011

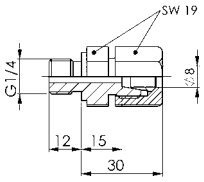
Tube fittings

for high-pressure hose with outer diameter 8 mm and internal diameter 4 mm, with olive ring.

Order no.	SW	Weight [g]
429910	19	55

Note:

Sealing in accordance with DIN 3852 Form B through edge seal and cutting ring.



No. 6370ZS-06-2000

Hose set, hydraulic

NEW!

Order no.	Length [m]	Weight [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

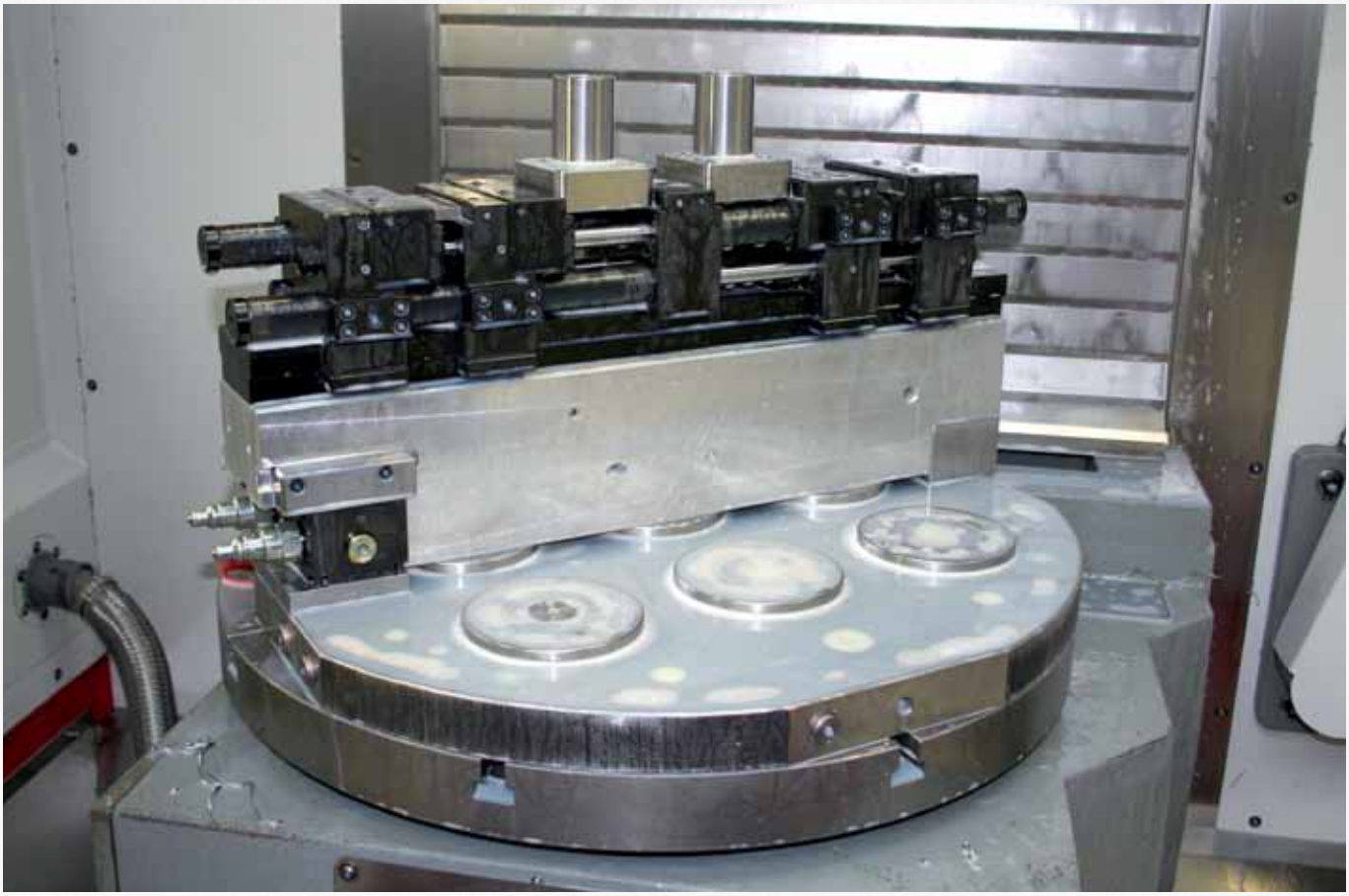
Application:

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.

