

## USED UNIVERSALLY FOR DECADES

Founded in 1909, RÖHM began successively expanding their product range by the area of power chuck technology starting in 1950. Decades of experience and knowledge about power chucks make today's RÖHM power chucks so successful. Especially for the machining of bar material, these are not only characterized by the high flexibility due to the large through-hole, but also by the long service life, top precision and reliability.



Power chucks with single wedge gate valve system and through-hole

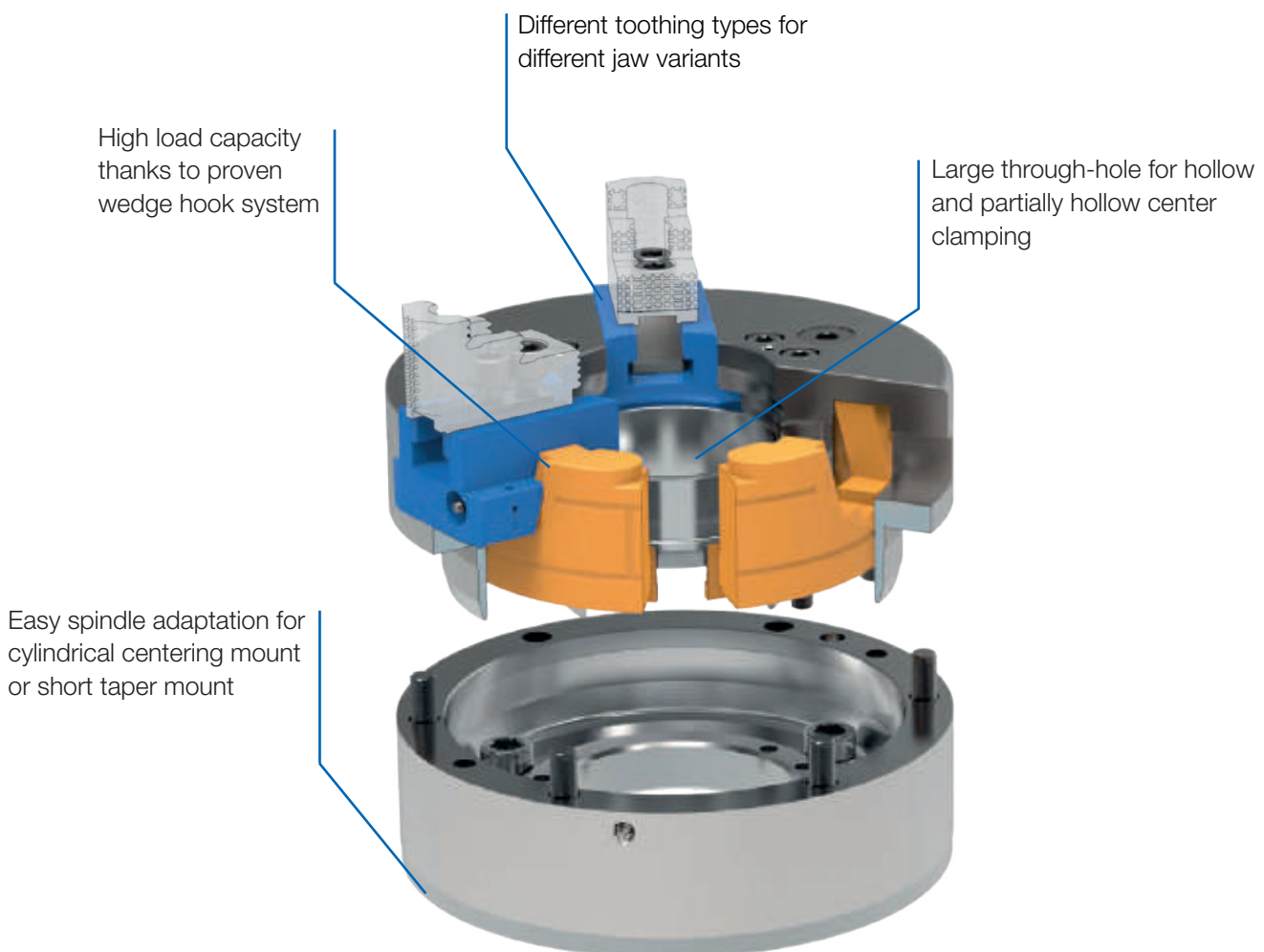


# POWER CHUCKS WITH THROUGH-HOLE

RÖHM power chucks with through-hole are successfully used both in bar and pipe machining, as well as in the machining of flange-type workpieces. The proven wedge system allows maximum clamping forces with maximum clamping precision at the same time. The rigidity of the power chucks which contributes to this is achieved with a sturdy chuck construction.

## ADVANTAGES AT A GLANCE

- ⊕ Large through-hole optimal for bar machining
- ⊕ Proven power chucks with long service life
- ⊕ Wedge hook system for high load capacity and clamping precision



Power chuck with through-hole



Power chucks with through-hole

# DURO-A - Constant clamping force for more than 500.000 cycles



### APPLICATION

Premium power chuck with through-hole for the machining of bar, pipes and discs. With constant clamping force distribution for more than 500,000 cycles.

### TYPE

Power chuck available with cylindrical centre mount. Connection dimensions according to DIN ISO 702-4. Adaption to short taper mount DIN ISO 702-1. 3-jaw version with serration 90° and 60°.

### CUSTOMER BENEFITS

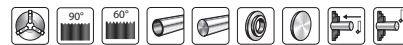
- ⊕ Constant clamping force for more than 500,000 cycles
- ⊕ Up to 30% higher maximum clamping force
- ⊕ 3-year warranty (pursuant to DURO-A warranty)
- ⊕ Weight reduction of up to 10% by reducing overall height, as well as increased work envelope due to improved interference contours

### TECHNICAL FEATURES

- Up to 30% larger through-hole and up to 35% more maximum speed for a broader range of applications compared to similar power chucks
- Optimized centrifugal force behavior and low centrifugal force losses and high speeds thanks to special wedge hook system with annular piston
- High concentricity of 0.01 mm (for milled top jaws) through precision manufacturing

### Included in the scope of delivery:

Chuck, chuck and jaw mounting screws, mounting wrench, slot nuts (without top jaws)



### Gripping force/speed diagram (3-jaw chucks only)

The loss of gripping force was determined experimentally on a chuck with matched UB top jaws. It is largely independent of the initial gripping force at zero speed.

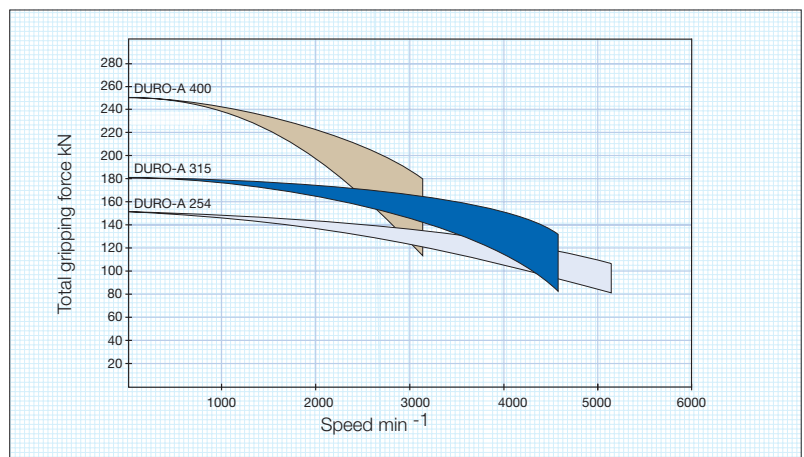
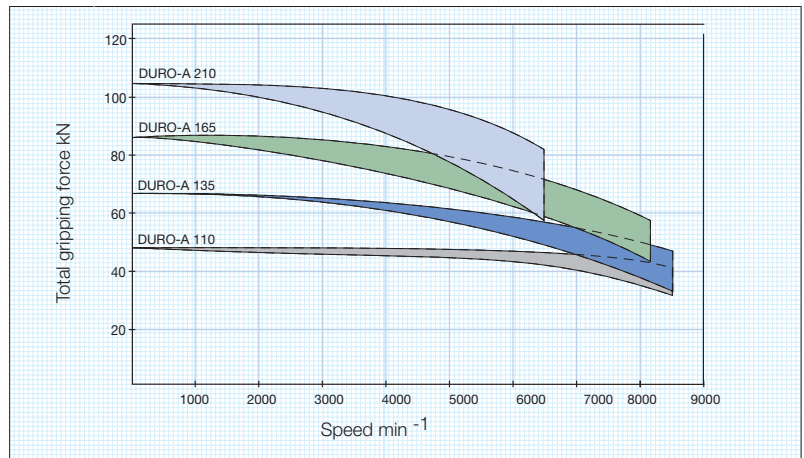
Upper curve: min. centrifugal force of top jaw



Lower curve: max. centrifugal force of top jaw



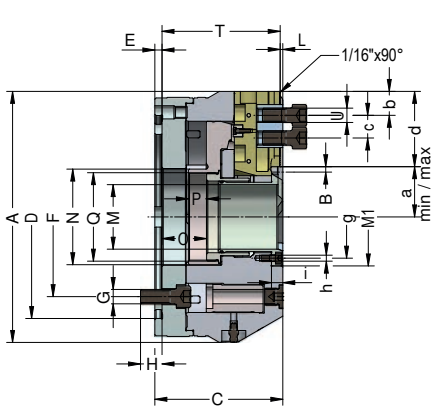
To obtain the specified gripping forces, the chuck must be in a perfect condition and lubricated with F 80 lubricant recommended by RÖHM. Measuring point near chuck face.



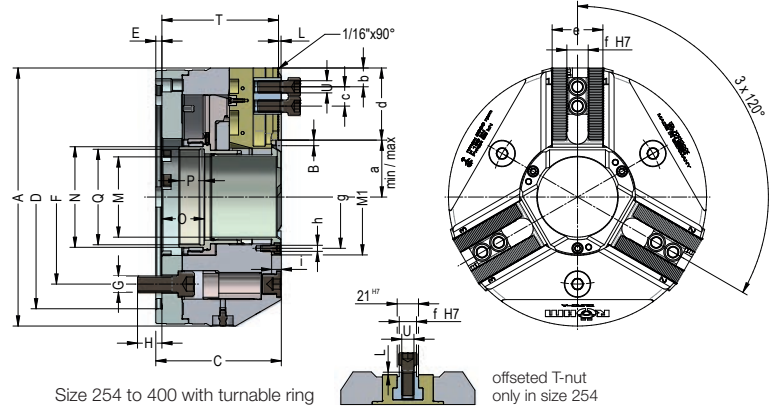
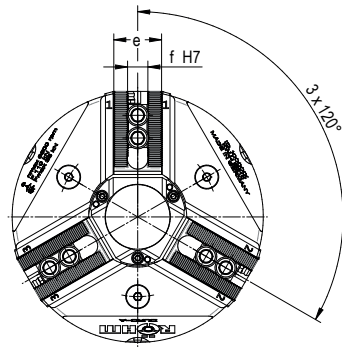


Power chucks with through-hole

# DURO-A, 3-jaws, serration 90°



Size 110 to 210 with tightening thread



Size 254 to 400 with turnable ring

offseted T-nut only in size 254

C 15

3-jaw power chuck **DURO-A**, serration 90°, cylindrical centre mount, connection dimensions according to DIN ISO 702-4

Item No.	183700	183701	183702	183703	183704	183705	183706	183707	183708
Size	110	135	165	210	254	254	315	315	400
Number of jaws	3	3	3	3	3	3	3	3	3
A mm	110	135	165	210	254	254	315	315	400
Jaw travel B mm	3.2	3.2	3.5	4.5	5.5	5.5	6.2	6.2	7.5
C mm	78	88	97	107	121	123.5	132.5	137	159.5
Mount D	ZA 60	ZA 115	ZA 140	ZA 170	ZA 170	ZA 220	ZA 220	ZA 300	ZA 380
E mm	6	6	6	6	6	6	6	6	6
F mm	82.6	82.6	104.8	133.4	133.4	171.4	171.4	235	330.2
G	3xM10	3xM10	3xM10	3xM12	3xM12	3xM16	3xM16	3xM20	3xM24
H mm	15	15	15	18	18	24	26.5	30	30
Wedge stroke K mm	12	12	13	17	20.5	20.5	23	23	28
L mm	2.5	2.2	2.2	2.2	2.5	2.5	2.5	2.5	3.2
M max. mm	27	34	46	54	79	79	98.5	98.5	133
M <sub>H7</sub> mm	52	59	74	82	114	114	140	140	180.5
N mm	38	45	58	80	99	99	121	121	157.5
O min.	10.5	15.5	17.5	20.3	18.7	21.2	22.1	26.6	30.6
O max.	22.5	27.5	30.5	37.3	39.2	41.7	45.1	49.6	58.6
P mm	11.5	13.5	15.5	15.3	25	25	25	25	35
Q mm	M34x1.5	M38x1.5	M54x1.5	M74x1.5	M94x1.5	M94x1.5	M114x2	M114x2	M148x2
T mm	71.3	79.3	88.8	98.8	112.3	114.8	121.8	126.3	144.3
U mm	M8	M6	M8	M12	M12	M12	M16	M16	M20
a min.	21.8	25.3	31.5	37.5	50.5	50.5	61.3	61.3	79.5
a max.	25	28.5	35	42	56	56	67.5	67.5	87
b min.	2.5	5.0	-1	15.5	15.5	15.5	15.5	15.5	20
b max.	8.5	7.5	12	34.5	42	42	51	51	62
c mm	14	2x12	2x15	19	19	19	25	25	31
d mm	30	39	47.5	63	71	71	90	90	113
e mm	24	25	32	40	50	50	50	50	60
f H7-0.025 mm	10	10	12	17	17	17	21	21	25.5
g mm	43	48	61	69	101	101	125	125	166
h	M4	M4	M5	M5	M6	M6	M6	M6	M8
i	6	6	7.5	9.5	9.5	9.5	11.5	11.5	20
Max. swing top jaws mm	136 (113 K)	170	195	260 (250 K)	305	305	402 (380 K)	402 (380 K)	520
Maximum draw bar pull kN	17	25	30	38	53	53	62	62	90
Max. total clamping force kN	48	70	86	110	150	150	180	180	250
Max. admissible speed min <sup>-1</sup>	8500	8000	8000	6500	5000	5000	4200	4200	3150
Moment of inertia J kgm <sup>2</sup>	0.007	0.018	0.04	0.12	0.3	0.3	0.82	0.82	2.5
Weight without jaws approx. kg	4.3	6.9	11.5	19.6	33	33	56.8	56.8	108.6
Actuating cylinders (recommended)	OVS-85/ SZS-37/70	OVS-85/ SZS-37/70	OVS-85/ SZS-46/103	OVS-85/ SZS-52/130	OVS-105/ SZS-77/170	OVS-105/ SZS-77/170	OVS-105/ SZS-95/225	OVS-105/ SZS-95/225	OVS-130/ SZS-127/325

▲ on request

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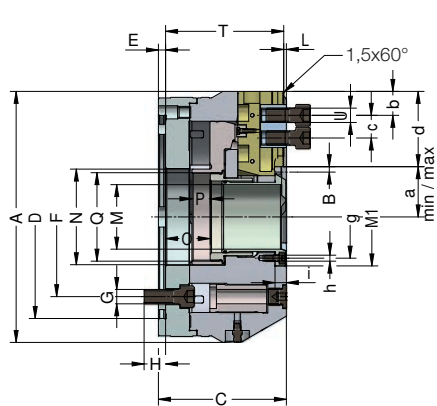
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Power chucks with through-hole DURO-A

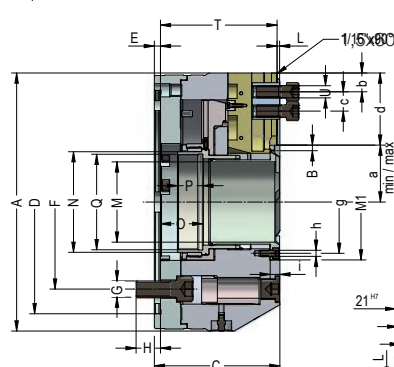
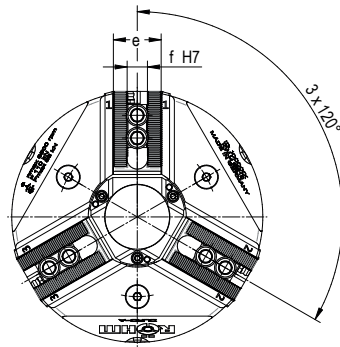


