



RN

RNW and changeable inserts

RNCS with carbide tip

LIVE CENTERS FOR TURNING AND GRINDING



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Live Centers · Dead Centers

with appropriate accessories



RNF VDI



carbide dead center DIN 807



FNA and changeable center cone

DEAD CENTERS FOR TURNING, HARD TURNING AND GRINDING



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Ultra Live Centers RN / RNC



for general use

NEIDLEIN ultra live centers are designed for employment **in turning, grinding and other production machine tools.**

Owing to the application of bearing and the stable design high axial and radial load can be absorbed accurately. Therefore our live centers are outstanding for any application, especially for tooling with face drivers.

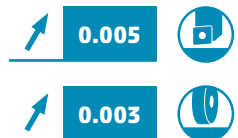
Type RN with morse taper



with half carbide tip



with full carbide tip



NEIDLEIN revolving ultra live centers type RN / RNC ensure:

- application of live centers in case of high thrust and loading
- run-out deviation max.
0.005 mm · type turning
0.003 mm · type grinding
- enhanced true running accuracy HQ upon request
- maintenance-free, due to gasket system and life-time lubrication of bearings; gasket system comprising variable seal and steel protection cover
- excellent demounting by means of extracting nut and extracting disk, which ensures safe and easy removal of the live center from the tailstock spindle sleeve

Type RNC with morse taper

» **extended tooling clearance**
for better access of machining tools

↗ **0.005** 

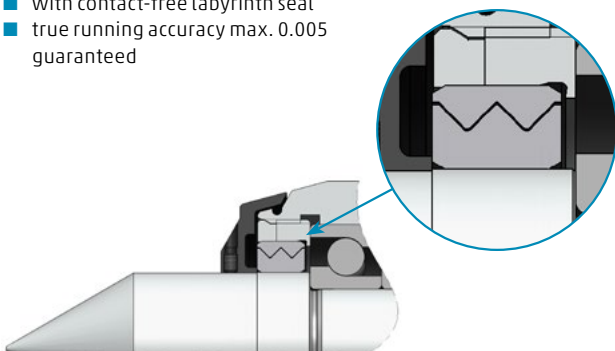
↗ **0.003** 



 with carbide tip

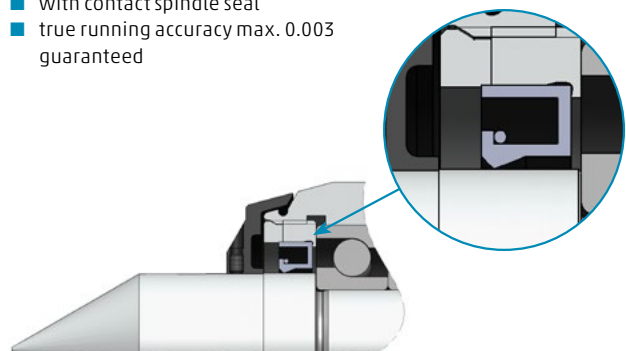
TYPE TURNING

- with contact-free labyrinth seal
- true running accuracy max. 0.005 guaranteed



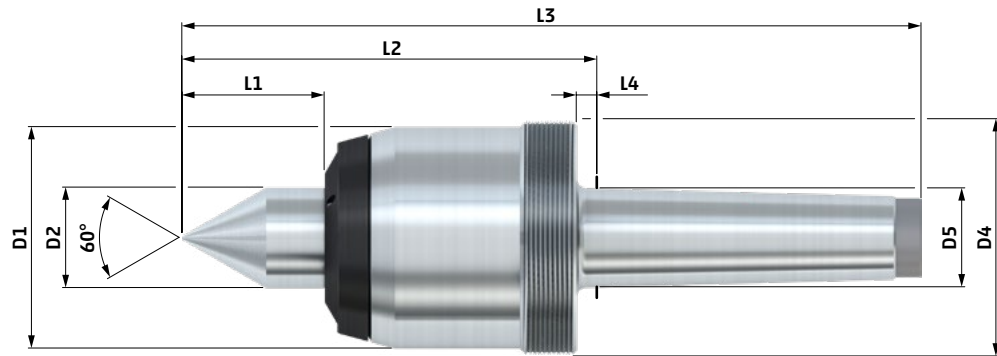
TYPE GRINDING

- with contact spindle seal
- true running accuracy max. 0.003 guaranteed



Technical data – type RN with morse taper

type tool steel tip

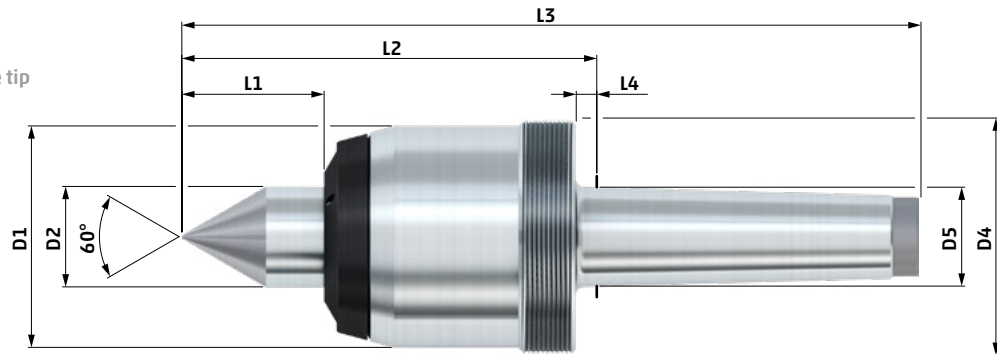
**WITH TOOL STEEL TIP****TYPE
TURNING****TYPE
GRINDING**

type RN	MK	D1	D2	D4	D5	L1	L2	L3	L4	rpm max. [1/min]	cat. no.	cat. no.
3	3	55	22	M58 x 1.5	23.83	26	102	183	5	6000	812 01	812 0102
	4	55	22	M58 x 1.5	31.27	26	103.5	206	6.5	6000	812 02	812 0202
	5	55	22	M58 x 1.5	44.4	26	103.5	233	6.5	6000	812 03	812 0302
4	4	70	32	M75 x 1.5	31.27	45	131.2	233.7	6.5	5000	812 04	812 0402
	5	70	32	M75 x 1.5	44.4	45	131.2	260.7	6.5	5000	812 05	812 0502
5	5	92	45	M95 x 2	44.4	60	156.2	285.7	6.5	4000	812 06	812 0602
	6	92	45	M95 x 2	63.35	60	157.7	339.7	8	4000	812 07	812 0702
6	6	107	55	M110 x 2	63.35	60	169.7	351.7	8	3000	812 08	812 0802

- Run-out deviation max.: type turning 0.005 mm · type grinding 0.003 mm.
- Extracting nuts and extracting disks see page 150 - 151 for accessories.
- Load chart see page 128.



type full carbide tip

**WITH FULL CARBIDE TIP****TYPE
TURNING****TYPE
GRINDING**

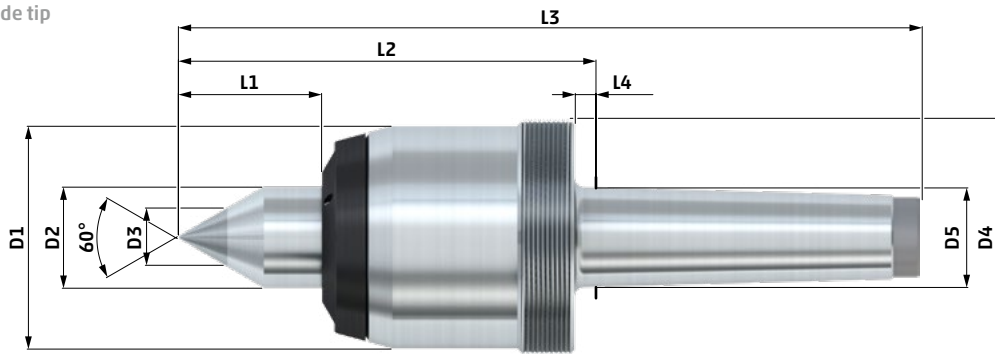
type RN	MK	D1	D2	D4	D5	L1	L2	L3	L4	rpm max. [1/min]	cat. no.	cat. no.
3	3	55	22	M58 x 1.5	23.83	26	102	183	5	6000	812 0104	812 0106
	4	55	22	M58 x 1.5	31.27	26	103.5	206	6.5	6000	812 0204	812 0206
	5	55	22	M58 x 1.5	44.4	26	103.5	233	6.5	6000	812 0304	812 0306
4	4	70	32	M75 x 1.5	31.27	45	131.2	233.7	6.5	5000	812 0404	812 0406
	5	70	32	M75 x 1.5	44.4	45	131.2	260.7	6.5	5000	812 0504	812 0506
5	5	92	45	M95 x 2	44.4	60	156.2	285.7	6.5	4000	812 0604	812 0606
	6	92	45	M95 x 2	63.35	60	157.7	339.7	8	4000	812 0704	812 0706
6	6	107	55	M110 x 2	63.35	60	169.7	351.7	8	3000	812 0804	812 0806

- Run-out deviation max.: type turning 0.005 mm · type grinding 0.003 mm.
- Extracting nuts and extracting disks see page 150 - 151 for accessories.
- Load chart see page 128.

Technical data - type RN with morse taper



type half carbide tip



WITH HALF CARBIDE TIP

TYPE TURNING

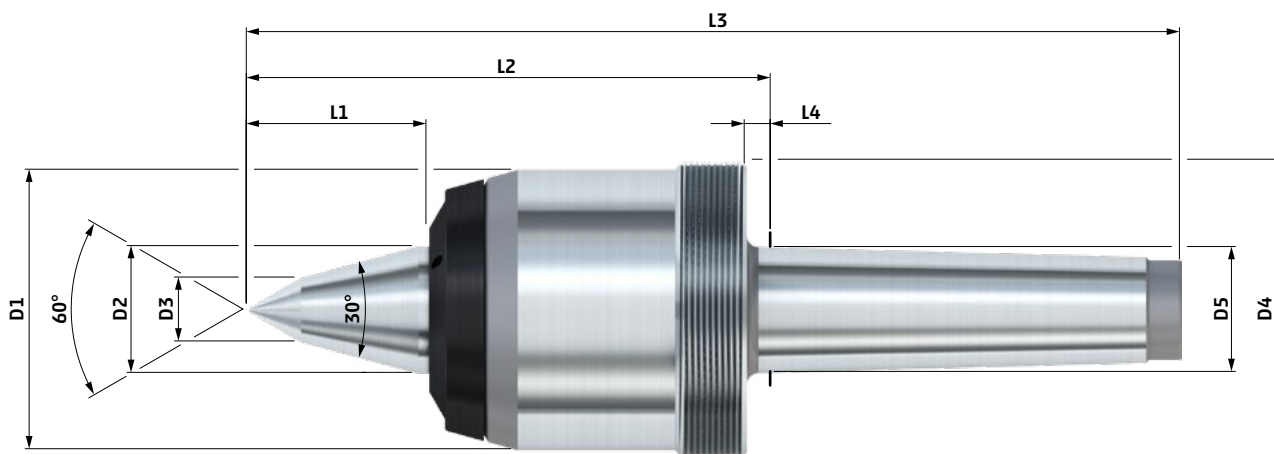
TYPE GRINDING

type RN	MK	D1	D2	D3	D4	D5	L1	L2	L3	L4	rpm max. [1/min]	cat. no.	cat.no
3	3	55	22	11	M58 x 1.5	23.83	26	102	183	5	6000	812 0103	812 0105
	4	55	22	11	M58 x 1.5	31.27	26	103.5	206	6.5	6000	812 0203	812 0205
	5	55	22	11	M58 x 1.5	44.4	26	103.5	233	6.5	6000	812 0303	812 0305
4	4	70	32	14	M75 x 1.5	31.27	45	131.2	233.7	6.5	5000	812 0403	812 0405
	5	70	32	14	M75 x 1.5	44.4	45	131.2	260.7	6.5	5000	812 0503	812 0505
5	5	92	45	22	M95 x 2	44.4	60	156.2	285.7	6.5	4000	812 0603	812 0605
	6	92	45	22	M95 x 2	63.35	60	157.7	339.7	8	4000	812 0703	812 0705
6	6	107	55	28	M110 x 2	63.35	60	169.7	351.7	8	3000	812 0803	812 0805

- Run-out deviation max.: type turning 0.005 mm · type grinding 0.003 mm.
- Extracting nuts and extracting disks see page 150 - 151 for accessories.
- Load chart see page 128.

