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2022

**BISON**



**POWER CHUCKS & CYLINDERS**

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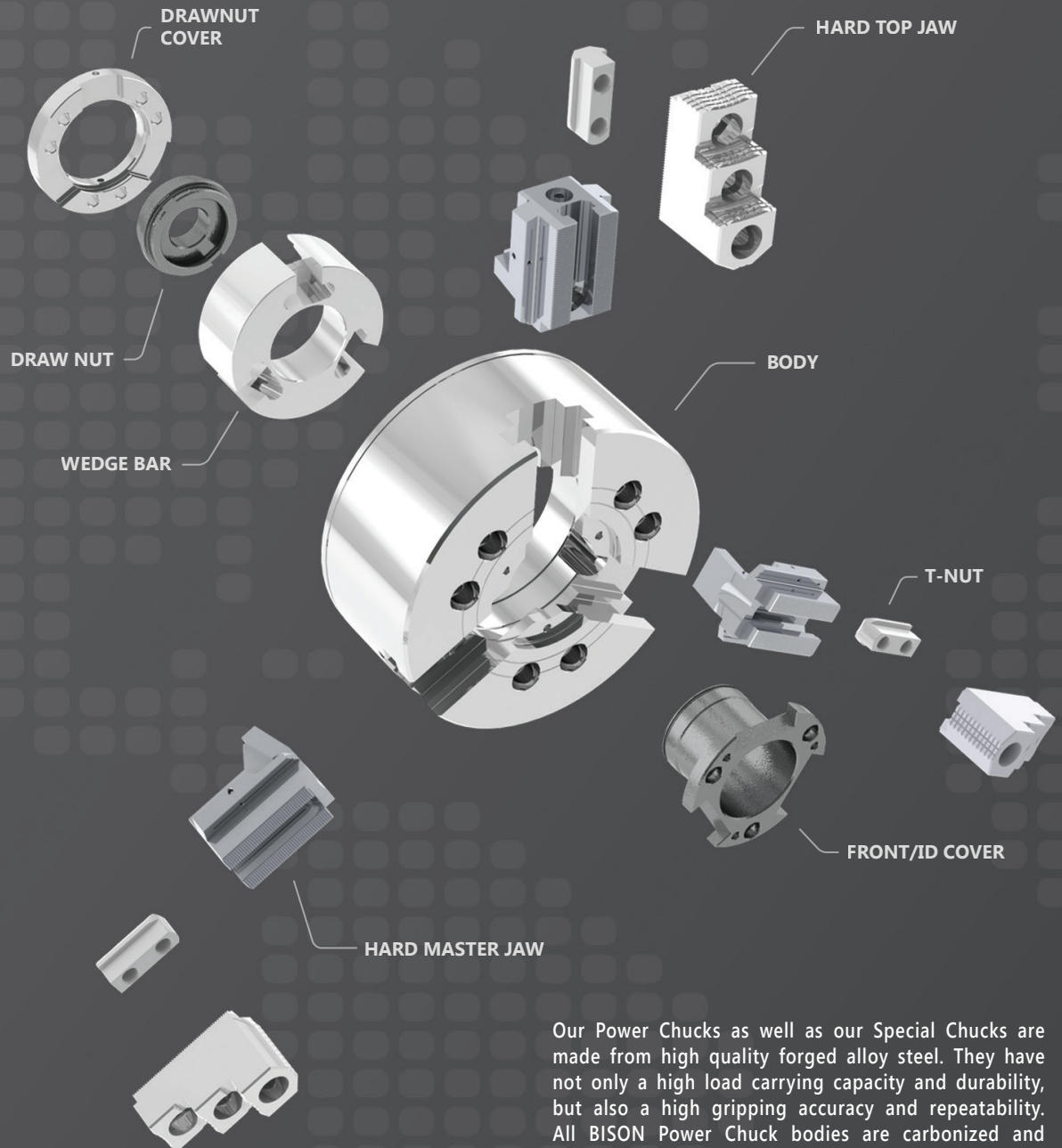
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# POWER CHUCKS



Our Power Chucks as well as our Special Chucks are made from high quality forged alloy steel. They have not only a high load carrying capacity and durability, but also a high gripping accuracy and repeatability. All BISON Power Chuck bodies are carbonized and hardened to 60 HRC.

