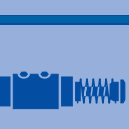
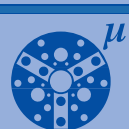


# FORWARDT

AN *TW* WORKHOLDING COMPANY



POWER CHUCKS  
KTN / KTG / KS



This catalogue features details of the range of FORKARDT KT and KS power chucks.

Should you require further information beyond the data contained in this catalogue, please refer to the following FORKARDT publications:

#### **Chuck Jaws**

Hard jaws

Soft jaws

UKB

#### **Rotating actuating cylinders**

OKRJ closed-centre hydraulic cylinders

OKHJ open-centre hydraulic cylinders

#### **Controllers**

#### **Accessories for power chucks**

#### **Gripping force meters**

SKM 1200 / 1500

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Some other FORKARDT products 11

• For more information visit:

[www.forkardt.com](http://www.forkardt.com)

*As we are constantly striving to improve our products, the dimensions and specifications in this catalogue cannot always represent the latest state of the art; they are therefore given as an indication only and are not binding.*


# The KTN and KTG Power Chucks

## Wedge hook power chucks with 2-, 3- or 4-jaws and optional centrifugal force compensation

Power Chucks from the FORKARDT KT-Series are applicable universally and represent the most developed and flexible chucks of the FORKARDT product range.

A patented wedge hook mechanism leads to enormous clamping forces and enables you to even utilize the chuck in the most demanding of cutting applications - of course with consistently high repeatability. Designs are available in 2-, 3- and 4-jaw styles.

Furthermore, FORKARDT KT chucks are designed in "modules" to ensure even greater versatility within your production environment.



Chuck designs can easily be tailored to match your specific requirements. Also this 'modular construction principle' gives you the further advantage that all the dimensions of chucks and jaws are interchangeable.

Moreover in combination with the optional quick-jaw-change system (MIR) you have the opportunity to reduce non-productive change-over times to an absolute minimum if jaws have to be changed often due to smaller production batch sizes.

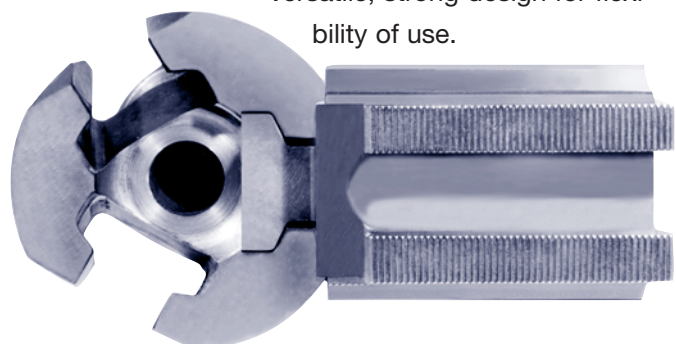
As you would expect, FORKARDT KT chucks are made of highest quality materials, developed and manufactured by FORKARDT in accordance with the requirements of ISO 9001 - 2000.

### Key Technical Features:

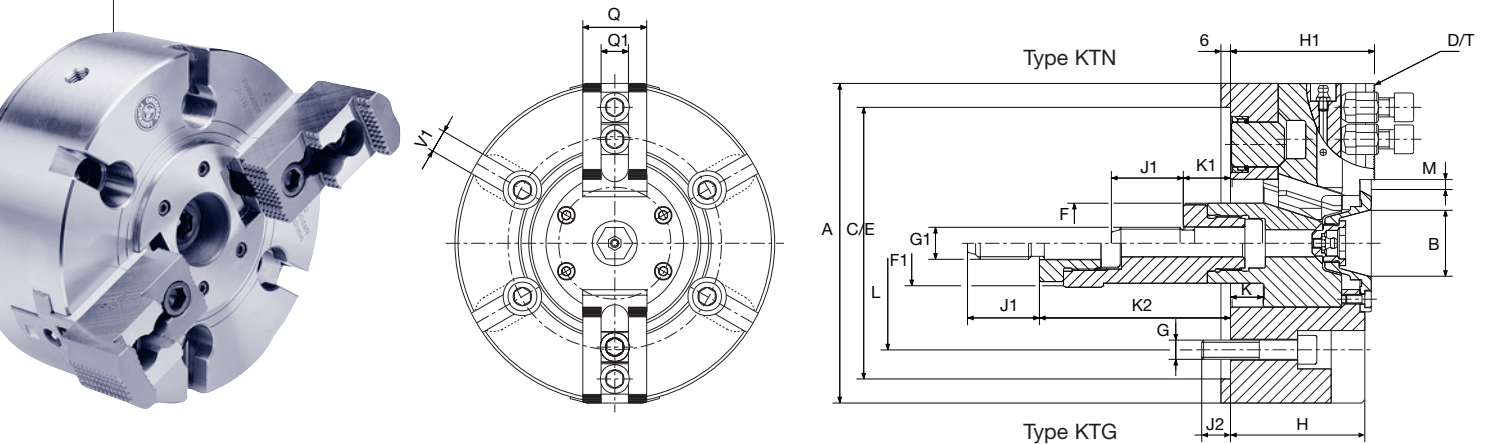
- Versatile modular design
- Very high clamping forces together with highest accuracy.
- Choice between KTN with standard or KTG with optional extended and guided piston for a maximum of repeatability.
- Cover plate with seals against dirt and swarf ingress which also provides safe run-out for tools.
- Special T-nut design in line with Health and Safety regulations.
- Choice of base jaws with pitch serration, cross tenon or optional FORKARDT quick-jaw-change system.