Technical data – type RNC with morse taper

type tool steel tip

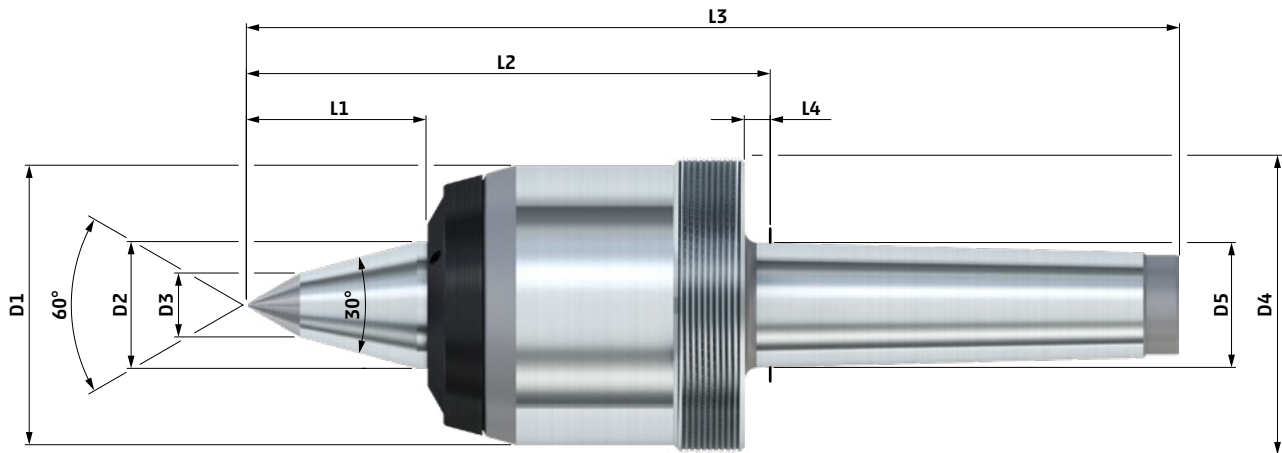
**WITH TOOL STEEL TIP****TYPE
TURNING****TYPE
GRINDING**

type RNC	MK	D1	D2	D3	D4	D5	L1	L2	L3	L4	rpm max. [1/min]	cat. no.	cat. no.
3	3	55	22	10	M58 x 1.5	23.83	32	108	189	5	6000	813 01	813 0102
	4	55	22	10	M58 x 1.5	31.27	32	109.5	212	6.5	6000	813 02	813 0202
	5	55	22	10	M58 x 1.5	44.4	32	109.5	239	6.5	6000	813 03	813 0302
4	4	70	32	16	M75 x 1.5	31.27	45	131.2	233.7	6.5	5000	813 04	813 0402
	5	70	32	16	M75 x 1.5	44.4	45	131.2	260.7	6.5	5000	813 05	813 0502
5	5	92	45	22	M95 x 2	44.4	62	158.2	287.7	6.5	4000	813 06	813 0602
	6	92	45	22	M95 x 2	63.35	62	159.7	341.7	8	4000	813 07	813 0702
6	6	107	55	28	M110 x 2	63.35	72	181.7	363.7	8	3000	813 08	813 0802

- Run-out deviation max.: type turning 0.005 mm · type grinding 0.003 mm.
- Extracting nuts and extracting disks see page 150 - 151 for accessories.
- Load chart see page 128.

Technical data - type RNC with morse taper

HM type carbide tip



WITH CARBIDE TIP

TYPE TURNING

TYPE GRINDING

type RNC	MK	D1	D2	D3	D4	D5	L1	L2	L3	L4	rpm max. [1/min]	cat. no.	cat. no.
3	3	55	22	10	M58 x 1.5	23.83	32	108	189	5	6000	813 0104	813 0106
	4	55	22	10	M58 x 1.5	31.27	32	109.5	212	6.5	6000	813 0204	813 0206
	5	55	22	10	M58 x 1.5	44.4	32	109.5	239	6.5	6000	813 0304	813 0306
4	4	70	32	16	M75 x 1.5	31.27	45	131.2	233.7	6.5	5000	813 0404	813 0406
	5	70	32	16	M75 x 1.5	44.4	45	131.2	260.7	6.5	5000	813 0504	813 0506
5	5	92	45	22	M95 x 2	44.4	62	158.2	287.7	6.5	4000	813 0604	813 0606
	6	92	45	22	M95 x 2	63.35	62	159.7	341.7	8	4000	813 0704	813 0706
6	6	107	55	28	M110 x 2	63.35	72	181.7	363.7	8	3000	813 0804	813 0806

- Run-out deviation max.: type turning 0.005 mm · type grinding 0.003 mm.
- Extracting nuts and extracting disks see page 150 - 151 for accessories.
- Load chart see page 128.

Ultra Live Centers RNA



high flexibility at large workpiece center holes

NEIDLEIN ultra live centers type RNA are designed for employment in **turning, grinding and other production machines**.

Type RNA with morse taper

high degree of flexibility for clamping of workpieces with large centers



0.01

incl. center cone



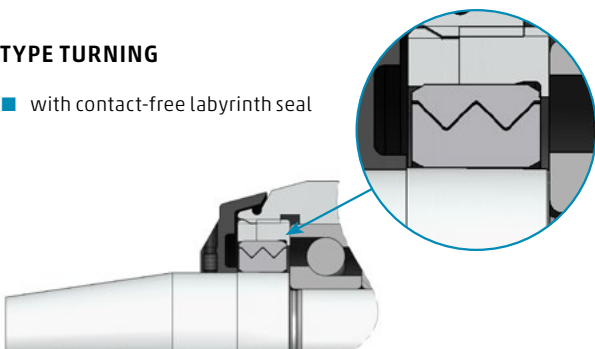
changeable center cone
see page 146

NEIDLEIN revolving ultra live centers type RNA ensure:

- application of live centers in case of high thrust and loading
- run-out deviation max.: 0.01 mm incl. center cone
- easy exchange of center cones using SK30 short taper interface and cylinder screw
- maintenance-free, due to gasket system and life-time lubrication of bearings; gasket system comprising variable seal and steel comprehensive protection cover
- excellent demounting by means of extracting nut and extracting disk, which ensures safe and easy removal of the live center from the tailstock spindle sleeve

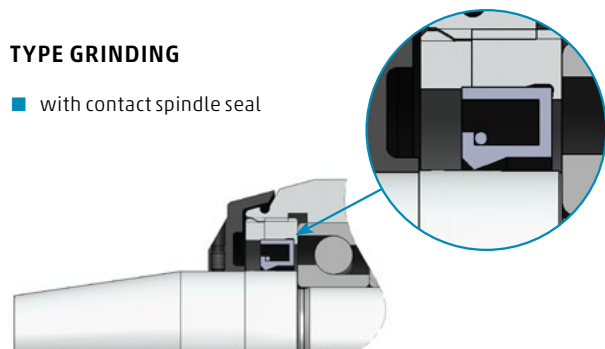
TYPE TURNING

- with contact-free labyrinth seal

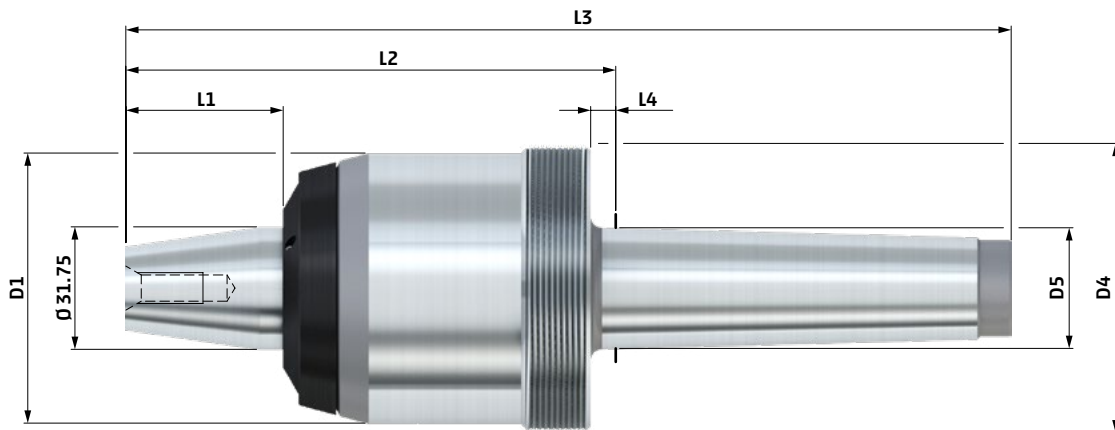


TYPE GRINDING

- with contact spindle seal



Technical data - type RNA with morse taper



TYPE TURNING **TYPE GRINDING**

type RNA	MK	D1	D4	D5	L1	L2	L3	L4	rpm max. [1/min]	cat. no.	cat. no.
4	4	70	M75 x 1.5	31.27	41	127	229.5	6.5	6000	814 04	814 0402
	5	70	M75 x 1.5	44.4	41	127	256.5	6.5	6000	814 05	814 0502
5	5	92	M95 x 2	44.4	41	137.2	266.7	6.5	5000	814 06	814 0602
	6	92	M95 x 2	63.35	41	138.7	320.7	8	5000	814 07	814 0702
6	6	107	M110 x 2	63.35	41	151.7	333.7	8	3000	814 08	814 0802

- Run-out deviation max.: 0.01 mm incl. center cone.
- Variety of center cones ranging from Ø 25 to Ø 315, see page 146.
- Special cones up to Ø 400 available upon customer's request.
- Extracting nuts and extracting disks see page 150 - 151 for accessories.
- Speed-dependent load see page 128.

Bull nose live center RK

for work pieces with large center holes

NEIDLEIN bull nose live centers type RK are characterized by a large clamping range and therefore they can cover large work piece center holes.

The clamping system allows for a high degree of flexibility. It enables clamping of work pieces with center hole sizes from $\varnothing 6$ to $\varnothing 340$. Due to the heavy duty bearing system, work pieces up to 5000 kg can be clamped.

Type RK with morse taper



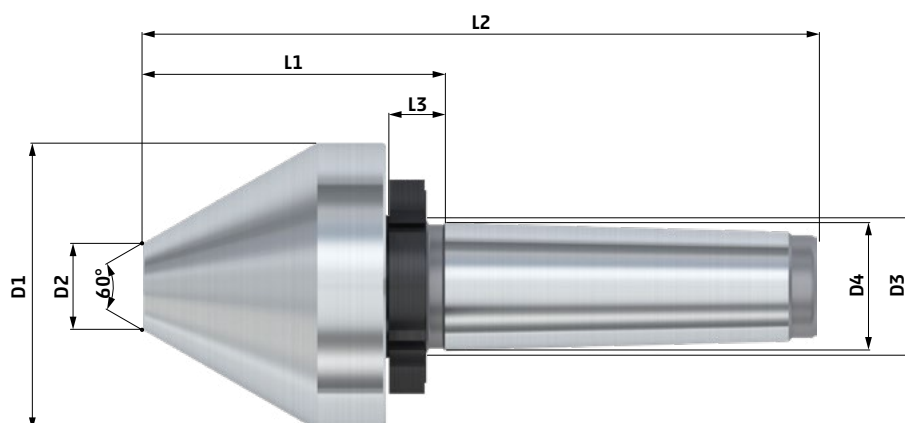
↑ 0,005
Type RK3 + RK4

↑ 0,007
Type RK5

↑ 0,01 - 0,02
Type RK6

NEIDLEIN bull nose live centers type RK ensure:

- high flexibility due to the large diameter range
- run-out deviation max.: 0.005 - 0.02 (depending onto type)
- high true run accuracy even when using low axial forces
- use in case of high thrust and loads
- maintenance free due to gasket system and life-time lubrication of the bearings; gasket system by use of a shaft seal ring
- excellent demounting by means of extracting nut, which ensures safe and easy removal of the bull nose live center from the tailstock spindle sleeve

Technical data - Type RK with morse taper


Type RK	MK	D1	D2	D3	D4	L1	L2	L3	rpm. max (1/min.)	cat. no.
3	2	70	2	M22 x 1.5	17.78	93	157	15.5	3000	820 00
	3	70	2	M28 x 1.5	23.83	93.5	174.5	16	3000	820 01
	4	70	2	M35 x 1.5	31.27	95	197.5	17.5	3000	820 02
4	4	100	30	M35 x 1.5	31.27	103	205.5	17.5	2500	820 03
	5	100	30	M48 x 1.5	44.4	105	234.5	19.5	2500	820 04
5	4	160	90	M35 x 1.5	31.27	135.5	238	17.5	2000	820 05
	5	160	90	M48 x 1.5	44.4	137.5	267	19.5	2000	820 06
	6	160	90	M70 x 1.5	63.35	140	322	22	2000	820 07
6	5	220	150	M48 x 1.5	44.4	157.5	287	19.5	1500	820 08
	6	220	150	M70 x 1.5	63.35	160	342	22	1500	820 09
	6	280	210	M70 x 1.5	63.35	160	342	22	1500	820 10
	6	340	270	M70 x 1.5	63.35	160	342	22	1500	820 11

- load chart see page 129.
- At speeds lower than 500 rpm and high loads, upon request it's possible to use a heavy duty grease for lubrication of the bearings
- The extraction nut is included.



Ultra Live Center Cone Heads RKA

for heavy workpieces with large centers

NEIDLEIN ultra live centers type cone head RKA are designed for heavy workpieces with large centers.

The modular clamping system allows for a high degree of flexibility. It enables clamping of workpieces with centers from $\varnothing 50$ to $\varnothing 460$.

