

**The spiral ring chuck - a proven and universal suitable clamping system - finds its application wherever high clamping force, high runout accuracy and very high repeatability is required (i.e. lathes, turntables, circular indexing tables etc.).**

**The radial and axial runout precision correspond to DIN 6368 part 1 precision class 1 (high precision chucks). Particularly, a flat design with direct mounting.**

**Clamping force transmitting system**

The jaws can be moved across the entire clamping range by turning a key. This advantage allows the quick clamping of different workpiece diameters without changing or shifting the jaws.

**Mechanism**

The radially positioned Pinion (4) transmits the power via a bevel gearing to the spiral ring (3), then the spiral transmits it to the Jaws (6). steel or cast iron body (1), cover (2).

**Lubrication**

The chuck has to be lubricated at regular intervals with our special grease F 80 to maintain its practical value as long as possible.

**ZG-ZS**

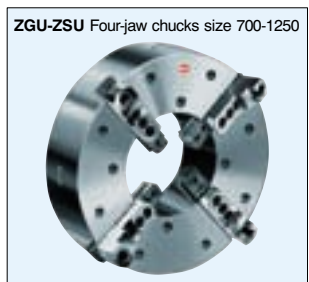
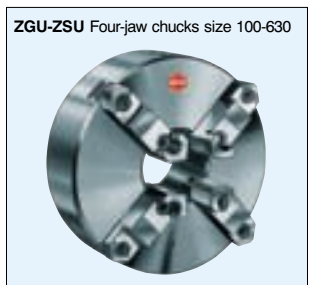
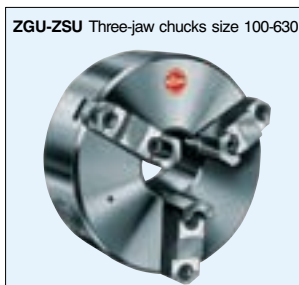
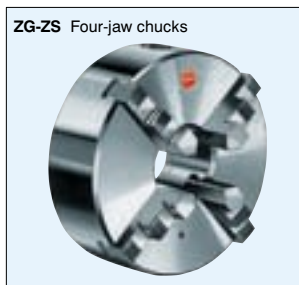
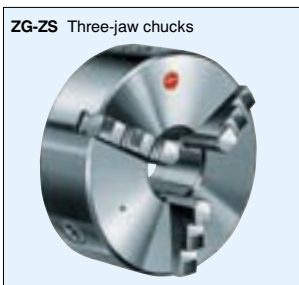
Three- and four-jaw chucks with one-piece-jaws, cast iron or steel body

**ZGU-ZSU**

Three- and four-jaw chucks with reversible top jaws, cast iron or steel body

**ZGD**

Three-jaw chucks with double jaw guides, cast iron body



# Lathe chucks ZGU – ZSU

with base jaws and reversible top jaws, with scroll, DIN 6350, self-centering, three- and four-jaw chucks, cross tenon to ISO 3442 and ASA B 5.8, cast iron or steel body



**Delivery includes:**  
 1 set of base jaws (GB),  
 1 set of reversible top jaws (UB),  
 1 operating key, mounting bolts