Power chucks with through-hole

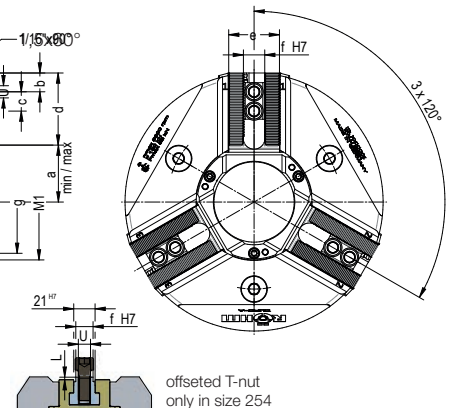
# DURO-A, 3-jaws, serration 60°



Size 110 to 210 with tightening thread



Size 254 to 400 with turnable ring



offseted T-nut only in size 254

C 15  
3-jaw power chuck **DURO-A**, serration 60°, cylindrical centre mount, connection dimensions according to DIN ISO 702-4

Item No.	183722	183723	183724	183725	183726	183727	183728	183729	183730	183731
Size	110	135	165	210	254	254	315	315	400 (1,5x60°)	400 (3x60°)
Number of jaws	3	3	3	3	3	3	3	3	3	3
A mm	110	135	165	210	254	254	315	315	400	400
Jaw travel B mm	3.2	3.2	3.5	4.5	5.5	5.5	6.2	6.2	7.5	7,5
C mm	78	88	97	107	121	123.5	132.5	137	159.5	159,5
Mount D	ZA 60	ZA 115	ZA 140	ZA 170	ZA 170	ZA 220	ZA 220	ZA 300	ZA 380	ZA 380
E mm	6	6	6	6	6	6	6	6	6	6
F mm	82.6	82.6	104.8	133.4	133.4	171.4	171.4	235	330.2	330,2
G	3xM10	3xM10	3xM10	3xM12	3xM12	3xM16	3xM16	3xM20	3xM24	3xM24
H mm	15	15	15	18	18	24	26.5	30	30	30
Wedge stroke K mm	12	12	13	17	20.5	20.5	23	23	28	28
L mm	2.5	2.2	2.2	2.2	2.5	2.5	2.5	2.5	3.2	3,2
M max. mm	27	34	46	54	79	79	98.5	98.5	133	133
M <sub>H7</sub> mm	52	59	74	82	114	114	140	140	180.5	180,5
N mm	38	45	58	80	99	99	121	121	157.5	157,5
O min.	10.5	15.5	17.5	20.3	18.7	21.2	22.1	26.6	30.6	30,6
O max.	22.5	27.5	30.5	37.3	39.2	41.7	45.1	49.6	58.6	58,6
P mm	11.5	13.5	15.5	15.3	25	25	25	25	35	35
Q mm	M34x1.5	M38x1.5	M54x1.5	M74x1.5	M94x1.5	M94x1.5	M114x2	M114x2	M148x2	M148x2
T mm	71.3	79.3	88.8	98.8	112.3	114.8	121.8	126.3	144.3	144,3
U mm	M8	M8	M10	M12	M12	M12	M16	M16	M20	M20
a min.	21.8	25.3	31.5	37.5	50.5	50.5	61.3	61.3	79.5	79,5
a max.	25	28.5	35	42	56	56	67.5	67.5	87	87
b min.	2.5	5.0	-1	15.5	15.5	15.5	15.5	15.5	20	20
b max.	8.5	7.5	12	34.5	42	42	51	51	62	62
c mm	14	14	20	25	30	30	30	30	31	31
d mm	30	39	47.5	63	71	71	90	90	113	113
e mm	24	25	32	40	50	50	50	50	60	60
fH7-0.025 mm	10	10	12	14	16	16	21	21	25.5	25,5
g mm	43	48	61	69	101	101	125	125	166	166
h	M4	M4	M5	M5	M6	M6	M6	M6	M8	M8
i	6	6	7.5	9.5	9.5	9.5	11.5	11.5	20	20
Max. swing top jaws mm	136 (113 K)	170	195	260 (250 K)	305	305	402 (380 K)	402 (380 K)	520	520
Maximum draw bar pull kN	17	25	30	38	53	53	62	62	90	90
Max. total clamping force kN	48	70	86	110	150	150	180	180	250	250
Max. admissible speed min <sup>-1</sup>	8500	8000	8000	6500	5000	5000	4200	4200	3150	3150
Moment of inertia J kgm <sup>2</sup>	0.007	0.018	0.04	0.12	0.3	0.3	0.82	0.82	2.5	2,5
Weight without jaws approx. kg	4.3	6.9	11.5	19.6	33	33	56.8	56.8	108.6	108,6
Actuating cylinders (recommended)	OVS-85/ SZS-37/70	OVS-85/ SZS-37/70	OVS-85/ SZS-46/103	OVS-85/ SZS-52/130	OVS-105/ SZS-77/170	OVS-105/ SZS-77/170	OVS-105/ SZS-95/225	OVS-105/ SZS-95/225	OVS-130/ SZS-127/325	OVS-130/ SZS-127/325

Power chucks with through-hole DURO-A



Power chucks with through-hole

## Jaws DURO-A

C 21

Reversible top jaws, hardened, serration 90° - material: 16MnCr5



Chuck Size	3-jaw set	Jaw length mm	Jaw height mm	Jaw width mm	Serration
110	149352	45	32	26	1/16"x 90°
135	046544	56	37.5	26	1/16"x 90°
165	046404	56	37.5	26	1/16"x 90°
165	351320	51.5	26	26	1/16"x 90°
210/254	118522	75	49	36	1/16"x 90°
315	046414	103.5	58	50	1/16"x 90°
400	037531	135	65	68	3/32"x 90°

Additionally or later applied, hardened jaws must be ground out in the chuck.

C 21

Reversible top jaws, 3-jaw set, hardened serration 60° - material: 16MnCr5



Chuck Size	3-jaw set	Jaw length mm	Jaw height mm	Jaw width mm	Serration
135	154814 <sup>1)</sup>	54	27,5	23	1,5 x 60°
165	154674 <sup>1)</sup>	66	36	34,7	1,5 x 60°
210	154676	81	49	36	1,5 x 60°
254	154678	99,5	54	44,5	1,5 x 60°
315	154816 <sup>1)</sup>	103	55,5	50	1,5 x 60°

<sup>1)</sup> One step only

Additionally or later applied, hardened jaws must be ground out in the chuck.

C 21

Soft top jaws, can be hardened, serration 90° - material: 16MnCr5



Chuck Size	3-jaw set	Jaw length mm	Jaw height mm	Jaw width mm	Serration
110	149353	45	38	26.5	1/16"x 90°
135	046402	53	30	22.5	1/16"x 90°
165	046403	55	38	26.5	1/16"x 90°
210	133152	66.7	53	36.5	1/16"x 90°
254	133153	75	53	36.5	1/16"x 90°
315	133154	95	54.5	45	1/16"x 90°
400	133156	130	80	50	3/32"x 90°

C 21

Soft top jaws, 3-jaw set, can be hardened serration 60° - material: 16MnCr5



Chuck Size	3-jaw set	Jaw length mm	Jaw height mm	Jaw width mm	Serration
135/165	154863	54	29	23	1,5 x 60°
170	154865	72	43	30,5	1,5 x 60°
210	154867	95	45,5	35	1,5 x 60°
254	154869	110	45	50	1,5 x 60°
315	154871	130	55,5	50	1,5 x 60°

C 21

Claw-type jaws, 1 piece, hardened, serration 90° - width of the groove 10



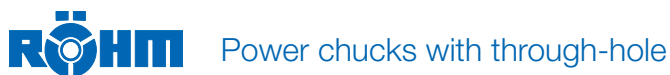
Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
149920	110	42	27	37.1	1/16"x 90°
149921	110	42	27	23.4	1/16"x 90°
149922	110	47	27	17.7	1/16"x 90°

C 21

Claw-type jaws, 1 piece, hardened, serration 90° - width of the groove 10



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
147259	135	50	27	41	1/16"x 90°
147261	135	44	27	22	1/16"x 90°



# Jaws DURO-A

C 21  
Claw-type jaws, 1 piece, hardened, serration 90° - width of the groove 12



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
144320	165	66	38	52	1/16"x 90°
144321	165	56	38	34	1/16"x 90°
144322	165	66	38	25	1/16"x 90°

C 21  
Claw-type jaws, 1 piece, hardened, serration 90° - width of the groove 17



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
137031	210/254	67	45	53	1/16"x 90°
137032	210/254	65	45	46	1/16"x 90°
137033	210/254	55	45	39	1/16"x 90°
137034	210/254	50	45	31	1/16"x 90°
137035	210/254	55	45	27	1/16"x 90°
137036	210/254	65	45	19	1/16"x 90°
137037	210/254	65	45	26	1/16"x 90°
137038	210/254	55	45	24	1/16"x 90°
137039	210/254	55	45	40	1/16"x 90°

C 21  
Claw-type jaws, 1 piece, hardened, serration 90° - width of the groove 21



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
137041	254/315	95	50	80	1/16"x 90°
137042	254/315	75	50	60	1/16"x 90°
137043	254/315	60	50	43	1/16"x 90°
137044	254/315	70	50	37	1/16"x 90°
137045	254/315	95	50	25	1/16"x 90°
137046	254/315	80	50	30	1/16"x 90°

C 21  
Claw-type jaws, 1 piece, hardened, serration 90° - width of the groove 25.5



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
137051	400	130	65	113	3/32"x 90°
137052	400	90	65	67	3/32"x 90°
137053	400	100	65	45	3/32"x 90°
137054	400	130	65	33	3/32"x 90°

C 21  
Claw-type jaws, 1 piece, hardened serration 60° - width of the groove 12



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
156025	165	67	45	53	1,5 x 60°
156027	165	65	45	46	1,5 x 60°
156029	165	55	45	40	1,5 x 60°
161189	165	55	45	24	1,5 x 60°

C 21  
Claw-type jaws, 1 piece, hardened serration 60° - width of the groove 16



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
156099	254	95	50	80	1,5 x 60°
156101	254	75	50	60	1,5 x 60°
156103	254	60	50	43	1,5 x 60°
156105	254	70	50	37	1,5 x 60°

Jaws DURO-A

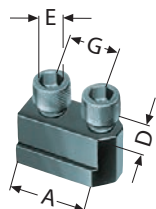


Power chucks with through-hole

## Accessories DURO-A

### C 15 Extended T-nuts

With screw, for SV 1/16" x 90°



Item no.	Chuck Size	Con- tents of delivery	A mm	D mm	E	G mm
1305164 ▲	110	piece	30	10	M8x20	15
1305165	135	piece	34	10	M6x18	2x12
1305166	165	piece	42	12	M8x20	2x15
1305167	210	piece	36	17	M12x25	19
1305168	254	piece	36	17	M12x25	19
1305169	315	piece	46	21	M16x30	25
1305170	400	Piece	59	25.5	M20x40	31

### A09 Special grease F80 for lathe chucks

For lubrication and conservation of chucking power



Item no.	Design	Contents
308555	Cartridge (DIN 1284) Ø 53.5x235mm	0.5 kg
028975	Tin	1 kg

### C15 Grease gun DIN1283

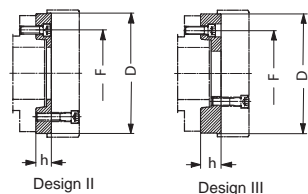


Item no.	Connec- tion	Contents of delivery
329093	M10x1	150 mm nozzle tube bent, needlepoint mouthpiece, top mouthpiece, 300 mm high pressure hose with 4 jaw hydraulics cross mouthpiece

### C 15

Intermediate adaptor plates with cylindrical centre mount DIN 6353 for 3-jaw chucks

Mounting from front to ISO 702-1 (DIN 55026/55021) and ASA B 5.9 A1/A2 with metric mounting bolts



Item no.	Spindle nose size	Size	Design	h mm	F mm	D mm
174525 <sup>1)</sup>	4	110	II	25	82.6	60
174526 <sup>1)</sup>	4	135	II	18	82.6	115
145125 <sup>1)</sup>	4	165	II	18	82.6	140
174527	5	135	II	32	104.8	115
174528	5	165	II	21	104.8	140
145127	5	210	II	21	104.8	170
145129	6	165	II	35	133.4	140
174529	6	210	II	27	133.4	170
145131	6	254	II	27	133.4	220
145135	8	210	II	39	171.4	170
174530	8	254/315	II	39	171.4	220
145143	11	254	III	48	235	220
174531	11	315	II	36	235	300
145147	11	400	II	40	235	380
174532	15	400	II	50	330.2	380

<sup>1)</sup> DIN 55021 on request

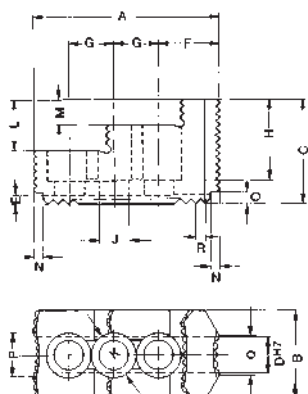
All fastening parts are included

Intermediate adaptor plate for 2-jaw version on request



# Jaw dimensions DURO-A

**Reversible top jaws UB,**  
hardened, serration 90°,  
material 16MnCr5

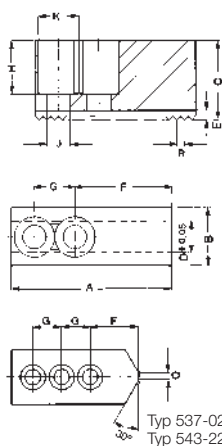


Chuck size	110	135	165	165	210/254	315	400/500
Type	543-21	537-02	538-02	543 1)	538-04	538-05	538-07
Item no. 3-jaw	149352	046544	046404	351320	118522	046414	037531
A	45	56	56	51.5	75	103.5	135
B	26	26	26	26	36	50	68
C	32	37.5	37.5	26	49	58	65
DH7	10	10	12	12	17	21	25.5
E	3.5	3.5	3.5	3.5	5	5	5
F	15	10	14	23	21.5	33.5	48
G	15	12 2)	15	15 3)	19	25	31
H	23	29	29	17	37.5	45	48
J	8.4	6.4	8.4	9	13	17	21
K	13.5	10.4	13.5	14	19	25	31
L	14	20	20	-	24	28	-
M	7	10	10	8	12	14	26
N	4	4	4	3	6	6	6.5
O	4	4	4	4	7.5	6.5	5.5
P	8	5	5	20	18	24.5	34
Q	5	5	5	3	7	22.5	40
R	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	3/32"x90°
Weight/jaw kg	0.155	0.130	0.170	0.150	0.460	1.130	2.000

1) One step only, for 8000 min<sup>-1</sup>  
2) 4 mounting holes

3) 2 mounting holes

**Soft top jaws AB,**  
serration 90°,  
material 16MnCr5

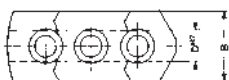
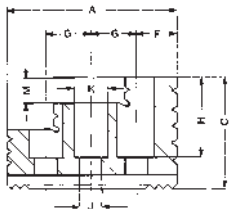


Chuck size	110	135	165	210	254	315	400
Type	543-22	537-02	538-02	538-03	538-04	538-05	538-07
Item no. 3-jaw	149353	046402	046403	133152	133153	133154	133156
A	45	53	55	66.7	75	95	130
B	26.5	22.5	26.5	36.5	36.5	45	50
C	38	30	38	53	53	54.5	80
D	10	10	12	17	17	21	25.5
E	3.5	3.5	3.5	5	5	5	5
F	15	20	31	36	44	55	79
G	15	12 1)	15	19	19	25	31
H	23	20	28	43	43	42.5	60
J	8.4	6.4	8.4	13	13	17	21
K	13.5	10.4	13.5	19	19	25	31
Q	5	3	-	-	-	-	-
R	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	3/32"x90°
Weight/jaw kg	0.210	0.223	0.320	0.700	0.880	1.400	3.100

1) 3 mounting holes

# Jaw dimensions DURO-A

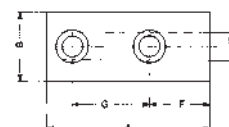
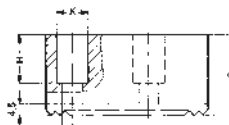
**Reversible top jaws UB,**  
serration 60°,  
material 16MnCr5



Chuck size	165	210	254	315
Type	543-31	543-31	543-31	543-31
Item no. 3-jaw	154674 1)	154676	154678	154816 1)
A	66	81	99,5	103
B	34,7	36	44,5	50
C	36	49	54	55,5
D	12	14	16	21
F	12,5	17,5	25,5	22,5
G	20	25	30	30
H	23	36,5	38,5	34
J	11	13	13	17
K	17	19	19	25
Serration	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°
Weight/jaw kg	0,3	0,6	1,2	1,5

1) One step only

**Soft top jaws AB,**  
can be hardened, serration 60°,  
material 16MnCr5



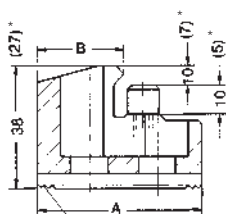
Chuck size	165	210	254	315
Type	543-32	543-32	543-32	543-32
Item no. 3-jaw	154865	154867	154869	154871
A	72	95	110	130
B	32,5	35	50	50
C	40	45,5	45	55,5
D	12	14	16	21
F	37	46	50	52
G	20	25	30	30
H	27	33	29	34
J	11	13	13	17
K	17	19	19	25
Serration	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°
Weight/jaw kg	0,5	0,9	1,7	1,9



