tough.

Live Centers Face Drivers

2013/2014

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LIVE CENTERS - FACE DRIVERS

Live Centers - Face Drivers

Errors and corrections are reserved!

Operation Guide

Basic - carbide insert

Type	Type 604 HM Basic - carbide insert Body hardened and ground						Type 604 HMG Basic - with draw-off nut and carbide insert Body hardened and ground				
Size MT	1	2	3	4	5	6	2	3	4	5	6
Workpiece weight max (kg)	60	120	360	500	1000	1800	120	360	500	1000	1800
Concentricity deviation	0,005					0,01	0,005				0,01
Speed max min^{-1}	7000	7000	5000	3800	3000	2600	7000	5000	3800	3000	2600
Page	2005						2005				

Basic

Type	Type 604 HP Basic - precision design Body hardened and ground				Type 601 N Basic - economy design Body ground					
Size MT	2	3	4	5	0	1	2	3	4	5
Workpiece weight max (kg)	200	500	800	2000	10	80	180	300	750	1800
Concentricity deviation	0,003				0,01	0,005				
Speed max min^{-1}	7000	5000	3800	3000	15000	7000	7000	6300	3800	3000
Page	2007				2007					

Heavy

Type	Type 640-20 Heavy - standard design Body hardened and ground			Type 640-80 Heavy - standard design with draw-off nut Body hardened and ground			Type 604 Heavy - heavy duty design Body hardened and ground							
Size MT	4	5	6	4	5	6	6	7	Metr. 80	Metr. 100	Metr. 120	Nr. 80	Nr. 100	Nr. 120
Workpiece weight max (kg)	1000	2000	3000	1000	2000	3000	5000	9000	8500	13000	22000	8500	13000	22000
Concentricity deviation	0,005			0,005			0,01		0,015	0,02	0,015	0,01	0,01	0,01
Speed max min^{-1}	7000	6000	4800	7000	6000	4800	1500	1500	1500	1000	800	1500	1000	800
Page	2009			2009			2010							

Slim

Type	Type 600 Slim - standard design Body hardened and ground					Type 600-20 Slim - extended live centre with draw-off nut Body hardened and ground				
Size MT	2	3	4	5	6	2	3	4	5	6
Workpiece weight max (kg)	200	400	800	1600	3500	170	340	700	1400	3000
Concentricity deviation	0,005			0,01	0,02	0,008			0,01	0,02
Speed max min^{-1}	7000	7000	6300	4300	3000	7000	7000	6300	4300	3000
Page	2012					2012				

Control

Type	Type 652 AC Control - standard design Body hardened and ground				Type 652 AC-VL Control - extended live centre Body hardened and ground			
Size MT	3	4	5	6	3	4	5	6
Workpiece weight max (kg)	400	800	1600	3200	260	550	1100	2500
Concentricity deviation	0,01			0,015	0,01			0,015
Speed max min^{-1}	4000	3500	2500	1800	4000	3500	2500	1800
Page	2014				2014			

Operation Guide

Basic - standard design

Type	Type 604 H Basic - standard design Body hardened and ground							Type 604 HG Basic - standard design with draw-off nut Body hardened and ground				
Size MT	1	2	3	4	5	6	metr. 80	2	3	4	5	6
Workpiece weight max (kg)	100	200	500	800	2000	5000	8500	200	500	800	2000	3500
Concentricity deviation	0,005				0,01		0,015	0,005				0,01
Speed max min^{-1}	7000	7000	5000	3800	3000	1500	1500	7000	5000	3800	3000	2600
Page	2006							2006				

Basic - extended live centre

Type	Type 604 HVL Basic - extended live centre Body hardened and ground						Type 604 HVLN Basic - extended live centre with profiled centre point Body hardened and ground			
Size MT	1	2	3	4	5	6	2	3	4	5
Workpiece weight max (kg)	80	140	400	500	1200	2500	100	150	180	280
Concentricity deviation	0,01	0,005				0,01	0,005			
Speed max min^{-1}	7000	7000	5000	3800	3000	2600	7000	5000	3800	3000
Page	2008						2008			

Speed

Type	Type 663 Speed - with draw-off nut for especially high speeds - different head dia. at same shank Body hardened and ground			Type 664 Speed - extended NC-centre with carbide insert for especially high speed Body hardened and ground			
Size MT	4	5	6	2	3	4	5
Workpiece weight max (kg)	800	1250	2500	100	100	250	250
Concentricity deviation	0,005			0,01			
Speed max min^{-1}	10000	10000	7000	12000	12000	9000	9000
Page	2011			2011			

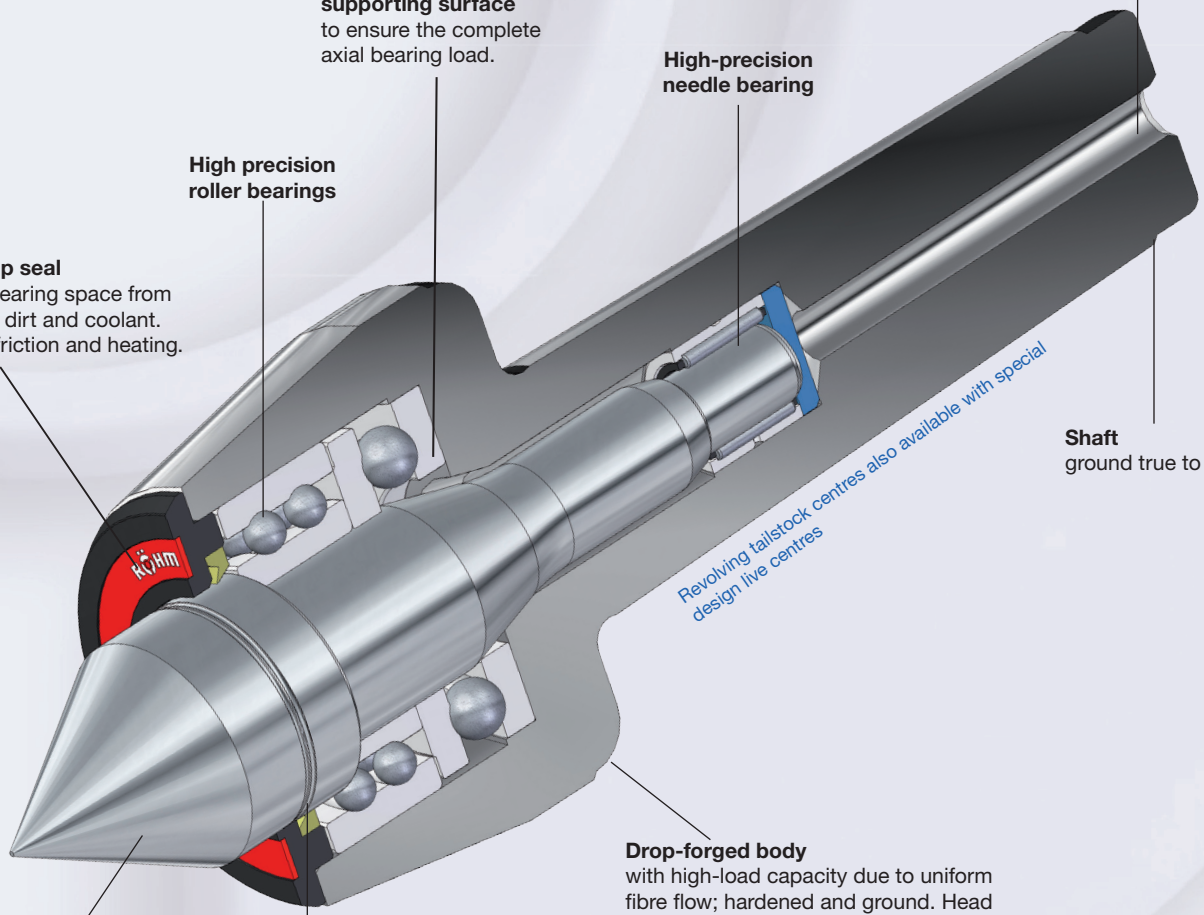
Slim

Type	Type 600-20 Slim - extended live centre with profiled centre point Body hardened and ground			
Size MT	2	3	4	5
Workpiece weight max (kg)	50	100	150	180
Concentricity deviation	0,005			
Speed max min^{-1}	7000	7000	6300	4300
Page	2013			

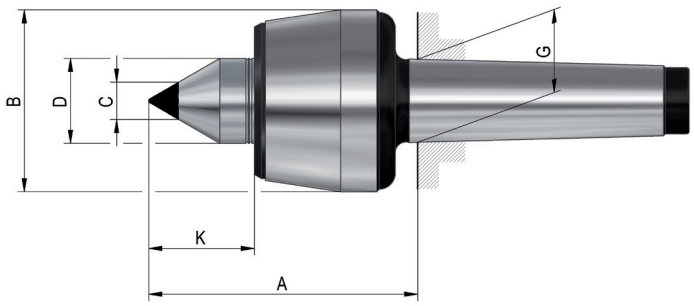
Technical features

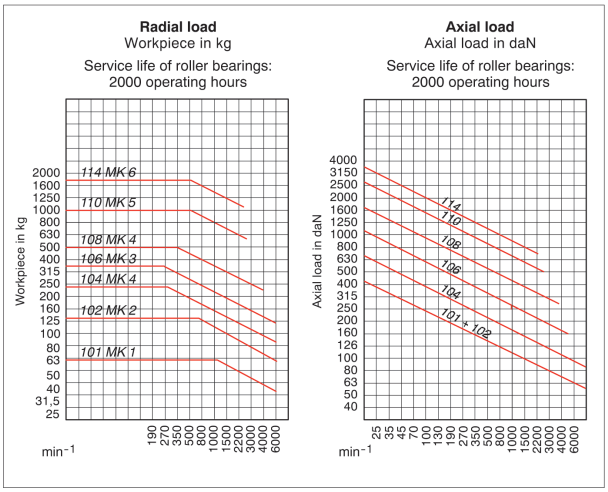
The revolving tailstock centres have been re-engineerd in function and design. Due to the new features they are even better in daily use and offer additional advantages.

- **Even longer life due to:** NEW
  - Splash water groove
  - Improved lubrication
  - Close toleranced bearing seat
- **Lower interference shape due to:**
  - Slim housing
- Body hardened and ground
- Centre hardened, repeated regrinding at will
- Triple bearing method
- High runout accuracy
- Life-time lubrication
- High speeds
- Heavy duty
- Long life
- Various type suitable to different applications



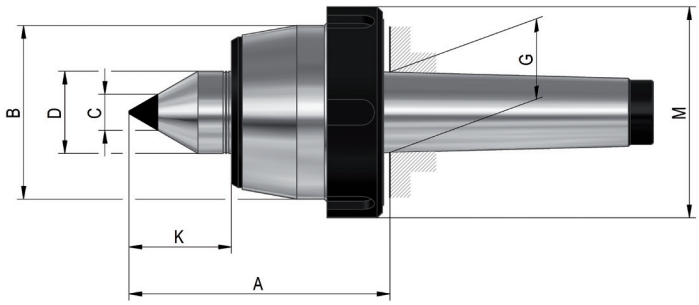
Basic - carbide insert

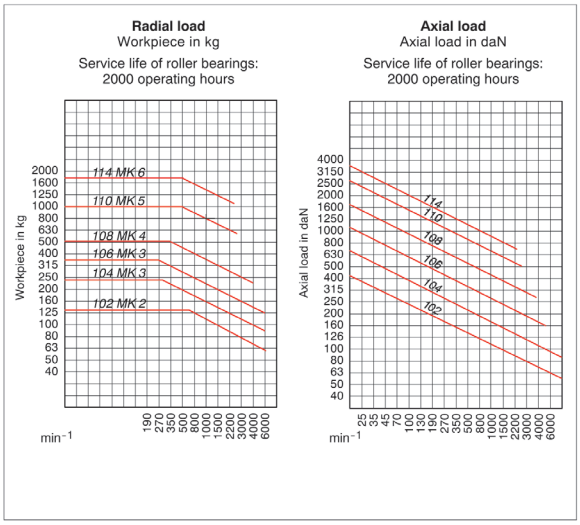




Tool group A06
Type 604 HM Basic
with **carbide insert**
body hardened and ground -
tip angle 60°

Item no.	225297 ■	032140 ●	090089 ●	237413 ●	093306 ●	221016 ●	221017 ■
Mount MT	1	2	3	3	4	5	6
Size	101	102	104	106	108	110	114
A	60,5	65	70,5	79,5	102,5	129	152
B	34,5	43	48,5	58,5	68,5	88,5	102,5
C	7	11	11	14	14	18	18
D	15	20	22	25	32	40	50
G	12,065	17,78	23,825	23,825	31,267	44,399	63,348
K	17	24	27,5	31	41	50,5	57,5
Weight approx. g	400	600	900	1300	2300	4700	10000
Workpiece weight max. kg	60	120	240	360	500	1000	1800
Concentricity deviation	0,005	0,005	0,005	0,005	0,005	0,005	0,01
Speed max. min⁻¹	7000	7000	6300	5000	3800	3000	2600
Spare live centres	**1241741**	**1241742**	**1241743**	**1241744**	**1241745**	**1241746**	**1241747**



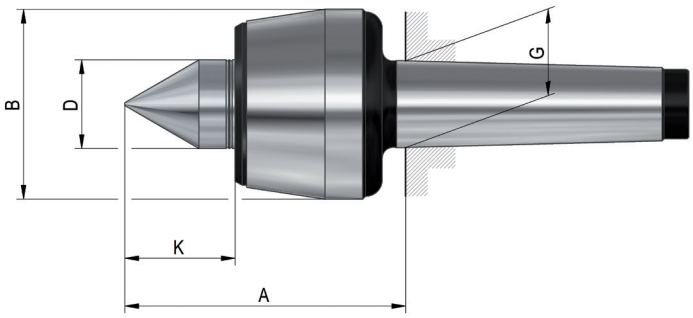


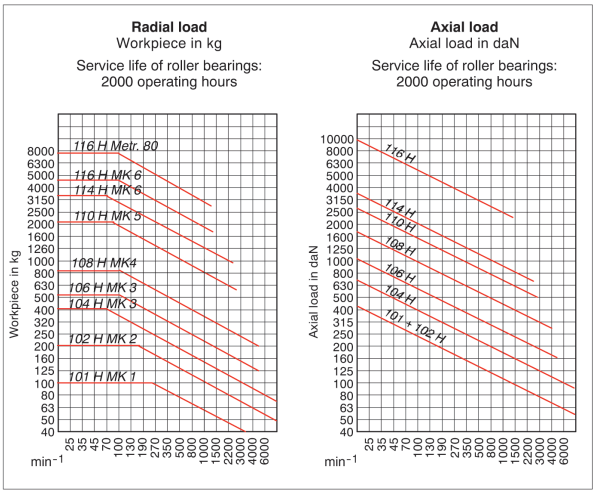
Tool group A06
Type 604 HMG Basic
with **draw-off nut**
and **carbide insert**
body hardened and ground -
tip angle 60°

Item no.	221021 ●	221022 ■	221023 ●	221024 ●	221025 ■	221026 ■
Mount MT	2	3	3	4	5	6
Size	102	104	106	108	110	114
A	65	70,5	79,5	102,5	129	152
B	45	50	60	70	90	105
C	11	11	14	14	18	18
D	20	22	25	32	40	50
G	17,78	23,825	23,825	31,265	44,399	63,348
K	24	27,5	31	41	50,5	57,5
M	56	62	74	82	105	120
Weight approx. g	600	1000	1400	2400	5200	10500
Workpiece weight max. kg	120	240	360	500	1000	1800
Concentricity deviation	0,005	0,005	0,005	0,005	0,005	0,01
Speed max. min⁻¹	7000	6300	5000	3800	3000	2600
Spare live centres	**1241742**	**1241743**	**1241744**	**1241745**	**1241746**	**1241747**

● from stock ■ 4 - 6 weeks ▲ on request

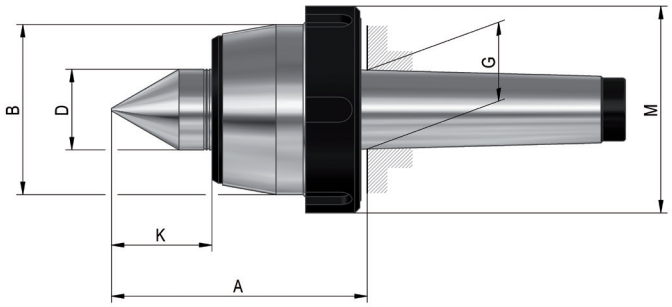
Basic - standard design

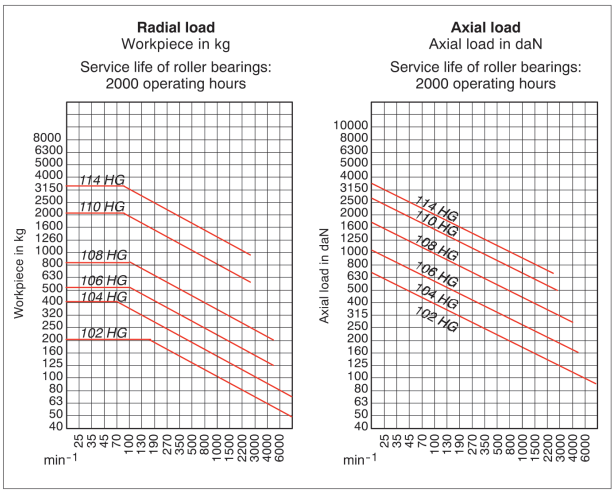




Tool group A06
Type 604 H Basic
body hardened and ground -
tip angle 60°

Item no.	043400 ●	043115 ●	042315 ●	042776 ●	042175 ●	042843 ●	043532 ●	093439 ●	093440 ●
Mount MT	1	2	3	3	4	5	6	6	Metr. 80
Size	101	102	104	106	108	110	114	116	116
A	60,5	65	70,5	79,5	102,5	129	152	196	196
B	34,5	43	48,5	58,5	68,5	88,5	102,5	138	138
D	15	20	22	25	32	40	50	60	60
G	12,065	17,78	23,825	23,825	31,267	44,399	63,348	63,348	80
K	17	24	27,5	31	41	50,5	57,5	67	68
Weight approx. g	400	500	800	1300	2300	4700	10200	17800	23000
Workpiece weight max. kg	100	200	400	500	800	2000	3500	5000	8500
Concentricity deviation	0,005	0,005	0,005	0,005	0,005	0,005	0,008	0,01	0,015
Speed max. min⁻¹	7000	7000	6300	5000	3800	3000	2600	1500	1500
Spare live centres	**1241726**	**1241725**	**1241724**	**1241723**	**1241722**	**1241721**	**1241728**	**1241729**	**1241730**



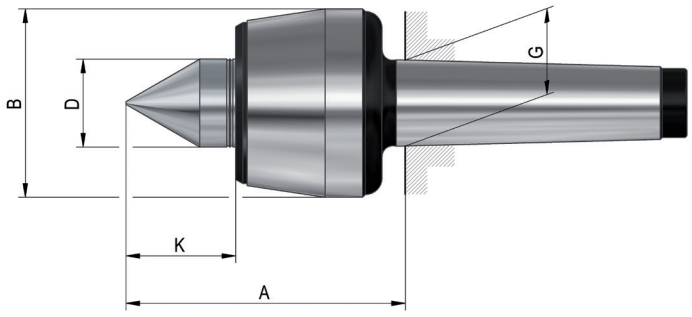


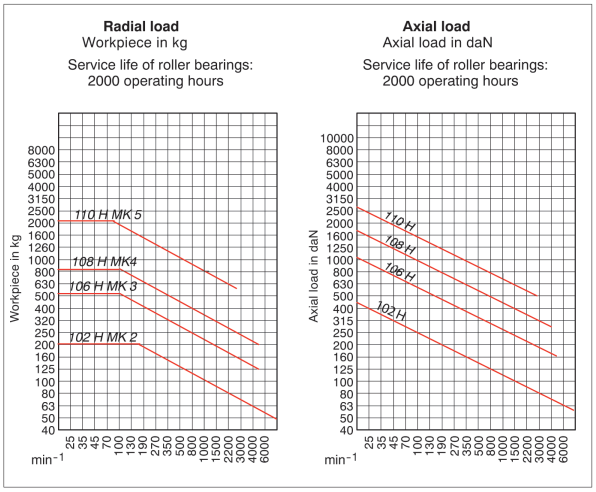
Tool group A06
Type 604 HG Basic
with **draw-off nut**
body hardened and ground -
tip angle 60°

Item no.	221018 ■	221019 ●	205036 ■	207148 ●	074390 ●	221020 ●
Mount MT	2	3	3	4	5	6
Size	102	104	106	108	110	114
A	65	70,5	79,5	102,5	129	152
B	45	50	60	70	90	105
D	20	22	25	32	40	50
G	17,78	23,825	23,825	31,267	44,399	63,348
K	24	27,5	31	41	50,5	57,5
M	56	62	74	82	105	120
Weight approx. g	600	1000	1400	2400	5200	10500
Workpiece weight max. kg	200	400	500	800	2000	3500
Concentricity deviation	0,005	0,005	0,005	0,005	0,005	0,008
Speed max. min⁻¹	7000	6300	5000	3800	3000	2600
Spare live centres	**1241725**	**1241724**	**1241723**	**1241722**	**1241721**	**1241728**

● from stock ■ 4 - 6 weeks ▲ on request

Basic - precision design

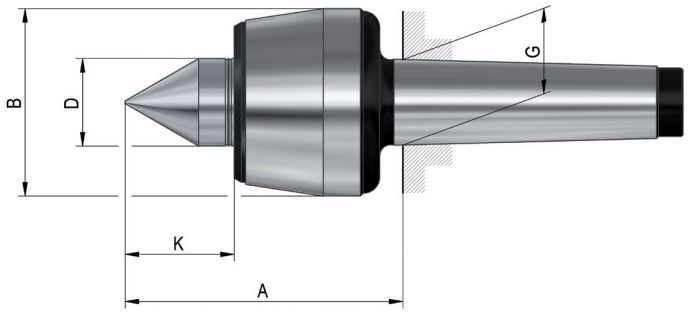


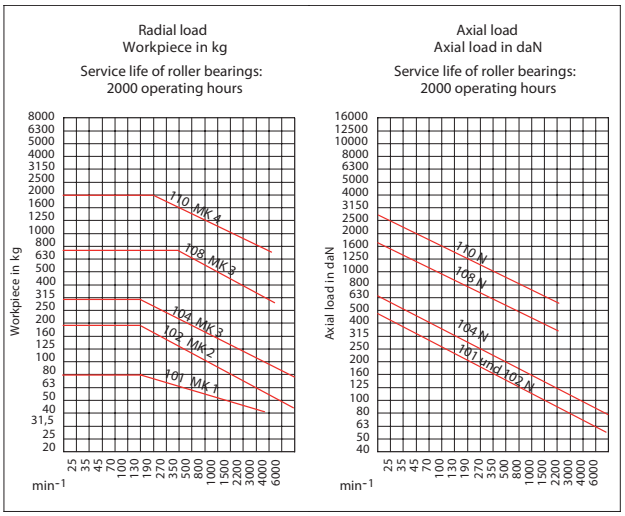


Tool group A06
Type 604 HP Basic
precision design
body hardened and ground -
tip angle 60°

Item no.	082392 ●	318227 ●	082394 ●	082395 ●	1263871 ●
Mount MT	2	3	4	5	6
Size	102	106	108	110	114
A	65	82	102,5	129	152
B	43	55	68,5	88,5	102,5
D	20	25	32	40	50
G	17,78	23,825	31,267	44,399	63,348
K	24	30,5	41	50,5	57,5
Weight approx. g	500	1300	2300	4700	10200
Workpiece weight max. kg	200	500	800	2000	3500
Concentricity deviation	0,003	0,003	0,003	0,003	0,003
Speed max. min⁻¹	7000	5000	3800	3000	2600
Spare live centres	**1241725**	**1243613**	**1241722**	**1241721**	**1241728**

Basic - economy design



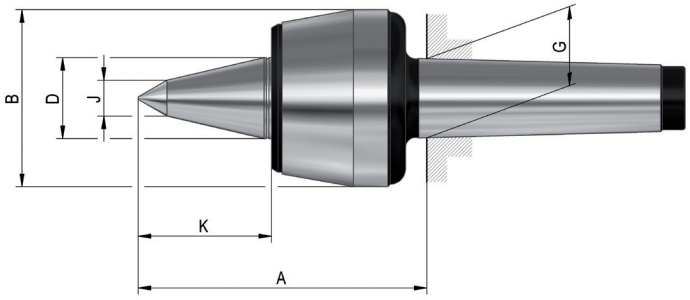


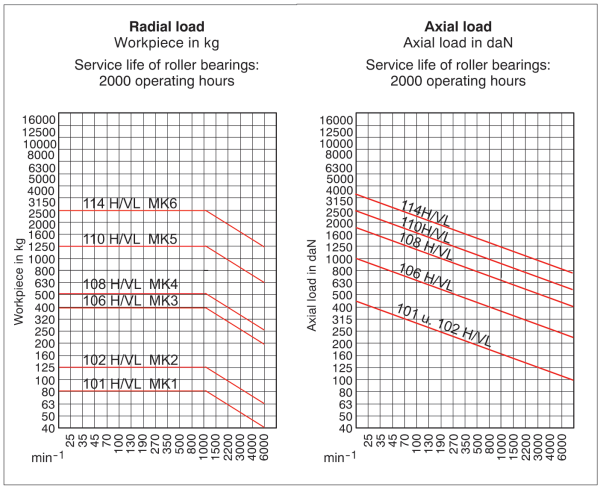
Tool group A06
Type 601 N Basic
body only ground not hardened -
tip angle 60°