Note:

Hose pre-fitted, filled with hydraulic oil and vented incl. quick fitting coupling (plugs and sleeves (6370ZSK)). Additionally included in the set are plugs, sleeves and 2x screwed connections.

Subject to technical alterations.



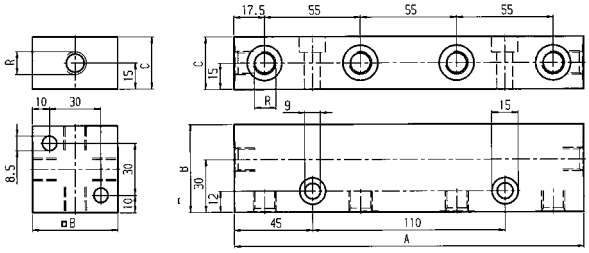
Subject to technical alterations.

No. 6370ZVT

Manifold

Steel, burnished.
Max. operating pressure 400 bar.

Order no.	Nominal bore [NW]	A	B	C	R	Oil connections	Weight [g]
429878	6	-	50	30	G1/4	4	480
429894	6	200	50	30	G1/4	6	2025



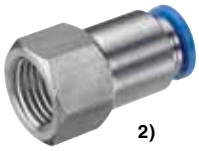
No. 6370ZR-02

Push-in fittings, pneumatic

Max. operating pressure 12 bar.
For hose diameter 8 mm.

NEW!

1)



2)

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

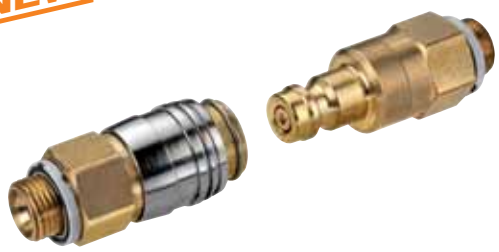
Application:

Screwed connections are used for the pneumatic connection of extension clamping modules or clamping stations.

No. 6370ZSK

Quick fitting coupling, galvanised, pneumatic

NEW!



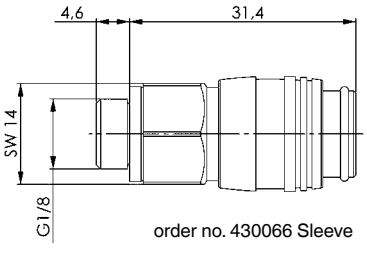
Order no.	Nominal bore [NW]	Nominal flow [l/min]	SW [mm]	Weight [g]
430041	4,2	563	14	23
430066	5,0	563	14	27

Application:

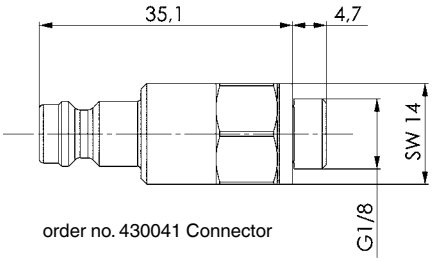
Since the clamping modules are mechanically locked after discharging the opening pressure, the hose can then be disconnected by means of the quick fitting couplings. The advantage of this is that there are no interfering lines.

Note:

Double-sided closing with external thread G1/8.



order no. 430066 Sleeve



order no. 430041 Connector

Subject to technical alterations.

No. 6370ZVL-700

Footrest valve, pneumatic

NEW!

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. 6370ZS-07

Hose, pneumatic

Polyurethane, outside calibrated.
Max. operating pressure 10 bar.

NEW!

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.

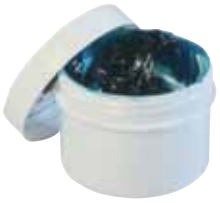
No. 6370ZF

Special grease for zero-point clamping modules

Order no.	Suitable for ambient temperature (°C) [°C]	Weight [g]
426494	0-80	250

Application:

Special grease for maintenance work on zero-point clamping modules.