Type RKA basic retainer with morse taper

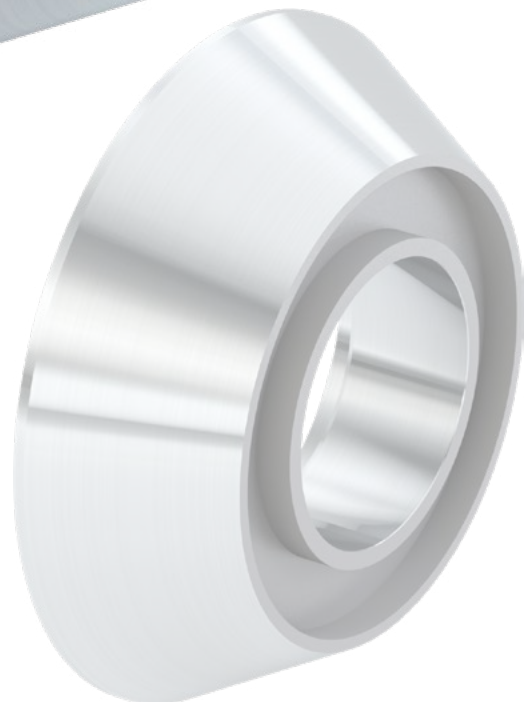


 **0.005**

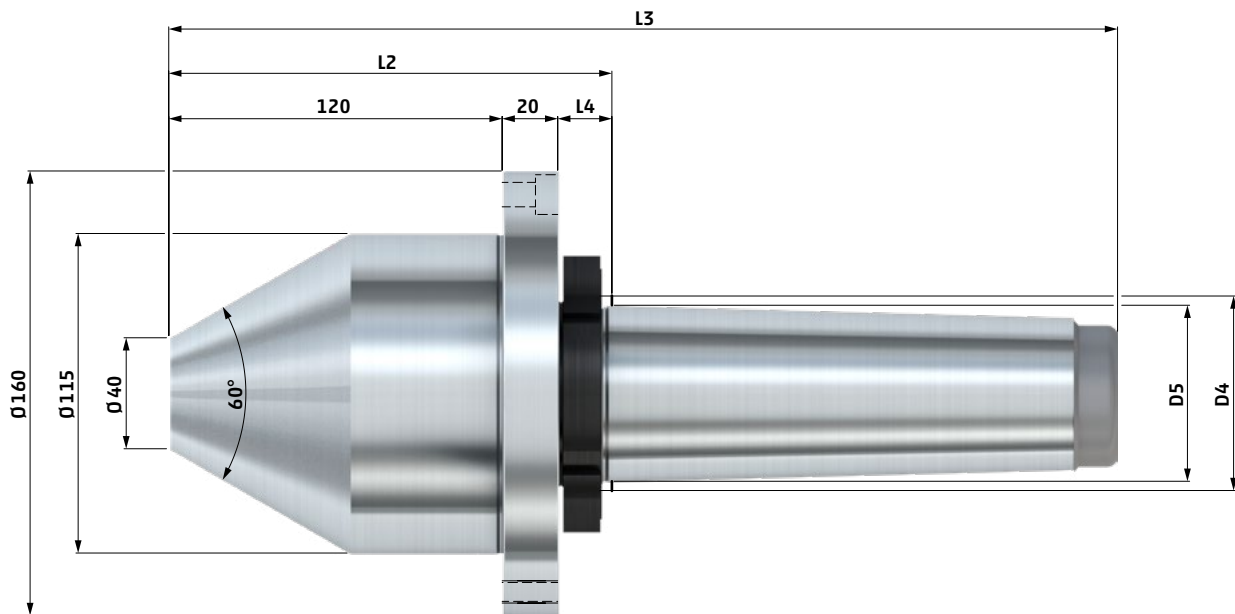
without center cone

 **0.02**

incl. center cone



changeable center cones
see page 147

Technical data - type RKA basic retainer with morse taper


type	MK	D4	D5	L2	L3	L4	rpm max. [1 / min]	cat. no.
RKA								
6	5	M48 x 1.5	44.4	159.5	289	19.5	2500	814 09
	6	M70 x 1.5	63.35	162.5	344.5	22	2500	814 10

- Run-out deviation max.: 0.005 mm without center cone - 0.02 mm incl. center cone.
- Workpieces with centers between Ø50 and Ø115 can be clamped using the basic retainer. In this case the max. radial loads (see page 129) must be reduced by 50%.
- Special basic retainer available upon customer's request.
- Basic retainer including extraction nut.
- Accessories on page 147.
- Load chart see page 129.

Ultra Live Centers RNW



high flexibility by using different changable inserts

NEIDLEIN ultra live centers type RNW are designed for employment **in turning, grinding and other production machines.**

Type RNW with morse taper

the adaptation of various changeable inserts ensures a high degree of flexibility and saving of costs

 **0.01**
incl. insert



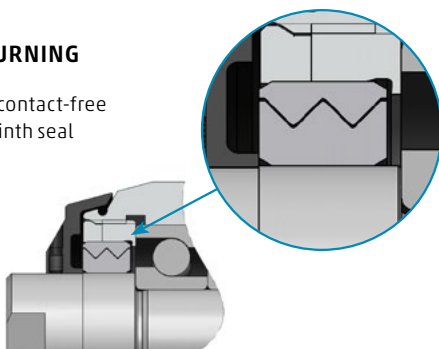
changeable inserts
see page 148 - 149

NEIDLEIN revolving ultra live centers type RNW ensure:

- application of live centers in case of high thrust and loading
- run-out deviation max.: 0.01 mm incl. insert
- easy exchange of changeable inserts using spanner flat and open-end wrench or Tommy bar
- maintenance-free, due to gasket system and life-time lubrication of bearings; gasket system comprising variable seal and steel comprehensive protection cover
- excellent demounting by means of extracting nut and extracting disk, which ensures safe and easy removal of the live center from the tailstock spindle sleeve

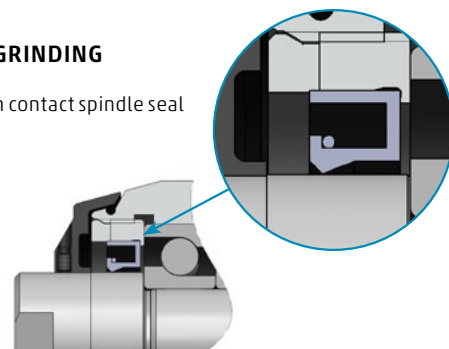
TYPE TURNING

- with contact-free labyrinth seal

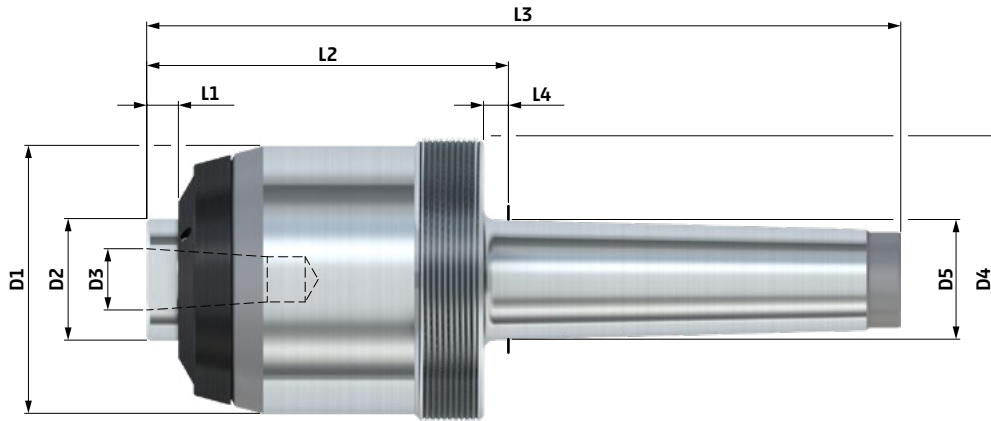


TYPE GRINDING

- with contact spindle seal



Technical data - type RNW with morse taper



type RNW	MK	D1	D2	D3	D4	D5	L1	L2	L3	L4	rpm max. [1/min]	TYPE	TYPE
												TURNING	GRINDING
												cat. no.	cat. no.
3	3	55	22	16	M58 x 1.5	23.83	6.3	82	163	5	6000	815 01	815 0102
	4	55	22	16	M58 x 1.5	31.27	6.3	83.5	186	6.5	6000	815 02	815 0202
	5	55	22	16	M58 x 1.5	44.4	6.3	83.5	213	6.5	6000	815 03	815 0302
4	4	70	32	16	M75 x 1.5	31.27	8.3	94.5	197	6.5	5000	815 04	815 0402
	5	70	32	16	M75 x 1.5	44.4	8.3	94.5	224	6.5	5000	815 05	815 0502
5	5	92	45	22	M95 x 2	44.4	10.3	106.5	236	6.5	4000	815 06	815 0602
	6	92	45	22	M95 x 2	63.35	10.3	108	290	8	4000	815 07	815 0702
6	6	107	55	22	M110 x 2	63.35	10.3	120	302	8	3000	815 08	815 0802

- Run-out deviation max.: 0.01 mm incl. insert.
- Various changeable inserts of different designs, see page 148-149.
- Special inserts available upon customer's request.
- Extracting nuts and extracting disks see page 150-151 for accessories.
- Speed-dependent load see page 130.



Ultra Live Centers RNF / RNCF

spring loaded live center

NEIDLEIN ultra live centers type RNF are especially suitable for **employment in turrets, in manual tailstocks and in case of linear thermal extension of workpieces.**

The spring loaded, moving spindle and the engraved scale rings enable the adjustment and/or programming of various axial forces.

Type RNF with morse taper

↑ 0.003



Type RNCF with morse taper

» extended tooling clearance
for better access of machining tools

↑ 0.003



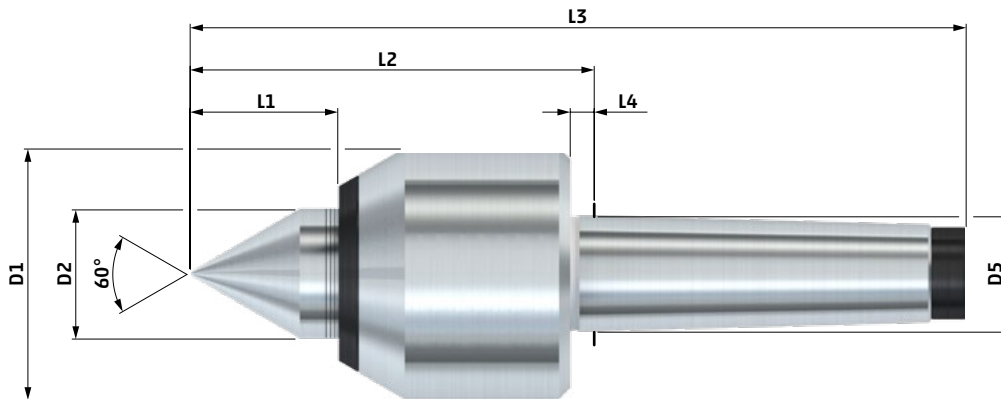
NEIDLEIN ultra live centers type RNF / RNCF ensure:

- employment of live centers in turrets and manual tailstocks when hydraulic systems cannot guarantee any repositioning
- compensation if there is a linear thermal extension of workpieces or if the extension is caused by the process of machining
- run-out deviation max.: 0.003 mm
- maintenance free, due to the gasket system and the lifetime lubrication filling of the bearing
- obtaining of the axial forces applied via scale rings as well as clarification of the force ranges on the outside of the housing



Example type RNF 4 MK4

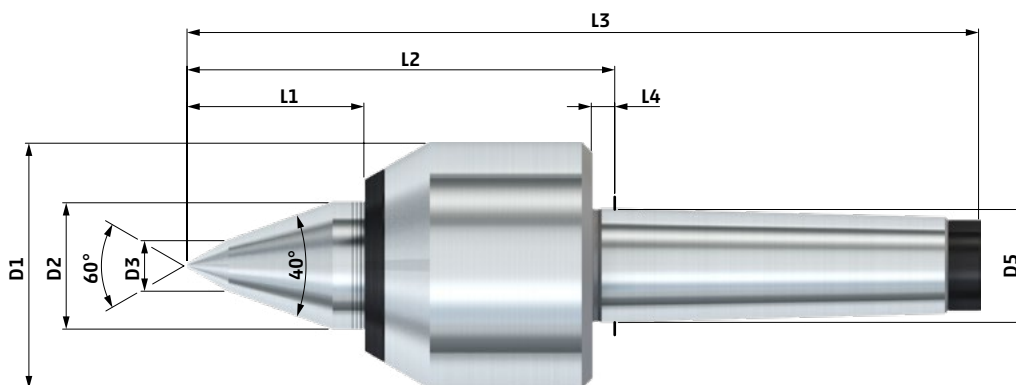
Technical data - type RNF with morse taper



type RNF	MK	D1	D2	D3	D5	L1	L2	L3	L4	rpm max. [1/min]	cat. no.
3	3	55	25	-	23.83	28.5	84.5	165	5	4500	817 01
	4	55	25	-	31.27	28.5	86	185.5	6.5	4500	817 02
	5	55	25	-	44.4	28.5	86	215.5	6.5	4500	817 03
4	4	68	35	-	31.27	40	109.5	210.3	6.5	4000	817 04
	5	68	35	-	44.4	40	109.5	239	6.5	4000	817 05
5	5	92	50	-	44.4	53	138.5	268	6.5	3500	817 09

- Run-out deviation max.: 0.003 mm.
- Models with extraction thread or with special spindles are available upon customer's request.
- Load chart see page 131.

Technical data - type RNCF with morse taper



type RNCF	MK	D1	D2	D3	D5	L1	L2	L3	L4	rpm max. [1/min]	cat. no.
3	3	55	25	12	23.83	37	93	173.5	5	4500	818 01
	4	55	25	12	31.27	37	94.5	194	6.5	4500	818 02
	5	55	25	12	44.4	37	94.5	224	6.5	4500	818 03
4	4	68	35	14	31.27	49	118.5	219.3	6.5	4000	818 04
	5	68	35	14	44.4	49	118.5	248	6.5	4000	818 05
5	5	92	50	22	44.4	65	150.5	280	6.5	3500	818 09

- Run-out deviation max.: 0.003 mm.
- Models with extraction thread or with special spindles are available upon customer's request.
- Load chart see page 131.



Ultra Live Centers RNF / RNCF VDI

spring loaded live center with VDI retainer

NEIDLEIN ultra live centers type RNF/RNCF VDI are adapted in the tool turret and are **especially suited for CNC machines without tailstock or with sub spindle.**

The spring loaded, moving spindle and the engraved scale rings enable the adjustment and/or programming of various axial forces.