Item no.	061740 ●	043395 ●	043111 ●	042310 ●	042171 ●	042839 ●
Mount MT	0	1	2	3	4	5
Size	100	101	102	104	108	110
A	44	60,5	65	70,5	102,5	129
B	25	34,5	43	48,5	68,5	88,5
D	10	15	20	22	32	40
G	9,045	12,065	17,78	23,825	31,267	44,399
K	11	17	24	27,5	41	50,5
Weight approx. g	200	400	500	800	2300	4700
Workpiece weight max. kg	10	80	180	300	750	1800
Concentricity deviation	0,01	0,005	0,005	0,005	0,005	0,005
Speed max. min⁻¹	15000	7000	7000	6300	3800	3000
Spare live centres	**1241727**	**1241726**	**1241725**	**1241724**	**1241722**	**1241721**

● from stock ■ 4 - 6 weeks ▲ on request

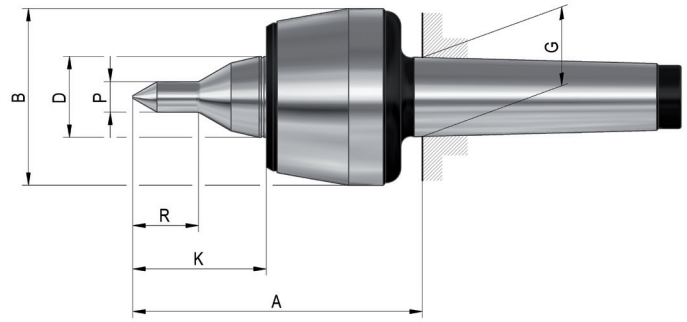
Basic - extended live centre

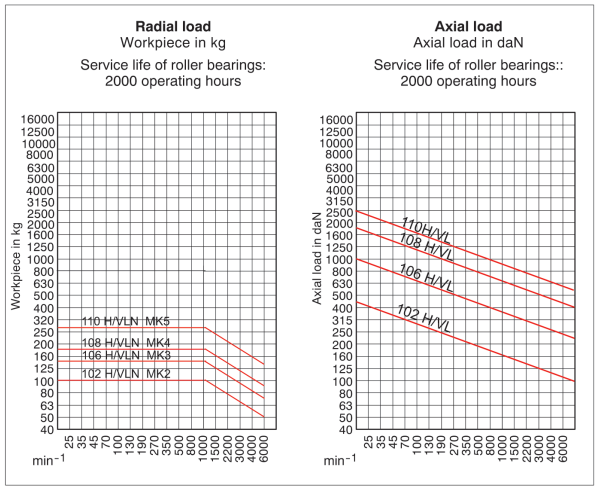




Tool group A06
Type 604 HVL Basic
with **extended live centre**
body hardened and ground -
tip angle 60°

Item no.	058668 ●	058669 ●	058670 ●	058671 ●	058672 ●	058673 ●
Mount MT	1	2	3	4	5	6
Size	101	102	106	108	110	114
A	70,5	75	95,5	114,5	143,5	172,5
B	34,5	43	58,5	68,5	88,5	102,5
D	15	20	25	32	40	50
G	12,065	17,78	23,825	31,267	44,399	63,348
K	27	34	47	53	65	78
J	9	10	12	14	16	18
Weight approx. g	400	500	1300	2300	4800	10200
Workpiece weight max. kg	80	140	400	500	1200	2500
Concentricity deviation	0,01	0,005	0,005	0,005	0,005	0,01
Speed max. min^{-1}	7000	7000	5000	3800	3000	2600
Spare live centres	**1241731**	**1241732**	**1241733**	**1241734**	**1241735**	**1241736**



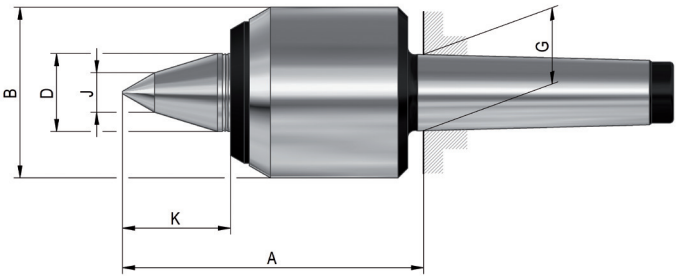


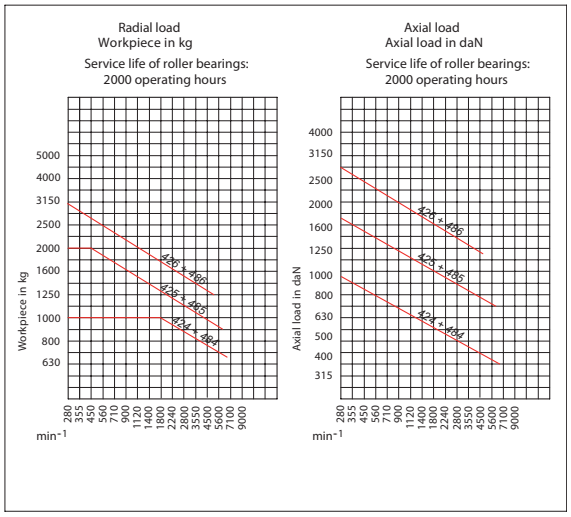
Tool group A06
Type 604 HVLN Basic
with **profiled centre point**
body hardened and ground -
tip angle 60°

Item no.	1241689 ■	1241691 ■	1241693 ■	1241694 ■
Mount MT	2	3	4	5
Size	102	106	108	110
A	75	95,5	114,5	143,5
B	43	58,5	68,5	88,5
D	20	25	32	40
G	17,78	23,825	31,267	44,399
K	34	47	53	65
P	8	10	12	14
R	16	20	26	30
Workpiece weight max. kg	100	150	180	280
Speed max. min^{-1}	7000	5000	3800	3000
Spare live centres	**1243677**	**1243678**	**1243679**	**1243680**

● from stock ■ 4 - 6 weeks ▲ on request

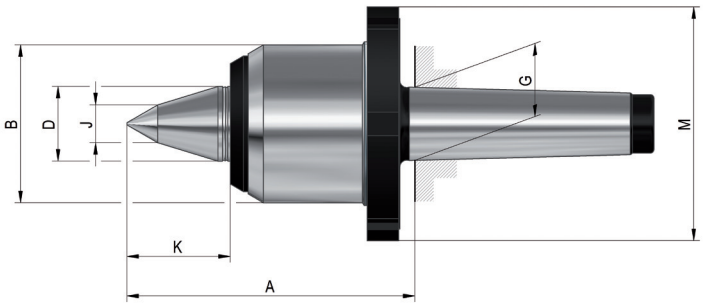
Heavy - standard design

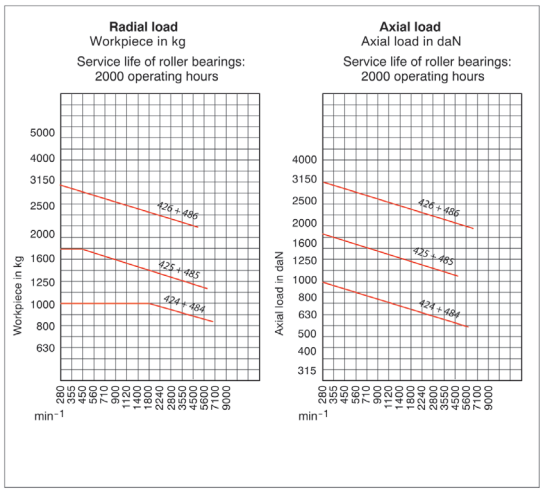




Tool group A06
Type 640-20 Heavy
especially for **high load at high speeds**
body hardened and ground - tip angle 60°

Item no.	303598 ●	303599 ●	301696 ■
Mount MT	4	5	6
Size	424	425	426
A	122	150	180
B	70	95	120
D	32	42	58
G	31,267	44,399	63,348
J	16	20	26
K	44	59	77
Weight approx. g	2600	5500	11500
Workpiece weight max. kg	1000	2000	3000
Concentricity deviation	0,005	0,005	0,005
Speed max. min⁻¹	7000	6000	4800
Spare live centres	**1241762**	**1241763**	**1241764**

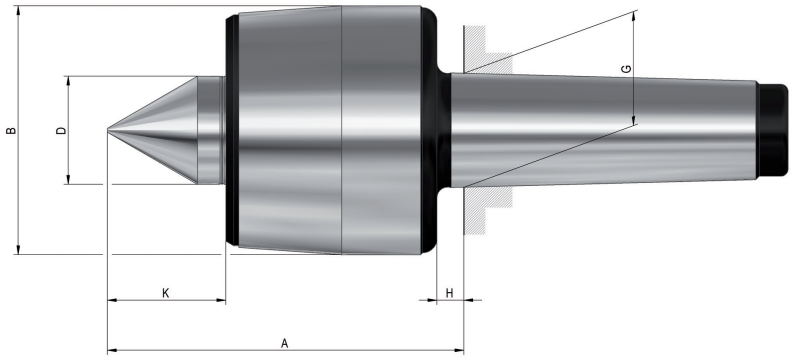


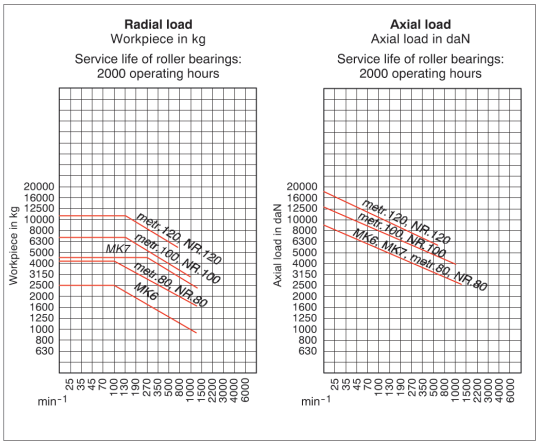


Tool group A06
Type 640-80 Heavy
with **draw-off nut**
especially for **high load at high speeds**
body hardened and ground - tip angle 60°

Item no.	304521 ●	304522 ●	304523 ●
Mount MT	4	5	6
Size	484	485	486
A	122	150	180
B	70	95	120
D	32	42	58
G	31,267	44,399	63,348
J	16	20	26
K	44	59	77
M	100	125	155
Weight approx. g	2800	5400	12300
Workpiece weight max. kg	1000	2000	3000
Concentricity deviation	0,005	0,005	0,005
Speed max. min⁻¹	7000	6000	4800
Spare live centres	**1241762**	**1241763**	**1241764**

Heavy - heavy duty design





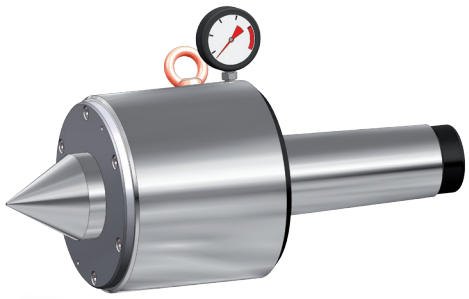
Tool group A06
Type 604 Heavy -
heavy duty design
body hardened and ground -
tip angle 60°

Item no.	093439 ●	466229 ■	093440 ●	058674 ■	018801 ■	093446 ■	058675 ▲	466230 ▲
Mount	6	MK 7	Metr. 80	Metr. 100 (1:20)	Metr. 120 (1:20)	Nr. 80 (1:10)	Nr. 100 (1:10)	Nr. 120 (1:10)
A	196	215	196	257	274	196	257	274
B	138	150	138	200	245	140	200	245
D	60	70	60	85	110	60	85	110
G	63,348	83,061	80	100	120	80	100	120
H	13	15	13	14	15	13	14	15
K	67	77	68	86	102	66	86	102
Workpiece weight max. kg	5000	9000	8500	13000	22000	8500	13000	22000
Concentricity deviation	0,01	0,01	0,015	0,02	0,015	0,01	0,01	0,01
Speed max. min^{-1}	1500	1500	1500	1000	800	1500	1000	800

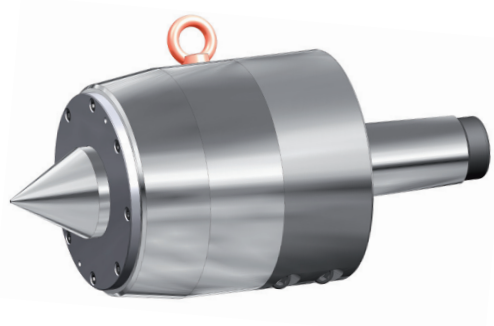
Heavy - heavy duty design

Revolving tailstock centres for heavy duty machining. Perfectly suitable for turning and grinding machines.

We have a lot of know-how and decades of experience in heavy duty machining. We offer highest concentricity deviation and best quality. Thanks to the lifetime lubrication our revolving tailstock centres are free of maintenance and ensure a very long life.
Have we aroused your interest in revolving tailstock centres for heavy duty machining? Please contact us.
We want you to receive exactly the right solution enabling you to achieve your goals in a reliable and economical manner.



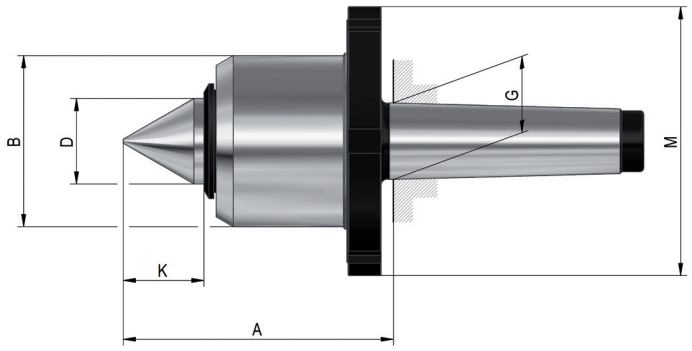
Type 652
Revolving tailstock centres for heavy duty machining with length compensation and pressure display.

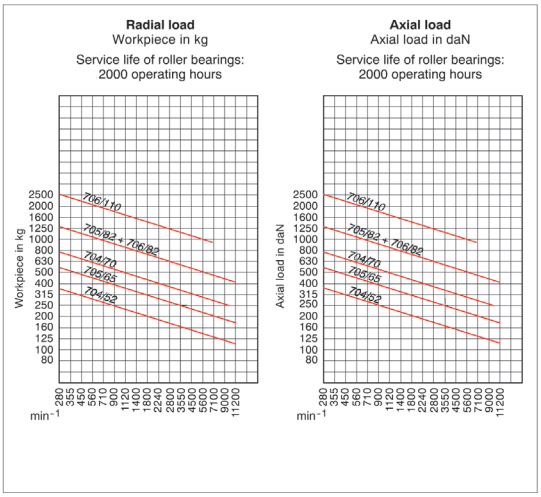


Type 604 MP
Revolving tailstock centres for heavy duty machining with tailstock support.

● from stock ■ 4 - 6 weeks ▲ on request

Speed - standard design

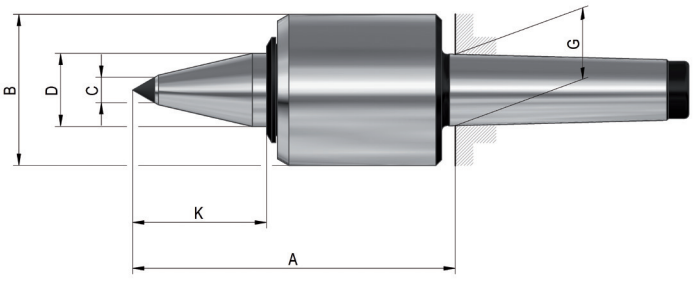


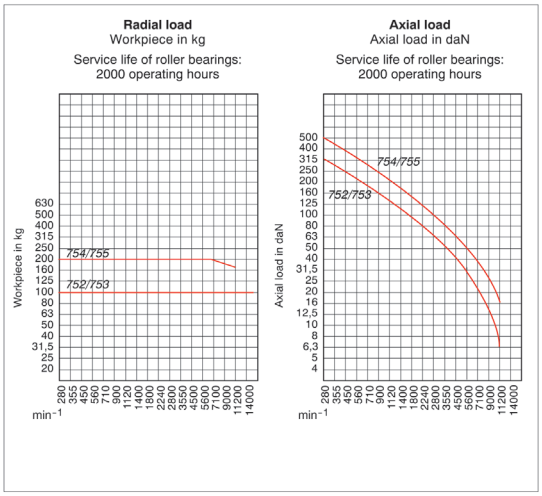


Tool group A06
Type 663 Speed
with **draw-off nut -**
for especially **high speeds**,
different head diameters at same size of shank
body hardened and ground -
tip angle 60°

Item no.	340911 ■	340910 ■	338595 ■	338594 ■	344808 ▲	344809 ▲
Mount MT	4	4	5	5	6	6
Size	704/52	704/70	705/65	705/82	706/110	706/82
A	90	110	100	130	168	133
B	52	70	65	82	110	82
D	25	35	32	40	55	40
G	31,267	31,267	44,399	44,399	63,348	63,348
K	28	38	34	41	58	41
M	80	110	100	115	150	115
Weight approx. g	1900	2300	4000	5200	12000	8400
Workpiece weight max. kg	360	800	560	1250	2500	1250
Concentricity deviation	0,005	0,005	0,005	0,005	0,005	0,005
Speed max. min^{-1}	15000	10000	12000	10000	7000	10000
Spare live centres	**344924**	**344923**	**338895**	**338901**	**344925**	**338901**

Speed - extended live centre



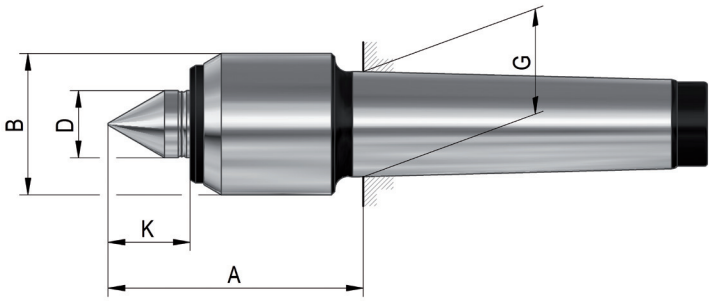


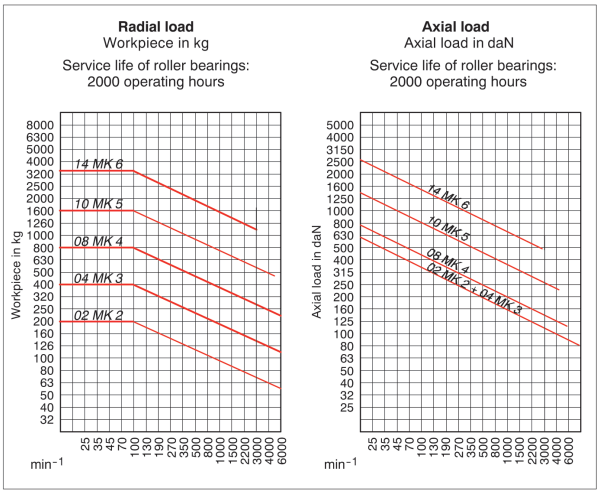
Tool group A06
Type 664 Speed
extended NC-centre
with **carbide insert**,
for high speed
body hardened and ground -
tip angle 60°

Item no.	772389 ■	772390 ●	772391 ●	772392 ●
Mount MT	2	3	4	5
Size	752	753	754	755
A	99	99	141	141
B	45	45	66	66
C	7	7	11	11
D	20	20	32	32
G	17,78	23,825	31,267	44,399
K	40	40	63	63
Weight approx. g	1200	1600	2600	5000
Workpiece weight max. kg	100	100	250	250
Concentricity deviation	0,01	0,01	0,01	0,01
Speed max. min^{-1}	12000	12000	9000	9000
Spare live centres	**790267**	**790267**	**790291**	**790291**

● from stock ■ 4 - 6 weeks ▲ on request

Slim - standard design

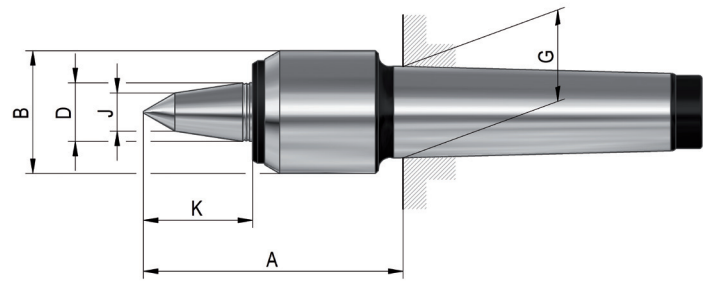


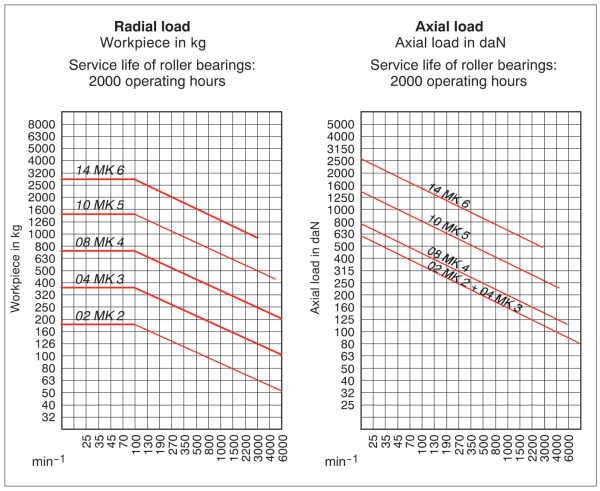


Tool group A06
Type 600 Slim
with **small casing diameter**
body hardened and ground -
tip angle 60°

Item no.	005336 ●	005429 ●	005469 ●	005490 ●	005547 ●
Mount MT	2	3	4	5	6
Size	02	04	08	10	14
A	62	62	75,5	106	143
B	32	34	42	58	80
D	15	15	20	30	42
G	17,78	23,825	31,267	44,399	63,348
K	18	18	25	34	49
Weight approx. g	300	400	1000	2600	7100
Workpiece weight max. kg	200	400	800	1600	3500
Concentricity deviation	0,005	0,005	0,005	0,01	0,02
Speed max. min^{-1}	7000	7000	6300	4300	3000
Spare live centres	**1241748**	**1241749**	**1241750**	**1241751**	**1241752**

Slim - extended live centre



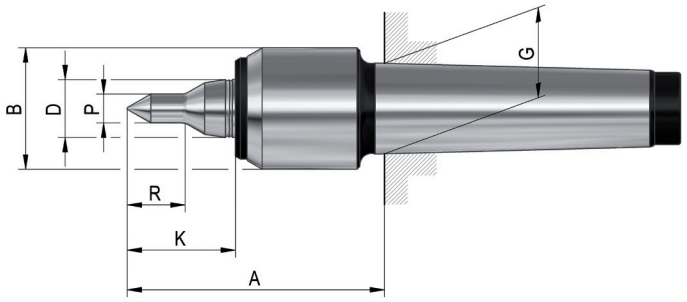


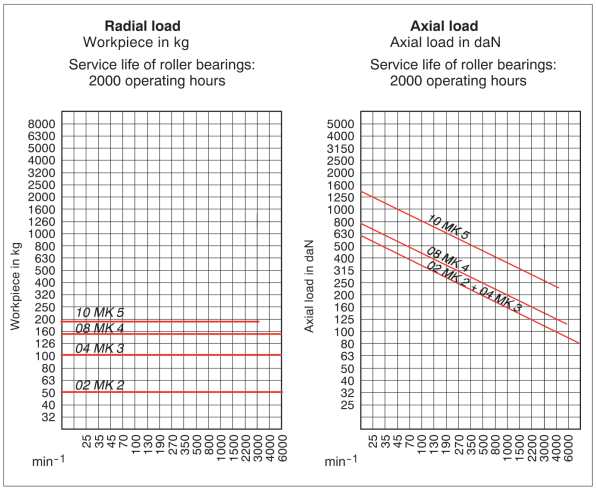
Tool group A06
Type 600-20 Slim
with **small casing diameter**
and **extended live centre**
body hardened and ground -
tip angle 60°

Item no.	362080 ●	362081 ●	362082 ●	362083 ●	362084 ●
Mount MT	2	3	4	5	6
Size	02	04	08	10	14
A	73	74	88,5	119	164
B	32	34	42	58	80
D	15	15	20	30	42
G	17,78	23,825	31,267	44,399	63,348
K	29	30	38	49	70
J	10	11	13	14	18
Weight approx. g	320	460	1000	2600	7100
Workpiece weight max. kg	170	340	700	1400	3000
Concentricity deviation	0,008	0,008	0,008	0,01	0,02
Speed max. min^{-1}	7000	7000	6300	4300	3000
Spare live centres	**1241753**	**1241754**	**1241755**	**1241756**	**1241757**