No. 6370ZVL

Manual directional valves

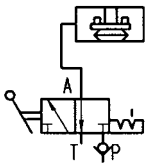
Order no.	Type	Air connection	Weight [g]
305383	4/3	G1/4	250
305391	2/2	G1/4	100

order no. 305383

order no. 305391

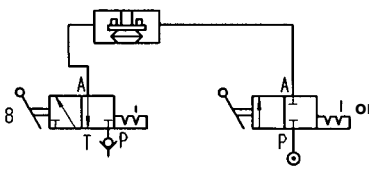
Circuit: hydraulic clamping module

order no. 114298



Circuit: hydraulic clamping module with blow-out

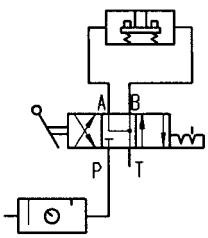
order no. 114298



order no. 305391

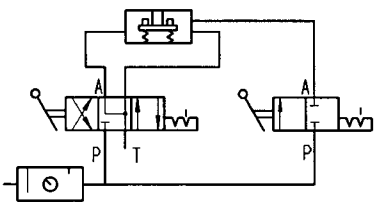
Circuit: pneumatic clamping module

order no. 305383



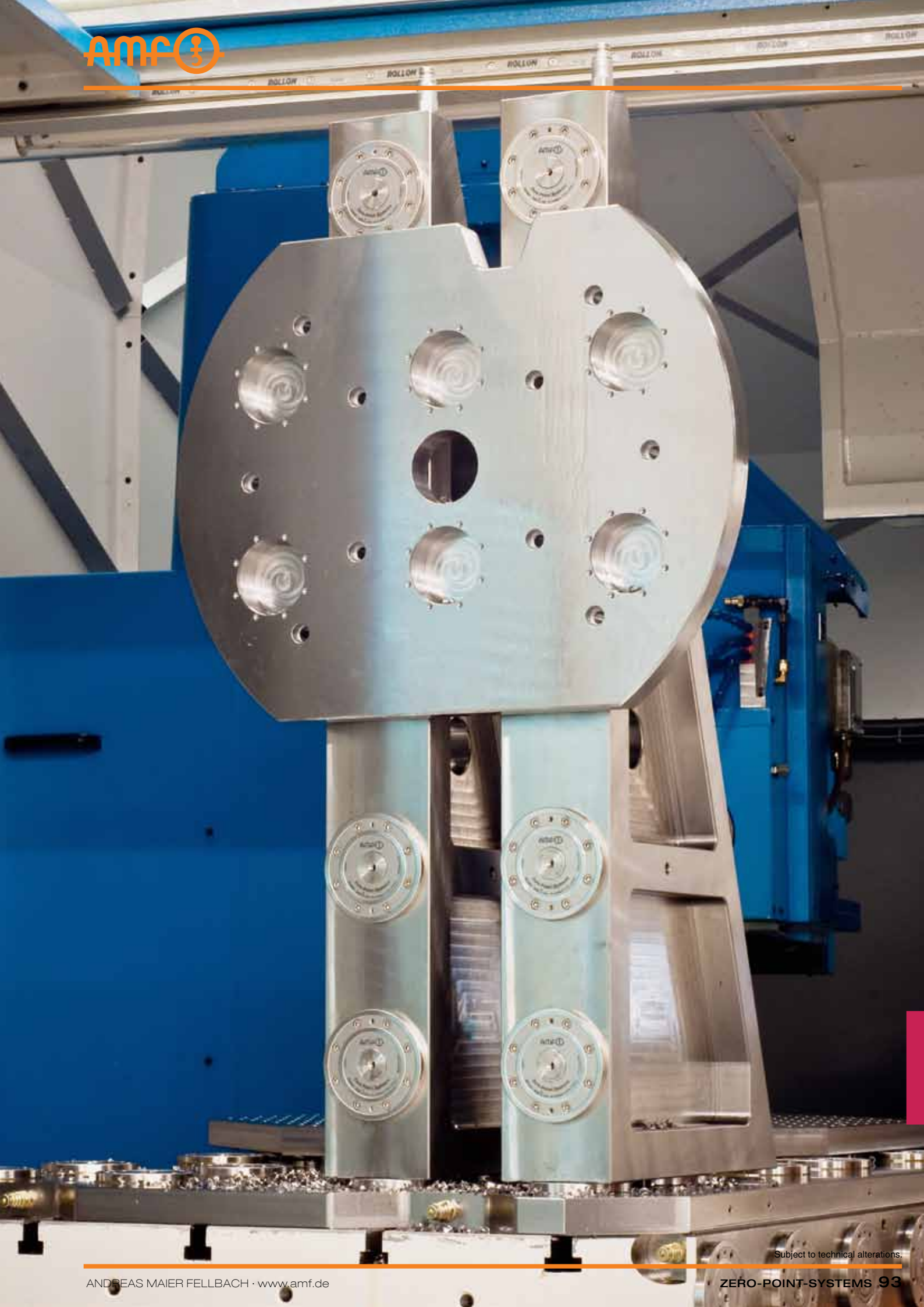
Circuit: pneumatic clamping module with turbo and blow-out