The bodies and relevant working parts are finely ground, enabling the final product to be precise with excellent mechanical properties. The result is a rugged chuck with the most effective price/performance ratio in the market.

BISON - Durability you can rely on!



# 3-JAW POWER CHUCKS WITH THROUGH HOLE

2405-K

- INTERCHANGEABLE WITH KITAGAWA B-200 SERIES
- 1.5 X 60° JAW SERRATION



1

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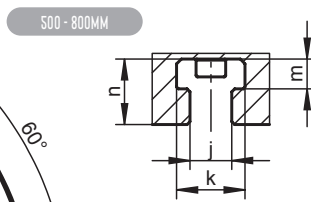
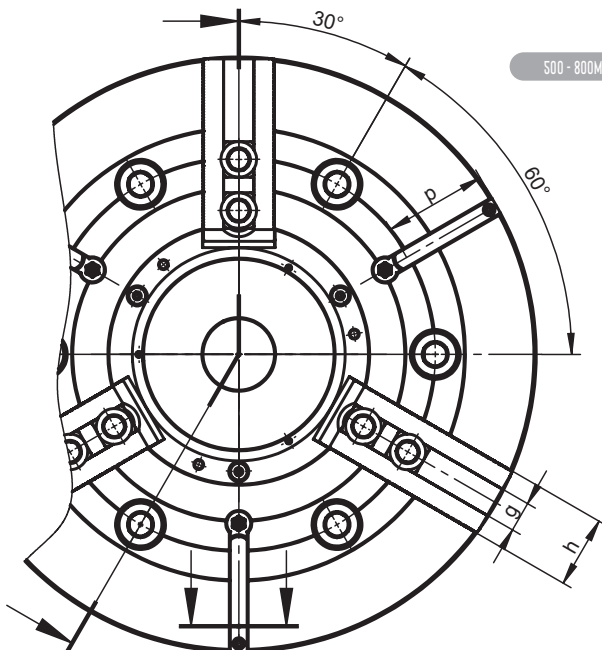
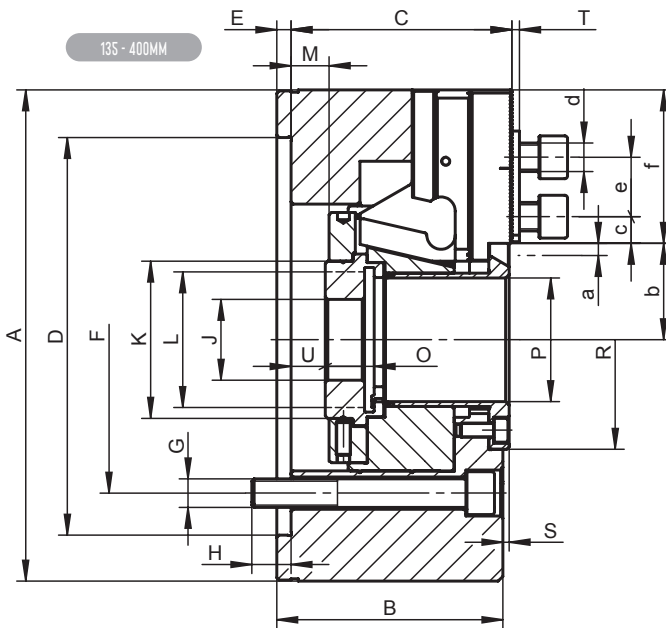
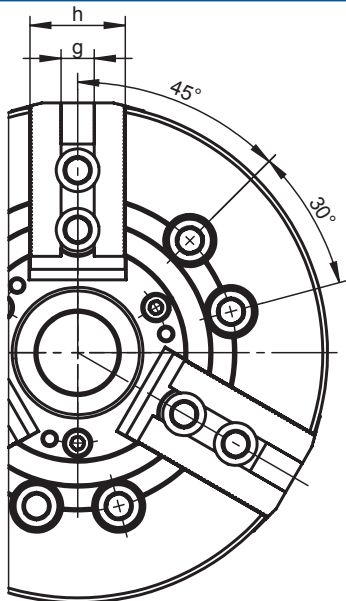
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- Manufactured from high grade alloy steel which extends chuck life while providing higher rigidity and greater wear resistance
- The drawbar design results in a rigid structure while enabling direct power transmission to the master jaws in the area of the jaw guideways
- This effectively counteracts the loss of gripping force resulting in high power transmission efficiency
- Hardened and ground working surfaces ensure longer life with maintained accuracy and repeatability
- Master jaws secured against throw-off
- Master jaws lubricated directly
- G 6.3 balance grade
- Chucks Ø500mm and Larger are Equipped with T-Slots