● from stock ■ 4 - 6 weeks ▲ on request

Slim - extended live centre

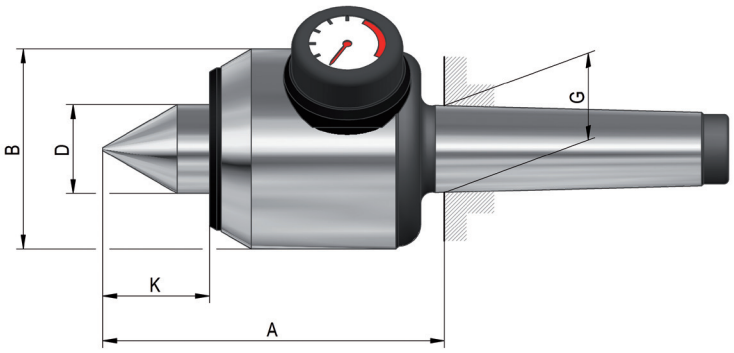


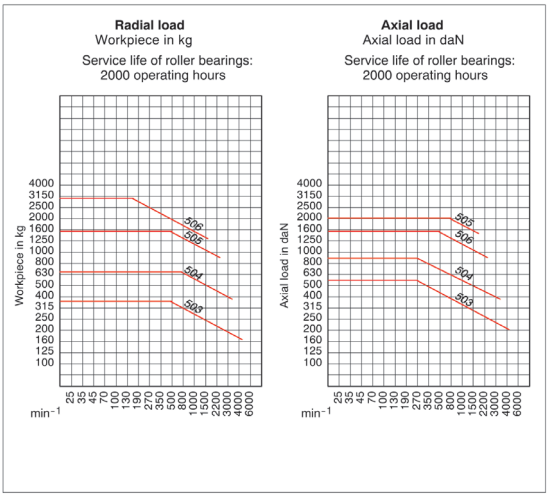


Tool group A06
Type 600-20 Slim
with **small casing diameter**
and **profiled centre point**
body hardened and ground -
tip angle 60°

Item no.	1241695 ●	1243505 ●	1243507 ●	1243509 ●
Mount MT	2	3	4	5
Size	02	04	08	10
A	73	74	88,5	119
B	32	34	42	58
D	15	15	20	30
G	17,78	23,825	31,267	44,399
K	29	30	38	49
P	6	8	10	12
R	12	16	20	26
Workpiece weight max. kg	50	100	150	180
Speed max. min^{-1}	7000	7000	6300	4300
Spare live centres	**1241758**	**1241759**	**1241760**	**1241761**

Control - standard design



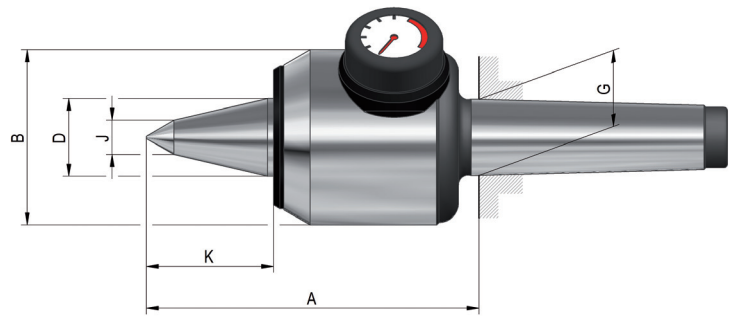


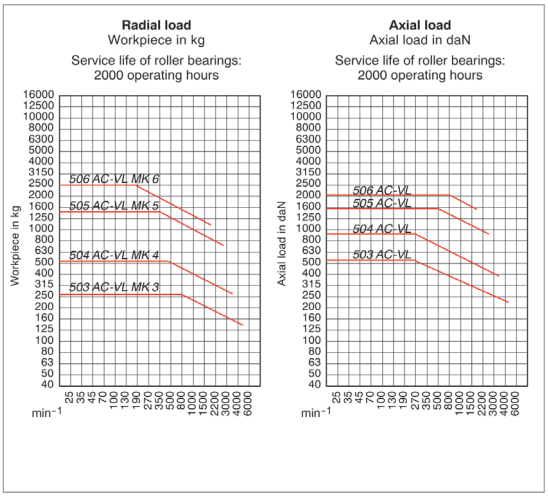
Tool group A06
Type 652 AC Control
with **pressure display** and
length compensation
as counter centre with face drivers
body hardened and ground -
tip angle 60°

Item no.	060798 ●	060874 ●	060906 ●	060915 ●
Mount MT	3	4	5	6
Size	503	504	505	506
A	105	123,5	160,5	202
B	64	72	95	120
D	25	32	40	52
G	23,825	31,267	44,399	63,348
K	31,5	39	49	59
Weight approx. g	2100	3500	8300	17000
Spring way[1)]	1,6	2	1,8	2,7
Axial load max.	550	900	1500	2000
Workpiece weight max. kg	400	800	1600	3200
Concentricity deviation	0,01	0,01	0,01	0,015
Speed max. min^{-1}	4000	3500	2500	1800
Spare live centres	**009192**	**009205**	**009325**	**009413**

[1)] at max. axial load

Control - extended live centre





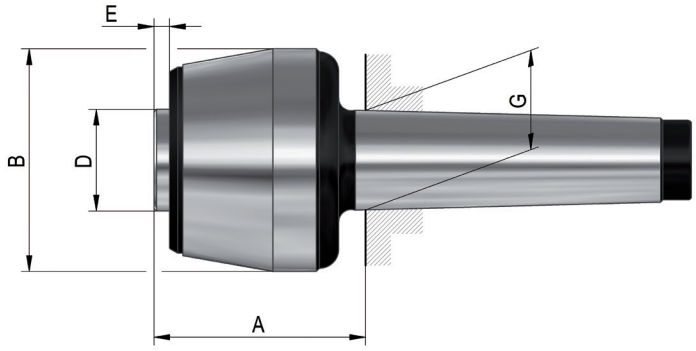
Tool group A06
Type 652-AC-VL Control
with **pressure display,**
length compensation and
extended live centre
as counter centre with face drivers
body hardened and ground -
tip angle 60°

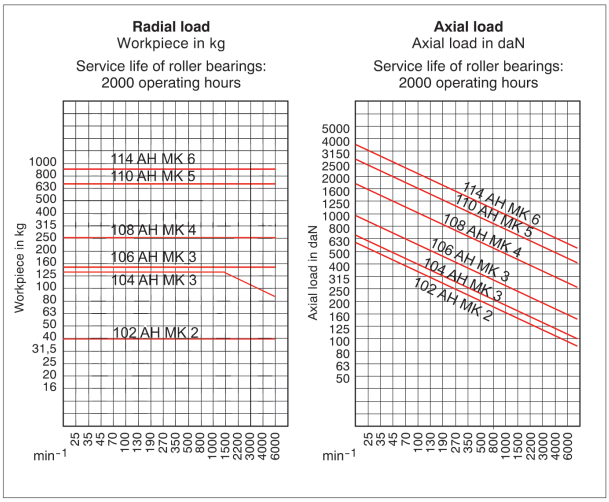
Item no.	079920 ●	079921 ●	079922 ●	079923 ■
Mount MT	3	4	5	6
Size	503	504	505	506
A	120	137,5	177,5	223
B	64	72	95	120
D	25	32	40	52
G	23,825	31,267	44,399	63,348
K	46,5	53	66	80
J	11	14	15	24
Weight approx. g	2200	3600	8400	17500
Spring way[1)]	1,6	2	1,8	2,7
Axial load max.	550	900	1500	2000
Workpiece weight max. kg	260	550	1100	2500
Concentricity deviation	0,01	0,01	0,01	0,015
Speed max. min^{-1}	4000	3500	2500	1800
Spare live centres	**079924**	**079925**	**079926**	**079927**

[1)] at max. axial load

● from stock ■ 4 - 6 weeks ▲ on request

Flex



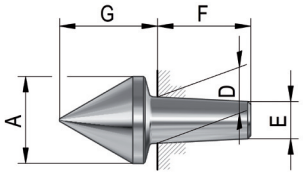


Tool group A06
Type 614 Flex
for interchangeable inserts
body hardened and ground

Item no.	061030 ●	061031 ●	061032 ●	061038 ●	061039 ●	061040 ●
Mount MT	2	3	3	4	5	6
Size	102	104	106	108	110	114
A	45	48	55	67	85	101
B	43	48,5	58,5	68,5	88,5	102,5
D	20	22	25	32	40	50
E	4	4,5	5	5	6	6
G	17,78	23,825	23,825	31,267	44,399	63,348
Concentricity deviation	0,01	0,01	0,01	0,01	0,01	0,015
Workpiece weight max. kg	40	130	150	250	650	900
Weight without inserts	440	750	1100	1900	4400	8600
Weight	900	1700	2200	3700	8000	-
Spare live spindle	009836	009838	009843	009870	009872	009874

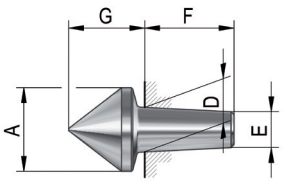
Flex - Interchangeable inserts

Tool group A06
Type 616 Interchangeable inserts **60°**



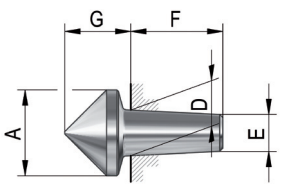
Item no.	Size	A	D	E	F	G
070725 ●	102	16	7	5,2	18	20
070728 ●	104	20	12	9,6	24	24
070731 ●	106	24	12	9,6	24	27,5
070734 ●	108	28	15	12	30	31,5
070737 ●	110	38	22	18,5	35	43
070740 ●	114	50	28	24	40	54

Tool group A06
Type 616 Interchangeable inserts **75°**



Item no.	Size	A	D	E	F	G
070726 ■	102	16	7	5,2	18	17
070729 ■	104	20	12	9,6	24	19,5
070732 ■	106	24	12	9,6	24	22,5
070735 ■	108	28	15	12	30	25,5
070738 ■	110	38	22	18,5	35	35
070741 ■	114	50	28	24	40	44

Tool group A06
Type 616 Interchangeable inserts **90°**

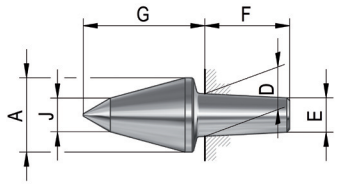


Item no.	Size	A	D	E	F	G
070727 ●	102	16	7	5,2	18	14,5
070730 ●	104	20	12	9,6	24	16,5
070733 ●	106	24	12	9,6	24	19
070736 ●	108	28	15	12	30	21,5
070739 ●	110	38	22	18,5	35	29
070742 ■	114	50	28	24	40	36

● from stock ■ 4 - 6 weeks ▲ on request

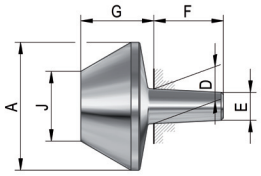
Flex - Interchangeable inserts

Tool group A06
Type 616 Interchangeable inserts **60°VL**



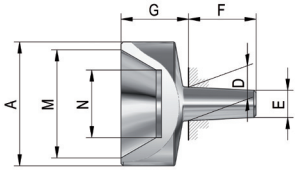
Item no.	Size	A	D	E	F	G	J
070719 ●	102	14	7	5,2	18	25	6
070720 ●	104; 106	18	12	9,6	24	30	8
070721 ●	108	26	15	12	30	43	12
070722 ●	110	32	22	18,5	35	55	13
070723 ●	114	42	28	24	40	70	18,5

Tool group A06
Type 616 Interchangeable inserts for tubular workpieces **60°**



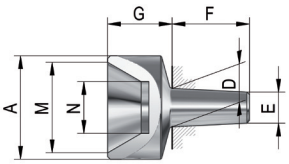
Item no.	Size	A	D	E	F	G	J
070700 ●	102	25	7	5,2	18	21	10
070701 ●	104	35	12	9,6	24	26	15
070702 ●	106	45	12	9,6	24	27	25
070703 ●	108	55	15	12	30	31,5	30
070704 ●	110	70	22	18,5	35	39	40
070705 ●	114	100	28	24	40	52	55

Tool group A06
Type 616 Interchangeable inserts **A** for centerless workpieces **60°**



Item no.	Size	A	D	E	F	G	M	N
070707 ●	102	25	7	5,2	18	18	20	10
070708 ●	104	35	12	9,6	24	24	30	15
070709 ●	106	45	12	9,6	24	25	40	25
070710 ●	108	55	15	12	30	30	48	30
070711 ■	110	70	22	18,5	35	39	63	40
070712 ■	114	100	28	24	40	52	90	55

Tool group A06
Type 616 Interchangeable inserts **B** for centerless workpieces **60°**



Item no.	Size	A	D	E	F	G	M	N
228620 ●	102	16	7	5,2	18	12	12	6
228621 ●	106	22	12	9,6	24	16	18	10
228622 ●	108	40	15	12	30	25	35	20
308632 ■	110	52	22	18,5	35	30	45	30

Tool group A06
Type 616 **Extractor**

Item no.	For size
061707 ●	102
061708 ●	104/106/108
061709 ●	110/114

● from stock ■ 4 - 6 weeks ▲ on request

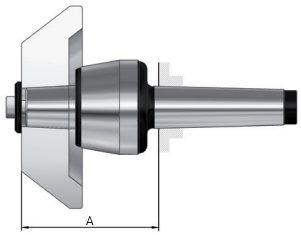
Flex - assortment

Tool group A06
Type 614-00 **complete** with all inserts in a sturdy wooden case

Item no.	061702 ●	061703 ●	061704 ●	061705 ●	061706 ●
Mount MT	2	3	3	4	5
Size	102	104	106	108	110
Workpiece weight max. kg	40	130	150	250	650
Weight	900	1700	2200	3700	8000

MZK

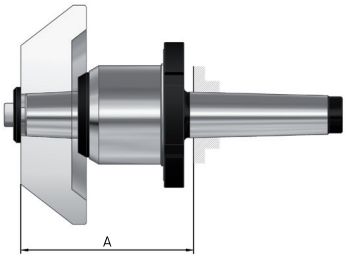
Tool group A06
Type 608-00 Revolving centering taper



Item no.	Size	Mount MT	A	Workpiece weight max. kg	Weight
304562 ●	108	4	103	800	2200
304563 ●	110	5	128	1600	4800
304564 ●	114	6	159	3000	12000

Including fixing screw and washer, without insert

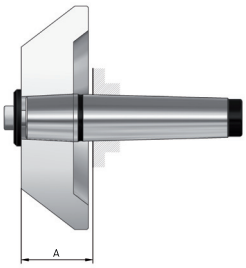
Tool group A06
Type 640-90 Revolving centering tapers **with draw-off nut**, for high load



Item no.	Size	Mount MT	A	Workpiece weight max. kg	Weight
304583 ●	494	4	118	1000	3200
304584 ●	495	5	140	2000	6500
304585 ■	496	6	168	3500	13500

Including fixing screw and washer, without insert

Tool group A07
Type 698-00 **Fixed shafts**

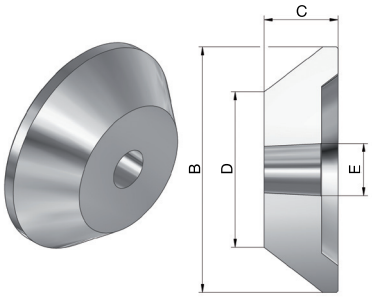


Item no.	Mount MT	A	Workpiece weight max. kg	Weight
304580 ●	4	45	2000	800
304581 ●	5	60	4800	2000
304582 ●	6	70	12000	5500

Including fixing screw and washer, without insert

Interchangeable inserts MZK

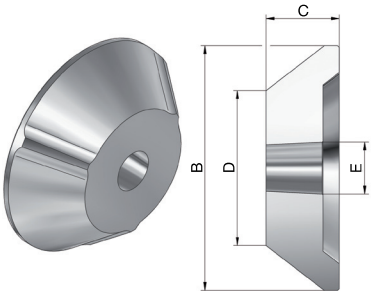
Tool group A06
Type 608-20 Suitable **inserts** for centering tapers **AZ**
Standard version, taper 75°



Item no.	Size	for MT	B	C	D	E	Weight
304565[1] ●	1	4	60	68	5	32	900
304566 ●	2	4	100	45	45	32	1500
304567 ●	3	4	150	45	95	32	4100
304568 ●	4	4	200	45	145	32	6000
304569 ●	5	4	250	45	195	32	8500
304570 ●	1	5	100	43	45	40	1500
304571 ●	2	5	150	43	95	40	4400
304572 ●	3	5	200	43	145	40	6100
304573 ●	4	5	250	43	195	40	8100
304574 ●	5	5	300	43	245	40	11600
304575 ●	1	6	150	54	95	50	3000
304576 ●	2	6	200	54	145	50	8100
304577 ●	3	6	250	54	195	50	11100
304578 ●	4	6	300	54	245	50	14000
304579 ●	5	6	350	54	295	50	18800

[1] Without fixing by screw and washer

Tool group A06
Type 608-40 Suitable **inserts** for centering tapers **AZR**
with three support surfaces, for rough pieces 75°

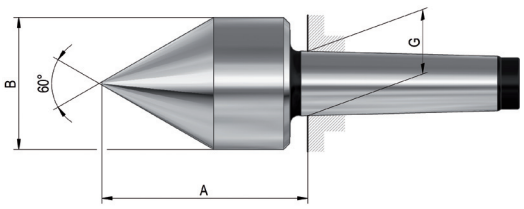


Item no.	Size	for MT	B	C	D	E	Weight
304736 ■	2	4	100	45	45	32	1500
304737 ■	3	4	150	45	95	32	4100
304738 ■	4	4	200	45	145	32	6000
304739 ■	5	4	250	45	195	32	8500
304740 ■	1	5	100	43	45	40	1500
304741 ■	2	5	150	43	95	40	4400
304742 ■	3	5	200	43	145	40	6100
304743 ■	4	5	250	43	195	40	8100
304744 ■	5	5	300	43	245	40	11600
304745 ■	1	6	150	54	95	50	3000
304746 ■	2	6	200	54	145	50	8100
304747 ■	3	6	250	54	195	50	11100
304748 ■	4	6	300	54	245	50	14000
304749 ■	5	6	350	54	295	50	18800

● from stock ■ 4 - 6 weeks ▲ on request

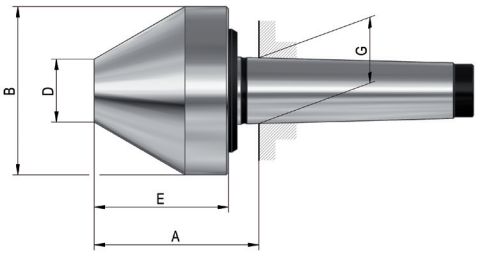
MZK

Tool group A06
Type 627 Revolving centering taper, **pointed**
as centering taper for tubular workpieces and as a revolving tailstock centre to machine normal workpieces



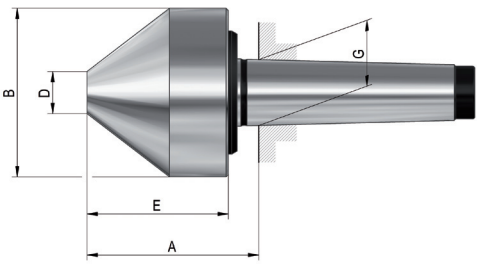
Item no.	Size	Mount MT	A	B	G	Workpiece weight max. kg	Concentricity deviation	Weight
010613 ●	272	2	61	42	17,78	200	0,01	400
010635 ●	273	3	79	56	23,825	400	0,008	1100
010638 ●	274	4	100	64	31,267	800	0,008	1600
010642 ●	275	5	115,5	78	44,399	1600	0,008	3600
306396 ●	276	6	153	105	63,348	2500	0,008	10000

Tool group A06
Type 617 Revolving tailstock center, **cone truncated, 60°**



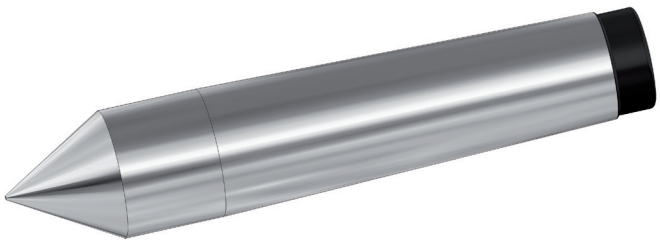
Item no.	Size	Mount MT	A	B	D	E	G	Workpiece weight max. kg	Concentricity deviation	Weight
301615 ●	171	1	64	50	20	52	12,065	100	0,008	900
301616 ●	171a	2	65	50	20	52	17,78	200	0,008	1200
301556 ●	172	2	77	80	30	64	17,78	300	0,008	2000
301557 ●	172a	3	77	80	30	64	23,825	400	0,008	2200
221605 ●	173	3	96,5	120	30	83	23,825	600	0,008	4200
301558 ●	172b	4	78,5	80	30	64	31,267	400	0,008	2300
044023 ●	173a	4	98	120	30	83	31,267	800	0,008	4500
090483 ●	173b	5	99	120	30	83	44,399	800	0,008	5300

Tool group A06
Type 618 Revolving tailstock center, **cone truncated, 75°**



Item no.	Size	Mount MT	A	B	D	E	G	Workpiece weight max. kg	Concentricity deviation	Weight
301559 ●	172	2	80	80	20	67	17,78	300	0,008	2000
301560 ●	172a	3	80	80	20	67	23,825	400	0,008	2000
062211 ●	173	3	85,5	120	30	72	23,825	600	0,008	4200
301561 ●	172b	4	81,5	80	20	67	31,267	400	0,008	2400
062224 ●	173a	4	87	120	30	72	31,267	800	0,008	4300
062299 ●	174	4	107	170	50	90	31,267	1200	0,01	9700
062232 ●	173b	5	88	120	30	72	44,399	800	0,008	5100
063614 ●	174a	5	106	170	50	90	44,399	1600	0,01	10600
063662 ●	175	5	146,5	250	75	130	44,399	2000	0,01	34000
063633 ●	174b	6	107,5	170	50	90	63,348	1600	0,01	13300
063656 ●	175a	6	148	250	75	130	63,348	2000	0,01	37000
063680 ●	176	6	184	350	120	168	63,348	4000	0,015	82000

FKS



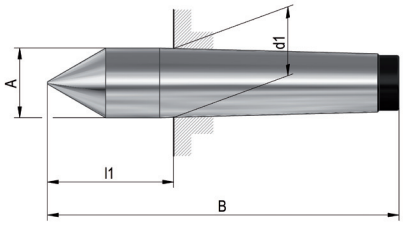
Dead centres DIN 806 and DIN 807 completely hardened and ground (with carbide-tipped ground only).
Different types available.

Dead centres are manufactured with a concentricity of 5 micrometers. Versions with a concentricity of 3 micrometers or better are also available on request.