**US-design with inch threads**

DIN 6350 cylindrical center mount, form A	Size	inch	through-hole	3-jaw-chuck cast iron body		3-jaw-chuck steel body		4-jaw-chuck cast iron body		4-jaw-chuck steel body	
				Id.-No.		Id.-No.		Id.-No.		Id.-No.	
				<b>Type 303</b>		<b>Type 603</b>		<b>Type 403</b>		<b>Type 803</b>	
	100	4	20	101795		101796		102143		102144	
	125	5	32	101635		101679		106088		106089	
	160	6 1/4	42	100324		100726		100759		101171	
	200	8	55	100022		100194		105003		105007	
	250	10	76	100223		100542		100841		101037	
	315	12 1/2	103	101255		101351		101905		101906	
	400	15 3/4	136	102075		102076		102343		102344	
	500	20	190	102538		102586		102961		103347	
	630	25	240	102733		102734		102869		102870	
<b>DIN 55026, form B</b> ASA B 5.9 A1 metr. ISO 702/1 A 1 KK / tap. 5, 6, 8 * mounting from front in the inner bolt circle  mounting from front in the outer bolt circle  <b>DIN 55026, form A+B</b> DIN 55021, form A + B ASA B 5.9 A1/A2 metr. ISO 702/1 A 1/A2 KK / tap. 5, 6, 8 Different mounting through intermediate back plate	short taper			<b>Type 328</b>		<b>Type 628</b>		<b>Type 428</b>		<b>Type 828</b>	
	160*	5	42	100380		100762		101128		101603	
	200*	5	55	100075		100198		100467		101468	
	200*	6	55	100079		100403		101475		101476	
	250	5	76	100281		100592		100889		101085	
	250*	6	55	100279		100590		100887		101083	
	250*	8	76	100280		100591		100888		101084	
	315	6	103	101301		101397		101952		101953	
	315*	8	103	101302		101398		101960		101961	
	400	8	136	102247		102248		102374		102375	
	400*	11	136	102255		102256		102382		102383	
	500	8	190	109057		109761		105641		105674	
	500	11	190	102575		102576		102992		102993	
630*	11	240	102797		102798		103025		103026		
<b>DIN 55029</b> ASA B 5.9 type D, ISO 702/II with studs for Camlock  	short taper			<b>Type 333</b>		<b>Type 633</b>		<b>Type 433</b>		<b>Type 833</b>	
	125	3	32	101655		101699		107044		107045	
	125	4	32	101659		101703		107052		107053	
	160	3	42	105019		105039		105059		105079	
	160	4	42	100385		100766		101132		101607	
	160	5	42	100390		100770		101136		101611	
	200	3	55	100095		100414		101499		101800	
	200	4	55	100100		100418		100807		100808	
	200	5	55	100084		100407		101483		101484	
	200	6	55	100089		100425		101491		101492	
	250	4	76	127822		127823		-		-	
	250	5	76	100296		100804		101001		101097	
	250	6	76	100294		100802		100899		101095	
	250	8	76	100295		100803		101000		101096	
	315	6	103	101313		101509		101968		101969	
	315	8	103	101314		101510		101976		101977	
	315	11	103	101315		101511		101984		101985	
	400	6	136	102279		102280		102406		102407	
	400	8	136	102263		102264		102390		102391	
	400	11	136	102271		102272		102398		102399	
	500	8	190	109749		104464		105645		105678	
	500	11	190	102583		102584		103200		103201	
	500	15	190	102944		102945		103256		103257	
630	11	240	102821		102822		103049		103050		

Threaded spindle mounts are priced on request

# RÖHM Lathe chucks ZGU – ZSU

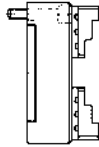
heavy design with large bore, with base jaws and reversible top jaws, with scroll, self-centering, three- and four-jaw chucks, cross tenon to ISO 3442 and ASA B 5.8, cast iron or steel body



**Delivery includes:**  
 1 set of base jaws (GB),  
 1 set of reversible top jaws (UB),  
 1 operating key, mounting bolts

**US-design  
with inch threads**

Cylindrical center mount



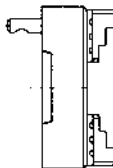
Size	inch	through-hole	3-jaw-chuck cast iron body		3-jaw-chuck steel body		4-jaw-chuck cast iron body		4-jaw-chuck steel body	
			Id.-No.		Id.-No.		Id.-No.		Id.-No.	
			<b>Type 303</b>		<b>Type 603</b>		<b>Type 403</b>		<b>Type 803</b>	
700	28	310	154514		154515		154516		154517	
800	31 <sup>1</sup> / <sub>2</sub>	380	131507		139470		140841		140842	
1000	39 <sup>1</sup> / <sub>2</sub>	460	140817		140818		140847		140848	
1250	49 <sup>1</sup> / <sub>4</sub>	550	140830		140831		140857		140858	

**DIN 55026**  
 DIN 55021, ASA B 5.9,  
 A1/A2 metr.  
 mounting from front



Size	inch	through-hole	Type 328		Type 628		Type 428		Type 828	
			Id.-No.		Id.-No.		Id.-No.		Id.-No.	
		short taper	<b>Type 328</b>		<b>Type 628</b>		<b>Type 428</b>		<b>Type 828</b>	
700	11	310	154518		152534		154519		154520	
700	15	310	154521		154522		154523		154524	
800	15	380	139199		136021		139233		139236	
800	20	380	139193		139194		139235		139237	
1000	15	460	139514		139516		140849		140851	
1000	20	460	139515		139517		140850		140852	
1250	15	550	140832		140834		140859		140861	
1250	20	550	140833		140835		140860		140862	