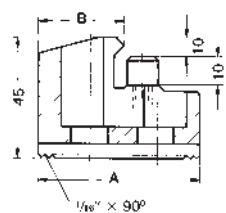
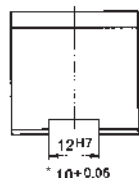
Technical data

# Jaw dimensions DURO-A

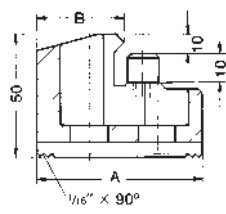
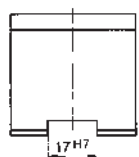
Claw type jaws KB  
serration 90°



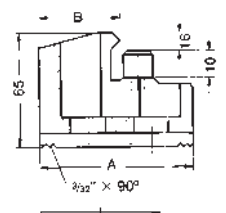
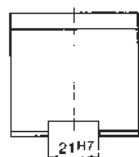
$\frac{1}{16}'' \times 90^\circ$   
\* DURO-A 110+130+140



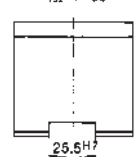
$\frac{1}{16}'' \times 90^\circ$



$\frac{1}{16}'' \times 90^\circ$



$\frac{3}{32}'' \times 90^\circ$



Piece	A	B	H	DURO-A 110 External chucking	Piece	A	B	DURO-A 135 External chucking
Item no.					Item no.			
149920	42	37.1	27	20-49	147259	50	41	27-67/35-72
149921	42	23.4	27	47-70	147261	44	22	58-108/61-114
149922	47	17.7	27	68-100				
Piece	A	B	H	DURO-A 110 Internal chucking	Piece	A	B	DURO-A 135 Internal chucking
Item no.					Item no.			
149922	47	17.7	27	45-75	147261	44	22	58-108/61-114
149921	42	23.4	27	56-102	147259	50	41	100-130/106-140
149920	42	37.1	27	84-130				

Piece	A	B	DURO-A 165 External chucking
Item no.			
144320	66	52	38-84
144321	56	34	78-122
144322	66	25	120-146
Piece	A	B	DURO-A 165 Internal chucking
Item no.			
144322	66	25	70-100
144321	56	34	92-140
144320	66	52	122-180

Piece	A	B	DURO-A 210 External chucking	DURO-A 254 External chucking
Item no.				
137031	67	53	55-110	68-162
137032	65	46	68-124	80-173
137039	55	40	95-150	108-200
137034	50	31	102-158	115-206
137035	55	27	110-168	125-220
Piece	A	B	DURO-A 210 Internal chucking	DURO-A 254 Internal chucking
Item no.				
137036	65	19	65-125	80-172
137037	65	26	86-142	100-192
137038	55	24	100-156	112-206
137035	55	27	120-178	135-228
137034	50	31	132-188	145-236
137039	55	40	136-195	150-245
137033	55	39	150-207	165-257
137032	65	46	164-222	179-270

Piece	A	B	DURO-A 315 (86) <sup>1)</sup> External chucking	DURO-A 315 (108) <sup>1)</sup> External chucking
Item no.				
137041	95	80	46-175	65-175
137042	75	60	92-220	104-220
137043	60	43	114-250	135-250
137044	70	37	142-275	166-275
Piece	A	B	DURO-A 315 (86) <sup>1)</sup> Internal chucking	DURO-A 315 (108) <sup>1)</sup> Internal chucking
Item no.				
137045	95	25	65-200	82-200
137046	80	30	108-242	130-242
137044	70	37	142-275	164-275
137043	60	43	170-305	195-305
137042	75	60	202-340	224-340

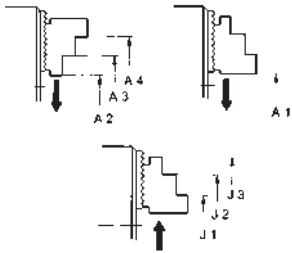
Piece	A	B	DURO-A 400 External chucking	DURO-A 400 (165) <sup>1)</sup> External chucking
Item no.				
137051	130	113	70-270	94-270
137052	90	67	150-304	183-304
137053	100	45	175-390	210-390
Piece	A	B	DURO-A 400 Internal chucking	DURO-A 400 (165) <sup>1)</sup> Internal chucking
Item no.				
137054	130	33	96-290	110-290
137053	100	45	160-305	195-305
137051	130	113	280-490	302-490

<sup>1)</sup> Chuck through-hole M

Jaw dimensions  
DURO-A

# Chucking capacities DURO-A

Chucking capacities with reversible top jaws UB, for 3-jaw chucks



Chuck size		110	135	165	165*	210	210**	254	315	400
with reversible jaws	Type	543-21	527-02	538-02	543	538-04	543-09	538-04	538-05	538-07
	Jaw position									
External chucking	A1	6-46	5-68	6-67	4-52	12-98	4-70	22-144	25-169	30-203
	A2	-	-	-	21-73	26-112	-	40-156	45-196	47-250
	A3	41-76	52-115	53-118	-	82-165	-	94-210	127-280	-
	A4	68-106	87-150	88-165	94-146	132-218	112-170	146-262	209-360	245-453
Internal chucking	J1	42-80	35-100	36-99	32-84	61-144	60-126	76-192	76-216	96-280
	J2	70-108	70-135	71-134	-	110-198	-	128-244	150-348	-
	J3	96-135	117-182	118-181	102-157	162-248	-	182-298	230-380	277-478

\* One step only

\*\* One step only, extended

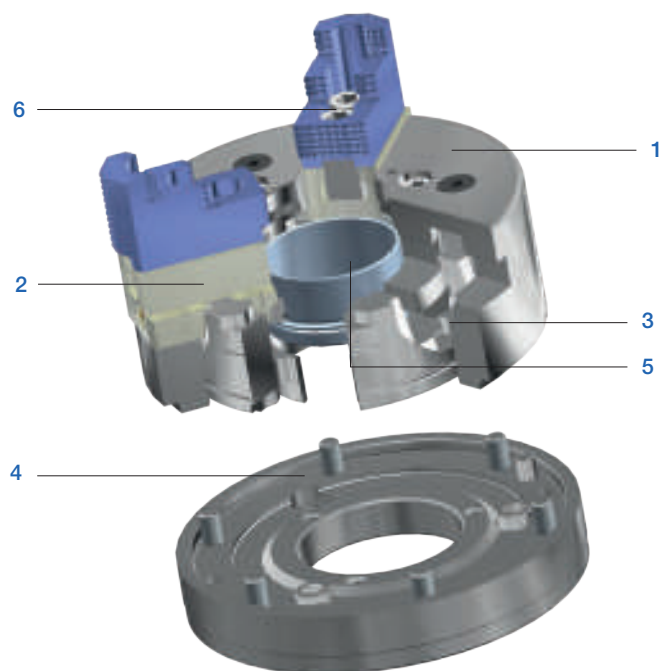


Technical data

## KFD-HS - low centrifugal force losses

### 2- and 3-jaw chuck, with large through-hole, for very high speeds

The construction principle of the power chuck KFD-HS consists of absorbing the centrifugal forces which occur during machining to the degree that the clamping force is hardly influenced. This occurs thanks to a special type of wedge hook connection. Even for extremely high speeds, the clamping force drop is very low. The high rigidity is achieved through the screw connection between the chuck body and chuck flange. Thus, this chuck type offers the optimal precondition for exactly machining shaft-type and flange-type workpieces.

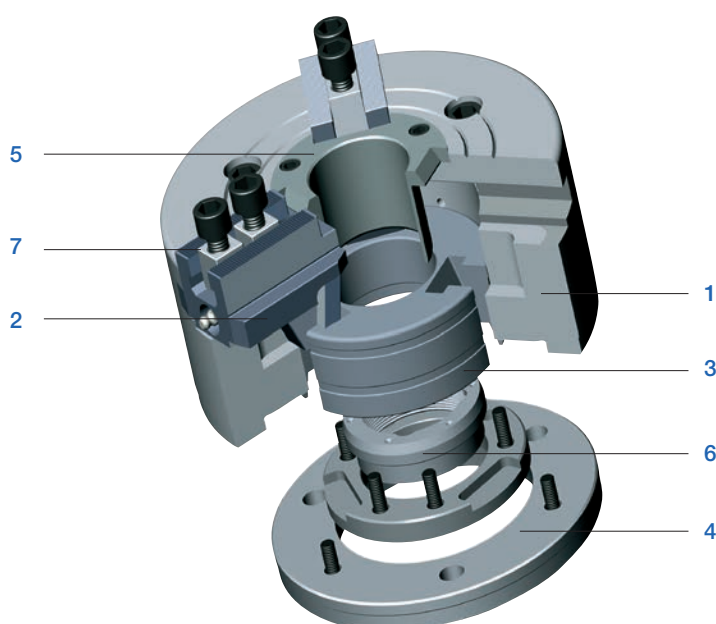


#### KFD-HS components

1. Body
2. Base jaw
3. Clamping piston
4. Chuck flange
5. Protective bushing
6. Slot nut

## KFD-HE

Standard chuck for use on modern turning machines. A large through-hole allows both bar and pipe machining as well as the machining of flange-type workpieces. The power is transmitted via the proven wedge hook system.



#### KFD-HE components

1. Body
2. Base jaw
3. Piston
4. Chuck flange
5. Protective bushing
6. Ring nut
7. Slot nut



Power chucks with through-hole

# KFD-HS - optimized centrifugal forces



## APPLICATION

Premium power chucks with through-hole for maximum speeds and optimized centrifugal forces.

## TYPE

Power chuck available with cylindrical centre mount or short taper mount.  
3-jaw version with serration (90°) or tongue and groove.  
2-jaw version with serration (90°).

## CUSTOMER BENEFITS

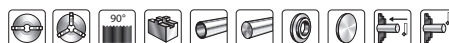
- ⊕ Low centrifugal force losses and high speeds thanks to special wedge hook system with annular piston
- ⊕ Larger than average through-hole for wide range of workpieces
- ⊕ Maximum precision thanks to rigid chuck construction
- ⊕ If necessary quick conversion to a different spindle nose by simply exchanging the centering adapter

## TECHNICAL FEATURES

- Universal construction of the piston connection (piston does not project into the spindle bore area, even with the piston position moved back)
- Long jaw guide
- Clamping inserts can be used for bar machining (special version)

## Included in the scope of delivery:

Chuck, chuck and jaw mounting screws, mounting wrench, slot nuts (without top jaws)



## Gripping force/speed diagram (3-jaw chucks only)

The loss of gripping force was determined experimentally on a chuck with matched UB top jaws. It is largely independent of the initial gripping force at zero speed.

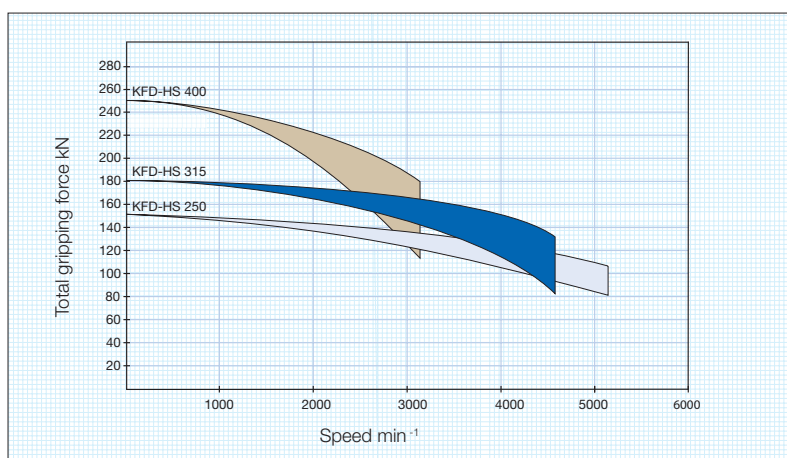
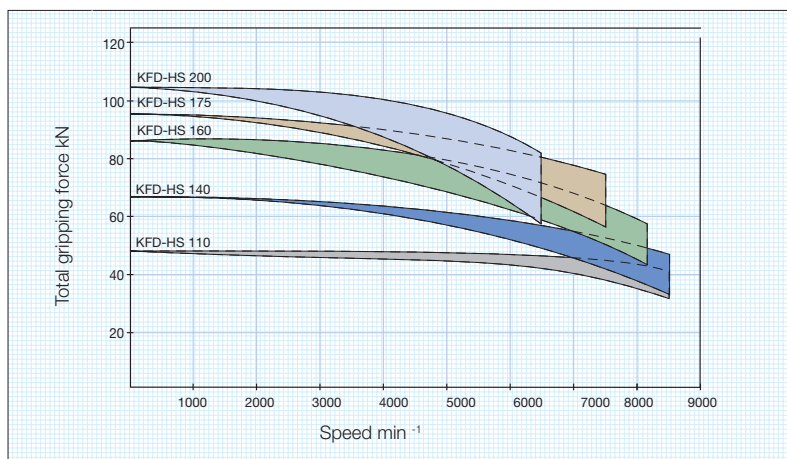
Upper curve:  
min. centrifugal  
force of top jaw



Lower curve:  
max. centrifugal  
force of top jaw



To obtain the specified gripping forces, the chuck must be in a perfect condition and lubricated with F 80 lubricant recommended by RÖHM. Measuring point near chuck face.

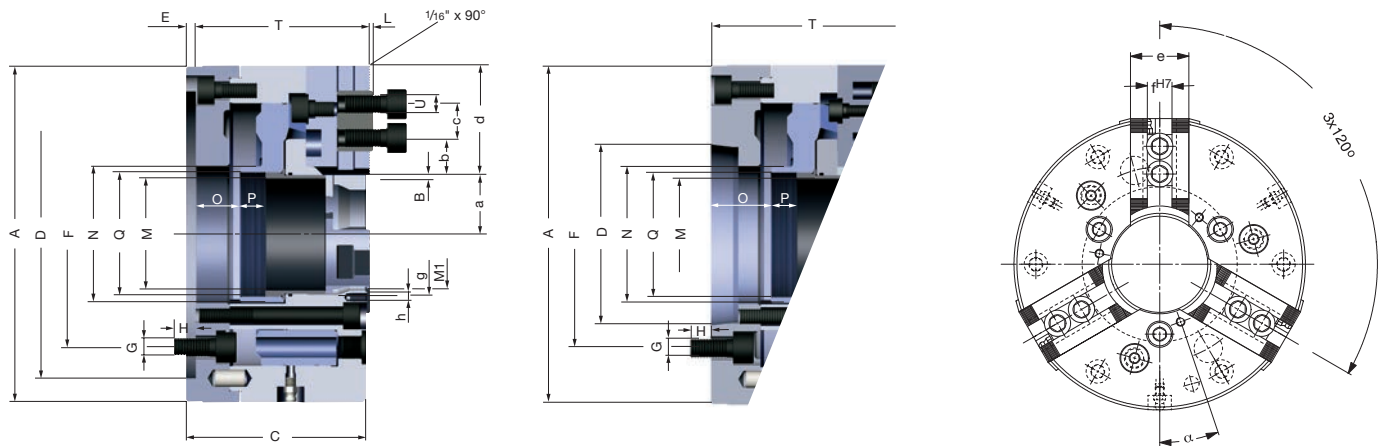


Power chuck with through-hole KFD-HS



Power chucks with through-hole

# KFD-HS 3-jaw, serration 90°



C 15

**3-jaw power chuck KFD-HS, with tightening thread, serration 90°**

Cylindrical centre mount, connection dimensions in acc. with **DIN 6353** / short taper mount (KK) for **ISO 702-1** (DIN 55026/55021)