### Key Advantages:

- Up to 70% larger loading capacity than ordinary wedge hook chucks.
- Simple mounting to spindle noses according to DIN or ASA.
- Standard and special jaws are available for difficult workpiece shapes.
- Heavily engineered for extreme production environments and heavy machining applications.
- Versatile, strong design for flexibility of use.



# 2 KTN / 2 KTG



## Dimensions / Performance data for 2 KTN / KTG Power Chucks

Type	2KT		160	200	250	315	400	500	630
<b>Model</b>									
Outer diameter	A	mm	160	200	250	315	400	500	630
Pocket bore diameter	B	mm	35	42	50	50	-	-	-
Chuck mounting/Mounting recess	C / E	mm	Z5 / 140	Z6 / 170	Z8 / 220	Z8 / 220	Z11 / 300	Z15 / 380	Z15 / 380
Jaw Mounting	D		S11	S11	S12	S12	S23	S23	S23
Pitch of serrations	T		1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°
Actuator KTN	F	mm	35	50	52	52	68	68	68
Actuator KTG	F <sub>1</sub>	mm	40	55	65	65	85	85	85
Mounting bolts	G		M 12	M 12	M 16	M 16	M 20	M 24	M 24
Draw tube thread	G <sub>1</sub>		M 16	M 20	M 24	M 24	M 30	M 30	M 30
Chuck width net	H	mm	74	84	97	97	120	120	120
Chuck width gross	H <sub>1</sub>	mm	80	90	105	105	130	130	130
Thread length	J <sub>1</sub>	mm	40	45	55	55	55	55	55
Thread length	J <sub>2</sub>	mm	15	18	24	24	30	36	36
Actuator stroke	K	mm	20	20	26	26	32	32	32
Piston position KTN	K <sub>1</sub>	mm	25	30	30	30	30	30	30
Piston position KTG	K <sub>2</sub>	mm	70	75	75	75	100	100	100
Pitch circle of mounting bolts	L	mm	104.8	133.4	171.4	171.4	235.0	330.2*)	330.2*)
Jaw stroke	M	mm	5.3	6.5	8.0	8.0	10.0	10.0	10.0
Jaw width	Q	mm	40	40	50	50	60	60	60
Slot width	Q <sub>1</sub> <sup>H7</sup>	mm	17.0	17.0	21.0	21.0	25.5	25.5	25.5
T-slot width	V1 <sup>+0.1</sup>	mm	-	14	18	18	22	22	22
<b>Performance data</b>									
Max. actuating force	F <sub>max</sub>	daN	2,400	3,200	4,700	5,300	8,000	12,000	12,000
Max. gripping force	F <sub>sp max</sub>	daN	4,600	6,000	9,400	10,600	17,300	27,000	27,000
Max. speed	n <sub>max</sub>	U / min	4,500	4,200	3,300	2,800	2,200	2,000	1,600
Weight	G	kg	10	19	34	56	120	180	285
Moment of inertia	kg/m <sup>2</sup>	kgm <sup>2</sup>	0.035	0.10	0.28	0.70	2.40	5.70	14.80
Chuck constant	C1	mm	516	634	909	1075	1777	2547	3130
	C2	mm	235	308	424	508	790	1101	1361
	C3	kgm	0.09	0.13	0.26	0.45	1.2	1.9	3.1
<b>Ident. No.</b>									
2 KTN			D40192000	D150500000	D150512000	D150524000	D150536000	D150542000	D150548000
2 KTG			D40193000	D150501000	D150513000	D150525000	D150537000	D150543000	D150549000

\*) Chucks can also be mounted as KT 400

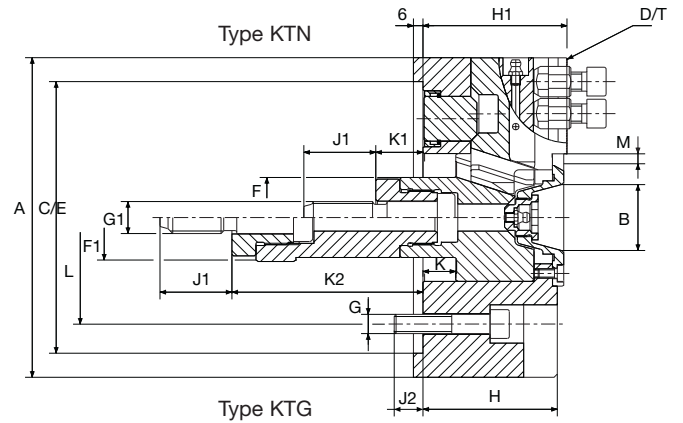
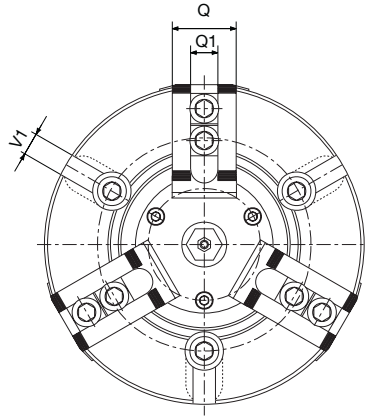
Whereby the operating gripping force F<sub>sp</sub> at idle (at speed n = 0) is:

$$F_{sp} = \frac{C1}{C2 + a} \times Fax \pm 0.0008 \times (C3 + Ma) \times n^2 \text{ [daN]}$$