Type RNF with VDI retainer

↑ 0.003



Type RNCF with VDI retainer

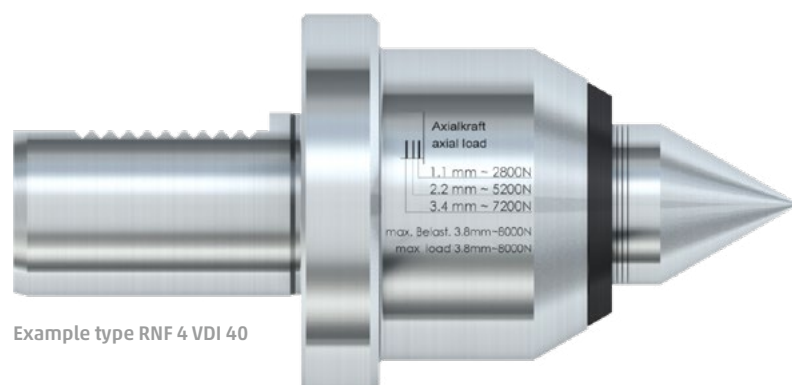
» extended tooling clearance
for better access of machining tools

↑ 0.003



NEIDLEIN ultra live centers type RNF / RNCF VDI ensure:

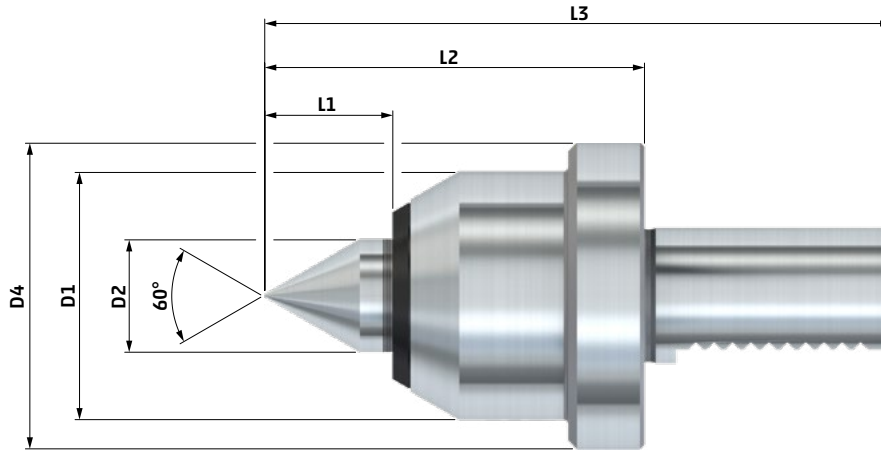
- employment of live centers in turrets when hydraulic systems cannot guarantee any repositioning
- compensation if there is a linear thermal extension of workpieces or if the extension is caused by the process of machining
- run-out deviation max.: 0.003 mm
- maintenance free, due to the gasket system and the lifetime lubrication filling of the bearing
- obtaining of the axial forces applied via scale rings as well as clarification of the force ranges on the outside of the housing



Example type RNF 4 VDI 40

Technical data - type RNF with VDI retainer

DIN ISO 10889-1

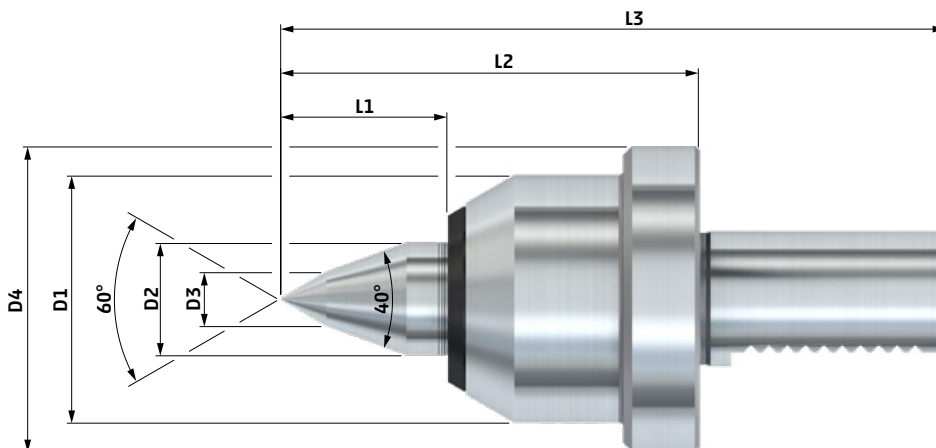


type RNF	VDI	D1	D2	D3	D4	L1	L2	L3	rpm max. [1/min]	cat. no.
3	30	55	25	-	68	28.5	84.5	139.5	4500	817 06
	40	55	25	-	83	28.5	84.5	147.5	4500	817 07
4	40	68	35	-	83	40	108	171	4000	817 08

- Run-out deviation max.: 0.003 mm.
- Load chart see page 131.

Technical data - type RNCF with VDI retainer

DIN ISO 10889-1



type RNCF	VDI	D1	D2	D3	D4	L1	L2	L3	rpm max. [1/min]	cat. no.
3	30	55	25	12	68	37	93	148	4500	818 06
	40	55	25	12	83	37	93	156	4500	818 07
4	40	68	35	14	83	49	117	180	4000	818 08

- Run-out deviation max.: 0.003 mm.
- Load chart see page 131.



Ultra Live Centers RNWF MK + VDI

spring loaded live center with morse taper and VDI retainer

NEIDLEIN ultra live centers type RNWF are especially suitable for **employment in turrets, in manual tailstocks and in case of linear thermal extension of workpieces.**

The spring loaded, moving spindle and the engraved scale rings enable the adjustment and/or programming of various axial forces.

Type RNWF with morse taper

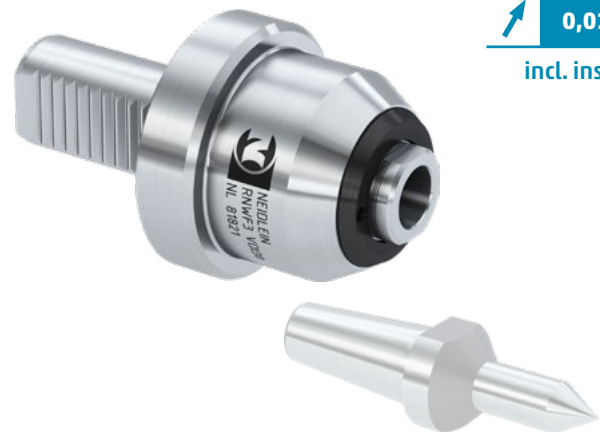
the adaptation of various changeable inserts ensures a high degree of flexibility and saving of costs

↑ **0,01**
incl. insert



Type RNWF with VDI retainer

↑ **0,01**
incl. insert



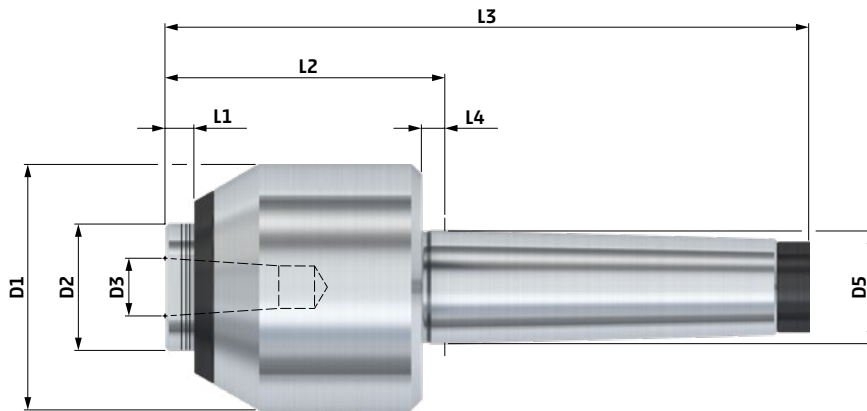
changeable inserts
see page 148-149

NEIDLEIN ultra live centers type RNWF ensure:

- employment of live centers in turrets and manual tailstocks when hydraulic systems cannot guarantee any repositioning
- compensation if there is a linear thermal extension of workpieces or if the extension is caused by the process of machining
- run-out deviation max.: 0.01 mm incl. insert
- easy exchange of changeable inserts using spanner flat and open-end wrench or Tommy bar
- maintenance free, due to the gasket system and the lifetime lubrication filling of the bearing
- obtaining of the axial forces applied via scale rings as well as clarification of the force ranges on the outside of the housing



Technical data - type RNWF with morse taper

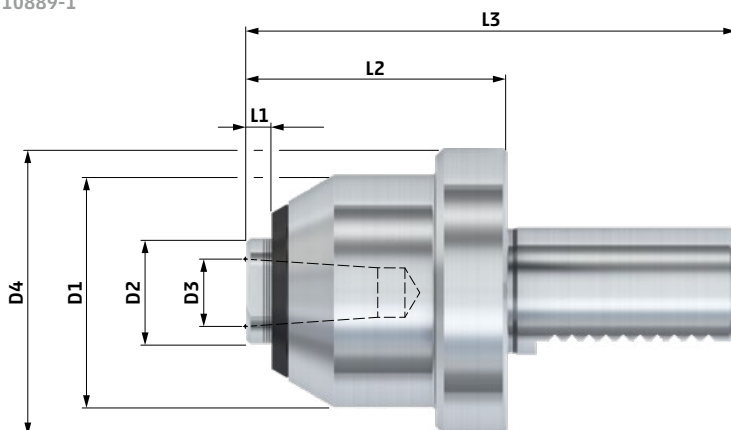


type RNWF	MK	D1	D2	D3	D5	L1	L2	L3	L4	rpm max. [1/min]	cat. no.
3	3	55	25	16	23.83	6	62	142.5	5	4500	818 15
	4	55	25	16	31.27	6	63.5	163	6.5	4500	818 16
	5	55	25	16	44.4	6	63	193	6.5	4500	818 17
4	4	68	35	16	31.27	8	77.5	178.3	6.5	4000	818 18
	5	68	35	16	44.4	8	77.5	207	6.5	4000	818 19
5	5	92	50	22	44.4	10	95.5	225	6.5	3500	818 20

- Run-out deviation max.: 0.01 mm with insert.
- Models with extraction thread or with special spindles are available upon customer's request.
- Load chart see page 131.
- Various changeable inserts of different designs, see page 148 - 149.

Technical data - type RNWF with VDI retainer

DIN ISO 10889-1



type RNWF	VDI	D1	D2	D3	D4	L1	L2	L3	rpm max. [1/min]	cat. no.
3	30	55	25	16	68	6	62	117	4500	818 21
	40	55	25	16	83	6	62	125	4500	818 22
4	40	68	35	16	83	8	76	139	4000	818 23

- Run-out deviation max.: 0.01 mm with insert.
- Load chart see page 131.
- Various changeable inserts of different designs, see page 148 - 149.



Ultre Live Centers RNS / RNCS

especially for grinding operations

NEIDLEIN ultra live centers type RNS / RNCS are **especially suited for the use in grinding and other production machine tools.**

By the specific arrangement of the bearings, the design of the live centers is very short and also the live centers can be

used for precise clamping of heavy workpieces with high axial forces. Therefore they are ideal for every use, especially in combination with face drivers.

Type RNS with morse taper

 0.003



with carbide tip
for hardened workpieces
and high production quantities

NEIDLEIN ultra live centers RNS / RNCS ensure:

- short projection length
- run-out deviation max.: 0.003 mm
- high true run accuracy even when using low axial forces
- application of live centers in case of high axial and radial loads
- maintenance free, due to the gasket system and the lifetime lubrication of the bearings
- easy and safe removal by means of extracting nut and extracting disk

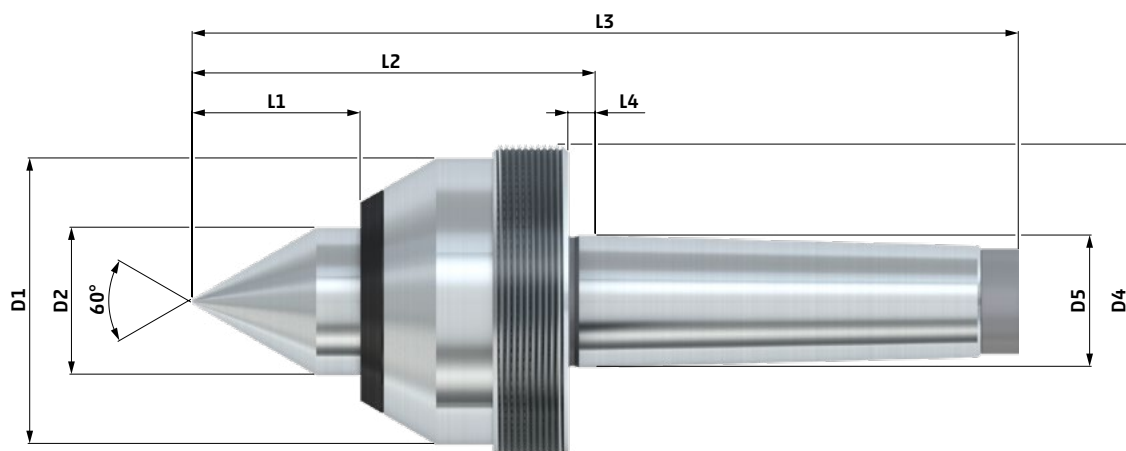
Type RNCS with morse taper

» **extended tooling clearance**
for better access of machining tools

 **0.003**



with carbide tip
for hardened workpieces
and high production quantities

Technical data – type RNS with morse taper


type caride tip

TYPE
TOOL STEELTYPE
CARBIDE

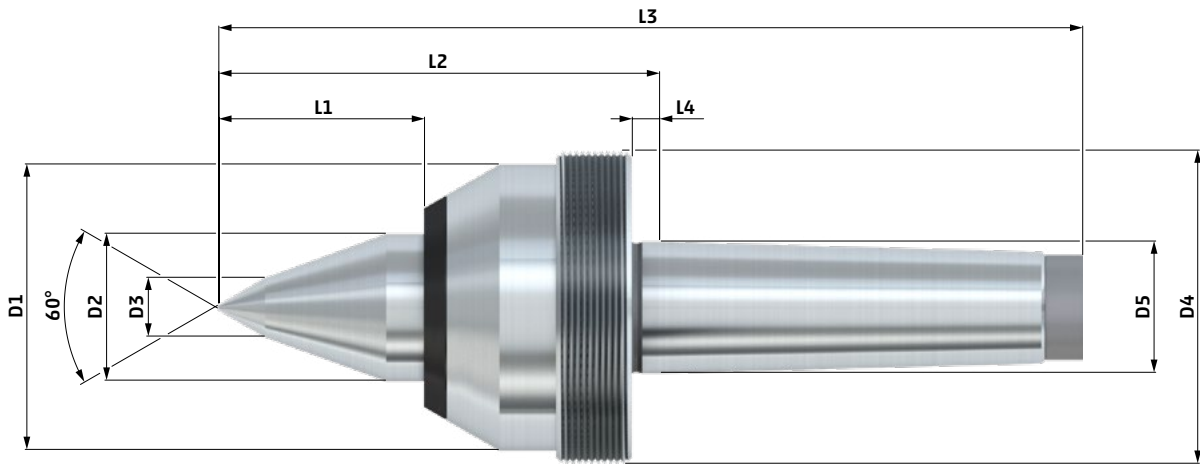
type RNS	MK	D1	D2	D4	D5	L1	L2	L3	L4	rpm max. [1/min]	cat. no.	cat. no.
1	2	34	18	M36 x 1.5	17.78	20	61	125	5	6000	818 97	818 9706
	3	34	18	M36 x 1.5	23.83	20	61	142	5	6000	818 98	818 9806
2	3	42	22	M48 x 1.5	23.83	25	72	152.5	5	5500	818 99	818 9906
	4	42	22	M48 x 1.5	31.27	25	73.5	173	6.5	5500	819 00	819 0006
3	3	55	25	M58 x 1.5	23.83	28	74.5	155	5	4500	819 01	819 0106
	4	55	25	M58 x 1.5	31.27	28	76	175.5	6.5	4500	819 02	819 0206
	5	55	25	M58 x 1.5	44.4	28	76	205.5	6.5	4500	819 03	819 0306
4	4	68	35	M75 x 1.5	31.27	40	96	197	6.5	4000	819 04	819 0406
	5	68	35	M75 x 1.5	44.4	40	96	225.5	6.5	4000	819 05	819 0506
5	5	92	50	M95 x 2	44.4	53	119	248.5	6.5	3600	819 06	819 0606

■ Run-out deviation max.: 0.003 mm.