Chucks Supplied With Blank Draw Nut. Threaded Draw Nuts Available On Request



Standard Accessories

Soft Top Jaws

Mounting screws for chuck and jaw, T-nuts

Eye bolt (for Ø >200mm)

- INTERCHANGEABLE WITH KITAGAWA B-200 SERIES
- 1.5 X 60° JAW SERRATION



Code No.	7-781-0500	7-781-0600	7-781-0800	7-781-1000	7-781-1200	7-781-1600	7-781-2000	7-781-2500	7-781-3200
Type	2405-135-34K	2405-160-45K	2405-200-52K	2405-250-75K	2405-315-91K	2405-400-120K	2405-500-160K	2405-630-200K	2405-800-255K
<b>A [mm]</b>	135	169	210	254	315	400	500	630	800
<b>B [mm]</b>	60	81	95	106	108	130	127	160	160
<b>C [mm]</b>	59.5	79	93	104	106.5	126.5	127	158	158
<b>Mounting D H6 [mm]</b>	110	140	170	220	220	300	380	520	520
<b>E [mm]</b>	4	6	6	6	6	6	6	8	8
<b>F [mm]</b>	82.6	104.8	133.4	171.4	171.4	235.0	330.2	463.6	463.6
<b>G [mm]</b>	3 x M10	6 x M10	6 x M12	6 x M16	6 x M16	6 x M20	6 x M24	6 x M24	6 x M24
<b>H [mm]</b>	14.5	13.5	16.5	18	27	28	35	34	34
<b>J [mm]</b>	12	20	20	25	25	60	60	60	60
<b>K [mm]</b>	45	60	66	94	108	140	182	230	284
<b>L max. [mm]</b>	M40 x 1.5	M55 x 2.0	M60 x 2.0	M85 x 2.0	M100 x 2.0	M130 x 2.5	M170 x 3.0	M200 x 3.0	M250 x 3.0
<b>Max. draw-bar stroke M [mm]</b>	10 (10/0)	16 (13/-3)	22.5 (16/-6.5)	27 (19.5/-7.5)	27 (23/-4)	34 (23/-11)	34.5 (16.8/-17.7)	44 (44/0)	44 (44/0)
<b>O [mm]</b>	20	19	20.5	25	28	39	43	46	46
<b>P [mm]</b>	34	45	52	75	91	120	160	200	255
<b>R [mm]</b>	56	70	92	117	134	164	220	275	330
<b>S [mm]</b>	1.5	2.6	2.6	2.6	0.6	0.5	3.0	4.1	4.1
<b>T [mm]</b>	2	3	3	3	2.5	5	4	4	4
<b>U min. [mm]</b>	-9.5	-5	-8	-18.5	-19	-23	-32.5	-22.0	-22.0
<b>U max. [mm]</b>	0.5	11	14.5	8.5	8	11	2	22.0	22.0
<b>Jaw stroke a [mm]</b>	2.7	3.5	5	6	6	7.85	8	10	10
<b>Serration [mm]</b>	1.5x60°	1.5x60°	1.5x60°	1.5x60°	1.5x60°	1.5x60°	3X60°	3X60°	3X60°
<b>b min. [mm]</b>	24	30.2	35.5	47.9	56.9	74.65	97	134	162
<b>b max. [mm]</b>	26.8	33.7	40.5	53.9	62.9	82.5	105	144	172
<b>c min. [mm]</b>	7	9	10.5	11.7	13.2	12.5	16	16	16
<b>c max. [mm]</b>	20	25.5	33	41.7	60	51.5	86	116	166
<b>d [mm]</b>	M8	M10	M12	M12	M16	M20	M20	M20	M20
<b>e [mm]</b>	14	20	25	30	30	43	43	43	43
<b>f [mm]</b>	40.5	51	64.5	73	94	115	143.5	170	225
<b>g H7 [mm]</b>	10	12	14	16	21	25.5	25	25	25
<b>h [mm]</b>	25	38	40	45	52	60	60	70	70
<b>j [mm]</b>	-	-	-	-	-	-	14	22	22
<b>k [mm]</b>	-	-	-	-	-	-	23	37	37
<b>m [mm]</b>	-	-	-	-	-	-	10	16	16
<b>n [mm]</b>	-	-	-	-	-	-	21	35	35
<b>p [mm]</b>	-	-	-	-	-	-	87	100	160
<b>Max. pulling force [kN]</b>	17.5	22	34	43	56	71	90	100	100
<b>Max. clamping force [kN]</b>	36	57	86	111	144	180	200	200	200
<b>Max. speed [rpm]</b>	7,000	6,000	5,000	4,200	3,300	2,500	1,600	1,200	800
<b>Moment of inertia [kgm<sup>2</sup>]</b>	0.018	0.057	0.15	0.31	0.73	2.15	5	16	48
<b>Weight without top jaws [lbs]</b>	13.23	26.46	50.71	83.78	132.28	257.94	365.97	705.48	1,179.47