Terms used in the equation:

F<sub>sp</sub> = operating gripping force [daN], the sum of the gripping forces of the jaws at operation.  
 C 1, C 2, C 3 = Chuck constants  
 Fax Actuating force [daN]

# 3 KTN / 3 KTG

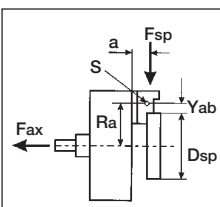


## Dimensions / Performance data for 3 KTN / KTG Power Chucks

Type	3KT		160	200	250	315	400	500	630
<b>Model</b>									
Outer diameter	A	mm	160	200	250	315	400	500	630
Pocket bore diameter	B	mm	35	42	50	50	-	-	-
Chuck mounting/Mounting recess	C / E	mm	Z5 / 140	Z6 / 170	Z8 / 220	Z8 / 220	Z11 / 300	Z15 / 380	Z15 / 380
Jaw Mounting	D		S11	S11	S12	S12	S23	S23	S23
Pitch of serrations	T		1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°
Actuator KTN	F	mm	35	50	52	52	68	68	68
Actuator KTG	F <sub>1</sub>	mm	40	55	65	65	85	85	85
Mounting bolts	G		M12	M 12	M 16	M 16	M 20	M 24	M 24
Draw tube thread	G <sub>1</sub>		M16	M 20	M 24	M 24	M 30	M 30	M 30
Chuck width net	H	mm	74	84	97	97	120	120	120
Chuck width gross	H <sub>1</sub>	mm	80	90	105	105	130	130	130
Thread length	J <sub>1</sub>	mm	40	45	55	55	55	55	55
Thread length	J <sub>2</sub>	mm	15	18	24	24	30	36	36
Actuator stroke	K	mm	20	20	26	26	32	32	32
Piston position KTN	K <sub>1</sub>	mm	25	30	30	30	30	30	30
Piston position KTG	K <sub>2</sub>	mm	70	75	75	75	100	100	100
Pitch circle of mounting bolts	L	mm	104.8	133.4	171.4	171.4	235.0	330.2*)	330.2*)
Jaw stroke	M	mm	5.3	6.5	8.0	8.0	10.0	10.0	10.0
Jaw width	Q	mm	40	40	50	50	60	60	60
Slot width	Q <sub>1</sub> <sup>H7</sup>	mm	17	17.0	21.0	21.0	25.5	25.5	25.5
T-slot width	V1 <sup>+0.1</sup>	mm	-	14	18	18	22	22	22
<b>Performance data</b>									
Max. actuating force	F <sub>max</sub>	daN	3600	4,800	7,000	8,000	12,000	16,000	16,000
Max. gripping force	F <sub>sp,max</sub>	daN	7000	9,000	14,000	16,000	26,000	36,000	36,000
Max. speed	n <sub>max</sub>	U / min	4500	4,200	3,300	2,800	2,200	2,000	1,600
Weight	G	kg	10	19	34	56	120	180	285
Moment of inertia		kg/m <sup>2</sup>	0.035	0.10	0.28	0.70	2.40	5.70	14.80
Chuck constant	C1	mm	516	634	909	1075	1777	2547	3130
	C2	mm	235	308	424	508	790	1101	1361
	C3	kgm	0.13	0.2	0.4	0.67	1.8	2.8	4.7
<b>Ident. No.</b>									
3KTN			D40190000	D150498000	D150510000	D150522000	D150534000	D150540000	D150546000
3KTG			D40191000	D150499000	D150511000	D150523000	D150535000	D150541000	D150547000

\*) Chucks can also be mounted as KT 400

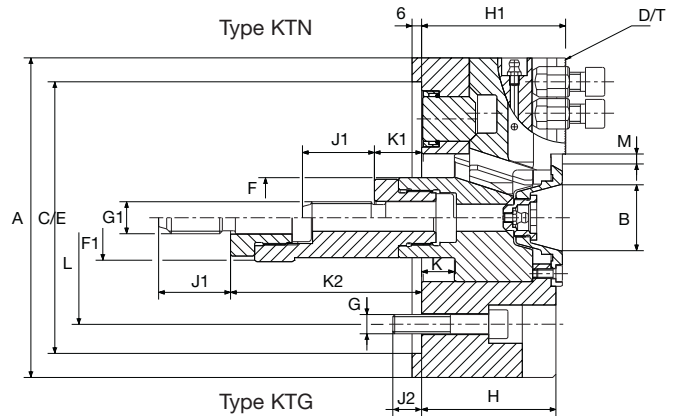
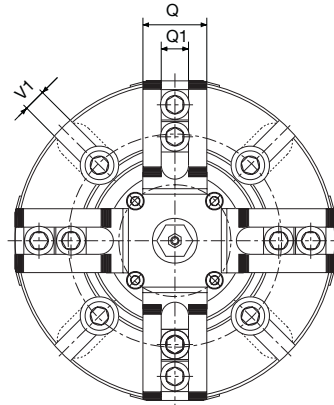
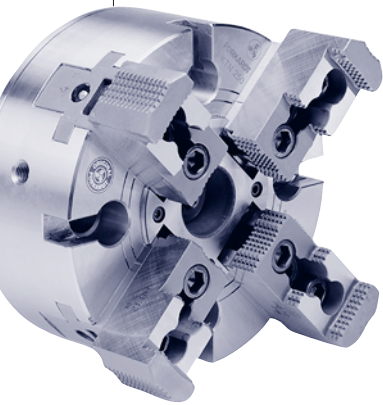
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n = Speed [min<sup>-1</sup>]  
 Ma = Total - Centrifugal moment of the jaws [kgm]  
 =  $\sum G \times Ra$   
 Dsp = Gripping Diameter [mm]

