

# ZS - ZSU



Geared scroll chucks  
ZS-ZSU

### APPLICATION

Proven rotary chuck for use in areas requiring high clamping forces, high concentricity as well as reliable long-term repeatability. For universal use on lathes, rotary tables, dividing units, etc.

### TYPE

Geared scroll chucks in steel design.

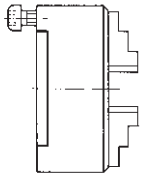
### CUSTOMER BENEFITS

- ⊕ High clamping force
- ⊕ Special flat design with direct mounting
- ⊕ The jaws can be adjusted over the entire clamping range by turning the key. This allows workpieces with different clamping diameters to be quickly clamped
- ⊕ Jaws in chuck ground out for concentricity

### TECHNICAL FEATURES

- With one-piece jaws or with base and top jaws
- Steel body and spiral ring die-forged
- Series-balanced and hardened

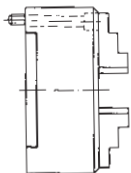
A09  
DIN 6350, cylindrical centre mount, form A



Size	Cylindrical centre mount	Through-hole mm	3 jaw chuck with inside and outside jaw	4 jaw chuck with inside and outside jaw	3 jaw chuck with base and reversible top jaw	4 jaw chuck with base and reversible top jaw	Speed max. min <sup>-1</sup>	Torque Nm	Total clamping force kN
80	56	19	102513	102505	-	-	7000	30	13
100	70	20	101782	102130	101788	102136	6300	60	27
125	95	32	101672	106075	101678	106081	5500	80	31
160	125	42	100717	101164	100725	101170	4600	110	47
200	160	55	100186	100466	100189	100484	4000	140	55
250	200	76	100533	101030	100541	101036	3000	150	63
315	260	103	101344	101598	101350	101901	2300	180	69
400	330	136	102062	102330	102068	102336	1800	240	92
500	420	190	102555	103340	102585	103346	1300	260	100
630	545	240	102720	102856	102726	102862	850	280	105
800	710	380	104913	104917	-	-	700	300	110
1000	910	460	104925	104929	-	-	560	450	115
1250	910	550	104941	104945	-	-	450	450	115

Further sizes and mountings available on request

A09  
Mounting from front, DIN 6350, cylindrical centre mount

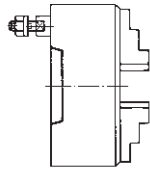


Size	Cylindrical centre mount	Through-hole mm	3 jaw chuck with inside and outside jaw	4 jaw chuck with inside and outside jaw	Speed max. min <sup>-1</sup>	Torque Nm	Total clamping force kN
125	95	32	120155	124447	5500	80	31
160	125	42	115568	125802	4600	110	47
200	160	55	113158	113160	4000	140	55
250	200	76	114304	114306	3000	150	63
315	260	103	120270	129946	2300	180	69
400	330	136	123475 ▲	134401 ▲	1800	240	92
500	420	190	127616 ▲	123465 ▲	1300	260	100
630	545	240	128545 ▲	135061 ▲	850	280	105

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# ZS - ZSU

A09  
ISO 702-3 (DIN 55027), with studs and locknuts, optional DIN 55021 with set screw and nut

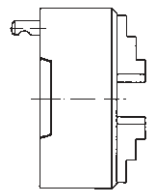


Size	Mount short taper	Through-hole mm	3 jaw chuck with inside and outside jaw	4 jaw chuck with inside and outside jaw	3 jaw chuck with base and reversible top jaw	4 jaw chuck with base and reversible top jaw	Speed max. min <sup>-1</sup>	Torque Nm	Total clamping force kN
125	4	32	101692	107015	101695	107021	5500	80	31
160	4	42	100740	101184	100743	101187	4600	110	47
160	5	42	100744	101188	100747	101191	4600	110	47
200	5	55	100152	100472	100155	101420	4000	140	55
200	6	55	100156	101422	100159	101428	4000	140	55
250	6	76	100555	101050	100564	101059	3000	150	63
250	8	76	100556	101051	100565	101060	3000	150	63
315	6	103	101364	101919	101373	101922	2300	180	69
315	8	103	101365	101923	101374	101926	2300	180	69
315	11	103	101366	101927	101375	101930	2300	180	69
400	8	136	102202	101876	102208	101882	1800	240	92
400	11	136	102210	101884	102216	101890	1800	240	92
500	11	190	102548 ▲	102971 ▲	102554 ▲	102977 ▲	1300	260	100
500	15	190	102915 ▲	103227 ▲	102921 ▲	103233 ▲	1300	260	100
630	11	192,7	102752 ▲	102888 ▲	102758 ▲	102894 ▲	850	280	105
630	15	240	102760 ▲	103084 ▲	102766 ▲	103090 ▲	850	280	105