**DIN 55029**  
 ASA B 5.9,  
 Type D,  
 ISO 702/II  
 with studs for Camlock



Size	inch	through-hole	Type 333		Type 633		Type 433		Type 833	
			Id.-No.		Id.-No.		Id.-No.		Id.-No.	
		short taper	<b>Type 333</b>		<b>Type 633</b>		<b>Type 433</b>		<b>Type 833</b>	
700	11	310	154525		154526		154527		154528	
700	15	310	154529		154530		154531		154532	
800	15	380	140813		140815		140843		140845	
800	20	380	140814		140816		140844		140846	
1000	15	460	140826		140828		140853		140855	
1000	20	460	140827		140829		140854		140856	
1250	15	550	140836		140838		140863		140865	
1250	20	550	140837		140839		140864		140866	

## Clamping jaws



Reversible top jaw, **UB**-set, hardened

Size	700	800	1000	1250
<b>Id.-No. 3-jaws</b>	105081	105081	105098	105098
<b>Id.-No. 4-jaws</b>	105085	105085	105101	105101



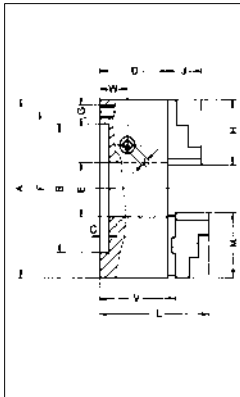
Unstepped soft top jaw, **AB**-set, material 16MnCr5

Size	700	800	1000	1250
<b>Id.-No. 3-jaws</b>	105103	105103	105107	105107
<b>Id.-No. 4-jaws</b>	105105	105105	105109	105109

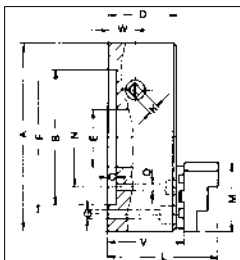


Base jaw, **GB**-set, with mounting bolts

Size	700	800	1000	1250
<b>Id.-No. 3-jaws</b>	115098	105272	105274	105275
<b>Id.-No. 4-jaws</b>	141621	141616	141611	141614

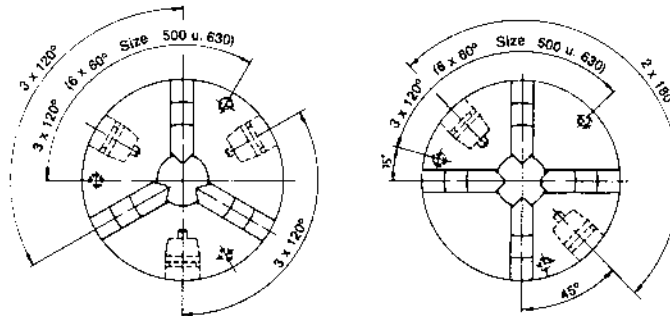


A Size		BH <sup>6</sup>	C	D	E	F	G		H	J	K	L	M	V	W	weight appr. kg
mm	inch	mm	mm	mm	mm	mm	inch		mm	mm	mm	mm	mm	mm	mm	
<b>With flatback mounting DIN 6350 cylindrical center mount form A</b>																
80	3 1/4	56	3	39,5	19	67	3x1/4-20		37	14	6	–	–	–	14,5	1,3
100	4	70	3	50	20	83	3x5/16-18		48	18	8	80,5	47	53,6	18	2,9
125	5	95	4	56	32	108	3x5/16-18		52	22,5	9	95,5	56	61	20	4,5
160	6 1/4	125	4	65	42	140	3x7/16-14		61	26	10	108	66,7	69,7	22,45	8,2
200	8	160	4	73,5	55	176	3x7/16-14		69	32,5	11	119,6	79,5	80,2	25,7	14,6
250	10	200	5	82	76	224	3x1/2-13		90	40	12	139,3	95	89,9	26,5	25,7
315	12 1/2	260	5	95	103	286	3x5/8-11		130	46	14	155	109,5	100,4	30	44,2
400	15 3/4	330	5	105	136	362	3x5/8-11		130	43	17	171,5	127	113,4	35	80
500	20	420	5	120	190	458	6x5/8-11		190	54,5	19	201,5	127	128,4	38	126
630	25	545	7	135	240	586	6x5/8-11		190	54,5	19	216,5	127	143,3	48	208