Yab = Centre of gravity of the top jaw to the Gripping Diameter [mm]  
 a = Jaw overhang [mm]  
 G = Weight of one jaw [kg]  
 Ra = Distance from the centre of gravity of the top jaw to the chuck centre [mm]

# 4 KTN / 4 KTG



## Dimensions / Performance data for 4 KTN / KTG Power Chucks

Type	4KT		200	250	315	400	500	630
<b>Model</b>								
Outer diameter	A	mm	200	250	315	400	500	630
Pocket bore diameter	B	mm	42	50	50	-	-	-
Chuck mounting/Mounting recess	C / E	mm	Z6 / 170	Z8 / 220	Z8 / 220	Z11 / 300	Z15 / 380	Z15 / 380
Jaw Mounting	D		S11	S12	S12	S23	S23	S23
Pitch of serrations	T		1/16" x 90°	1/16" x 90°	1/16" x 90°	3/32" x 90°	3/32" x 90°	3/32" x 90°
Actuator KTN	F	mm	50	52	52	68	68	68
Actuator KTG	F <sub>1</sub>	mm	55	65	65	85	85	85
Mounting bolts	G		M 12	M 16	M 16	M 20	M 24	M 24
Draw tube thread	G <sub>1</sub>		M 20	M 24	M 24	M 30	M 30	M 30
Chuck width net	H	mm	84	97	97	120	120	120
Chuck width gross	H <sub>1</sub>	mm	90	105	105	130	130	130
Thread length	J <sub>1</sub>	mm	45	55	55	55	55	55
Thread length	J <sub>2</sub>	mm	18	24	24	30	36	36
Actuator stroke	K	mm	20	26	26	32	32	32
Piston position KTN	K <sub>1</sub>	mm	30	30	30	30	30	30
Piston position KTG	K <sub>2</sub>	mm	75	75	75	100	100	100
Pitch circle of mounting bolts	L	mm	133.4	171.4	171.4	235.0	330.2*)	330.2*)
Jaw stroke	M	mm	6.5	8.0	8.0	10.0	10.0	10.0
Jaw width	Q	mm	40	50	50	60	60	60
Slot width	Q <sub>1</sub> <sup>H7</sup>	mm	17.0	21.0	21.0	25.5	25.5	25.5
T-slot width	V1 <sup>+0.1</sup>	mm	14	18	18	22	22	22
<b>Performance data</b>								
Max. actuating force	F <sub>max</sub>	daN	4,800	7,000	8,000	12,000	16,000	16,000
Max. gripping force	F <sub>sp max</sub>	daN	9,000	14,000	16,000	26,000	36,000	36,000
Max. speed	n <sub>max</sub>	U / min	3,800	3,000	2,500	2,000	1,800	1,400
Weight	G	kg	19	34	56	120	180	285
Moment of inertia		kgm <sup>2</sup>	0.10	0.28	0.70	2.40	5.70	14.80
Chuck constant	C1	mm	634	909	1075	1777	2547	3130
	C2	mm	308	424	508	790	1101	1361
	C3	kgm	0.26	0.53	0.9	2.4	3.7	6.2
<b>Ident. No.</b>								
4 KTN			D150502000	D150514000	D150526000	D150538000	D150544000	D150550000
4 KTG			D150503000	D150515000	D150527000	D150539000	D150545000	D150551000

\*) Chucks can also be mounted as KT 400

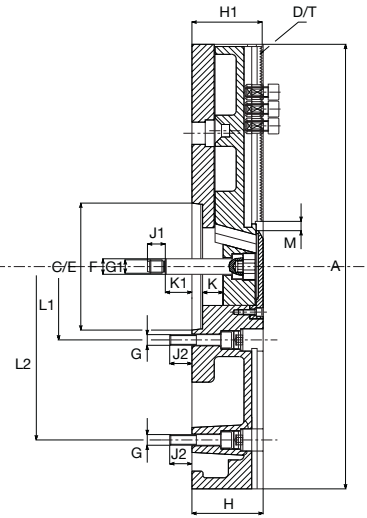
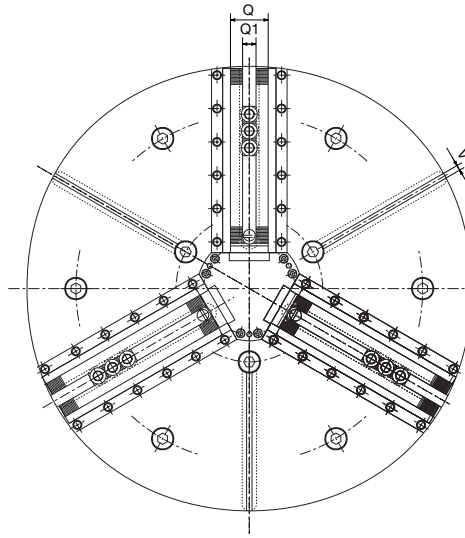
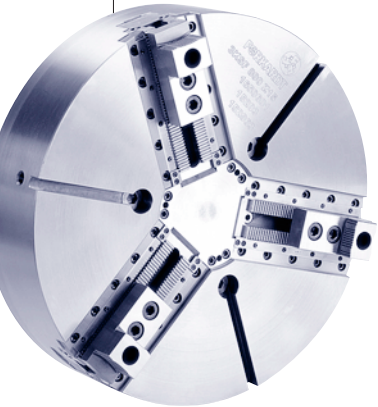
Whereby the operating gripping force F<sub>sp</sub> at idle (at speed n = 0) is:

$$F_{sp} = \frac{C1}{C2 + a} \times Fax \pm 0.0008 \times (C3 + Ma) \times n^2 \text{ [daN]}$$