Further sizes and mountings available on request

Geared scroll chucks  
ZS-ZSU

A09  
ISO 702-2 (DIN 55029); ASA B 5.9, type D, with studs for Camlock



Size	Mount short taper	Through-hole mm	3 jaw chuck with inside and outside jaw	4 jaw chuck with inside and outside jaw	3 jaw chuck with base and reversible top jaw	4 jaw chuck with base and reversible top jaw	Speed max. min <sup>-1</sup>	Torque Nm	Total clamping force kN
125	4	32	108895	109208	105870	105872	5500	80	31
160	4	42	108897	109210	105882	105886	4600	110	47
160	5	42	109150	109213	105898	106302	4600	110	47
200	5	55	109151	109214	106330	106334	4000	140	55
200	6	55	109154	109217	106346	106350	4000	140	55
250	6	76	109155	109218	106386	106390	3000	150	63
250	8	76	109159	109222	106402	106406	3000	150	63
315	6	103	109156	109219	106442	106446	2300	180	69
315	8	103	109160	109223	106458	106462	2300	180	69
315	11	103	109165	109228	106474	106478	2300	180	69
400	8	136	109161	109224	106498	106602	1800	240	92
400	11	136	109166	109229	106614	106618	1800	240	92
500	11	190	109167 ▲	109230 ▲	103274 ▲	106646 ▲	1300	260	100
500	15	190	109170 ▲	109233 ▲	103275 ▲	103271 ▲	1300	260	100
630	11	192,7	109168 ▲	109231 ▲	106658 ▲	106662 ▲	850	280	105
630	15	240	109171 ▲	109234 ▲	103328 ▲	106251 ▲	850	280	105

Further sizes and mountings available on request

# Jaws ZS - ZSU

A09  
**Inside jaw BB DIN 6350, outward stepped jaw, hardened**



Chuck Size	3-jaw set	4-jaw set	Jaw length	Jaw height	Jaw width
80	110155	110063	37	26	12
100	110156	110064	48	33,5	14
125	110157	110065	52	41,5	18
160	110159	110067	61	47,5	18
200	110160	110068	69	53,5	20
250	110161	110069	90	67,5	24
315	110162	110070	130	79,5	34

Additionally or later purchased, hardened jaws must be ground out in the chuck.  
 For jaws which are applied later, send in the chuck.

A09  
**Outside jaw DB DIN 6350, inward stepped jaw, hardened**



Chuck Size	3-jaw set	4-jaw set	Jaw length	Jaw height	Jaw width
80	110165	110073	37	26	12
100	110166	110074	48	33,5	14
125	110167	110075	52	41,5	18
160	110169	110077	61	47,5	18
200	110170	110078	69	53,5	20
250	110171	110079	90	67,5	24
315	110016	110080	130	79,5	34
400	110017	110081	130	79,5	34
500/630	110018	110082	190	95	42

Additionally or later purchased, hardened jaws must be ground out in the chuck.  
 For jaws which are applied later, send in the chuck.

A09  
**Unstepped jaw BL DIN 6350, unstepped, soft, 16MnCr5**



Chuck Size	3-jaw set	4-jaw set	Jaw length	Jaw height	Jaw width
80	107588	107598	37	26	12
100	107589	107599	48	33,5	14
125	107590	107600	52	41,5	18
160	107592	107602	61	47,5	18
200	107593	107603	69	53,5	20
250	107594	107604	90	67,5	24
315	107595	107605	130	79,5	34
400	107596	107644	130	79,5	34
500/630	107597	107645	190	95	42

A09  
**Base jaw GB DIN 6350 with fixing screw**



Chuck Size	3-jaw set	4-jaw set	Jaw length	Jaw width
100	107500	107542	46	14
125	107501	107543	55	18
160	107503	107545	65	18
200	107504	107546	78	20
250	107505	107547	92	24
315	107506	107548	108	34
400	107507	107549	127	34
500	107508	107550	165	42
630	107509	107551	203	42
800	105272	141616	291	55
1000	105274	141611	329	55
1250	105275	141614	367	55

