Universal use with all workpieces and tools

Special Clamping Fixtures from Nann

tailormade clamping technology

Tailormade clamping technology

We are your universal manufacturer for all clamping tasks. Whether workpieces or tools – you'll be holding the winning cards with special clamping tools from Nann:

How did Co. Nann manage to sustain in that niche of clamping devices?
We believe: due to permanent and consequent refocusing on the main success factors as there are:

- Eight decades of concentration on clamping technologies
- High In-House production depth to safeguard the NANN-quality.
- Dedication of the products to the customer needs in an optimum way
- A very skilled, highly specialized team.
- Design department
- An up to date production environment.
- Competent technical consulting and service to our customers
- Highly attractive price-performance ratio
- Short delivery times
- Fast overnight-service through reliable logistic partners
- Short throughput times for non-stock items
- High In-House machining depth guarantees constant quality

NANN special clamping tools

- workpiece clamping
- tool clamping
- indexing units

Also from Nann: High precision standard products

In addition to our special clamping tools we also manufacture numerous kinds of standard clamping tools. Our warehousing sets standards here. And even if we do not have a size you need in stock, we can deliver it within just a few days.

Customer orientation

Special products require a lot of know-how and experience. Especially to your needs many things have to be checked, details have to be optimized. Please contact us, we will inform you about our solutions, our technicians are the experts in clamping tools.

Distributors

Our website www.nann.de/agencies informs you about our different partners.

Details

This catalogue informs you about our special programme. We wish you a lot of success with Nann products.

Simon Nann GmbH & Co. KG
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Nann Special Clamping Fixtures – Quality, Innovation and Availability

For over 70 years now we have been producing collets and chucks as part of our family tradition. These many years of experience and our low staff turnover are reflected in the quality, innovation and availability of our products.

Know-how built up over decades and state-of-the-art production facilities, including our own heat-treatment plant, ensure that you get the optimum clamping fixtures for your production tasks within the shortest possible time.

Our customers' highly automated production increasingly requires clamping devices that are optimally matched to workpieces and processing methods. Our products, manufactured within short deadlines and with the highest precision, range from chucks and special collets to complex clamping devices for workpieces as well as tool clamping.

The rapid pace of technological development today makes it essential to innovate and use the latest technologies in order to keep abreast of the competition. We are distinctive for our high degree of flexibility when handling special requests from our customers. With our rich store of accumulated knowledge, we will be glad to advise you about the design of special clamping fixtures. Our flexible operations enable us to focus optimally on the needs of our customers. Optimally equipped to deal with the future challenges of the market and of technological development, we are your reliable partner.

Reflecting our aim to give our customers complete solutions in the clamping fixtures sector, the product range at NANN is constantly being expanded.

We offer:

- Various services such as internal grinding, eroding, vulcanizing, coating, etc.
- Clamping fixtures, for workpiece clamping as well as tool clamping
- Special collets from stock collets
- Special collets produced from customer drawings or to our own designs
- Expanding collets, special clamping sleeves
- Special collet chucks for external or internal clamping
- Multiple clamping devices
- Indexing units
- Spindle units

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Workpiece Clamping

For the clamping of the most varied workpieces, modern production requires clamping fixtures with flexibility and repeat accuracy.

Each specific application places different demands on the clamping device. There are no fixtures that can cover all requirements perfectly. No compromises must be made, especially where precision is concerned.

With our own developments as well as with clamping fixtures based on the experiences of our customers, we cover the needs of the entire workpiece clamping sector.

Alongside standardized collets and collet chucks our main focus lies in the production and also design of customized special solutions in accordance with our customers' production requirements.

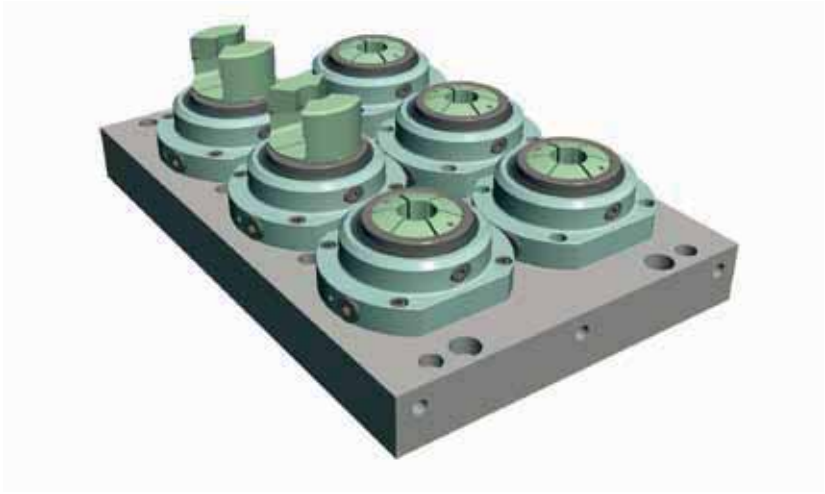
The manufacture of quality products, combined with a high degree of flexibility in order to fulfil our customers' requirements – that is our highest priority.

We offer our customers objective consulting geared towards special areas of application.

Even with these special solutions we guarantee you the customarily high NANN quality and short delivery times.

We offer:

- Special collets on the basis of standard collets
- Pure special collets
- Collet chucks for external clamping
- Collet chucks for internal clamping, Expanding mandrels
- Multiple clamping devices



Special Collets based on Standard Collets

Description:

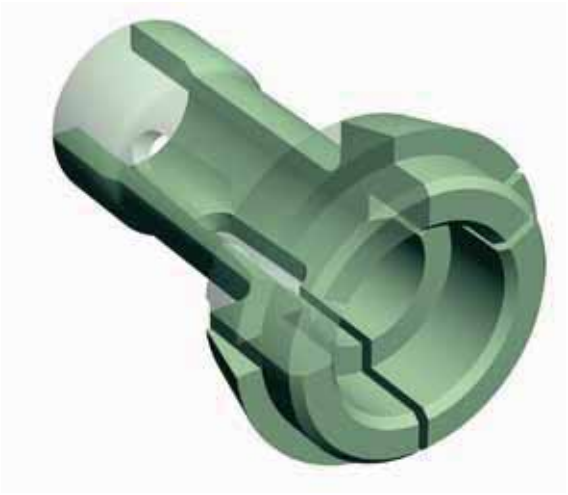
We manufacture a large number of special collets based on standard collets, regardless of whether this involves deadlength collets, draw-back collets or internal clamping sleeves.

The main dimensions of these deadlength and draw-back collets correspond precisely to the dimensions of the relevant standard collet and can usually be installed in the same fixture.

Here we are in a position to deliver with-in a few weeks, because in many cases ready-processed collets are in stock.

We manufacture:

- Collets with special grooves in the head or shaft
- Collets with cross-holes or milled cutouts, etc.
- Collets with special slots, e.g. slanted slots, asymmetrical slots, with the number of slots depending on the application (e.g. 2x or multiple slots)
- Collets with double bore
- Collets with special profiled bored bores in the clamping bore
- Collets with eccentric clamping bore
- Collets with cylindrical front part
- Collets with conical front part (longnosed collets)
- Collets with shortened front part (short-nosed collets)
- Collets with hard-metal insert
- Collets with replaceable jaws
- Stainless collets
- Collets with end stops
- Collets with built-in workpiece feed device



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Collets with Special Grooves

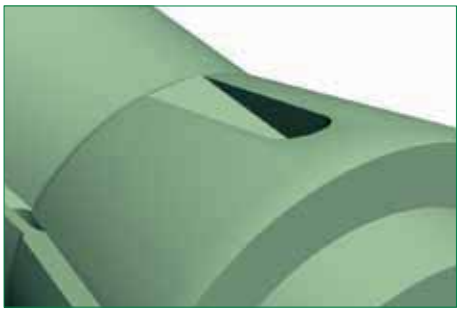
Description:

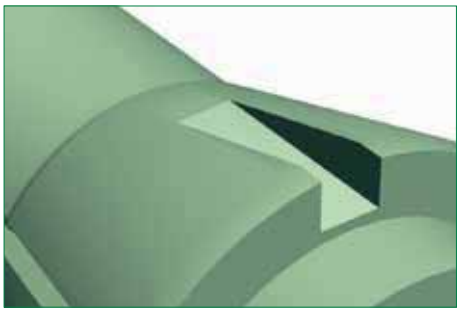
Regardless of whether deadlength or draw-back collets are involved, we supply collets with special grooves.

These special grooves can be applied to the head as well as the shaft of the collet. They differ from standard grooves in terms of width, depth or groove-shape as well as in their position on the collet.

These grooves are retrofitted into stock collets according to your requirements, or integrated into new products. The grooves mainly serve to ensure that the collet cannot be distorted in the relevant fixture.

Just contact us – we'll be happy to advise you, so as to provide the optimal solution for your clamping problems.





Collets with Special Slots

Description:

Whatever type of collet is involved, we supply collets with special slots. These collets are manufactured according to customers' wishes and are specially made.

Bore pattern:
- smooth or grooved
- according to customers' wishes

Slanted slots are very often used when work-pieces with profiled bored bores need to be clamped. The slanted slots on the collet prevent the edges of the clamped profiled bore from getting stuck in the slots of the collet, ensuring that the workpiece is securely clamped. In certain application scenarios a work-piece with toothed wheelwork can also be clamped using a slanted-slot collet. Here, too, the slanted slot prevents the toothed wheelwork from getting stuck in the collet slots.

Alongside collets with slanted slots we also produce collets with slot numbers that differ from the standard collet, or collets with asymmetrical slots.

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Collets with Special Profiled bored bores, Double Bore

Description:

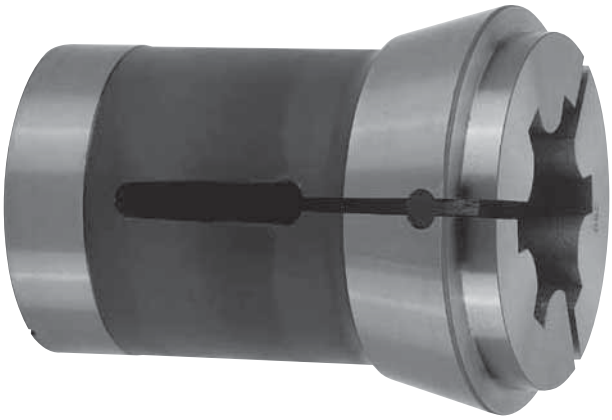
Depending on the workpiece that needs clamping, we are in a position to manufacture collets with special profiled bored bores. For each different workpiece the collet is produced individually as a pure special collet, or can be reworked from a standard collet from stock. These profiled bored bores are normally eroded.

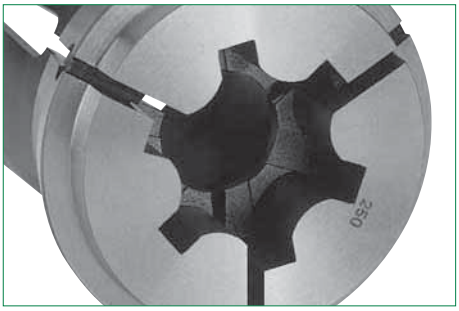
The profiled bore can be attached as a profiled through bore in order to clamp bar material.

Offset profiled bores or profiled bored bores with end stops integrated in the collet can also be manufactured.

Bore pattern:
• smooth

Just contact us – we'll be happy to advise you, so as to provide the optimal solution for your clamping problems.





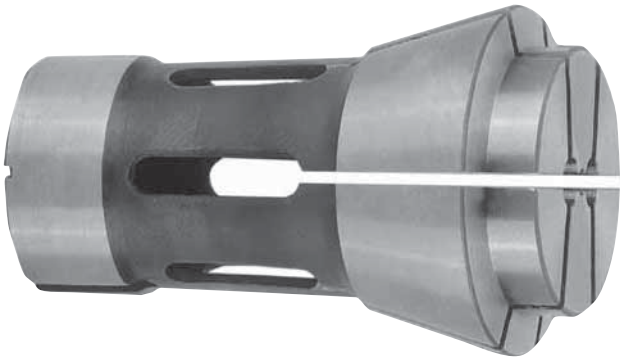
Description:

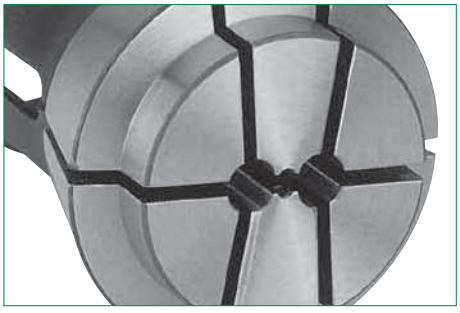
Under certain conditions it is possible to clamp two workpieces in one collet. These collets are given special slots which ensure the workpieces are securely clamped.

These collets are manufactured according to customers' wishes and are specially made.

Bore pattern:
• smooth

Just contact us – we'll be happy to advise you, so as to provide the optimal solution for your clamping problems.





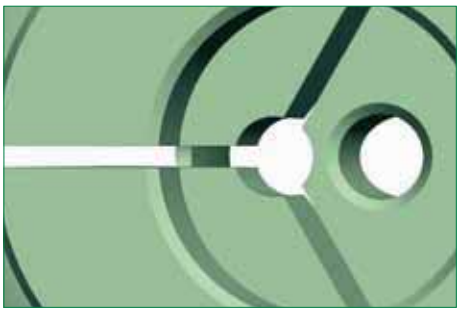
Collets with Eccentric Clamping Bores

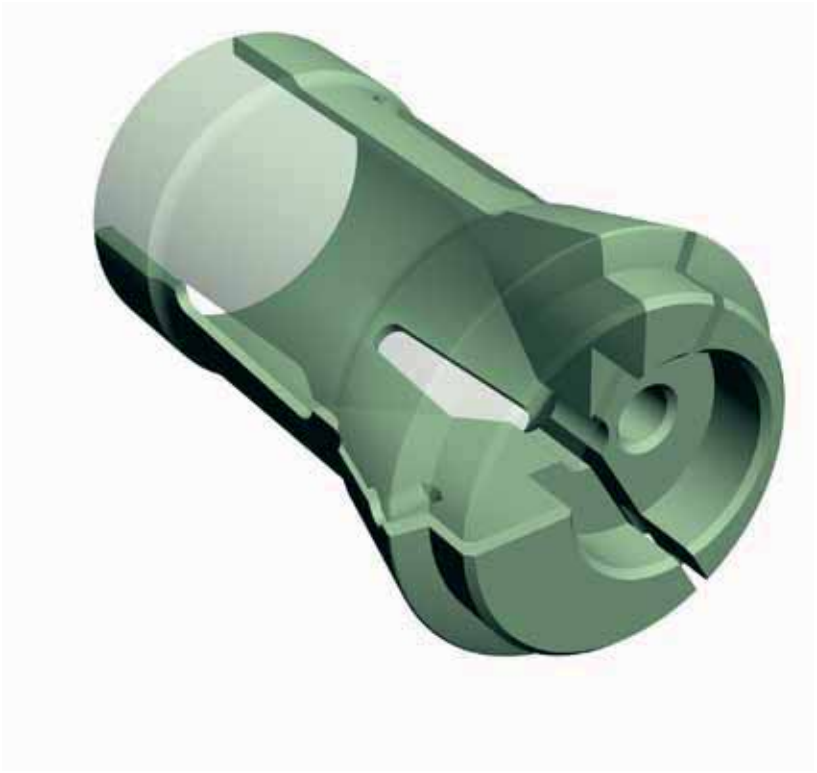
Description:

Depending on the workpiece that needs clamping we are in a position to manufacture collets with eccentric clamping bores. For each different workpiece the collet is manufactured as a one-off special collet, or a standard collet from stock can also be converted. The eccentric clamping bore is either coordinate-ground or eroded. The clamping bore can be applied as a through bore, in order to clamp bar material. Offset bores or bores with end stops integrated in the collet can also be manufactured.

Bore pattern:
- mostly smooth

Just contact us – we'll be happy to advise you, so as to provide the optimal solution for your clamping problems.





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Collets with Front Parts

Description:

Whether deadlength or draw-back collets are involved, we supply collets with front parts.
- cylindrical front part
- tapered front part
- extended head

Bore pattern:
- smooth or grooved
- according to customers' wishes

Collets with front parts are very frequently used to support the workpiece requiring clamping, and to prevent disruptive contours with the collet and the chuck during processing.

In the case of collets with front parts, make sure not only that the workpiece to be clamped is clamped in the front part of the collet, but also that the clamping length fits the taper of the collet, otherwise the accuracy becomes markedly worse and the clamping force weakens.

It is possible to integrate end stops into the collet at any time and, with workpieces that only need short clamping, to support the collet in the rear section of the bore, since during clamping of short workpieces the clamping bore tends to widen towards the front and only clamp effectively in the rear section.

If overly high clamping force is needed, this can result in the collet fracturing, either at the front part or the area around the spring. This is why these collets are frequently designed with reinforced springs, in order to prevent possible collet rupture in this region.

Just contact us – we'll be happy to advise you, so as to provide the optimal solution for your clamping problems.

Collets with Jaws

Description:

Jaws can be integrated into deadlength as well as draw-back collets.

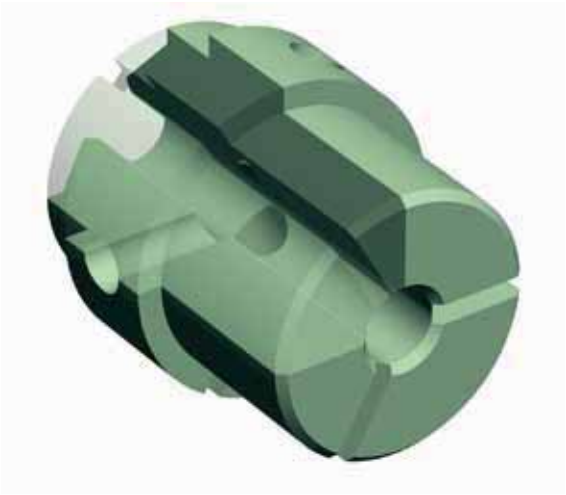
Jaws are mostly used when no pressure marks are allowed to appear on the workpiece. These jaws are normally screwed into the clamping bore and, after wearing, can be replaced by customers themselves.

We manufacture jaws from
- Polyamide
- Brass
- Aluminium

Note that when jaws are used, the amount of wear in the clamping bore is higher than when a collet without jaws is used.

Bore pattern:
- smooth

Fixing of jaws
- with collar, with radial screws
- with collar, with axial screws
- without collar, with radial screws
- without collar, with axial screws



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Collets with Carbide Inserts

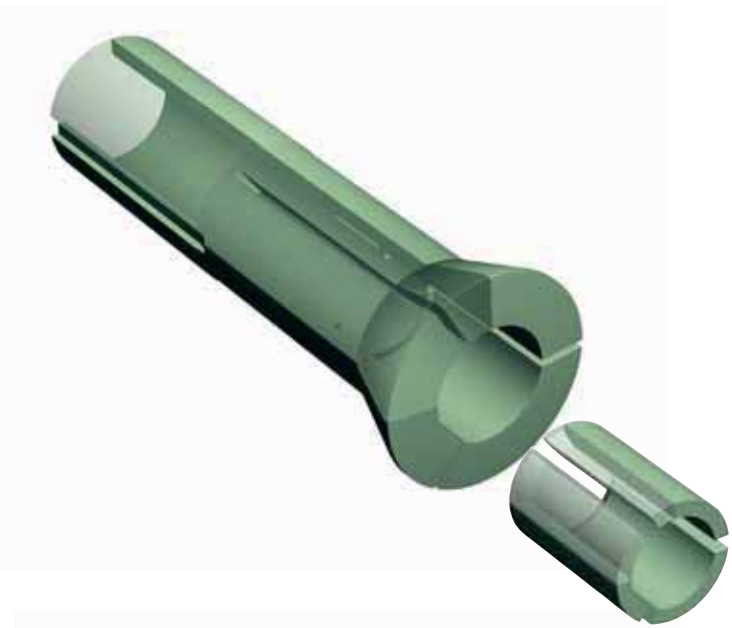
Description:

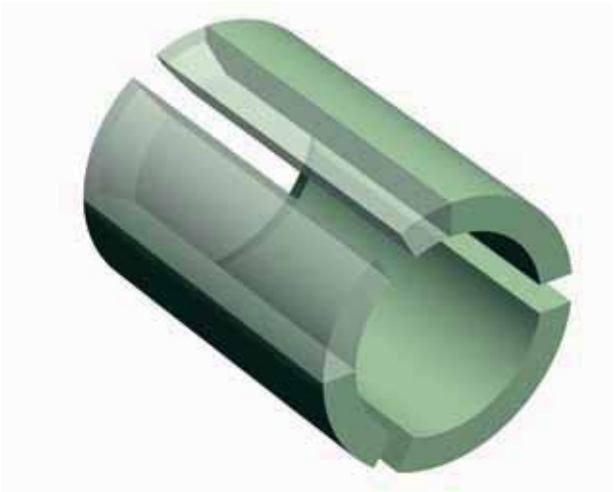
Hard-metal inserts can be integrated into deadlength or draw-back collets as well as feed fingers.

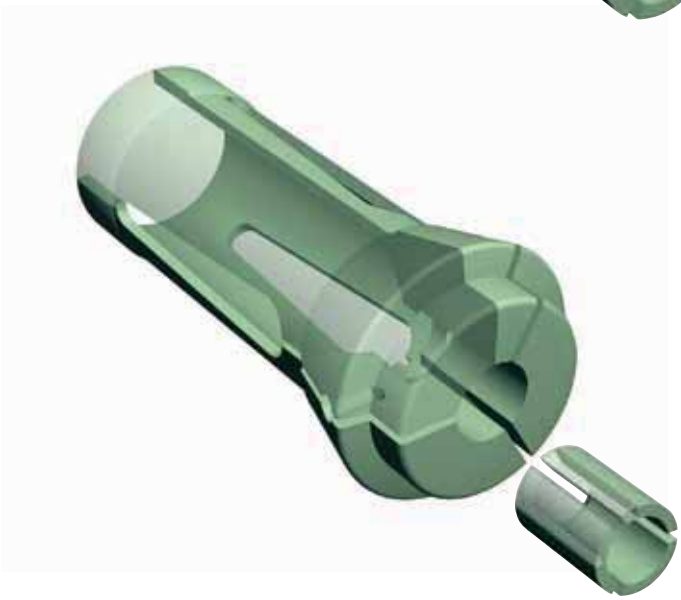
Use of hard-metal inserts in the clamping bore results in a sharp reduction of wear. The hard-metal quality is selected in such a way that optimal clamping results are achieved with most materials.

Bore pattern:
• smooth

Just contact us – we'll be happy to advise you, so as to provide the optimal solution for your clamping problems.







Collets with End Stop

Description:

Deadlength and draw-back collets with integrated end stops are often needed. Depending on the application, a standard end stop from stock can be used, or a special end stop is required.

To successfully integrate an end stop like this into the collet, the free bore is usually ground. The end stop, regardless of whether it is of fixed length or adjustable, is then fitted into the ground free bore and pinned. This type of end stop can, depending on the application, also be given a through bore for pressurised air to pass through. This can prevent dirt from penetrating inside the collet.

In the same way, a sprung ejector can also be integrated into a collet.

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Collets with Built-In Workpiece Feed Device

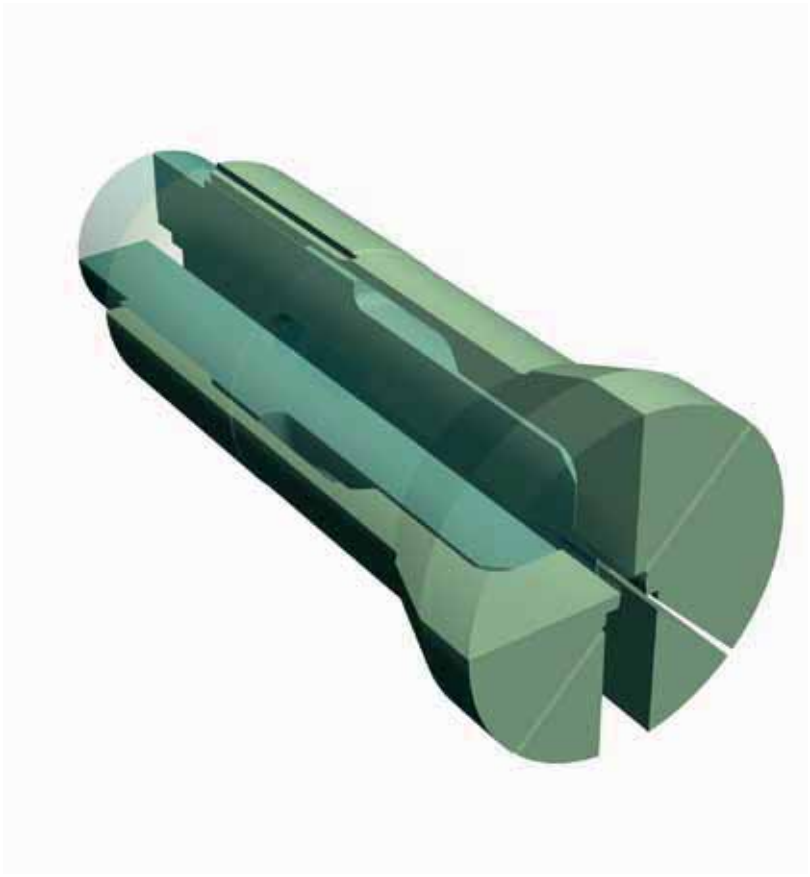
Description:

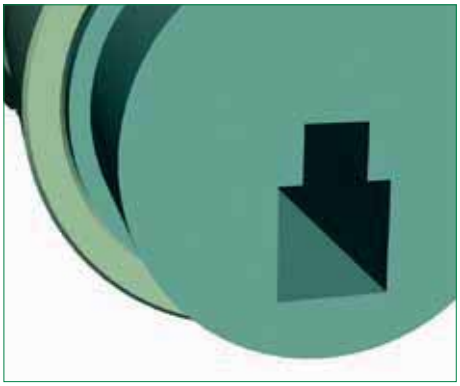
In certain application scenarios a collet can be equipped with a workpiece feed device.