Technical features:

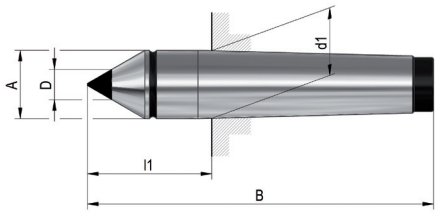
- completely hardened and ground
- high concentricity
- heavy duty

Tool group A07
Type 665 **DIN 806, full point**
material: tool steel



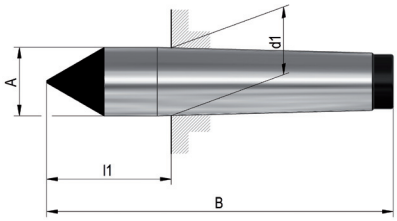
Item no.	Mount MT	A	B	d1	l1	Weight
013706 ●	0	9,2	70	9,045	20	30
013707 ●	1	12,2	80	12,065	26,5	60
013709 ●	2	18	100	17,78	36	150
013711 ●	3	24,1	125	23,825	44	340
013712 ●	4	31,6	160	31,267	57,5	760
013715 ●	5	44,7	200	44,399	70,5	1920
013718 ●	6	63,8	270	63,348	88	5200

Tool group A07
Type 667 **DIN 806, full point**, ground only
carbide-tipped



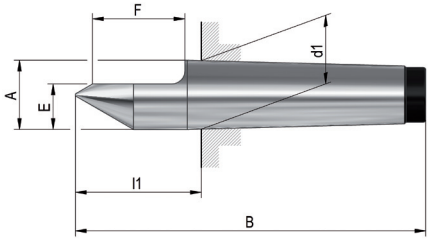
Item no.	Mount MT	A	B	D	d1	l1	Weight
017169 ■	0	9,2	70	5	9,045	20	30
017170 ●	1	12,2	80	7	12,065	26,5	55
017171 ●	2	18	100	7	17,78	36	155
017172 ●	3	24,1	125	11	23,825	44	360
017173 ●	4	31,6	160	14	31,267	57,5	770
017174 ●	5	44,7	200	18	44,399	70,5	1950
017175 ●	6	63,8	270	18	63,348	88	5200

Tool group A07
Type 677 **DIN 806, full point**, ground only
carbide-tipped full point



Item no.	Mount MT	A	B	d1	l1	Weight
326786 ●	2	18	100	17,78	36	175
306402 ●	3	24,1	125	23,825	44	400
221398 ●	4	31,6	160	31,267	57,5	855
326816 ●	5	44,7	200	44,399	70,5	2160

Tool group A07
Type 668 **DIN 806, half point**
material: tool steel

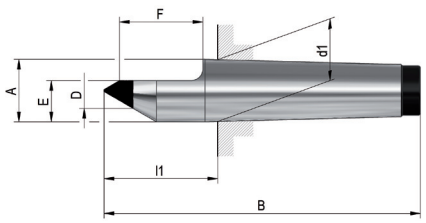


Item no.	Mount MT	A	B	E	F	d1	l1	Weight
013867 ■	1	12,2	80	7,6	22	12,065	26,5	55
013868 ●	2	18	100	11	30	17,78	36	145
013870 ●	3	24,1	125	15	38	23,825	44	310
013871 ●	4	31,6	160	21	50	31,267	57,5	710
013997 ■	5	44,7	200	29,4	63	44,399	70,5	1925
013999 ■	6	63,8	270	42	79	63,348	88	4800

● from stock ■ 4 - 6 weeks ▲ on request

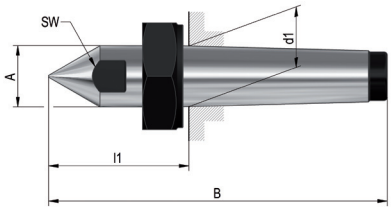
FKS

Tool group A07
Type 670 **DIN 806, half point**, ground only
carbide-tipped



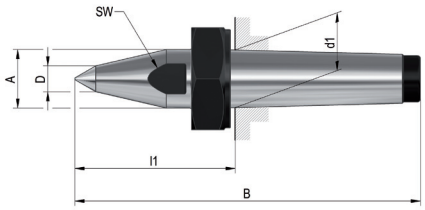
Item no.	Mount MT	A	B	D	E	F	d1	l1	Weight
027438 ●	1	12,2	80	7	7,6	22	12,065	26,5	55
027439 ●	2	18	100	7	11	30	17,78	36	150
027440 ●	3	24,1	125	11	15	38	23,825	44	335
026571 ●	4	31,6	160	14	21	50	31,267	57,5	750
027441 ■	5	44,7	200	18	29,4	63	44,399	70,5	1830

Tool group A07
Type 671 similar **DIN 807, full point** with draw-off nut
material: tool steel



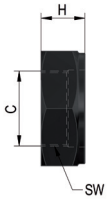
Item no.	Mount MT	A	B	C	d1	l1	Key-width SW	Weight
005361 ●	1	12,2	90	M16x1,5	12,065	36,5	10	140
005553 ●	2	18	112	M22x1,5	17,78	48	14	300
005654 ●	3	24,1	138	M27x1,5	23,825	57	19	580
005357 ●	4	31,6	175	M36x1,5	31,267	72,5	27	800
005381 ●	5	44,7	217	M48x1,5	44,399	87,5	36	2900
005426 ●	6	63,8	290	M68x1,5	63,348	108	55	7200

Tool group A07
Type 672 similar **DIN 807, full point** with draw-off nut, with extended point
material: tool steel



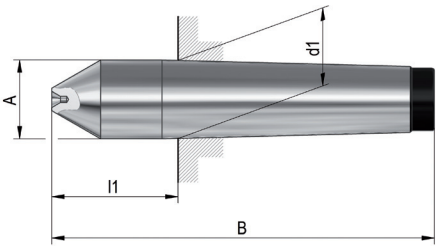
Item no.	Mount MT	A	B	C	D	d1	l1	Key-width SW	Weight
249575 ●	2	18	118	M22x1,5	10	17,78	54	14	300
249576 ●	3	24,1	148	M27x1,5	10	23,825	67	19	600
249577 ●	4	31,6	186,5	M36x1,5	14	31,267	84	27	1285
249578 ●	5	44,7	242	M48x1,5	16	44,399	112	36	3000
249579 ●	6	63,8	330	M68x1,5	20	63,348	148	55	7900

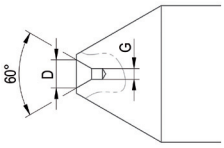
Tool group A07
Type 671 **Draw-off nut**



Item no.	C	H	Key-width SW	Weight
005363 ●	M16x1,5	12	24	26
005555 ●	M22x1,5	15,5	32	55
005656 ●	M27x1,5	17,5	41	110
005359 ●	M36x1,5	21	55	240
005383 ●	M48x1,5	23	75	480
005428 ●	M68x1,5	25,5	100	900

Tool group A07
Type 673 **full point** with centre bore
material: tool steel

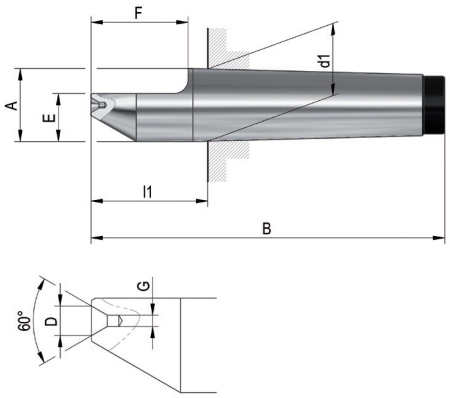




Item no.	Mount MT	A	B	D	G	d1	l1	Weight
015001 ■	1	12,2	77	2,5	1	12,065	23,5	60
015003 ■	2	18	95,5	4	1,6	17,78	31,5	170
015004 ●	3	24,1	120	5	2	23,825	39	350
015005 ■	4	31,6	153	6,5	2,5	31,267	50,5	800
015006 ■	5	44,7	191	8	3,19	44,399	61,5	1900

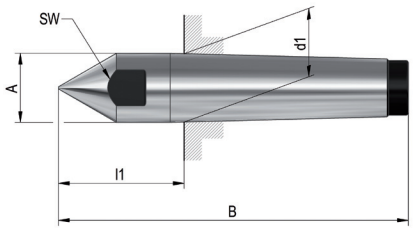
FKS

Tool group A07
Typ 674 **half point** with centre bore
material: tool steel



Item no.	Mount MT	A	B	D	E	F	G	d1	l1	Weight
015009 ●	1	12,2	77	2,5	8,6	19	1	12,065	23,5	55
015010 ●	2	18	95,5	4	12	26	1,6	17,78	31,5	150
015011 ●	3	24,1	120	5	15,7	32	2	23,825	39	310
015022 ■	4	31,6	153	6,5	20,8	42	2,5	31,267	50,5	705
015023 ■	5	44,7	191	8	29,4	53	3,15	44,399	61,5	1800

Tool group A07
Type 695 **DIN 806, full point** with spanner flat
material: tool steel



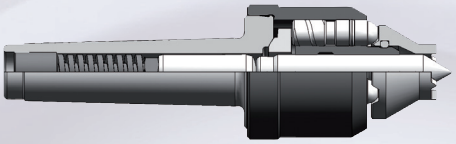
Item no.	Mount MT	A	B	d1	l1	Key-width SW	Weight
015028 ■	1	12,2	80	12,065	26,5	10	55
015032 ●	2	18	100	17,78	36	14	145
015039 ●	3	24,1	125	23,825	44	19	340
015042 ●	4	31,6	160	31,267	57,5	27	740
015040 ●	5	44,7	200	44,399	70,5	36	1860

● from stock ■ 4 - 6 weeks ▲ on request

Overview

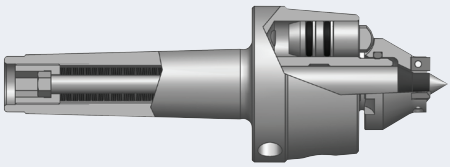
CoE

For efficient high-precision turning of workpieces along their whole length without rechucking. In the same operation there may be also milled a groove or toohting. This could save a retooling, i. e. to a vice, which may turn out to be both time and money saving.
The modular principle design allows the unlimited exchange of driver discs and centres. The mechanical compensation system guarantees equal clamping forces even on uneven workpiece faces. The spring cushioned centre allows the axial stop at the face of the workpiece.
Clamping diameter 8-80 mm
Max. workpiece weight 100 kg



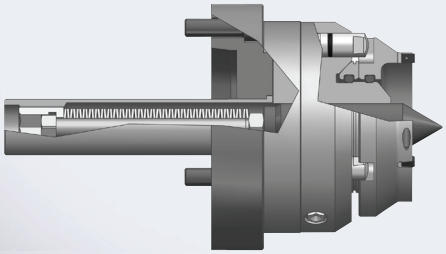
CoA

For efficient high-precision turning of workpieces along their whole length without rechucking. The modular principle design allows the unlimited exchange of driver discs and centres. The hydraulic or mechanical compensation system guarantees equal clamping forces even on uneven workpiece faces. The spring cushioned centre allows the axial stop at the face of the workpiece.
Clamping diameter 8-80 mm
Max. workpiece weight 100 kg



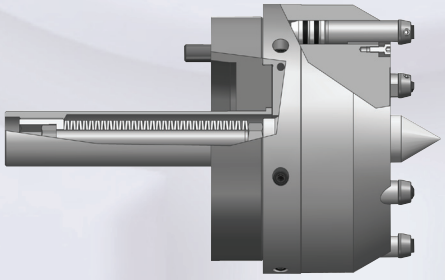
CoM

With spring loaded centre, attachable driver disc and mechanical compensation system.
Adaptor flange with disc spring package or basic body with morse taper.
For the clamping of big and heavy workpieces.
Clamping diameter 50-250 mm
Max. workpiece weight 500 kg



CoB

For the clamping of big and heavy workpieces. Also for extremely uneven faces.
Basic body with morse taper or adaptor flange with disc spring package.
Different driver heads with interchangeable driver pins and hydraulic compensation system.
Rigid and axial adjustable spring loaded centres.
Max. workpiece weight: 500 kg
With intensified disc spring package: 1000 kg



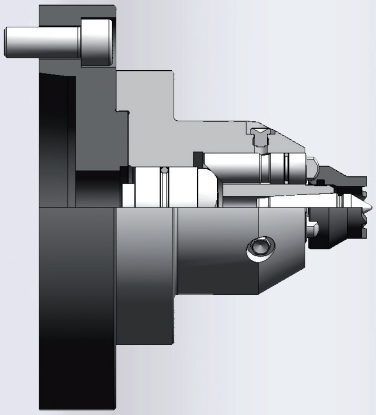
CoK

Power-operated Face driver. For machining workpieces which are highly unbalanced, very heavy, for high chip removal or for irregular cutting, e.g. square billets, forged gear components etc. High precision concentricity by virtue of the solid centre even in permanent hard use. Longitudinal workpiece stop provided in centering.
Precise tripping to workpiece centre, particularly advantageous for consecutive machining, e.g. plunge-cut grinding etc.

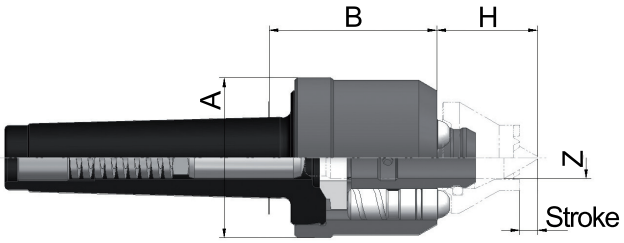
CoK Type 690-00:
Clamping-Ø 8-80 mm mechanical compensation, slip-on driving discs

CoK Typ 690-50:
Clamping-Ø 50-250 mm mechanical compensation, slip-on driving discs

CoK Driving heads Type 689:
Clamping-Ø 63-160 mm hydraulic compensation, interchangeable driving pins



CoE



For rational turning of workpieces on their entire length without reclamping with high precision.

Developed according to the modular system, therefore universal exchange of driving discs and centres possible.
One set consists of one basic body, one driving disc and suitable centre.
Easy to maintain

Technical features:

- mechanic pressure compensation provides a uniform clamping force also on uneven faces of workpieces
- the spring loaded centre provides a longitudinal workpiece stop on the front side
- workpiece weight max. 100 kg
- Clamping circuit Ø 8-80 mm
- approx. value for an axially admitted total load of the 3 supporting pistons: 900 daN

Customer advantage:

- face driver for turning and milling
- compensating driving plates with radial freedom of movement
- easy mechanical compensation of the driving plates
- stable and consistent length stop
- high concentricity

Visit our new YouTube channel and take a look at the product video CoE.

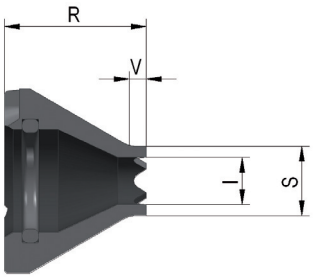
Tool group A14
Type 684-90 **Basic body CoE**
with **morsetaper**
(all basic bodies without centre)
mechanical

Item no.	MT	A	B	H	Z	Stroke Centres	Weight approx. g
310065 ■	3	62	65	max. 38 min. 26	16	10	1800
310066 ■	4	62	65	max. 38 min. 26	16	10	1900
310068 ■	5	62	65	max. 38 min. 26	16	10	2000

[1] Mounting with short taper and centering diameter on request

Accessories CoE

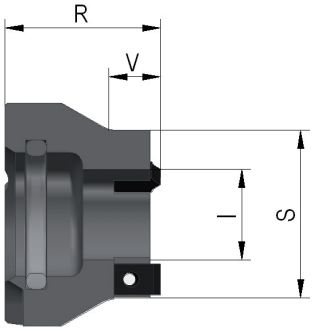
Tool group A14
Type 684-30 **Driving discs**, toothed
right- **and** left-hand rotation, free from play



Item no.	Clamping circuit Ø S	Approx. turning range	I	R	V	Matching center point ØY	Weight approx. g
1209000 ■	8	9-16	4,5	38	4	4	120
1209001 ■	10	11-20	4,5	38	4	4	120
1209002 ■	12	13-24	7	36	4	6	120
1209003 ■	16	17-32	11	33	4	10	120
1209004 ■	20	21-40	13	30	4	12	120
1209005 ■	25	26-50	17	30	8	16	130
1209006 ■	32	33-64	22	30	10	16	160

Driving discs with carbide toothing on request

Tool group A14
Type 684-31 **Driving discs**,
with interchangeable hard metal driving plates 6 x 3,2
right- **and** left-hand rotation

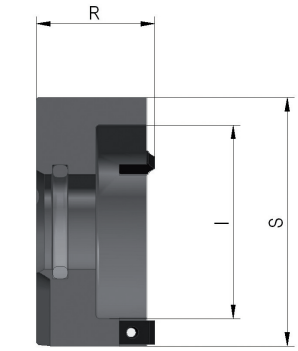


Item no.	Clamping circuit Ø S	Approx. turning range	I	R	V	Matching center point ØY	Weight approx. g
1209007 ■	20	21-40	7	30	8	6	125
1209008 ■	25	26-50	11	30	8	10	140
1209009 ■	32	33-64	17,5	30	10	16	160
1209010 ■	40	41-80	27	30	16	16	180

● from stock ■ 4 - 6 weeks ▲ on request

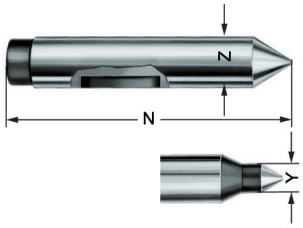
Accessories CoE

Tool group A14
Type 684-31 **Driving discs**,
with interchangeable hard metal driving plates 6 x 3,2
which can be used on 4 sides
right- **and** left-hand rotation, free from play



Item no.	Clamping circuit Ø S	Approx. turning range	I	R	Matching center point ØY	Weight approx. g
1209011 ■	50	51-100	36	30	16	260
1209012 ■	63	64-126	49	30	16	420
1209013 ■	80	81-160	66	30	16	680

Tool group A14
Type 684-40 **Centres**, CoE



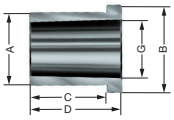
Item no.	Clamping circuit Ø	N	Y	Z	Weight approx. g
1209016 ■	8-10	90	4	16	110
1209017 ■	12	90	6	16	110
1209018 ■	16	90	10	16	110
1209019 ■	20	90	12	16	110
1209020 ■	25-80	90	16	16	120

Centres with head on request

Tool group A14
Type 680-93 **Hard metal driving plates**
right- **and** left-hand rotation

Item no.	Size	Clamping circuit Ø	Weight approx. g
088970 ●	6x3,2	20-32	2

Tool group A14
Type 680-72 **Mounting sleeve**
for the clamping of a face driver in lathe chuck



Item no.	MT inside	A	B	C	D	G	Weight approx. g
085033 ●	3	31	39	32	40	23,825	150
085034 ●	4	39	47	42	50	31,267	250
085035 ●	5	54	62	52	60	44,399	480

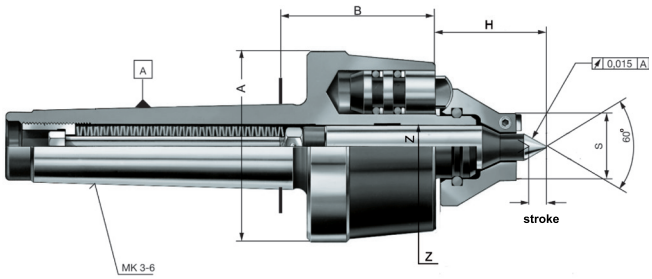
CoE - Assortments

Tool group A14
Type 684-31 **CoE-Small assortment** in wooden box
mechanical, clamping dia. 12-50 mm, turning range 13-100 mm

Included in delivery:
1x Basic body
4x Driving discs (clamping-Ø 12, 20, 32, 50)
3x Centres (center-Ø 6, 12, 16)

Item no.	MT	Weight approx. g
1209048 ●	3	3600
1209049 ●	4	3870
1209050 ●	5	4550

CoA



For rational turning of workpieces on their entire length without reclamping with high precision.

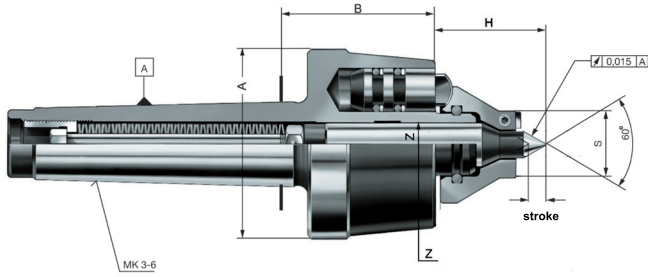
Developed according to the modular system, therefore universal exchange of driving discs and centres possible.
One set consists of one basic body, one driving disc and suitable centre.

Technical features:

- hydraulic pressure compensation provides a uniform clamping force also on uneven faces of workpieces
- the spring loaded centre provides a longitudinal workpiece stop on the front side
- workpiece weight max. 100 kg
- approx. value for an axially admitted total load of the 3 supporting pistons: 2000 daN

Tool group A14
Type 680-50 **Basic body**
with **morsetaper** (basic bodies without centre) CoA
hydraulic

Item no.	MT	A	B	H	Z	Stroke Centres	Weight approx. g
088173 ●	3	70	54	max. 45 min. 26	16	10	1600
088174 ●	4	70	56,5	max. 45 min. 26	16	15	1800
088175 ●	5	70	56,5	max. 45 min. 26	16	15	2800
088176 ■	6	70	56,5	max. 45 min. 26	16	15	4400



For rational turning of workpieces on their entire length without reclamping with high precision.

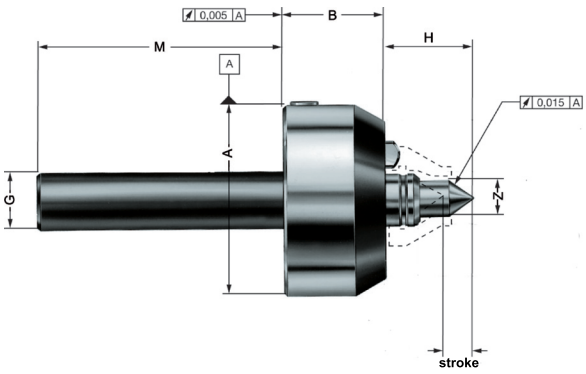
Developed according to the modular system, therefore universal exchange of driving discs and centres possible.
One set consists of one basic body, one driving disc and suitable centre.

Technical features:

- hydraulic pressure compensation provides a uniform clamping force also on uneven faces of workpieces
- the spring loaded centre provides a longitudinal workpiece stop on the front side
- workpiece weight max. 100 kg
- approx. value for an axially admitted total load of the 3 supporting pistons: 2000 daN

Tool group A14
Type 680-55 **Basic body**
with **morsetaper**,
with **draw-offnut**, CoA
hydraulic

Item no.	MT	A	B	H	Z	Stroke Centres	Weight approx. g
088177 ■	3	70	54	max. 45 min. 26	16	10	1800
088178 ●	4	70	56,5	max. 45 min. 26	16	15	2200
088179 ●	5	70	56,5	max. 45 min. 26	16	15	3000
088180 ●	6	70	56,5	max. 45 min. 26	16	15	4600



For rational turning of workpieces on their entire length without reclamping with high precision.
For clamping in lathe chucks with unstepped jaws

Developed according to the modular system, therefore universal exchange of driving discs and centres possible.
One set consists of one basic body, one driving disc and suitable centre.

Technical features:

- hydraulical respectively mechanical pressure compensation provides a uniform clamping force also on uneven faces of workpieces
- the spring loaded centre provides a longitudinal workpiece stop on the front side
- workpiece weight max. 100 kg

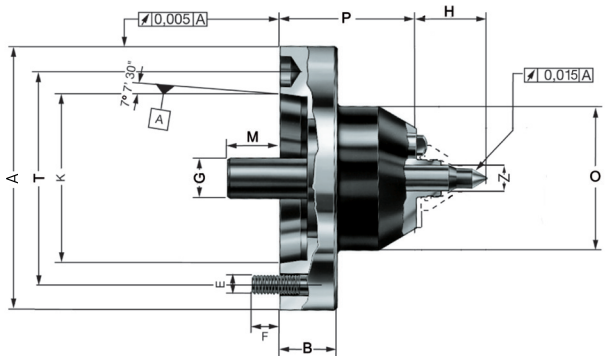
Tool group A14
Type 680-65 **Basic body**
for clamping in lathe chucks,
with **springset**, CoA
mechanical / hydraulic

Item no.	A	B	G	H	M	Z	Stroke Centres	Weight approx. g
088074[1] ●	85	45	25	max. 45 min. 26	110	16	15	2300
313085[2] ■	85	45	25	max. 45 min. 26	110	16	15	2300

[1] with hydraulic compensation
[2] with mechanical compensation

● from stock ■ 4 - 6 weeks ▲ on request

CoA



For rational turning of workpieces on their entire length without reclamping with high precision.

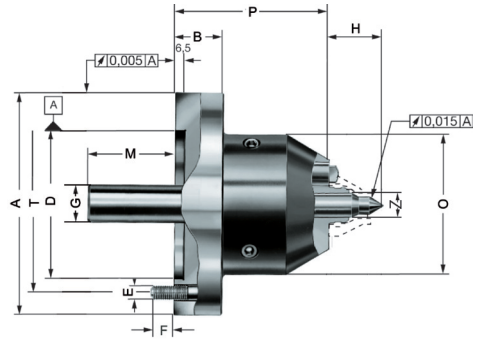
Developed according to the modular system, therefore universal exchange of driving discs and centres possible.
One set consists of one basic body, one driving disc and suitable centre.

Technical features:

- mechanic pressure compensation provides a uniform clamping force also on uneven faces of workpieces
- the spring loaded centre provides a longitudinal workpiece stop on the front side
- workpiece weight max. 100 kg

Tool group A14
Type 681-85 **Basic body** with **short taper ISO 702-1** (DIN 55026) **mechanical compensation**, with **spring set**, CoA **mechanical**

Item no.	Taper	A	B	E	F	G	H	K	M	O	P	T	Z	Stroke Centres	Weight approx. g
313905 ■	5	133	-	M 10	15	25	max. 45 min. 26	82,563	32	90	86	104,8	16	11	6500
313906 ●	6	165	35	M 12	18	25	max. 45 min. 26	106,375	32	90	86	133,4	16	11	7000
313907 ■	8	210	40	M 16	23	25	max. 45 min. 26	139,719	32	90	86	171,4	16	11	8100



For rational turning of workpieces on their entire length without reclamping with high precision.

Developed according to the modular system, therefore universal exchange of driving discs and centres possible.
One set consists of one basic body, one driving disc and suitable centre.