Configure your individual clamping jaws online! [www.web2product.biz](http://www.web2product.biz)

# Jaws ZS - ZSU

A09  
Reversible top jaws UB DIN 6350, hardened



Chuck Size	3-jaw set	4-jaw set	Jaw length	Jaw height	Jaw width
100	108045	108053	47	29,5	22
125	108046	108054	56	37,5	26
160	107936	107938	66,7	41,5	28
200	107937	107939	79,5	42,5	30
250	108049	108057	95,3	52,5	36
315	108050	108058	109,5	57,5	42
400	108051	108059	127	64,5	42
500/630	108052	108060	127	79,5	50
800	105081	105085	210	89	68
1000/1250	105098	105101	210	110	68

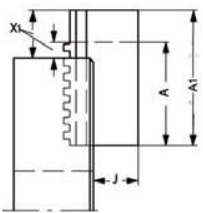
Additionally or later purchased, hardened jaws must be ground out in the chuck.  
For jaws which are applied later, send in the chuck.

A09  
Unstepped top jaw AB DIN 6350, soft, material 16MnCr5



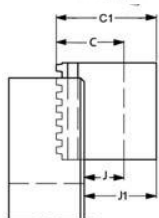
Chuck Size	3-jaw set	4-jaw set	Jaw length	Jaw height	Jaw width
100	107633	107641	53	30	22,5
125	107634	107642	62	38	26,5
160	108581	108583	74	42	28,5
200	108582	108584	87	43	30,5
250	107637	107579	103	53	36,5
315	107638	107580	120	58	42,5
400	107639	107581	137	65	42,5
500/630	107640	107582	140	80	50,5
800	105103	105105	210	89	68
1000/1250	105107	105109	210	110	68

A09  
Unstepped jaw BL, special length, soft, 16MnCr5 DIN 6350



Chuck Size	3-jaw set	4-jaw set	A1	X1 max.	A mm	J mm	X max. mm
200	130031	137073	100	50	69	32,5	19
250	132658	137074	120	56	90	41	26
315	132184	129894	160	70	130	46	40
400	137075	130442	160	70	130	42	40
500/630	131540	137076	220	80	190	55	50
200	130033	137077	120	70	69	32,5	19
250	128880	130610	140	76	90	41	26
315	118908	137078	200	110	130	46	40
400	137079	137080	200	110	130	42	40
500/630	137081	137082	280	140	190	55	50
315	121367	133691	250	160	130	46	40
400	137087	137088	250	160	130	42	40

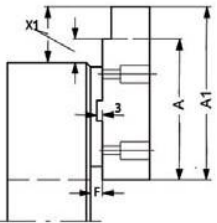
A09  
Unstepped jaw BL, special height, soft, 16MnCr5 DIN 6350



Chuck Size	3-jaw set	4-jaw set	C1 mm	J1	C mm	J mm
200	125710	132972	80	58,5	54	32,5
250	122188	134796	100	73	68	41
315	132186	137091	110	76	80	46
400	137092	131655	110	72	80	42
500/630	137093	137094	150	110	95	55
200	125712	137095	120	98,5	54	32,5
250	122189	130630	130	103	68	41
315	137096	137097	140	106	80	46
400	137098	137099	140	102	80	42
500/630	125117	137100	200	160	95	55
200	125714	137101	150	128,5	54	32,5
250	137102	137103	150	123	68	41
315	137104	130340	160	126	80	46
400	132879	110109	160	122	80	42

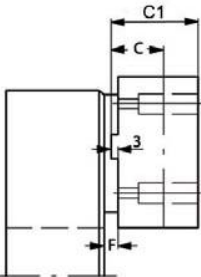
# Jaws ZS - ZSU

A09  
Top jaw AB, special length, soft, 16MnCr5 DIN 6350



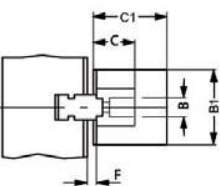
Chuck Size	3-jaw set	4-jaw set	A1	X1 max.	F mm	A mm	X max. mm
200	110086	148139	100	43	6,8	87	30
250	112122	129289	130	63	8	103	36
315	110624	143764	160	76	5,5	120	36
400	110626	141277	160	53	8,5	137	30
500/630	103014	103393	170	75	8,5	140	45
200	112120	148657	120	63	6,8	87	30
250	125428	128700	150	83	8	103	36
315	112091	147754	200	116	5,5	120	36
400	112118	141263	200	93	8,5	137	30
500/630	110632	148234	220	125	8,5	140	45
250	104710	146013	180	113	8	103	36
315	112089	147860	250	166	5,5	120	36
400	103654	149974	260	153	8,5	137	30
500/630	112127	148235	280	185	8,5	140	45