Item No.	149406	149405	144258	142690	143692	142478	144259 ▲	143893	143888	142479
Size	110	110	140	140	160	160	175	175	200	200
Number of jaws	3	3	3	3	3	3	3	3	3	3
A mm	110	110	140	140	160	160	175	175	200	200
Jaw travel B mm	3,2	3,2	3,2	3,2	4	4	4	4	5	5
C mm	78	86	88	92	102	108	102	108	107	112
Mount D	ZA 60	KK 4 <sup>1)</sup>	ZA 120	KK 5	ZA 140	KK 5	ZA 140	KK 5	ZA 170	KK 6
E mm	6	13	6	15	6	16	6	16	6	16
F mm	82,6	82,6	104,8	104,8	104,8	104,8	104,8	104,8	133,4	133,4
G	3xM10	3xM10	3xM10	3xM10	3xM10	3xM10	3xM10	3xM10	3xM12	3xM12
H mm	14	14	15	17	15	14	15	14	18	17
Wedge stroke K mm	12	12	12	12	15	15	15	15	18,5	18,5
L mm	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
M max. mm	26	26	37	37	46	46	56	56	66	66
M <sub>i</sub> <sup>H7</sup> mm	32	32	37	37	46	46	56	56	66	66
N mm	38	38	48	48	58	58	68	68	80	80
O min.	-1	11	5	13	6	16	6	16	7,5	16,5
O max.	11	23	17	25	21	31	21	31	26	35
P mm	12	12	14	14	16	16	16	16	15	15
Q mm	M34x1,5	M34x1,5	M44x1,5	M44x1,5	M54x1,5	M54x1,5	M65x1,5	M65x1,5	M74x1,5	M74x1,5
T mm	80	84	84	90	98	106	98	106	103	110
U mm	M8	M8	M6	M6	M8	M8	M8	M8	M12	M12
a min.	10,8	10,8	16,8	16,8	24	24	29	29	35	35
a max.	14	14	20	20	28	28	33	33	40	40
b min.	3	3	0	0	0	0	0	0	8,5	8,5
b max.	23	23	26	26	22	22	24,5	24,5	32,5	32,5
c mm	15	15	2x12	2x12	2x15	2x15	2x15	2x15	19	19
d mm	41	41	50	50	52	52	54,5	54,5	60	60
e mm	24	24	25	25	32	32	32	32	40	40
h <sup>H7</sup> -0,025 mm	10	10	10	10	12	12	12	12	17	17
g mm	50	50	68	68	76	76	76	76	84	84
h	M5x8	M5x8	M5x8	M5x8	M6x10	M6x10	M6x10	M6x10	M6x10	M6x10
α	0°	0°	22° 30'	22° 30'	20°	20°	20°	20°	20°	20°
Max. swing top jaws mm	113	113	180	180	195	195	210	210	250	250
Maximum draw bar pull kN	18	18	25	25	35	35	40	40	48	48
Max. total clamping force kN	48	48	70	70	86	86	95	95	110	110
Max. admissible speed min <sup>-1</sup>	8500	8500	8000	8000	8000	8000	7000	7000	6500	6500
Moment of inertia J kgm <sup>2</sup>	0,007	0,007	0,022	0,022	0,0415	0,0415	0,057	0,057	0,1	0,1
Weight without jaws approx. kg	5	5	9	9	12	12	15	15	20	20
Actuating cylinders (recommended)	OVS-85 / SZS-37/70	OVS-85 / SZS-37/70	OVS-105 / SZS-37/70	OVS-105 / SZS-37/70	OVS-105 / SZS-46/103	OVS-105 / SZS-46/103	OVS-105 / SZS-52/130	OVS-105 / SZS-52/130	OVS-130 / SZS-67/150	OVS-130 / SZS-67/150

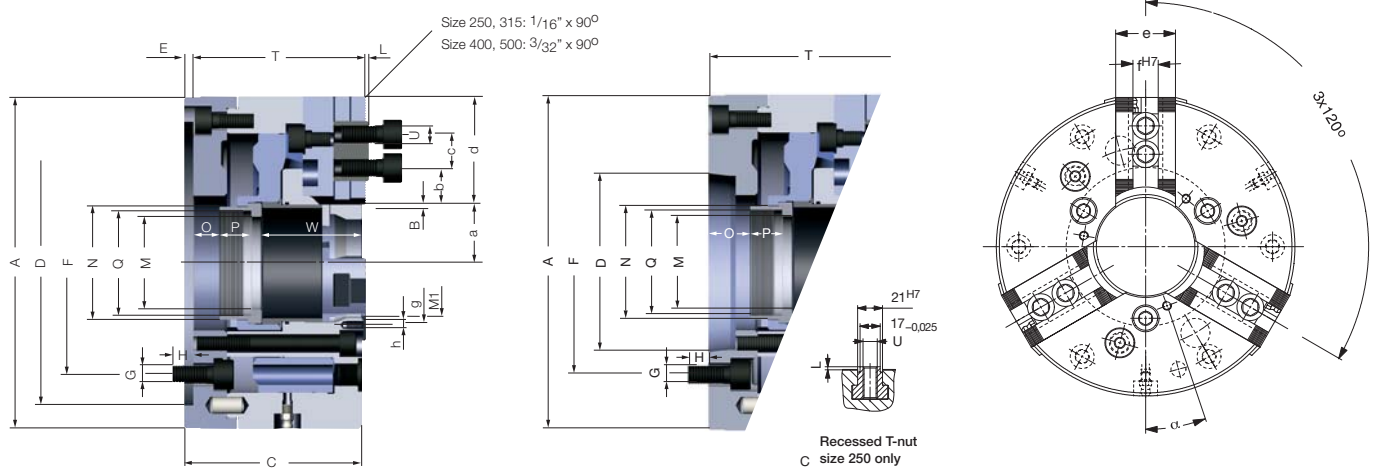
<sup>1)</sup> ISO 702-1 (DIN 55026) only (DIN 55021 on request)

Power chuck with through-hole KFD-HS



Power chucks with through-hole

# KFD-HS 3-jaw, serration 90°



C 15

**3-jaw power chuck KFD-HS, with tightening thread, serration 90°**

Cylindrical centre mount, connection dimensions in acc. with DIN 6353 / short taper mount (KK) for ISO 702-1 (DIN 55026/55021)

Item No.	161725 ▲	144260	143726 ▲	142691	144261 ▲	143748 ▲	144262 ▲	143749 ▲	144263 ▲	143750	143751
Size	250	250	250	250	315	315	315	315	400	400	400
Number of jaws	3	3	3	3	3	3	3	3	3	3	3
A mm	250	250	250	250	315	315	315	315	400	400	400
Jaw travel B mm	6,2	6,2	6,2	6,2	6,2	6,2	6,2	6,2	7,5	7,5	7,5
C mm	128	128	130	130	128	130	139	143	156	156	156
Mount D	ZA 170	ZA 220	KK 6	KK 8	ZA 220	KK 8	ZA 300	KK 11	ZA 380	KK 11	KK 15
E mm	6	6	15	19	6	19	6	21	6	18	21
F mm	133,4	171,4	133,4	171,4	171,4	171,4	235	235	330,2	235	330,2
G	3xM12	3xM16	3xM12	3xM16	3xM16	3xM16	3xM20	3xM20	3xM24	3xM20	3xM24
H mm	16	24	18	24	24	24	30	30	30	30	30
Wedge stroke K mm	23	23	23	23	23	23	23	23	28	28	28
L mm	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	3,5	3,5	3,5
M max. mm	66	86	66	86	86	86	108	108	165	126	165
M <sub>i</sub> <sup>H7</sup> mm	94	94	94	94	94	94	115	115	172	172	172
N mm	110	99	80	99	99	99	126	126	180	142	180
O min.	0	-6	2	2	-6	2	-9	1	-12	0	-6
O max.	23	17	25	25	17	25	14	24	16	28	22
P mm	19	25	25	25	25	25	25	25	35	35	35
Q mm	M74x1,5	M94x1,5	M74x1,5	M94x1,5	M94x1,5	M94x1,5	M120x1,5	M120x1,5	M172x3	M132x1,5	M172x3
T mm	124	124	132	132	124	132	135	145	153	159	159
U mm	M12	M12	M12	M12	M16	M16	M16	M16	M20	M20	M20
W mm	74	74	74	74	74	74	85	85	88	88	88
a min.	43,8	43,8	43,8	43,8	43,8	43,8	54,8	54,8	80,5	80,5	80,5
a max.	50	50	50	50	50	50	61	61	88	88	88
b min.	6	6	6	6	10,5	10,5	10,5	10,5	14,5	14,5	14,5
b max.	47,5	47,5	47,5	47,5	72	72	61	61	66,5	66,5	66,5
c mm	19	19	19	19	25	25	25	25	31	31	31
d mm	75	75	75	75	107,5	107,5	96,5	96,5	112	112	112
e mm	50	50	50	50	50	50	50	50	60	60	60
fH7-0,025 mm	17	17	17	17	21	21	21	21	25,5	25,5	25,5
g mm	108	108	108	108	108	108	136	136	190	190	190
h	M6x10	M6x10	M6x10	M6x10	M6x10	M6x10	M8x12	M8x12	M8x12	M8x12	M8x12
α	15°	0°	15°	0°	0°	0°	0°	0°	15°	15°	15°
Max. swing top jaws mm	305	305	305	305	380	380	380	380	520	520	520
Maximum draw bar pull kN	65	65	65	65	80	80	80	80	110	110	110
Max. total clamping force kN	150	150	150	150	180	180	180	180	250	250	250
Max. admissible speed min <sup>-1</sup>	5000	5000	5000	5000	4200	4200	4200	4200	3150	3150	3150
Moment of inertia J kgm <sup>2</sup>	0,35	0,35	0,35	0,35	0,74	0,74	0,74	0,74	2,4	2,4	2,4
Weight without jaws approx. kg	40	40	40	40	56	56	56	56	120	120	120
Actuating cylinders (recommended)	OVS-150 / SZS-67/150	OVS-150 / SZS-86/200	OVS-150 / SZS-67/150	OVS-200 / SZS-86/200	OVS-200 / SZS-86/200	OVS-200 / SZS-86/200	OVS-200 / SZS-110/250	OVS-200 / SZS-110/250	OVS 200 / -	OVS-200 / SZS-127/325	OVS-200 / -

<sup>1)</sup> ISO 702-1 (DIN 55026) only (DIN 55021 on request)

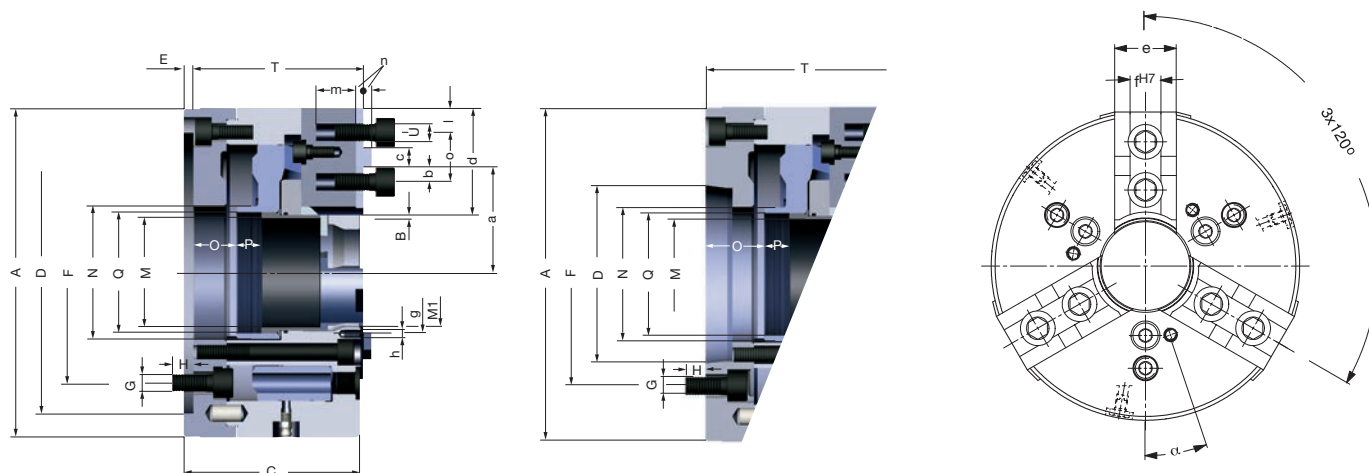
Power chuck with through-hole KFD-HS





Power chucks with through-hole

# KFD-HS 3-jaw, tongue and groove



C15

3-jaw power chuck **KFD-HS, with tightening thread, with tongue and groove**

Cylindrical centre mount, connection dimensions in acc. with **DIN 6353** / short taper mount (KK) for **ISO 702-1** (DIN 55026/55021)

Item No.	149846	149543	151532 ▲	156580 ▲	153182	157768	154239 ▲	155099
Size	110	110	140	140	160	160	200	200
Number of jaws	3	3	3	3	3	3	3	3
A mm	110	110	140	140	160	160	200	200
Jaw travel B mm	3,2	3,2	3,2	3,2	4	4	5	5
C mm	80	86	88	92	102	108	107	112
Mount D	ZA 60	KK 4 <sup>1)</sup>	ZA 120	KK 5	ZA 140	KK 5	ZA 170	KK 6
E mm	6	13	6	16	6	15	6	16
F mm	82,6	82,6	104,8	104,8	104,8	104,8	133,4	133,4
G	3xM10	3xM10	3xM10	3xM10	3xM10	3xM10	3xM12	3xM12
H mm	14	14	15	17	15	14	18	17
Wedge stroke K mm	12	12	12	12	15	15	18,5	18,5
M max. mm	26	26	37	37	46	46	66	66
M <sub>i</sub> <sup>H7</sup> mm	32	32	37	37	46	46	66	66
N mm	38	38	48	48	58	58	80	80
O min.	-1	11	5	13	6	16	7,5	16,5
O max.	11	23	17	25	21	31	26	35
P mm	12	12	14	14	16	16	15	15
Q mm	M34x1,5	M34x1,5	M44x1,5	M44x1,5	M54x1,5	M54x1,5	M74x1,5	M74x1,5
T mm	78	80	84	90	98	106	103	110
U mm	M8	M8	M12	M12	M12	M12	M12	M12
a min.	31,8	31,8	45,3	45,3	43	43	59	59
a max.	35	35	48,5	48,5	47	47	64	64
c mm	10	10	13	13	10	10	12	12
d mm	30	30	50	50	56	56	65	65
e mm	24	24	25	25	32	32	40	40
fH7-0,025 mm	10	10	8	8	16	16	16	16
g mm	50	50	68	68	76	76	84	84
h	M5x8	M5x8	M5x8	M5x8	M6x10	M6x10	M6x10	M6x10
l mm	6,5	6,5	29	29	15,5	15,5	15	15
m mm	11	11	19	19	18	18	20	20
n mm	3	3	3	3	5	5	5	5
α	0°	0°	22° 30'	22° 30'	20°	20°	20°	20°
Max. swing top jaws mm	113	113	180	180	170	170	210	210
Maximum draw bar pull kN	18	18	25	25	35	35	48	48
Max. total clamping force kN	48	48	70	70	86	86	110	110
Max. admissible speed min <sup>-1</sup>	8500	8500	8000	8000	8000	8000	6500	6500
Moment of inertia J kgm <sup>2</sup>	0,007	0,007	0,022	0,022	0,0415	0,0415	0,1	0,1
Weight without jaws approx. kg	5	5	9	9	12	12	20	20
Actuating cylinders (recommended)	OVS-85 / SZS-37/70	OVS-85 / SZS-37/70	OVS-105 / SZS-37/70	OVS-105 / SZS-37/70	OVS-105 / SZS-46/103	OVS-105 / SZS-46/103	OVS-130 / SZS-67/150	OVS-130 / SZS-67/150

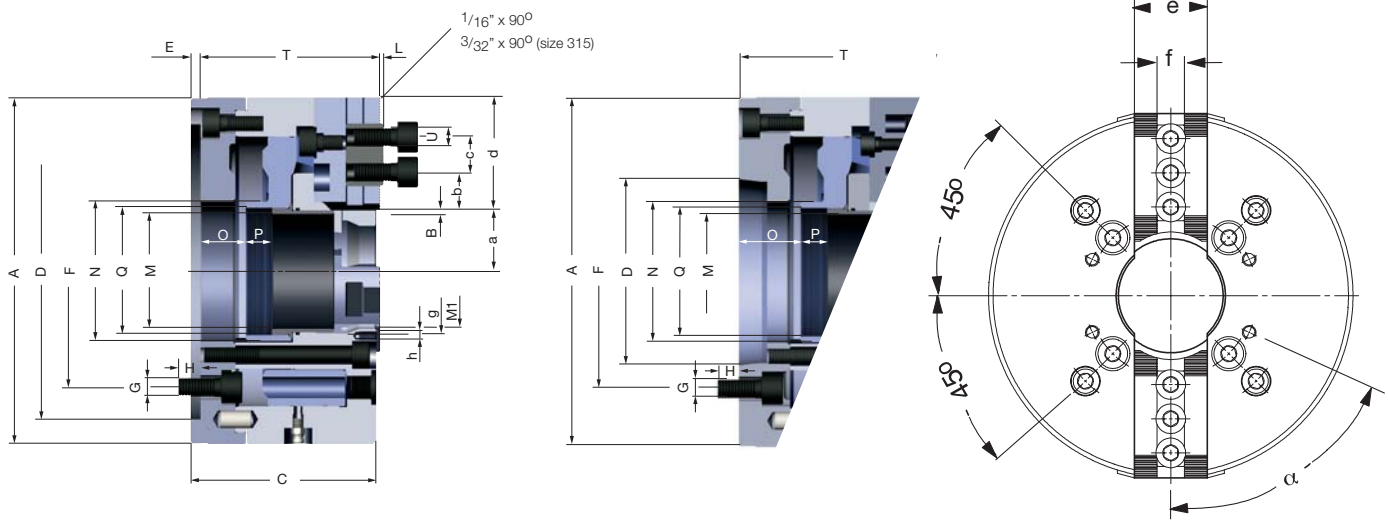
\* ISO 702-1 (DIN 55026) only (DIN 55021 on request)