Technical features:

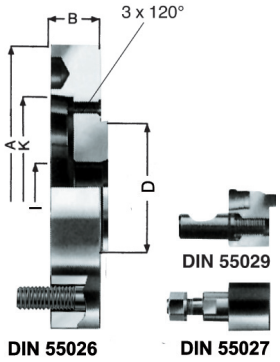
- hydraulical respectively mechanical pressure compensation provides a uniform clamping force also on uneven faces of workpieces
- the spring loaded centre provides a longitudinal workpiece stop on the front side
- workpiece weight max. 100 kg

Tool group A14
Type 680-60 **Basic body flange type**, with **springset**, CoA **mechanical / hydraulic**

Item no.	A	B	D	E	F	G	H	M	O	P	T	Z	Stroke Centres	Weight approx. g
088046[1] ●	142	30	100	M 10	15	25	max. 45 min. 26	61	90	98	120	16	15	7300
313910[2] ■	142	30	100	M 10	15	25	max. 45 min. 26	61	90	98	120	16	15	7300

[1] with hydraulic compensation
[2] with mechanical compensation

Adapter plate CoA



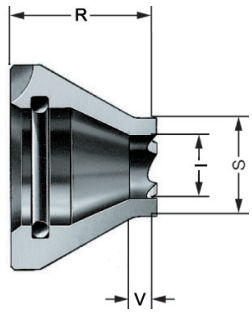
Tool group A14
Type 688-87 Adapter plate
short taper
without spring set

Item no.	Design	Taper	A	B	D	I	K	Weight approx. g
088485 ■	DIN 55026	5	140	30	100	38	82,563	3100
088486 ■	DIN 55026	6	167	35	100	38	106,39	4800
088487 ●	DIN 55026	8	216	40	100	38	139,735	8700
088488 ■	DIN 55026	11	280	45	100	38	196,885	17000
088480 ▲	DIN 55027	5	140	30	100	38	82,563	3100
088481 ▲	DIN 55027	6	167	35	100	38	106,39	4800
088482 ▲	DIN 55027	8	216	40	100	38	139,735	8700
088483 ▲	DIN 55027	11	280	45	100	38	196,885	17000
088495 ▲	DIN 55029	5	140	30	100	38	82,563	3100
088496 ▲	DIN 55029	6	167	35	100	38	106,39	4800
088497 ▲	DIN 55029	8	216	40	100	38	139,735	8700
088498 ▲	DIN 55029	11	280	45	100	38	196,885	17000

● from stock ■ 4 - 6 weeks ▲ on request

Accessories CoA

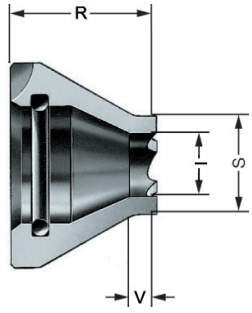
Tool group A14
Type 680-10 **Driving discs**, toothed
right-hand rotation



Item no.	Clamping circuit Ø S	Approx. turning range	I	R	V	Matching center point ØY	Weight approx. g
088061 ●	8	9-16	4,5	38	4	4	120
088062 ●	10	11-20	4,5	38	4	4	120
088063 ●	12	13-24	7	36	4	6	120
088064 ●	16	17-32	11	33	4	10	120
088065 ●	20	21-40	13	30	4	12	120
088066 ●	25	26-50	17	30	8	16	150
088067 ●	32	33-64	22	30	10	16	190

Driving discs with carbide toothing, friction lining or diamant granulation on request

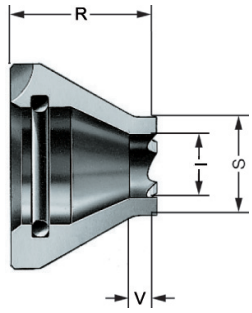
Tool group A14
Type 680-20 **Driving discs**, toothed
left-hand rotation



Item no.	Clamping circuit Ø S	Approx. turning range	I	R	V	Matching center point ØY	Weight approx. g
088081 ●	8	9-16	4,5	38	4	4	120
088082 ●	10	11-20	4,5	38	4	4	120
088083 ●	12	13-24	7	36	4	6	120
088084 ●	16	17-32	11	33	4	10	120
088085 ●	20	21-40	13	30	4	12	120
088086 ●	25	26-50	17	30	8	16	150
088087 ●	32	33-64	22	30	10	16	190

Driving discs with carbide toothing on request

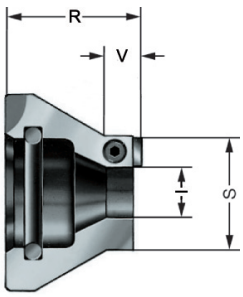
Tool group A14
Type 680-30 **Driving discs**, toothed
right- **and** left-hand rotation



Item no.	Clamping circuit Ø S	Approx. turning range	I	R	V	Matching center point ØY	Weight approx. g
088541 ●	8	9-16	4,5	38	4	4	120
088542 ●	10	11-20	4,5	38	4	4	120
088543 ●	12	13-24	7	36	4	6	120
088544 ●	16	17-32	11	33	4	10	120

Driving discs with carbide toothing on request

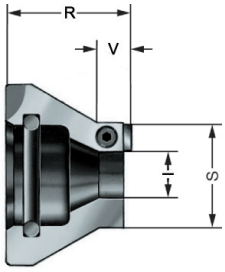
Tool group A14
Type 680-11 **Driving discs**,
with interchangeable hard metal driving plates 6 x 3,2
right-hand rotation



Item no.	Clamping circuit Ø S	Approx. turning range	I	R	V	Matching center point ØY	Weight approx. g
089065 ●	20 H	21-40	7	30	5	6	125
089066 ●	25 H	26-50	11	30	8	10	140
089067 ●	32 H	33-64	17,5	30	10	16	200

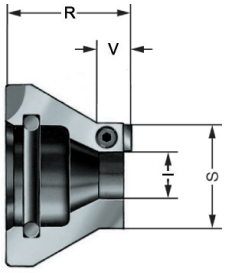
Accessories CoA

Tool group A14
Type 680-21 **Driving discs**,
with interchangeable hard metal driving plates 6 x 3,2
left-hand rotation



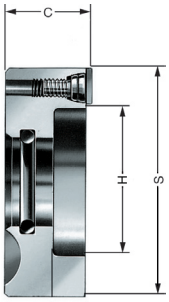
Item no.	Clamping circuit Ø S	Approx. turning range	I	R	V	Matching center point ØY	Weight approx. g
089085 ●	20 H	21-40	7	30	5	6	125
089086 ●	25 H	26-50	11	30	8	10	140
089087 ●	32 H	33-64	17,5	30	10	16	200

Tool group A14
Type 680-31 **Driving discs**,
with interchangeable hard metal driving plates 6 x 3,2
right- **and** left-hand rotation



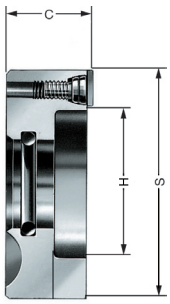
Item no.	Clamping circuit Ø S	Approx. turning range	I	R	V	Matching center point ØY	Weight approx. g
088545 ●	20 H	21-40	7	30	5	6	125
088546 ●	25 H	26-50	11	30	8	10	140
088547 ●	32 H	33-64	17,5	30	10	16	200

Tool group A14
Type 680-12 **Driving discs**,
with interchangeable hard metal driving plates 6 x 3,2
which can be used on 4 sides
right-hand rotation



Item no.	Clamping circuit Ø S	Approx. turning range	H	C	Matching center point ØY	Weight approx. g
088068 ●	40	41-80	20	24	16	200
088069 ●	50	51-100	28	24	16	240
088070 ●	63	64-126	41	24	16	400
088071 ●	80	81-160	58	24	16	600

Tool group A14
Type 680-22 **Driving discs**,
with interchangeable hard metal driving plates 6 x 3,2
which can be used on 4 sides
left-hand rotation

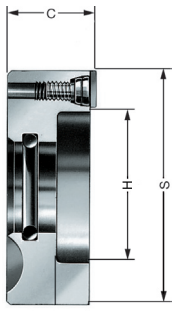


Item no.	Clamping circuit Ø S	Approx. turning range	H	C	Matching center point ØY	Weight approx. g
088088 ●	40	41-80	20	24	16	200
088089 ●	50	51-100	28	24	16	240
088090 ●	63	64-126	41	24	16	400
088091 ●	80	81-160	58	24	16	600

● from stock ■ 4 - 6 weeks ▲ on request

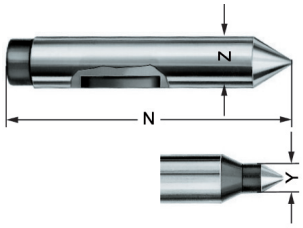
Accessories CoA

Tool group A14
Type 680-32 **Driving discs**,
with interchangeable hard metal driving plates 6 x 3,2
which can be used on 4 sides
right- **and** left-hand rotation



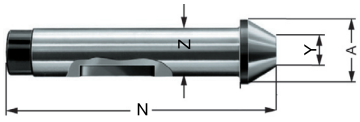
Item no.	Clamping circuit Ø S	Approx. turning range	H	C	Matching center point Ø Y	Weight approx. g
088548 ●	40	41-80	20	24	16	200
088549 ●	50	51-100	28	24	16	240
088550 ●	63	64-126	41	24	16	400
088551 ●	80	81-160	58	24	16	600

Tool group A14
Type 680-40 **Centres**, CoA



Item no.	Clamping circuit Ø	N	Y	Z	Weight approx. g
088351 ●	8-10	90	4	16	110
088352 ●	12	90	6	16	110
088353 ●	16	90	10	16	110
088354 ●	20	90	12	16	110
088355 ●	25-80	90	16	16	120
086758 ●	25-80	110	16	16	150

Tool group A14
Type 680-45, **Centres with head**, CoA



Item no.	Taper Ø		N	Z	Weight approx. g
	A	Y			
086619 ●	21	10	90	16	136
086620 ●	27	16	90	16	153
688878 ●	34	23	90	16	190
086621 ●	40	29	90	16	210
688880 ●	48	37	90	16	250
086622 ●	56	45	90	16	312

Tool group A14
Type 680-90 **Hard metal driving plates**
right- **or** left-hand rotation


088209 088810

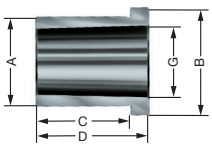
Item no.	Size	Clamping circuit Ø	Weight approx. g
088810 ●	6x3,2	20-32	2
088209 ●	9,5x3,2	40-80	4

Tool group A14
Type 680-93 **Hard metal driving plates**
right- **and** left-hand rotation


087931 088970

Item no.	Size	Clamping circuit Ø	Weight approx. g
088970 ●	6x3,2	20-32	2
087931 ●	9,5x3,2	40-80	4

Tool group A14
Type 680-72 **Mounting sleeve**
for the clamping of a face driver in lathe chuck



Item no.	MT inside	A	B	C	D	G	Weight approx. g
085033 ●	3	31	39	32	40	23,825	150
085034 ●	4	39	47	42	50	31,267	250
085035 ●	5	54	62	52	60	44,399	480
085036 ■	6	75	83	62	70	63,448	1050

Accessories CoA

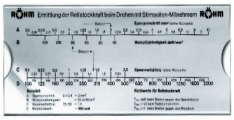
Tool group C15
Type 0167-Y
Threaded pin

Item no.	Size	Clamping circuit Ø	Weight approx. g
234695 ●	M 4 x 6	20	1
048205 ●	M 5 x 8	25+32	1
088205 ●	M 5 x 8	40-80	2

Tool group C15
Type 5191-Y
O-ring

Item no.	Size
006252 ●	21,82x3,53

Tool group A14
Type 680
RÖHM slide rule to calculate axial tailstock loading



Item no.	Weight approx. g
088230 ●	35

● from stock ■ 4 - 6 weeks ▲ on request

CoA - Assortments

Tool group A14
Type 680 **Basic equipment** in a carton
hydraulic, clamping dia. 12 + 32 mm, turning range 13-64 mm

Item no.	MT	right-hand rotation	left-hand rotation	with draw-off nut	Weight approx. g
088553 ●	3	•			2100
088557 ■	3	•		•	2400
088573 ■	3		•		2100
088577 ■	3		•	•	2400
088554 ●	4	•			2400
088558 ▲	4	•		•	2700
088574 ▲	4		•		2400
088578 ▲	4		•	•	2700
088555 ●	5	•			3300
088559 ▲	5	•		•	3600
088575 ▲	5		•		3300
088579 ▲	5		•	•	3600
088556 ▲	6	•			4900
088560 ▲	6	•		•	5200
088576 ▲	6		•		4900
088580 ▲	6		•	•	5200

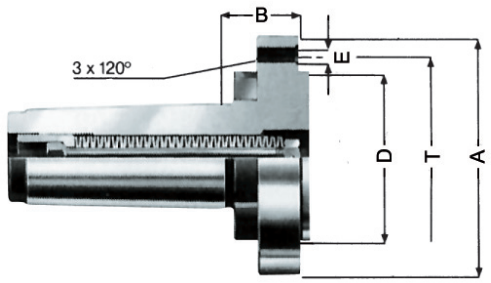
Tool group A14
Type 680 **Small assortment** in wooden box
hydraulic, clamping dia. 12-50 mm, turning range 13-100 mm

Item no.	MT	right-hand rotation	left-hand rotation	with draw-off nut	Weight approx. g
088501 ●	3	•			3900
088511 ■	3	•		•	4200
088521 ■	3		•		3900
088531 ▲	3		•	•	4200
088502 ●	4	•			4300
088512 ▲	4	•		•	4600
088522 ■	4		•		4300
088532 ▲	4		•	•	4600
088503 ●	5	•			4900
088513 ▲	5	•		•	5200
088523 ▲	5		•		4900
088533 ▲	5		•	•	5200
088504 ●	6	•			6600
088514 ▲	6	•		•	6800
088524 ▲	6		•		6600
088534 ▲	6		•	•	6800

Tool group A14
Type 680 **Large assortment** in wooden box
hydraulic, clamping dia. 10-80 mm, turning range 11-160 mm

Item no.	MT	right-hand rotation	left-hand rotation	with draw-off nut	Weight approx. g
088218 ■	3	•			5600
088223 ■	3		•		5600
088233 ■	3	•		•	5900
088238 ■	3		•	•	5900
088219 ▲	4	•			6000
088224 ▲	4		•		6000
088234 ●	4	•		•	6300
088239 ▲	4		•	•	6300
088220 ▲	5	•			6600
088225 ▲	5		•		6600
088235 ▲	5	•		•	6900
088240 ▲	5		•	•	6900
088221 ▲	6	•			8300
088226 ▲	6		•		8300
088236 ▲	6	•		•	8500
088241 ▲	6		•	•	8500

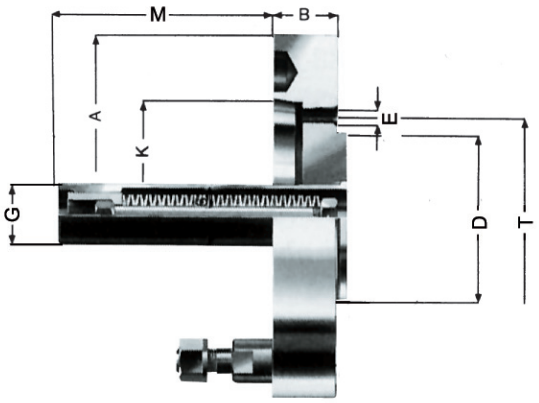
CoM



Tool group A14
Type 688 **Basic body**
with **morse taper**
and **draw-off nut**
mechanical / hydraulic

Item no.	MT	A	B	D	E	T	Weight approx. g
088295 ■	5	140	45	100	M 10	120	5800
088296 ■	6	140	45	100	M 10	120	7480

Adapter plate CoM

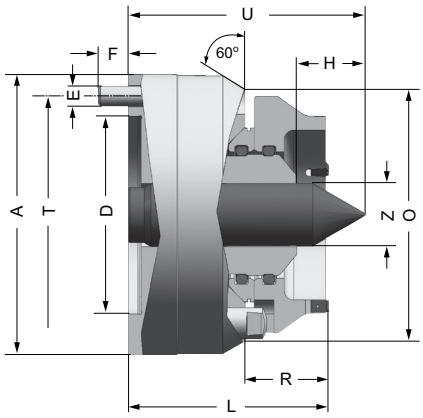


Tool group A14
Type 688 Adapter plate **short taper with spring set**

Item no.	Taper	Design	A	B	D	E	G	K	M	T	Weight approx. g
088331 ■	5	DIN 55026	140	30	100	M 10	37,5	82,563	144	120	4500
088332 ■	6	DIN 55026	165	35	100	M 10	37,5	106,39	139	120	7000
088333 ■	8	DIN 55026	216	40	100	M 10	37,5	139,735	134	120	11500
088334 ■	11	DIN 55026	280	45	100	M 10	37,5	196,885	129	120	23000
088335 ▲	5	DIN 55027	140	30	100	M 10	37,5	82,563	144	120	5500
088336 ▲	6	DIN 55027	165	35	100	M 10	37,5	106,39	139	120	7000
088337 ▲	8	DIN 55027	216	40	100	M 10	37,5	139,735	134	120	11500
088338 ▲	11	DIN 55027	280	45	100	M 10	37,5	196,885	129	120	23000
088339 ▲	5	DIN 55029	140	30	100	M 10	37,5	82,563	144	120	4500
088340 ▲	6	DIN 55029	165	35	100	M 10	37,5	106,39	139	120	7000
088341 ▲	8	DIN 55029	216	40	100	M 10	37,5	139,735	134	120	11500
088342 ▲	11	DIN 55029	280	45	100	M 10	37,5	196,885	129	120	23000

● from stock ■ 4 - 6 weeks ▲ on request

Driving head CoM



For clamping large and heavy workpieces, even with extremely uneven faces.

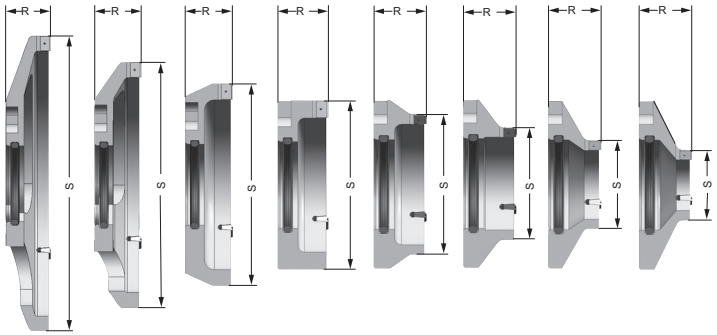
Technical features:

- spring loaded, rigid centre, axially adjustable
- basic body with morse taper or adapter plate with cup spring set
- workpiece weight max. 500 kg
- slip-on driving discs - clamping diameter 50-250 mm
- mechanical compensation

Tool group A14
Type 687 Face driving head
with cylindrical centre mount
mechanical

Item no.	A	D	E	F	H	L	O	R	T	U	Z	Weight approx. g
689080 ■	142	100	M 10	15	35	102	128	38	120	120	32	7400

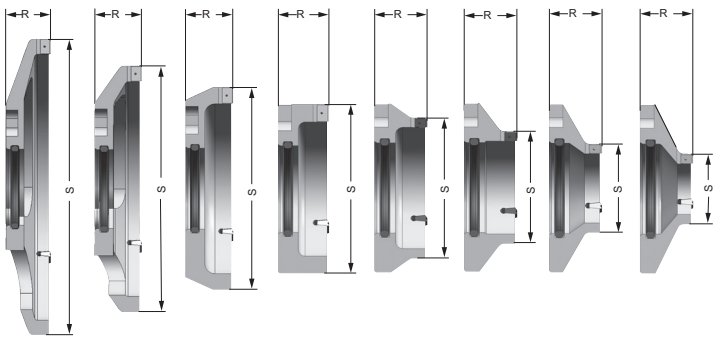
Driving discs CoM



Tool group A14
Type 687-13 **Driving discs**
with interchangeable hard metal driving plates
right-hand rotation

Item no.	Clamping circuit Ø S	R	Hard metal driving plate	Weight approx. g
689461 ■	50	48	6 x 5T	1400
689462 ■	63	45	6 x 5T	1500
689463 ■	80	38	6 x 5T	1500
689464 ■	100	38	6 x 5T	1400
689465 ■	125	38	12 x 5T	1800
689466 ■	160	38	12 x 5T	2500
689467[1] ■	200	38	12 x 5T	2500
689468[1] ■	250	38	12 x 5T	3200

[1] Weight reduced



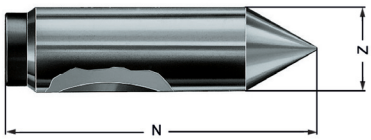
Tool group A14
Type 687-23 **Driving discs**
with interchangeable hard metal driving plates
left-hand rotation

Item no.	Clamping circuit Ø S	R	Hard metal driving plate	Weight approx. g
689091 ■	50	48	6 x 5T	1400
689092 ■	63	45	6 x 5T	1500
689093 ■	80	38	6 x 5T	1500
689094 ■	100	38	6 x 5T	1400
689095 ■	125	38	12 x 5T	1800
689096 ■	160	38	12 x 5T	2500
689097[1] ■	200	38	12 x 5T	2500
689098[1] ■	250	38	12 x 5T	3200

[1] Weight reduced

Accessories CoM

Tool group A14
Type 688-40 **Centres**



Item no.	N	Z	Weight approx. g
088292 ●	120	32	620
088293 ●	140	32	750

Tool group A14
Type 680-90 **Hard metal driving plates**
right- **or** left-hand rotation

Item no.	Size	Weight approx. g
312675 ●	6 x 5 T	3
312911 ●	12 x 5 T	6

Tool group C15
Type 0167-Y
Threaded pin

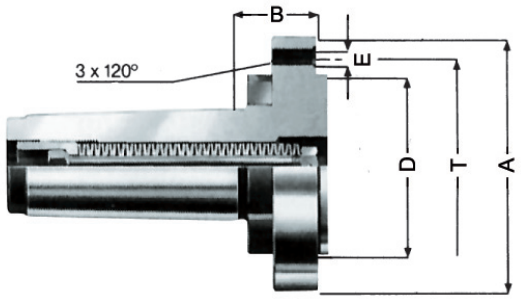
Item no.	Size	Weight approx. g
048205 ●	M 5 x 8	1
036461 ●	M 5 x 10	1

Tool group C15
Type 5191-Y
O-ring

Item no.	Size
006283 ■	59,69x5,33

● from stock ■ 4 - 6 weeks ▲ on request

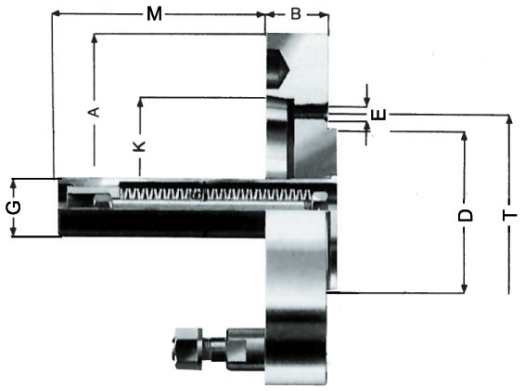
CoB



Tool group A14
Type 688 **Basic body**
with **morse taper**
and **draw-off nut**
mechanical / hydraulic

Item no.	MT	A	B	D	E	T	Weight approx. g
088295 ■	5	140	45	100	M 10	120	5800
088296 ■	6	140	45	100	M 10	120	7480

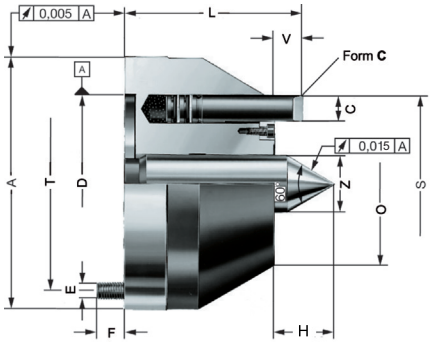
Adapter plate CoB

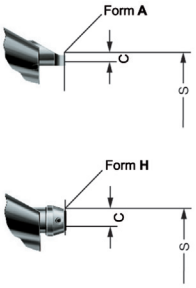


Tool group A14
Type 688 Adapter plate
short taper with spring set

Item no.	Taper	Design	A	B	D	E	G	K	M	T	Weight approx. g
088331 ■	5	DIN 55026	140	30	100	M 10	37,5	82,563	144	120	4500
088332 ■	6	DIN 55026	165	35	100	M 10	37,5	106,39	139	120	7000
088333 ■	8	DIN 55026	216	40	100	M 10	37,5	139,735	134	120	11500
088334 ■	11	DIN 55026	280	45	100	M 10	37,5	196,885	129	120	23000
088335 ▲	5	DIN 55027	140	30	100	M 10	37,5	82,563	144	120	5500
088336 ▲	6	DIN 55027	165	35	100	M 10	37,5	106,39	139	120	7000
088337 ▲	8	DIN 55027	216	40	100	M 10	37,5	139,735	134	120	11500
088338 ▲	11	DIN 55027	280	45	100	M 10	37,5	196,885	129	120	23000
088339 ▲	5	DIN 55029	140	30	100	M 10	37,5	82,563	144	120	4500
088340 ▲	6	DIN 55029	165	35	100	M 10	37,5	106,39	139	120	7000
088341 ▲	8	DIN 55029	216	40	100	M 10	37,5	139,735	134	120	11500
088342 ▲	11	DIN 55029	280	45	100	M 10	37,5	196,885	129	120	23000

Driving heads CoB





For clamping large and heavy workpieces, even with extremely uneven faces.

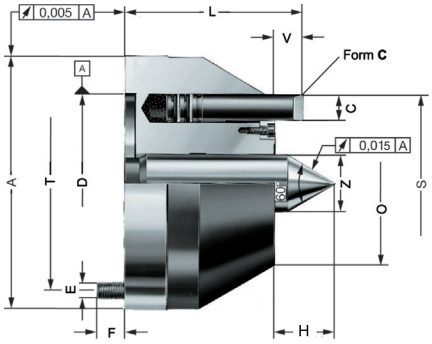
With hydraulic compensation - interchangeable driving pins
Workpiece weight with single layer disc spring package: 500 kg
Workpiece weight with double layer disc spring package: 1000 kg

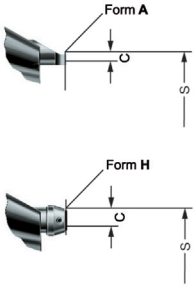
Technical features:

- bolt-on face driver heads with interchangeable driving pins
- driving pins can be changed to allow right-hand or left-hand rotation
- spring loaded, rigid centre, axially adjustable

Tool group A14
Type 688-10 Face Driving Head
size 1 CoB;
hydraulic
right-hand rotation

Item no.	S	Approx. turning range	A	C	D	E	F	H	L	O	T	V	Z	Pin	Weight approx. g
088301 ■	63	65-125	142	6	100	M 10	15	max. 45 min. 18	102	72	120	16	25	6 x 16 A	7000
088361 ■	75	80-150	142	9,5	100	M 10	15	max. 45 min. 18	102	72	120	16	25	6 x 16 H	7000
088302 ■	80	82-160	142	14,5	100	M 10	15	max. 45 min. 18	102	72	120	16	25	6 x 16 C	7000





For clamping large and heavy workpieces, even with extremely uneven faces.