Terms used in the equation:

F<sub>sp</sub> = operating gripping force [daN], the sum of the gripping forces of the jaws at operation.  
 C 1, C 2, C 3 = Chuck constants  
 Fax Actuating force [daN]

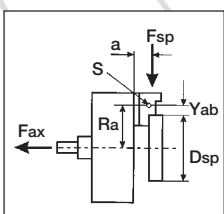
3 KS



**Dimensions / Performance data for 3 KS Power Chucks**

Type	3KS		800	1000	1250	1400
<b>Model</b>						
Outer diameter	A	mm	800	1000	1250	1400
Chuck mounting/Mounting recess	C / E	mm	K15 / 285.8	K15 / 285.8	K15 / 285.8	K15 / 285.8
Jaw mounting	D / T	mm	T230 / 6.28	T230 / 6.28	T230 / 6.28	T230 / 6.28
Draw-in bolt	F	mm	35	35	35	35
Mounting bolts	G		M24	M24	M24	M24
Draw tube thread	G <sub>1</sub>		M30	M30	M30	M30
Chuck width net	H	mm	160	160	160	160
Chuck width gross	H <sub>1</sub>	mm	158	158	158	158
Thread length	J <sub>1</sub>	mm	40	40	40	40
Thread length	J <sub>2</sub>	mm	35	35	35	35
Actuator stroke	K	mm	50	50	50	50
Draw-in bolt length	K <sub>1</sub>	mm		Option		
Pitch circle of mounting bolts	L <sub>1</sub>	mm	330.2	330.2	330.2	330.2
Additional mounting bolts p. c. d.	L <sub>2</sub>	mm		Option		
Jaw stroke	M	mm	13	13	13	13
Jaw width	Q	mm	80	80	80	80
Slot width	Q <sub>1</sub> H7	mm	30	30	30	30
<b>Performance data</b>						
Max. actuating force	F <sub>max</sub>	daN	12,000	12,000	12,000	12,000
Max. gripping force	F <sub>sp max</sub>	daN	27,500	28,000	28,500	31,000
Max. speed	n <sub>max</sub>	U / min	750	600	500	400
Weight	G	kg	475	700	950	1,250
Moment of inertia	I	kgm <sup>2</sup>	38.5	80	230	361
Chuck constant	C1	mm	2,707	3,610	4,740	8,058
	C2	mm	1,122	1,483	1,933	3,044
	C3	kgm	12.3	19.8	30.3	35.2
<b>Ident. No.</b>						
			D47447000	D1042936000	D42934000	D1042933000

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n = Speed [min<sup>-1</sup>]  
 Ma = Total - Centrifugal moment of the jaws [kgm]  
 =  $\sum G \times Ra$   
 Dsp = Gripping Diameter [mm]

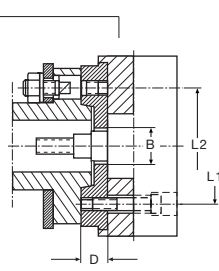
Yab = Centre of gravity of the top jaw to the Gripping Diameter [mm]  
 a = Jaw overhang [mm]  
 G = Weight of one jaw [kg]  
 Ra = Distance from the centre of gravity of the top jaw to the chuck centre [mm]

# Mounting flanges and adaptor plates:

## Flanges with bayonet plate attachment for mounting on J spindle noses DIN 55022, DIN 55027, ISO 702 / III

Chuck type KTN / KTG	Spindle nose Size	Flange type	Ident. No.	Dimensions				Studs and collar nuts		
				B	D	L1	L2	FN	Ident. No.	Qty.
160	4	FF100-J4	D1074085000	50	18	104.8	85.0	322	D1070504000	3
	5	FF140-J5	D1074086000	50	24	104.8	104.8	322	D1070505000	4
200	5	FF170-J5	D1074089000	60	24	133.4	104.8	322	D1070506000	4
	6	FF170-J6	D1074090000	65	28	133.4	133.4	322	D1070506000	4
250	6	FF220-J6	D1074096000	80	28	171.4	133.4	322	D1070506000	4
	8	FF220-J8	D1074097000	80	32	171.4	171.4	322	D1070507000	4
315	6	FF220-J6	D1074096000	80	28	171.4	133.4	322	D1070506000	4
	8	FF220-J8	D1074097000	80	32	171.4	171.4	322	D1070507000	4
400	8	FF300-J8	D1074103000	90	32	235.0	171.4	322	D1070507000	4
	11	FF300-J11	D1074104000	90	35	235.0	235.0	322	D1070508000	6
500	11	FF380-J11	D1074107000	120	35	330.2	235.0	322	D1070508000	6
	15	FF380-J15	D1074108000	120	42	330.2	330.2	324	D1070517000	6
630	11	FF380-J11	D1074107000	120	35	330.2	235.0	322	D1070508000	6
	15	FF380-J15	D1074108000	120	42	330.2	330.2	324	D1070517000	6