Power chuck with through-hole KFD-HS



Power chucks with through-hole

# KFD-HS 2-jaw, serration 90°



C15  
2-jaw power chuck **KFD-HS**, with tightening thread, serration 90°  
Cylindrical centre mount, connection dimensions in acc. with **DIN 6353** / short taper mount (KK) for **ISO 702-1** (DIN 55026/55021)

Item No.	147281 ▲	147282 ▲	147285	147286	148036	148023	148031	162995
Size	160	160	200	200	250	250	250	315
Number of jaws	2	2	2	2	2	2	2	2
A mm	160	160	200	200	250	250	250	315
Jaw travel B mm	4	4	5	5	6,2	6,2	6,2	6,25
C mm	102	108	107	112	128	132	132	139
Mount D	ZA 140	KK 5	ZA 170	KK 6	ZA 220	KK 6	KK 8	ZA 300
E mm	6	15	6	16	6	15	19	6
F mm	104,8	104,8	133,4	133,4	171,4	133,4	171,4	235
G	4xM10	4xM10	4xM12	4xM12	4xM16	4xM12	4xM16	4xM20
H mm	15	14	18	17	24	18	24	30
Wedge stroke K mm	15	15	18,5	18,5	23	23	23	23
L mm	2,5	2,5	2,5	2,5	2,5	2,5	2,5	3,5
M max. mm	46	46	66	66	86	66	86	108
M <sub>i</sub> <sup>H7</sup> mm	46	46	66	66	94	94	94	115
N mm	58	58	80	80	99	80	99	126
O min.	6	16	7,5	16,5	-6	2	2	-9
O max.	21	31	26	35	17	25	25	14
P mm	16	16	15	15	25	25	25	25
Q mm	M54x1,5	M54x1,5	M74x1,5	M74x1,5	M94x1,5	M74x1,5	M94x1,5	M120x1,5
T mm	98	106	103	110	124	130	130	135
U mm	M8	M8	M 12	M12	M12	M12	M12	M16
W mm	-	-	-	-	-	74	74	85
a min.	24	24	35	35	43,8	43,8	43,8	54,8
a max.	28	28	40	40	50	50	50	61
b min.	0	0	8,5	8,5	6	6	6	10,5
b max.	22	22	32,5	32,5	47,5	47,5	47,5	61
c mm	2x15	2x15	19	19	19	19	19	25
d mm	52	52	60	60	75	75	75	96,5
e mm	32	32	40	40	50	50	50	50
fH7-0,025 mm	12	12	17	17	17	17	17	21
g mm	76	76	84	84	108	108	108	136
h	M6x10	M6x10	M6x10	M6x10	M6x10	M6x10	M6x10	M8x12
α	40°	40°	60°	60°	60°	60°	60°	60°
Max. swing top jaws mm	170	170	250	250	305	305	305	380
Maximum draw bar pull kN	20	20	30	30	42	42	42	55
Max. total clamping force kN	45	45	66	66	94	94	94	120
Max. admissible speed min <sup>-1</sup>	8000	8000	6500	6500	5000	5000	5000	4200
Moment of inertia J kgm <sup>2</sup>	0,0415	0,0415	0,1	0,1	0,35	0,35	0,35	0,62
Weight without jaws approx. kg	12	12	20	20	40	40	40	60
Actuating cylinders (recommended)	OVS-105 / SZS-46/103	OVS-105 / SZS-46/103	OVS-130 / SZS-67/150	OVS-130 / SZS-67/150	OVS-150 / SZS-67/150	OVS-150 / SZS-67/150	OVS-150 / SZS-86/200	OVS-200 / SZS-110/250

Other sizes on request

Power chuck with through-hole KFD-HS



Power chucks with through-hole

# Jaws KFD-HS

C 21

Reversible top jaws, hardened serration 90° - material: 16MnCr5



Chuck Size	2-jaw set	3-jaw set	Jaw length mm	Jaw height mm	Jaw width mm	Serration
110	-	149352	45	32	26	1/16"x 90°
140	046545	046544	56	37,5	26	1/16"x 90°
160/175	045796	046404	56	37,5	26	1/16"x 90°
160/175	-	351320	51,5	26	26	1/16"x 90°
200/250	118521	118522	75	49	36	1/16"x 90°
315	046435	046414	103,5	58	50	1/16"x 90°
400	046447	037531	135	65	68	3/32"x 90°

Additionally or later applied, hardened jaws must be ground out in the chuck

C 21

Soft top jaws, can be hardened serration 90° - material: 16MnCr5



Chuck Size	2-jaw set	3-jaw set	Jaw length mm	Jaw height mm	Jaw width mm	Serration
110	-	149353	45	38	26,5	1/16"x 90°
140	045794	046402	53	30	22,5	1/16"x 90°
160/175	045795	046403	55	38	26,5	1/16"x 90°
200	133147	133152	66,7	53	36,5	1/16"x 90°
250	133148	133153	75	53	36,5	1/16"x 90°
315	133149	133154	95	54,5	45	1/16"x 90°
400	133151	133156	130	80	50	3/32"x 90°

C 21

Soft top jaws, 3-jaw set, can be hardened tongue and groove, 120° bevelled, material: 16MnCr5



Chuck Size	3-jaw set	Jaw length mm	Jaw height mm	Jaw width mm
110	144082	53	30	22,5
140	123355	58	38	26,5
160	123358	72,7	53	36,5
200	123430	90,3	53	36,5

C 21

Claw-type jaws, 1 piece, hardened serration 90° - width of the groove 10



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
149920	110	42	27	37,1	1/16"x 90°
149921	110	42	27	23,4	1/16"x 90°
149922	110	47	27	17,7	1/16"x 90°

C 21

Claw-type jaws, 1 piece, hardened serration 90° - width of the groove 10



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
147259	140	50	27	41	1/16"x 90°
147261	140	44	27	22	1/16"x 90°

Jaws KFD-HS



Power chucks with through-hole

# Jaws KFD-HS

C 21

Claw-type jaws, 1 piece, hardened serration 90° - width of the groove 12



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
144320	160/175	66	38	52	1/16"x 90°
144321	160/175	56	38	34	1/16"x 90°
144322	160/175	66	38	25	1/16"x 90°

C 21

Claw-type jaws, 1 piece, hardened serration 90° - width of the groove 17



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
137031	200/250	67	45	53	1/16"x 90°
137032	200/250	65	45	46	1/16"x 90°
137033	200/250	55	45	39	1/16"x 90°
137034	200/250	50	45	31	1/16"x 90°
137035	200/250	55	45	27	1/16"x 90°
137036	200/250	65	45	19	1/16"x 90°
137037	200/250	65	45	26	1/16"x 90°
137038	200/250	55	45	24	1/16"x 90°
137039	200/250	55	45	40	1/16"x 90°

C 21

Claw-type jaws, 1 piece, hardened serration 90° - width of the groove 21



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
137041	250/315	95	50	80	1/16"x 90°
137042	250/315	75	50	60	1/16"x 90°
137043	250/315	60	50	43	1/16"x 90°
137044	250/315	70	50	37	1/16"x 90°
137045	250/315	95	50	25	1/16"x 90°
137046	250/315	80	50	30	1/16"x 90°

C 21

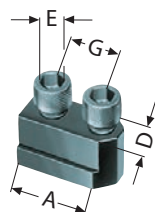
Claw-type jaws, 1 piece, hardened serration 90° - width of the groove 25,5



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
137051	400	130	65	113	3/32"x 90°
137052	400	90	65	67	3/32"x 90°
137053	400	100	65	45	3/32"x 90°
137054	400	130	65	33	3/32"x 90°

# Accessories KFD-HS

C 15 Extended T-nuts  
With screw



Item no.	Chuck Size	Contents of delivery	A mm	D mm	E	G mm
1305164▲	110	piece	30	10	M8x20	15
1305165	140	piece	34	10	M6x18	2x12
1305166	160/175	piece	42	12	M8x20	2x15
1305167	200	piece	36	17	M12x25	19
1305168	250	piece	36	17	M12x25	19
1305169	315	piece	46	21	M16x30	25
1305170	400	piece	59	25,5	M20x40	31

A09 Special grease F80 for lathe chucks  
For lubrication and conservation of chucking power



Item no.	Design	Contents
308555	Cartridge (DIN 1284) Ø 53.5x235mm	0,5 kg
028975	Tin	1 kg

C15 Grease gun DIN1283



Item no.	Connection	Contents of delivery
329093	M10x1	150 mm nozzle tube bent, needlepoint mouthpiece, top mouthpiece, 300 mm high pressure hose with 4 jaw hydraulics cross mouthpiece



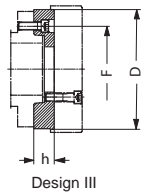
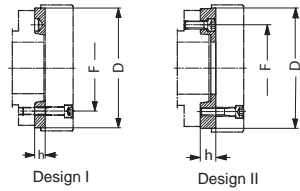
Power chucks with through-hole

## Accessories KFD-HS

C 15

Intermediate adaptor plates with cylindrical centre mount DIN 6353 for 3-jaw chucks

Mounting from front to ISO 702-1 (DIN 55026/55021) and ASA B 5.9 A1/A2 with metric mounting bolts



Item no.	Spindle nose size	Size	Design	h mm	F mm	D mm
145125 <sup>1)</sup>	4	160	II	18	82,6	140
145153	5	175	I	15	104,8	140
145127	5	200	II	21	104,8	170
145129	6	160	III	35	133,4	140
145297	6	175	III	35	133,4	140
145155	6	200	I	16	133,4	170
145131	6	250	II	27	133,4	220
145135	8	200	III	39	171,4	170
145157	8	250	I	18	171,4	220
145139▲	8	315	II	38	171,4	300
145143▲	11	250	III	48	235	220
145159	11	315	I	19	235	300
145147	11	400	II	40	235	380
145161	15	400/500/630	I	21	330,2	380

<sup>1)</sup> DIN 55021 on request

All fastening parts are included

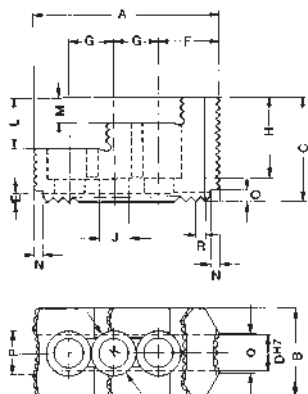
Intermediate adaptor plate for 2-jaw version on request



Technical data

# Jaw dimensions KFD-HS

Reversible top jaws UB,  
hardened, serration 90°,  
material 16MnCr5

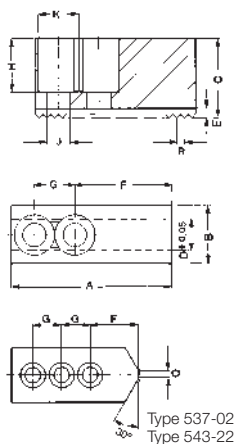


Chuck size	110	140	160/175	160	200/250	315	400/500
Type	543-21	537-02	538-02	543 1)	538-04	538-05	538-07
Item no. 2-jaw	-	046545	045796	-	118521	046435	046447
Item no. 3-jaw	149352	046544	046404	351320	118522	046414	037531
A	45	56	56	51,5	75	103,5	135
B	26	26	26	26	36	50	68
C	32	37,5	37,5	26	49	58	65
DH7	10	10	12	12	17	21	25,5
E	3,5	3,5	3,5	3,5	5	5	5
F	15	10	14	23	21,5	33,5	48
G	15	12 2)	15	15 3)	19	25	31
H	23	29	29	17	37,5	45	48
J	8,4	6,4	8,4	9	13	17	21
K	13,5	10,4	13,5	14	19	25	31
L	14	20	20	-	24	28	-
M	7	10	10	8	12	14	26
N	4	4	4	3	6	6	6,5
O	4	4	4	4	7,5	6,5	5,5
P	8	5	5	20	18	24,5	34
Q	5	5	5	3	7	22,5	40
R	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	3/32"x90°
Weight/jaw kg	0,155	0,130	0,170	0,150	0,460	1,130	2,000

1) One step only, for 8000 min<sup>-1</sup>  
2) 4 mounting holes

3) 2 mounting holes

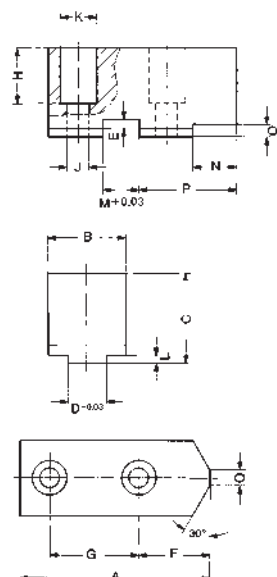
Soft top jaws AB,  
serration 90°,  
material 16MnCr5



Chuck size	110	140	160/175	200	250	315	400/500
Type	543-22	537-02	538-02	538-03	538-04	538-05	538-07
Item no. 2-jaw	-	045794	045795	133147	133148	133149	133151
Item no. 3-jaw	149353	046402	046403	133152	133153	133154	133156
A	45	53	55	66,7	75	95	130
B	26,5	22,5	26,5	36,5	36,5	45	50
C	38	30	38	53	53	54,5	80
D	10	10	12	17	17	21	25,5
E	3,5	3,5	3,5	5	5	5	5
F	15	20	31	36	44	55	79
G	15	12 1)	15	19	19	25	31
H	23	20	28	43	43	42,5	60
J	8,4	6,4	8,4	13	13	17	21
K	13,5	10,4	13,5	19	19	25	31
Q	5	3	-	-	-	-	-
R	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	1/16"x90°	3/32"x90°
Weight/jaw kg	0,210	0,223	0,320	0,700	0,880	1,400	3,100

1) 3 mounting holes

Soft top jaws AB,  
with tongue and groove,  
material 16MnCr5



Chuck size	110	140	160	200
Type	549-10	538-22	538-13	538-14
Item no. 3-jaw	144082	123355	123358	123430
A	53	58	72,7	90,3
B	22,5	26,5	36,5	36,5
C	30	38	53	53
D <sub>0,03</sub>	10	8	16	16
E	3,5	3,5	5,5	5,5
F	26,5	31,5	32,2	45,3
G	17	-	25	30
H	20	25	38	38
J	9	13	13	13
K	15	19	19	19
L	2,5	2,5	4,5	4,5
M <sub>+0,03</sub>	10	13	10	12
N	20	23	24,7	35,3
O	4	3	5	5
P	30	39,5	39,7	54,3
Q	3	3	3	6
Weight/jaw kg	0,21	0,46	0,720	1,0

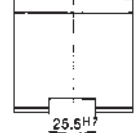
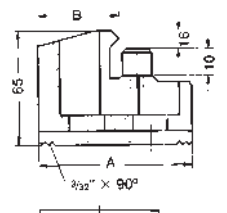
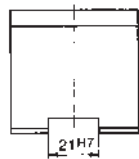
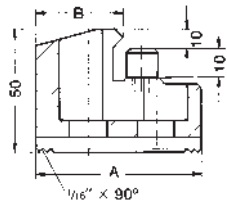
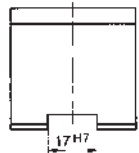
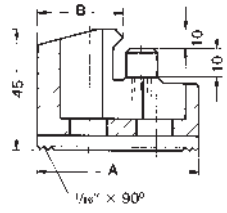
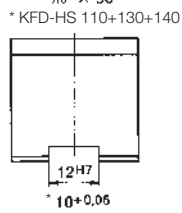
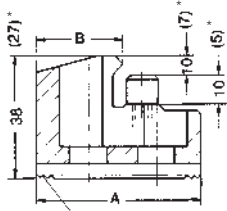
Jaw dimensions  
KFD-HS



Technical data

# Jaw dimensions KFD-HS

Claw type jaws KB  
serration 90°



Piece	A	B	H	KFD-HS 110 External chucking	Piece	A	B	KFD-HS 140 External chucking
Item no.					Item no.			
149920	42	37,1	27	20-49	147259	50	41	27-67/35-72
149921	42	23,4	27	47-70	147261	44	22	58-108/61-114
149922	47	17,7	27	68-100				
Piece	A	B	H	KFD-HS 110 Internal chucking	Piece	A	B	KFD-HS 140 Internal chucking
Item no.					Item no.			
149922	47	17,7	27	45-75	147261	44	22	58-108/61-114
149921	42	23,4	27	56-102	147259	50	41	100-130/106-140
149920	42	37,1	27	84-130				

Piece	A	B	KFD-HS 160 External chucking	KFD-HS 175 External chucking
Item no.				
144320	66	52	38-84	48-100
144321	56	34	78-122	88-140
144322	66	25	120-146	130-160
Piece	A	B	KFD-HS 160 Internal chucking	KFD-HS 175 Internal chucking
Item no.				
144322	66	25	70-100	70-115
144321	56	34	92-140	102-155
144320	66	52	122-180	132-195

