

This chuck is used for aligning irregularly shaped workpieces.

Principle of operation

Through a radially arranged drive (1, hardened), the force is transferred via a bevel gearing to a hardened spiral ring (2) and further conducted via the spiral to the base jaws (3, hardened and ground), spindle (4, hardened) and reversible jaws (5, hardened and ground). The position of the workpiece can be adjusted by turning the spindle. Steel body (6), cover (7).

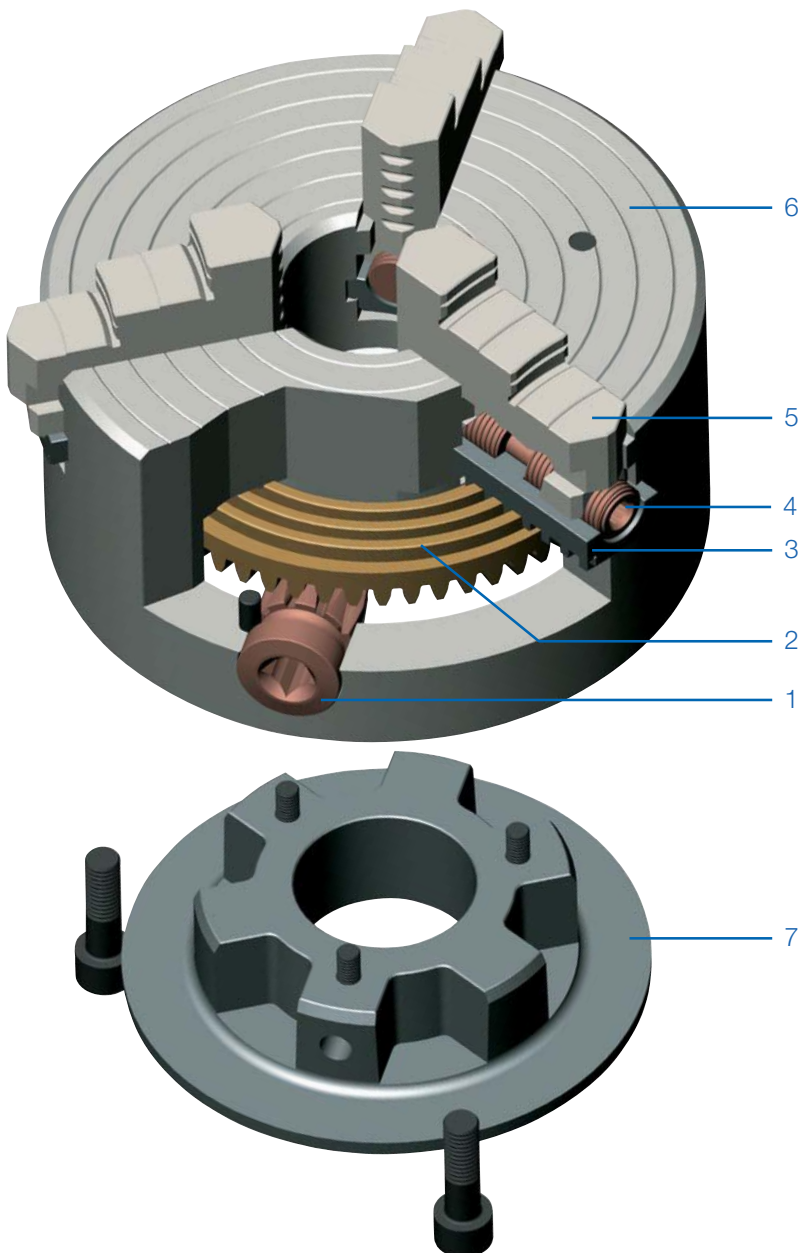
Clamping force transfer system

The jaws can be adjusted over the entire clamping range by turning the key.

Lubrication

To maintain the clamping force, rotary chucks must be lubricated regularly. You will find corresponding information in the operating instructions which are enclosed with every chuck. All rotary chucks are provided with grease nipples for easy maintenance.

Geared scroll chucks



Base jaw GB, hardened and ground



Reversible top jaw UB, hardened and ground



Unstepped jaw BL unstepped, soft, material 16MnCr5



APPLICATION

Optimized for the machining of irregularly shaped workpieces.

TYPE

Face spiral chucks in steel design with which irregularly shaped workpieces can be aligned via adjusting spindles.