With hydraulic compensation - interchangeable driving pins
Workpiece weight with single layer disc spring package: 500 kg
Workpiece weight with double layer disc spring package: 1000 kg

Technical features:

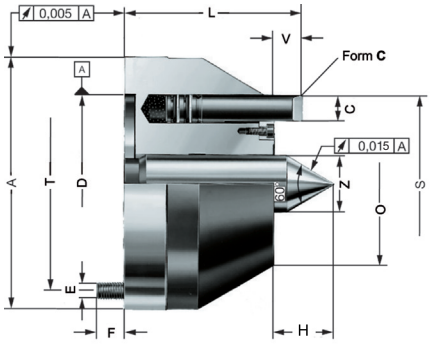
- bolt-on face driver heads with interchangeable driving pins
- driving pins can be changed to allow right-hand or left-hand rotation
- spring loaded, rigid centre, axially adjustable

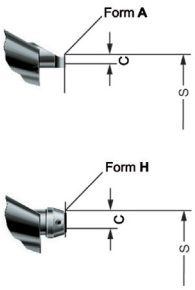
Tool group A14
Type 688-10 Face Driving Head
size 2 CoB;
hydraulic
right-hand rotation

Item no.	S	Approx. turning range	A	C	D	E	F	H	L	O	T	V	Z	Pin	Weight approx. g
088303 ■	83	85-165	142	6	100	M 10	15	max. 45 min. 18	102	92	120	16	32	6 x 16 A	8200
088362 ■	95	100-190	142	9,5	100	M 10	15	max. 45 min. 18	102	92	120	16	32	6 x 16 H	8200
088304 ■	100	102-200	142	14,5	100	M 10	15	max. 45 min. 18	102	92	120	16	32	6 x 16 C	8200

● from stock ■ 4 - 6 weeks ▲ on request

Driving heads CoB





For clamping large and heavy workpieces, even with extremely uneven faces.

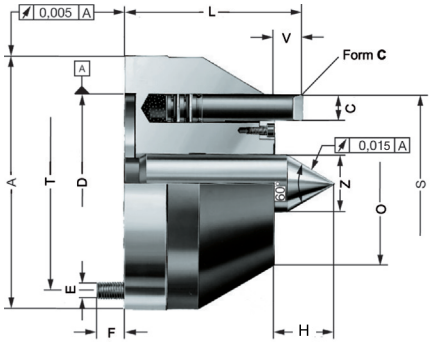
With hydraulic compensation - interchangeable driving pins
Workpiece weight with single layer disc spring package: 500 kg
Workpiece weight with double layer disc spring package: 1000 kg

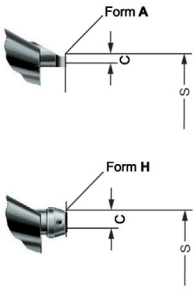
Technical features:

- bolt-on face driver heads with interchangeable driving pins
- driving pins can be changed to allow right-hand or left-hand rotation
- spring loaded, rigid centre, axially adjustable

Tool group A14
Type 688-10 Face Driving Head
size 3 CoB;
hydraulic
right-hand rotation

Item no.	S	Approx. turning range	A	C	D	E	F	H	L	O	T	V	Z	Pin	Weight approx. g
088305 ■	108	110-215	142	6	100	M 10	15	max. 45 min. 18	102	117	120	16	32	6 x 16 A	9500
088363 ■	120	125-240	142	9,5	100	M 10	15	max. 45 min. 18	102	117	120	16	32	6 x 16 H	9500
088306 ■	125	127-250	142	14,5	100	M 10	15	max. 45 min. 18	102	117	120	16	32	6 x 16 C	9500





For clamping large and heavy workpieces, even with extremely uneven faces.

With hydraulic compensation - interchangeable driving pins
Workpiece weight with single layer disc spring package: 500 kg
Workpiece weight with double layer disc spring package: 1000 kg

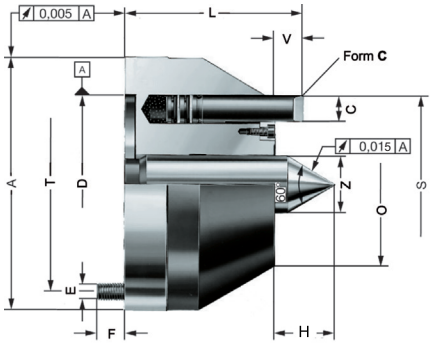
Technical features:

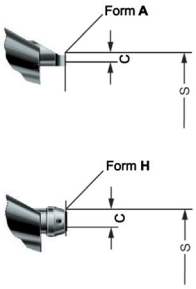
- bolt-on face driver heads with interchangeable driving pins
- driving pins can be changed to allow right-hand or left-hand rotation
- spring loaded, rigid centre, axially adjustable

Tool group A14
Type 688-10 Face Driving Head
size 4 CoB;
hydraulic
right-hand rotation

Item no.	S	Approx. turning range	A	C	D	E	F	H	L	O	T	V	Z	Pin	Weight approx. g
088307 ■	143	145-285	182	6	100	M 10	15	max. 45 min. 18	102	152	120	16	32	6 x 16 A	16000
088364 ■	155	160-310	182	9,5	100	M 10	15	max. 45 min. 18	102	152	120	16	32	6 x 16 H	16000
088308 ■	160	162-320	182	14,5	100	M 10	15	max. 45 min. 18	102	152	120	16	32	6 x 16 C	16000

Driving heads CoB





For clamping large and heavy workpieces, even with extremely uneven faces.

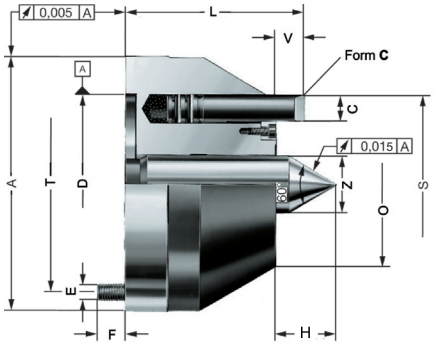
With hydraulic compensation - interchangeable driving pins
Workpiece weight with single layer disc spring package: 500 kg
Workpiece weight with double layer disc spring package: 1000 kg

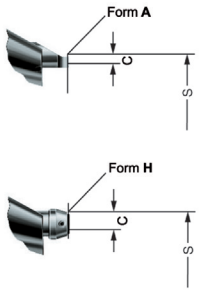
Technical features:

- bolt-on face driver heads with interchangeable driving pins
- driving pins can be changed to allow right-hand or left-hand rotation
- spring loaded, rigid centre, axially adjustable

Tool group A14
Type 688-20 Face Driving Head
size 1 CoB;
hydraulic
left-hand rotation

Item no.	S	Approx. turning range	A	C	D	E	F	H	L	O	T	V	Z	Pin	Weight approx. g
088321 ■	63	65-125	142	6	100	M 10	15	max. 45 min. 18	102	72	120	16	25	6 x 16 A	7000
088381 ■	75	80-150	142	9,5	100	M 10	15	max. 45 min. 18	102	72	120	16	25	6 x 16 H	7000
088322 ■	80	82-160	142	14,5	100	M 10	15	max. 45 min. 18	102	72	120	16	25	6 x 16 C	7000





For clamping large and heavy workpieces, even with extremely uneven faces.

With hydraulic compensation - interchangeable driving pins
Workpiece weight with single layer disc spring package: 500 kg
Workpiece weight with double layer disc spring package: 1000 kg

Technical features:

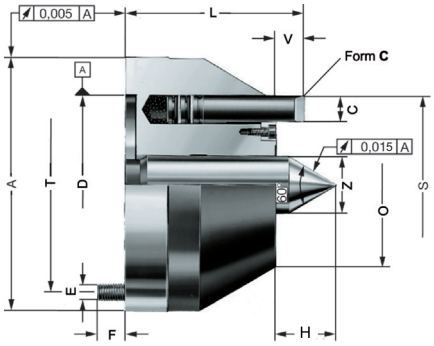
- bolt-on face driver heads with interchangeable driving pins
- driving pins can be changed to allow right-hand or left-hand rotation
- spring loaded, rigid centre, axially adjustable

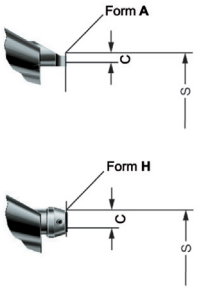
Tool group A14
Type 688-20 Face Driving Head
size 2 CoB;
hydraulic
left-hand rotation

Item no.	S	Approx. turning range	A	C	D	E	F	H	L	O	T	V	Z	Pin	Weight approx. g
088323 ■	83	85-165	142	6	100	M 10	15	max. 45 min. 18	102	92	120	16	32	6 x 16 A	8200
088382 ■	95	100-190	142	9,5	100	M 10	15	max. 45 min. 18	102	92	120	16	32	6 x 16 H	8200
088324 ■	100	102-200	142	14,5	100	M 10	15	max. 45 min. 18	102	92	120	16	32	6 x 16 C	8200

● from stock ■ 4 - 6 weeks ▲ on request

Driving heads CoB





For clamping large and heavy workpieces, even with extremely uneven faces.

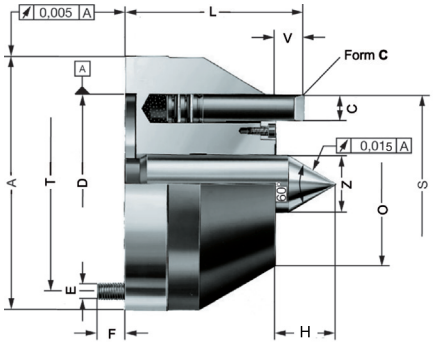
With hydraulic compensation - interchangeable driving pins
Workpiece weight with single layer disc spring package: 500 kg
Workpiece weight with double layer disc spring package: 1000 kg

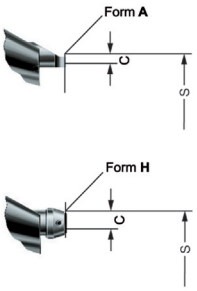
Technical features:

- bolt-on face driver heads with interchangeable driving pins
- driving pins can be changed to allow right-hand or left-hand rotation
- spring loaded, rigid centre, axially adjustable

Tool group A14
Type 688-20 Face Driving Head
size 3 CoB;
hydraulic
left-hand rotation

Item no.	S	Approx. turning range	A	C	D	E	F	H	L	O	T	V	Z	Pin	Weight approx. g
088325 ■	108	110-215	142	6	100	M 10	15	max. 45 min. 18	102	117	120	16	32	6 x 16 A	9500
088383 ■	120	125-240	142	9,5	100	M 10	15	max. 45 min. 18	102	117	120	16	32	6 x 16 H	9500
088326 ■	125	127-250	142	14,5	100	M 10	15	max. 45 min. 18	102	117	120	16	32	6 x 16 C	9500





For clamping large and heavy workpieces, even with extremely uneven faces.

With hydraulic compensation - interchangeable driving pins
Workpiece weight with single layer disc spring package: 500 kg
Workpiece weight with double layer disc spring package: 1000 kg

Technical features:

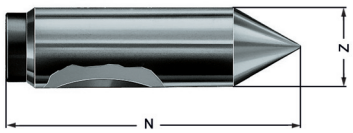
- bolt-on face driver heads with interchangeable driving pins
- driving pins can be changed to allow right-hand or left-hand rotation
- spring loaded, rigid centre, axially adjustable

Tool group A14
Type 688-20 Face Driving Head
size 4 CoB;
hydraulic
left-hand rotation

Item no.	S	Approx. turning range	A	C	D	E	F	H	L	O	T	V	Z	Pin	Weight approx. g
088327 ■	143	145-285	182	6	100	M 10	15	max. 45 min. 18	102	152	120	16	32	6 x 16 A	16000
088384 ■	155	160-310	182	9,5	100	M 10	15	max. 45 min. 18	102	152	120	16	32	6 x 16 H	16000
088328 ■	160	162-320	182	14,5	100	M 10	15	max. 45 min. 18	102	152	120	16	32	6 x 16 C	16000

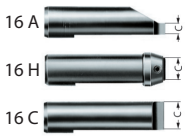
Accessories CoB

Tool group A14
Type 688-40 **Centres**



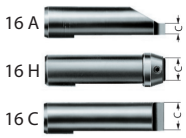
Item no.	N	Z	Weight approx. g
088291 ●	120	25	390
088292 ●	120	32	620
088293 ●	140	32	750

Tool group C15
Type 689-91
driving pins, right-hand rotation



Item no.	Diameter	Size	C	Length	Weight approx. g
085383 ●	16	16 A	6	60	80
088100 ●	16	16 H	9,5	60	90
085052 ●	16	16 C	14,5	60	85

Tool group C15
Type 689-92
driving pins, left-hand rotation

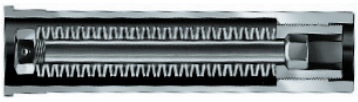


Item no.	Diameter	Size	C	Length	Weight approx. g
085016 ●	16	16 A	6	60	80
088099 ●	16	16 H	9,5	60	90
085051 ●	16	16 C	14,5	60	85

Tool group A14
Type 680-90 **Hard metal driving plates**
right- **or** left-hand rotation

Item no.	Size	Clamping circuit Ø	Weight approx. g
088209 ●	9,5x3,2	40-80	4

Tool group A14
Type 688-89
Sleeve with spring set, suitable for adapter plates



Item no.	Workpiece weight max. kg	Weight approx. g
086806 ■	500	800
087286 ■	1000	800

● from stock ■ 4 - 6 weeks ▲ on request

CoK

Power operated Face Driver CoK

Particularly suitable for turning, copying and transfer machines with automatic infeed. Can also be used for milling and plain grinding machines by virtue of the solid centre.
For machining workpieces which are highly unbalanced, very heavy, and require substantial removal of material or irregular cutting, e.g. square billets, forged gear components, etc.

CoK Type 690-00
Clamping dia. 8-80 mm mechanical compensation, slip-on driving discs

CoK Type 690-50
Clamping dia. 50 -250 mm mechanical compensation, slip-on driving discs

CokType 689 driving heads
Clamping dia. 63-160 mm hydraulic compensation, with interchangeable driving pins

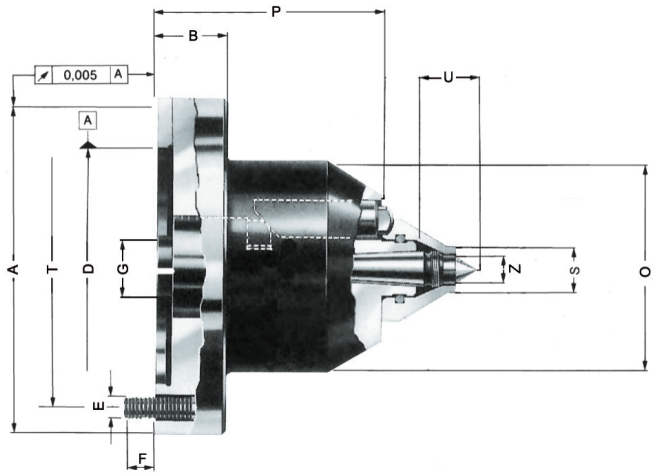
Longitudinal workpiece stop provided in centering.
Precise tripping to workpiece centre, particularly advantageous for consecutive machining, e.g. plunge-cut grinding, etc.

High precision concentricity by virtue of the solid centre even with continuous hard use.
Minimal centering power even with maximum cutting load.

Drivers are pressed against the workpiece by power-operated means. Uniformed loading of the mechanically or hydraulically equalising drivers.
No change in the longitudinal workpiece stop through regrinding of the driving cutters.
Optimum cutter run-in during opposed copy-turning through bevelled driving heads.

All wearing parts are rapidly and easily replaced.
The choice of clamping cylinder required depends upon the machine and workpiece conditions. As a rule size 105 suffices with the hydraulic actuating cylinders, size 150 with the pneumatic actuating cylinders.

CoK 8-80 mm



High precision concentricity due to fixed centre point.
Driving discs are pressed against the workpiece by power operated means.

Clamping circuit Ø 8-80 mm
Mechanically compensated
Longitudinal workpiece stop in the centre

Technical features:

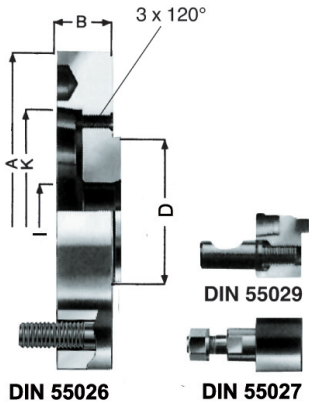
- high precision concentricity due to fixed centre point also under hard continuous operating conditions
- minimal centering power even with maximum cutting load
- workpiece weight max. 350 kg
- slip-on driving discs, solid centre

Tool group C15
Type 690-00 **basic body**
(without centre,
without draw-off nut) CoK
mechanical

Item no.	A	B	D	E	F	G	O	P	T	Z	Stroke Centres	Weight approx. g
313900 ●	142	30	100	M 10	15	25	90	93	120	15	5	6500

Draw-off nut M 14x1,5 item-no. 089229

Adapter plate CoK



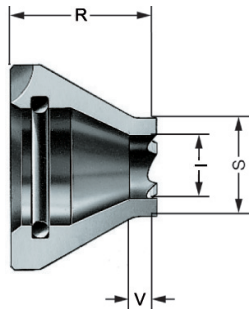
Tool group A14
Type 688-87 Adapter plate
short taper
without spring set

Item no.	Design	Taper	A	B	D	I	K	Weight approx. g
088485 ■	DIN 55026	5	140	30	100	38	82,563	3100
088486 ■	DIN 55026	6	167	35	100	38	106,39	4800
088487 ●	DIN 55026	8	216	40	100	38	139,735	8700
088488 ■	DIN 55026	11	280	45	100	38	196,885	17000
088480 ▲	DIN 55027	5	140	30	100	38	82,563	3100
088481 ▲	DIN 55027	6	167	35	100	38	106,39	4800
088482 ▲	DIN 55027	8	216	40	100	38	139,735	8700
088483 ▲	DIN 55027	11	280	45	100	38	196,885	17000
088495 ▲	DIN 55029	5	140	30	100	38	82,563	3100
088496 ▲	DIN 55029	6	167	35	100	38	106,39	4800
088497 ▲	DIN 55029	8	216	40	100	38	139,735	8700
088498 ▲	DIN 55029	11	280	45	100	38	196,885	17000

● from stock ■ 4 - 6 weeks ▲ on request

Accessories CoK

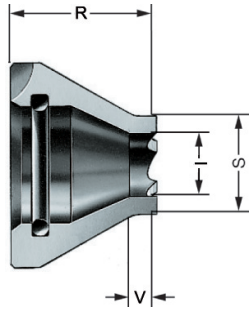
Tool group A14
Type 680-10 **Driving discs**, toothed
right-hand rotation



Item no.	Clamping circuit Ø S	Approx. turning range	I	R	V	Matching center point ØY	Weight approx. g
088061 ●	8	9-16	4,5	38	4	4	120
088062 ●	10	11-20	4,5	38	4	4	120
088063 ●	12	13-24	7	36	4	6	120
088064 ●	16	17-32	11	33	4	10	120
088065 ●	20	21-40	13	30	4	12	120
088066 ●	25	26-50	17	30	8	16	150
088067 ●	32	33-64	22	30	10	16	190

Driving discs with carbide toothing, friction lining or diamant granulation on request

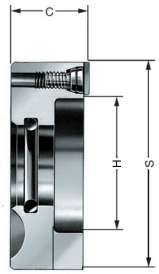
Tool group A14
Type 680-20 **Driving discs**, toothed
left-hand rotation



Item no.	Clamping circuit Ø S	Approx. turning range	I	R	V	Matching center point ØY	Weight approx. g
088081 ●	8	9-16	4,5	38	4	4	120
088082 ●	10	11-20	4,5	38	4	4	120
088083 ●	12	13-24	7	36	4	6	120
088084 ●	16	17-32	11	33	4	10	120
088085 ●	20	21-40	13	30	4	12	120
088086 ●	25	26-50	17	30	8	16	150
088087 ●	32	33-64	22	30	10	16	190

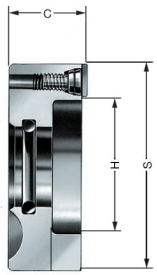
Driving discs with carbide toothing on request

Tool group A14
Type 680-12 **Driving discs**,
with interchangeable hard metal driving plates 6 x 3,2
which can be used on 4 sides
right-hand rotation



Item no.	Clamping circuit Ø S	Approx. turning range	H	C	Matching center point ØY	Weight approx. g
088068 ●	40	41-80	20	24	16	200
088069 ●	50	51-100	28	24	16	240
088070 ●	63	64-126	41	24	16	400
088071 ●	80	81-160	58	24	16	600

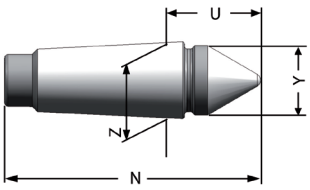
Tool group A14
Type 680-22 **Driving discs**,
with interchangeable hard metal driving plates 6 x 3,2
which can be used on 4 sides
left-hand rotation



Item no.	Clamping circuit Ø S	Approx. turning range	H	C	Matching center point ØY	Weight approx. g
088088 ●	40	41-80	20	24	16	200
088089 ●	50	51-100	28	24	16	240
088090 ●	63	64-126	41	24	16	400
088091 ●	80	81-160	58	24	16	600

Accessories CoK

Tool group C15
Type 689-40 **Centres**, CoK



Item no.	Clamping circuit Ø	N	U	Y	Z	Workpiece weight max. kg	Weight approx. g
088121 ●	8-10	67,5	28	4	15	25	55
088122 ●	12	67	28	6	15	75	55
088123 ●	16	67	28	10	15	150	55
088124 ●	20-32	64	25	12	15	250	55
085002 ●	40-80	60	21	M 14x1,5	15	350	55

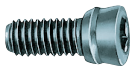
Tool group A14
Type 680-90 **Hard metal driving plates**
right- **or** left-hand rotation

Item no.	Size	Clamping circuit Ø	Weight approx. g
088209 ●	9,5x3,2	40-80	4

Tool group A14
Type 680-93 **Hard metal driving plates**
right- **and** left-hand rotation

Item no.	Size	Clamping circuit Ø	Weight approx. g
087931 ●	9,5x3,2	40-80	4

Tool group C15
Typ 680-90 **Clamping spindle**



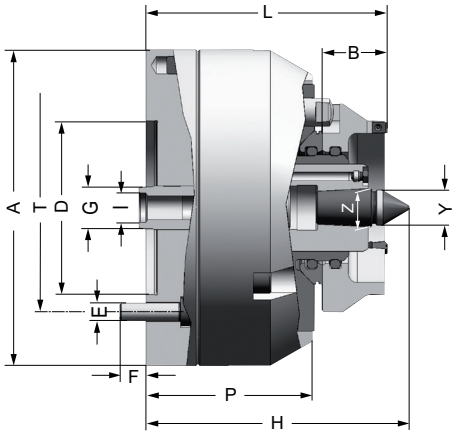
Item no.	Size	Clamping circuit Ø	Weight approx. g
088205 ●	M 5 x 8	40-80	2

Tool group C15
Type 5191-Y
O-ring

Item no.	Size
006252 ●	21,82x3,53

● from stock ■ 4 - 6 weeks ▲ on request

CoK 50-250 mm



High precision concentricity due to fixed centre point.
Driving discs are pressed against the workpiece by power operated means.