Piece	A	B	KFD-HS 200 External chucking	KFD-HS 250 External chucking
Item no.				
137031	67	53	55-110	68-162
137032	65	46	68-124	80-173
137039	55	40	95-150	108-200
137034	50	31	102-158	115-206
137035	55	27	110-168	125-220
Piece	A	B	KFD-HS 200 Internal chucking	KFD-HS 250 Internal chucking
Item no.				
137036	65	19	65-125	80-172
137037	65	26	86-142	100-192
137038	55	24	100-156	112-206
137035	55	27	120-178	135-228
137034	50	31	132-188	145-236
137039	55	40	136-195	150-245
137033	55	39	150-207	165-257
137032	65	46	164-222	179-270

Piece	A	B	KFD-HS 315 (86) <sup>1)</sup> External chucking	KFD-HS 315 (108) <sup>1)</sup> External chucking
Item no.				
137041	95	80	46-175	65-175
137042	75	60	92-220	104-220
137043	60	43	114-250	135-250
137044	70	37	142-275	166-275
Piece	A	B	KFD-HS 315 (86) <sup>1)</sup> Internal chucking	KFD-HS 315 (108) <sup>1)</sup> Internal chucking
Item no.				
137045	95	25	65-200	82-200
137046	80	30	108-242	130-242
137044	70	37	142-275	164-275
137043	60	43	170-305	195-305
137042	75	60	202-340	224-340

Piece	A	B	KFD-HS 400 External chucking	KFD-HS 400 (165) <sup>1)</sup> External chucking
Item no.				
137051	130	113	70-270	94-270
137052	90	67	150-304	183-304
137053	100	45	175-390	210-390
Piece	A	B	KFD-HS 400 Internal chucking	KFD-HS 400 (165) <sup>1)</sup> Internal chucking
Item no.				
137054	130	33	96-290	110-290
137053	100	45	160-305	195-305
137051	130	113	280-490	302-490

1) Chuck through-hole M

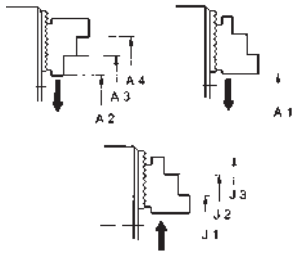
Jaw dimensions  
KFD-HS



Technical data

# Chucking capacities KFD-HS

Chucking capacities with reversible top jaws UB, for 3-jaw chucks



Chuck size		110	140	160	160*	175	200	200**	250	315	400
with reversible jaws	Type	543-21	527-02	538-02	543	538-02	538-04	543-09	538-04	538-05	538-07
	Jaw position										
External chucking	A1	6-46	5-68	6-67	4-52	6-82	12-98	4-70	22-144	25-169	30-203
	A2	-	-	-	21-73	-	26-112	-	40-156	45-196	47-250
	A3	41-76	52-115	53-118	-	54-133	82-165	-	94-210	127-280	-
	A4	68-106	87-150	88-165	94-146	90-180	132-218	112-170	146-262	209-360	245-453
Internal chucking	J1	42-80	35-100	36-99	32-84	36-114	61-144	60-126	76-192	76-216	96-280
	J2	70-108	70-135	71-134	-	71-149	110-198	-	128-244	150-348	-
	J3	96-135	117-182	118-181	102-157	118-196	162-248	-	182-298	230-380	277-478

\* One step only

\*\* One step only, extended





Power chucks with through-hole

# KFD-HE



### APPLICATION

Standard power chuck with through-hole for bar and tube machining, as well as for flange-type workpieces.

### TYPE

Standard version with cylindrical centre mount.  
3-jaw version with serration 90° and 60°.  
Universal draw tube adapter at serration 60°.

### CUSTOMER BENEFITS

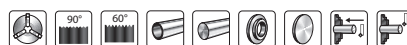
- ② Large through-hole for hollow or partially hollow clamping
- ② Long-tested chuck principle for maximum service life

### TECHNICAL FEATURES

- Power transmission by means of wedge hook principle
- Direct lubrication of all wear surfaces
- Sturdy chuck construction

### Included in the scope of delivery:

Chuck, chuck and jaw mounting screws, mounting wrench, slot nuts (without top jaws)



### Gripping force/speed diagram

The loss of gripping force was determined experimentally on a chuck with matched UB top jaws. It is largely independent of the initial gripping force at zero speed.

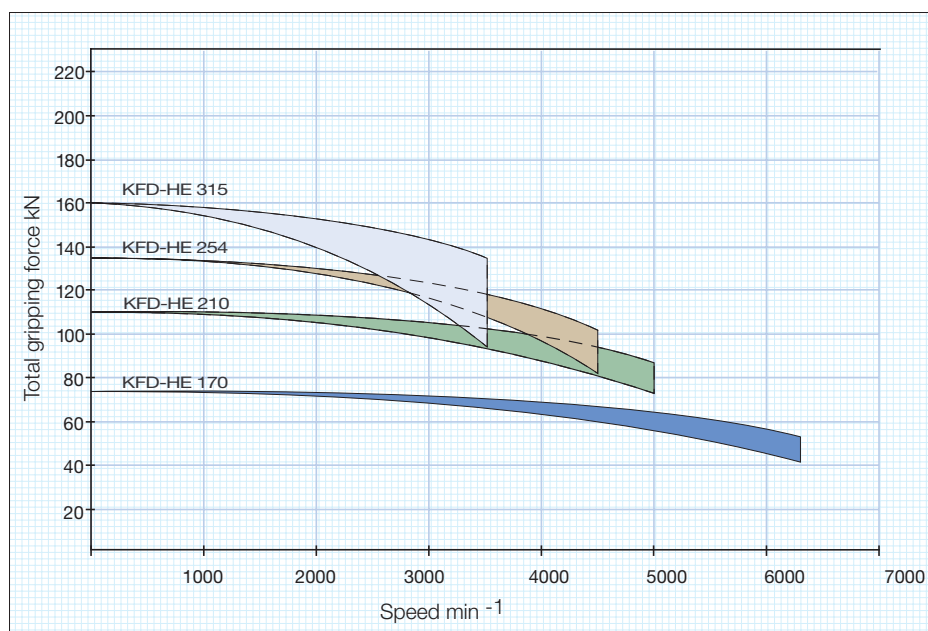
Upper curve:  
min. centrifugal  
force of top jaw



Lower curve:  
max. centrifugal  
force of top jaw



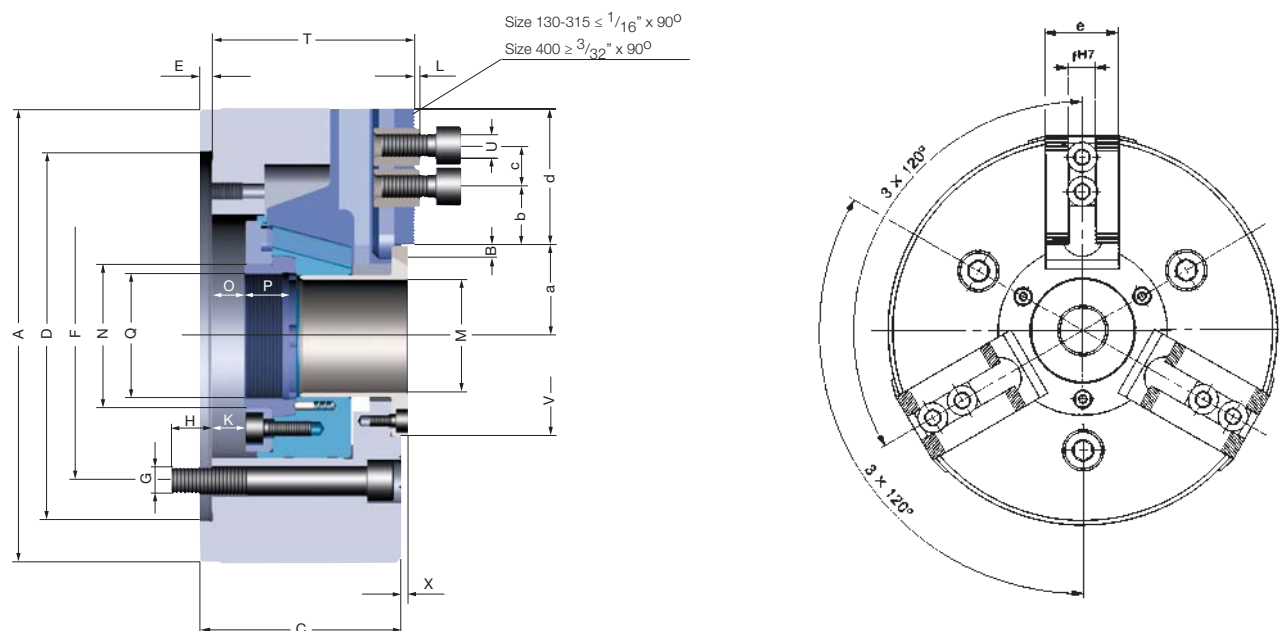
To obtain the specified gripping forces, the chuck must be in a perfect condition and lubricated with F 80 lubricant recommended by RÖHM. Measuring point near chuck face.





Power chucks with through-hole

# KFD-HE 3-jaw, standard design, serration 90°



C 15  
3-jaw power chuck KFD-HE, serration 90°, cylindrical centre mount, mounting dimensions to DIN 6353

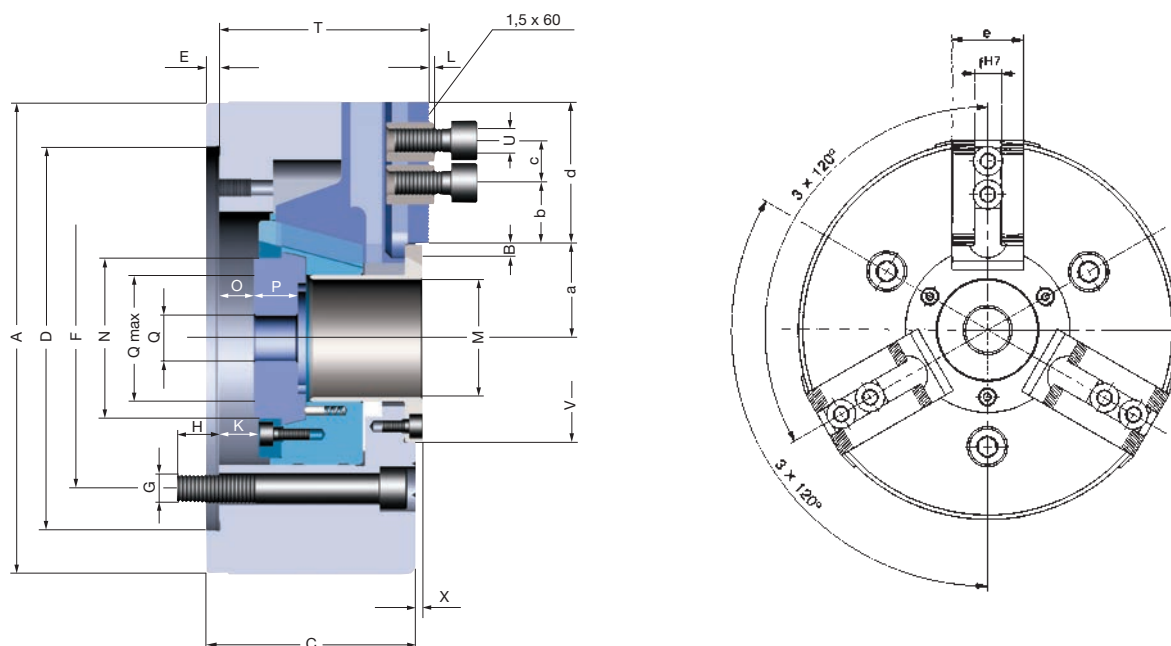
Item No.	154384	154031	154032	154829
Size	170	210	254	315
Number of jaws	3	3	3	3
A mm	170	210	254	315
Jaw travel B mm	3,2	4,3	5,1	5,3
C mm	82	93	101	114
D <sup>±6</sup> mm	140	170	220	300
E mm	6	6	6	6
F mm	104,8	133,4	171,4	235
G mm	3 x M 10	3 x M 12	3 x M 16	3 x M 20
H mm	15	19	23	28
Wedge stroke K mm	14	16	19	23
L mm	2,5	2,5	2,5	2,5
Through-hole M mm	43	52	75	121
N mm	57	66	94	143
O min.	-2,6	-0,7	-10,3	-9,4
O max.	11,4	15,3	8,7	13,6
P mm	19	20,5	28	26
Q mm	M 52 x 1,5	M 58 x 1,5	M 82 x 1,5	M 126 x 1,5
T mm	82	93	101	114
U mm	M 8	M 12	M 16	M 16
V <sup>H7</sup> <sub>-0,05</sub> mm	74	92	125	170
X mm	3	3	3	3
a min.	34,8	37,7	50,9	72,2
a max.	38	42	56	77,5
b min.	7,5	9	10	12
c min.	2 x 15	19	25	25
c max.	-	47	59	69
d mm	47	63	71	80
e mm	32	40	50	50
fH7-0,025 mm	12	17	21	21
Max. swing top jaws mm	230	290	345	410
Maximum draw bar pull kN	25	40	60	60
Max. total clamping force approx. kN	75	110	135	160
Max. admissible speed min <sup>-1</sup>	6300	5000	4500	3500
Moment of inertia J kgm <sup>2</sup>	0,038	0,09	0,22	0,8
Weight without jaws approx. kg	12	18	29	50
Actuating cylinders (recommended)	OVS-105 / SZS-46/103	OVS-130 / SZS-52/130	OVS-150 / SZS-77/170	OVS-200 / SZS-127/325

Power chuck with through-hole KFD-HE



Power chucks with through-hole

# KFD-HE 3-jaw, universal draw tube connector, serration 60°



C 15  
3-jaw power chuck KFD-HE, serration 60°, with pre-machined draw tube-connector, adaptor recess, cylindrical centre mount, mounting dimensions to DIN 6353

Item No.	154390	154391	154392 ▲	154830
Size	170	210	254	315
Number of jaws	3	3	3	3
A mm	170	210	254	315
Jaw travel B mm	3,4	4,3	5,1	5,3
C mm	82	93	101	114
D <sup>Ø</sup> mm	140	170	220	300
E mm	6	6	6	6
F mm	104,8	133,4	171,4	235
G mm	3 x M 10	3 x M 12	3 x M 16	3 x M 20
H mm	15	19	23	28
Wedge stroke K mm	14	16	19	23
L mm	3,2	3,2	3,2	3,2
Through-hole M mm	43	52	75	121
N mm	57	66	94	143
O min.	-2,6	-0,7	-10,3	-9,4
O max.	11,4	15,3	8,7	13,6
P mm	19	20,5	28	26
Q mm	Ø 20	Ø 30	Ø 45	Ø 60
Q max.	M 53 x 1,5	M 60 x 2	M 85 x 2	M 130 x 2
T mm	82	93	101	114
U mm	M 10	M 12	M 12	M 16
V <sup>±0,05</sup> mm	74	92	125	170
X mm	3	3	3	3
a min.	34,8	37,7	50,9	72,7
a max.	38	42	56	77,5
b min.	4,5	9	8	12
c min.	20	25	30	30
d mm	47	63	71	80
e mm	32	40	50	50
fH7-0,025 mm	12	14	16	21
Max. swing top jaws mm	230	290	345	410
Maximum draw bar pull kN	25	40	60	60
Max. total clamping force approx. kN	75	110	135	160
Max. admissible speed min <sup>-1</sup>	6300	5000	4500	3500
Moment of inertia J kgm <sup>2</sup>	0,038	0,9	0,22	0,8
Weight without jaws approx. kg	12	18	29	50
Actuating cylinders (recommended)	OVS-105 / SZS-46/103	OVS-130 / SZS-52/130	OVS-150 / SZS-77/170	OVS-200 / SZS-127/325

Interchangeable with Kitagawa B-200A

Power chuck with through-hole KFD-HE



Power chucks with through-hole

# Jaws KFD-HE

C 21

Reversible top jaws, 3-jaw set, hardened serration 90° - material: 16MnCr5



Chuck Size	3-jaw set	Jaw length mm	Jaw height mm	Jaw width mm	Serration
170	046404	56	37,5	26	1/16"x 90°
210	118522	75	49	36	1/16"x 90°
254/315	046414	103,5	58	50	1/16"x 90°

Additionally or later applied, hardened jaws must be ground out in the chuck.

C 21

Reversible top jaws, 3-jaw set, hardened serration 60° - material: 16MnCr5



Chuck Size	3-jaw set	Jaw length mm	Jaw height mm	Jaw width mm	Serration
170	154674 <sup>1)</sup>	66	36	34,7	1,5 x 60°
210	154676	81	49	36	1,5 x 60°
254	154678	99,5	54	44,5	1,5 x 60°
315	154816 <sup>1)</sup>	103	55,5	50	1,5 x 60°

<sup>1)</sup> One step only

Additionally or later applied, hardened jaws must be ground out in the chuck.