Order code example: 1 mounting flange FF 170-J6, Ident. No. D1074090000; 1 set of studs with collar nuts size 6, Ident. No. D1070506000

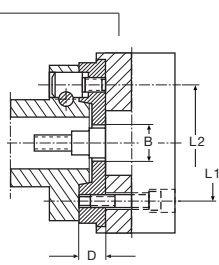


Mounting flanges J

## Flanges with camlock attachment for mounting on D spindle noses DIN 55029, ISO 702 / II, ASA B 5.9

Chuck type KTN / KTG	Spindle nose Size	Flange type	Ident. No.	Dimensions				Camlock studs		
				B	D	L1	L2	FN	Ident. No.	Qty.
160	4	FF140-D4	D1074118000	50	28	104.8	82.6	286	D1070511000	3
	5	FF140-D5	D1074119000	50	30	104.8	104.8	287	D1070512000	6
200	5	FF170-D5	D1074122000	60	30	133.4	104.8	287	D1070512000	6
	6	FF170-D6	D1074123000	65	35	133.4	133.4	288	D1070513000	6
250	6	FF220-D6	D1074129000	80	35	171.4	133.4	288	D1070513000	6
	8	FF220-D8	D1074130000	80	40	171.4	171.4	289	D1070514000	6
315	6	FF220-D6	D1074129000	80	35	171.4	133.4	288	D1070513000	6
	8	FF220-D8	D1074130000	80	40	171.4	171.4	289	D1070514000	6
400	8	FF300-D8	D1074136000	90	40	235.0	171.4	289	D1070514000	6
	11	FF380-D11	D1074137000	90	45	235.0	235.0	290	D1070515000	6
500	11	FF380-D11	D1074140000	120	45	330.2	235.0	290	D1070516000	6
	15	FF380-D15	D1074141000	120	50	330.2	330.2	291	D1070516000	6
630	11	FF380-D11	D1074140000	120	45	330.2	235.0	290	D1070516000	6
	15	FF380-D15	D1074141000	120	50	330.2	330.2	291	D1070516000	6

Order code example: 1 mounting flange FF 170-D6, Ident. No. D1074123000; set of camlock studs size 6, Ident. No. D1070513000



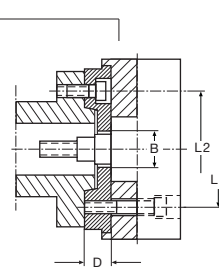
Mounting flanges D

## Flanges including mounting bolts for spindle noses DIN 55021 A/B, DIN 55026 A/B, ISO 702/I A1/A2, ASA B5.9 A1/A2

Chuck type KTN / KTG	Spindle nose Size	Flange type	Ident. No.	Dimensions				Mounting bolts	
				B	D	L1	L2	DIN 912 10.9	
160	4	ZWF140-K4■	D1074053000	50	18	104.8	85.0	3 x M10 x 20	
	4	ZWF140-K4●	D44757000	50	18	104.8	82.6	3 x M10 x 20	
200	5	ZWF170-K5	D1074056000	60	24	133.4	104.8	4 x M10 x 25	
250	6	ZWF220-K6	D1074060000	80	28	171.4	133.4	4 x M12 x 30	
315	6	ZWF220-K6	D1074060000	80	28	171.4	133.4	4 x M12 x 30	
400	8	ZWF300-K8	D1074065000	90	32	235.0	171.4	4 x M16 x 35	
500	11	ZWF380-K11	D1074068000	120	35	330.2	235.0	6 x M20 x 40	
630	11	ZWF380-K11	D1074068000	120	35	330.2	235.0	6 x M20 x 40	

■ DIN 55021 Pitch circle diameter 85mm ● DIN 55026 Pitch circle diameter 82.6mm

Order code example: 1 adaptor flange ZWF140-K4, Ident. No. D44757000



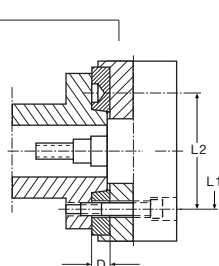
Adaptor flanges  
ZWF

## Adaptor plates for spindle noses DIN 55021 A, DIN 55026 A, ISO 702/I A2, ASA B 5.9

Chuck type KTN / KTG	Spindle nose Size	Flange type	Ident. No.	Dimensions		
				D	L2	L*
160	5	ZWS140-K5	D1074035000	14	104.8	10
200	6	ZWS170-K6	D1074036000	15	133.4	15
250	8	ZWS220-K8	D1074038000	17	171.4	15
315	8	ZWS220-K8	D1074038000	17	171.4	15
400	11	ZWS300-K11	D1074040000	19	235.0	20
500	15	ZWS380-K15	D1074042000	21	330.2	20
630	15	ZWS380-K15	D1074042000	21	330.2	20

\* The length of the chuck mounting bolts must be increased by the amount 'L' when using these adaptor plates.