order no. 305383



order no. 305391

Subject to technical alterations.



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.

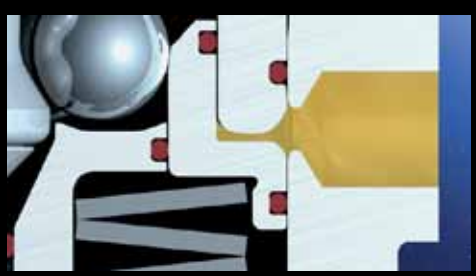
„UNITOOL“ CLAMPING MODULE (FIG. RIGHT)

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).

RUSTPROOF STAINLESS STEEL

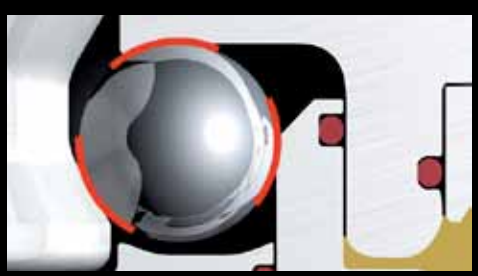
High-alloy, hardened tool steel - and so no corrosion.

SAFETY SYSTEM



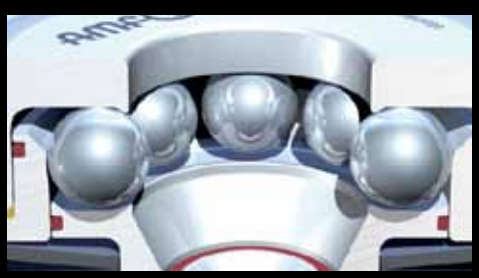
Process reliability - Clamping module always opens. A piston blockade is thus impossible (only Gonzales modules).

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

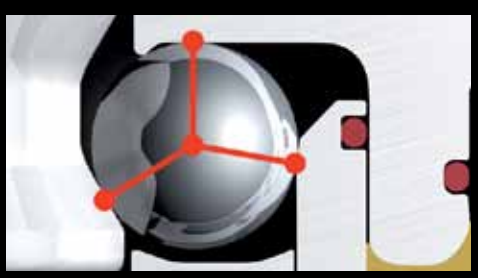


The balls lie freely in the ball canal. This freedom of movement enables the balls to continuously re-position themselves.

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.

EDELSTAHL Rostfrei STAINLESS STEEL

Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Speedy	DockLock	Weight [Kg]
305201	1000	15	25	●	-	2,3
306043	1000	15	25	-	●	2,3
305219	2000	25	55	●	-	3,5

Application:

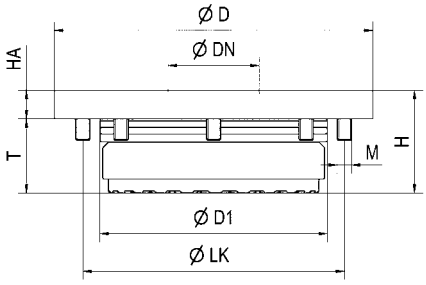
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

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
- Automation solutions



Dimensions:

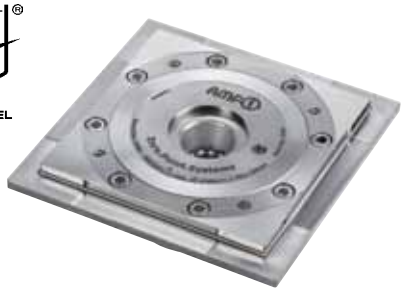
Order no.	Size	dia. D	dia. DN	dia. D1	H	HA	dia. LK	M	T
305201	1000	112	32	80	36	10	92	8 x M5	26
306043	1000	112	32	80	36	10	91	10 x M5	26
305219	2000	140	47	110	36	10	122	8 x M5	26