Clamping circuit Ø 50-250 mm
Mechanically compensated
Longitudinal workpiece stop in the centre

Technical features:

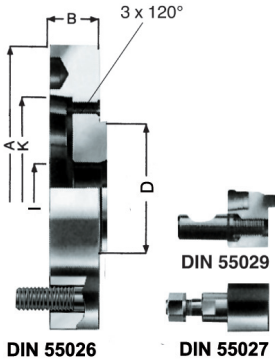
- high precision concentricity due to fixed centre point also under hard continuous operating conditions
- minimal centering power even with maximum cutting load
- workpiece weight max. 500 kg
- slip-on driving discs, solid centre

Tool group C15
Type 690-50 Power-operated
driving head with centre
Mechanically compensated

Item no.	A	D	E	F	G	H	I	L	P	R	T	Y	Z	Weight approx. g
689085 ▲	182	100	M 10	15	25	154	16	max 150 min 134	96	38	120	M 20x1,5	22	18000

Draw-off nut M 20x1,5 item-no. 089302

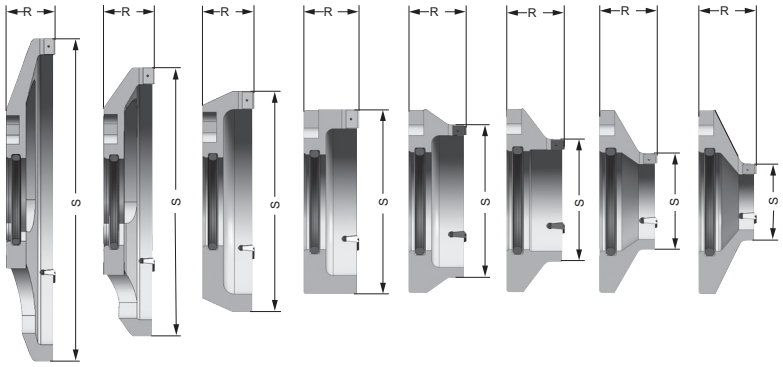
Adapter plate CoK



Tool group A14
Type 688-87 Adapter plate
short taper
without spring set

Item no.	Design	Taper	A	B	D	I	K	Weight approx. g
088485 ■	DIN 55026	5	140	30	100	38	82,563	3100
088486 ■	DIN 55026	6	167	35	100	38	106,39	4800
088487 ●	DIN 55026	8	216	40	100	38	139,735	8700
088488 ■	DIN 55026	11	280	45	100	38	196,885	17000
088480 ▲	DIN 55027	5	140	30	100	38	82,563	3100
088481 ▲	DIN 55027	6	167	35	100	38	106,39	4800
088482 ▲	DIN 55027	8	216	40	100	38	139,735	8700
088483 ▲	DIN 55027	11	280	45	100	38	196,885	17000
088495 ▲	DIN 55029	5	140	30	100	38	82,563	3100
088496 ▲	DIN 55029	6	167	35	100	38	106,39	4800
088497 ▲	DIN 55029	8	216	40	100	38	139,735	8700
088498 ▲	DIN 55029	11	280	45	100	38	196,885	17000

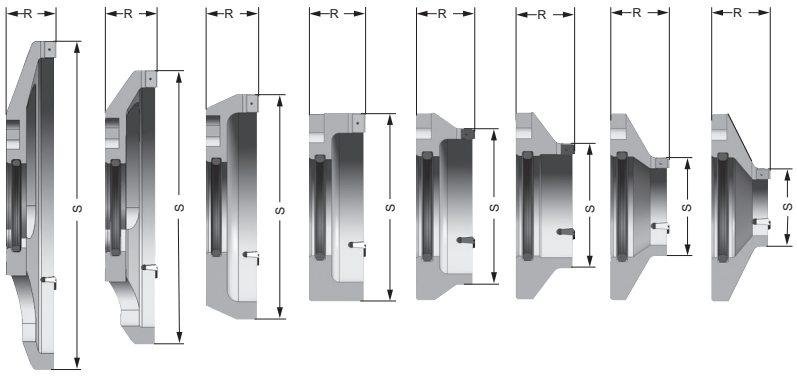
Driving discs CoK



Tool group A14
Type 687-13 **Driving discs**
with interchangeable hard metal driving plates
right-hand rotation

Item no.	Clamping circuit Ø S	R	Hard metal driving plate	Weight approx. g
689461 ■	50	48	6 x 5T	1400
689462 ■	63	45	6 x 5T	1500
689463 ■	80	38	6 x 5T	1500
689464 ■	100	38	6 x 5T	1400
689465 ■	125	38	12 x 5T	1800
689466 ■	160	38	12 x 5T	2500
689467[1] ■	200	38	12 x 5T	2500
689468[1] ■	250	38	12 x 5T	3200

[1] Weight reduced



Tool group A14
Type 687-23 **Driving discs**
with interchangeable hard metal driving plates
left-hand rotation

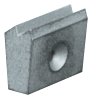
Item no.	Clamping circuit Ø S	R	Hard metal driving plate	Weight approx. g
689371 ▲	50	48	6 x 5T	1400
689372 ▲	63	45	6 x 5T	1500
689093 ■	80	38	6 x 5T	1500
689094 ■	100	38	6 x 5T	1400
689095 ■	125	38	12 x 5T	1800
689096 ■	160	38	12 x 5T	2500
689097[1] ■	200	38	12 x 5T	2500
689098[1] ■	250	38	12 x 5T	3200

[1] Weight reduced

● from stock ■ 4 - 6 weeks ▲ on request

Accessories CoK

Tool group A14
Type 680-90 **Hard metal driving plates**
right- **or** left-hand rotation



Item no.	Size	Weight approx. g
312675 ●	6 x 5 T	3
312911 ●	12 x 5 T	6

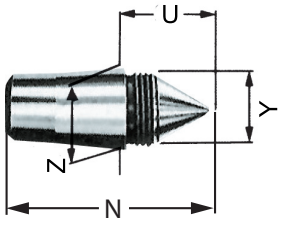
Tool group C15
Type 0167-Y
Threaded pin

Item no.	Size	Weight approx. g
048205 ●	M 5 x 8	1
036461 ●	M 5 x 10	1

Tool group C15
Type 5191-Y
O-ring

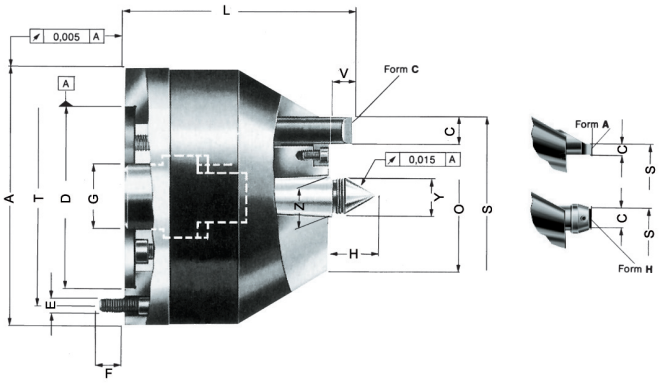
Item no.	Size
006283 ■	59,69x5,33

Tool group C15
Type 689-40 **Centres**, CoK



Item no.	N	U	Y	Z	Weight approx. g
313621 ●	54	24	M 20x1,5	22	112

Power-operated Driving Heads CoK



CoK, for hard continuous operating conditions.

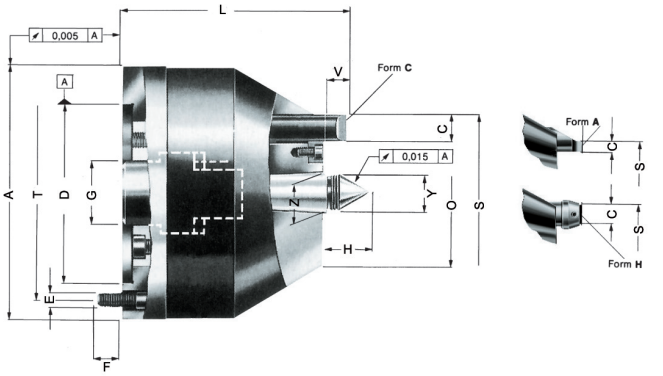
Bolt on power-operated face driver heads, hydraulically compensated with interchangeable driving pins.
Driving pins can be changed to allow right-hand and left-hand rotation.

Technical features:

- max. compensating range of driving pins approx. 8 mm
- nominal value for max. loading approx. 4000 daN
- max. workpiece weight 800 kg
- **On request:**
  power-operated Face Driving Head CoK mechanically compensated and special designs

Tool group C15
Type 689-10 Power-operated Face Driving Head **size 1** CoK;
hydraulic
right-hand rotation

Item no.	S	Approx. turning range	A	C	D	E	F	G	H	L	O	T	V	Y	Z	Pin	Weight approx. g
088441 ▲	63	65-125	142	6	100	M 10	15	35	26	138 max. 143	72	120	16 max. 21	M 20x1,5	22	16 A	12000
088442 ▲	75	80-150	142	9,5	100	M 10	15	35	26	138 max. 143	72	120	16 max. 21	M 20x1,5	22	16 H	12000
088443 ▲	80	82-160	142	14,5	100	M 10	15	35	26	138 max. 143	72	120	16 max. 21	M 20x1,5	22	16 C	12000



CoK, for hard continuous operating conditions.

Bolt on power-operated face driver heads, hydraulically compensated with interchangeable driving pins.
Driving pins can be changed to allow right-hand and left-hand rotation.

Technical features:

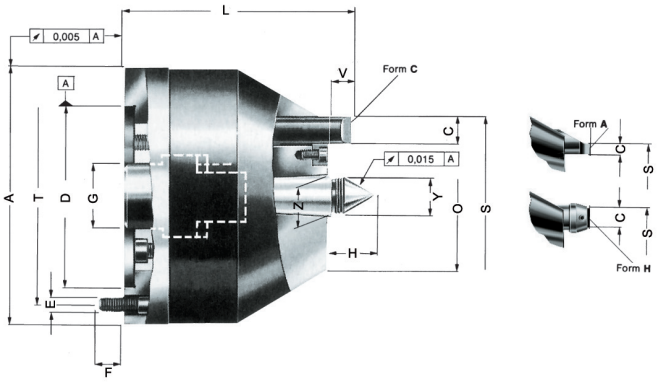
- max. compensating range of driving pins approx. 8 mm
- nominal value for max. loading approx. 4000 daN
- max. workpiece weight 800 kg
- **On request:**
  power-operated Face Driving Head CoK mechanically compensated and special designs

Tool group C15
Type 689-10 Power-operated Face Driving Head **size 2** CoK;
hydraulic
right-hand rotation

Item no.	S	Approx. turning range	A	C	D	E	F	G	H	L	O	T	V	Y	Z	Pin	Weight approx. g
088444 ▲	83	85-165	142	6	100	M 10	15	35	26	138 max. 143	92	120	16 max. 21	M 20x1,5	22	16 A	13000
088445 ▲	95	100-190	142	9,5	100	M 10	15	35	26	138 max. 143	92	120	16 max. 21	M 20x1,5	22	16 H	13000
088446 ▲	100	102-200	142	14,5	100	M 10	15	35	26	138 max. 143	92	120	16 max. 21	M 20x1,5	22	16 C	13000

● from stock ■ 4 - 6 weeks ▲ on request

Power-operated Driving Heads CoK



CoK, for hard continuous operating conditions.

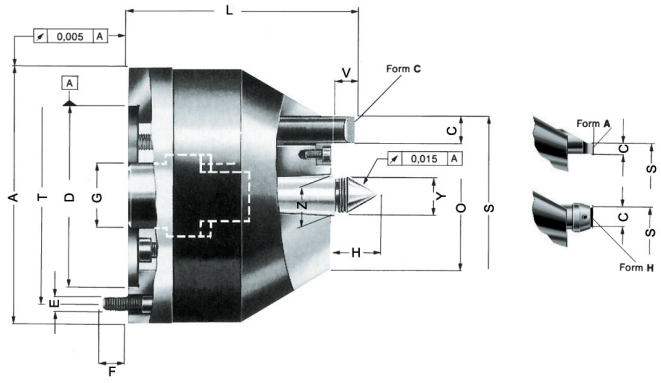
Bolt on power-operated face driver heads, hydraulically compensated with interchangeable driving pins.
Driving pins can be changed to allow right-hand and left-hand rotation.

Technical features:

- max. compensating range of driving pins approx. 8 mm
- nominal value for max. loading approx. 4000 daN
- max. workpiece weight 800 kg
- **On request:**
  power-operated Face Driving Head CoK mechanically compensated and special designs

Tool group C15
Type 689-10 Power-operated Face Driving Head **size 3** CoK;
hydraulic
right-hand rotation

Item no.	S	Approx. turning range	A	C	D	E	F	G	H	L	O	T	V	Y	Z	Pin	Weight approx. g
088447 ▲	108	100-215	152	6	100	M 10	15	35	26	138 max. 143	117	120	16 max. 21	M 20x1,5	22	16 A	16000
088448 ▲	120	125-240	152	9,5	100	M 10	15	35	26	138 max. 143	117	120	16 max. 21	M 20x1,5	22	16 H	16000
088449 ▲	125	127-250	152	14,5	100	M 10	15	35	26	138 max. 143	117	120	16 max. 21	M 20x1,5	22	16 C	16000



CoK, for hard continuous operating conditions.

Bolt on power-operated face driver heads, hydraulically compensated with interchangeable driving pins.
Driving pins can be changed to allow right-hand and left-hand rotation.

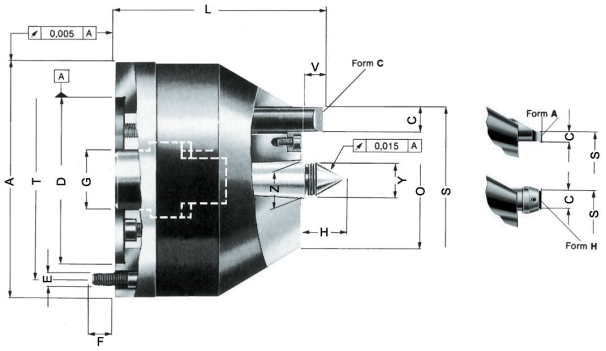
Technical features:

- max. compensating range of driving pins approx. 8 mm
- nominal value for max. loading approx. 4000 daN
- max. workpiece weight 800 kg
- **On request:**
  power-operated Face Driving Head CoK mechanically compensated and special designs

Tool group C15
Type 689-10 Power-operated Face Driving Head **size 4** CoK;
hydraulic
right-hand rotation

Item no.	S	Approx. turning range	A	C	D	E	F	G	H	L	O	T	V	Y	Z	Pin	Weight approx. g
088450 ▲	143	145-285	182	6	100	M 10	15	35	26	138 max. 143	152	120	16 max. 21	M 20x1,5	22	16 A	23000
088451 ▲	155	160-310	182	9,5	100	M 10	15	35	26	138 max. 143	152	120	16 max. 21	M 20x1,5	22	16 H	23000
088452 ▲	160	162-320	182	14,5	100	M 10	15	35	26	138 max. 143	152	120	16 max. 21	M 20x1,5	22	16 C	23000

Power-operated Driving Heads CoK



CoK, for hard continuous operating conditions.

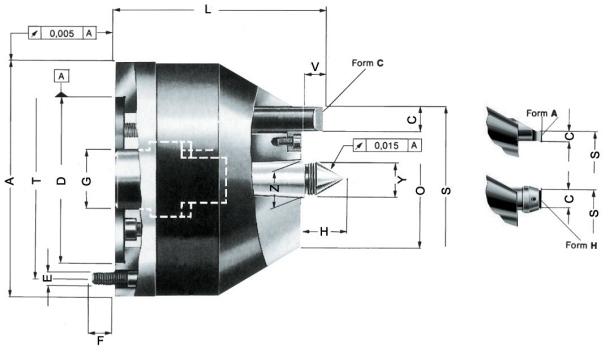
Bolt on power-operated face driver heads, hydraulically compensated with interchangeable driving pins.
Driving pins can be changed to allow right-hand and left-hand rotation.

Technical features:

- max. compensating range of driving pins approx. 8 mm
- nominal value for max. loading approx. 4000 daN
- max. workpiece weight 800 kg
- **On request:**
  power-operated Face Driving Head CoK mechanically compensated and special designs

Tool group C15
Type 689-20 Power-operated Face Driving Head **size 1** CoK;
hydraulic
left-hand rotation

Item no.	S	Approx. turning range	A	C	D	E	F	G	H	L	O	T	V	Y	Z	Pin	Weight approx. g
088461 ▲	63	65-125	142	6	100	M 10	15	35	26	138 max. 143	72	120	16 max. 21	M 20x1,5	22	16 A	12000
088462 ▲	75	80-150	142	9,5	100	M 10	15	35	26	138 max. 143	72	120	16 max. 21	M 20x1,5	22	16 H	12000
088463 ▲	80	82-160	142	14,5	100	M 10	15	35	26	138 max. 143	72	120	16 max. 21	M 20x1,5	22	16 C	12000



CoK, for hard continuous operating conditions.

Bolt on power-operated face driver heads, hydraulically compensated with interchangeable driving pins.
Driving pins can be changed to allow right-hand and left-hand rotation.

Technical features:

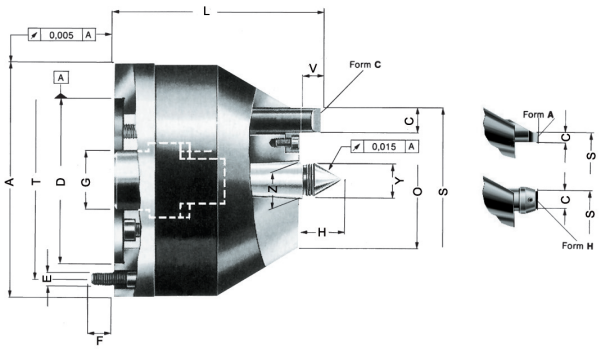
- max. compensating range of driving pins approx. 8 mm
- nominal value for max. loading approx. 4000 daN
- max. workpiece weight 800 kg
- **On request:**
  power-operated Face Driving Head CoK mechanically compensated and special designs

Tool group C15
Type 689-10 Power-operated Face Driving Head **size 2** CoK;
hydraulic
left-hand rotation

Item no.	S	Approx. turning range	A	C	D	E	F	G	H	L	O	T	V	Y	Z	Pin	Weight approx. g
088464 ▲	83	85-165	142	6	100	M 10	15	35	26	138 max. 143	92	120	16 max. 21	M 20x1,5	22	16 A	13000
088465 ▲	95	100-190	142	9,5	100	M 10	15	35	26	138 max. 143	92	120	16 max. 21	M 20x1,5	22	16 H	13000
088466 ▲	100	102-200	142	14,5	100	M 10	15	35	26	138 max. 143	92	120	16 max. 21	M 20x1,5	22	16 C	13000

● from stock ■ 4 - 6 weeks ▲ on request

Power-operated Driving Heads CoK



CoK, for hard continuous operating conditions.

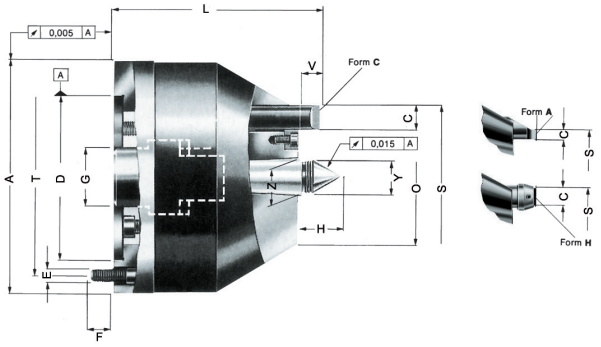
Bolt on power-operated face driver heads, hydraulically compensated with interchangeable driving pins.
Driving pins can be changed to allow right-hand and left-hand rotation.

Technical features:

- max. compensating range of driving pins approx. 8 mm
- nominal value for max. loading approx. 4000 daN
- max. workpiece weight 800 kg
- **On request:**
  power-operated Face Driving Head CoK mechanically compensated and special designs

Tool group C15
Type 689-20 Power-operated Face Driving Head **size 3** CoK;
hydraulic
left-hand rotation

Item no.	S	Approx. turning range	A	C	D	E	F	G	H	L	O	T	V	Y	Z	Pin	Weight approx. g
088467 ▲	108	100-215	152	6	100	M 10	15	35	26	138 max. 143	117	120	16 max. 21	M 20x1,5	22	16 A	16000
088468 ▲	120	125-240	152	9,5	100	M 10	15	35	26	138 max. 143	117	120	16 max. 21	M 20x1,5	22	16 H	16000
088469 ▲	125	127-250	152	14,5	100	M 10	15	35	26	138 max. 143	117	120	16 max. 21	M 20x1,5	22	16 C	16000



CoK, for hard continuous operating conditions.

Bolt on power-operated face driver heads, hydraulically compensated with interchangeable driving pins.
Driving pins can be changed to allow right-hand and left-hand rotation.

Technical features:

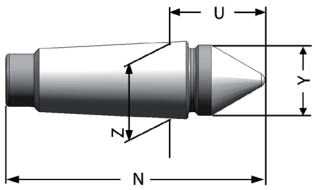
- max. compensating range of driving pins approx. 8 mm
- nominal value for max. loading approx. 4000 daN
- max. workpiece weight 800 kg
- **On request:**
  power-operated Face Driving Head CoK mechanically compensated and special designs

Tool group C15
Type 689-20 Power-operated Face Driving Head **size 4** CoK;
hydraulic
left-hand rotation

Item no.	S	Approx. turning range	A	C	D	E	F	G	H	L	O	T	V	Y	Z	Pin	Weight approx. g
088470 ▲	143	145-285	182	6	100	M 10	15	35	26	138 max. 143	152	120	16 max. 21	M 20x1,5	22	16 A	23000
088471 ▲	155	160-310	182	9,5	100	M 10	15	35	26	138 max. 143	152	120	16 max. 21	M 20x1,5	22	16 H	23000
088472 ▲	160	162-320	182	14,5	100	M 10	15	35	26	138 max. 143	152	120	16 max. 21	M 20x1,5	22	16 C	23000

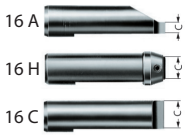
Accessories CoK

Tool group C15
Type 689-40 **Centres**, CoK



Item no.	N	U	Y	Z	Weight approx. g
085015 ●	76	26	M 20x1,5	22	150

Tool group C15
Type 689-91
driving pins, right-hand rotation



Item no.	Diameter	Size	C	Length	Weight approx. g
085383 ●	16	16 A	6	60	80
088100 ●	16	16 H	9,5	60	90
085052 ●	16	16 C	14,5	60	85

Tool group C15
Type 689-92
driving pins, left-hand rotation

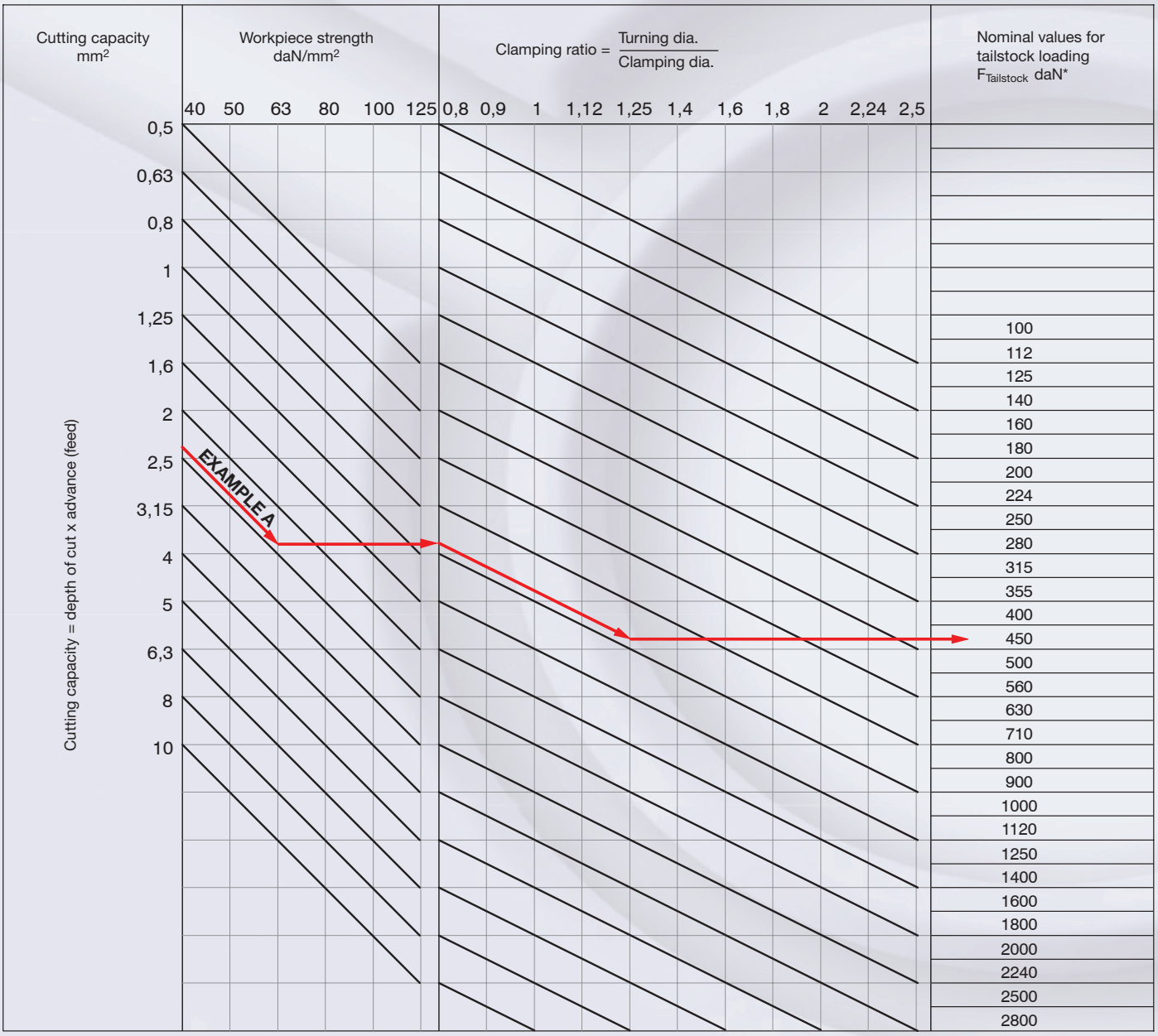
Item no.	Diameter	Size	C	Length	Weight approx. g
085016 ●	16	16 A	6	60	80
088099 ●	16	16 H	9,5	60	90
085051 ●	16	16 C	14,5	60	85

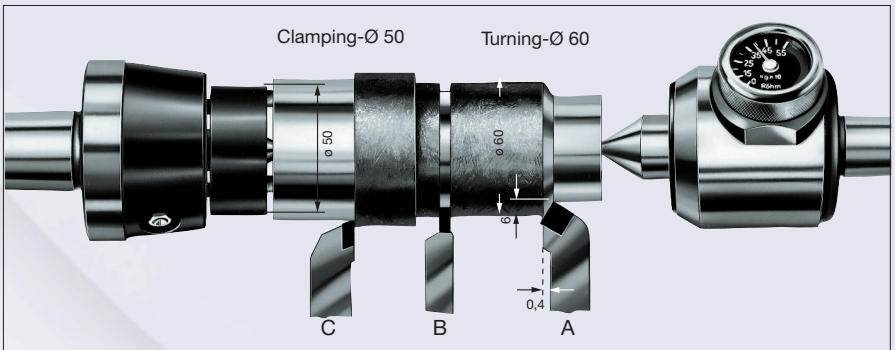
Tool group A14
Type 680-90 **Hard metal driving plates**
right- **or** left-hand rotation

Item no.	Size	Clamping circuit Ø	Weight approx. g
088209 ●	9,5x3,2	40-80	4

● from stock ■ 4 - 6 weeks ▲ on request

Clamping power diagramm





When using several cutters at once, the calculated tailstock loading must be added.

Example

A Turning against the headstock
1. Cutting capacity: 6 x 0,4 = 2,4 mm²
2. Workpiece strength: = 63 daN/mm²
3. Clamping ratio: 60 : 50 = 1,2
4. Tailstock loading from graph: $F_{Tailstock}$ = 450 daN

* Conversation factor for:

B Radial grooving $F_{Tailstock}$ x 1,5

C Turning against tailstock $F_{Tailstock}$ x 2

Workpiece strength	40	50	63	80	100	125
Material	St 34-37	St 42	St 50	St 60-70	20 MnCr 5	18CrNi 8
	9-15 S 20	C 10	C 15-22	C 35-45	C 60	30 CrMoV 9
	GG 14-35	GG 40	22 S 20	16 MnCr 5	15 CrNi 6	50 CrMo 4
	GGG-38	GGG-42	GGG-50	GGG-60	GGG-80	105 WCr 6

The RÖHM slide rule, Item No. 88231 may also be used for easy calculation of the axial clamping power.