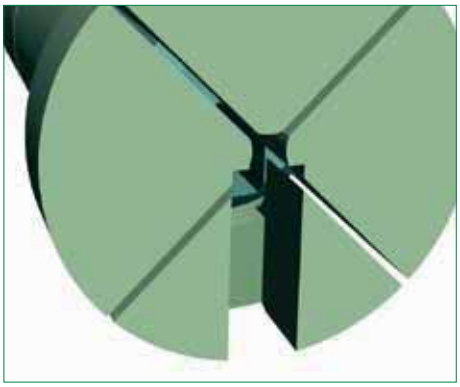
As with the integration of an end stop, the free bore is ground out of the collet, and the workpiece feed device is fitted inside the ground free bore.

The workpiece is inserted into the collet from the back, through the integrated feed.

Just contact us – we'll be happy to advise you, so as to provide the optimal solution for your clamping problems.







Collets for Rismatic Rotary Transfer Machines

Description:

We supply collets for rotary transfer machines such as Hydromat and Rismatic in the customary NANN quality, with ultra-short delivery times. These collets can usually be reworked from collets in stock – just ask us.

Anwendung:

- for workpiece clamping
- no axial movement while chuck is clamping

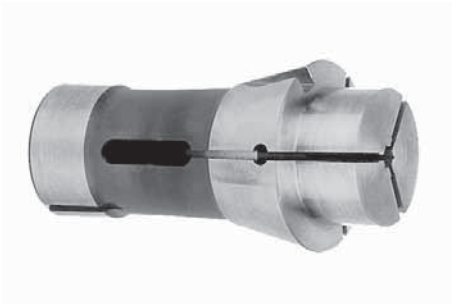
Bore pattern:
- smooth

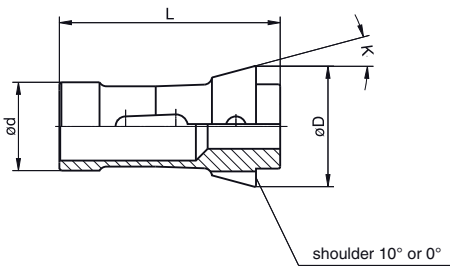
Hardness:

The collets are made from special spring steel. Where possible, by partial tempering, the hardness of the taper and the clamping bore is HRc 58 – 60. The shank guide and the sprung area have been tempered for spring hardness.

Special features:

- the complete set of collets is adjusted in its length
- all collets with high running concentricity
- Profiled collets with cross keyways
- position of shank keyway in relation to profiled bore is very important
- square, hex. and other profiled bores are eroded – higher running concentricity
- keyway for collets with round bore on request





Art.-no.	d	D	L	K°	thread	max. bore ○
Ris-140 E	22	30	55	15	16	85
Ris-162 E	35	43	70	15	25	61,5

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Clamping Heads - Customized

Description:

We supply clamping heads in special designs
- with stepped bores
- with jaws
- with front part
- etc.

Special designs are available regardless of clamping head size.

As is customary at NANN, special clamping heads in the highest quality are also produced, with the shortest possible delivery deadlines. Just ask us – our technicians will be glad to advise.

Bore pattern:
- smooth or grooved
- according to customers' wishes

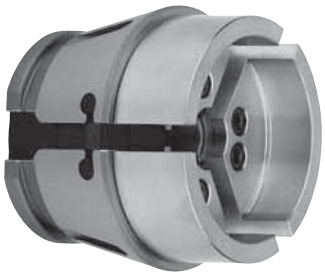
Hardness:

The clamping heads are made from special spring steel. Where possible, by partial tempering, the hardness of the taper and the clamping bore is HRc 58 – 60.

Attention: if a workpiece is only briefly clamped in a clamping head, the clamping head may have to be supported in the rear region of the clamping bore.

For exchange or replacement of the clamping head, a special design of mounting fixture may be necessary.

Conversions to very short deadlines from standard clamping heads from stock are possible any time, e.g.
- internal grinding
- eroding



Facts and figures:

Clamping heads in special designs are designed in the same way as the NANN standard clamping heads:
- exchangeable rubber stops
- thoroughly hardened
- can be exchanged with all conventional clamping heads
- high concentricity
- high clamping force
- high rigidity

Special Collets

Description:

Special collets are our particular strength.
For your applications we manufacture special collets according to samples or to your or our drawings.

We have a wealth of experience in the design of special collets.

Our designers are in a position to develop optimal collets for you to very short deadlines, and they are adapted to suit your specific individual requirements.

Regardless of whether you want to clamp internally or externally, NANN is always your competent partner.

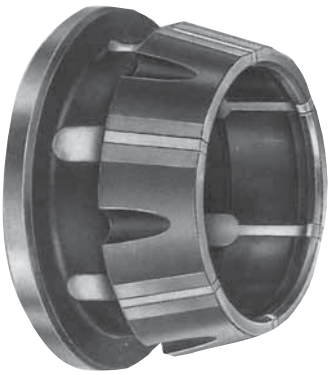
Production takes place within ultra-short deadlines. We are your reliable partner – just get in touch with us.

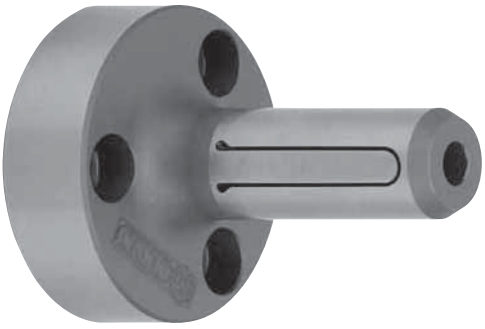
We are distinctive for our high quality and reliability combined with our high flexibility in the handling of customer requirements. Let us advise you on your clamping problems.

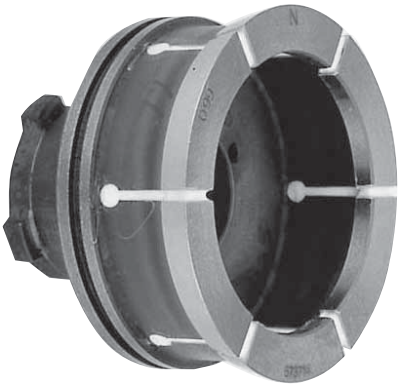
We manufacture Special collets
- according to samples
- from customer drawings
- from NANN designs

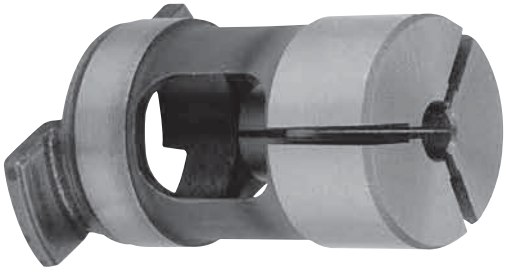
Naturally we are also in a position to manufacture special collets in stainless steel, or collets with various different coatings, e.g. as corrosion protection or wear protection.

Special collets and standard ones too can be given carbide inserts, or jaws made from plastic or brass.









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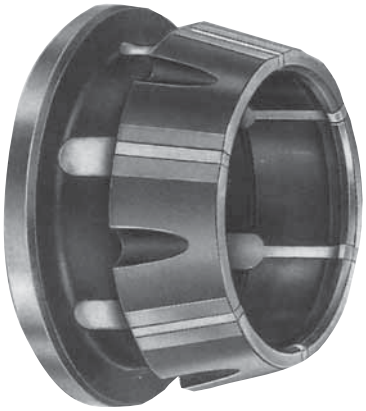
Single and Double-Taper Collets

Description:

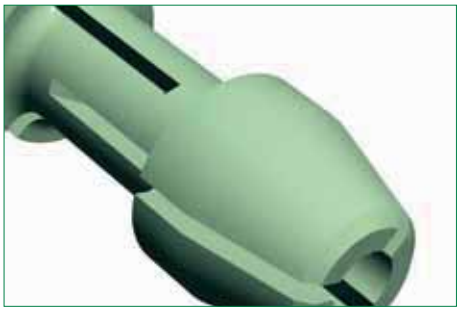
We manufacture single and double-taper collets from NANN drawings or customer drawings. We will gladly construct the right collet to suit your applications together with you.

Single-taper collets have an externally located taper via which the collet is closed during clamping. The collet either stands firm, and a cover with inner taper is pressed over the single taper of the collet, or the collet is moved and pressed inside an inner taper. This closes the collet and the workpiece is clamped. Unclamping takes place the other way round.

Just contact us – we'll be happy to advise you, so as to provide the optimal solution for your clamping problems.



Double-taper collets normally have a cylindrical shaft in the middle, plus an outer taper to the left and right of the shaft respectively. During clamping the double-taper jaw on both tapers is closed simultaneously, whereby a taper sleeve is pushed over the outer taper of the double-taper collet.



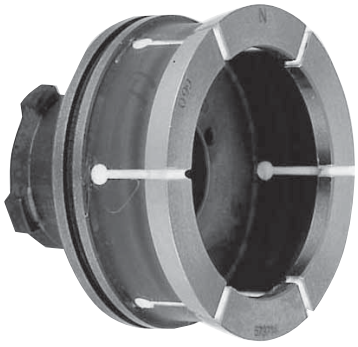
Collets with Bayonets

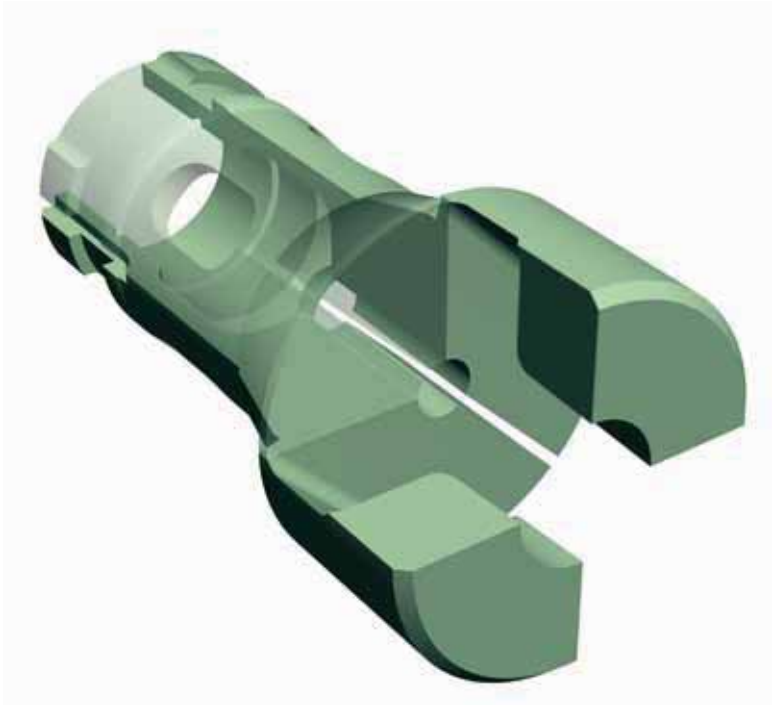
Description:

Collets with bayonets are very often used for clamping collets in the draw-in attachment. This bayonet can be attached to the shaft of the collet on both the outside and the inside.

Bayonets have an advantage over collets with outer or inner threads because exchanging the collet takes less time, though the manufacturing costs for collets with bayonets are higher than for those with similar ones with threads.

Naturally we also manufacture this type of collet according to customer drawings or to NANN designs.





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Special Collets made from Alternative Materials, Coatings

Description:

We manufacture special collets not only from the usual spring steel, but also from various other materials.

Not every material is suitable for the manufacture of collets, but there are also alternative materials that can be used.

These frequently include stainless material, spring bronze or other materials. Please note that when using alternative materials the properties of the collet, such as e.g. wear resistance or spring properties, may be worse than when using the usual spring steel.

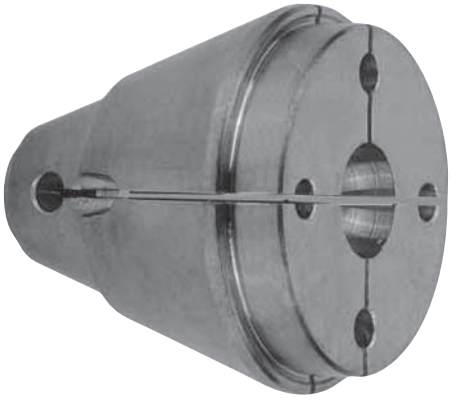
Alongside the use of special materials in the production of collets, special collets can also be coated. We coat your special collets using various methods.

We'll be happy to advise you on which coating is best suited to your particular application, e.g. as rust protection, for reducing or increasing the coefficient of friction, to avoid pressure areas on the workpiece for clamping, and so forth. Just ask us!

We offer, among other things:

- Synthetic coatings
- Carbide coating
- DNC coating
- TIN coating
- etc.

Just ask us – we'll be happy to advise you on which material is best suited to your application.



Special Collets, Outer and Inner Collets

Description:

We manufacture special collets consisting of outer and inner collets either according to our own designs or to customer drawings.

With these collets the workpiece is clamped in the inner collet, and the inner collet is closed during clamping via the outer collet.

The outer collet is normally pushed from the front over the inner collet and secured against distortion via cut outs on the shaft side. For this there are also cutouts available on the inner collet.

On the clamping bore side, the outside of the inner collet is cylindrically ground, while the outer collet in this area has an outer taper. If the outer collet is now closed via this taper, the workpiece is clamped in the inner collet.

There are various ways of operating this collet. One option is for the outer collet to remain fixed and the inner collet to move during the clamping process, another is for the inner collet to remain stationary and the outer collet to move – or for both collets to remain fixed and the clamping sleeve of the draw-in attachment to move.

Just ask us – our technicians will be glad to advise you.

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Special Collets, Cylindrical Clamping Sleeves

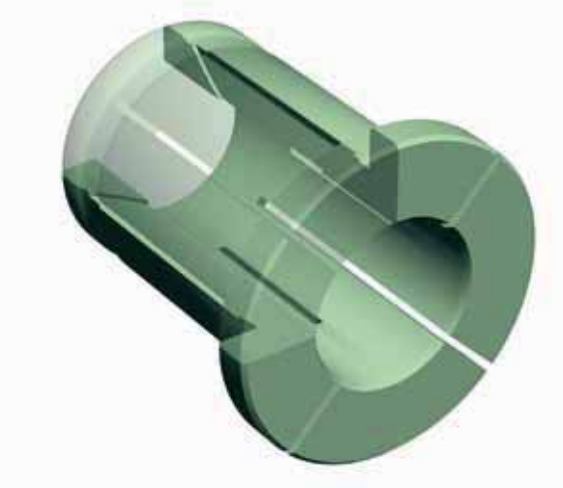
Description:

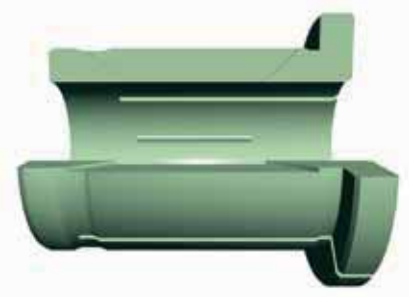
We manufacture all kinds of different types of cylindrical clamping sleeves according to NANN drawings or customer drawings.

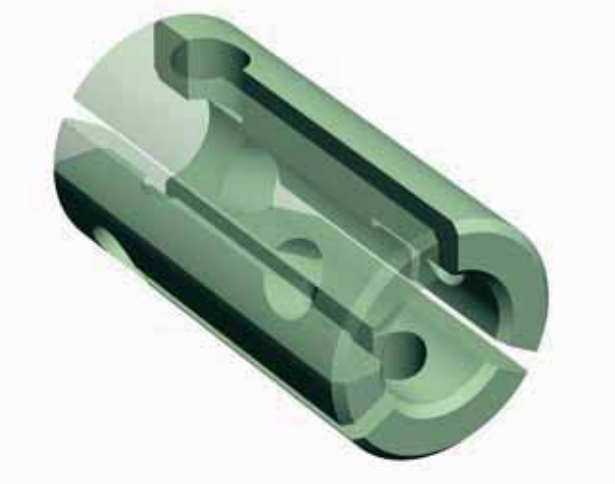
Regardless of what type of cylindrical clamping sleeve you need or where you want to use it, NANN is always your competent partner.

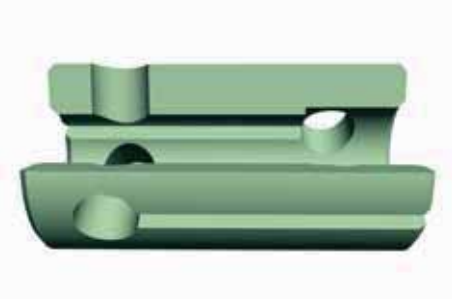
Our product range includes reduction sleeves for hydraulic chucks as well as any other types of clamping sleeves. These clamping sleeves can be designed with or without collar, profiled bores can be attached to the clamping bore, and clamping sleeves can be sealed.

Just ask us – we'll be happy to advise you.









Special Collets, Tapered Clamping Sleeves

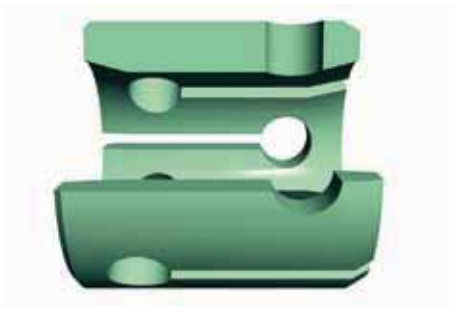
Description:

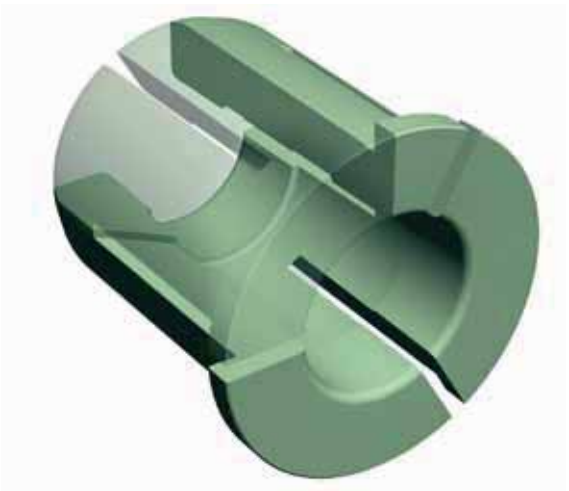
Apart from a large number of cylindrical clamping sleeves we also produce clamping sleeves with tapers, used for the clamping of workpieces inside a bore.

Regardless of whether these clamping sleeves are designed with a single or double taper, NANN is always your competent partner.

Naturally this type of clamping sleeve can be produced in the most varied types: with or without internally or externally located collar, with round external diameter, with profiled bore on external diameter, with straight or slanted slots, with sealed slots, etc.

The design of the clamping sleeve is matched precisely to suit your specific application.





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Special Collets, Three-Part Expanding Collet

Description:

We manufacture three-part expanding collets according to NANN designs or customer drawings.

These expanding collets are used if the customer already has a fixture for draw-back collets and wants to internally clamp a workpiece on this machine.

This type of expanding collet consists of a body which has the same dimensions as the suitable draw-back collet. On the shaft side the part with the external thread is cut off and extended with an intermediate section, so that the required mandrel can be screwed in from the front.

For installation of the complete mandrel the free bore of the collet is ground, and the mandrel is secured against distortion.

The body is extended forwards, and the front part is adapted to the workpiece that needs clamping, and is then slit.

To activate the expanding collet, pull on the thread section; the mandrel opens the expanding collet attached to the fixed body and thus clamps the workpiece.

Expanding collets of this type are available in all kinds of different variants.

Just ask us – our technicians will be glad to advise you.

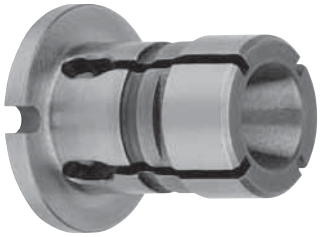
Special Collets, Expanding Collets with Cylindrical Holding Fixtures

Description:

We manufacture expanding collets with cylindrical fixtures according to NANN designs or customer drawings.

There are numerous different types of expanding collets that fit into the clamping fixture by means of cylindrical fixtures. These expanding collets can be activated by compression as well as tension, whereby either the expanding collet or the mandrel either remains mobile or immobile. On request we also manufacture suitable end stops for the expanding collet.

Just contact us – our technicians will be happy to advise you, and provide the optimal solution for your clamping problems.



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Special Collets, Expanding Collets with Flange Fixture

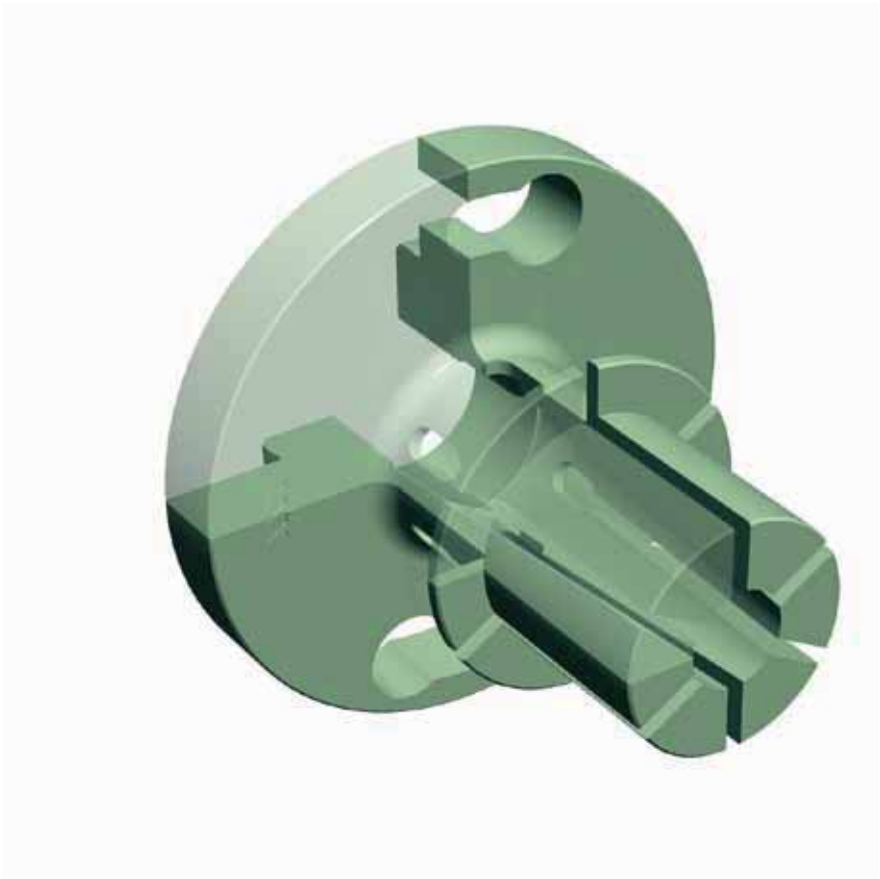
Description:

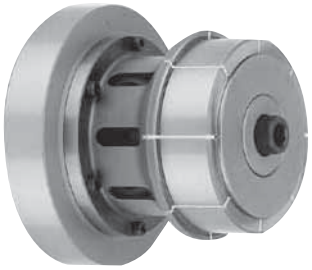
We manufacture expanding collets with flange fixtures according to NANN designs or customer drawings.

Expanding collets with flange fixtures are manufactured with a cylindrical flange as well as a short-taper fixture depending on the design of your spindle nose.

The expanding collet can be activated by compression as well as tension, whereby either the expanding collet or the mandrel remains mobile or immobile.

On request we also manufacture suitable end stops for the expanding collet.





Special Collets, Expanding Collets with Carbide Inserts

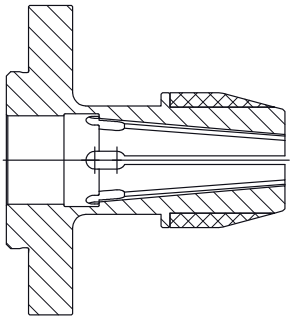
Description:

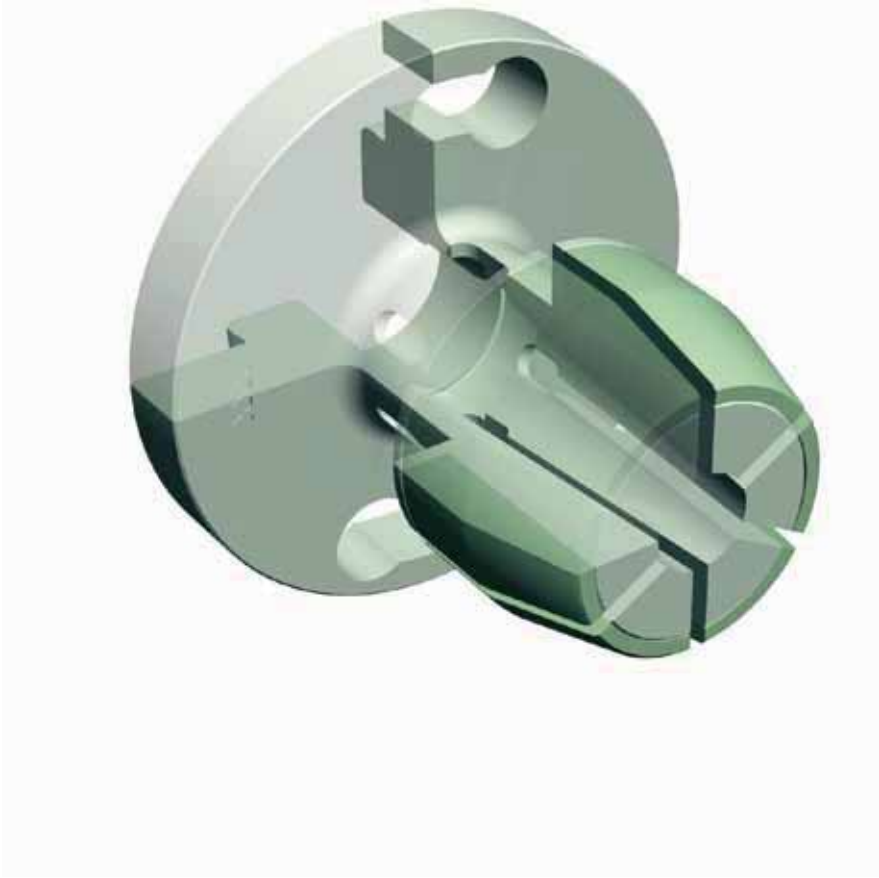
As well as hard-metal tipped guide bushes and special collets for external clamping with carbide inserts, we also manufacture special expanding collets according to NANN designs or customer drawings with carbide tipped clamping bores.