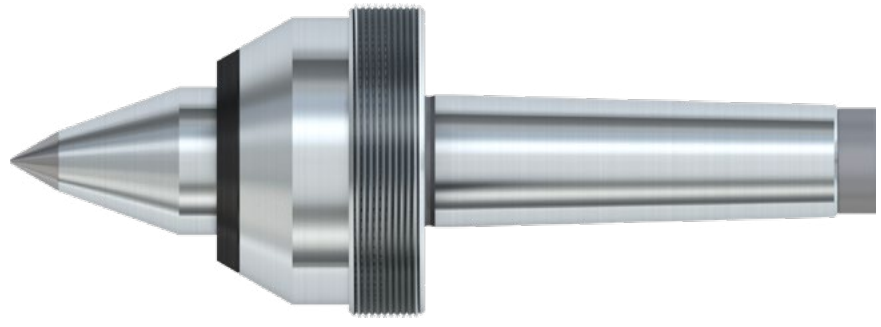
■ Extracting nuts and extracting disks see page 150 - 151 for accessories.

■ Load chart see page 132.

Technical data - type RNCS with morse taper



HM type caride tip



LIVE CENTERS · DEAD CENTERS

type RNCS	MK	D1	D2	D3	D4	D5	L1	L2	L3	L4	rpm max. [1/min]	TYPE	
												TOOL STEEL	CARBIDE
												cat. no.	cat. no.
1	2	34	18	6	M36 x 1.5	17.78	26	67	131	5	6000	819 17	819 1706
	3	34	18	6	M36 x 1.5	23.83	26	67	148	5	6000	819 18	819 1806
2	3	42	22	10	M48 x 1.5	23.83	29	76	156.5	5	5000	819 19	819 1906
	4	42	22	10	M48 x 1.5	31.27	29	77.5	177	6.5	5000	819 20	819 2006
3	3	55	25	12	M58 x 1.5	23.83	37	83.5	164	5	4500	819 21	819 2106
	4	55	25	12	M58 x 1.5	31.27	37	85	186.5	6.5	4500	819 22	819 2206
	5	55	25	12	M58 x 1.5	44.4	37	85	214.5	6.5	4500	819 23	819 2306
4	4	68	35	14	M75 x 1.5	31.27	49	105.5	206	6.5	4000	819 24	819 2406
	5	68	35	14	M75 x 1.5	44.4	49	105	234.5	6.5	4000	819 25	819 2506
5	5	92	50	22	M95 x 2	44.4	65	131	260.5	6.5	3600	819 26	819 2606

- Run-out deviation max.: 0.003 mm.
- Extracting nuts and extracting disks see page 150 - 151 for accessories.
- Load chart see page 132.

Load Charts for Live Centers

TYPE RN tool steel and with full carbide tip

TYPE RNC / RNA tool steel

type	rpm [1/min]	typ of load	load [daN]	max. load [daN]	max. workpiece weight [daN]
3	250	radial	110	110	220
	500		90		
	1000		70		
	2000		50		
	4000		30		
	6000		10		
	250	axial	600	600	
	500		600		
	1000		600		
	2000		500		
4000	400				
6000	350				
4	250	radial	250	250	500
	500		210		
	1000		170		
	2000		120		
	3500		70		
	5000		20		
	250	axial	900	900	
	500		900		
	1000		700		
	2000		600		
3500	500				
5000	500				
5	250	radial	600	600	1200
	500		520		
	1000		420		
	2000		310		
	3000		200		
	4000		50		
	250	axial	1500	1500	
	500		1400		
	1000		1300		
	2000		1100		
3000	900				
4000	700				
6	250	radial	750	750	1500
	500		650		
	1000		520		
	2000		360		
	3000		200		
	250		axial		
	500	2000			
	1000	1600			
	2000	1400			
	3000	1200			

- The max. load is based on a bearing service life of approx. min. 2000 operating hours.
- Higher loads are possible for short periods.

TYPE RN with half carbide tip

TYPE RNC with carbide tip

type	rpm [1/min]	typ of load	load [daN]	max. load [daN]	max. workpiece weight [daN]
3	250	radial	75	75	150
	500		65		
	1000		55		
	2000		40		
	4000		25		
	6000		10		
	250	axial	600	600	
	500		600		
	1000		600		
	2000		500		
4000	400				
6000	350				
4	250	radial	150	150	300
	500		130		
	1000		110		
	2000		85		
	3500		60		
	5000		20		
	250	axial	900	900	
	500		900		
	1000		700		
	2000		600		
3500	500				
5000	500				
5	250	radial	300	300	600
	500		250		
	1000		200		
	2000		150		
	3000		100		
	4000		40		
	250	axial	1500	1500	
	500		1400		
	1000		1300		
	2000		1100		
3000	900				
4000	700				
6	250	radial	450	450	900
	500		380		
	1000		300		
	2000		220		
	3000		120		
	250		axial		
	500	2000			
	1000	1600			
	2000	1400			
	3000	1200			

- The max. load is based on a bearing service life of approx. min. 2000 operating hours.
- Higher loads are possible for short periods.

TYPE RK

type	rpm [1/min]	typ of load	load [daN]	max. load [daN]	max. workpiece weight [daN]
3	500	radial	150	150	300
	1000		110		
	2000		70		
	3000		30		
	500	axial	600	600	
	1000		550		
	2000		400		
	3000		300		
4	500	radial	400	400	800
	1000		300		
	1800		200		
	2500		100		
	500	axial	1000	1000	
	1000		800		
	1800		700		
	2500		600		
5	250	radial	1500*	1500*	3000*
	500		1000*		
	1000		600*		
	1500		300		
	250	axial	2500	2500	
	500		2500		
	1000		2000		
	1500		1500		
6	250	radial	2500**	2500**	5000**
	500		2000**		
	800		1500**		
	1200		1000		
	250	axial	3500	3500	
	500		3000		
	800		2500		
	1200		2000		

- The max. load is based on a bearing service life of approx. min. 2000 operating hours.
- Higher loads are possible for short periods.
- * In version MK4 the max. radial load is 400daN (=work piece weight 800daN) and in version MK5 the max. radial load is 1000daN (=work piece weight 2000daN)
- ** in version MK5 the max. radial load is 1000daN (=work piece weight 2000daN)

TYPE RKA

type	rpm [1/min]	typ of load	load [daN]	max. load [daN]	max. workpiece weight [daN]
6 MK5	250	radial	1000*	1000	2000
	500		850*		
	1000		700*		
	1500		500*		
	2000	axial	300*	2000	
	250		2000		
	500		2000		
	1000		1600		
1500	1400	2000			
2000	1000				
250	radial		1250*	1250	2500
500			1100*		
1000		900*			
1500		650*			
2000	axial	350*	2000		
250		2000			
500		2000			
1000		1600			
1500	1400	2000			
2000	1000				

- The max. load is based on a bearing service life of approx. min. 2000 operating hours.
- Higher loads are possible for short periods.
- * When just using the basic retainer for work piece clamping (up to $\varnothing 115$) the declared loads must be reduced by 50%.

Load Charts for Live Centers

TYPE RNW tool steel

type	rpm [1/min]	typ of load	load [daN]	max. load [daN]	max. workpiece weight [daN]
3	250	radial	110	110	220
	500		90		
	1000		70		
	2000		50		
	4000		30		
	6000		10		
	250	axial	600	600	
	500		600		
	1000		600		
	2000		500		
	4000		400		
	6000		350		
4	250	radial	150	150	300
	500		130		
	1000		110		
	2000		90		
	3500		70		
	5000		20		
	250	axial	900	900	
	500		900		
	1000		700		
	2000		600		
	3500		500		
	5000		500		
5	250	radial	325	325	650
	500		280		
	1000		250		
	2000		200		
	3000		160		
	4000		50		
	250	axial	1200	1200	
	500		1200		
	1000		1200		
	2000		1100		
	3000		900		
	4000		700		
6	250	radial	325	325	650
	500		280		
	1000		250		
	2000		200		
	3000		160		
	250		axial		
	500	1200			
	1000	1200			
	2000	1200			
	3000	1200			
	3000	1200			

- The max. load is based on a bearing service life of approx. min. 2000 operating hours.
- Higher loads are possible for short periods.

TYPE RNF / RNCF

type	rpm [1/min]	typ of load	load [daN]	max. load [daN]	max. workpiece weight [daN]
3	250	radial	150	150	300
	500		130		
	1000		105		
	1800		80		
	3000		50		
	4500	15			
	250	axial	650	650	
	500		550		
	1000		450		
	1800		400		
3000	330				
4500	250				
4	250	radial	350	350	700
	500		300		
	1000		250		
	1800		190		
	2800		110		
	4000	40			
	250	axial	800	800	
	500		700		
	1000		600		
	1800		500		
2800	400				
4000	300				
5	250	radial	650	650	1300
	500		540		
	900		420		
	1600		290		
	2400		160		
	3500	60			
	250	axial	1350	1350	
	500		1200		
	900		1000		
	1600		800		
2400	700				
3500	600				

- The max. load is based on a bearing service life of approx. min. 2000 operating hours.
- Higher loads are possible for short periods.

TYPE RNWF

type	rpm [1/min]	typ of load	load [daN]	max. load [daN]	max. workpiece weight [daN]
3	250	radial	75	75	150
	500		65		
	1000		50		
	1800		40		
	3000		30		
	4500	15			
	250	axial	650	650	
	500		550		
	1000		450		
	1800		400		
3000	330				
4500	250				
4	250	radial	175	175	350
	500		150		
	1000		130		
	1800		110		
	2800		85		
	4000	40			
	250	axial	800	800	
	500		700		
	1000		600		
	1800		500		
2800	400				
4000	300				
5	250	radial	325	325	650
	500		280		
	900		250		
	1600		200		
	2400		160		
	3500	60			
	250	axial	1350	1350	
	500		1200		
	900		1000		
	1600		800		
2400	700				
3500	600				

- The max. load is based on a bearing service life of approx. min. 2000 operating hours.
- Higher loads are possible for short periods.

TYPE RNS tool steel and with carbide tip

TYPE RNCS tool steel

type	rpm [1/min]	typ of load	load [daN]	max. load [daN]	max. workpiece weight [daN]
1	250	radial	50	50	100
	500		40		
	1000		30		
	2000		20		
	3900		10		
	6000	5			
	250	axial	250	250	
	500		200		
	1000		180		
	2000		160		
3900	130				
6000	120				
2	250	radial	125	125	250
	500		105		
	1000		85		
	2000		60		
	3500		35		
	5500	10			
	250	axial	380	380	
	500		320		
	1000		280		
	2000		260		
3500	190				
5500	100				
3	250	radial	150	150	300
	500		130		
	1000		105		
	2000		80		
	3200		50		
	4500	15			
	250	axial	550	550	
	500		450		
	1000		400		
	2000		330		
3200	250				
4500	200				
4	250	radial	350	350	700
	500		300		
	1000		250		
	1800		190		
	2800		110		
	4000	40			
	250	axial	800	800	
	500		700		
	1000		600		
	1800		500		
2800	400				
4000	300				
5	250	radial	650	650	1300
	500		540		
	1000		420		
	1700		290		
	2500		160		
	3600	60			
	250	axial	1400	1400	
	500		1350		
	1000		1100		
	1700		900		
2500	700				
3600	600				

- The max. load is based on a bearing service life of approx. Min. 2000 operating hours.
- Higher loads are possible for short periods.

TYPE RNCS with carbide tip

type	rpm [1/min]	typ of load	load [daN]	max. load [daN]	max. workpiece weight [daN]
1	250	radial	25	25	50
	500		22		
	1000		18		
	2000		15		
	3900		10		
	6000	5			
	250	axial	250	250	
	500		200		
	1000		180		
	2000		160		
3900	130				
6000	120				
2	250	radial	50	50	100
	500		45		
	1000		40		
	2000		30		
	3900		20		
	6000	8			
	250	axial	380	380	
	500		320		
	1000		280		
	2000		260		
3500	190				
5500	100				
3	250	radial	100	100	200
	500		90		
	1000		75		
	2000		60		
	3200		40		
	4500	12			
	250	axial	550	550	
	500		450		
	1000		400		
	2000		330		
3200	250				
4500	200				
4	250	radial	150	150	300
	500		130		
	1000		110		
	1800		80		
	2800		50		
	4000	15			
	250	axial	800	800	
	500		700		
	1000		600		
	1800		500		
2800	400				
4000	300				
5	250	radial	300	300	600
	500		260		
	1000		210		
	1700		150		
	2500		90		
	3600	30			
	250	axial	1500	1500	
	500		1350		
	1000		1100		
	1700		900		
2500	700				
3600	600				

- The max. load is based on a bearing service life of approx. Min. 2000 operating hours.
- Higher loads are possible for short periods.