A09  
Top jaw AB, special height, soft, 16MnCr5 DIN 6350



Chuck Size	3-jaw set	4-jaw set	C1 mm	C mm	F mm
200	132155	132181	60	43	6,8
250	119645	135867	70	53	8
315	110435	149975	80	58	5,5
400	126385	118373	90	65	8,5
500/630	128590	149985	100	80	8,5
200	128564	149976	80	43	6,8
250	128571	134999	100	53	8
315	110437	129691	110	58	5,5
400	110628	135426	120	65	8,5
500/630	110630	149977	130	80	8,5
250	128573	149978	150	53	8
315	128569	141671	150	58	5,5
400	128567	139591	160	65	8,5
500/630	128588	140427	160	80	8,5

A09  
Top jaw AB, special width and height, soft, 16MnCr5 DIN 6350



Chuck Size	3-jaw set	4-jaw set	B <sub>1</sub> mm	C1 mm	B mm	C mm
200	105057	105061	40	70	30,5	43
250	137090	141338	50	80	36,5	53
315	143053	149979	60	90	42	58
400	131567	149980	60	90	42,5	65
500/630	137084	149981	80	110	50,5	80
200	133259	149982	50	80	30,5	43
250	133653	137526	60	90	36,5	53
315	143057	149983	80	110	42	58
400	137086	149984	80	110	42,5	65

Configure your individual clamping jaws online! [www.web2product.biz](http://www.web2product.biz)

# Jaws ZS - ZSU

C15  
Mounting bolt for top jaws, bolt 1



Item no.	Size	Thread	Contents of delivery
249299	100	M6x20	piece
236949	125	M8x25	piece
334571	160/200	M8x30	piece
233025	250	M12x40	piece
233026	315	M12x45	piece
220565	400	M16x50	piece
249003	500/630	M20x80	piece

C15  
Mounting bolt for top jaws, bolt 2



Item no.	Size	Thread	Contents of delivery
216528	100	M6x16	piece
233058	125/160/200	M8x20	piece
227692	250	M12x25	piece
233030	315	M12x30	piece
220564	400	M16x35	piece
233047	500/630	M20x40	piece

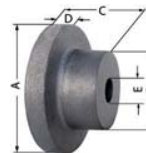
# Accessories ZS - ZSU

A09 **Base plates** for lathe chucks with **cylindrical centre mount**  
DIN 6350



Item no.	Size
162793	160
162401	200
163036	250
133705	315

A09 **Unfinished adapter plates** for **cylindrical mount**  
The unfinished back plate must be machined and fitted on both machine and chuck side



Item no.	Chuck Size	Inch	A mm	B mm	C mm	D mm	E mm
017123	74	3	80	56	45	15	-
017113	80	3 1/4	92	56	47	15	20
017114	100	4	120	80	58	20	25
017115	125	5	135	80	58	20	25
017125	140	5 1/2	150	80	58	20	25
017116	160	6 1/4	170	80	58	20	30
017117	200	8	210	92	66	22	40
017118	250	10	260	105	92	25	50
017119	315	12 1/2	330	165	100	30	50
017124	350	14	365	180	120	30	60

A09 **Chip guard, piece**



Item no.	Size	Contents of delivery
108500	80/85	piece
108501	100/110	piece
108502	125	piece
108503	140/160	piece
108504	200	piece
108505	250	piece
108506	315/350/400	piece
108508	500/630	piece

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



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

# Accessories ZS - ZSU


Accessories ZS-ZSU

A09 **Scroll**




Item no.	Size
102521	74
102183	80/85
101754	100
112660	110
101721	125
105827	140
100303	160
100003	200
100203	250
101552	315
105228	350
102497	400
162973	500
162964	630

A09 **Driving pinion**




Item no.	Size	Square
102522	74	6
102184	80	6
113198	85	6
101755	100	8
112662	110	8
101722	125	9
105828	140	9
100304	160	10
100005	200	11
100204	250	12
112267	270	12
101553	315	14
105229	350	14
102498	400	17
162974	500	19
162965	630	19