C 21

Soft top jaws, 3-jaw set, can be hardened serration 90° - material: 16MnCr5



Chuck Size	3-jaw set	Jaw length mm	Jaw height mm	Jaw width mm	Serration
170	046403	55	38	26,5	1/16"x 90°
210	133153	75	53	36,5	1/16"x 90°
254/315	133154	95	54,5	45	1/16"x 90°

C 21

Soft top jaws, 3-jaw set, can be hardened serration 60° - material: 16MnCr5



Chuck Size	3-jaw set	Jaw length mm	Jaw height mm	Jaw width mm	Serration
170	154865	72	43	30,5	1,5 x 60°
210	154867	95	45,5	35	1,5 x 60°
254	154869	110	45	50	1,5 x 60°
315	154871	130	55,5	50	1,5 x 60°

Jaws KFD-HE



Power chucks with through-hole

## Jaws KFD-HE

C 21

Claw-type jaws, 1 piece, hardened serration 60° - width of the groove 12



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
156025	170	67	45	53	1,5 x 60°
156027	170	65	45	46	1,5 x 60°
156029	170	55	45	40	1,5 x 60°
161189	170	55	45	24	1,5 x 60°

C 21

Claw-type jaws, 1 piece, hardened serration 60° - width of the groove 16



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
156099	254	95	50	80	1,5 x 60°
156101	254	75	50	60	1,5 x 60°
156103	254	60	50	43	1,5 x 60°
156105	254	70	50	37	1,5 x 60°

C 21

Claw-type jaws, 1 piece, hardened serration 90° - width of the groove 17



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
137031	210	67	45	53	1/16"x 90°
137032	210	65	45	46	1/16"x 90°
137039	210	55	45	40	1/16"x 90°
137034	210	50	45	31	1/16"x 90°
137035	210	55	45	27	1/16"x 90°
137036	210	65	45	19	1/16"x 90°
137037	210	65	45	26	1/16"x 90°
137038	210	55	45	24	1/16"x 90°
137033	210	55	45	39	1/16"x 90°

C 21

Claw-type jaws, 1 piece, hardened serration 90° - width of the groove 21



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Claw length mm	Serration
137041	254/315	95	50	80	1/16"x 90°
137042	254/315	75	50	60	1/16"x 90°
137043	254/315	60	50	43	1/16"x 90°
137044	254/315	70	50	37	1/16"x 90°
137045	254/315	95	50	25	1/16"x 90°
137046	254/315	80	50	30	1/16"x 90°

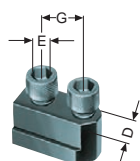
Jaws KFD-HE



Power chucks with through-hole

## Accessories KFD-HE

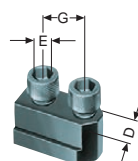
C 15 T-nuts  
with screw, for SV 1/16" x 90°



Item no.	Chuck Size	Con- tents of delivery	D mm	E	G mm
1305166	170	piece	12	M8x20	2x15
1305172 <sup>1)</sup>	210	Piece	17	M12x25	-
1356253	254/315	piece	21	M16x30	-

<sup>1)</sup> Simple slot nut

C 15 T-nuts  
with screw, for SV 1,5" x 60°



Item no.	Chuck Size	Con- tents of delivery	D mm	E	G mm
1028192 ▲	170	piece	12	M10x25	20
1028193	210	piece	14	M12x30	25
1028194	254	piece	16	M12x30	30
1028196	315	piece	21	M16x40	30

C 15 Special grease F80 for lathe chucks  
for lubrication and conservation of clamping force



Item no.	Design	Contents
308555	Cartridge	0,5 kg
028975	Tin	1 kg

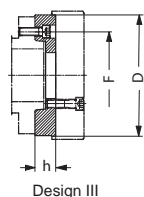
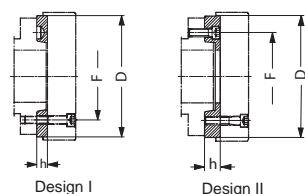
C15 Grease gun DIN1283



Item no.	Conne- ction	Contents of delivery
329093	M10x1	150 mm nozzle tube bent, needlepoint mouthpiece, top mouthpiece, 300 mm high pressure hose with 4 jaw hydraulics cross mouthpiece

## Accessories KFD-HE

C 15  
Intermediate adaptor plates with cylindrical centre mount DIN 6353 for 3-jaw chucks  
Mounting from front to ISO 702-1 (DIN 55026/55021) and ASA B 5.9 A1/A2 with metric mounting bolts



Item no.	Spindle nose size	Size	Design	h mm	F mm	D mm
145125 <sup>1)</sup>	4	170	II	18	82,6	140
145153	5	170	I	15	104,8	140
145127	5	210	II	21	104,8	170
145129	6	170	III	35	133,4	140
145155	6	210	I	16	133,4	170
145131	6	254	II	27	133,4	220
145135	8	210	III	39	171,4	170
145157	8	254	I	18	171,4	220
145139 ▲	8	315	II	38	171,4	300
145143 ▲	11	254	III	48	235	220
145159	11	315	I	19	235	300

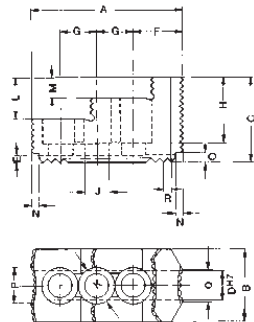
All fastening parts are included  
<sup>1)</sup> DIN 55021 auf Anfrage



Technical data

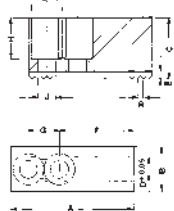
# Jaw dimensions KFD-HE

Reversible top jaws UB,  
hardened, serration 90°,  
material 16MnCr5



Chuck size	170	210	254/315
Type	537-02	538-04	538-05
Item no. 3-jaw	046404	118522	046414
A	56	75	103,5
B	26	36	50
C	37,5	49	58
DH7	12	17	21
E	3,5	5	5
F	14	21,5	33,5
G	15	19	25
H	29	37,5	45
J	8,4	13	17
K	13,5	19	25
L	20	24	28
M	10	12	14
N	4	6	6
O	4	7,5	6,5
P	5	18	24,5
Q	5	7	22,5
R	1/16"x90°	1/16"x90°	1/16"x90°
Weight/jaw kg	0,130	0,460	1,130

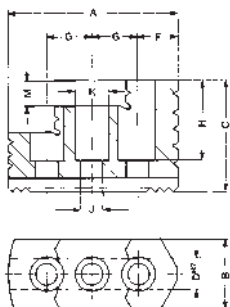
Soft top jaws AB,  
serration 90°,  
material 16MnCr5



Type 537-02  
Type 543-22

Chuck size	170	210	254/315
Type	538-02	538-04	538-05
Item no. 3-jaw	046403	133153	133154
A	55	75	95
B	26,5	36,5	45
C	38	53	54,5
D	12	17	21
E	3,5	5	5
F	31	44	55
G	15	19	25
H	28	43	42,5
J	8,4	13	17
K	13,5	19	25
Q	-	-	-
R	1/16"x90°	1/16"x90°	1/16"x90°
Weight/jaw kg	0,320	0,880	1,400

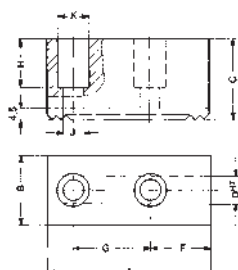
Reversible top jaws UB,  
serration 60°,  
material 16MnCr5



Chuck size	170	210	254	315
Type	543-31	543-31	543-31	543-31
Item no. 3-jaw	154674 1)	154676	154678	154816 1)
A	66	81	99,5	103
B	34,7	36	44,5	50
C	36	49	54	55,5
D	12	14	16	21
F	12,5	17,5	25,5	22,5
G	20	25	30	30
H	23	36,5	38,5	34
J	11	13	13	17
K	17	19	19	25
Serration	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°
Weight/jaw kg	0,3	0,6	1,2	1,5

1) One step only

Soft top jaws AB,  
can be hardened, serration 60°,  
material 16MnCr5



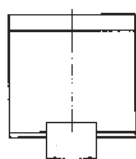
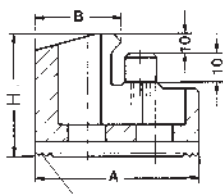
Chuck size	170	210	254	315
Type	543-32	543-32	543-32	543-32
Item no. 3-jaw	154865	154867	154869	154871
A	72	95	110	130
B	32,5	35	50	50
C	40	45,5	45	55,5
D	12	14	16	21
F	37	46	50	52
G	20	25	30	30
H	27	33	29	34
J	11	13	13	17
K	17	19	19	25
Serration	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°
Weight/jaw kg	0,5	0,9	1,7	1,9



Technical data

# Chucking capacities KFD-HE

Claw-type jaws KB  
serration 90°



Piece	A	B	KFD-HE 170 1,5 x 60° External chucking
Item no.			
156025	67	53	39-83
156027	65	46	52-98
156029	55	40	78-124
161189	55	24	110-155
Piece	A	B	KFD-HE 170 1,5 x 60° Internal chucking
Item no.			
161189	55	24	92-135
156029	55	40	125-168
159027	65	46	150-190

Piece	A	B	KFD-HE 210 1/16x90° External chucking
Item no.			
137031	67	53	60-96
137032	65	46	73-111
137039	55	40	88-127
137034	50	31	105-142
137035	55	27	119-157
Piece	A	B	KFD-HE 210 1/16x90° Internal chucking
Item no.			
137036	65	19	72-110
137037	65	26	90-125
137038	55	24	104-144
137035	55	27	124-156
137034	50	31	136-163
137039	55	40	144-175
137033	55	39	154-205
137032	65	46	168-218

Piece	A	B	KFD-HE 254 1,5 x 60° External chucking
Item no.			
156099	95	80	60-102
156101	75	60	99-140
156103	60	43	132-174
156105	70	37	163-205
Piece	A	B	KFD-HE 254 1,5 x 60° Internal chucking
Item no.			
156101	75	60	222-275
156103	60	43	188-250
156105	70	37	158-198

Piece	A	B	KFD-HE 254 1/16x90° External chucking	KFD-HE 315 1/16x90° External chucking
Item no.				
137041	95	80	53-95	66-160
137042	75	60	92-133	105-198
137043	60	43	125-167	138-232
137044	70	37	156-198	169-263
Piece	A	B	KFD-HE 254 1/16x90° Internal chucking	KFD-HE 315 1/16x90° Internal chucking
Item no.				
137045	95	25	68-112	81-177
137046	80	30	108-154	121-219
137044	70	37	146-186	159-240
137043	60	43	178-240	191-305
137042	75	60	212-265	225-330

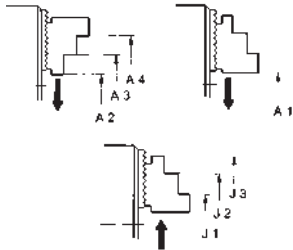
Chucking capacities  
KFD-HE





# Chucking capacities KFD-HE

Chucking capacities with reversible top jaws UB



Chuck size		170	210	254	315
with reversible jaws 1/16" x 90°	Type	538-02	538-04	538-05	538-05
	Jaw position				
External chucking	A1	20-83	19-108	25-134	57-189
	A2	-	36-128	48-162	50-217
	A3	80-150	94-182	130-226	134-297
	A4	120-192	145-234	210-272	212-332
Internal chucking	J1	63-130	78-156	80-190	70-233
	J2	102-173	128-209	156-261	146-313
	J3	154-210	181-263	246-338	236-393

Chuck size		170	210	254	315
with reversible jaws 1,5 x 60°	Type	543-31	543-31	543-31	543-31
	Jaw position				
External chucking	A1	17-100	19-111	25-130	28-190
	A2	-	-	-	-
	A3	97-174	82-170	124-219	-
	A4	-	133-224	170-265	170-317
Internal chucking	J1	74-154	63-160	84-197	116-271
	J2	-	112-213	129-244	-
	J3	-	170-273	211-328	-



Notes

Notes



Power chucks with through-hole

## KFG - power operated angle lever chuck



### APPLICATION

Optimally suited for clamping tasks demanding through-hole, flexibility, large strokes and low frictional losses.

### TYPE

Angle lever power chuck with cylindrical centre mount.  
3-jaw version with serration 60°.

### CUSTOMER BENEFITS

- ④ Large through-hole
- ④ Large jaw strokes and flexible use can be realized with angle lever system
- ④ High efficiency thanks to low frictional losses (low-hysteresis chuck)
- ④ Long service life - all moving parts are hardened and ground

### TECHNICAL FEATURES

- Wide guidance of base jaws
- T-slots in the chuck body
- Lubrication of the jaw guide via easily accessible grease nipples on the axes of the angle lever

### Included in the scope of delivery:

Chuck, chuck and jaw mounting screws, wrench, slot nuts, 2 wrenches for the sliding sleeve (without top jaws)



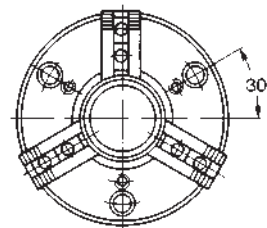
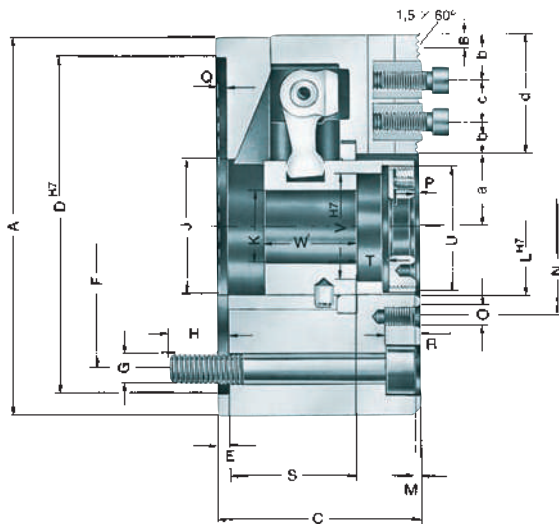
Big range of applications thanks to large through-hole. Suitable for bar machining and other different workpieces. The axial pull force is translated into the radial jaw movement supported by the angle lever.

**KFG** - Extra large jaw stroke

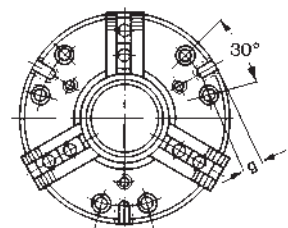


Power chucks with through-hole

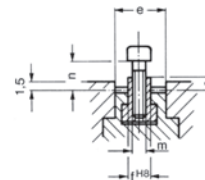
# KFG 3-jaw, large jaw movement, serration 60°



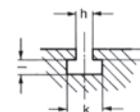
KFG 160



KFG 215 - 350



Serration base jaw



Clamping groove from KFG 215

C 15  
3-jaw angle lever power chucks KFG, large jaw movement, with serration 60°, cylindrical centre mount

Item No.	020666 ▲	020667 ▲	020668 ▲	020669 ▲
Size	160	215	280	350
Number of jaws	3	3	3	3
A mm	160	215	280	350
Jaw travel B mm	16	20	25	25
C mm	79	92	116,2	134,7
DH7	140	190	255	320
E mm	4,2	4,2	5,7	5,7
F mm	104,8	133,4	133,4	171,4
G	3xM10	6xM12	6xM12	6xM16
H mm	20	25	25	35
J mm	54	74	102	135
K mm	26	45,5	66,5	90,5
LH7 mm	66	80	105	140
M mm	2,5	2,5	2,5	2,5
N mm	76	90	120	156
O	M6	M 8	M 8	M 10
P mm	14	16,5	18,7	13,1
Q mm	3,2	3,7	3,2	4,1
R mm	13	15	15	20
S min.	19,8	25,3	28,8	32,9
S max.	39,8	50,3	63,8	77,9
T mm	8	12	18	22
U mm	M46x1,25	M65x1,25	M90x1,25	M112x1,5
V <sup>H7</sup> mm	43	62	87	109
W mm	23	29	32	37
a min.	23	31,5	47,5	69,5
a max.	39	51,5	72,5	94,5
b mm	8	10	13	14
c min.	16	20	26	28
c max.	41	46	54	65
d mm	57	66	80	93
e mm	28	35	45	50
fH8 mm	11	14	20	21
g mm	-	35	63	73,5
h mm	-	16	16	22
i mm	-	10	10	15
k mm	-	24	24	35
l mm	-	10	10	17
m mm	M8	M10	M12	M16
n mm	7,5	8,5	13	15
o mm	1,5	1,5	2,5	3
Max. swing top jaws mm	242	295	380	480
Maximum draw bar pull kN	24	33,9	43	52
Max. total clamping force approx. kN	21	30	42	66
Max. admissible speed min <sup>-1</sup>	3400	2700	1950	1800
Moment of inertia J kgm <sup>2</sup>	0,031	0,11	0,425	1,22
Weight without jaws approx. kg	9,3	17	41	75
Actuating cylinders (recommended)	OVS-105 / SZS-37/70	OVS-130 / SZS-46/103	OVS-150 / SZS-67/150	OVS-150 / SZS-86/200