We are in a position to equip expanding collets, depending on their design, with a hard metal insert at the clamping bore, in order to achieve higher wear resistance. Regardless of the type of activation, whether compression or tension, and the type of fixture, cylindrical or with flange, the expanding collet can be carbide tipped.

On request we also manufacture suitable end stops for the expanding collet.

Just ask us – our technicians will be glad to advise you. We'll answer immediately.





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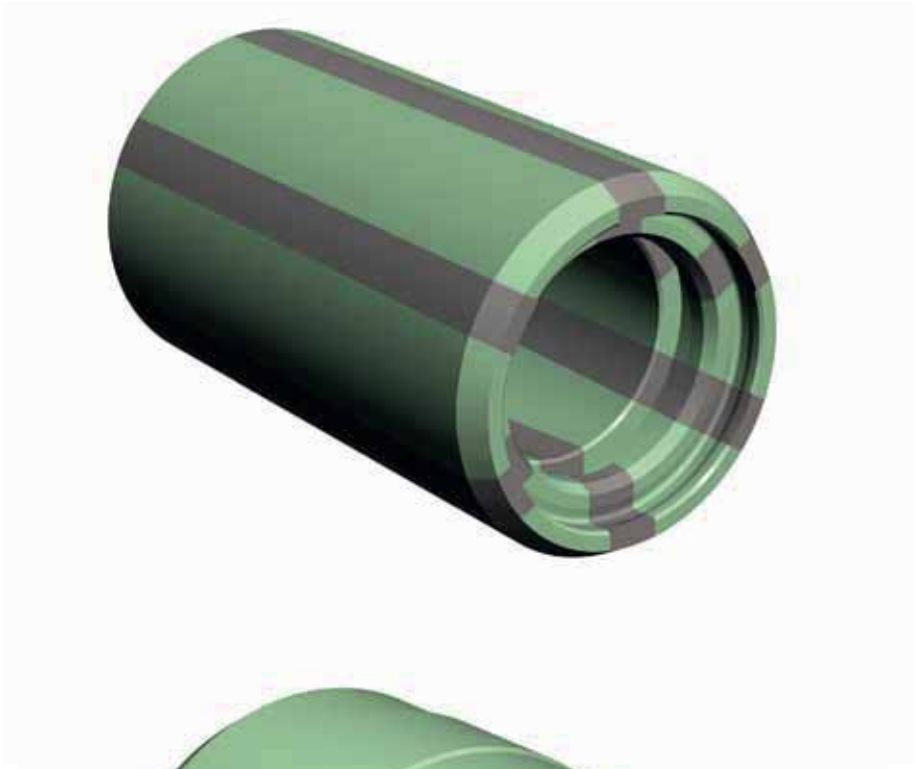
Special collets, Segmented clamping sleeves

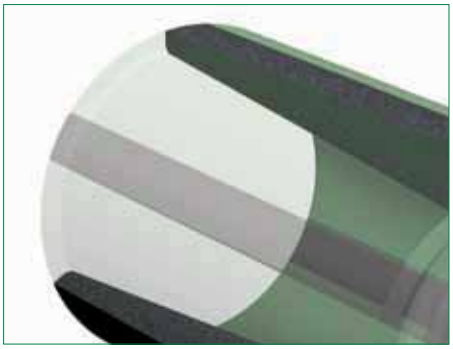
Description:

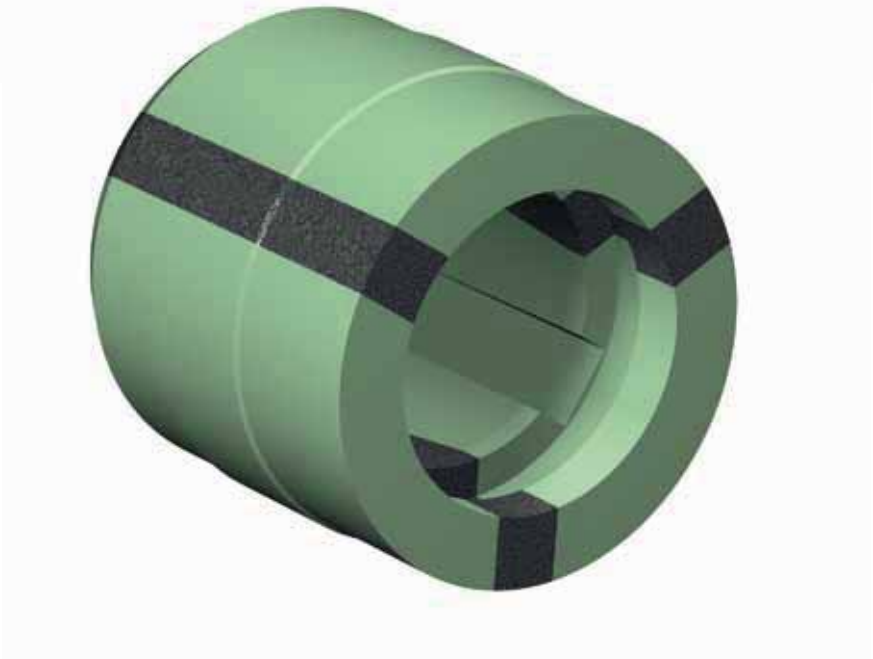
We manufacture special expanding sleeves as segmented sleeves with hardened steel segments according to NANN designs or customer drawings.

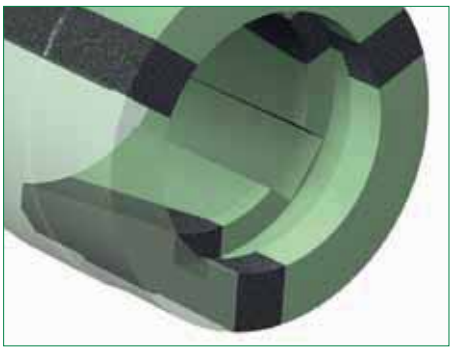
Segmented clamping sleeves are out of hardened low-wear steel segments which are vulcanized. They are especially suited for clamping workpieces having an inner geometry accessible from outside in the form of boreholes or a prismatic take-up. Main applications are turning, grinding, milling, centering, drilling, measuring, etc. There are a lot of different types just ask us – we'll find the best solution for your application.

On request we are also producing end stops which fit to the clamping sleeve.









Special Collet Chucks for External Clamping

Apart from a comprehensive range of storage-suitable standard collet chucks, we also manufacture special clamping fixtures for workpiece clamping according to customers' drawings or their own constructions. NANN is always your competent partner.

Our many years of experience help you to solve your clamping problems.

For you, we manufacture:

- Standard devices with special collets
- Special clamping devices with standard collets
- Special clamping devices with special collets
- Manually operated clamping devices
- Power operated clamping devices
- Pneumatically or hydraulically operated clamping devices

- Stationary collet chucks
- Rotating collet chucks

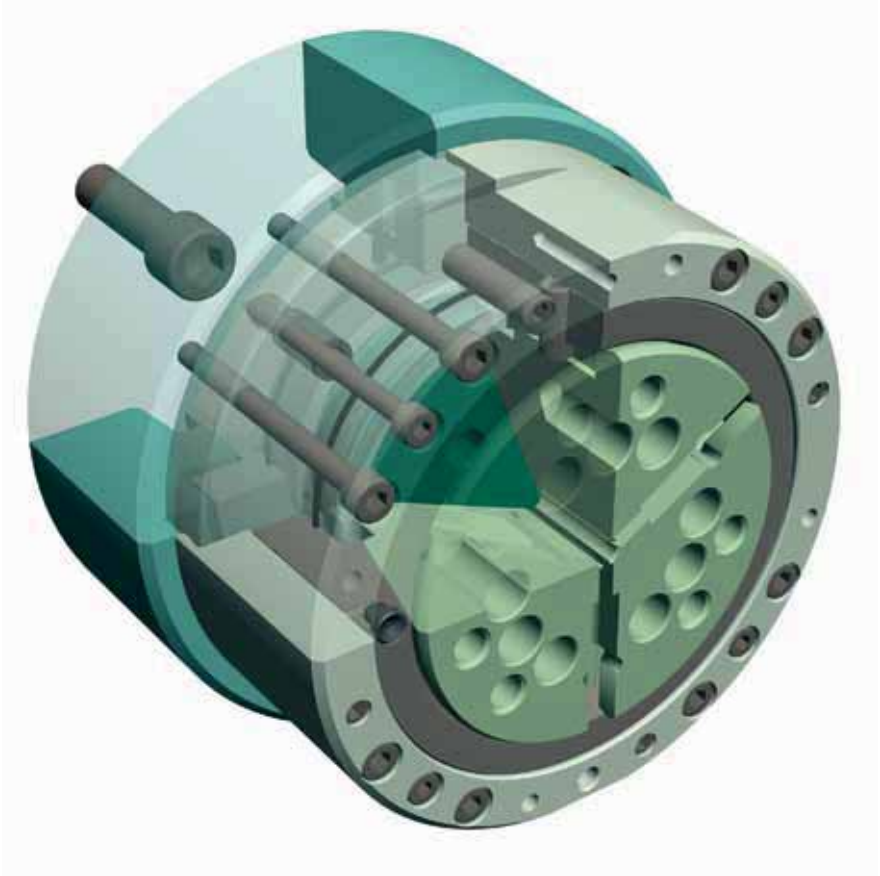
- Single clamping devices for dead-length, draw-back or double taper collets
- Multiple clamping systems

Areas of application:

For clamping workpieces
- for machining
- for joining
- for pressing or crimping
- for testing
- for laser marking
- for laser welding
- etc.

We will gladly advise you and tailor the clamping item individually to your application. We will also be glad to hear about your experiences with, and suggestions you may have concerning the construction of special clamping devices for your application. Higher flexibility when it comes to realizing our customers' wishes – that's what makes us distinctive. Economic efficiency plays a crucial role in the development and design of special clamping devices.

We also guarantee you short delivery times for special clamping devices and, naturally, the customary NANN quality.



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Special Collet Chucks for Deadlength Collets
Manually-Operated Collet Chucks

Description:

We manufacture special collet chucks for deadlength collets in different designs with differing clamping areas. These collet chucks are manually operated.

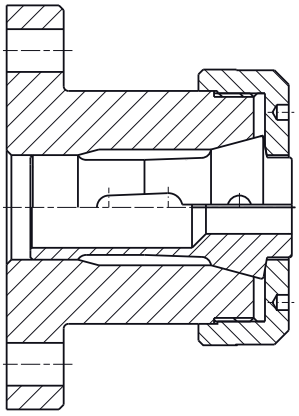
The clamp consists of a simple chuck body, simultaneously designed as a clamping sleeve. The deadlength collet is pushed into the chuck body during clamping; when the nut is opened, the collet is released from the chuck body and the clamped workpiece can be removed.

The holding fixture of the collet chuck is designed in accordance with customers' wishes. In most cases the chuck body is designed with a cylindrical flange, but a short taper flange is also possible anytime. Naturally it is also possible to attach an intermediate flange.

Facts and Figures:

- For deadlength collets
- Manual operation
- Differing sizes and clamping areas
- Any holding fixture

Just contact us – our technicians will be happy to advise.



Special Collet Chucks for Deadlength Collets
Power-Operated Collet chucks

Description:

We manufacture special collet chucks for deadlength collets in different designs, and with different clamping areas.

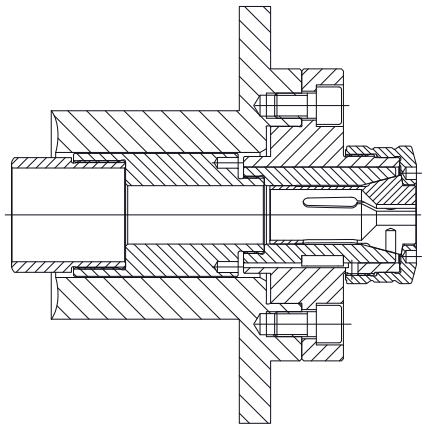
Because of their favourable dimensions combined with their low tare weight, power-operated collet chucks are frequently used for direct installation. In contrast to conventional power-operated collet chucks of type KSF these collet chucks are not simply placed on the spindle nose but installed as far as possible inside the spindle.

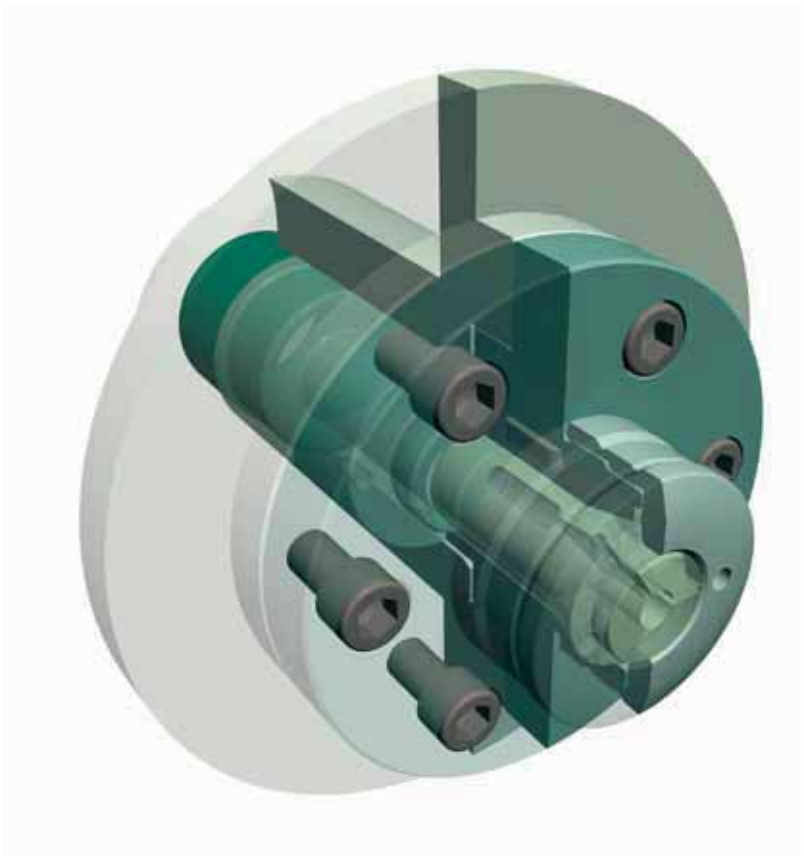
This collet chuck is operated by means of a hydraulic or pneumatic clamping cylinder. Changing the collet takes place from the front, by loosening the tensioning nut without a tool changing device. These chucks are distinctive for their very easy handling and installation.

We manufacture these collet chucks to customers' drawings or our own designs, and to very short deadlines.

Facts and Figures:

- for deadlength collets or multiple-area clamping collets
- for spindles with rotating hydraulic or pneumatic cylinder
- different sizes and clamping areas
- no axial offset of the workpieces
- any holding fixture





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Special Collet Chucks for Deadlength Collets
Plate Spring Clamping, Adjustable Clamping Force

Description:

We produce rotating clamping fixtures for deadlength collets with plate spring clamping and adjustable clamping force.

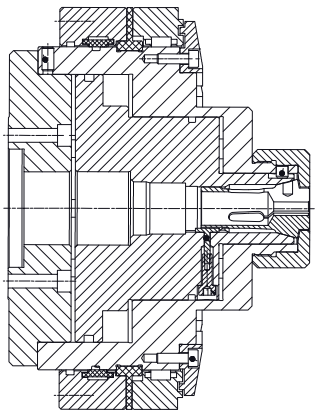
The clamping sleeve is pushed forward by the plate spring packages and the collet is closed. Unclamping takes place via an integrated, simply functioning piston. The compressed air is fed into the cylinder chamber via a stationary distributor ring.

This distributor ring is attached to the chuck body by means of a plastic ring. Please note that the collet chuck can only be unclamped if the spindle is stationary. Exchange of the collet always has to take place when the collet is in unclamped condition.

This collet chuck is distinctive in that the clamping force can be altered. By turning all the adjustment bolts, the clamping force can be changed. Any alteration of clamping force always has to take place in clamped condition. The collet chuck is adapted to your individual requirements, and clamping area, number of revolutions per minute, etc., are geared towards the needs of the customer.

Facts and figures:

- for deadlength collets
- clamping with plate springs
- pneumatic unclamping via distributor ring
- different sizes and chucking ranges
- any fixture above intermediate flange
- clamping pressure 6 bar
- adjustable clamping force



Special Clamping Fixture for Deadlength Collets Hydraulic

Description:

We manufacture special clamping fixtures in all kinds of different designs, while using standard clamping devices.

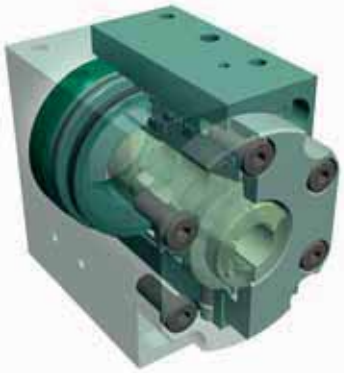
The clamping fixture consists of a taper shaft with cylindrical flange, inside the spindle of an NC indexing unit. A base-plate is attached to this cylindrical flange on which a standard clamping device of type HZ 25 for clamping the workpiece is mounted. Since a very long workpiece has to be clamped, it has to be centred on the side opposite the clamping fixture and clamped as well. A hydraulic swivel clamp is used for this purpose. To feed in hydraulic oil, a rotational feed is attached to the end of the taper shaft, which is also manufactured by NANN.

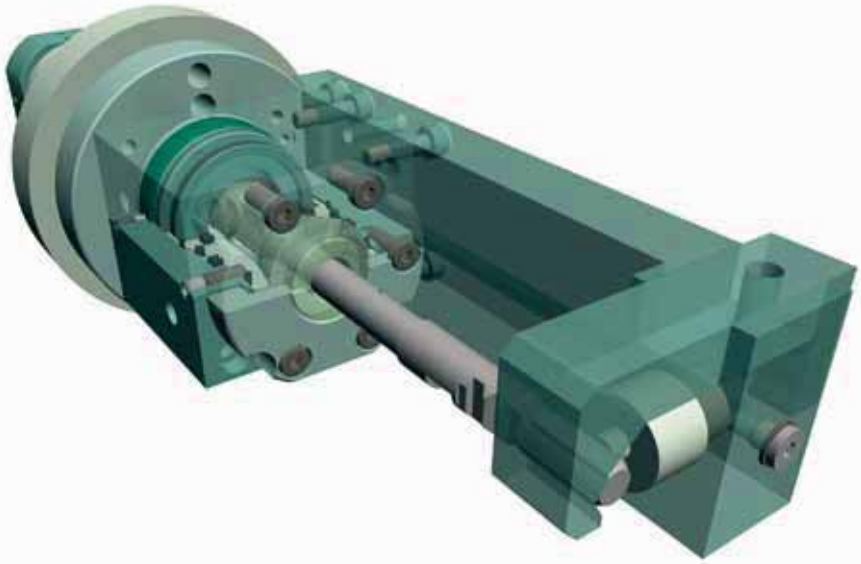
We manufacture these collet chucks according to customer drawings or NANN designs to the narrowest of deadlines.

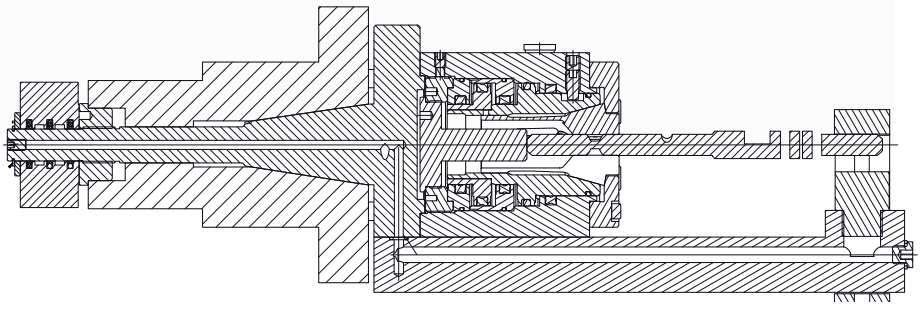
Facts and figures:

- for deadlength collets
- use of a standard clamping devices of Type HZ 25
- use of a standard swivel clamp
- Special rotational feed
- Clamping pressure max. 80 bar

Just ask us – our technicians will be glad to advise you.







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Special Collet Chucks for Draw-Back Collets
Power-Operated Collet Chucks

Description:

We manufacture special collet chucks for draw-back collets in all kinds of different designs and with different chucking ranges.

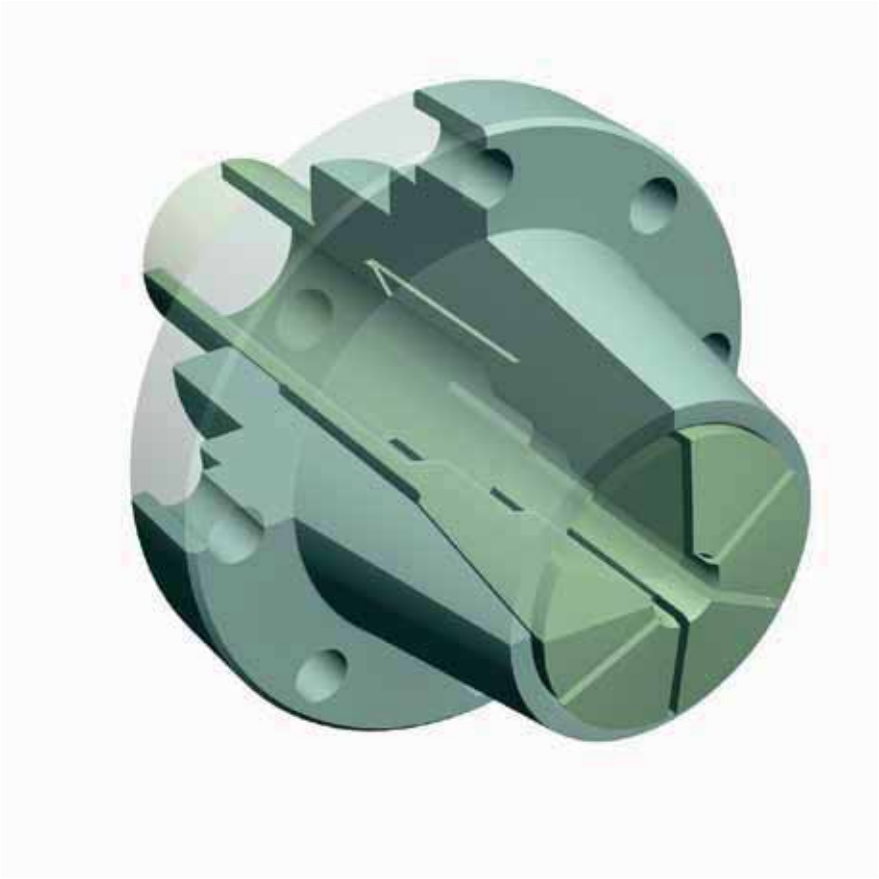
The collet chuck consists of a simple one-section chuck body, which is simultaneously used as a collet sleeve. The draw-back collet is pulled inside the chuck body during clamping, resulting in a light axial movement at the workpiece in the direction of the spindle nose. During unclamping the clamping cylinder pushes the draw-back collet out of the fixture. If short workpieces are fed in from the front, this has to be mentioned on the order – so that the collet can be expanded, especially where automatic loading is involved. These collet chucks are designed according to your requirements for standard or special collets depending on the application. We manufacture these collet chucks for maximum running concentricity.

For this, the collet chucks are designed with cylindrical fixtures, and while the collet chuck is being screwed on the entire chuck body can be aligned in the spindle; this gives the collet chuck optimal concentricity. Use of special, high-precision collets results in extremely high running truth. The collet chuck is operated either via a hydraulic or pneumatic cylinder.

We manufacture these collet chucks according to customer drawings or our own designs, within ultra-short deadlines.

Facts and figures:

- for draw-back collets
- also for high-precision collets
- for spindles with rotating hydraulic or pneumatic cylinders
- Different sizes and chucking ranges
- cylindrical fixture



Special Collet Chucks for Draw-Back Collets
Power-Operated Collet Chucks, Stationary End Stop

Description:

We manufacture special collet chucks for draw-back collets with fixed end stop in different designs and with different clamping areas.

The collet chuck consists of a simple one-section chuck body, simultaneously serving as a collet sleeve. During clamping, the draw-back collet is drawn into the chuck body, and this creates a slight axial movement at the workpiece in the direction of the spindle nose. This pull-down effect causes the workpiece to be pulled against the flat surface of the fixed end stop. During unclamping the clamping cylinder pushes the draw-back collet out of the fixture.