Dead Centers FN / FNC / FNZ



for general use

For rotating and fixed tailstock spindle sleeve. Designed for employment **in turning, grinding and other production machines.**

Type FN with morse taper

» can be reground



0.002



Type FNC with morse taper

» extended tooling clearance
for better access of machining tools



0.002



- Run-out deviation max.: 0.002 mm.
- Made of fully hardened tool-steel.
- All types with extracting thread to prevent spindle ball bearings or solid spindle sleeves from damage.
- Extracting nuts DIN 807, see page 151.
- Max. load of the dead centers upon request.
- Special design upon request.

Type FNZ with morse taper

» can be reground

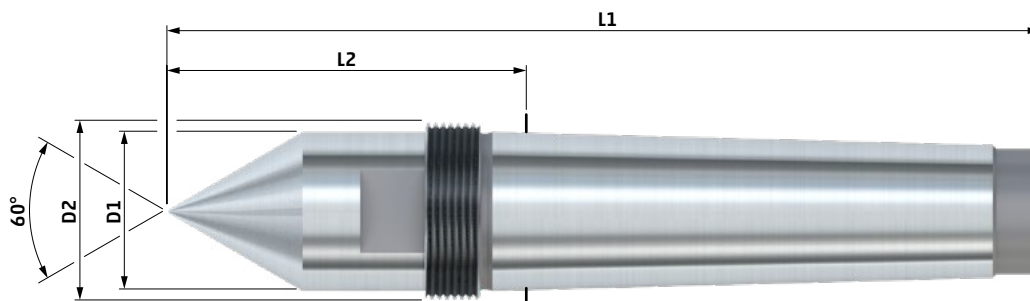
for general use with extended length for better tool clearance



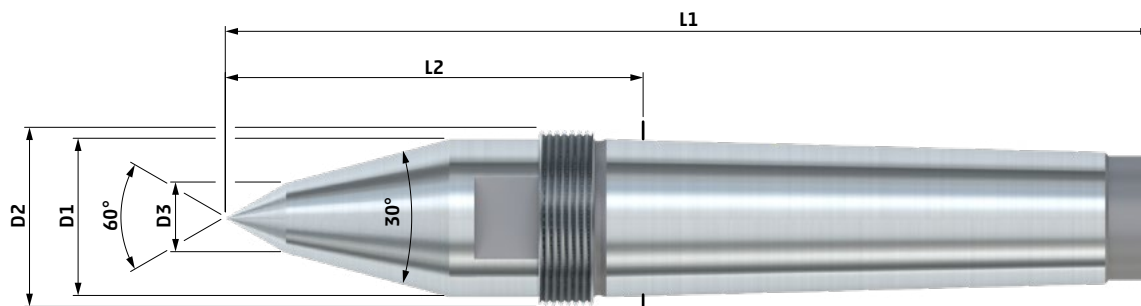
0,002



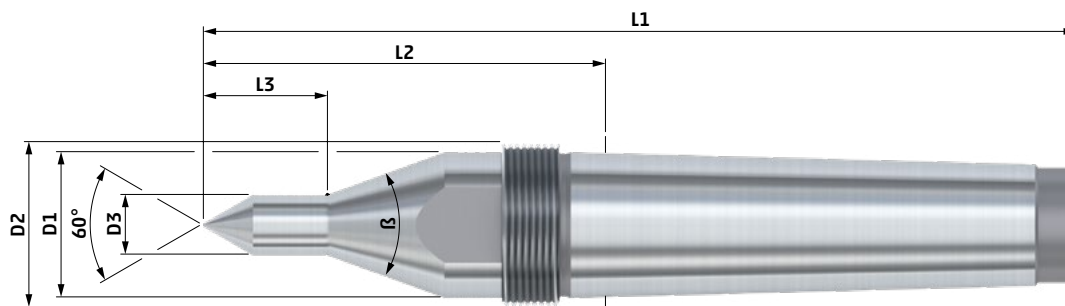
- Run-out deviation max.: 0.002 mm.
- Made of fully hardened tool-steel.
- With cylindrical set down and extended length for better tool clearance
- All types with extracting thread to prevent spindle ball bearings or solid spindle sleeves from damage.
- Extracting nuts DIN 807, see page 151.
- Max. load of the dead centers upon request.
- Special design upon request.

Technical data – type FN with morse taper

TYPE FN

MK	D1	D2	D3	L1	L2	cat. no.
3	24	M27 x 1.5	-	138	57	920 01
4	32	M36 x 1.5	-	175	72	920 02
5	45	M48 x 1.5	-	217	87	920 03
6	64	M68 x 1.5	-	290	108	920 04

Technical data – type FNC with morse taper

TYPE FNC

MK	D1	D2	D3	L1	L2	cat. no.
3	24	M27 x 1.5	10	148	67	921 01
4	32	M36 x 1.5	14	187	84	921 02
5	45	M48 x 1.5	16	242	112	921 03
6	64	M68 x 1.5	20	330	148	921 04

Technical data – type FNZ with morse taper

TYPE FNZ

MK	D1	D2	D3	L1	L2	L3	β	cat. no.
2	18	M22x1.5	9	120	56	17	40	921 10
	18	M22x1.5	11	120	56	21	40	921 11
3	24	M27x1.5	9	150	69	17	40	921 12
	24	M27x1.5	13	150	69	25	40	921 13
4	31.6	M36x1.5	9	190	87.5	17	40	921 14
	31.6	M36x1.5	13	190	87.5	27	40	921 15
	31.6	M36x1.5	19	190	87.5	53	90	921 16
5	44.7	M48x1.5	19	245	115	53	40	921 17
	44.7	M48x1.5	28	245	115	65	60	921 18



Dead Center Shanks FNA / FNW

high flexibility at different workpiece center holes

Type FNA with morse taper

» for large workpiece centers

high degree of flexibility for clamping of workpieces with large centers



0.01

incl. center cone



changeable center cones
see page 146

- Run-out deviation max.: 0.01 mm incl. center cone.
- Different types of center cones from Ø 25 to Ø 315, see page 146.
- Special center cones up to Ø 400 available upon customer's request.
- Extracting nuts DIN 807, see page 151.
- Max. load of the dead centers upon request.

Type FNW with morse taper

» maximum flexibility

the adaptation of various changeable inserts ensures a high degree of flexibility and saving of costs



0.01

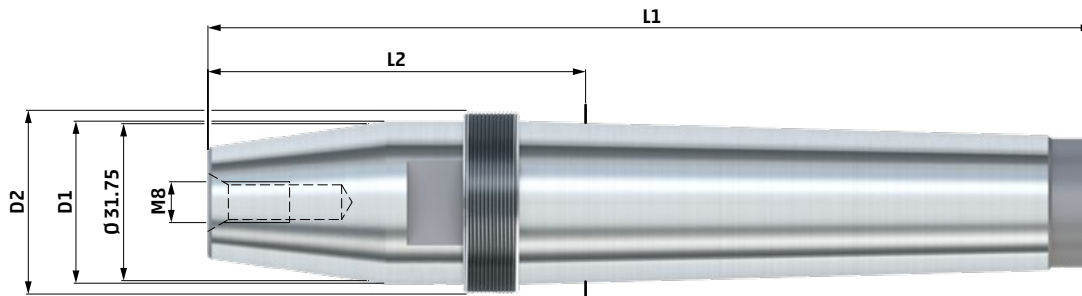
incl. insert



changeable inserts
see page 148 - 149

- Run-out deviation max.: 0.01 mm incl. insert.
- Various changeable inserts of different designs, see page 148 - 149.
- Special inserts available upon customer's request.
- True running accuracy at center cone: max. 0.01
- Extracting nuts, see page 151 for accessories.
- Max. load of the dead centers upon request.

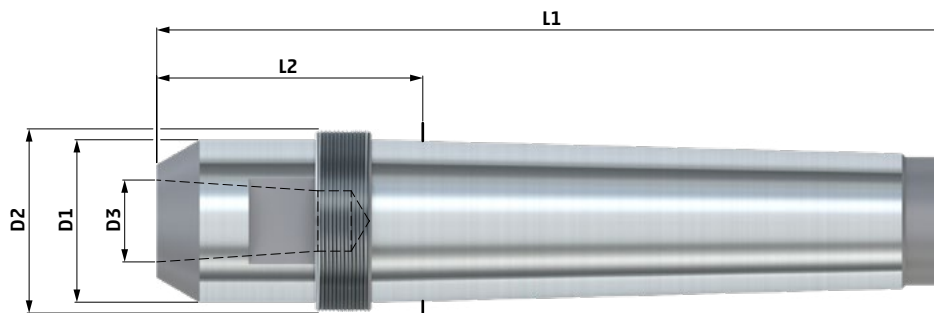
Technical data - type FNA with morse taper



TYPE FN

MK	D1	D2	D3	L1	L2	cat. no.
3	32	M27 x 1.5	-	149	68	922 01
4	32	M36 x 1.5	-	173.5	71	922 02
5	45	M48 x 1.5	-	202.5	73	922 03
6	64	M68 x 1.5	-	263.5	81.5	922 04

Technical data - type FNW with morse taper



TYPE FNC

MK	D1	D2	D3	L1	L2	cat. no.
3	24	M27 x 1.5	16	121	40	923 01
4	32	M36 x 1.5	16	154.5	52	923 02
5	45	M48 x 1.5	22	190	60	923 03
6	64	M68 x 1.5	22	252	70	923 04

Carbide Dead Centers DIN 806



for hardened workpieces

To be applied with hardened workpieces. For headstocks and fixed tailstock spindle sleeves. Designed for employment in grinding and other production machines.

Type DIN 806 · model E



with full carbide tip



0.002



Type DIN 806 · model HE



flattened with half carbide tip



0.002



with half carbide tip

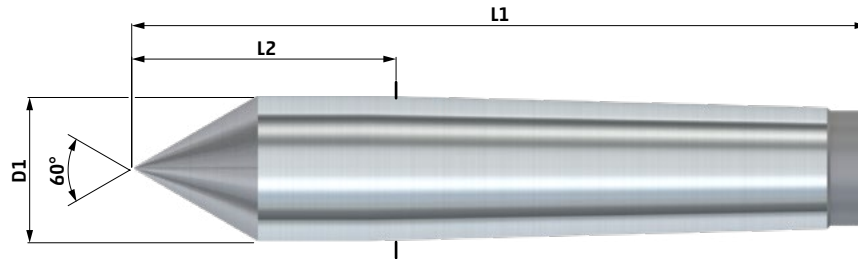


- Run-out deviation max.: 0.002 mm.
- With carbide insert.
- Max. load of the dead centers upon request.
- Special design upon request.

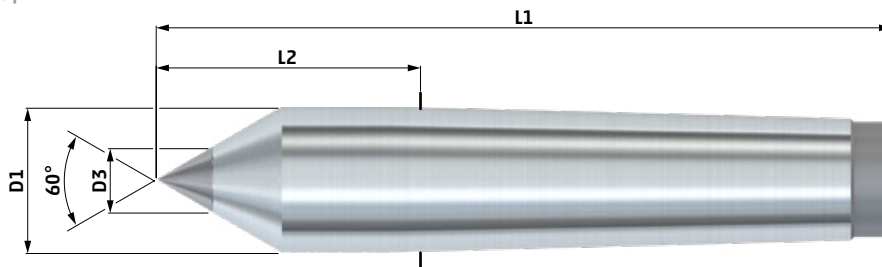
Technical data - type DIN 806 · model E/HE



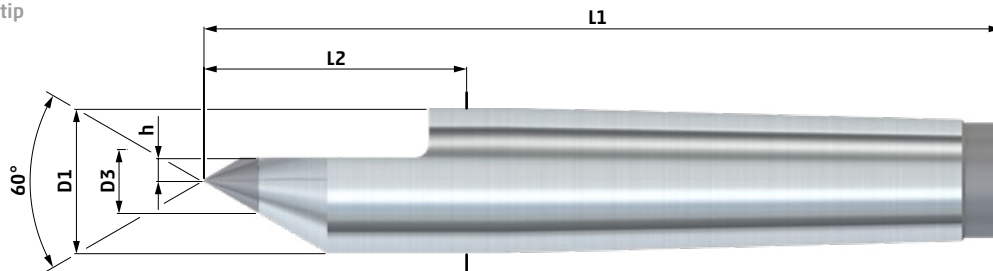
similar to DIN 806 · model E
with full carbide tip



model E
with half carbide tip



model HE
flattened with
half carbide tip



MODEL E



MODEL HE



MK	D1	L1	L2
1	12.2	80	26.5
2	18	100	36
3	24.1	125	44
4	31.6	160	57.5
5	44.7	200	70.5
6	63.8	270	88

cat. no.
910 02
910 05
910 08
910 11
910 14
910 18

D3	cat. no.
7	910 01
7	910 03
11	910 06
14	910 09
18	910 12
18	910 15

D3	h	cat. no.
7	1.5	911 01
7	2	911 02
11	3	911 04
14	5	911 06
18	7	911 08
18	10	911 10

Carbide Dead Centers DIN 807



type with extraction screw thread for hardened workpieces

With extraction screw thread

Dead centers according to DIN 807 are designed with an extraction thread. This serves to protect the spindle bearings and is necessary for use in non-drilled sleeves.