▲ on request

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6047

Power chucks with through-hole KFG



Power chucks with through-hole

## Jaws KFG

C 21

Reversible top jaws, 3-jaw set, hardened serration 60° - material: 16MnCr5



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Jaw width mm	Serration
046410	160	62	37,5	26	1,5 x 60°
046412 <sup>1)</sup>	215	81	52,5	36	1,5 x 60°
046416	280	96	54	44,5	1,5 x 60°
046422	350	112	61	49,5	1,5 x 60°

<sup>1)</sup> Lowered to 34 mm in the serration area

Reversible top jaws UB: Ground out on the associated chuck at extra charge

C 21

Soft top jaws, 3-jaw set, can be hardened serration 60° - material: 16MnCr5

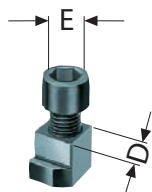


Item no.	Chuck Size	Jaw length mm	Jaw height mm	Jaw width mm	Serration
046409	160	66,7	43	30,5	1,5 x 60°
046411	215	88,9	53	36,5	1,5 x 60°
046415	280	88,9	54,5	45	1,5 x 60°
046421	350	120	80	50	1,5 x 60°

## Accessories KFG

C 15 T-nuts

with screw, for SV 1,5° x 60°



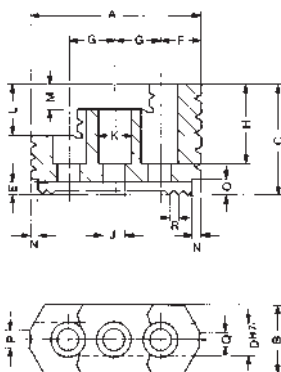
Item no.	Chuck Size	Contents of delivery	D mm	E
1305174 ▲	160	piece	11	M8x18
1305175 ▲	215	piece	14	M10x20
1305176 ▲	280	piece	20	M12x30
1305177 ▲	350	piece	21	M16x35



Technical data

# Jaw dimensions und chucking capacities KFG

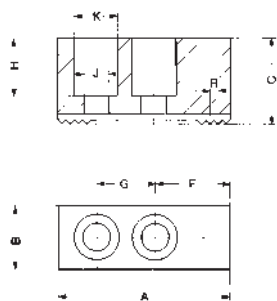
Reversible top jaws UB,  
hardened, serration 60°,  
material 16MnCr5



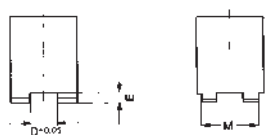
Chuck size	160	215	280	350
Type	530-05	530-07	530-09	530-12
Item no. 3-jaw	046410	046412	046416	046422
A	62	81	96	112
B	26	36 1)	44,5	49,5
C	37,5	52,5	54	61
D	11	14	20	21
E	3,5	5	5	5,5
F	17,5	25	30	27
G	16,5	21	26	33
H	29	41	41	47,5
J	8,4	10,5	13	17
K	13,5	16,5	19	25
L	20	24	24	30
M	10	12	12	15
N	4	5	5	6,5
O	4	7	7	7
P	5	10	10	13
Q	5	5	5	13
R	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°
Weight/jaw kg	0,215	0,600	0,750	1,550

1) Near the serration reduced to 34 mm  
Reversible top jaws: ground to finished size at surcharge

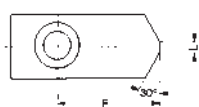
Soft top jaws AB,  
material 16MnCr5



Chuck size	160	215	280	350
Type	530-05	530-07	530-09	530-12
Item no. 3-jaw	046409	046411	046415	046421
A	66,7	88,9	88,9	120
B	30,5	36,5	45	50
C	43	53	54,5	80
D	11	14	20	21
E	3,5	5	5	5
F	30	45	45	67
G	20	26	26	28
H	33	41	42,5	67
J	8,4	10,5	13	17
K	13,5	16,5	19	25
L	-	-	-	-
M	27	34	-	-
R	1,5 x 60°	1,5 x 60°	1,5 x 60°	1,5 x 60°
Weight/jaw kg	0,550	1,125	1,400	3,125

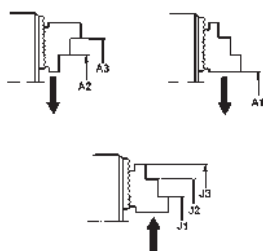


AB 530-04 und 530-07



AB 530-02

Chucking capacities with  
reversible top jaw UB



Chuck size		160	215	280	350
with reversible jaws	Type	530-04	530-07	530-09	530-12
	Jaw position				
External chucking	A1	5-115	5-136	11-185	50-248
	A2	58-175	81-220	123-295	159-354
	A3	92-208	132-272	190-363	242-438
Internal chucking	J1	52-159	61-186	70-238	108-301
	J2	85-193	109-238	133-305	189-385
	J3	129-240	167-298	202-378	274-472

Jaw dimensions und  
Chucking capacities



Power chucks with through-hole

## PKF - air-operated wedge hook chuck



### APPLICATION

Suitable for very high concentricity and clamping repeatability.

### TYPE

Air-operated high precision wedge hook clamping chuck.

### CUSTOMER BENEFITS

- ③ Concentricity and axial run-out precision within 0.003 mm
- ③ High amount of safety in event of pressure failure thanks to self-locking
- ③ Low-maintenance thanks to oil-mist lubrication
- ③ Optimal adaption of the clamping force for clamping deformation-sensitive parts thanks to large actuation range from 2-10 bar

### TECHNICAL FEATURES

- Clamping piston construction with power transmission on both sides according to the ROHM KFD-HS principle
- Integrated pneumatic operation
- Through-hole for coolant supply for sizes 100-200

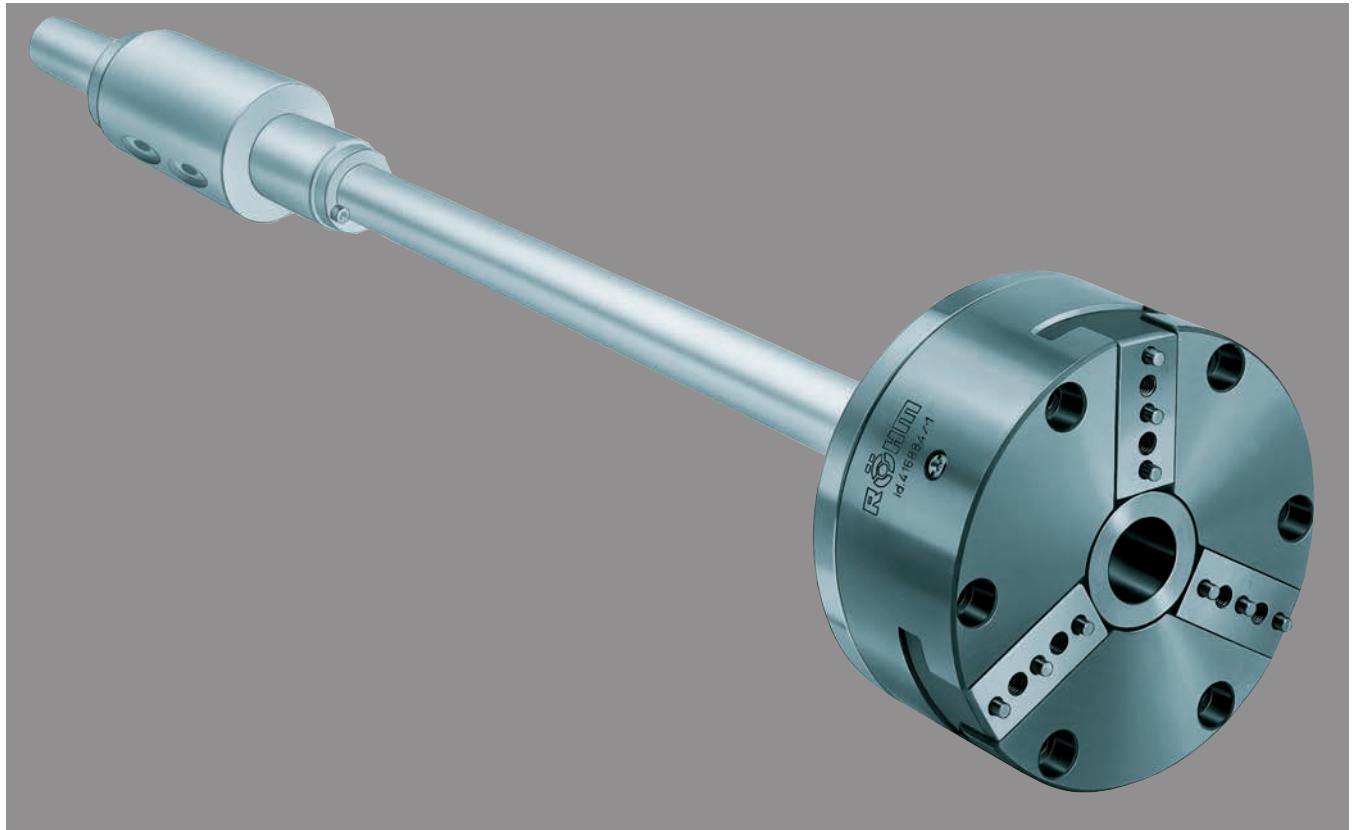
### Note:

Please order air supply tube, maintenance unit, top jaws and actuation valves separately

### Included in the scope of delivery:

Chuck, chuck and jaw mounting screws (without top jaws)

**PKF** = precision, wedge hook, clamping chuck

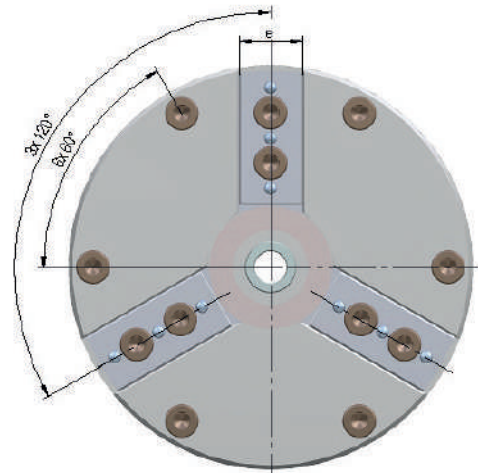
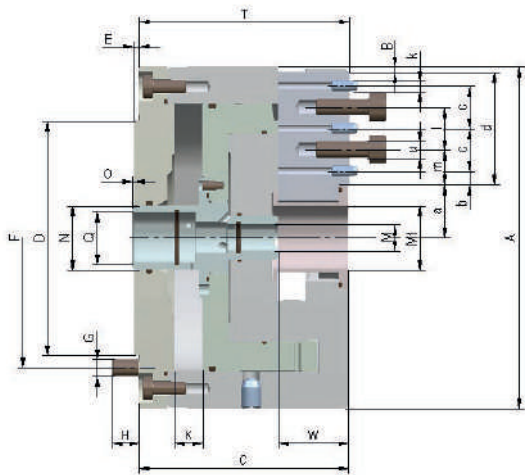


Power chucks with through-hole PKF



Power chucks with through-hole

# PKF air-operated wedge hook chuck



C 15  
High-precision air-operated lathe chuck **PKF**, concentricity 0.003 mm, repetitive clamping accuracy 0.0015 mm with through-hole, pneumatically operated, with integrated **pneumatic piston**, clamping precision in the  $\mu$  range

Item No.	153706 ▲	153707 ▲	153708 ▲	153709 ▲	153710 ▲
Size	100	100	150	150	200
A mm	102	102	151	151	202
Jaw travel B mm	0,75	1,5	0,75	1,5	1,5
C mm	52,5	62,5	52,5	62,5	85,5
D-0,01	82,55	82,55	124,97	124,97	167,64
E mm	1,5	1,5	1,5	1,5	3,2
F mm	88,9	88,9	135,9	135,9	182,9
G	M5	M5	M6	M6	M10
H mm	8	8	9	9	16
Wedge stroke K mm	4,25	8,5	4,25	8,5	8,5
M mm	3,2	3,2	3,2	3,2	3,2
M1 mm	19	19	25,4	25,4	25,4
N mm	19	19	19	19	19
O min.	0,5	0,5	0,5	0,5	0,5
O max.	4,75	9	4,75	9	9
Q mm	5/8"	5/8"	5/8"	5/8"	5/8"
W mm	19	19	19	19	35
T mm	52,8	62,8	52,8	62,3	85,9
a min.	16,75	16	22,75	22	21,9
a max.	17,5	17,5	23,5	23,5	23,4
b mm	3,9	3,9	14,9	14,9	4,5
c mm	2 x 12,7	2 x 12,7	2 x 12,7	2 x 12,7	2 x 31,75
d mm	33,5	33,5	52	52	76,1
e mm	16	16	24	24	32
k mm	1/8"	1/8"	1/8"	1/8"	1/4"
l mm	12,7	12,7	3 x 12,7	3 x 12,7	31,75
m mm	10,25	10,25	8,55	8,55	20,375
u	2 x M5	2 x M5	4 x M5	4 x M5	M10
Operating pressure bar	2-10	2-10	2-10	2-10	2-10
Area A1 clamping cm <sup>2</sup>	47,4	47,4	100	100	185,0
Area A2 releasing cm <sup>2</sup>	28,9	28,9	69	69	111,5
Total clamping force at 8 bar kN	13	13	27	27	31,5
Max. admissible speed at 8 bar min <sup>-1</sup>	5500	5500	4000	4000	3000
Moment of inertia J kgm <sup>2</sup>	0,0029	0,0029	0,015	0,015	0,08
Weight kg	3,0	3,5	6,8	7,9	19,8

Higher speeds available on request

Power chucks with through-hole PKF





Power chucks with through-hole

## Jaws PKF

C 21  
Soft top jaws steel version, set of 3-jaws



Item no.	Chuck Size	Jaw length mm	Jaw height mm	Jaw width mm
153818 ▲	100	49	25	18,4
153819 ▲	150	74	30	26,5
153820 ▲	200	95	46	34,7

## Accessories PKF

C 15  
Air-operated control LSG R<sup>1/4</sup> up to 10 bar, for air-operated power chucks



Item no.	Width mm	Height mm	Depth mm	Control voltage	Conn. thread
437107 ▲	380	380	210	24V DC	R 3/8" internal

Other control voltage on request

C 15  
Service unit for air operated control  
This unit consists of: separator and filtre CKS-08/10 and lubricator CL-08/10



Item no.	Width mm	Height mm	Depth mm
216084 ▲	130	240	102

Max. flow Qn 33m3/h at 6 bar

C 15  
Manually operated air control valve LHV with 2 switch settings and a safety switch lever



Item no.	Width mm	Height mm	Depth mm	Conn. thread internal	Conn. thread external
418224 ▲	66,5	64	38	R 1/4"	M 16 x 1,5

A09 Special grease F80 for lathe chucks  
For lubrication and conservation of chucking power



Item no.	Design	Contents
308555	Cartridge (DIN 1284) Ø 53.5x235mm	0,5 kg
028975	Tin	1 kg

C15 Grease gun DIN1283



Item no.	Connection	Contents of delivery
329093	M10x1	150 mm nozzle tube bent, needlepoint mouthpiece, top mouthpiece, 300 mm high pressure hose with 4 jaw hydraulics cross mouthpiece

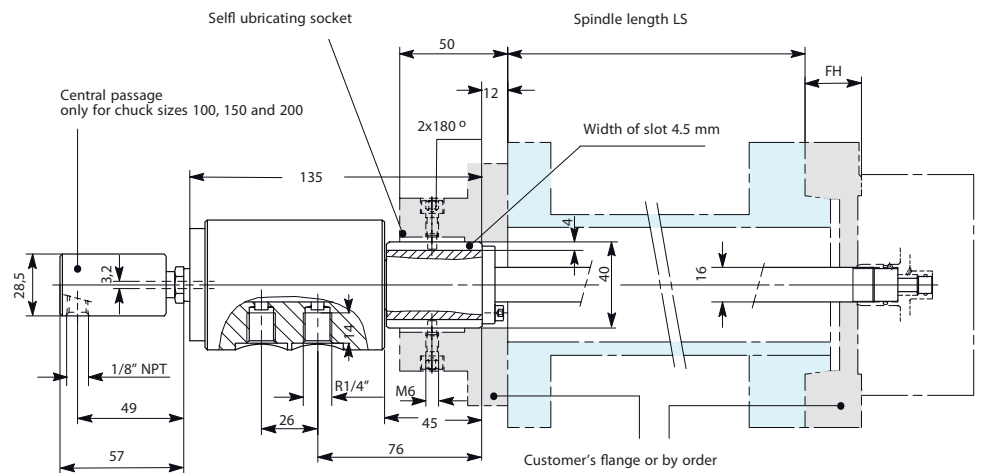


Power chucks with through-hole

## Accessories PKF

### Air supply tube

Air supply tube 3/8" and 5/8"  
Type 586-80  
Max. speeds = 10 000 min<sup>-1</sup>  
Central through-hole for air  
and coolant.  
Max. air pressure = 10 bar



### Ordering indications for air supply tube:

Chuck size + spindle length LS + height of flange FH