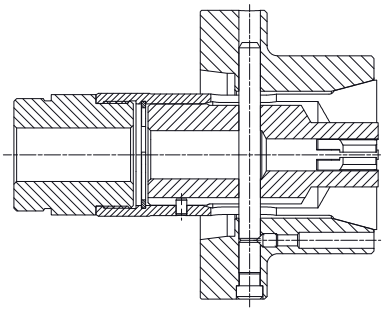
If short workpieces are fed in from the front, this has to be mentioned on the order so that the collet can be expanded, especially where automatic loading is concerned.

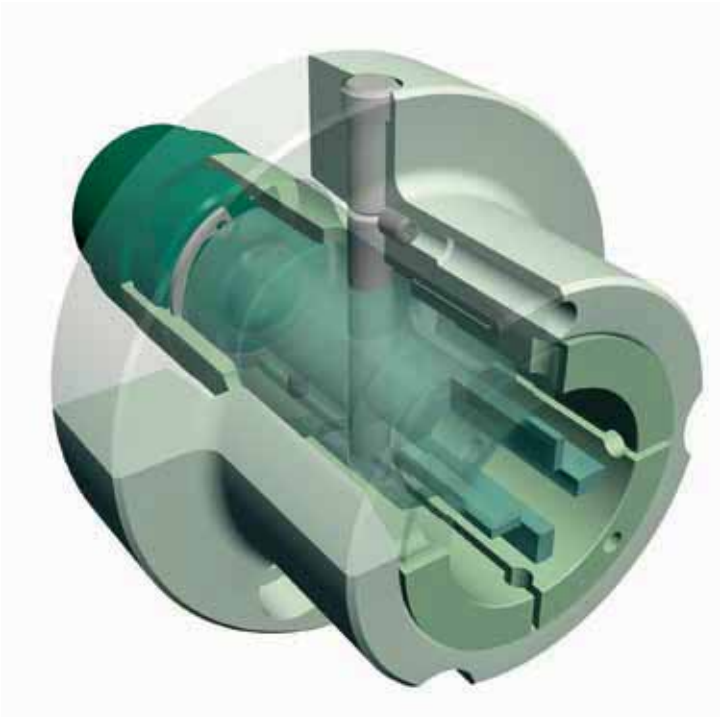
These collet chucks are designed according to your requirements for standard or special collets depending on the application.

The collet chuck is operated either via a hydraulic or pneumatic cylinder. We manufacture these collet chucks according to customer drawings or our own designs, within ultra-short deadlines.

Facts and figures:

- for draw-back collets
- with fixed end stop
- for spindles with rotating hydraulic or pneumatic cylinder
- Different sizes and chucking ranges
- any fixture





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Special Collet Chucks for Draw-Back Collets
Power-Operated Collet Chucks with Plate Springs

Description:

We manufacture special collet chucks for draw-back collets in different designs with different clamping areas.

The collet chuck consists of a one-section chuck body, which is simultaneously used as a collet sleeve. During clamping, the draw-back collet is drawn into the chuck body via the plate springs, resulting in light axial movement of the workpiece in the direction of the spindle-nose. Plate spring clamping results in self-locking, and the clamping of the workpiece is self-retaining.

Unclamping results from load on the plate springs by the machine.

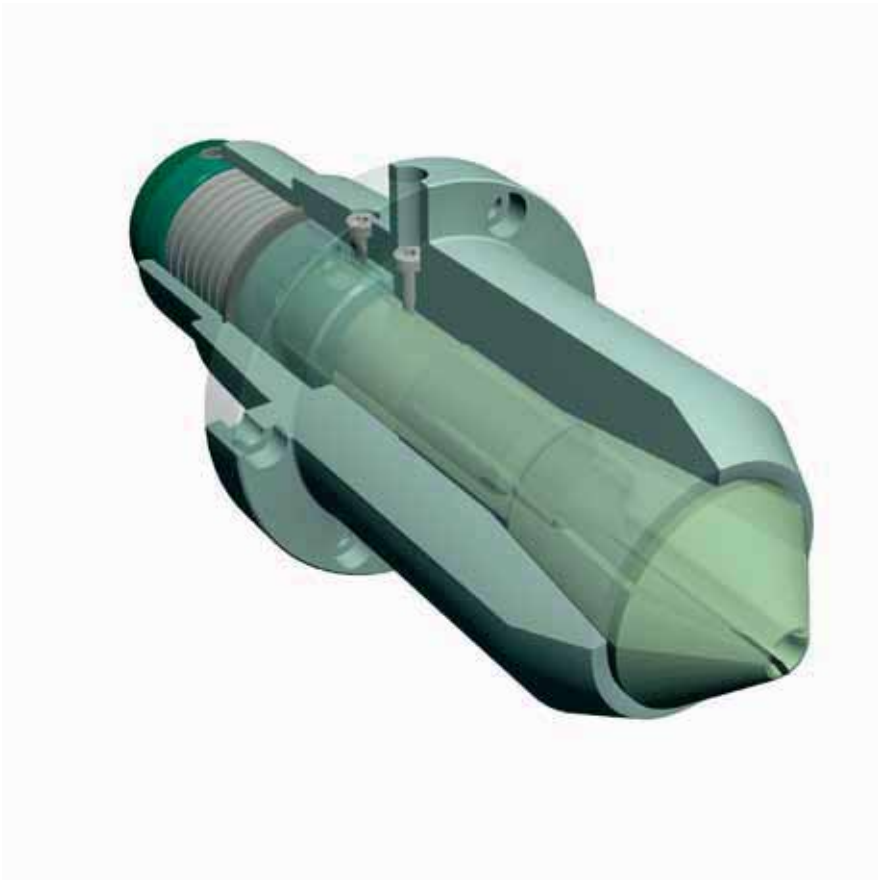
If short workpieces are fed in from the front, this has to be mentioned on the order – so that the collet can be expanded, especially where automatic loading is involved. These collet chucks are designed according to your requirements for standard or special collets depending on the application. We will be happy to design these collet chucks for high-precision collets. We manufacture these collet chucks with any fixtures on the machine side – with cylindrical fixtures, quick-release taper fixtures or HSK fixtures.

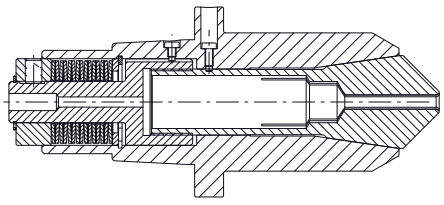
Just ask us – we're your competent partner when it comes to solving your technical problems.

These collet chucks are manufactured according to customer drawings or our own designs within the shortest of deadlines.

Facts and figures:

- for draw-back collets
- also for high-precision collets
- for spindles with rotating hydraulic or pneumatic cylinder
- Different sizes and chucking ranges
- any fixture





Special Collet Chucks for Draw-Back Collets
Power-Operated Collet Chucks with Plate Springs

Description:

We manufacture Special collet chucks for draw-back collets in all kinds of designs with different clamping areas.

The collet chuck consists of a one-section chuck body, with a clamping sleeve built into it in the axial direction. During clamping, the clamping sleeve is pushed forward by the plate springs, thereby closing the collet.

The plate spring clamping achieves self-locking and the clamping of the workpiece is self-retaining.

Unclamping results from load on the plate springs caused by the machine. With this type of collet chuck, the collet stands absolutely firm in the axial direction, thus preventing any workpiece movement in that direction.

If short workpieces are fed in from the front, this has to be mentioned on the order – so that the collet can be expanded especially where automatic loading is involved. These collet chucks are designed according to your specifications, depending on the application, for standard or special collets. We happily design these collet chucks for high-precision collets.

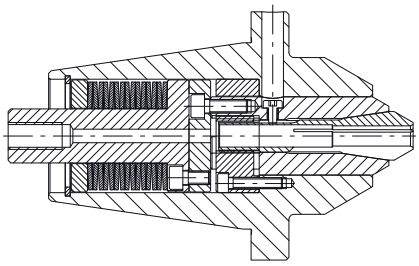
We manufacture these collet chucks with any fixtures on the machine side – with cylindrical fixtures, quick-release taper fixtures or HSK fixtures.

Just ask us – we're your competent partner when it comes to solving your technical problems.

These collet chucks are manufactured according to customer drawings or our own designs within the shortest of deadlines.

Facts and figures:

- for draw-back collets
- also for high-precision collets
- Collet axially stationary
- for spindles with rotating hydraulic or pneumatic cylinder
- Different sizes and chucking ranges
- any fixture



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Special Collet Chucks for Draw-Back Collets
Power-Operated Collet Chucks, Two-Parts

Description:

We manufacture Special collet chucks for draw-back collets in all kinds of designs with different clamping areas.

The collet chuck consists of a two-parts chuck body. The machine spindle takes any fixture; these collet chucks are mostly manufactured for machines with quick-release taper fixtures, but can be produced at any time for other fixture types, such as HSK. The fixture can be extended forwards cylindrically. For fixation of the collet, a clamping sleeve is integrated into this cylindrical extension.

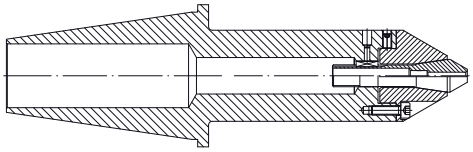
This clamping sleeve is screwed onto the basic fixture via a cylindrical fixture with a flange. This enables the clamping sleeve to be aligned on the machine while being screwed, resulting in very high concentric accuracy during the use of suitable high-precision collets.

While being clamped by means of a draw-back rod the draw-back collet is pulled inside the chuck body, resulting in a light axial movement at the workpiece in the direction of the spindle nose. During unclamping the clamping cylinder pushes the draw-back collet out of the fixture. If workpieces are fed in from the front, this has to be mentioned on the order – so that the collet can be expanded, especially where automatic loading is involved.

These collet chucks are designed according to your specifications, depending on the application, for standard or special collets. We happily design these collet chucks for high-precision collets. We manufacture these collet chucks according to customer drawings or our own designs within the shortest of deadlines.

Facts and figures:

- for draw-back collets
- also for high-precision collets
- for spindles with rotating hydraulic or pneumatic cylinder
- Different sizes and chucking ranges
- any fixture



Special Collet Chucks for Draw-Back Collets
Pneumatic Clamping, Pressure Springs

Description:

We manufacture special collet chucks for draw-back collets in varying designs with different clamping areas.

The collet chuck consists of a chuck body with a cylindrical flange attachment. For fixation of the collet, a clamping taper has been integrated into the chuck body.

The draw-back collet is pulled inside the chuck body during clamping, resulting in a light axial movement at the workpiece in the direction of the spindle nose. For unclamping the pressure springs push the draw-back collet out of the fixture. The collet chuck is operated via a pneumatic cylinder. The collet pictured here has a special and distinctive feature.

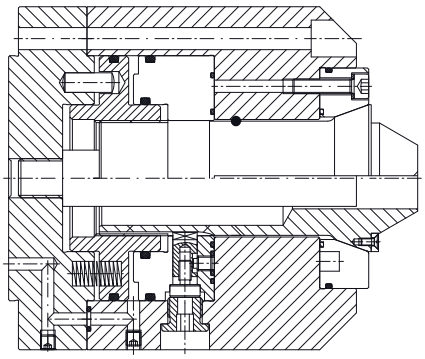
Since this collet chuck is used in environments with sharply varying temperature fluctuations, during plasma welding, it tends to corrode.

To prevent this, the entire collet chuck has been coated with DNC, and cooling bores drilled into the chuck are used to permanently cool it with water. The draw-back collet is a pure special collet with front part; the material of the collet is a special copper alloy, facilitating and improving heat conduction.

We manufacture these collet chucks according to customer drawings or our own designs, within ultra-short deadlines.

Facts and figures:

- for draw-back collets
- for spindles with rotating hydraulic or pneumatic cylinder
- pressure springs for unclamping
- Different sizes and chucking ranges
- cylindrical fixture



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Special Collet Chucks for Draw-Back Collets
Plate Spring Clamping, Adjustable Clamping force

Description:

We produce rotating clamping fixtures for draw-back collets with plate-spring clamping and adjustable clamping force.

These collet chucks are specially made for mounting on a machine spindle, and are distinctive for their compact design. They are especially suitable for the clamping of very short workpieces. The draw-back collet is equipped with a bayonet, so replacing the collet is very fast and can be done from the front.

During clamping the workpiece is pulled against an integrated end stop, resulting in a pull-down effect so that the workpiece is always axially positioned in the same way. The collet is opened via the hydraulic cylinder of the machine; the opening is limited by a travel limiter integrated into the collet chuck.

Placement of the collet must always be done when the collet is unclamped. This collet chuck is special in that the clamping force can be altered. The clamping force can be adjusted by turning all the adjustment pins.

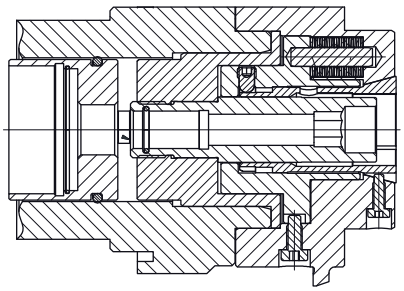
Adjustment of the clamping force must be done in clamped condition.

This type of collet is suitable for mounting on machine spindles, especially multispindle automatic lathes for the processing of collet-chuck components.

These chucks are individually altered to suit your requirements. Just ask us – we'll be happy to advise you.

Facts and figures:

- for draw-back collets with bayonet
- Collet quickly replaceable from the front
- fixed end stop for workpieces
- clamping via plate springs
- hydraulic unclamping
- Different sizes and chucking ranges
- adjustable clamping force
- internal coolant feed



Special Collet Chucks for Draw-Back Collets Rotating, Pressure-Spring Clamping

Description:

We produce rotating clamping fixtures for draw-back collets with pressure-spring clamping. The axially fixed collet is clamped by the clamping sleeve, which is pressed forwards by the integrated pressure springs. The collet is unclamped by means of compressed air, which pushes the clamping sleeve backwards and thus opens the clamp.

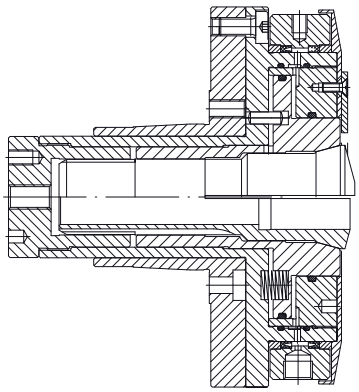
The compressed air is fed in via a stationary distributor ring. The clamping fixture may only be used if the spindle is stationary, to avoid damage to the distributor ring. The collet is exchanged in unclamped condition.

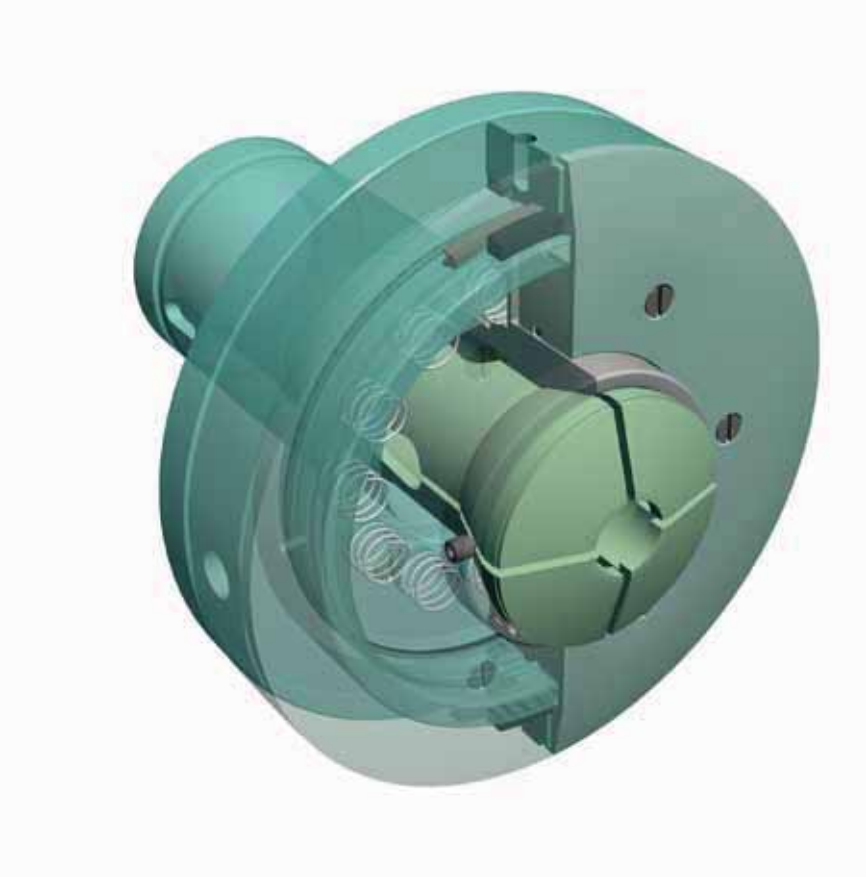
Depending on the application, the draw-back collet can be secured in the housing against distortion. Only very low amounts of clamping force are achieved with these highly compact collet chucks with pressure-spring clamping. They are therefore unsuitable when large amounts of force are applied to the workpieces requiring clamping.

These devices are frequently used in the laser-marking or laser-welding machine sectors, and are also used as test spindles. These collet chucks are produced to ultra-short deadlines according to customer drawings or our own designs.

Facts and figures:

- for draw-back collets
- clamping with pressure springs
- pneumatic unclamping via distributor ring
- different sizes and chucking ranges
- any fixture
- clamping pressure 6 bar





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Special Collet Chucks for Draw-Back Collets Hydraulic

Description:

We manufacture special collet chucks for draw-back collets in different designs with different chucking ranges.

The clamping fixture shown is a stationary device, opened hydraulically by means of a mechanically operated piston. Clamping takes place by means of plate springs located inside the housing.

This makes clamping of the device self-retaining and a hydraulic connection is not required.

The collet opening movement takes place via mechanical actuation of the piston and the corresponding displacement of the oil. This pushes the clamping sleeve backwards and opens the collet. As soon as the piston is released, the collet closes because the plate-spring packs push the clamping sleeve forwards.

The clamping fixture is placed on floating bearings to compensate for wobble error. This freedom of movement can be adjusted by the 4 adjustment screws.
Oil is added at the screw lid.

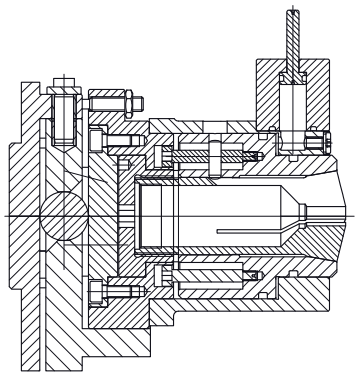
To mount the collet the piston has to be actuated, so the clamping sleeve is in the rear position.

The collet can be screwed in from the front and screwed tight with the special keys provided. This also has to be done before removing the collet.

We manufacture these collet chucks according to customer drawings or our own designs, within ultra-short deadlines.

Facts and figures:

- for draw-back collets
- no hydraulic connection required
- mechanical actuation
- used only in stationary application
- different sizes and chucking ranges



Special Collet Chucks HESK and HESK-R
Plate Spring Clamping

Description:

The proven HESK and HESK-R-type collet clamping attachments are suitable for numerous applications. Alongside the further development of these devices for collets with bayonet, NANN also develops special collet chucks on the basis of these devices.

The collet chucks of type HESK-R are used especially frequently for special applications.

We manufacture:

- Special collets for the standard devices
- Special devices with standard collets
- Special devices with special collets

Functionality:

On the standard devices the clamping sleeve is designed as a double-function cylinder, and it opens and closes the collets respectively. The collets themselves have a shoulder on their shaft and are connected firmly to the collet clamping attachment by means of a nut.

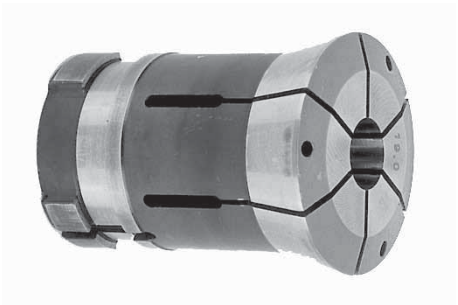
These devices can of course be specially designed to suit your applications on request wherever necessary.

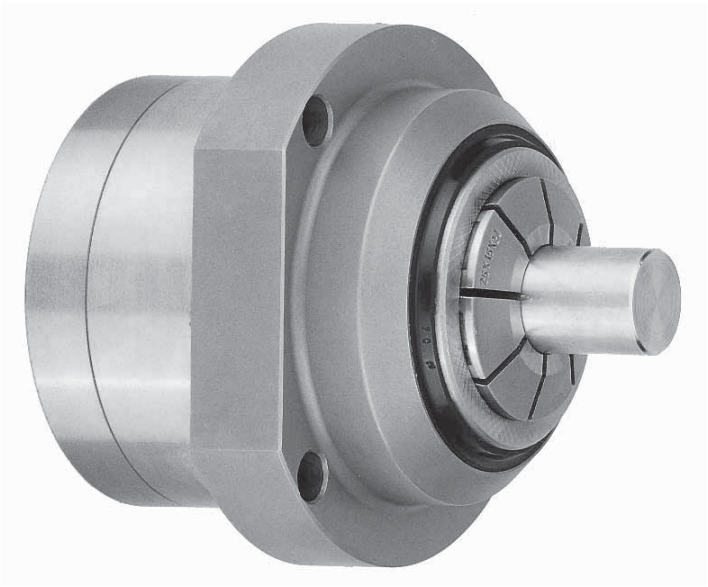
And with customized applications too, we guarantee you the usual high NANN quality and short delivery deadlines.

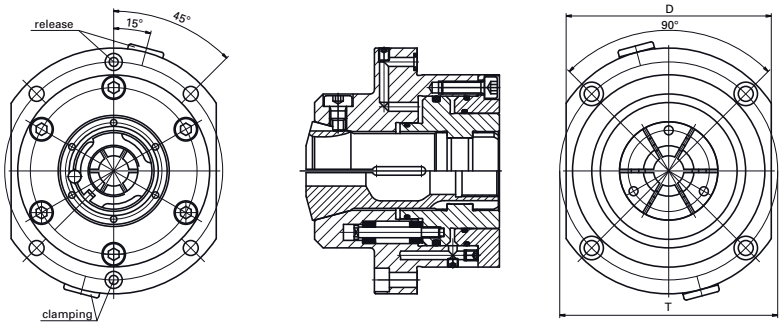
Facts and figures:

- The collet is moved, the housing and the clamping sleeve are one unit, the clamping sleeve is fixed –> this results in a pull-down effect that is required in numerous cases
- Clamping takes place via plate springs –> this means that the device self-locks, and any drop in hydraulic pressure has no consequences
- Hydraulic unclamping

Just ask us – our technicians will be glad to advise you. We work together with you to find the solution that fits.







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Special Collet Chucks HESK and HESK-R Hydraulic Clamping

Description:

The proven HESK and and HESK-R-type collet clamping attachments are suitable for numerous applications. Alongside the further development of these devices for collets with bayonet, NANN also develops special collet chucks on the basis of these devices.

The collet chucks of type HESK-R are used especially frequently for special applications.

We manufacture:

- Special collets for the standard devices
- Special devices with standard collets
- Special devices with special collets

Functionality:

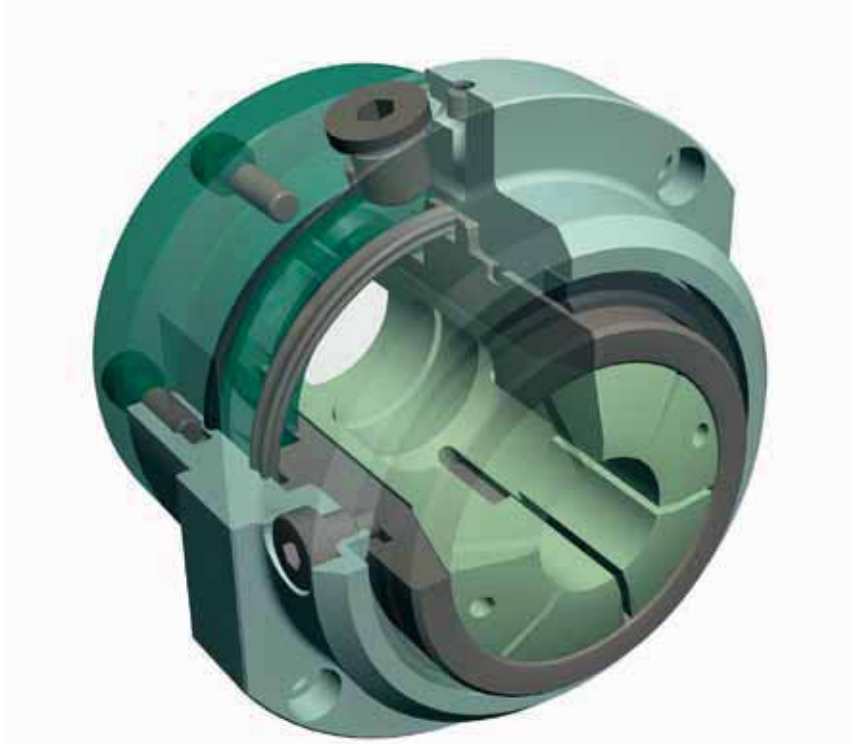
On the standard devices the clamping sleeve is designed as a double-function cylinder, and it opens and closes the collets respectively. The collets themselves have a shoulder on their shaft and are connected firmly to the collet clamping attachment by means of a nut. These devices can of course be specially designed to suit your applications on request wherever necessary.