No. 6370EGQH

Installation clamping module “Gonzales”, square

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

EDELSTAHL Rostfrei STAINLESS STEEL



Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Weight [Kg]
305227	1000	15	25	2,3
305235	2000	25	55	3,5

Application:

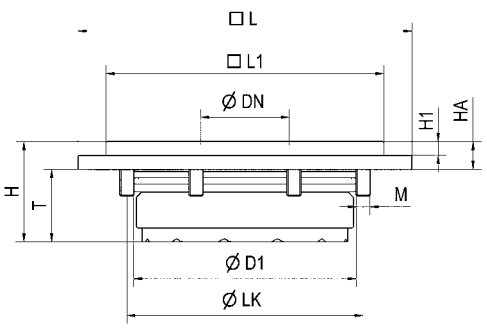
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry. A square clamping module prevents the pallet from twisting. The indexing function enables positioning every 90°. Specially suitable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

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 dimension L 120 mm / 150 mm. The 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
- Automation solutions



Dimensions:

Order no.	Size	dia. DN	dia. D1	H	HA	H1	L	L1	dia. LK	M	T
305227	1000	32	80	36	10	5	120	100	92	M5	26
305235	2000	47	110	36	10	5	150	130	122	M5	26

Subject to technical alterations.

No. 6370AGRH

Suface-mounted clamping module “Gonzales”, round

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

EDELSTAHL Rostfrei STAINLESS STEEL

Order no.	Size	Pull-in/locking force up to [kN]	Holding force [kN]	Weight [Kg]
303362	**1000**	15	25	2,3
303388	**2000**	25	55	3,5

Application:

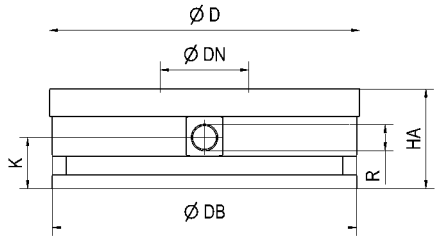
Zero-point clamping system in combination with clamping flanges 6370ZB for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

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:

- Automation solutions



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

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.

EDELSTAHL® Rost frei
STAINLESS STEEL

Order no.	Pull-in/locking force up to [kN]	Holding force [kN]	Weight [Kg]
303560	30	55	3,2

Application:

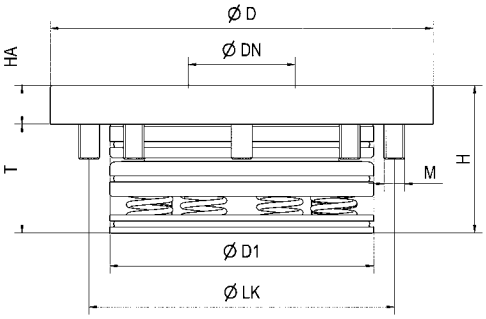
Zero-point clamping system for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

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
- Automation solutions



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

Suface-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.

EDELSTAHL® Rost frei
STAINLESS STEEL

Order no.	Pull-in/locking force up to [kN]	Holding force [kN]	Weight [Kg]
303586	30	55	6,5

Application:

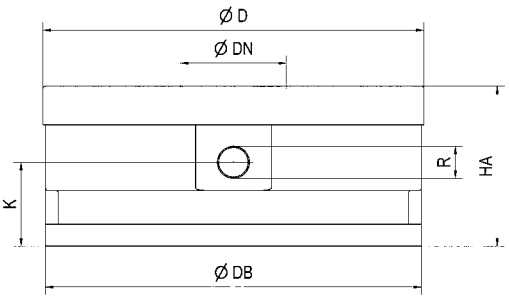
Zero-point clamping system in combination with clamping flanges 6370ZB for set-up-time-optimized clamping with cutting and non-cutting processing in all areas, also in the food, pharmaceutical and chemical industry.

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-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:

- Automation solutions



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.