Chucks Supplied With Blank Draw Nut. Threaded Draw Nuts Available On Request

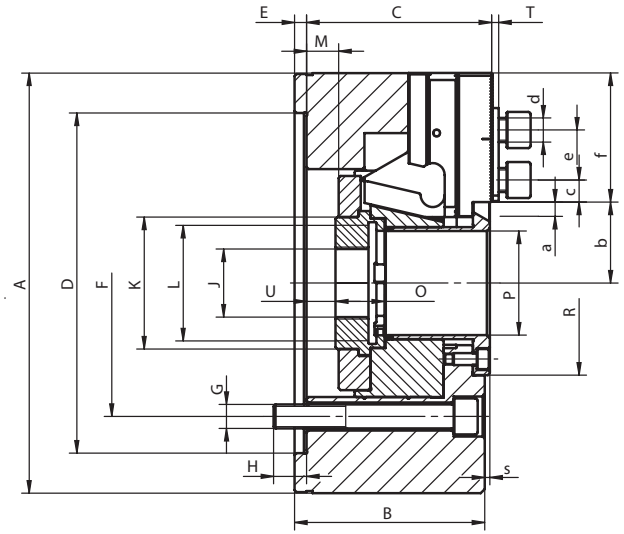
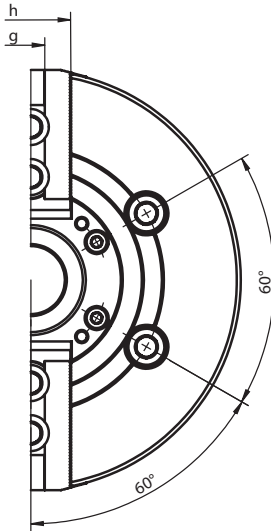
Larger sizes available upon request!