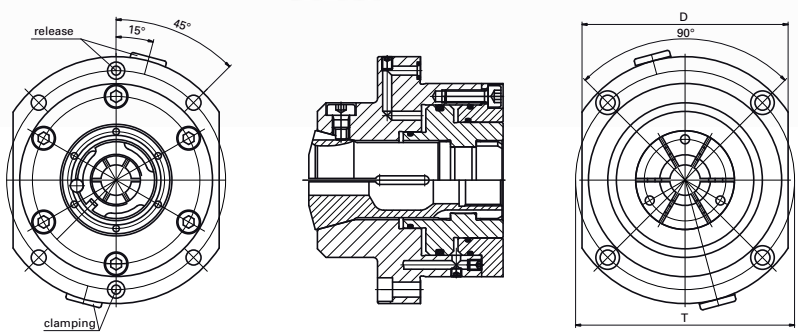
And with customized applications too, we guarantee you the usual high NANN quality and short delivery deadlines.

Facts and figures:

- The collet is moved, the housing and the clamping sleeve are one unit, the clamping sleeve is fixed –> this results in a pull-down effect that is required in numerous cases
- Clamping takes place hydraulically

Just ask us – our technicians will be glad to advise you. We work together with you to find the solution that fits.





Special Collet Chucks for Double-Taper Collets
Power-Operated Collet Chucks

Description:

We manufacture special collet chucks for double-taper collets in different designs with differing clamping areas.

The collet chuck consists of a chuck body flanged with a fixture, e.g. a cylindrical flange or short taper, on to the spindle nose of the machine. Attachment using an intermediate flange is also possible. Two clamping tapers are ground into the chuck body, and the front clamping taper is held in axial direction with a union nut.

The double-taper collet is closed for workpiece clamping as follows: the rear clamping taper is pressed in the direction of the union nut with its draw-back rod pointing forward, and the two clamping tapers close the collet. For unclamping, the draw-back rod is drawn back again, and the double-taper collet then opens. On request, depending on the application, a fixed end stop can be attached.

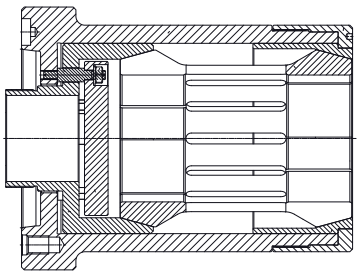
For replacement of the collet, the union nut has to be loosened, the front clamping taper can be pulled out, and the double-taper collet can then be removed.

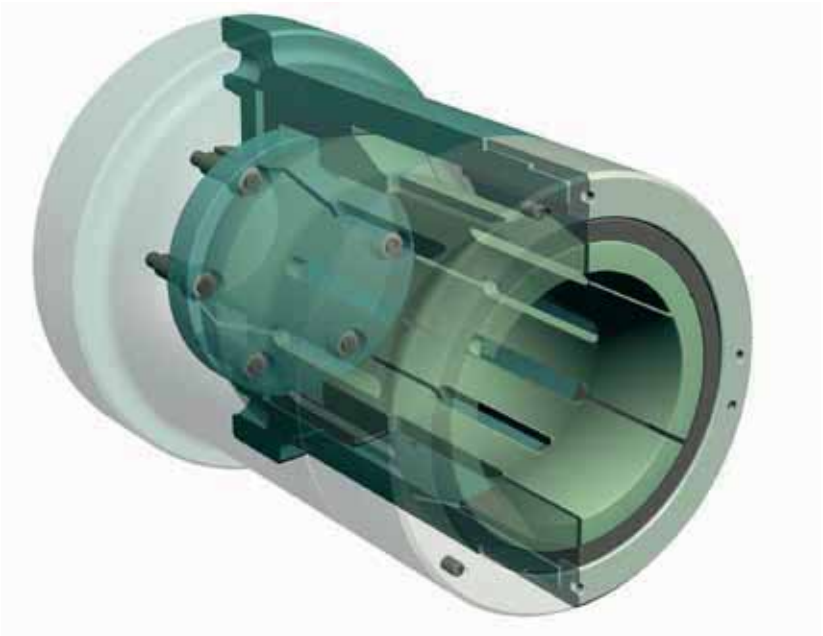
Collet chucks with double-taper collets are especially suitable for clamping long workpieces and for clamping with high clamp force.

We manufacture these collet chucks according to customer drawings or our own designs, within ultra-short deadlines.

Facts and figures:

- for double-taper collets
- for spindles with rotating hydraulic or pneumatic cylinder
- different sizes and chucking ranges
- high clamping force
- any fixture





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Special Collet Chucks for Internal Clamping
Sleeve Mandrels, Expanding Mandrels

Description:

Apart from a large number of clamping sleeves and mandrels in the standard programme, NANN also offers the most varied kinds of special collet chuck for internal clamping. These are designed according to customer drawings as well as to NANN's own plans. Our design department will be happy to advise you on solving your clamping problem.

We offer a large and varied range of mandrels and expanding mandrels, always tailored to your requirements, from simple clamping sleeves to complete clamping devices with expanding mandrel fixture. Depending on the application, mandrels with clamping sleeves, single or double taper, or direct expanding collets are used with compression and tension.

The mandrels and/or expanding mandrels are specially modified for you.

We manufacture for you:

- Manually operated clamping devices
- Power-operated clamping devices
- Pneumatically or hydraulically operated clamping devices

- Stationary expanding mandrels
- Rotating expanding mandrels

- Expanding mandrels for compression or tension
- Expanding mandrels with or without end stop

Areas of application:

- clamping of workpieces
- metalworking
- testing
- laser marking
- laser welding
- etc.

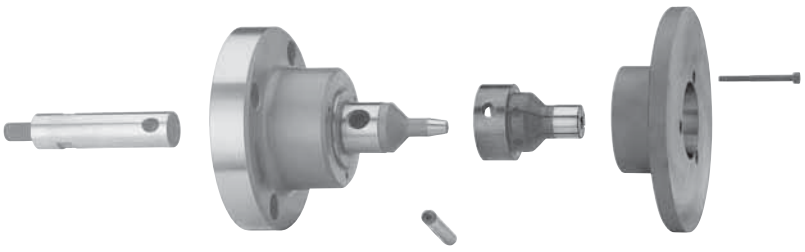
Functionality:

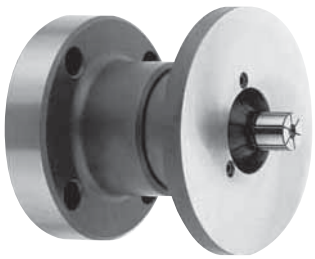
In terms of function, with expanding mandrels for direct expanding collets or clamping sleeves, we differentiate between several functional principles.

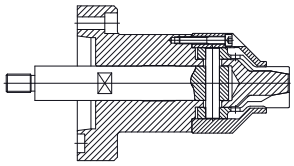
- mandrel stationary - expanding collet moved – tension-activated
- mandrel stationary – expanding collet moved – compression-activated
- expanding collet stationary – mandrel moved – tension-activated
- expanding collet stationary – mandrel moved – compression-activated

NANN is also your competent partner for special collet chucks for internal clamping. We are distinctive for our high degree of flexibility when handling special requests from our customers. Economic efficiency plays a decisive role in the development and construction of special clamping fixtures.

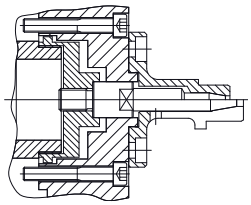
We also guarantee you with short delivery deadlines and the customary NANN quality where special clamping fixtures are concerned.



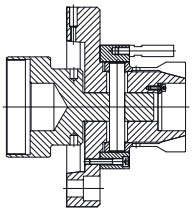




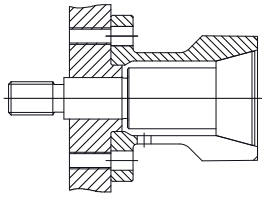
Expanding mandrel fixture
with fixed mandrel



Expanding mandrel fixture tension-activated with stationary expanding collet



Expanding mandrel fixture
with stationary mandrel



Expanding mandrel fixture compression-activated with stationary expanding collet

Special Collet Chucks for Internal Clamping
Manually Operated Collet Chucks

Description:

We manufacture special collet chucks for expanding collets or clamping sleeves in different designs and with different chucking ranges.

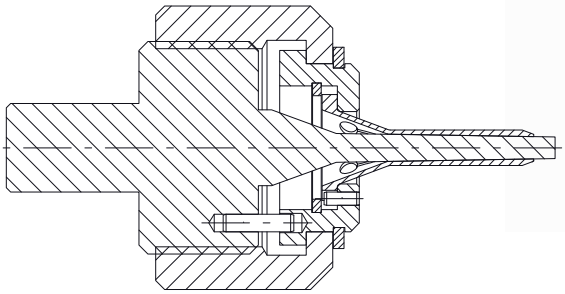
These collet chucks are manually activated. The collet chuck consists of a simple chuck body, on which the expanding mandrel is firmly mounted. The expanding collet is equipped with a collar, and for clamping the expanding collet and the nut are pulled onto the mandrel and thus expanded. When the nut is opened the expanding collet is pressed by the mandrel and the workpiece can be removed.

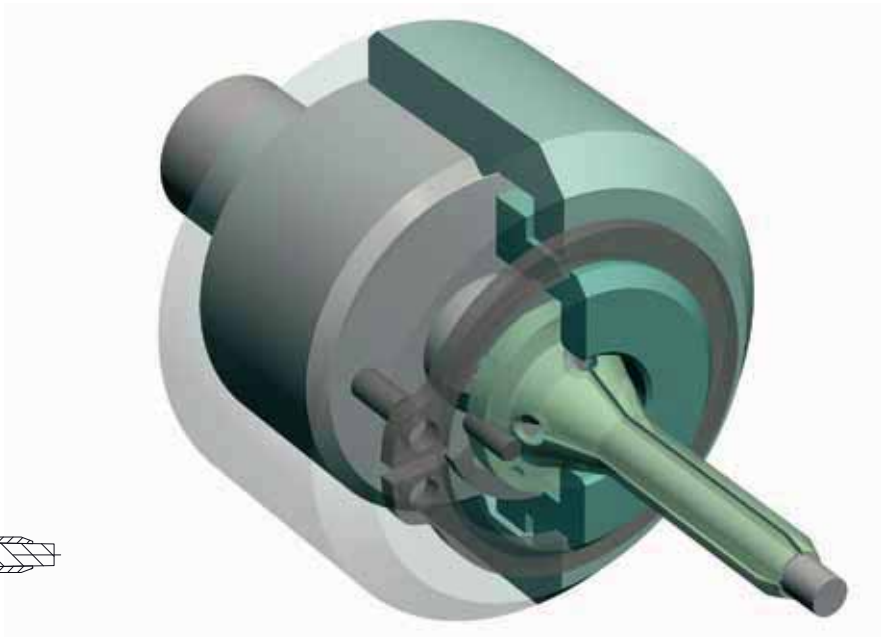
Fixation of the collet chuck is carried out according to customers' wishes. In most cases the chuck body is designed with a cylindrical fixture or cylindrical flange, but a short taper is also possible at any time. Of course it is also possible to attach an intermediate flange.

Facts and figures:

- for expanding collets or clamping sleeves
- manual activation
- different sizes and chucking ranges
- any fixture

Just ask us – our technicians will be glad to advise you.





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Special Collet Chucks for Internal Clamping for Manual Operation with Direct Expanding Collet

Description:

We manufacture special collet chucks for direct expanding collets in various designs with different chucking ranges.

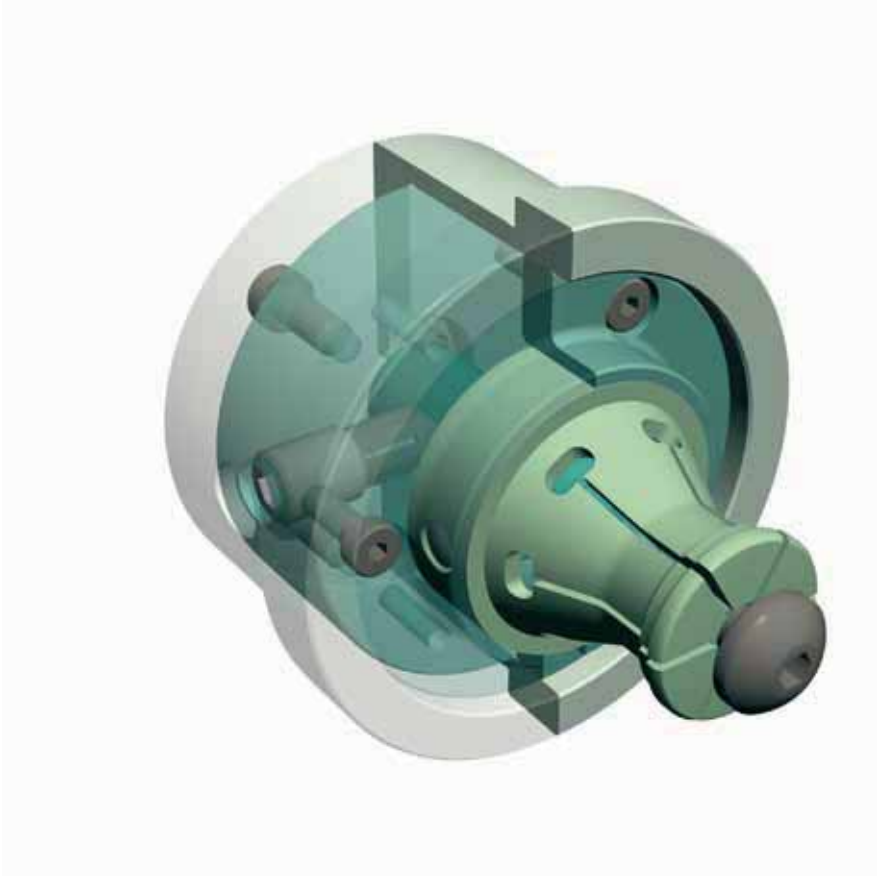
The collet chuck consists of a basic fixture, onto which the mandrel is screwed. The expansion sleeve is drawn backwards for clamping by means of the intermediate section and the crossbar. For unclamping, the expanding collet is pressed forward again through the intermediate section and the crossbar, the expanding collet closes, and the workpiece can be removed. Clamping activation is by turning the clamping key using a hexagonal spanner on the underside of the device.

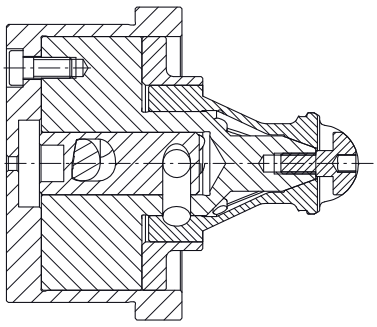
Depending on the type of application, these types of mandrels can be fitted with a fixed end stop so that the workpiece for clamping is always clamped axially in the same position – because during clamping a pull-down effect occurs that pulls the workpiece onto the flat surface of the end stop. This type of expanding mandrel is especially suitable for clamping very short workpieces.

Facts and figures:

- for direct expanding collets
- manually activated
- pull-down effect
- suitable for clamping very short workpieces
- with or without fixed end stop
- different sizes and chucking ranges
- any fixture

Just ask us – we'll design a mandrel tailored to your requirements.





Special Collet Chucks for Internal Clamping Power-Operated with Clamping Sleeve

Description:

We manufacture special collet chucks for clamping sleeves in different designs with differing chucking ranges.

The collet chuck consists of a simple chuck body, which simultaneously serves as a clamping taper. The double taper expansion sleeve and the compression mandrel are drawn onto the clamping taper, and the workpiece is clamped.

For unclamping, the compression mandrel is pushed forward, the clamping sleeve detaches itself from the clamping taper, and the workpiece can be removed.

Depending on the type of application this type of mandrel can be equipped with a fixed end stop, so that the workpiece for clamping is always clamped in the same position axially, since a pull-down effect is created during the clamping process.

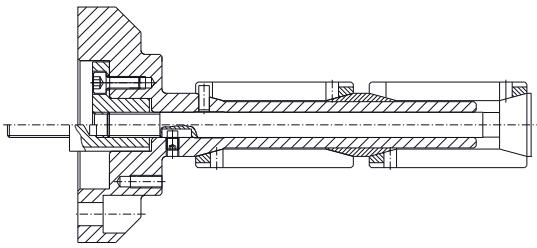
If you want to clamp very long workpieces, these mandrels are designed for two clamping sleeves lying behind each other. Fixture of the collet chuck is carried out according to customers' wishes.

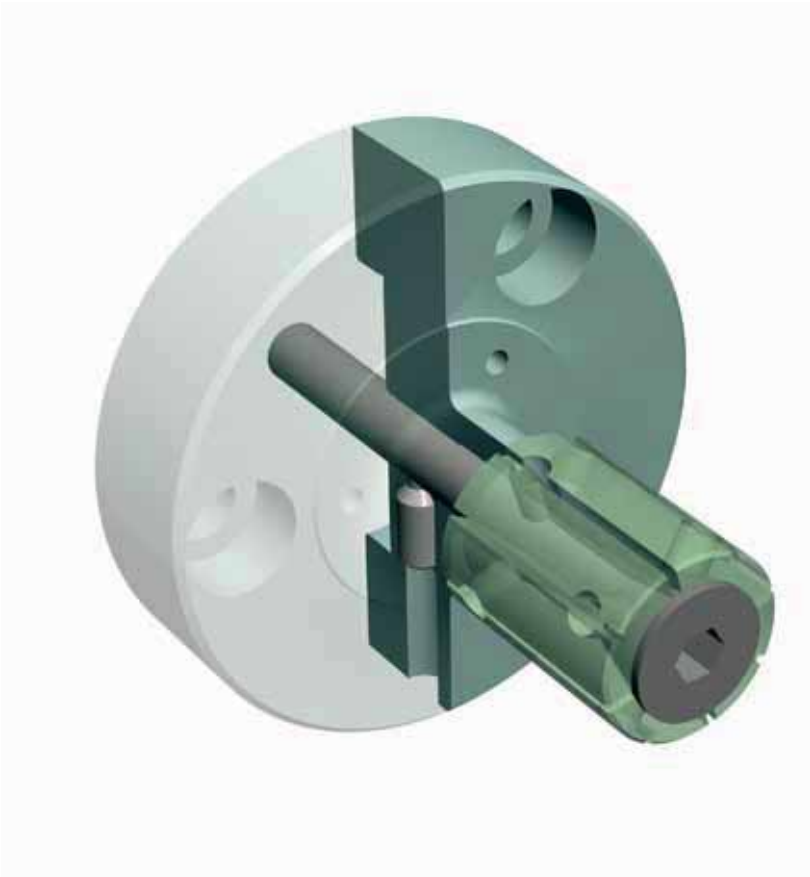
In most cases the chuck body is designed with a cylindrical flange, but a short taper fixture is also possible anytime. Naturally an intermediate flange can also be attached.

Facts and figures:

- for clamping sleeves
- Power-operated
- with or without fixed end stop
- with pull-down effect
- different sizes and chucking ranges
- any fixture

Just ask us – we'll design the mandrel according to your special requirements.





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Special Collet Chucks for Internal Clamping
Screw-Spring Clamping, Single-Taper Clamping Sleeves

Description:

We produce rotating clamping fixtures for internal clamping with helical spring clamping for single-taper clamping sleeves. In this device the mandrel remains axially fixed. The clamping sleeve is equipped with a collar. A retaining ring holds the clamping sleeve firmly to this collar.

A cross-pin leads through the retaining ring and the compression mandrel, via which the clamping sleeve is drawn backwards over the mandrel.

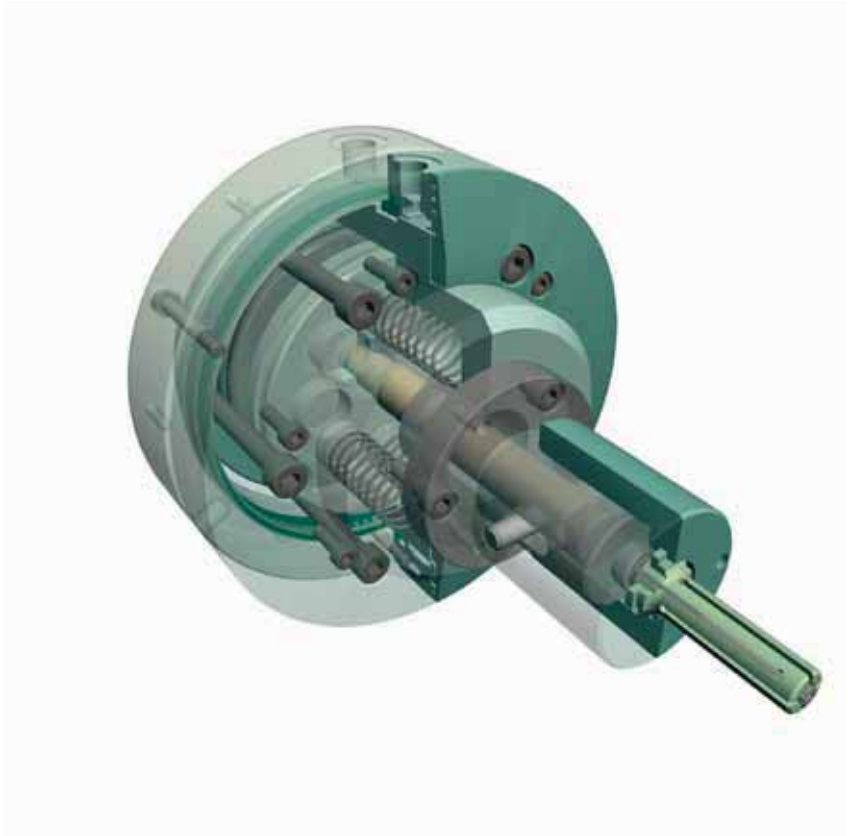
This is achieved by the helical springs integrated into the collet chuck. Unclamping is done via compressed air.

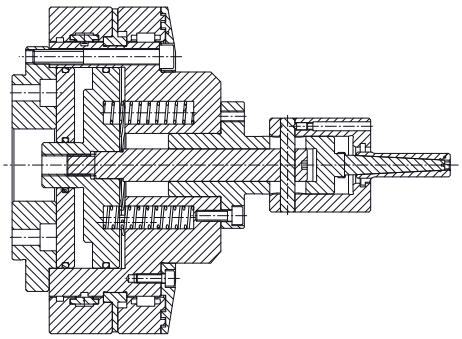
Impingement on the collet chuck by means of compressed air moves the compression mandrel forward, the clamping sleeve detaches itself from the mandrel and the workpiece can be removed. The compressed air is fed in via a stationary distributor ring. This distributor ring lies on the chuck body by means of a plastic ring. Exchange of the clamping sleeve must always be done in clamped condition.

The collet chuck is tailored to your individual requirements, Chucking range, rpm, etc. are all geared to customers' needs.

Facts and figures:

- for clamping sleeves, for internal clamping
- clamping with helical springs
- pneumatic unclamping via distributor ring
- different sizes and chucking ranges
- any fixture via intermediate flange
- clamping pressure 6 bar





Special Collet Chucks for Internal Clamping
Screw-Spring Clamping, Double-Taper Clamping Sleeves

Description:

We produce rotating clamping fixtures for internal clamping with helical spring clamping.

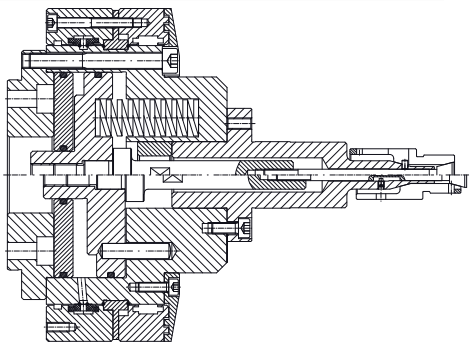
The mandrel is drawn back by the helical spring, thereby drawing the clamping sleeve back in the direction of the chuck body and opening it, and the workpiece is clamped. Unclamping is done via an integrated single-acting piston. The compressed air is fed to the cylinder area via a fixed distributor ring. This distributor ring lies on the chuck body by means of a plastic ring.

Take care that the collet chuck can only be unclamped if the spindle is stationary. Exchange of the clamping sleeve must always take place in unclamped condition.

The collet chuck is tailored to your individual requirements. Chucking range, rpm, etc. are all geared to customers' needs.

Facts and figures:

- for clamping sleeves for internal clamping
- clamping with helical springs
- pneumatic unclamping via distributor ring
- different sizes and chucking ranges
- any fixture via intermediate flange
- clamping pressure 6 bar



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Special Collet Chucks for Internal Clamping Power-Operated with Direct Expanding Collet

Description:

We manufacture special collet chucks for direct expanding collets in different designs with differing chucking ranges.

The collet chuck consists of a basic fixture onto which the mandrel is screwed. The expansion sleeve is drawn back for clamping by means of the draw-back rod and the cross-pin. When unclamping, the expanding collet is pushed forward again by the draw-back rod and the cross-pin, the expanding collet closes and the workpiece can be removed.