The headquarter: our parent plant in Sontheim/Brenz.

The RÖHM parent plant is located in Sontheim/Brenz. In this ultra-modern production facility comprising 41,000 m², optimum conditions have been achieved in order to solve the extensive range of discerning construction and production tasks making the company even better, faster and more efficient in the future.

Sontheim/Brenz

All national and international activities are planned and co-ordinated at the administrative headquarters in Sontheim. Thanks to the excellent infrastructure and transport routes available, this location is ideal for a company relying on perfect product quality as well as maximum flexibility. Furthermore, the region around Sontheim offers another key basis for the success of our company: it is rich in quality awareness and motivated employees with the result that we are ideally prepared for the challenges of the future. The parent plant uniquely unites mass production, serial production and customised individual production under a single roof.

Key locations for the company: Dillingen and St. Georgen.

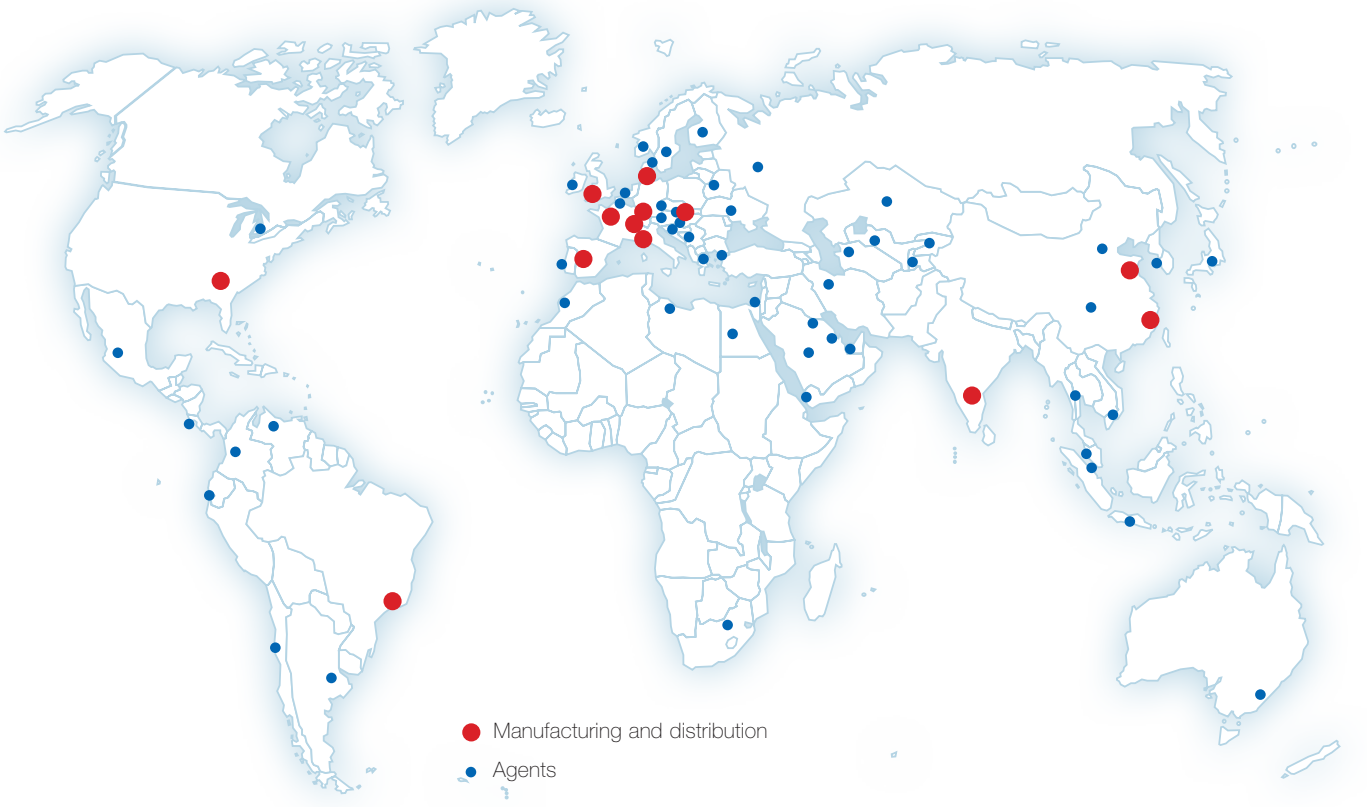
Such strong growth on the part of the RÖHM Group is also obviously associated with higher requirements on development and production capacities. The demands of today and tomorrow can be complied with the two facilities in Dillingen and St. Georgen.

Dillingen/Danube

St. Georgen

Plant: Dillingen/Danube | This branch plant in Dillingen was put into operation by the RÖHM Group as early as 1953. Thanks to extremely positive development, the plant is subject to constant expansion and modernisation. For this reason, new modern production facilities were built in 1982 and 1991. In 2007 RÖHM built a new production hall for two portal turning and milling machines. This enables machining of workpieces up to 4 metres in length which will secure a leading market position for the RÖHM brand in the future.
More than 300 employees are primarily involved in engineering and manufacturing lathe chucks, machine vices and special clamping equipment for turning and milling machinery as well as for machining centres.

Engineering and sales department St. Georgen | Apart from standard mandrels, tailor-made solutions for a wide variety of requirements are also manufactured here in this small but accomplished high-tech forge. RÖHM retains mechanical or power-operated mandrels, sliding jaw mandrels and hydraulic mandrels for its customers for tensioning workpieces in drill holes or interior contours.



Always close to our customers. With locations all around the world.

Customer orientation at RÖHM has less to do with marketing than with attitude. We consider customer proximity as an intensive dialogue with our partners as well as direct presence on key international markets.
The RÖHM manufacturing and distribution bases:

RÖHM IND. E COM. DE FERRAMENTAS DE FIXAÇÃO LTDA.
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China

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RÖHM S. A. R. L.
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ROHM (Great Britain) LTD.
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RÖHM Italia S. R. L.
Italy

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ROHM Products of America
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General conditions of sale and delivery

§ 1 Quotation, Formation of Contract and Content of Contract

1. The present General Terms of Sale and Delivery apply exclusively. We do not recognise any terms and conditions that are contradictory or different from our own, unless we have explicitly given our written agreement to do so. Our Terms of Sale and Delivery will also apply if we effect delivery to the Purchaser without any reservation in full awareness of the contradictory or different nature of the terms of the Purchaser, as compared to our own Terms.
2. Our quotations are always subject to change without notice unless they have been explicitly described as binding. The contract will only materialise upon our written confirmation and in line with the content thereof and by way of performance/delivery on our part. If delivery/service is immediately provided without any confirmation, the invoice will also be deemed to be the order confirmation.
3. Our General Terms of Sale and Delivery will only apply to a business entity as defined in Section 14 BGB [German Civil Code].
4. Costs for the compilation of drawings for specific constructions will be borne by the Orderer if, for reasons for which we are not responsible, the quotation does not lead to an order placement.
5. All particulars regarding weights, dimensions, services and technical data that feature in our printed matter, catalogues, price lists or in other contract documents are only approximate, unless they have been explicitly described as binding.
6. We retain the right to amend the construction and form of the subject of contract, providing this does not involve unreasonable alterations for the Orderer.
7. The documentation comprises an assembly layout, piece list with details of the wearing and spare parts, as well as operational and maintenance instructions; this is always in the German language. Documentation is only in paper form or in digital form. For digital forms, the texts are provided in the formats .TXT, .RTF or .DOC; drawings and piece lists are in the .TIF format (grid format). Any documentation in excess thereof will be billed and is subject to particular arrangement.
8. For testing, when specific temperatures, times and other measurements or control values are to apply, the appropriate measurement methods must be specified prior to delivery and acknowledged by both Parties. Unless such values are so defined, our own measurement methods will apply.
9. Samples will only be delivered subject to a fee.
10. Assurances given, ancillary agreements and changes to the contract will require the written form to be operative. It will not be possible to waive this requirement.
11. An order placement will be deemed irrevocable unless the Deliverer has agreed in writing to cancel it.
12. For export transactions, delivery will be subject to the conditions specified on the order confirmation; in addition, the respectively current version of the international trade definitions most commonly used in international sales contracts (incoterms 1953) will apply as devised by the International Chamber of Commerce.
13. In addition to the General Terms of Delivery and Sale, compliance with our "product information" sheets, the technical data sheets as well as other product-specific publications will apply, each in their current version.

§ 2 Prices

1. Failing specific written agreement, prices apply as in the Federal Republic of Germany, free house plus the value added tax required by law. For export transactions, the item to be delivered is deemed sold "ex works", unless the contract stipulates otherwise about the type of sale. For single orders for a value of goods less than 100.00 € net, a handling fee of 10.00 € plus the value added tax required by law will be charged throughout the country.
2. Please note that we only despatch the consignment at the request of the customer. Irrespective of this, the rulings laid down in Section 5 will apply.
3. We bill the prices that were valid when the contract was drawn up, based on the cost factors applicable at the time. Should these cost factors (particularly material, wages, energy etc.) alter during the period between the drawing up of contract and the agreed delivery time, we will be entitled to amend prices accordingly. For export transactions, the Deliverer will be entitled to cancel that part of the order that has not yet been completed or to adjust prices appropriately if the currency in which the contract was drawn up has devalued.
4. With an „ex works" contract, the goods will be transported at the expense and risk of the Orderer. For all consignments, the respectively current version of the provisions of incoterms 1953 will apply to the insurance and bearing of risk.
5. For parts/products that are produced in line with Purchaser requirements, we will notify the Purchaser of our production quantity. The Purchaser undertakes to take receipt of the quantity thus confirmed.
6. Over-deliveries and short-deliveries are admissible up to 5%; for special tooling up to 10% is admissible, at least, however, 2 (two) pieces. The respective delivery will be billed.

§ 3 Modalities of Payment

1. Failing specific arrangements, payment is due without deduction and without charges within 10 days of the date of invoice - even for delivery instalments.
2. We are not bound to accept cheques or bills. In the event cheques or bills are accepted subject to prior arrangement in individual circumstances, this will only be as conditional payment, taking due account of discount charges and collection fees that are to be paid immediately in cash by the Customer. The ultimate credit entry of bills of exchange and cheques will be after their redemption. The acceptance of cheques or bills will be without prejudice for subsequent commitments to payment. We will not be liable for the punctual presentation, protest, notification and return of a bill in the event it is not honoured.
3. Any overshooting of the payment deadline will incur interest to the amount of the banks' borrowing costs, at least, however 8% in excess of the respective basic interest rate of the European Central Bank.
4. If a bill or a cheque is not honoured on time or if a deadline for payment is overreached, all receivables still outstanding, including those that are deferred and those for which bills or cheques have been given, will become due for immediate payment.
5. The Purchaser will only be entitled to offset if the counterclaims he asserts have been established by declaratory judgment, if they are undisputed or have been acknowledged by us. The Purchaser will be authorized to exercise a right of retention to the extent his counterclaim is derived from the same contractual relations.
6. For export transactions, payments will be paid subject to the modalities of payment contracted.
7. Costs of payment transactions, particularly bank charges of foreign payment transfers to us, are in principle for debits of the client.

§ 4 Delivery Period

1. The delivery period we specify begins to run providing all technical issues have been fully clarified. The delivery deadlines we give are in principle not binding and only constitute a probable delivery time.
2. The compliance with our commitment to deliver depends on the Purchaser having punctually and properly fulfilled his commitments, particularly his commitment to comply with the contracted terms of payment. The right to plea non-performance of contract will be retained.
This right will also be derived from commitments that have not been satisfied in full from previous deliveries.
3. The period of delivery commences upon the despatch of the order confirmation, yet not before the Orderer has provided the documents, permits, clearance papers etc. to be procured and not before the agreed deposit has been received.
4. If a fixed delivery date has been arranged, the Deliverer will effect delivery on time. Compliance with the delivery period will be deemed given if the item to be delivered has left the works or the readiness for despatch has been notified before the expiry of said delivery period, subject to timely and accurate delivery from our own suppliers. If the Orderer amends parts of the consignment to be delivered, the delivery period will run anew upon confirmation of said amendment.
5. Force majeure, war, uprising, strike, lock-out or measures enforced by the authorities for whatever reason that impede delivery, as well as a lack of raw materials, means of transport and theft – even with our own suppliers – will release the Deliverer from his commitment to deliver within the specified period of time. The Orderer will be notified immediately of the occurrence of the hindrance and of the likely repercussions.
6. It is admissible to effect delivery prior to the expiry of the specified delivery period and to deliver in appropriate instalments.
7. Compliance with the delivery period depends on the fulfilment of all contractual duties of the Orderer.
8. In the event of delivery delays or of the impossibility of delivery, the provisions of Section 10 will apply.

§ 5 Transfer of Risk and Taking Receipt

1. Risk will pass to the Orderer at the latest with the despatch of the consignment, even if delivery is to be in instalments or if we still have other services to provide, e.g. despatch costs or transport and delivery as well as installation.
2. At the request and at the expense of the Orderer, we will ensure insurance cover of the consignment to be delivered for theft, breakage and damages from transportation, fire and water and for other insurable risks.
3. If despatch is delayed for reasons for which the Orderer is responsible, the risk will pass to the Orderer as from the date of readiness for despatch; nevertheless, we undertake to ensure insurance cover at the request and expense of the Orderer as called for by the Orderer.
4. Even if the delivered items feature insignificant defects, the Orderer will take receipt thereof irrespective of the rights laid down in Section 8.

§ 6 Default of Acceptance, Call-off Orders

1. If the Orderer fails to take receipt of the items contracted on time, we will be entitled to set the Orderer a subsequent period of grace after which we will be entitled to dispose of the items otherwise and supply the Orderer subject to a subsequently lengthened delivery period. Irrespective of this, we will be entitled to withdraw from the contract as defined in Section 326 BGB [German Civil Code] and to call for compensation for damages owing to non-performance. In the event we call for compensation for non-performance, we will be able to claim compensation of 25% of the agreed price plus value added tax without having to provide evidence. We retain the right to assert actual damages of a greater dimension.
2. Orders, which we confirm for call-off must be accepted within one year of the date of order placement at the latest - unless otherwise arranged. The same will apply to fixed reservations or to permanent "call-off statuses. Section 6.1 will apply accordingly in the event the goods are not called off.

§ 7 Retention of Title

1. The items for delivery (the goods subject to the retention of title) will remain our property until all claims to which we are entitled from the Purchaser from the business relations have been satisfied in full. Where the value of all security interests to which we are entitled against the Purchaser exceeds all secured claims by more than 10%, we will release some of the security interests as appropriate at the request of the Purchaser.
2. During the period in which title to the goods is retained, the Purchaser is not allowed to pledge or assign the goods as security and is only permitted to resell to resellers in normal business transactions and only providing the reseller receives payment from its own customer or subjects the customer's ownership of the item to the full satisfaction of the customer's commitments to payment.
3. In the event of attachment, seizure or any other disposition or third-party intervention in respect of the goods, the Purchaser will notify us immediately so that we can file action subject to Section 771 ZPO [German Code of Civil Procedure]. If the third party is not able to reimburse us for the court and out-of-court costs of legal action pursuant to Section 771 ZPO, the Purchaser will be liable for the loss we thus incur.
4. The Purchaser undertakes to treat the item purchased with care. In particular, the Purchaser undertakes at his own expense to ensure it is adequately insured at reinstatement value against damages from fire, water and theft. Should maintenance and inspection work be required, the Purchaser will have this carried out in good time at his own expense.
5. In the event of breaches of duty on the part of the Purchaser, particularly with default in payment, we will be entitled to cancel the contract and to take back the goods; the Purchaser undertakes to surrender the goods. If we take back the goods and/or assert the retention of title, this does not mean we are cancelling the contract, unless we have explicitly declared as much.

6. If the Purchaser has resold the item purchased in regular business transactions, the Purchaser herewith now assigns to us all claims to payment in the amount of the final invoice amount (including value added tax), such as due to the Purchaser from the resale to his customer or a third party, irrespective of whether the item purchased has been resold without or after further reworking. The Purchaser remains authorized to collect this payment, even after assignment. Our own authority to collect payment ourselves will not be affected hereby. However we undertake not to collect payment providing the Purchaser satisfies his own commitments to payment from the proceeds collected, does not default in payment and in particular providing the initiation of insolvency proceedings is not petitioned or payments cease to be made. Should this, however, be the case, we will be able to demand that the Purchaser provides us with details of the assigned payments and their debtors as well as all information necessary to collect payment, that he hands over the relevant documentation to us and notifies the debtors (third parties) of the assignment.
7. The processing or reworking of the item purchased by the Purchaser will always be carried out on our behalf. If the item purchased is processed with other items not belonging to us, we will acquire co-ownership to the new item to the value of the item purchased (final invoice amount including value added tax) in relation to the other processed items at the time of reworking. The same will apply to the thus newly created items as for the items delivered subject to retention of title.
8. If the item purchased is processed with other items not belonging to us, we will acquire co-ownership to the new item to the value of the item purchased (final invoice amount including value added tax) in relation to the other processed items at the time of reworking. If the intermixing is such that the Purchaser's item is to be deemed the main item, it is herewith agreed that the Purchaser will transfer co-ownership to us proportionately. The Purchaser will keep the property in which we hold exclusive ownership or co-ownership on our behalf.

§ 8 Quality Defects
We are liable for defects in quality as follows:
1. All parts or services will be remedied, at our discretion, free of charge or redelivered or provided again that are found to feature a quality defect during the statutory period of limitation - irrespective of service life - providing the origin thereof already existed at the time of the passing of risk.
2. Claims to quality defects will become statute-barred in 12 (twelve) months. The period of time commences with the passing of risk (Section 6).
3. The Purchaser will immediately file written objection to the quality defect with us.
4. In the event objections are filed, the Purchaser will be permitted to refrain from payment to an extent appropriate to the quality defects featured. The Purchaser will only be able to refrain from payment if an objection is asserted, the justification of which cannot be doubted. If the objection has been asserted unjustifiably, we will be entitled to call for the reimbursement of the expenses incurred by us.
5. Initially we will always be granted an opportunity to remedy a defect within an appropriate period of grace.
6. Should the remedy fail, the Purchaser – notwithstanding any claims to damages – will be able to cancel the contract or reduce remuneration. The Purchaser will only be able to call for the reimbursement of fruitless expenditure if the defect in question is attributable to our own wilful intent or gross carelessness for which we are responsible.
7. Claims to defects in quality are not given if the divergence from the agreed nature of the product is only minimal, if usability is only insignificantly impaired, in cases of natural depreciation or damages generated after passing of the risk as a result of faulty or negligent treatment, excessive exposure, unsuitable operating media or because of specific outer impact that was not to be expected given the contract, as well as in cases of non-reproducible software errors. If amendments or repair work is carried out improperly by the Purchaser or by third parties, there will be no claims to the defects resulting or the effects thereof. The same will apply to a lack of compliance with our instructions on handling and other instructions and if maintenance is not carried out properly
8. Claims of the Purchaser to a refund of the expenses incurred for the purpose of remedy, such as costs of transport, travel, labour and materials will be ruled out, when such expenses increase because the item delivered was brought to a destination other than the Purchaser's branch premises, unless said relocation is in accordance with the intended use of the item.
9. Legal claims to recourse against us on the part of the Purchaser will only be given if the Purchaser has entered into no agreement with his customer in excess of those claims to defects regulated by the law.
10. Claims to compensation for damages will be governed by Section 9. Any farther-reaching claims to quality defects or others than those governed in this Section or in Section 9 will be ruled out.

§ 9 Industrial Property Rights and Copyrights, Defects of Title
Unless otherwise agreed, we undertake to only effect delivery free from proprietary rights and third party copyrights (referred to in the following as industrial property rights) in the country of the delivery destination. In the event a third party files justified claims against the Purchaser for a breach of industrial property rights derived from deliveries we effected that are being used as contracted, we will be liable towards the Purchaser for the period of time specified in Section 8.2 as follows:
1. At our discretion and at our own expense, we will either procure a licence for the deliveries in question, alter them so that there is no breach of industrial property rights or we will provide a substitute. Should this not prove possible at appropriate conditions, the Purchaser will be entitled to the rights of cancellation or reduction as laid down by the law. The Purchaser will only be able to call for the reimbursement of fruitless expenditure if we are to blame for wilful intent or gross negligence. Our commitment to provide compensation for damages is governed by Section 10.
2. The above commitments will only be given if the Purchaser has given us immediate, written notification of the claims asserted by the third party, does not recognise any breach of rights and if we retain the right to initiate defence measures and negotiate a settlement. If the Purchaser ceases to use the item delivered in order to reduce damages or for other good cause, the Purchaser undertakes to inform the third party that this discontinuation of use does not embody any acknowledgement of a breach of industrial property rights.
3. Claims of the Purchaser will be ruled out if the Purchaser is responsible for the breach of industrial property rights.
4. Any claims of the Purchaser will also be ruled out if the breach of industrial property rights was derived from specific specifications of the Purchaser, from an application that we could not foresee or from the item delivered being altered by the Purchaser or used in combination with products that we have not delivered.
5. In the case of breaches of industrial property rights, the provisions of Sections 8.4, 8.5 and 8.9 will apply appropriately to the claims of the Purchaser governed by Section 13.
6. Any farther-reaching claims to defects of title of the Purchaser or claims other than those governed by the present Section 9 against us or our vicarious agents will be ruled out.

§ 10 Overall Liability
1. Claims of the Purchaser to compensation for damages – irrespective of the legal nature of the claim asserted – will be ruled out.
2. The exceptions are:
a) Damages due to the violation of major contractual duties (cardinal duties). However, in the case of simple negligence, liability for damages will be restricted to foreseeable, typically occurring damages.
b) Damages derived from injury to life and limb if we are responsibility for the breach of duty.
c) Damages attributable to wilfully intentional or negligent violations, said breach of duty on the part of our legal representatives or vicarious agents being of equal status to any breaches of duty on our part.
d) Claim to damages for impossibility or inability.
3. Any alteration of the onus of proof to the detriment of the Purchaser does not relate to the above provisions.
4. Liability subject to the Product Liability Act remains unaffected hereby.
5. Where liability for compensation is ruled out or restricted in our respect, this will also apply to the personal liability for damages of our employees, our trade representatives and our vicarious agents.

§ 11 Duties to Involvement of the Purchaser
1. The involvement of the Purchaser that has been agreed to explicitly or implicitly in the contract will be subject to no specific remuneration, unless otherwise explicitly agreed.
2. The Purchaser undertakes to inform us in good time of all facts, which indicate that stocks and products we have made available in the light of our notified production capacities cannot be used or not be used in full. Where stock remains, in the case of a premature change to his planning, the Purchaser will take over the remainder and any costs of destruction that might be incurred. This will also apply to products for which we have had to place orders for minimum quantities from our own suppliers, providing we previously advised the customer thereof.
3. The Purchaser guarantees that the products delivered by him for reworking are suitable for the purpose. We do not undertake to check the products delivered by the Purchaser for their quality and aptitude for reworking. In ongoing business relations and whenever an item for reworking has been initially checked, tested and released, the Purchaser undertakes to inform us in writing of each and every product amendment without actually being requested to do so. When items are being reworked, after every change in production conditions on his premises, in particularly when substituting tooling, machinery or introducing new production processes, the Purchaser also undertakes to examine the item to be processed by us for any divergence and alteration and to notify us in writing of any such divergence and alteration.
4. Instructions from our Purchaser, the selection of material or other specifications laid down by the Purchaser do not oblige us to check them for accuracy.
5. The Purchaser will hence check all instructions it issues as well as the quality of the material specified to us or made available to us for compliance with the law and technical regulations.
6. Should the Purchaser default in terms of its duties to provide or to become involved, we will be entitled to the rights stipulated by law.
7. In any case, goods may only be returned subject to the explicit consent of the Deliverer. Their return will be free-house and details of the order number and delivery date will be given as well as the original delivery packaging. The goods will be in their original condition, i.e. in an undamaged state. For the handling of a return, we charge 20% of the value of the goods, at least, however, 50.00 € plus value added tax. In individual circumstances, the Deliverer retains the right to charge the Orderer a higher sum based on evidence.

§ 12 Place of Performance and Jurisdiction/ Other
1. The place of performance and payment will be the registered office of our company in Sontheim/Brenz.
2. Exclusively the laws of the Federal Republic of Germany will govern the present contractual relations. The application of the United Nations Convention dated 11.04.80 on Contracts for the International Sale of Goods (CISG – "Wiener Kaufrecht") is ruled out.
3. For all disputes derived from contractual relations, if the Orderer is a registered businessperson, a legal entity under public law or a separate estate under public law, legal action will be filed with the court of law with jurisdiction for our registered office. We will also be entitled to file legal action at the location of the registered seat of the Orderer.
4. Should any one condition of our General Terms of Sale and Delivery be void for any reason whatsoever, the validity of the remaining provisions will not be affected hereby.
5. We will save your data in accordance with Section 23 BDSG [Federal Data Protection Act].

RÖHM GmbH

D–89565 Sontheim/Brenz

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” RÖHM – we´re here to serve you.

We offer real partnership.
We see this reflected in collaborative partnerships both with specialist dealers as well as directly with consumers. We offer sound advice, provide comprehensive support and do our utmost for you, so that you get exactly the right solution for meeting your targets safely and economically. And if there isn't a solution available yet, then we'll design it.

driven by technology

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