# 2-JAW POWER CHUCKS WITH THROUGH HOLE

2105-K

- INTERCHANGEABLE WITH KITAGAWA B-200 SERIES
- 1.5 X 60° JAW SERRATION



- Manufactured from high grade alloy steel which extends chuck life while providing higher rigidity and greater wear resistance
- The drawbar design results in a rigid structure while enabling direct power transmission to the master jaws in the area of the jaw guideways
- This effectively counteracts the loss of gripping force resulting in high power transmission efficiency
- Hardened and ground working surfaces ensure longer life with maintained accuracy and repeatability
- Master jaws secured against throw-off
- Master jaws lubricated directly
- G 6.3 balance grade

Standard Accessories

Soft Top Jaws

Mounting screws for chuck and jaw, T-nuts

Eye bolt (for Ø >200mm)

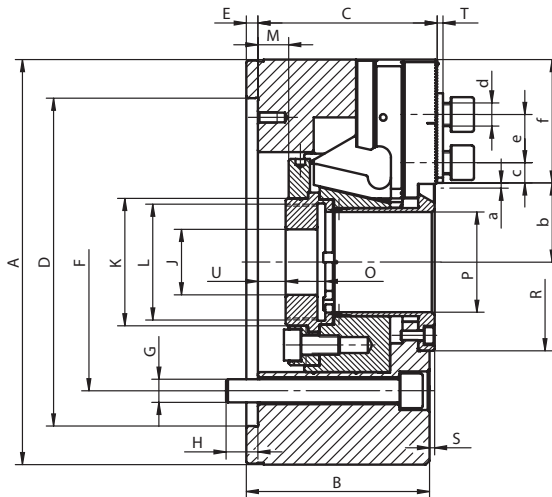
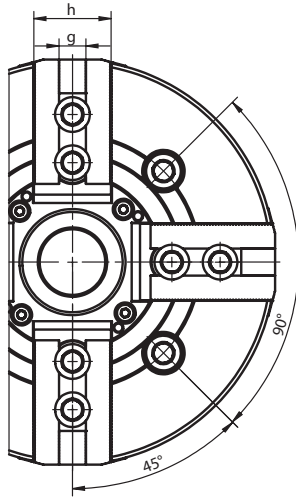
Code No.	7-782-0500	7-782-0600	7-782-0800	7-782-1000	7-782-1200
Type	2105-135-34K	2105-160-45K	2105-200-52K	2105-250-75K	2105-315-91K
A [mm]	135	169	210	254	315
B [mm]	60	81	95	106	108
C [mm]	59.5	79	93	104	106.5
Mounting D H6 [mm]	110	140	170	220	220
E [mm]	4	6	6	6	6
F [mm]	82.6	104.8	133.4	171.4	171.4
G [mm]	4 x M10	4 x M10	4 x M12	4 x M16	4 x M16
H [mm]	15.5	13.5	16.5	18	27
J [mm]	12	20	20	25	25
K [mm]	45	60	66	94	108
L max. [mm]	M40 x 1.5	M55 x 2.0	M60 x 2.0	M85 x 2.0	M100 x 2.0
Max. drawbar stroke M [mm]	10 (10/0)	16 (13/-3)	22.5 (16/-6.5)	27 (19.5/-7.5)	27 (23/-4)
O [mm]	20	19	20.5	25	28
P [mm]	34	45	52	75	91
R [mm]	56	70	92	117	134
S [mm]	1.5	2.6	2.6	2.6	0.6
T [mm]	2	3	3	3	2.5
U min. [mm]	-9.5	-5	-8	-18.5	-19
U max. [mm]	0.5	11	14.5	8.5	8
Jaw stroke a [mm]	2.7	3.5	5	6	6
Serration [mm]	1.5x60°	1.5x60°	1.5x60°	1.5x60°	1.5x60°
b min. [mm]	24	30.2	35.5	47.9	56.9
b max. [mm]	26.8	33.7	40.5	53.9	62.8
c min. [mm]	7	9	10.5	11.7	13.2
c max. [mm]	20	25.5	33	41.7	60
d [mm]	M8	M10	M12	M12	M16
e [mm]	14	20	25	30	30
f [mm]	40.5	51	64.5	73	94
g H7 [mm]	10	12	14	16	21
h [mm]	25	38	40	45	52
Max. pulling force [kN]	12.5	15	25	31	38
Max. clamping force [kN]	26	38	62	80	96
Max. speed [rpm]	7,000	6,000	5,000	4,200	3,300
Moment of inertia [kgm²]	0.014	0.056	0.165	0.315	0.779
Weight without top jaws [lbs]	12.57	26.46	48.50	77.16	125.66