Order code example: 1 adaptor plate ZWS140-K5, Ident. No. D1074035000



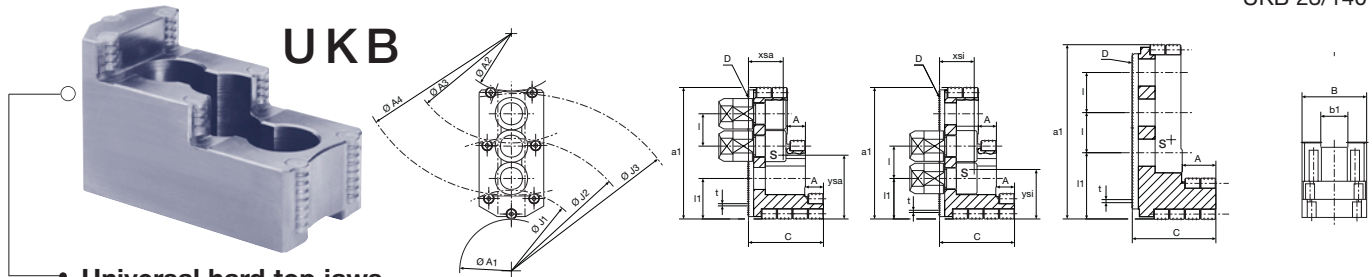
Adaptor  
plates  
ZWS

# Chuck jaws

Power Chucks of the KT series are delivered either with hard top jaws type HB or the new standard UKB jaws.

## Universal hard top jaw UKB

UKB 23/140



• **Universal hard top jaws**  
This FORKARDT patented universal hard top jaw system combines the advantages of greater gripping force with the flexibility of production with conventional claw jaws.

Type	Type	Rated quantity				Ident. No	a1	b1	l	l1	t	Kg.wt/prod.
		A	B	C	D							
2/3/4 KTN/G 160	UKB11	12	40	49	S11	D169124000	72.3	17	19	20	1/16"x90°	0.47
2/3/4 KTN/G 200												
2/3/4 KTN/G 250	UKB12	14	50	58	S12	D167055000	102.0	21	25	31.50	1/16"x90°	1.12
2/3/4 KTN/G 315												
2/3/4 KTN/G 400	UKB23/140	26	60	65	S23	D169222000	134.0	25.5	31	51.5	1/16"x90°	2.15
2/3/4 KTN/G 500												
2/3/4 KTN/G 630												

Type	Chuck diameter	Jaw type	For external chucking				For internal chucking			Xsa	YSa	XSi	YSi
			A1	A2	A3	A4	J1	J2	J3				
2/3 KT.160	215	HB11	6-68	24-74	74-125	125-176	57-114	105-165	152-214	14.5	36.0	14.5	32.0
2/3KT.200	255		20-98	30-102	77-152	128-202	70-144	118-195	168-243				
4KT.200	261		25-102	46-106	98-156	149-206	75-148	124-200	172-248				
2/3KT.250	344	HB 12	20-105	33-130	116-212	197-290	74-150	148-230	227-310	16.5	48.5	16.5	42.5
4KT.250	352		42-116	55-140	138-223	218-305	92-162	168-242	248-322				
2/3 KT.315	408		20-170	33-195	116-275	197-359	74-215	148-295	227-375				
4KT.315	416	HB	42-180	55-205	138-286	218-373	92-225	168-306	248-386	20.5	67.0	20.5	60.5
2/3KT.400	542		40-210	44-255	-	250-458	110-274	-	310-478				
4KT.400	558		67-226	65-270	-	268-475	136-290	-	336-494				
2/3KT.500	642	23/140	40-310	44-355	-	250-558	110-374	-	310-578	20.5	67.0	20.5	60.5
4 KT.500	658		67-326	65-370	-	268-575	136-390	-	336-594				
2/3KT.630	772		40-440	44-485	-	250-688	110-504	-	310-708				
4 KT.630	788		67-456	65-500	-	268-705	136-520	-	310-724				

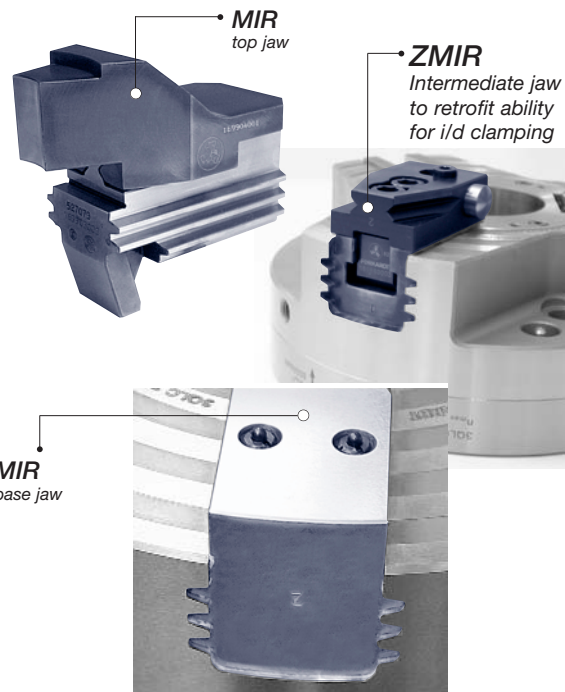
## Quick Change Jaw System MIR and ZMIR

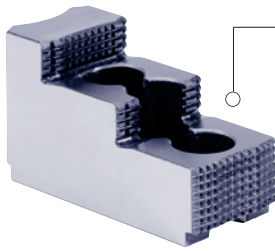
### FORKARDT system MIR

The quick-change jaw system MIR and ZMIR that allows very fast and easy manual jaw changes without any additional tools necessary is optionally available for FORKARDT chucks KT.

### Advantages:

- Changing one set of jaws in less than 20 seconds without any tools necessary
- High repeatability under continuously hard production circumstances
- Easy cleaning - no malfunctions due to wear or dirt
- The system can be retrofitted on all common power chucks.
- Under clamping conditions the top jaws will be pressed into the V-shape without any movement possible.