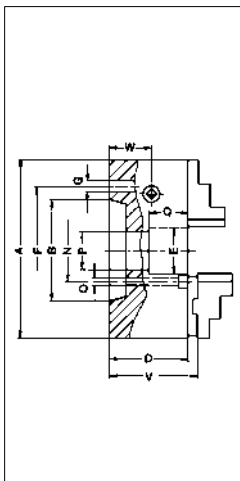


A Size		B	C <sup>2)</sup>	D	E	F	G		K	L	M	N	O		V	W	weight appr. kg
mm	inch	mm	mm	mm	mm	mm	3 mm	4 mm	mm	mm	mm	mm	3 mm	4 mm	mm	mm	
<b>With flatback mounting cylindrical center mount</b>																	
700	28	610	7+0,03	147	310	660	6xØ22	8xØ22	19	240,6	210	360	6xØ18	4xØ18	158	48	280
800	31 1/2	710	7+0,03	147	380	760	6xØ22	8xØ22	19	240,6	210	460	6xØ18	4xØ18	158	48	350
1000	39 1/2	910	7+0,03	157	460	950	6xØ26	8xØ26	24	269,6	210	610	6xØ18	4xØ18	166	53	590
1250	49 1/4	910	7+0,03	157	550	950	6xØ26	8xØ26	24	269,6	210	610	6xØ18	4xØ22	166	53	850

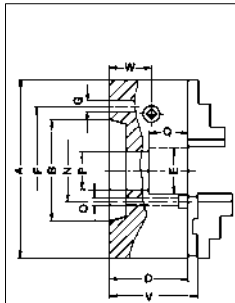
2) adaptor plate dimension 7<sub>-0,003</sub>



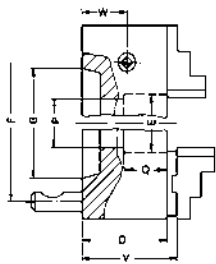
Position of fixing screws and pinions on lathe chucks with cylindrical center mount Size 80–630



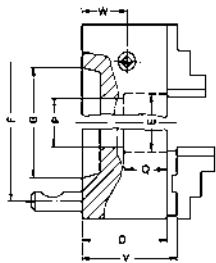
A Size		taper Size	B	D	E	F <sup>2)</sup>	G	N <sup>2)</sup>	O	V	W	mounting holes		weight appr. kg
mm	inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	3 jaw	4 jaw	
<b>With short taper DIN 55026 form A/B, ASA B5.9 A1/A2 metr., ISO 702/1 A1/A2 tap. 5, 6, 8</b>														
160*	6 1/4	5	82,5	66	42	–	–	61,9	11 <sup>1)</sup>	70,7	23,45	3	4	8
200*	8	5	82,5	74,5	42	–	–	61,9	11 <sup>1)</sup>	81,2	26,7	3	4	14,5
200*	8	6	106,4	74,5	55	–	–	82,6	14	81,2	26,7	6	4	14,5
250	10	5	82,5	83	76	104,8	11 <sup>1)</sup>	–	–	90,9	27,5	3	4	25
250*	10	6	106,4	83	55	–	–	82,6	14	90,9	27,5	6	4	25
250*	10	8	139,7	83	76	–	–	111,1	18	90,9	27,5	6	4	25
315	12 1/2	6	106,4	96	103	133,4	14	–	–	101,4	31	6	4	44,5
315*	12 1/2	8	139,7	96	76	–	–	111,1	18	101,4	31	6	4	44,5
400	15 3/4	8	139,7	106	136	171,4	18	–	–	114,4	36	6	4	82
400*	15 3/4	11	196,9	106	125	–	–	165,1	22	114,4	36	6	4	82
500*	20	8	139,7	122	136	–	–	171,4	18	130,4	40	6	8	139
500	20	11	196,9	122	190	235	22	–	–	130,4	40	6	8	139
630	25	11	196,9	137	190	235	22	–	–	145,3	50	6	8	220