Chucks Supplied With Blank Draw Nut. Threaded Draw Nuts Available On Request

Larger sizes available upon request!

- INTERCHANGEABLE WITH KITAGAWA B-200 SERIES
- 1.5 X 60° JAW SERRATION

2605-K



- Manufactured from high grade alloy steel which extends chuck life while providing higher rigidity and greater wear resistance
- The drawbar design results in a rigid structure while enabling direct power transmission to the master jaws in the area of the jaw guideways
- This effectively counteracts the loss of gripping force resulting in high power transmission efficiency
- Hardened and ground working surfaces ensure longer life with maintained accuracy and repeatability
- Master jaws secured against throw-off
- Master jaws lubricated directly
- G 6.3 balance grade

### Standard Accessories

Soft Top Jaws

Mounting screws for chuck and jaw, T-nuts

Eye bolt (for Ø >200mm)

Code No.	7-783-0500	7-783-0600	7-783-0800	7-783-1000	7-783-1200
Type	2605-135-34K	2605-160-45K	2605-200-52K	2605-250-75K	2605-315-91K
A [mm]	135	169	210	254	315
B [mm]	60	81	95	106	108
C [mm]	59.5	79	93	104	106.5
Mounting D H6 [mm]	110	140	170	220	220
E [mm]	4	6	6	6	6
F [mm]	82.6	104.8	133.4	171.4	171.4
G [mm]	4 x M10	4 x M10	4 x M12	4 x M16	4 x M16
H [mm]	14.5	13.5	16.5	18	27
J [mm]	12	20	20	25	25
K [mm]	45	60	66	94	108
L max. [mm]	M40 x 1.5	M55 x 2.0	M60 x 2.0	M85 x 2.0	M100 x 2.0
Max. drawbar stroke M [mm]	10 (10/0)	16 (13/-3)	22.5 (16/-6.5)	27 (19.5/-7.5)	27 (23/-4)
O [mm]	20	19	20.5	25	28
P [mm]	34	45	52	75	91
R [mm]	56	76	92	117	134
S [mm]	1.5	2.6	2.6	2.6	0.6
T [mm]	2	3	3	3	2.5
U min. [mm]	-9.5	-5	-8	-18.5	-19.0
U max. [mm]	0.5	11	14.5	8.5	8
Jaw stroke a [mm]	2.7	3.5	5	6	6
Serration [mm]	1.5x60°	1.5x60°	1.5x60°	1.5x60°	1.5x60°
b min. [mm]	24	30.2	35.5	47.9	56.9
b max. [mm]	26.8	33.7	40.5	53.9	62.9
c min. [mm]	7	9	10.5	11.7	13.2
c max. [mm]	20	25.5	33	41.7	60
d [mm]	M8	M10	M12	M12	M16
e [mm]	14	20	25	30	30
f [mm]	40.5	51	64.5	73	94
g H7 [mm]	10	12	14	16	21
h [mm]	25	38	40	45	52
Max. pulling force [kN]	17.5	22	34	43	56
Max. clamping force [kN]	36	57	86	111	144
Max. speed [rpm]	6,000	5,000	4,300	3,600	2,800
Moment of inertia [kgm <sup>2</sup> ]	0.014	0.047	0.133	0.315	0.779
Weight without top jaws [lbs]	12.35	26.46	47.40	77.16	124.56