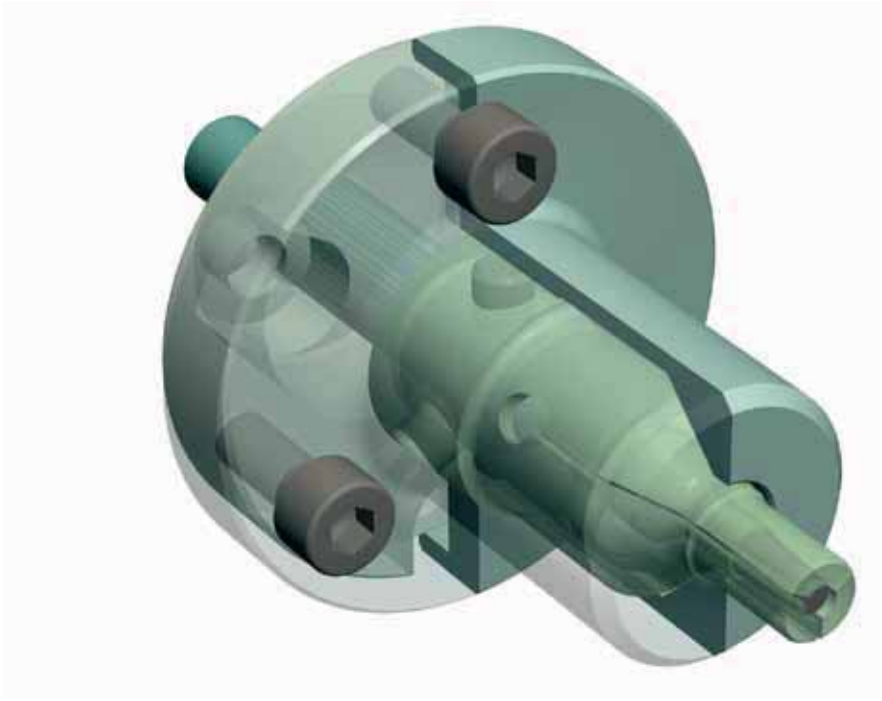
Depending on the application this type of mandrel can be equipped with a stationary end stop, so that the workpiece for clamping is always clamped in the same axial direction – because during the clamping process a pull-down effect is created that pulls the workpiece onto the flat surface of the end stop. This type of expanding mandrel is especially suited to the clamping of very short workpieces.

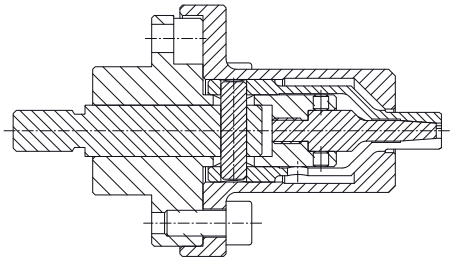
Fixation of the collet chuck is carried out according to customers' wishes. In most cases, the chuck body is designed with a cylindrical flange, but a short-taper fixture is also possible anytime. Naturally an intermediate flange can be attached at any time too.

Just ask us – we'll design a mandrel that is precisely tailored to your needs.

Facts and figures:

- for direct expanding collets
- Power-operated
- Pull-down effect
- suitable for clamping very short workpieces
- with or without fixed end stop
- different sizes and chucking ranges
- any fixture





Special Collet Chucks for Internal Clamping Rotating, Pressure-Spring Clamping

Description:

We produce rotating clamping fixtures for expanding collets with pressure-spring clamping. The axially fixed expanding collet is opened by the forward movement of the mandrels by means of pressure springs, and the workpiece is clamped. The expanding collet is unclamped by compressed air, which pushes the mandrel backwards, thereby closing the expanding collet.

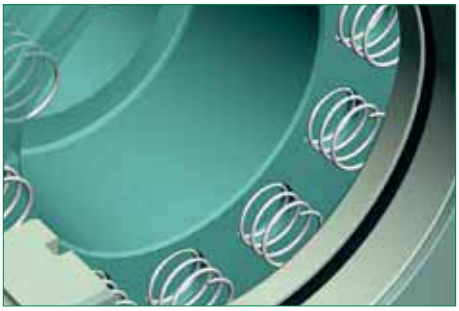
The compressed air is fed in via a stationary distributor ring. The clamping fixture may only be used if the spindle is stationary, to avoid damage to the distributor ring. The expanding collet is exchanged in unclamped condition.

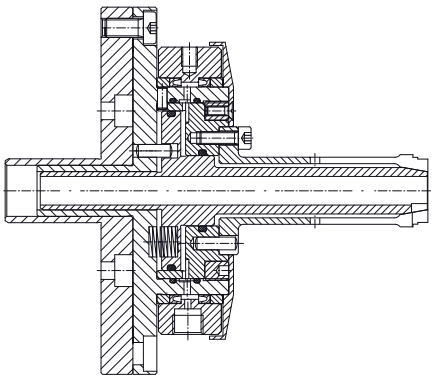
With these very compact collet chucks with pressure-spring clamping, only minimal clamping forces are attained. They are therefore unsuitable if large forces are applied to the workpiece for clamping. These devices are used especially in the laser marking and laser welding machine sector, and as test spindles.

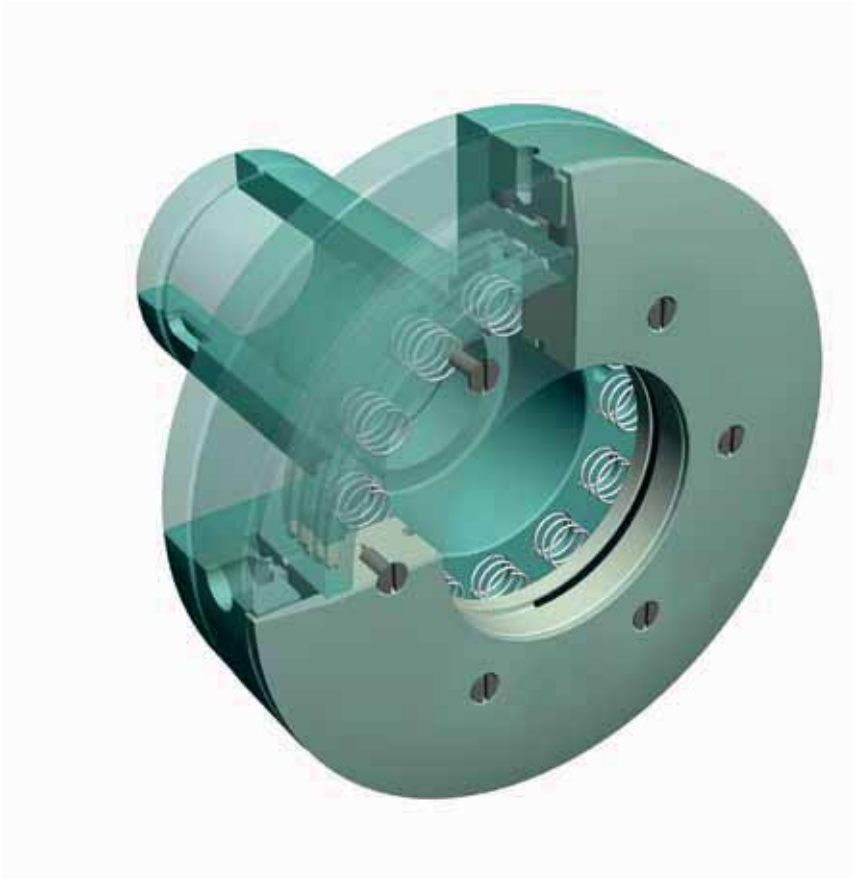
These collet chucks are manufactured according to customer drawings or to our own designs, within the shortest of deadlines.

Facts and figures:

- for expanding collets
- clamping with pressure springs
- pneumatic unclamping via distributor ring
- different sizes and chucking ranges
- any fixture
- clamping pressure 6 bar







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Special Collet Chucks for Internal Clamping
Segmented clamping mandrels

Description:

Besides steel clamping sleeves we also produce segmented clamping mandrels for vulcanized clamping sleeves with hardened steel segments. Those mandrels are developed for your special needs based on the Nann standard programme. Main applications are turning, grinding, milling, toolcutting, balancing, centering, drilling, etc.

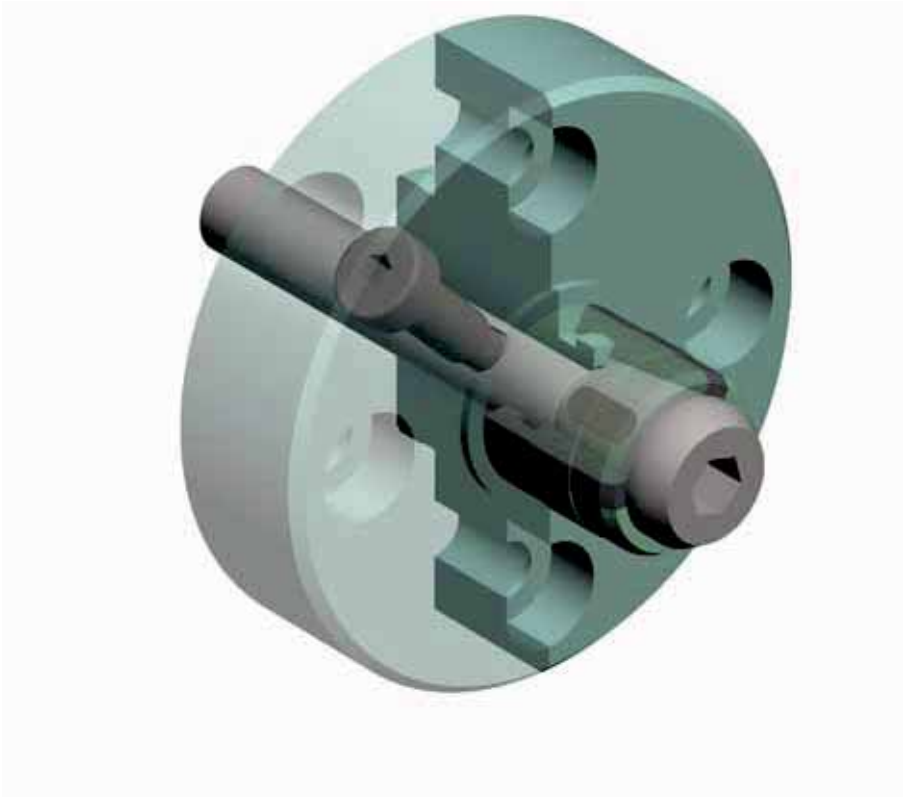
You can get those segmented clamping mandrels in different designs, adapted to your needs.

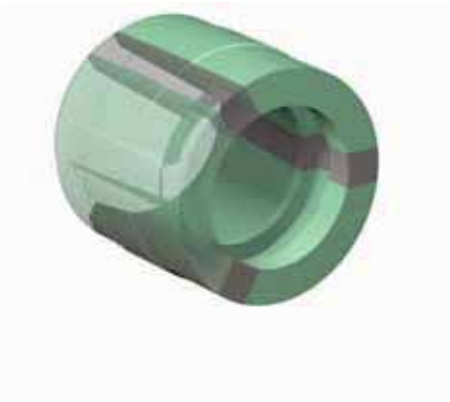
Just ask us – we'll design mandrel that is precisely tailored for your needs.

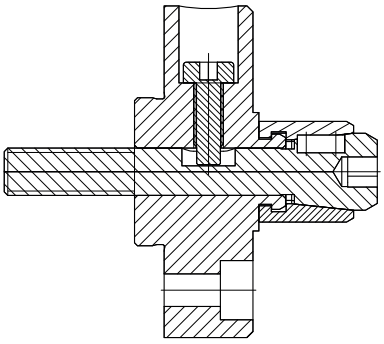
We are working close together with our customers to find the best solution to your problems. With these special solutions too, we assure you high NANN quality and short delivery deadlines.

Facts and figures:

- for segmented clamping sleeves
- with or without fixed end stop
- pull-down effect if necessary
- several sizes and for different clamping ranges, any fixture
- power-operated or operated by hand; pneumatic or hydraulic







Special Collet Chucks HESK and HESK-R for Internal Clamping

Description:

The proven collet clamping attachments of type HESK and HESK-R are suitable for numerous application scenarios. Apart from the further development of these devices for collets with bayonet, NANN is also developing special collet chucks on the basis of these devices, as well as for both external and internal clamping.

The collet chucks of Type HESK-R in particular are frequently used for special applications.

We manufacture:

- special collets for the standard devices
- special devices with standard collets
- special devices with special collets

Functionality:

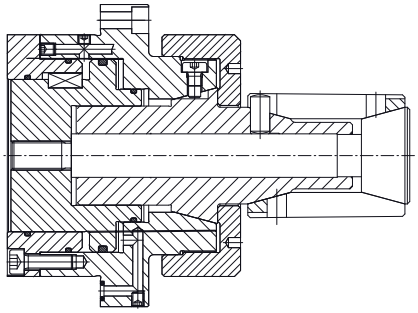
With the standard devices, the clamping sleeve is designed as a double-action cylinder, and it closes and/or opens the collets. The collets themselves are equipped with a shoulder on the shaft, and firmly connected to the collet clamping attachments by means of a nut. These clamping devices are ideally suited to internal clamping of workpieces. For this, instead of the mounted collet, an axially stationary basic mandrel with the external contour of a collet is mounted, and screwed into the housing with a union nut. For clamping of the workpiece, depending on the application, a single or double-taper clamping sleeve is used. During clamping, it is drawn onto the basic mandrel and expanded by means of a compression mandrel. This results in a pull-down effect, and the workpiece is drawn during clamping in the direction of the housing. These collet chucks can easily be designed for a workpiece end stop. The devices can also be designed differently if necessary to suit your applications precisely.

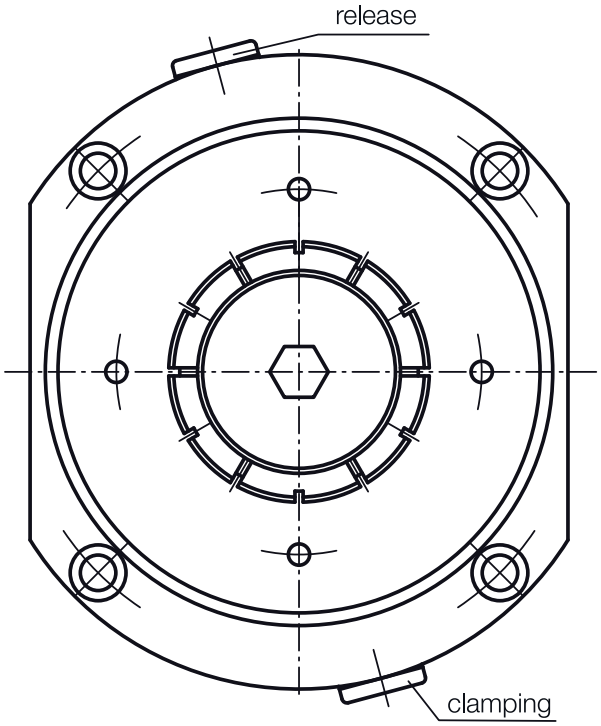
With special applications, too, we assure you of high NANN quality and short delivery deadlines.

Facts and figures:

- for double tapered clamping sleeves
- pull-down effect
- hydraulic clamping and unclamping
- different sizes and chucking ranges

Just ask us – our technicians will be glad to advise you. We work together with you for the solution that suits you.





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Multiple Clamping Devices

Description:

As well as a large number of collet chucks as single devices, NANN also offers multiple clamping devices of numerous different designs. These clamping fixtures are specially designed for your requirements or manufactured according to customer drawings. Our technicians will be happy to advise you on how to solve your clamping problems.

With these special solutions too, we assure you of high NANN quality and short delivery deadlines.

We manufacture
multiple clamping devices:

- for draw-back collets
- for deadlength collets
- for clamping heads
- for collets with bayonet

- collet stationary, clamping sleeve moves
- collet is drawn into collet chuck, pull-down effect, clamping sleeve stationary

- housing and clamping sleeve a single component
- clamping sleeve integrated into housing
- any arrangement of clamping devices (e.g. in series or on rotary indexing table)

- clamping and unclamping only in certain stations or all stations simultaneously
- hydraulic or pneumatic actuation
- also with plate spring clamping

Our multiple clamping devices are used in the most varied sectors, e.g. in tool production, as milling or grinding devices, etc.

Just ask us – we'll be happy to advise you.

Multiple Clamping Devices for Draw-Back Collets, Hydraulic

Description:

We manufacture multiple clamping devices with hydraulic actuation in different shapes for different chucking ranges. In the clamping fixture shown, 8 draw-back collets are arranged in one row and 16 draw-back collets in two rows of 8 collets respectively.

The housing is of high-strength aluminium, the clamping sleeves are of steel because of the high wear resistance, and pressed into the housing.

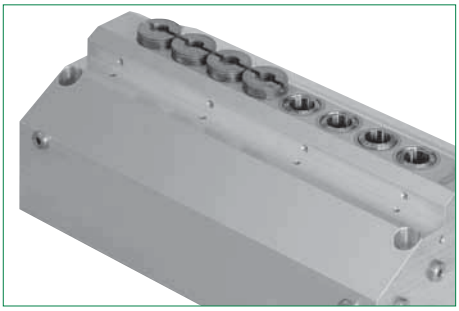
The individual collets are drawn into the clamping sleeve by plate spring packs, which closes the collets and clamps the workpieces. Because of the integrated plate spring clamping, the multiple device is self-retaining. For unclamping the device is hydraulically actuated, the collets are pushed forward out of the clamping sleeve, and the workpieces can be removed.

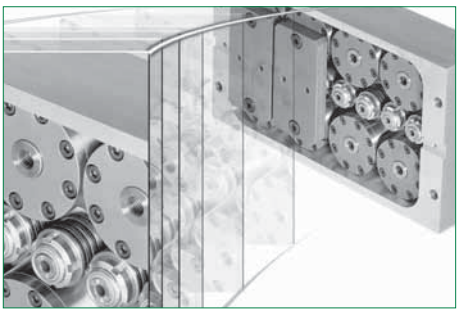
The clamping sleeve serves as a stationary end stop, and during clamping the workpieces are drawn onto the flat surface of the clamping sleeve because of the pull-down effect. This means that all the workpieces in clamped condition have the same position in the axial direction.

To mount the collet, the clamping sleeves have to be in their front position, i.e. the one in which the collet is opened. Then the collet can be pushed into the clamping sleeve and screwed in.

Facts and figures:

- for draw-back collets
- hydraulic actuation
- plate spring clamping
- self-locking
- pull-down effect
- clamping pressure max. 80 bar
- various sizes and chucking ranges





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Multiple Clamping Devices for Draw-Back Collets, Hydraulic

Description:

To realize multiple clamping devices, NANN offers collet clamping attachments of type HESK or HESK-R with hydraulic actuation. The collet clamping attachments of Type HESK-R have their own housing, while the Type HESK is suitable for installation in a customized housing.

Functionality:

With the collet clamping attachments, the clamping sleeve is designed as a double-action cylinder and it closes and/or opens the collet. The collets are equipped with a shoulder and firmly screwed to the collet clamping attachments by means of a nut.

The collet clamping attachments are distinctive for their very low structural mass and high clamping force. The collet is absolutely stationary and the clamping path requires no adjustment. Because of their design, the collet clamping attachments are extremely well suited to clamping short workpieces, and a stationary end stop, or a collet with stepped bore, can be mounted at any time.

Normally the collets are exchanged from below, but if required the collet can also be exchanged from above.

Application:

The collet clamping attachments are used wherever clamping nests have to be realized in confined spaces. This applies to applications in mechanical engineering as well as in fixture construction.

Collet clamping attachments are suitable for integration into stationary plates as multiple clamping pallets as well as rotary transfer tables.

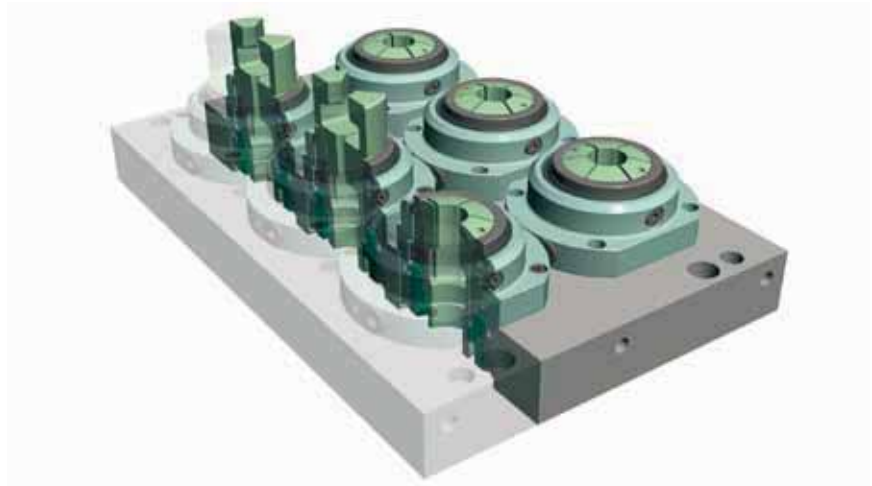
For setting up on rotary transfer tables, a controlled rotational feed is available that enables collet clamping attachments alone to be actuated at the loading and/or unloading station. The other collet attachments remain clamped.

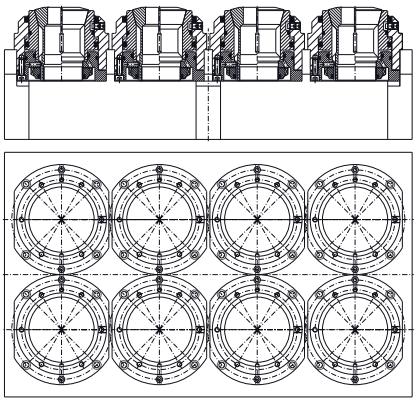
We provide customized multiple clamping pallets according to your requirements, completely mounted including baseplates or as individual collet clamping attachments with collets that you can mount on your own fixtures yourself.

Facts and figures:

- For draw-back collets with threads or bayonet
- Also for clamping heads
- Compression-activated or tension-activated
- Hydraulically actuated
- Clamping pressure max. 80 bar
- Different sizes and chucking ranges

Just contact us – we'll be happy to advise you on your clamping problems.





Multiple Clamping Devices with Collet Clamping Attachments HESK-R-SK for Clamping Heads

Description:

Apart from the proven collet clamping attachments of Type HESK-R for draw-back collets, NANN also offers collet clamping attachments for clamping heads.

We offer two different types of collet clamping attachments for the realization of multiple clamping devices, and any arrangement of these devices in a baseplate is possible.
In the first variant of collet clamping attachments HESK-R-SK, the clamping head is drawn into the housing during the clamping procedure, and the clamping head closes as a result of the taper integrated into the housing. The axial movement of the clamping head creates a pull-down effect, desired in many cases, and the workpiece is pulled against the flat surface of the integrated end stop (optional).

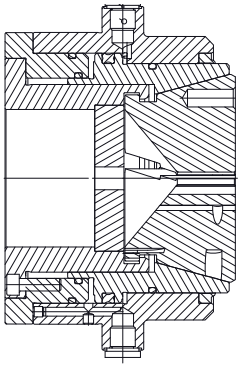
In the second variant, the clamping head is axially stationary, and the clamping procedure is carried out using a moveable clamping sleeve which, during clamping of the workpiece, exerts an axial movement in the direction of the clamping head. An option stationary end stop can also be integrated on these machines.

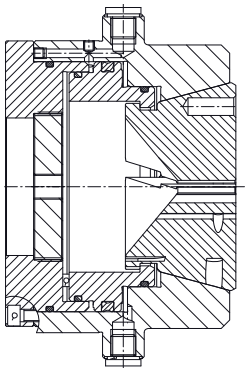
The collet clamping attachments HESK-R-SK feature a combination of all the benefits of the proven collet clamping attachments HESK-R and those of the clamping heads.

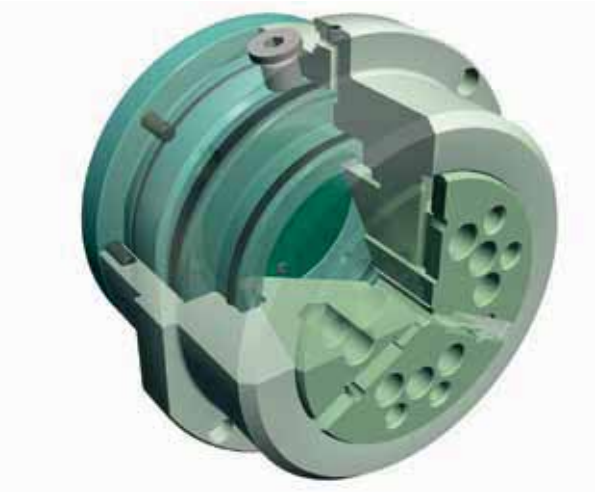
Facts and figures:

- for clamping heads
- compression-activated or tension-activated
- clamping head exchange via change fixture
- stationary end stop integrated on request
- hydraulically actuated
- clamping pressure max. 80 bar

Just ask us – we'll find a solution tailored to your special needs.







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Multiple Clamping Devices with Collet Clamping Attachments HESK in Special Design

Description:

The clamping fixture is a stationary device with an radial arrangement of 6 collet clamping attachments for standard draw-back collets. The lines for actuating the Collet clamping attachment are connected to a rotational feed. The collet clamping attachments are activated hydraulically.

Depending on the design of the rotational feed, a single device or several devices simultaneously can be actuated.

The movement that clamps and opens the collet is created by means of hydraulic pressure. The collet is stationary in the axial direction and is secured against distortion by means of a slot nut.

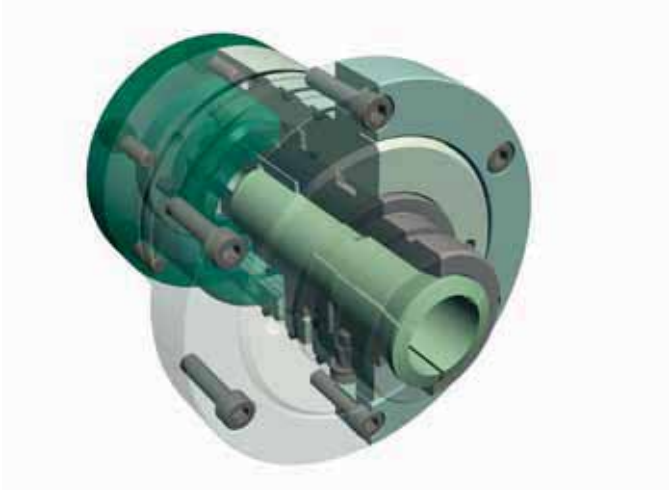
To mount the collet, the clamping sleeve must be in the rear position, i.e. the position in which the collet is opened. Then the collet can be pushed into the clamping sleeve. Here attention should be paid to the mounting location of the slot nut.