EDELSTAHL Rostfrei STAINLESS STEEL

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

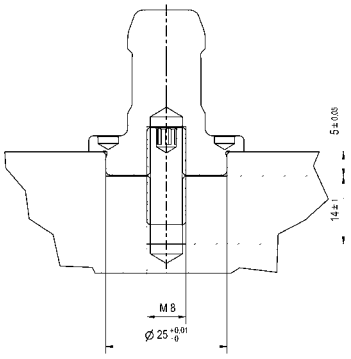
Design:

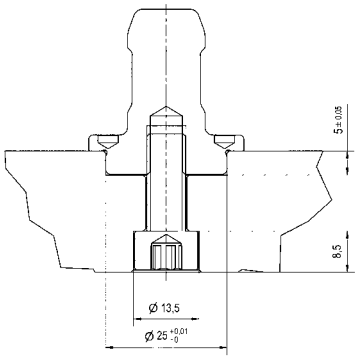
Order no. 303404: Zero point nipple
Order no. 303420: Slit nipple
Order no. 303446: Undersized nipple
Order no. 303461: Protection nipple

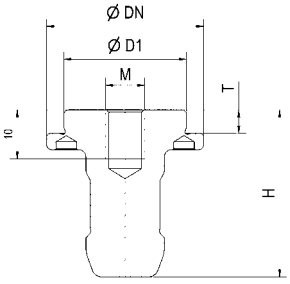
Note:

Tightening torque of the clamping nipple max. 20 Nm. Min. screw grade 8.8.

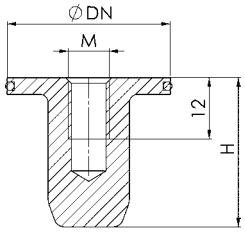
Dimensions for the nipple mounting:







303404, 303420, 303446



303461

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.

EDELSTAHL Rostfrei STAINLESS STEEL

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

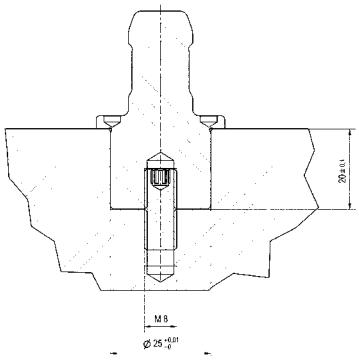
Design:

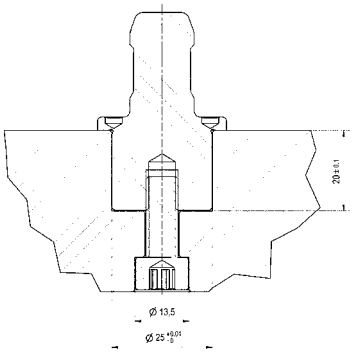
Order no. 305128: Zero point nipple
Order no. 305144: Slit nipple
Order no. 305169: Undersized nipple
Order no. 303461: Protection nipple

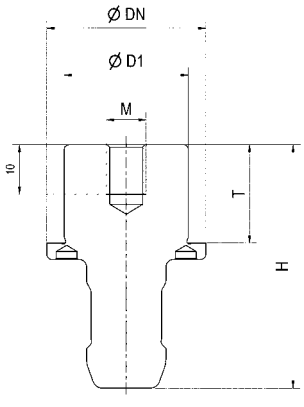
Note:

Tightening torque of the clamping nipple max. 20 Nm. Min. screw grade 8.8.

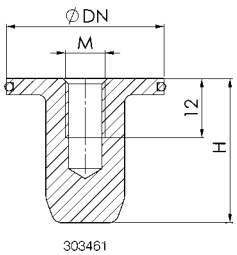
Dimensions for the nipple mounting:







305128, 305144, 305169



303461

Subject to technical alterations.

No. 6370ZNG-20

Clamping nipple „Gonzales 2000“

Hardened.
Clamping nipples can also be used in Speedy 2000.