A09 **Pinion holder screw**




Item no.	Size
102523	74
102185	85
100305	160
100006	270
101554	315
102499	400
103300	630

A09 **Standard key**




Item no.	Size	Square	Hexagon	Length mm
006325	74	-	6	55
107426	80/85	6	-	62
107427	100/110	8	-	75
107428	125/140	9	-	80
107429	160	10	-	90
107430	200/230	11	-	100
107431	250/270	12	-	100
107432	315	14	-	110
107433	350	14	-	140
107434	400	17	-	140
107435	500/630	19	-	150

A09 **Safety key with ejector**




Item no.	Size	Square	Length mm
154370	80/85	6	110
154371	100/110	8	130
154372	125/140	9	130
154373	160	10	160
154374	200/230	11	160
154375	250/270	12	160
154376	315	14	200
154377	350	14	200
154378	400	17	250
154379	500/630	19	250

A09 **Elongated safety key with ejector**




Item no.	Size	Square	Length mm
154683	125/140	9	170
154685	160	10	180
154687	200/230	11	200
154689	250/270	12	200
154695	315	14	250

A09 **Safety adapter with ejector**  
for actuating the chuck with torque (defined torque introduction)



Item no.	Size	Square	Inch
178566	80/85	6	3/8
178567	100/110	8	1/2
178568	125/140	9	1/2
178569	160	10	1/2
178570	200/230	11	1/2
178571	250/270	12	1/2
178572	315/350	14	1/2
178573	400	17	1/2
178574	500/630/700/800	19	3/4
178575	1000/1250	24	3/4

A09 **Mounting screws with cylindrical centre rim**



Item no.	Size	Thread	Contents of delivery
249299	74-85	M6x20	piece
334571	100-140	M8x30	piece
249301	160-230	M10x35	piece
233025	250-270	M12x40	piece
220565	315-350	M16x50	piece
229183	400-630	M16x60	piece

# Accessories ZS - ZSU

C15

**Mounting screws**  
 for lathe chucks with direct **short-taper, for front mounting**


Item no.	Size	Thread	Contents of delivery	Chuck Size	Taper size
302195	74	M10x55	piece	160	5
200184	80	M10x65	piece	200	5
233006	85	M12x65	piece	200	6
233075	100	M10x90	piece	250	5
216549	110	M12x70	piece	250	6
302194	125	M16x70	piece	250	8
242954	140	M12x100	piece	315	6
358816	160	M16x85	piece	315	8
243665	200/230	M12x130	piece	350	6
236516	315	M16x110	piece	400	8
615744	350	M20x95	piece	400	11
010210	400	M20x130	piece	500	11
328925	500	M20x145	piece	630	11
367648	630	M24x125	piece	630	15

C15

**Set screw with nut DIN 55021**


Item no.	Thread	For taper	Quantity
107453	M10x30	4	3
107455	M10x35	5	4
107456	M12x40	6	4
107457	M16x45	8	4
107458	M20x55	11	6
127618	M24x65	15	6

A09

**Stud for Camlock ISO 702-2 (DIN 55029) and cylindrical studs**


Item no.	Thread	For taper	Quantity
178364	M10x1	3	3
178365	M10x1	4	3
178366	M12x1	5	6
178367	M16x1,5	6	6
178368	M20x1,5	8	6
178369	M22x1,5	11	6
178370	M24x1,5	15	6
178371	M27x2	20	6

A09

**Stud and locknut ISO 702-3 (DIN 55027)**


Item no.	Thread	Contents of delivery	For taper	Quantity
107447	M10x34	piece	3	3
107448	M10x39	piece	4	3
107449	M10x43	piece	5	4
107450	M12x50	piece	6	4
107451	M16x60	piece	8	4
107452	M20x75	piece	11	6
125650	M24x90	piece	15	6
130636	M24x100	piece	20	6

A09

**Stud for Camlock ASA B 5.9 (DIN 55029) and cylindrical studs**


Item no.	Thread	For taper	Quantity
107465	7/16-20x35	3	3
107466	7/16-20x37	4	3
107467	1/2-20x43	5	6
107468	5/8-18x49	6	6
107469	3/4-16x55,5	8	6
107470	7/8-14x67	11	6
127621	1-14x76	15	6
130637	1 1/2-12x89	20	6