Type DIN 807 · model E



with full carbide tip



0.002



Type DIN 807 · model HE



flattened with half carbide tip



0.002



with half carbide tip

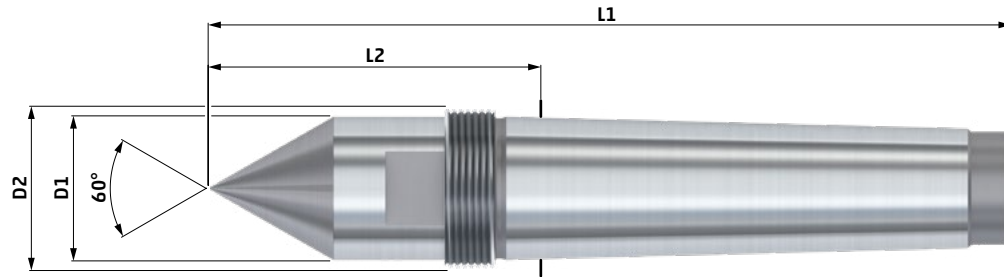


- Run-out deviation max.: 0.002 mm.
- With carbide insert.
- Max. load of the dead centers upon request.
- Special design upon request.
- For demounting and for preventing the spindle bearing from damage of for spindle sleeves which have no through bore the center pins come with an extracting screw thread.
- Extracting nuts DIN 807, see page 151.
- Available with wrench flat upon request.

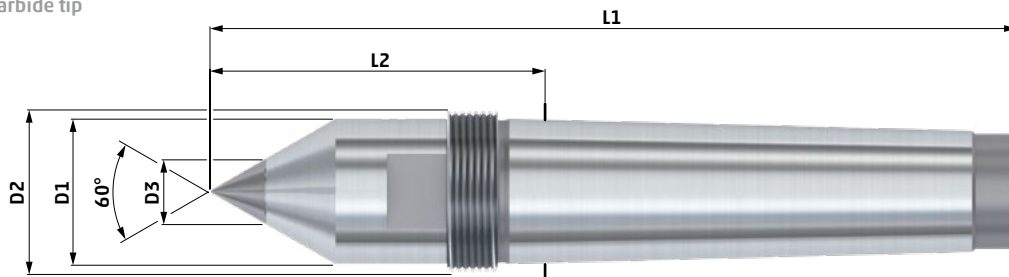
Technical data - Type DIN 807 · Model E/HE



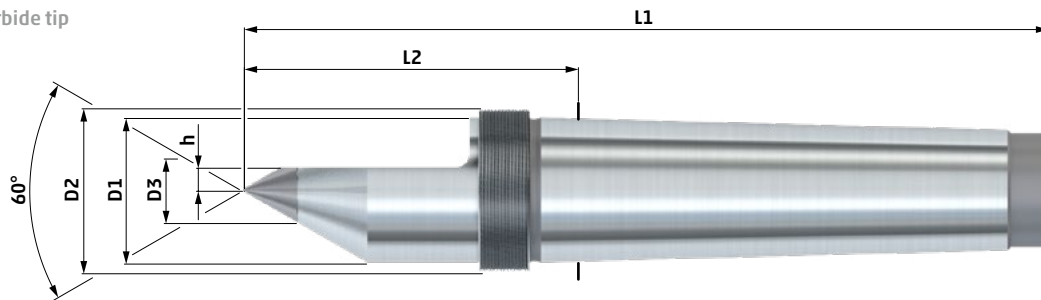
similar to DIN 807 · model E
with full carbide tip



model E
with half carbide tip



model HE
flattened with
half carbide tip



MODEL E



MODEL HE



MK	D1	D2	L1	L2
1	12.2	M16 x 1.5	90	36.5
2	18	M22 x 1.5	112	48
3	24.1	M27 x 1.5	138	57
4	31.6	M36 x 1.5	175	72.5
5	44.7	M48 x 1.5	217	87.5
6	63.8	M68 x 1.5	290	108

cat. no.
912 02
912 05
912 08
912 11
912 14
912 18

D3	cat. no.
7	912 01
7	912 03
11	912 06
14	912 09
18	912 12
18	912 15

D3	h	cat. no.
7	1.5	913 01
7	2	913 03
11	3	913 06
14	5	913 09
18	7	913 12
18	10	913 15

Dead centers FE / FEC



For use in EMAG machines with taper 1:7.5

For use in EMAG turning-, grinding- and other production machines

Type FE taper 1:7,5

» can be reground

↑ 0,002



Type FEC taper 1:7,5

» extending tool clearance
for better access of the machining tool

↑ 0,002



- Run- out deviation max.: 0.002mm
- Made of through hardened tool steel
- All types with extracting thread to prevent spindle bearings and solid spindle sleeves from damage
- Extracting nuts see page 151 for accessories
- Max. load of the dead centers upon request
- Special design upon request

Type FE carbide taper 1:7,5

HM with full carbide tip

↑ 0,002



Type FEC carbide taper 1:7,5

» extending tooling clearance
for better access of machining tool

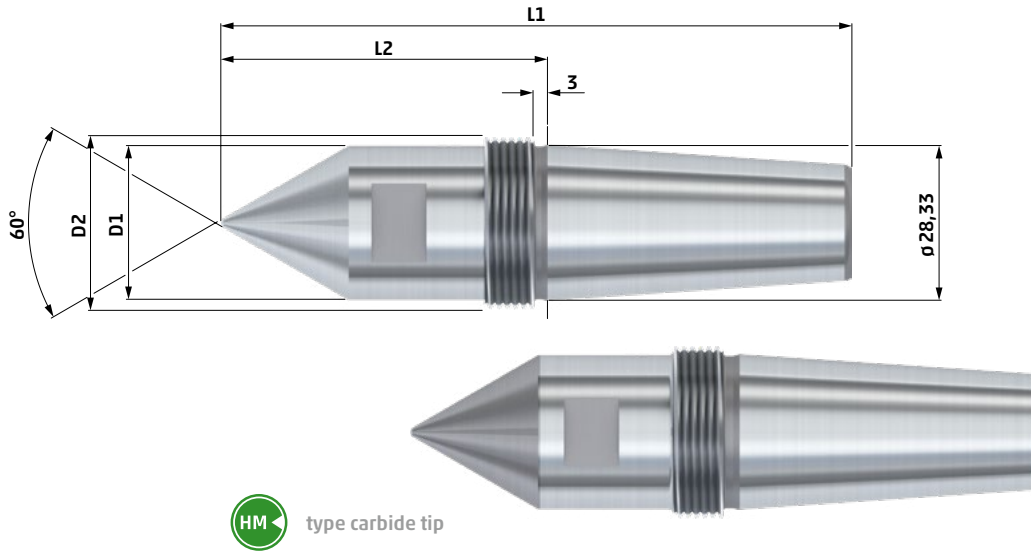
↑ 0,002

HM with half carbide tip



- Run- out deviation max.: 0.002mm
- With carbide insert
- Max. load of the dead centers upon request
- Special design upon request
- All types with extracting thread to prevent spindle bearings and solid spindle sleeves from damage
- Extracting nuts see page 151 for accessories

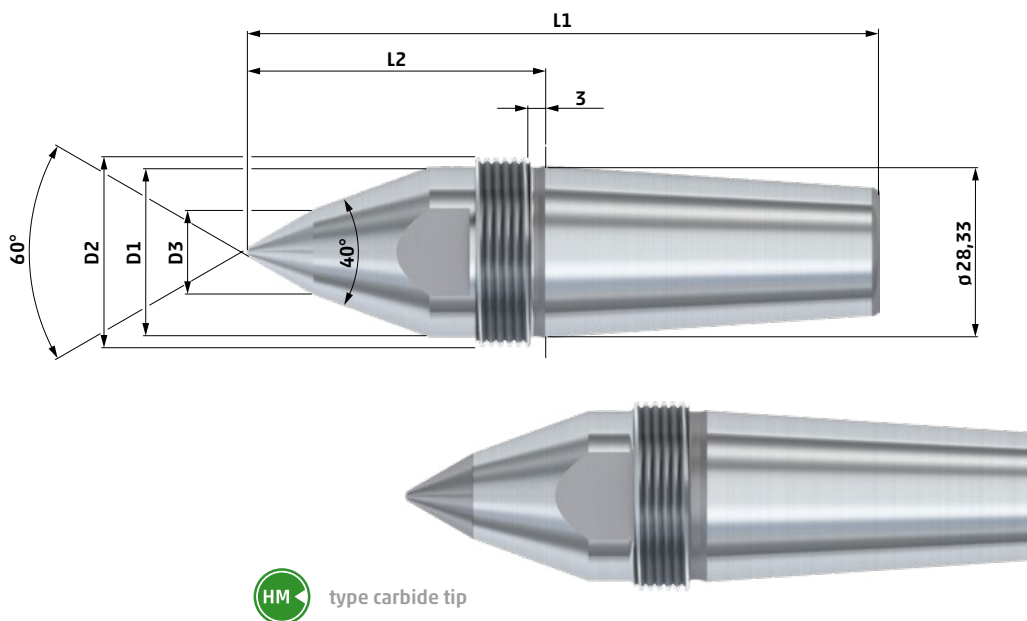
Technical data - type FE / FE HM taper 1:7.5



type	D1	D2	D3	L1	L2	cat. no.
FE	28	M32x1,5	-	115	60	914 03

type	cat. no.
FE carbide	
FE carbide	914 13

Technische Daten - Typ FEC / FEC HM Kegel 1:7,5



type	D1	D2	D3	L1	L2	cat. no.
FEC	28	M32x1.5	8	105	50	914 01
FEC	28	M32x1.5	14	105	50	914 02

type	cat. no.
FEC carbide	
FEC carbide	914 11
FEC carbide	914 12



Carbide Bull Nose Cone FNK

for hardened workpieces

Our carbide bull nose cones FNK are made for hardened workpieces, with big center holes, for grinding and other manufacturing machines. For headstocks and fixed tailstock spindle sleeves.

Type FNK



mushroom carbide bull nose



0,002



- Run-out deviation max.: 0,002mm.
- With carbide insert.

Upon request:

- Max. load of the bull nose cone.
- Special designs.

with extraction screw thread for hardened workpieces

FNK bull nose cones are made with extraction screw thread. This serves to protect the spindle bearings and is used for sleeves that are non-drilled.

Type FNK with extraction screw thread



mushroom carbide bull nose



0,002

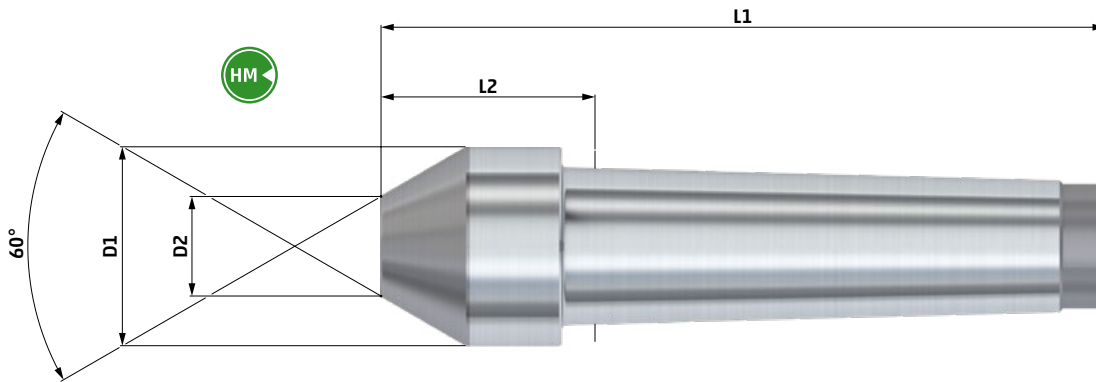


- Run-out deviation max.: 0,002mm.
- With carbide insert.
- With spanner flat.
- All types with extraction screw threads for protecting the spindle bearings or for non-drilled sleeves.
- Extracting nuts see page 151 for accessories.

Upon request:

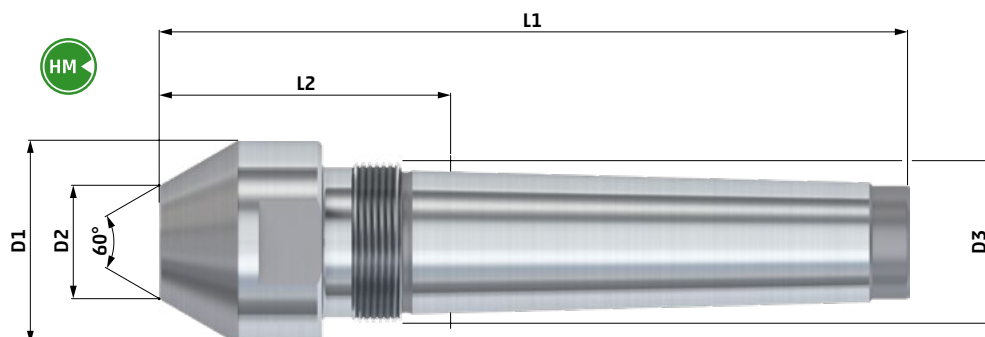
- Max. load of the bull nose cone.
- Special design.

Technical data - type FNK



MK	D1	D2	D3	L1	L2	cat. no.
2	30	10	-	100.5	36.5	915 01
2	40	20	-	103.5	39.5	915 03
2	50	30	-	108.5	44.5	915 05
3	30	10	-	118.5	37.5	915 06
3	35	15	-	121.5	40.5	915 07
3	40	20	-	121.5	40.5	915 08
3	45	25	-	121.5	40.5	915 09
3	55	35	-	126.5	45.5	915 11
3	70	50	-	131.5	49.5	915 13
4	40	20	-	145.5	43	915 17
4	50	30	-	150.5	48	915 19
4	60	40	-	155.5	53	915 21
4	70	50	-	155.5	53	915 22
4	80	60	-	155.5	53	915 23
5	55	35	-	175	48	915 29
5	60	40	-	180	53	915 30
5	70	50	-	180	53	915 31
5	80	60	-	180	53	915 32

Technical data - type FNK with extraction screw thread



MK	D1	D2	D3	L1	L2	cat. no.
3	35	15	M27 x 1.5	134.5	57	915 071
3	50	30	M27 x 1.5	138.5	61	915 101
4	45	25	M36 x 1.5	167	64.5	915 181
4	60	40	M36 x 1.5	168	65.5	915 211
5	55	35	M48 x 1.5	197	67.5	915 291
5	70	50	M48 x 1.5	199	69.5	915 311

Changeable Center Cones for type RNA / FNA

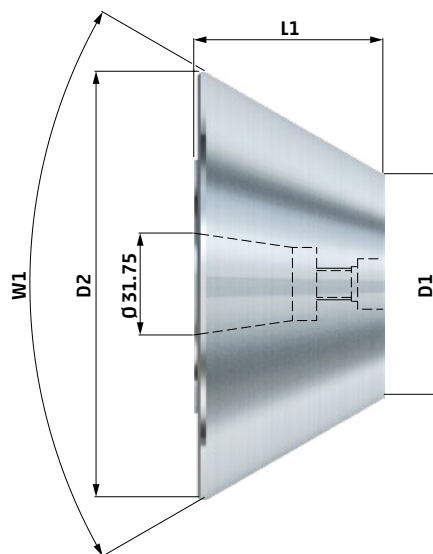
center cones for large workpiece centers

High degree of flexibility for clamping of workpieces with large centers.