EDELSTAHL Rostfrei 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

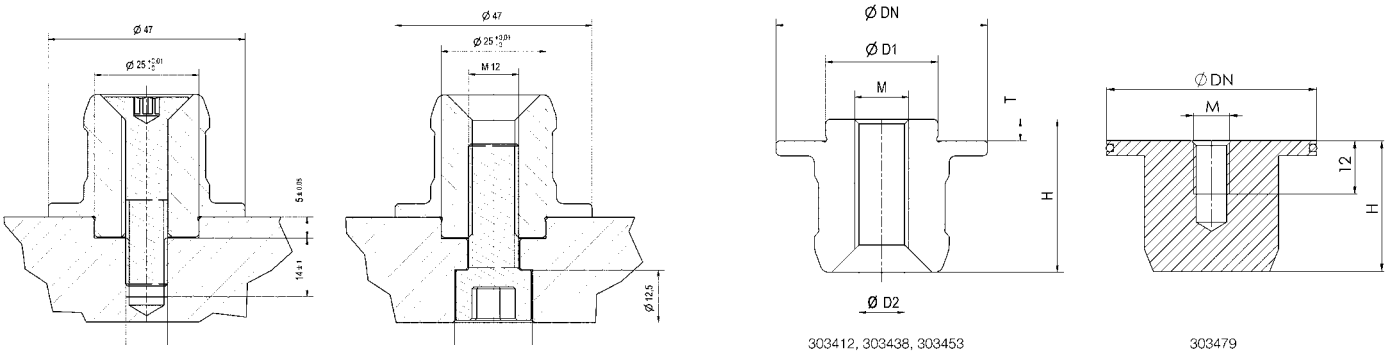
Design:

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:



303412, 303438, 303453

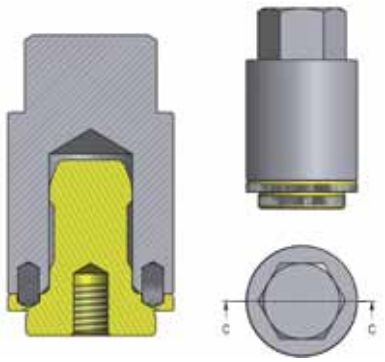
303479

No. 6370ZNSG

Nipple key „Gonzales“

for clamping nipple no. 6370ZNG/ZNGH „Gonzales 1000“.

Order no.	SW [mm]	Weight [g]
306001	22	80



Subject to technical alterations.

No. 6370ZNU

Clamping nipple „Unitool“

Hardened.
Clamping nipples can also be used in the Unilock system (Ø 40 mm).