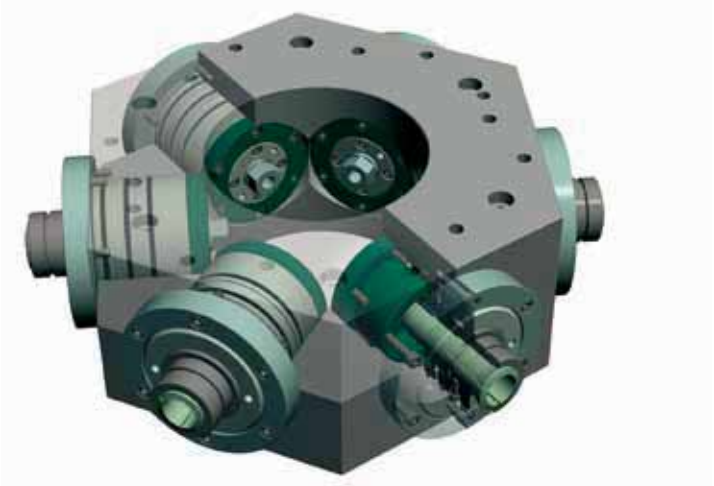
After this, the collet is drawn to the end stop with the key.

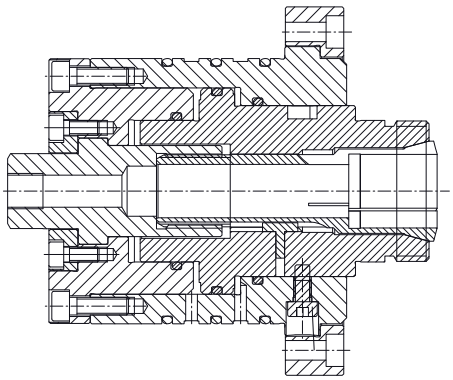
When mounting or removing the collet, please note that the collet is always relieved, i.e. the clamping sleeve has to be in the rear position in which the collet is opened.

Facts and figures:

- for draw-back collets
- axially stationary collet
- hydraulically actuated
- with rotating distributor
- clamping pressure max. 80 bar







Multiple Clamping Devices for Hydraulic Clamping Devices with Mechanical Operation

Description:

We manufacture multiple clamping devices with mechanically and hydraulically actuated clamping devices arranged around an indexing table.

In the clamping fixture shown here, six clamping devices surround a round baseplate, and pneumatic or hydraulic connections are not required. The individual clamping devices are equipped with plate spring clamping.

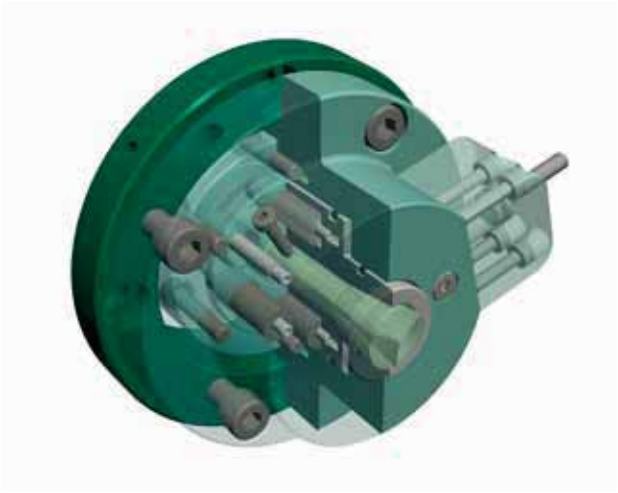
The plate springs press the clamping sleeve forwards so that the axially stationary draw-back collet is closed. The collet is secured against distortion with a pin. The collet is unclamped by a mechanically operated piston. The piston housing contains oil that moves the clamping sleeve to the back when the mechanical piston is actuated. This means that the clamping device is self-retaining and a hydraulic connection is unnecessary.

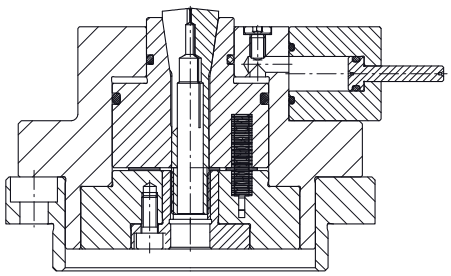
To mount the collet, the clamping sleeve has to be in its rear position, that is, the position in which the collet is opened. Then the collet can be pushed inside the clamping sleeve. Here attention has to be paid to the location where the distortion protection has been mounted. After this, the key is used to draw the collet to the end stop.

When mounting or removing the collet, please note that the collet is always relieved, i.e. the clamping sleeve has to be in the rear position in which the collet is opened.

Facts and figures:

- for draw-back collets
- mechanically actuated
- plate spring clamping
- collet axially stationary
- no connection lines required
- different sizes and chucking ranges





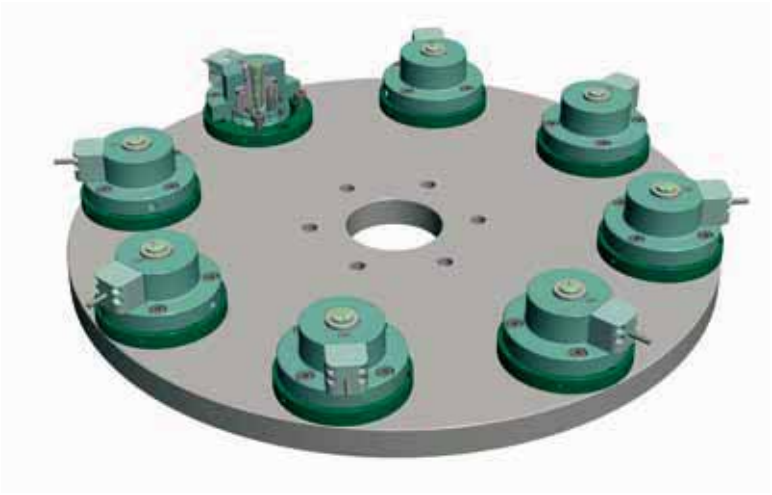


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Table of Contents Tool Clamping

Tool Clamping

Description:

To clamp all kinds of tools, modern production requires flexible and repeat-accurate clamping fixtures. Each individual application places different requirements on the clamping fixture. No clamping fixture can cover all the requirements perfectly – and especially when precision is needed, no compromises must be made.

With our own developments as well as with clamping fixtures based on the experience of our customers, we cover the whole range of tool clamping.

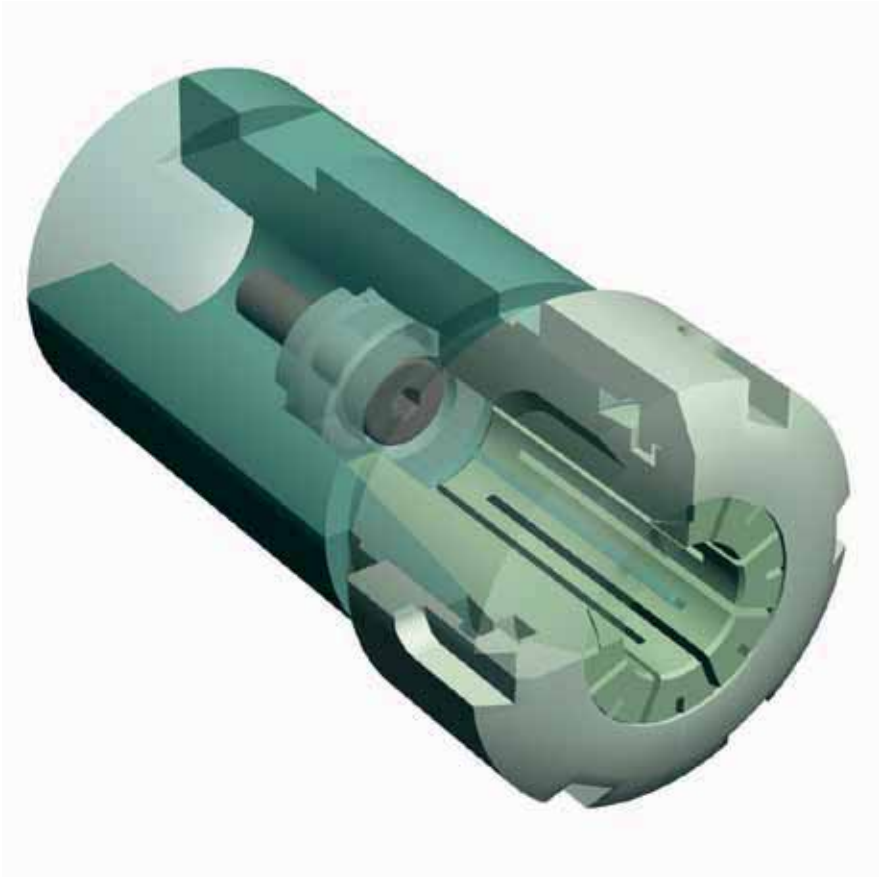
As well as standardized collets and collet chucks, the focus here is on the manufacture and also the design of customized special solutions in accordance with clients' requirements.

Our primary concern is to manufacture quality products with a high degree of flexibility, in order to satisfy our customers' exacting requirements.

We offer our customers objective consulting geared towards the special application sector. With these special solutions, too, we guarantee you the customary high NANN quality and short delivery deadlines.

We offer:

- special collets on the basis of standard collets
- pure special collets
- collet chucks



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Tool Clamping
Special Collets

Description:

Apart from a large number of standard collets in the tool clamping sector, NANN also offers many varied types of special collets. These special collets are manufactured to NANN designs as well as customers' drawings.

We manufacture collets for tool clamping in stainless design or in other special materials. If required, the collets can also be coated.

One-sided or double-slit collets for workpiece clamping can be equipped with a front part. Note here that no high clamping forces can be transferred, especially if clamping does not take place along the full length of the clamping bore. If overly high clamping force is required this could make the collet fracture at its front part.

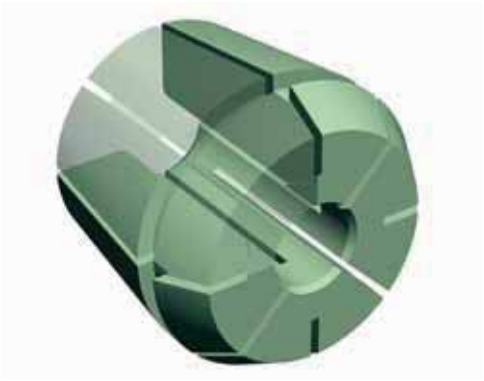
Naturally these collets are also available in shortened designs. Note that the number of slots on the collet may vary.

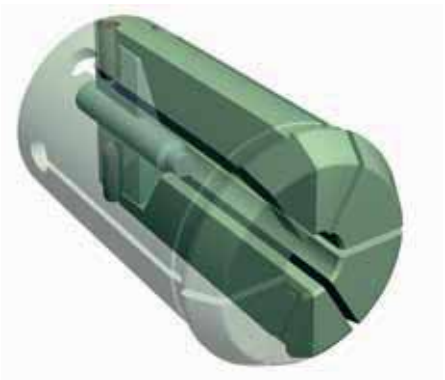
One-sided slit collets for tool clamping can also be designed with end stops. To realize this, the bore on the rear side of the collet is freely ground so that an end stop fixed or adjustable – can be integrated.

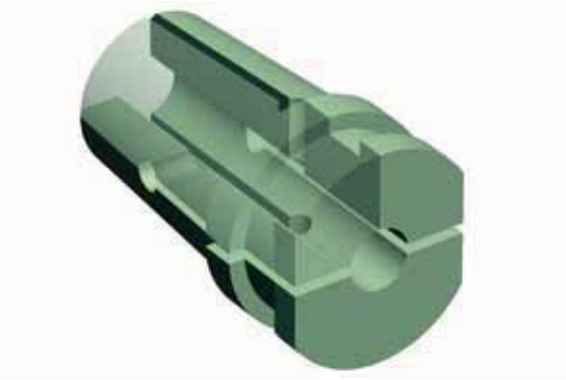
Just give us a call, our technicians will give you detailed advice. We happily accept your suggestions in order to fine the best solution for your clamping problem. With these special solutions, too, we guarantee you the customary high NANN quality and short delivery deadlines.

Facts and figures:

- special collets on the basis of
- standard collets
- pure special collets







Tool Clamping
Direct Collets

Description:

We manufacture direct collets for tools with cylindrical shafts in special design.

The collets of this type fit directly into the taper of the machine spindle. The collets are clamped either with the draw bar or a feed groove.

As well as standard collets we also manufacture special collets to NANN designs or customer drawings.

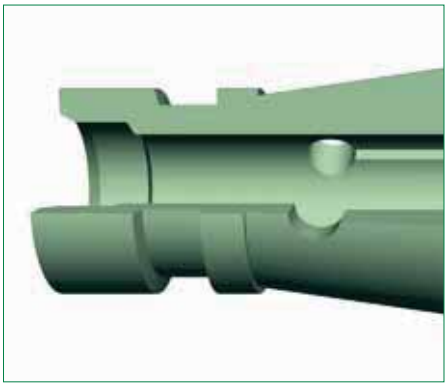
We manufacture collets:

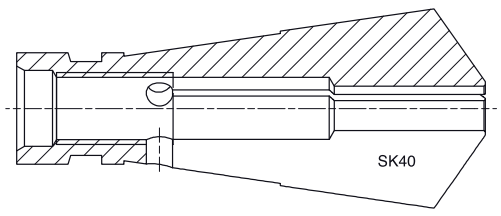
- with extended taper
- with offset taper
- with special taper
- etc.

Facts and figures:

- direct collets for tools with cylindrical shafts
- pure special collets

NANN is your competent partner when it comes to special clamping solutions. Just ask us – our technicians will be glad to advise you.





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Tool clamping
Special Collet Chucks, Tool Holding Fixtures

Description:

We manufacture collet chucks for tool clamping and tool holding fixtures in special designs.

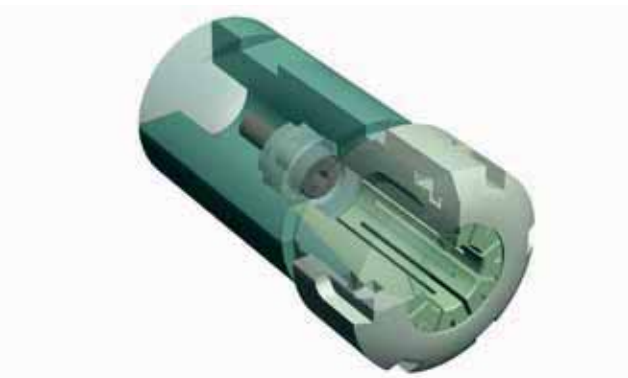
Apart from a large number of stock standard collet chucks, NANN also offers special collet chucks for tool clamping according to its own designs or customer drawings. Regardless of whether you need a standard collet chuck with a special clamping collet, a special nut, or a special collet chuck for standard collets – NANN is always the right partner for you.

We manufacture collet chucks for double taper collets or other tool holding fixtures with any fixture possibilities required e.g. cylindrical fixture, outer taper, inner taper or HSK, etc., tailored precisely to your application. Reductions for double-taper collets, for fixture of small collets in already existing collet chucks, can be manufactured anytime. Just ask us – our technicians will be glad to advise you.

Facts and figures:

- special collet chucks with cylindrical fixture
- special collet chucks with quickrelease taper, morse taper or bore-taper fixture
- special collet chucks with HSK fixture
- special collet chuck with flange fixture
- tool holding fixtures
- reductions
- special clamping nuts

When it comes to collet chucks for tool clamping, too, NANN is your competent partner.



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Indexing Units and Spindle Units

Description:

Apart from a broad range of standard indexing units we also manufacture special units tailored to your individual application. We produce numeric indexing units in single- or multi-spindle design, and also units with swing-out spindles (2nd axis). Naturally, indexing units can be supplied with special housings and any spindle distance required.

Whatever you need – an indexing unit with or without clamping cylinder, with hydraulic or pneumatic actuation, NANN is your competent partner. If a clamping cylinder is used, it is mounted onto the rear end of the spindle. The clamping cylinders are available either as single-action or double-action.

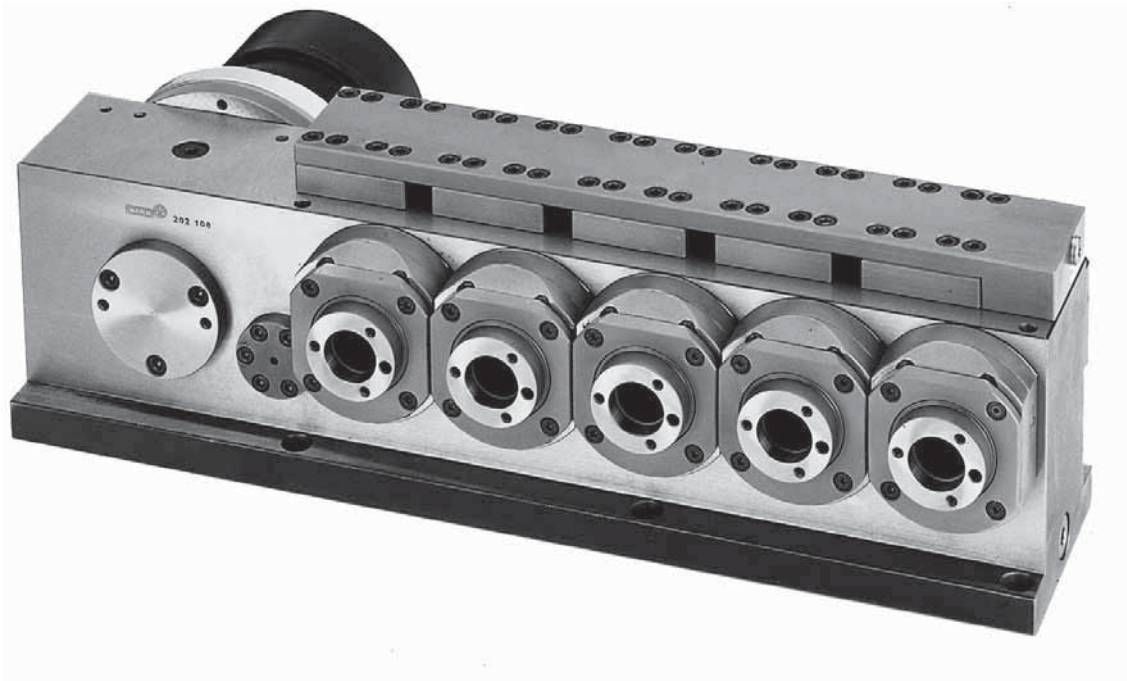
Single-acting clamping cylinders are primarily used for actuation of draw-back collets mounted in the jaw fixture of the spindle. Double-action cylinders are needed for collets, collet chucks with deadlength collets, expanding mandrels and jaw chucks.

Depending on the size and application required, the indexing units are equipped with a worm drive, or indexing takes place via gears.

We manufacture for you:

- single- and multi-spindle indexing units
- spindle distance made to request
- indexing units with second axis
- with worm drive
- with indexing via gears
- for collets, expanding mandrels, jaw chucks
- with or without hydraulic or pneumatic clamping cylinder
- with spring actuated collet clamping
- with faceplate
- with or without spindle clamping
- drives according to customer requirements

We'll be happy to advise you on solutions to your clamping problem and tailor the indexing unit to your special application. We will gladly listen to your suggestions and your experiences with designing special indexing units for your application. We are distinctive for our high degree of flexibility when it comes to customization. With special indexing units, too, we guarantee you short delivery deadlines and the customary NANN quality.



Indexing Units NT 11, 4-Spindles

Description:

On the basis of the proven numerical indexing units of Type NT, we manufacture special indexing units specially for your application.

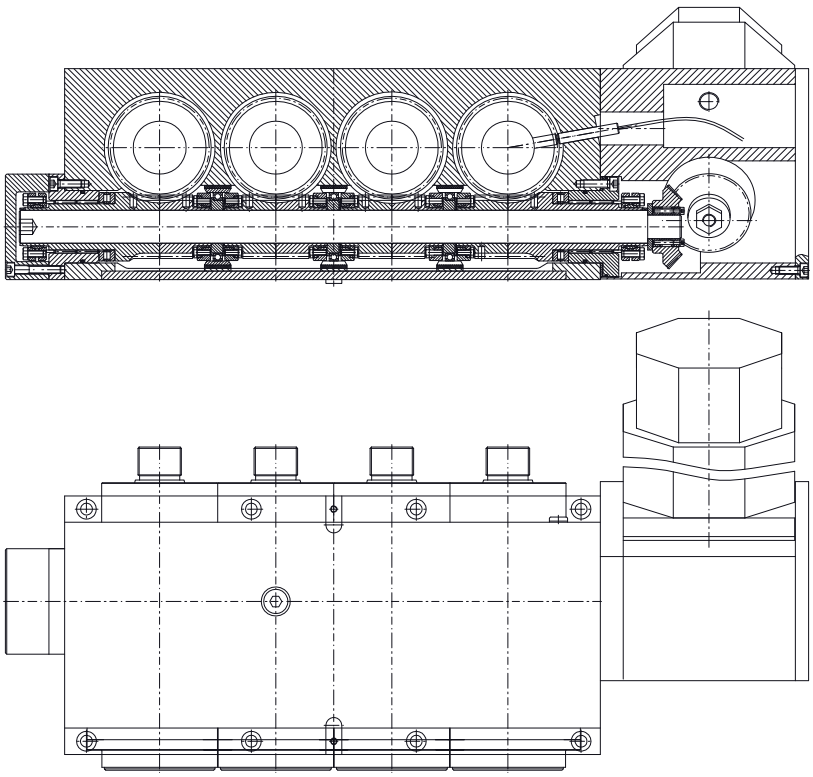
In the indexing unit pictured below – of Type NT 11.4 with maximum height of 100 mm – four spindles are integrated into a combination housing. The spindles with a spindle distance of 88 mm lie on bearings at the front and back respectively on tapered roller bearings and are equipped in the front bearing housing with a slit and tapered clamping system. This clamping system can be actuated hydraulically and, in clamped condition, is connects the spindles firmly with the housing.

Via a common worm shaft, the worm wheels of each spindle are driven synchronously. The position of the individual spindles relative to the others can be adjusted by altering the worm drive. Mounted on the common worm shaft is an incremental position encoder. The worm shaft is driven by a DC or AC motor. To establish the reference point, one of the spindles actuates a contactless limit switch. Because of the worm/worm wheel gear reduction, the zero-mark on the incremental encoder normally corresponds to one spindle revolution depending on the gear reduction ratio (normally 1:72).

A gear housing is screwed onto the housing of the indexing unit. The motor attached to it drives the worm shaft via a gear and thus the spindles as well. The shape and mounting location of the gear housing depends on the customer's wishes. The housing of the indexing units, the gear housing and the connection chamber for the limit switch are filled with air. The spindles of the indexing unit are specially designed, and the indexing unit has no collet clamping.

We manufacture for you:

- single- and multi-spindle indexing units
- any spindle distance
- worm drive
- special spindle
- with or without spindle clamping
- any drive, e.g. Fanuc Servomotor
- any mounting position of drive



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Indexing Units NTZ-31, 3-Spindles with 2nd Axis

Description:

On the basis of the proven numerical indexing units of Type NTZ we manufacture special indexing units to suit your application precisely.

In the indexing unit depicted below, 3 spindles have been integrated into a housing.

The spindles at the front are on spindle bearings, and on a grooved ball bearing at the back. Located between the bearings are the drive gear and the clamping system. This clamping system is hydraulically actuated and prevents distortion of the spindles if the automatic controller is switched off.

Via an intermediate gearwheel respectively, the spindles are connected to each other and to the drive motor. The position of the individual spindles relative to each other is fixed ex works via a Spieth bushing.

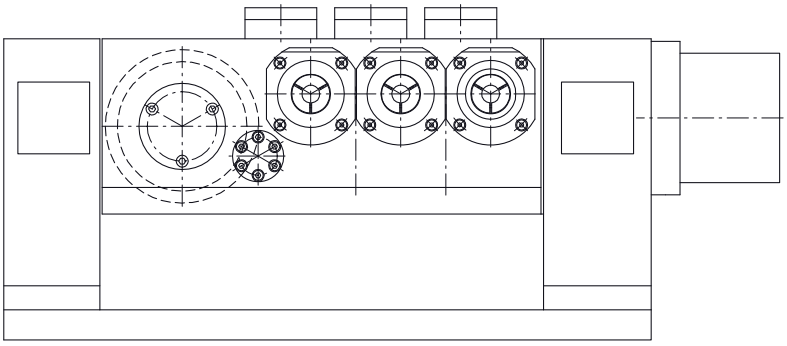
The drive motor (Harmonic-Drive) has a gear reduction of 1:100 and an integrated incremental encoder. It drives the first spindle via an intermediate wheel and thus all further spindles. Part accuracy and repeat accuracy are determined by the gears and their play.