CUSTOMER BENEFITS

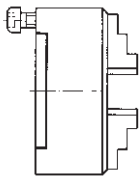
- ⊕ Exact alignment of irregularly shaped workpieces
- ⊕ Jaws centrally clamping and individually adjustable
- ⊕ Die-forged spiral ring, series-balanced and hardened
- ⊕ Jaws in chuck ground out for concentricity

TECHNICAL FEATURES

- With one set each of base and reversible jaws
- Clamping wrench
- Dimensions and take-ups in acc. with DIN 6351
- Hardened spiral ring
- Die-forged steel body

Geared scroll chuck
ES

A09
DIN 6351, cylindrical centre mount, form A



Size	Cylindrical centre mount	Through-hole mm	3 jaw chuck steel	4 jaw chuck steel	Torque Nm	Total clamping force kN
160	125	42	111360	111789	110	47
200	160	55	111365	111793	140	55
250	200	76	111370	111797	150	63
315	260	103	111375	111801	180	69
400	330	136	111380 ▲	111805 ▲	240	92
500	420	190	111385 ▲	111809 ▲	260	100
630	545	240	111390 ▲	111813 ▲	280	105

Further sizes and mountings available on request

Jaws ES

A09
Reversible jaw UB, hardened



Chuck Size	3-jaw set	4-jaw set	Jaw length	Jaw height	Jaw width
160	110118	110124	69	50	20
200	139666	139670	85	57,5	24
250	139667	139671	90	67,5	24
315/400	139668	139672	130	79,5	34
500/630	139669	139673	190	95	42

A09
Unstepped jaw BL, unstepped, soft



Chuck Size	3-jaw set	4-jaw set	Jaw length	Jaw height	Jaw width
160	107669	107675	69	50	20
200	139674	139678	85	57,5	24
250	139675	139679	90	67,5	24
315/400	139676	139680	130	79,5	34
500/630	139677	139681	190	95	42

A09
Base jaw GB, hardened



Chuck Size	3-jaw set	4-jaw set	Jaw length	Jaw height	Jaw width
160	107654	107662	62	15,3	26
200	139682	139686	78	17,8	30
250	139683	139687	86	17,8	30
315	139684	139688	118	22,7	44
400	139685	139689	118	22,7	44
500/630	107659	107667	176	25	54

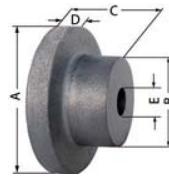
Accessories ES

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
017114	100	4	120	80	58	20	25
017115	125	5	135	80	58	20	25
017116	160	6 ¼	170	80	58	20	30
017117	200	8	210	92	66	22	40
017118	250	10	260	105	92	25	50

C15 **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

C15 **Adjusting spindle**



Item no.	For chuck size
103199	100
104251	125
104271	160
137735	200
137643	250
137701	400
137716	500

A09 **Adjusting key**



Item no.	For chuck size	Square	Hexagon
107444	160	5,5	-
139695	400	-	8
139696	500	-	12

A09 **Scroll**



Item no.	Size
101754	100
101721	125
100303	160
100003	200
100203	250
101552	315
102497	400
162973	500
162964	630

A09 **Driving pinion**



Item no.	Size	Hexagon
178473	100	9
178475	125	10
178477	160	11
178478	200	12
178480	250	14
178482	315	17
178483	400	19
178484	500	22
178485	630	22

A09 **Pinion holder screw**




Item no.	Size
100305	160
100006	270
101554	315
102499	400
103300	630

Accessories ES


Accessories ES

A09 **Standard key**




Item no.	Size	Square	Length mm
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
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

C15 **Mounting screws**
for lathe chucks with direct **short-taper, for front mounting**




Item no.	Size	Thread	Contents of delivery	Chuck Size	Taper size
233059	74	M10x70	piece	160	5
308436	80	M10x85	piece	200	5
200186	85	M12x85	piece	200	6
234615	100	M10x110	piece	250	5
302215	110	M12x90	piece	250	6
202439	125	M16x90	piece	250	8
316244	140	M12x120	piece	315	6
308439	160	M16x105	piece	315	8
342701	315	M16x130	piece	400	8
698878	350	M20x115	piece	400	11
011528	400	M20x155	piece	500	11
358815	500	M20x170	piece	630	11
202509	630	M24x150	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 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

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

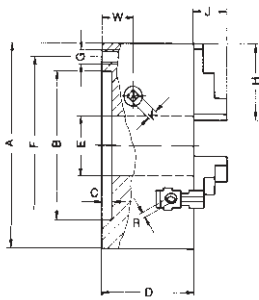
A09 **Stud for Camlock ISO 702-2 (DIN 55029) and cylindrical studs**



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

Chuck dimensions ES

Cylindrical centre mount DIN 6351



The bore could be enlarged (measure E, at surcharge)

■ Enlarged bore max.

Size A	100	125	160	200	250	315	400	500	630
BH6	70	95	125	160	200	260	330	420	545
C	3	4	4	4	5	5	5	5	7
D	67	71	80	95,5	100	117	123	145	160
E	20	32	42	55	76	103	136	190	240
E _{max.}	21	33	50	70	92	114	150	210	253
F	83	108	140	176	224	286	362	458	586
G	3xM8	3xM8	3xM10	3xM10	3xM12	3xM16	3xM16	6xM16	6xM16
H	56	56	69	85	90	130	130	190	190
J	22	21	28	32,5	40,6	46,5	47	55	55
K	8	9	10	11	12	14	17	19	19
R*	5,5	5,5	5,5	8	8	8	8	12	12
W	20	20	22,45	25,7	26,5	30	35	38	48
approx. kg	4	6	10	18	29	54	88	145	240

* from Ø 200 hexagon

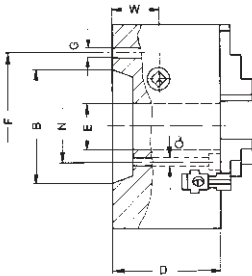
Short taper mount

DIN 55021 with setscrews and nuts



DIN 55027 with studs and locknuts

Available on request!