For type RNA / FNA with SK30 interface



Technical data - for type RNA / FNA with SK30 interface



- Suitable for live centers type RNA on page 110 - 111 and for dead centers type FNA on page 136 - 137.
- Special cones up to \varnothing 400 available upon customer's request.
- The center cones are fastened with a screw M8 DIN 912 onto the base body.
- The center cones can be drawn off with a screw M10.

FOR TYPE RNA / FNA

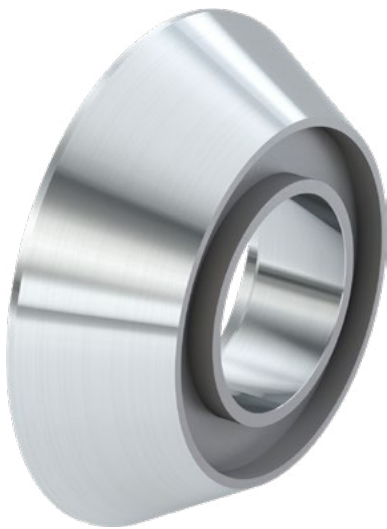
W1	D1	D2	L	cat. no.
60	20	85	60	814 50
60	70	135	60	814 51
60	120	185	60	814 52
60	170	235	60	814 53
60	220	285	60	814 54
75	20	105	60	814 55
75	90	175	60	814 56
75	160	245	60	814 57
75	230	315	60	814 58
90	20	130	60	814 59
90	100	210	60	814 60
90	180	290	60	814 61

Changeable Center Cones for type RKA

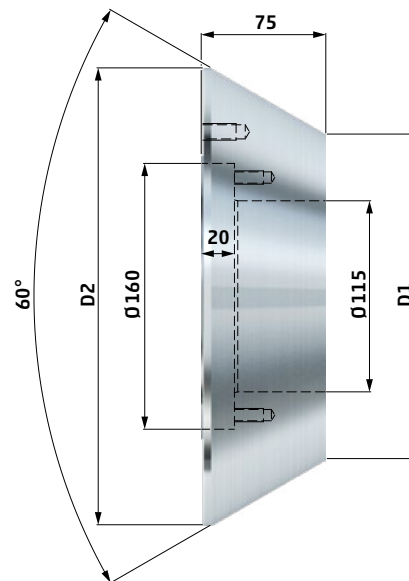
center cones for large workpiece centers

Workpieces with large center holes from $\varnothing 120$ to $\varnothing 460$ are clamped with a basic retainer and a changeable center cone.

for type RKA · centering taper



Technical data - for type RKA · centering taper



- Suitable for live center type RKA on page 114 - 115.
- Special changeable center cones ($90^\circ / 75^\circ$ / various diameters) available upon customer's request.
- True run-out accuracy max 0.02 at changeable center cone is guaranteed.

FOR TYPE RKA

D1	D2	cat. no.
113	220	814 80
195	275	814 81
270	350	814 82
345	425	814 83
380	460	814 84

Changeable Inserts for type RNW / FNW

Changeable inserts for a maximum of flexibility

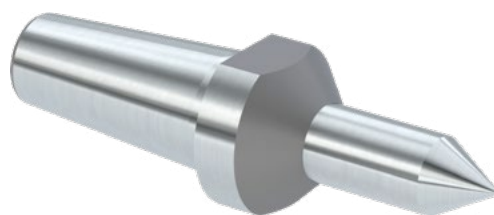
The adaptation of various changeable inserts ensures a high degree of flexibility and saving of costs.

For type RNW / FNW with taper interface

model B



model G



- Suitable for live centers type RNW on page 116 - 117, for the live centers type RNWF on page 122 - 123 and for the dead centers type FNW on page 136 - 137.
- Special inserts available upon customer's request.
- For quick demounting all changeable inserts come with spanner flat or cross hole.

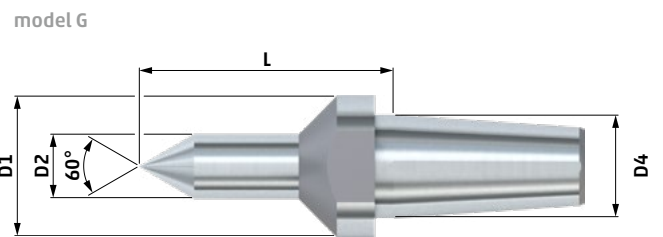
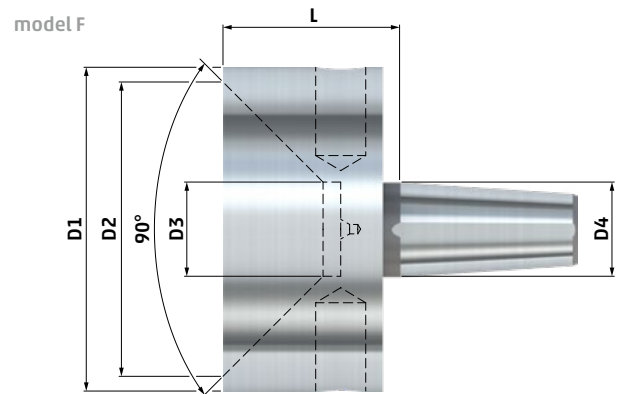
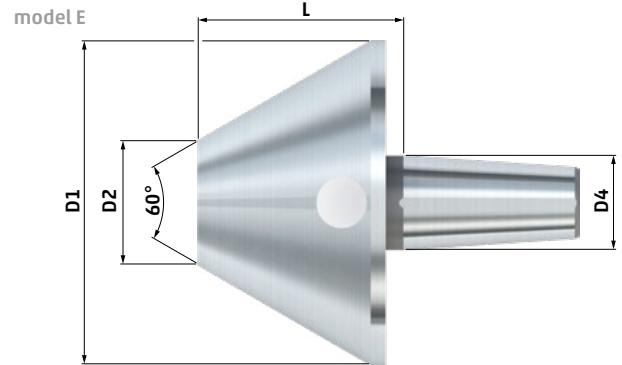
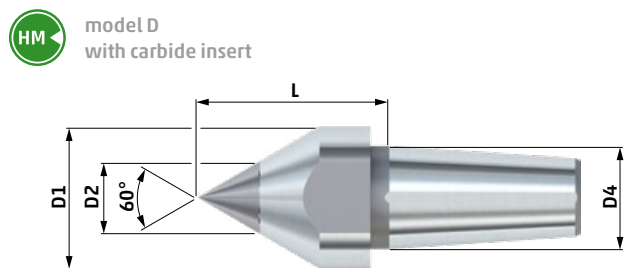
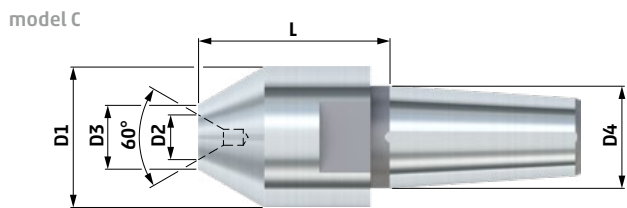
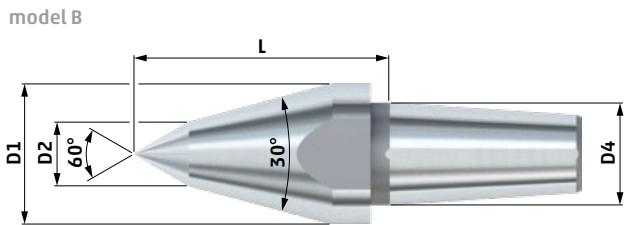
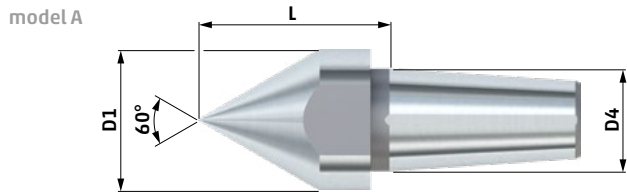
FOR TYPE RNW3 / 4 FNW MK3 / MK4

model	D1	D2	D3	D4	L	cat. no.
A	22	-	-	16	30	815 50
B	22	10	-	16	40	815 51
C	22	7	10	16	30	815 52
D	22	11	-	16	30	815 53
E	55	21	-	16	35	815 54
F	55	50	16	16	30	815 55
G	22	10	-	16	40	815 56

FOR TYPE RNW5 / 6 FNW MK5 / MK6

model	D1	D2	D3	D4	L	cat. no.
A	34	-	-	22	35	815 60
B	34	16	-	22	54	815 61
C	34	10	7	22	29	815 62
D	34	18	-	22	35	815 63
E	70	33	-	22	38	815 64
F	70	64	24	22	34	815 65
G	34	16	-	22	54	815 66

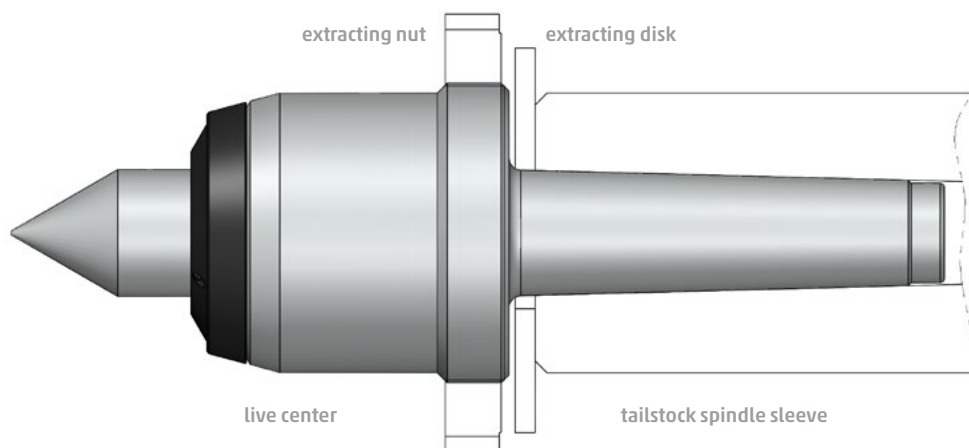
Technical data - for type RNW / FNW with taper interface



Extracting Nuts and Extracting Disks

Accessories for demounting

Accessories for safe and quick demounting of our ultra live centers, dead centers, center pins and face drivers.

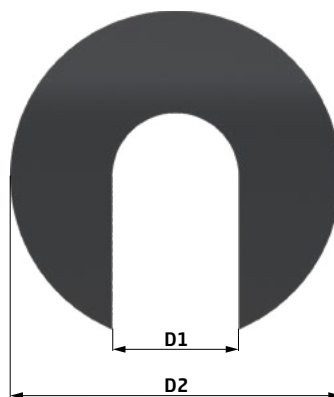


Extracting disk

Extracting disk



Technical data - extracting disk



for ultra live centers **type RN/RNC/RNA/RNW/RNS**

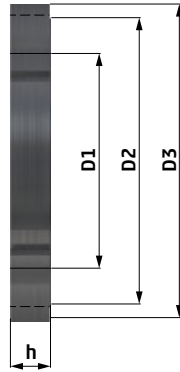
for type	MK	D1	D2	h	cat. no.
1	2	22	60	4	830 30
	3	28	80	4	830 31
3	4	38	80	5	830 32
	5	49	80	5	830 33
4	4	38	100	5	830 34
	5	49	100	5	830 35
5	5	49	120	5	830 36
	6	70	120	6	830 37
6	6	70	140	6	830 38

Extracting nut DIN 1804 h

Type DIN 1804 h



Technical data - type DIN 1804 h



for ultra live centers, center pins and face driver

D1	D2	D3	h	cat. no.
M28 x 1.5	43	50	10	830 39
M32 x 1.5	45	52	11	830 40
M35 x 1.5	47	55	11	830 41
M36 x 1.5	48	55	11	830 42
M48 x 1.5	67	75	13	830 43

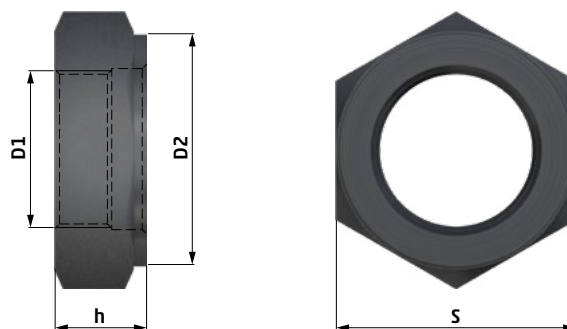
D1	D2	D3	h	cat. no.
M58 x 1.5	80	90	13	830 22
M70 x 1.5	90	100	14	830 44
M75 x 1.5	100	110	14	830 23
M95 x 2	120	135	16	830 24
M110 x 2	140	155	16	830 25

Extracting nut DIN 807

Type DIN 807



Technical data - type DIN 807



for dead centers and center pins

MK	D1	D2	h	s	cat. no.
1	M16 x 1.5	23	12	24	929 99
2	M22 x 1.5	30	15.5	32	930 00
3	M27 x 1.5	39	17.5	41	930 01
4	M36 x 1.5	53	21	55	930 02
5	M48 x 1.5	67	23	75	930 03
6	M68 x 1.5	90	25.5	100	930 04