A Size		taper Size	B	D	E	F <sup>2</sup>	G	P	Q	Y	W	mounting holes		weight appr. kg
mm	inch		mm	mm	mm	mm	mm	mm	mm	mm	mm	3 jaw	4 jaw	
<b>With short taper DIN 55026 form A/B, ASA B5.9 A1/A2, ISO 702/I A1/A2 tap. 5, 6, 8 – mounting from front</b>														
700	28	11	196,9	149	310	235	22	193	76	159,9	50	6	8	295
700	28	15	285,8	149	285	330,2	26	281,2	76	159,9	50	6	8	295
800	31 1/2	15	285,8	149	380	330,2	26	281,2	76	159,9	50	6	8	350
800	31 1/2	20	412,8	149	380	463,6	26	–	–	159,9	50	6	8	350
1000	39 1/2	15	285,8	159	460	330,2	26	281,2	85	168	55	8	8	590
1000	39 1/2	20	412,8	159	505	463,6	26	407,5	85	168	55	8	8	590
1250	49 1/4	15	285,8	159	550	330,2	26	281,2	85	168	55	8	8	850
1250	49 1/4	20	412,8	159	550	463,6	26	407,5	85	168	55	8	8	850



A Size		taper Size	B	D	E	F Caml.	P	Q	V	W	mount. holes Caml.	weight appr. kg
mm	inch		mm	mm	mm	mm	mm	mm	mm	mm		
<b>With Camlock, DIN 55029, ASA B5.9 type D1 and ISO 702/II – with studs for Camlock</b>												
125	5	3	53,9	69	32	70,6	–	–	73,7	33	3	5,5
125	5	4	63,5	69	32	82,5	–	–	73,7	33	3	5,5
160	6 1/4	3	53,9	66	42	70,6	–	–	70,7	23,45	3	8,5
160	6 1/4	4	63,5	66	42	82,5	–	–	70,7	23,45	3	8,5
160	6 1/4	5	82,5	66	42	104,8	–	–	70,7	23,45	6	8,5
200	8	3	53,9	74,5	55	70,6	51,2	33	81,2	26,7	3	15,5
200	8	4	63,5	74,5	55	82,5	–	–	81,2	26,7	3	15,5
200	8	5	82,5	74,5	55	104,8	–	–	81,2	26,7	6	15,5
200	8	6	106,4	74,5	55	133,4	–	–	81,2	26,7	6	15,5
250	10	4	63,5	83	76	82,5	60,7	40,5	90,9	27,5	3	30
250	10	5	82,5	83	76	104,8	–	–	90,9	27,5	6	30
250	10	6	106,4	83	76	133,4	–	–	90,9	27,5	6	30
250	10	8	139,7	83	76	171,4	–	–	90,9	27,5	6	30
315	12 1/2	6	106,4	96	103	133,4	–	–	101,4	31	6	50
315	12 1/2	8	139,7	96	103	171,4	–	–	101,4	31	6	50
315	12 1/2	11	196,9	104	103	235	–	–	109,4	39	6	50
400	15 3/4	6	106,4	106	136	133,4	103	54	114,4	36	6	84
400	15 3/4	8	139,7	106	136	171,4	–	–	114,4	36	6	84
400	15 3/4	11	196,6	106	136	235	–	–	114,4	36	6	84
500	20	8	139,7	122	190	171,4	136	61	130,4	40	6	150
500	20	11	196,9	122	190	235	–	–	130,4	40	6	150
500	20	15	185,8	122	190	330,2	–	–	130,4	40	6	150
630	25	11	196,9	137	240	235	192,7	63	145,3	50	6	225



A Size		taper Size	B	D	E	F	P	Q	V	W	mount. holes	weight appr. kg
mm	inch		mm	mm	mm	mm	mm	mm	mm	mm		
<b>With Camlock, DIN 55029, ASA B5.9 type D1 and ISO 702/II – with studs for Camlock</b>												
700	28	11	196,9	149	310	235	192,7	76	160	50	6	280
700	28	15	285,8	149	310	330,2	281,2	76	160	50	6	280
800	31 1/2	15	285,8	149	380	330,2	281,2	76	160	50	6	350
800	31 1/2	20	412,8	149	380	463,6	–	–	160	50	6	350
1000	39 1/2	15	285,8	159	460	330,2	281,2	85	168	55	6	590
1000	39 1/2	20	412,8	159	460	463,6	407,5	85	168	55	6	590
1250	49 1/4	15	285,8	159	550	330,2	281,2	85	168	55	6	850
1250	49 1/4	20	412,8	159	550	463,6	407,5	85	168	55	6	850