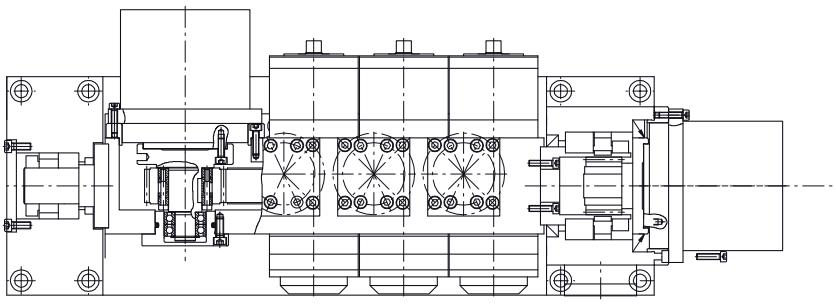
The gear transmission ratio is chosen in such a way to eliminate offset via several spindle revolutions. The repeatability is thus very high. The spindles of the indexing unit are manufactured in standard design, the indexing unit has spring-actuated collet clamping, and unclamping takes place hydraulically. The clamping system for spindle-clamping only has one hydraulic connection, so that all spindles are always clamped simultaneously.

The complete indexing unit is on two bearing blocks and can be swivelled via a further servomotor (Harmonic-Drive). This enables workpieces to be processed more efficiently

We manufacture for you:

- single- and multi-spindle indexing units
- additional axes for swivelling of the indexing unit
- spindle distance 75 mm
- indexing via gears
- spring-actuated collet clamping
- uses standard collets
- with or without spindle clamping
- harmonic drive
- indexing speed max. 40 rpm





Indexing Units NTZ-31, 5-Spindles

Description:

On the basis of the proven numerical indexing units of Type NTZ we manufacture special indexing units especially for your application. In the indexing unit depicted below, 5 spindles have been integrated into a housing.

The spindles at the front are on spindle bearings, and on a grooved ball bearing at the back. Located between the bearings are the drive gear and the clamping system. This clamping system is hydraulically actuated and prevents distortion of the spindles if the automatic controller is switched off.

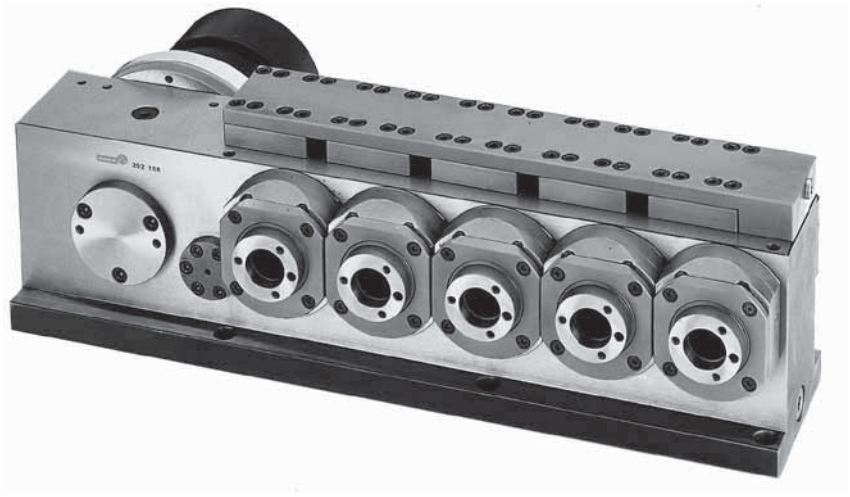
Via an intermediate gearwheel respectively, the spindles are connected to each other and to the drive motor. The position of the individual spindles relative to each other is fixed ex works via a Spieth bushing.

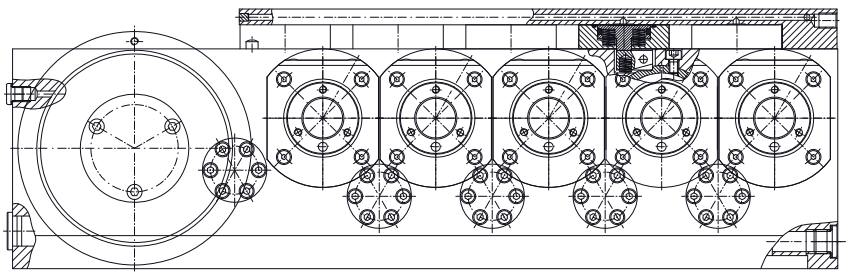
The drive motor (Harmonic-Drive) has a gear reduction of 1:100 and an integrated incremental encoder. It drives the first spindle via an intermediate wheel and thus all further spindles. The indexing and repeat accuracy is determined by the gearwheels and the play. The gear transmission ratio is chosen in such a way to eliminate offset via several spindle revolutions. The repeatability is thus very high.

The incremental encoder of the drive motor has a ZERO mark as reference point. Because of the gear reduction, selection of the right zero mark is enabled by an additionally integrated contactless limiter switch, actuated once per spindle revolution. The spindles of the indexing unit are manufactured in special design, and the indexing unit has no collet clamping. The clamping system for spindle-clamping only has one hydraulic connection, so that all spindles are always clamped simultaneously.

We manufacture for you:

- single- and multi-spindle indexing units
- ppindle distance 75 mm
- indexing via gears
- special spindles
- with or without spindle clamping
- harmonic drive
- indexing speed max. 40 U/min





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Spindle Units

Description:

Alongside an extensive range of collets and collet chucks we also manufacture spindle units to customer drawings or NANN designs. In this sector, too, we also have many years of experience, and they flow into our product.

In most cases clamping of the workpiece takes place via draw-back collets or deadlength collets with different chucking ranges, and this makes for different sizes. Naturally clamping can also be done by means of other clamping fixtures, e.g. jaw chucks. Our product range also includes spindle units to clamp workpieces by means of internal clamping.

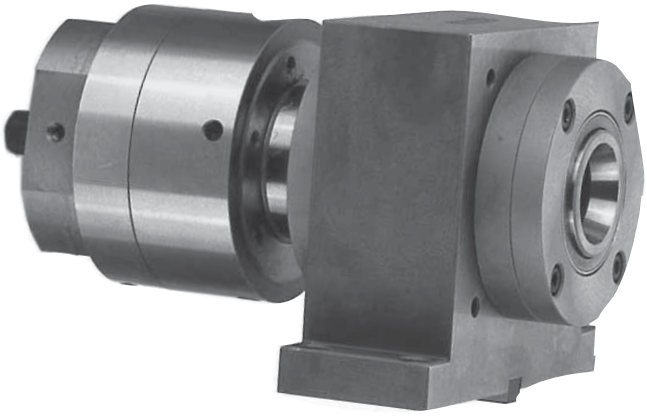
The motor to drive the spindle units is either supplied by NANN or installed by the customer. Our spindle units are used in the most varied areas of application, as e.g.

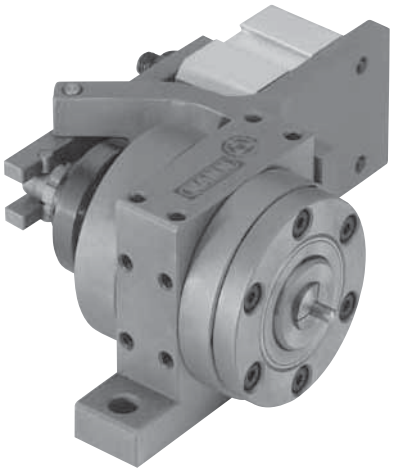
- test spindles
- assembly spindles
- guide bush carriers
- spindles for tools with drives, etc.

Facts and figures:

- for deadlength collets
- for draw-back collets
- for expanding collets
- for internal clamping sleeves
- with manually actuated clamping
- with pneumatic or hydraulic clamping cylinder
- clamping via plate springs – hydraulic unclamping
- clamping via plate springs – mechanical unclamping
- with manual drive
- with drive via synchronizing belts or spur gears
- with direct drive
- various different rpm ranges

Just ask us – we'll design a spindle unit to suit your requirements.





Spindle Units for Deadlength Collets
Hydraulically Operated – Plate Spring Clamping

Description:

We manufacture spindle units for deadlength collets with different chucking ranges.

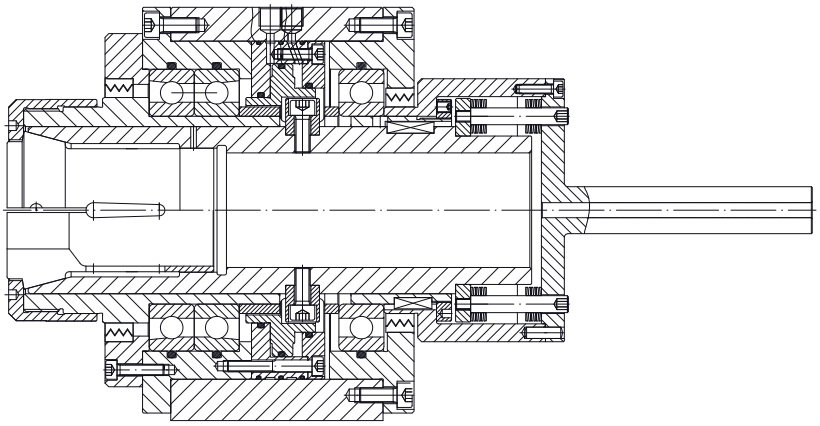
These spindle units are mostly designed for plate spring clamping. To close the pressure collet, the plate springs press on the clamping sleeve, which is pushed forward. The collet is pressed against the union nut and closed.

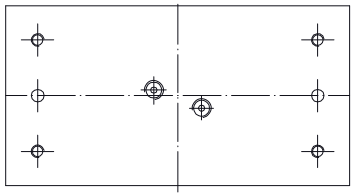
Unclamping takes place via a double-action piston. The return movement of the piston is operated hydraulically. The spindle is located on 2 spindle bearings and one grooved ball bearing. The outer rings of these bearings have play at their seats and are cushioned by O-rings. The spindles are driven via a flexible coupling. The device may only be operated in clamped condition.

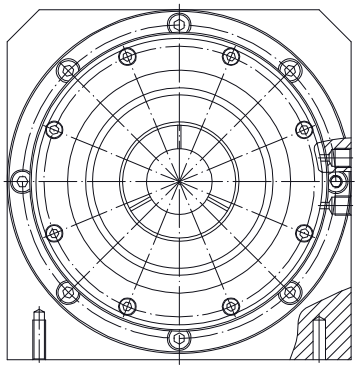
The motor is supplied by NANN or mounted by the customer himself.

Facts and figures:

- designed for deadlength collets
- clamping via plate springs
- hydraulic unclamping
- clamping pressure dependent on size up to 45 bar
- piston travel 3 mm







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Spindle Units for Deadlength Collets
Pneumatically Operated – Double-Action Piston

Description:

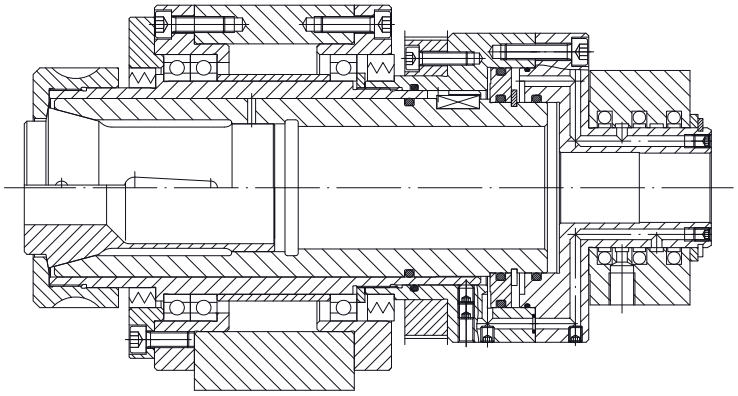
We manufacture spindle units for deadlength collets in different designs and differing chucking ranges.

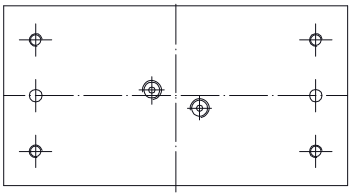
These spindle units operate with a pneumatic double-action cylinder. To close the deadlength collet, the piston presses on the clamping sleeve, which is pushed forward, and the collet is pressed against the union nut and closed.

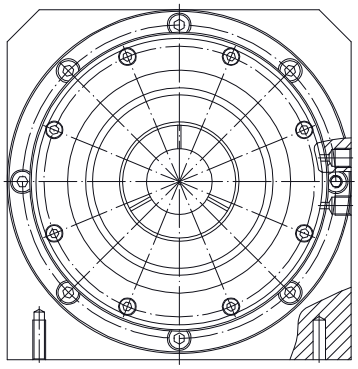
To open the collet, the piston is moved backwards via compressed air, the clamping sleeve moves backwards, and the collet opens. Compressed air feed takes place via a rotational feed. For closure there should always be air, while only a brief amount of air is required for opening. This spindle unit is driven via a synchronizing disk.

Facts and figures:

- designed for deadlength collets
- pneumatic clamping and unclamping
- clamping pressure 6 bar
- max. 500 rpm







Spindle Units for Deadlength Collets Pneumatically Operated – Plate Spring Clamping

Description:

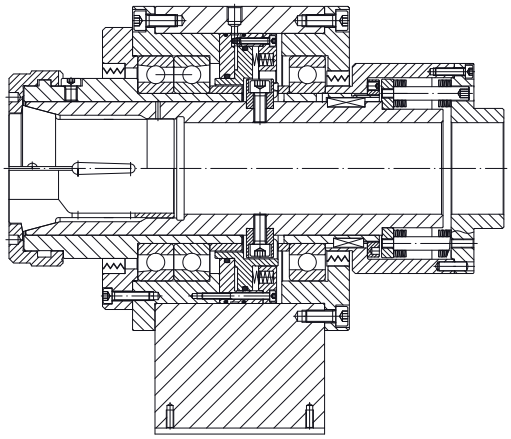
We manufacture spindle units for deadlength collets in various designs and with different chucking ranges.

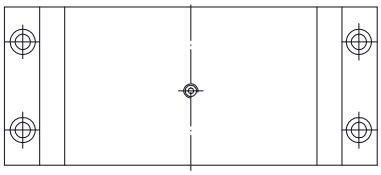
These spindle units are designed for plate spring clamping. To close the deadlength collet the plate springs press onto the clamping sleeve, which is pushed forward. The collet is pressed against the union nut and closed Unclamping takes place via a single-acting piston. The return movement of the piston is done via springs. The spindle is located on three spindle bearings. The spindle is driven via a coupling bellows. The device may only be used in clamped condition.

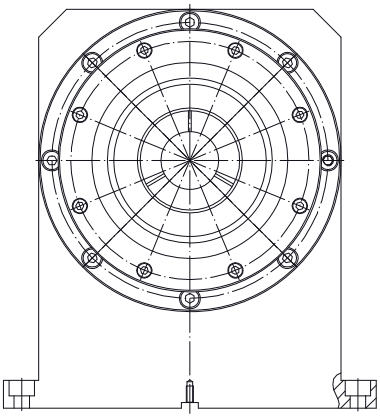
The motor is supplied by NANN or mounted by the customer himself.

Facts and figures:

- designed for deadlength collets
- clamping via plate springs
- pneumatic unclamping
- clamping pressure 6 bar, with pressure intensifier 12 bar
- piston travel 3 mm
- max. 1200 rpm







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Spindle Units for Draw-Back Collets for Mechanical Operation – Plate Spring Clamping

Description:

We manufacture spindle units for draw-back collets in various designs and with different chucking ranges. This spindle unit works via plate spring clamping.

The draw-back collet is drawn into the fixture by means of plate springs and thus closed.

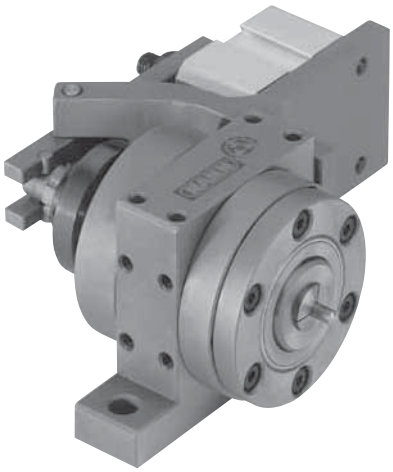
Unclamping is done mechanically, by relieving pressure on the collet by means of a lever.

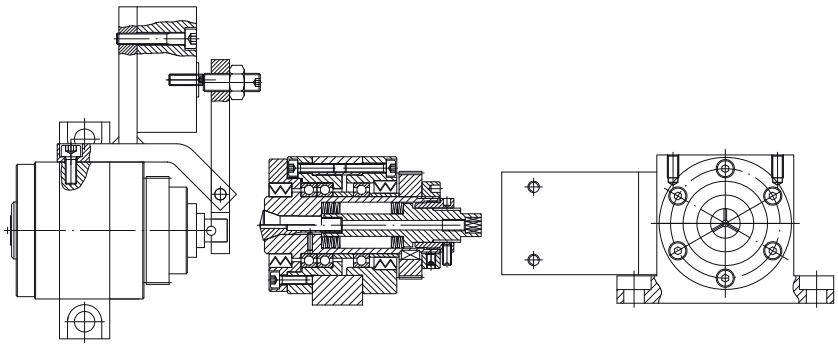
The spindle is located on 2 grooved ball bearings and one spindle bearing. The spindles are driven via a synchronizing disk with a toothed belt. The collet can be clamped and unclamped while the spindle is in operation. The collet itself is secured against distortion inside its housing.

The motor is supplied by NANN or mounted by the customer himself.

Facts and figures:

- designed for draw-back collets
- clamping via plate springs
- mechanical unclamping
- clamping pressure 6 bar
- piston travel 3 mm
- max. rpm 1200





Spindle Units for Draw-Back Collets for Mechanical Operation – Plate Spring Clamping

Description:

We manufacture spindle units for draw-back collets in various designs and with different chucking ranges.

These spindle units work via plate spring clamping. The draw-back collet is pulled into the fixture by plate springs and closed. Unclamping takes place mechanically, by using a lever to relieve pressure on the collet.

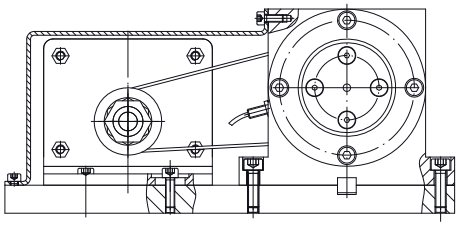
The spindle is located on 2 grooved ball bearings and one spindle bearing. The spindle is driven via a synchronizing disk with a toothed belt. The collet can be clamped and unclamped while the spindle is in operation.

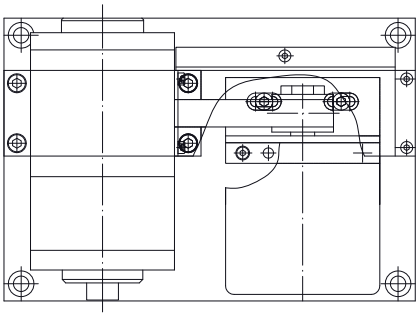
The collet itself is secured against distortion inside its housing.

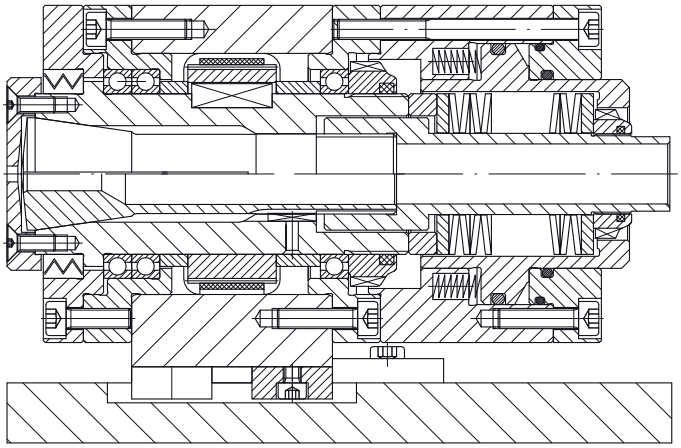
The motor is supplied by NANN or mounted by the customer himself.

Facts and figures:

- designed for draw-back collets
- clamping via plate springs
- mechanical unclamping
- clamping pressure 6 bar
- piston travel 3 mm
- max. rpm 1200







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Spindle Units for Draw-Back Collets Multi-Spindle

Description:

We manufacture spindle units for draw-back or deadlength collets with several spindles in a single housing, in various designs and with different chucking ranges.

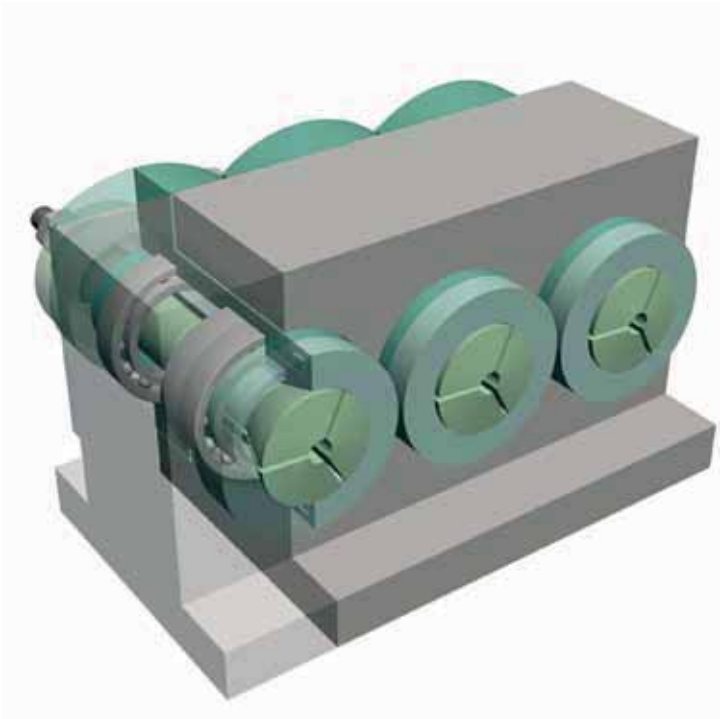
Depending on the application, these spindle units operate with spring clamping, are power-operated, or actuated pneumatically or hydraulically.

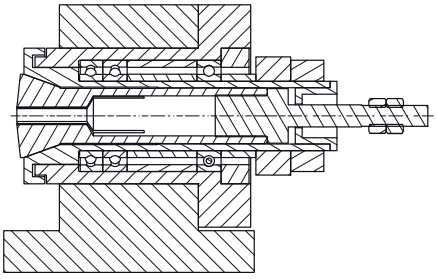
The spindles are located on spindle bearings or grooved ball bearings. Depending on the application, the spindle unit is manufactured with deadlength or draw-back collets. If required the collet can be equipped with an end stop, and a through bore is also possible. Any spindle unit drive is possible, e.g. via toothed belt or synchronizing disk.

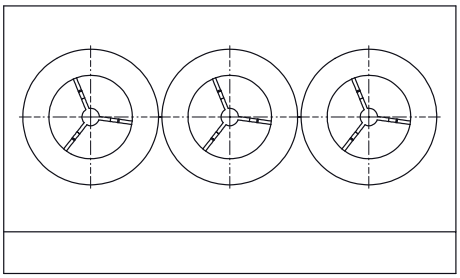
The motor is supplied by NANN or mounted by the customer himself. Just ask us – we'll be happy to advise you.

Facts and figures:

- designed for draw-back or deadlength collets
- several spindles arranged alongside each other
- Any actuation
- rpm dependent on application
- any drive







Spindle units for Draw-Back Collets for Internal Clamping Pneumatically Operated – Plate Spring Clamping

Description:

We manufacture spindle units for draw-back collets in various designs and with different chucking ranges.

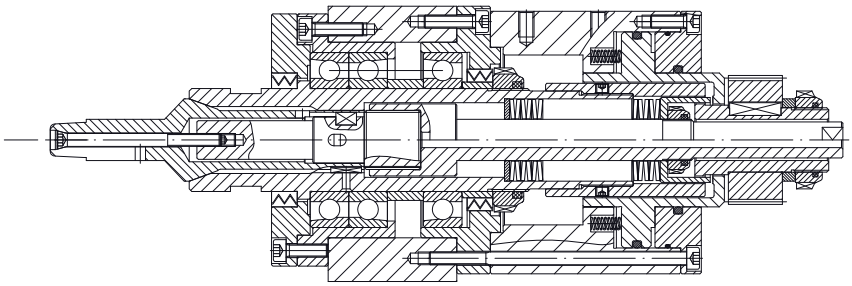
This spindle unit works with plate spring clamping. An expanding collet for the internal clamping of workpieces is integrated. The expanding collet is designed as a three-section draw-back collet. It is pulled into the fixture by plate springs and thereby closed. Unclamping takes place via an integrated single-acting piston. The spindle is located on 3 spindle bearings. Spindle drive takes place via a toothed belt.

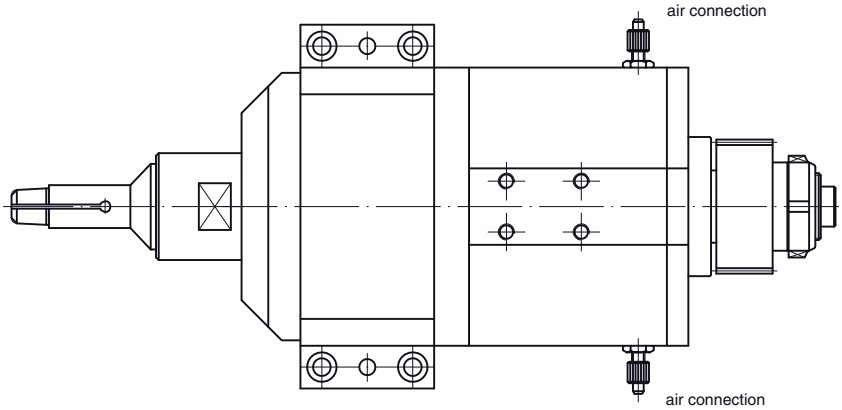
The collet itself is secured against distortion inside its housing.

The motor is supplied by NANN or mounted by the customer himself.

Facts and figures:

- designed for draw-back collets as a three-section expanding collet
- clamping via plate springs
- mechanical unclamping
- clamping pressure 6 bar
- piston travel 3 mm
- max. rpm 1200





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