DIN 55029 with studs for camlock

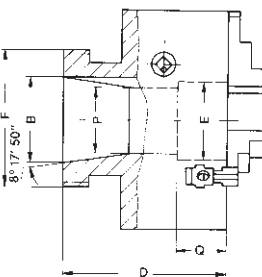
Available on request!

Size A	125		160		200		250					
Short-taper size	3	4	4	5	6	4	5	6	5	6	8	
B	53,9	63,5	63,5	82,5	106,4	63,5	82,5	106,4	82,5	106,4	139,7	
D	84	84	81	81	81	96,5	96,5	96,5	101	101	101	
E	32	32	42	42	42	55	55	55	76	76	76	
F	DIN	75	85	85	104,8	133,4	85	104,8	133,4	104,8	133,4	171,4
	Camlock	70,6	82,5	82,5			82,5					
W	21	21	23,45	23,45	23,45	26,7	26,7	26,7	27,5	27,5	27,5	
Mouting holes	DIN	3	3	3	4	4	3	4	4	4	4	
	Camlock	3	3	3	6	6	3	6	6	6	6	
approx. kg		6		10		19		30				

Size A	315		400		500		630		
Short-taper size	6	8	11	8	11	11	15	11	15
B	106,4	139,7	196,9	139,7	196,9	196,9	285,8	196,9	285,8
D	118	118	118	124	124	147	147	162	162
E	103	103	103	136	136	190	190	240	240
F	133,4	171,4	235	171,4	235	235	330,2	235	330,2
P	-	-	-	-	-	-	-	192,7	-
Q	-	-	-	-	-	-	-	88	-
W	31	31	31	36	36	40	40	50	50
Mouting holes	DIN	4	4	6	4	6	6	6	6
	Camlock	6	6	6	6	6	6	6	6
approx. kg		56		92		155		250	

All other dimensions should be taken from the table on the top

DIN 55026
Mounting from front
Available on request!



Size A	160	200	250	315	400	500	630					
Short-taper size	5	5	6	6	8	6	8	8	11	11	11	15
B	82,5	82,5	106,4	106,4	139,7	106,4	139,7	139,7	196,9	196,9	196,9	285,8
D	81	96,5	96,5	101	101	118	118	124	124	147	147	162
E	42	42	55	55	76	103	76	136	125	190	190	190
F ³⁾	-	-	-	-	-	133,4	-	171,4	-	235	235	-
G	-	-	-	-	-	14	-	18	-	22	22	-
N ²⁾	61,9	61,9	82,6	82,6	111,1	-	111,1	-	165,1	-	-	247,6
O	11 ¹⁾	11 ¹⁾	14	14	18	-	18	-	22	-	-	26
W	23,45	26,7	26,7	27,5	27,5	31	31	36	36	40	50	50
Mouting holes	*	3	3	6	6	6	6	6	6	6	6	6
	**	4	4	4	4	4	4	4	4	8	8	8
approx. kg	10	19	19	30	30	56	56	92	92	154	250	238

1) 12 with ASA B 5.9 A1/A2 inch, all other dim. should be taken from the above table.

2) With DIN 55026 form B; ASA B 5.9 A1/B1

* 3-Jaw

** 4-Jaw

3) With DIN 55026 Form A and B; DIN 55021 Forme A and B; ASA B 5.9 A1/A2

Chuck dimensions ES

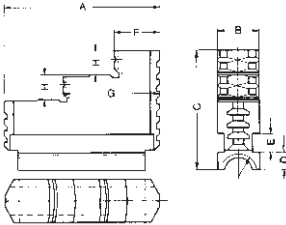
**Max. permissible speeds for chucks
EG-ES to DIN 6351**

The specified values are only applicable for workpieces not exceeding a specific unbalance of 25 gmm/kg.

Size	3-Jaw Steel body	4-Jaw Steel body
100	-	-
125	-	-
160	3200	2850
200	2650	2350
250	2200	1900
315	1400	1220
400	1400	1220
500	880	770
630	750	660

Chuck dimensions ES

Reversible jaw UB



Size	100	125	160	200	250	315	400	500	630
A	56	56	69	85	90	130	130	190	190
B	18	18	20	24	24	34	34	42	42
C	41,5	41,5	50	57,5	67,5	79,5	79,5	95	95
D	8,7	8,7	9,7	9,7	9,7	11,15	11,15	15	15
E	7	7	8	10	10	15	15	15	15
F	17	17	19	25	26	40	40	50	50
G	35	35	43	54	56	85	85	120	120
H	8	8	10	12	14	15	15	20	20
Thread	Tr14x3	Tr14x3	Tr16x4	Tr18x2	Tr18x2	Tr20x2	Tr20x2	Tr26x3	Tr26x3
approx. kg	0,18	0,18	0,3	0,53	0,7	1,7	1,7	3,7	3,7

Left-hand thread