# Chucking capacities of jaw steps

for ZG – ZS, ZGU – ZSU (approximate values)

external chucking	Size		A1 (BB)	A2 (DB)	A3 (DB)	A4 (DB)	max. swing dia. mm	jaw movement mm	J1	J2	J3
	mm	inch	mm	mm	mm	mm			mm	mm	mm
	<b>External clamping</b>										
	80	3 1/4	2–30	2–30	27–55	52–80	104	14	25–53	50–78	–
	100	4	3–38	3–38	38–71	70–100	128	15	33–66	65–94	–
	125	5	3–53	3–53	39–89	75–125	157	25	37–87	73–123	–
	160	6 1/4	3–72	3–72	47–116	91–160	194	34	39–107	83–152	–
	200	8	4–100	4–100	56–152	104–200	238	48	44–140	92–186	–
	250	10	5–122	5–122	73–190	131–250	302	58	59–165	119–236	–
	315	12 1/2	6–135	6–135	96–225	186–315	395	64	96–224	186–305	–
	400	15 3/4	20–200	20–200	110–300	200–400	480	100	100–300	190–390	–
	500	20	35–260	35–260	140–360	280–500	600	110	135–355	275–460	–
	<b>Internal clamping</b>										
	630	25	50–350	50–350	190–490	330–630	730	150	150–450	290–590	–
	700	28	110–350	280–672	356–748	–	1000	120	212–648	290–758	526–922
	800	31 1/2	150–450	325–853	400–928	–	1170	150	251–855	326–930	566–1094
	1000	39 1/2	250–600	425–1070	500–1150	–	1390	175	356–1080	430–1150	660–1314
	1250	49 1/4	320–600	490–1150	564–1224	–	1476	140	426–1162	500–1236	740–1400

Clamping ranges for lathe chucks with individual adjustable jaws are in approximate conformity with the above values. They are valid for 3 and 4-jaw chucks and lathe chucks with reversible jaws. Do not exceed maximum chucking ranges!

# Max. permissible speeds – Gripping force

for ZG – ZS, ZGU – ZSU chucks to DIN 6350

### Max. permissible speeds:

The maximum permissible speed has been determined so that 1/3 of the gripping force is still available as residual gripping force if the maximum gripping force is applied and the chuck is fitted with its heaviest jaws. The jaws may not project beyond the outside diameter of the chuck. The chuck must be in perfect condition. The speed limit for chucks with cast iron bodies is based on the permissible peripheral speed for cast iron. The specifications of DIN 6386 part 1 shall be observed.

### Gripping force:

The gripping force is the total of all jaw forces acting radially on the stationary workpiece. The specified gripping forces are approximate values. They apply to chucks in perfect condition which have been lubricated with ROHM F 80 grease

Size		Max. permissible speeds 3 and 4 jaws		Gripping force			
mm	inch	cast iron body R.P.M.	steel body R.P.M.	torque on key		total gripping force	
				ftlbs	daNm	lbs	daN
80	3 1/4	5000	7000	22	3	2,919	1300
100	4	4500	6300	44	6	6,062	2700
125	5	4000	5500	59	8	6,960	3100
160	6 1/4	3600	4600	81	11	10,552	4700
200	8	3000	4000	103	14	12,348	5500
250	10	2500	3000	111	15	14,144	6300
315	12 1/2	2000	2300	133	18	15,491	6900
400	15 3/4	1600	1800	175	24	20,654	9200
500	20	1000	1300	192	26	22,450	10000
630	25	800	850	206	28	23,573	10500
700	28	650	800	206	28	23,573	10500
800	31 1/2	600	700	221	30	24,695	11000
1000	39 1/2	480	560	258	35	25,818	11500
1250	49 1/4	–	–	258	35	25,818	11500