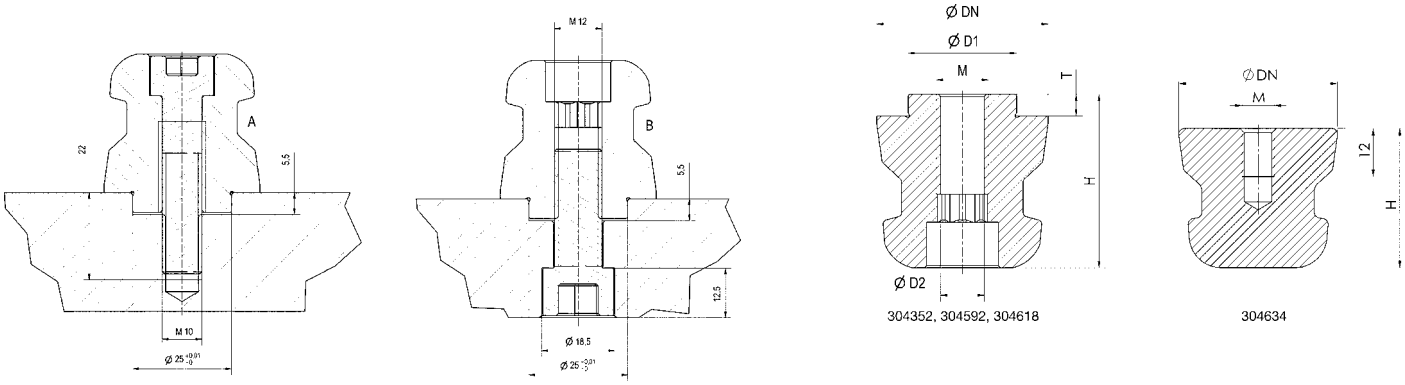
EDELSTAHL Rostfrei STAINLESS STEEL

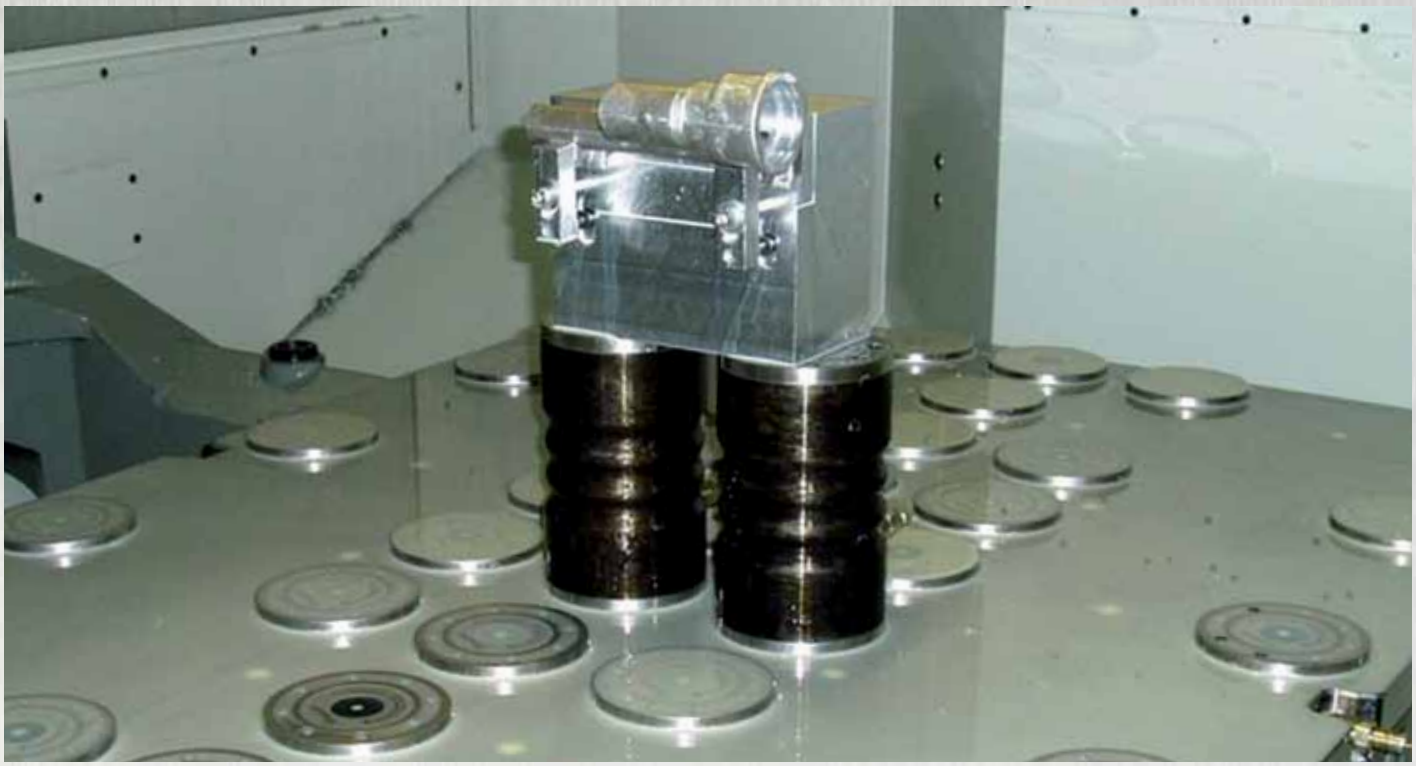
Order no.	dia. DN	dia. D1	dia. D2	H	M	T	Weight [g]
304352	40	25	10	40,0	M12	4,8	230
304592	40	25	10	40,0	M12	4,8	230
304618	40	25	10	40,0	M12	4,8	230
304634	40	-	-	34,7	M 8	12,0	220

Design:

Order no. 304352: Zero point nipple
Order no. 304592: Slit nipple
Order no. 304618: Undersized nipple
Order no. 304634: Protection nipple

Dimensions for the nipple mounting:





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Subject to technical alterations.

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TOGGLE CLAMPS, MANUAL AND PNEUMATIC

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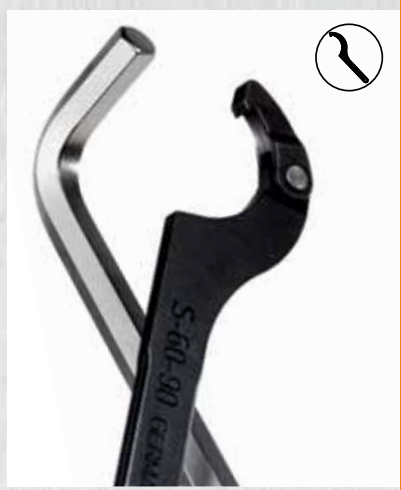
STANDARD CLAMPING ELEMENTS



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