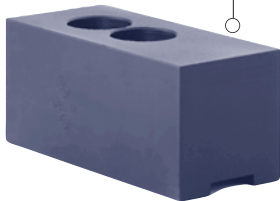




**HB**

**Conventional hard top jaws**

Traditional hard top jaws (type HB) are primarily used to clamp rough or pre-turned workpieces.



**WBL**

**Soft top jaws**

Soft jaws (type WBL) are used for the accurate clamping of already machined work pieces, on which clamping surfaces should not be damaged.

These jaws are turned, by the user, under clamping pressure, to the respective clamping diameter to ensure extremely high accuracy and repeatability.

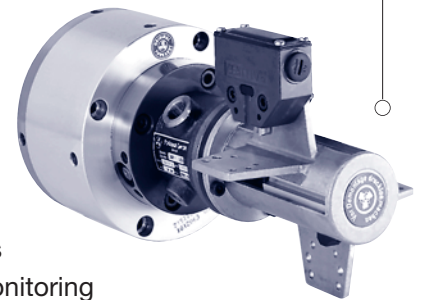
# Actuating cylinders

Hydraulic hollow cylinders are the source of actuating force for power chucks. The new FORKARDT OKRJ series is ideal for strong and delicate clamping at all speeds.

**Key Features:**

- Compact reliable, modular design
- Short overall length for easy fitment to lathes
- Advanced bearing and seals design
- Highly precise oil feed and coolant drainage systems

- Balanced to class Q = 2.5
- Alternate controlled safety of non-return valves
- Clamping stroke monitoring included as standard
- Continuous clamping stroke monitoring as option
- Developed and produced under ISO 9001- 2000



*FORKARDT OKRJ  
Hydraulic through  
hole cylinder*

**Other FORKARDT accessories available include:**

- Hydraulic cylinders OKHJ (for open centre - clamping).
- Draw tubes and bars, cylinder flanges (machine - related).
- Hard and soft top standard – jaws.
- Roughing jaws.
- Special grease keeping the clamping force.
- Lapping plates for the maintenance of fine serration of chuck jaws.
- Special chuck jaws (workpiece – related).

**Gripping force meters**

To ensure the reliable, safe and accurate operation of all chucking systems an accurate gripping force meter is essential. The FORKARDT SKM products are quick, precise and inexpensive.

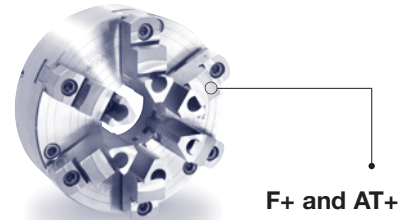


*Gripping force meter  
SKM 1200 / 1500*

# Some other FORKARDT products

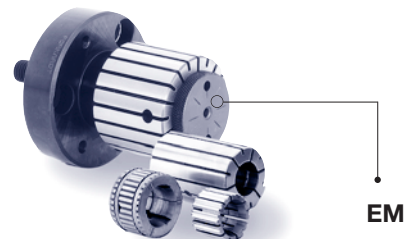
## Manual chucks

- Universal chucks (scroll and wedge block) for conventional and CNC machine tools
- Ideal for production in small to medium batch sizes



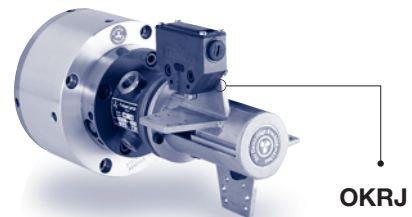
## Expanding mandrels / collet chucks

- Clamping range between 12.5 – 178.0 mm
- Double cone clamping system with slotted sleeves
- Variable program for the development of optimal clamping systems
- Available ground to customer's requirements



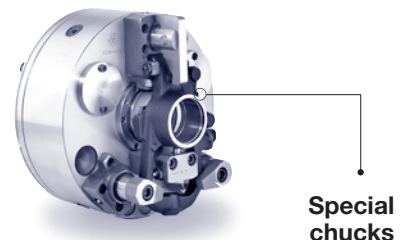
## Actuating cylinders

- Compact module-building technology
- Short building attachment on all centre lathes
- Advanced bearing and seals design
- Highly precise oil feed system
- Balanced to class Q = 2.5
- Alternate controlled safety of non-return valves
- Clamping stroke monitoring included as standard
- Continuous clamping stroke monitoring optional
- Developed and produced in accordance with the requirements of ISO 9001 - 2000



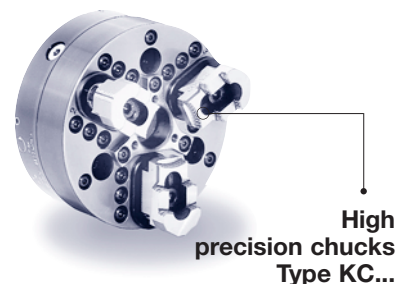
## Special clamping systems

- Special workholding systems designed and manufactured to customer requirements
- Combined centering and clamping function for very precise and secure gripping
- Hermetically sealed oil filled solutions for Minimum Maintenance® applications
- Example: Steering knuckle chuck for car landing gear parts



## Precision power chucks for fine / hard turning and grinding

- Hermetically sealed, with permanent lubrication for Minimum Maintenance® and wear-free operation
- Clamping repetition accuracy < 0.0025 mm
- Jaw changing without loss of accuracy



# ITW Workholding-Group

WORKHOLDING SOLUTIONS  
WORLDWIDE



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