Chucks Supplied With Blank Draw Nut. Threaded Draw Nuts Available On Request

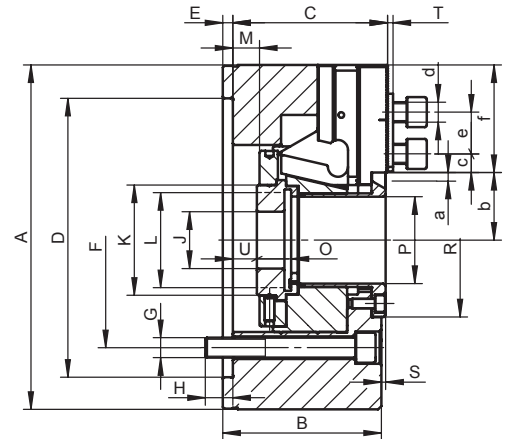
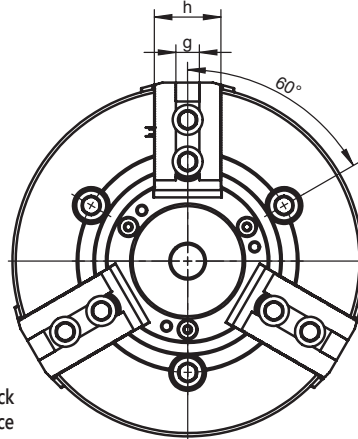
Larger sizes available upon request!



# 3-JAW POWER CHUCKS WITH LARGE THROUGH HOLE

2405-K ZW

- INTERCHANGEABLE WITH KITAGAWA BB-200 SERIES
- 1.5 X 60° JAW SERRATION



- Manufactured from high grade alloy steel which extends chuck life while providing higher rigidity and greater wear resistance
- The drawbar design results in a rigid structure while enabling direct power transmission to the master jaws in the area of the jaw guideways
- This effectively counteracts the loss of gripping force resulting in high power transmission efficiency
- Hardened and ground working surfaces ensure longer life with maintained accuracy and repeatability
- Master jaws secured against throw-off
- Master jaws lubricated directly
- G 6.3 balance grade

### Standard Accessories

Soft Top Jaws

Mounting screws for chuck and jaw, T-nuts

Eye bolt (for Ø >200mm)

Code No.	7-781-0660	7-781-0880	7-781-1010	7-781-1220
Type	2405-160-53K	2405-200-66K	2405-250-81K	2405-315-110K
A [mm]	169	210	254	315
B [mm]	81	95	106	108
C [mm]	79	93	104	106.5
Mounting D H6 [mm]	140	170	220	300
E [mm]	6	6	6	6
F [mm]	104.8	133.4	171.4	235
G [mm]	3 x M10	3 x M12	3 x M16	3 x M20
H [mm]	13.5	16.5	18	29
J [mm]	20	20	25	25
K [mm]	68	86	96	130
L max. [mm]	M62x2	M75x2	M90x2	M120x2
Max. drawbar stroke M [mm]	16 (13/-3)	22.5 (16/-6.5)	27 (19.5/-7.5)	27 (23/-4)
O [mm]	19	20.5	25	28
P [mm]	53	66	81	110
R [mm]	78	98	123	154
S [mm]	2.6	2.6	2.6	0.6
T [mm]	3	3	3	2.5
U min. [mm]	-5	-8	-18.5	-19
U max. [mm]	11	14.5	8.5	8
Jaw stroke a [mm]	3.5	5	6	6
Serration [mm]	1.5x60°	1.5x60°	1.5x60°	1.5x60°
b min. [mm]	34	43.5	50	67
b max. [mm]	37.5	48.5	56	73
c min. [mm]	9	10.5	11.7	13.2
c max. [mm]	24	29	41.7	54
d [mm]	M10	M12	M12	M16
e [mm]	20	25	30	30
f [mm]	47.5	58.5	73	85
g H7 [mm]	12	14	16	21
h [mm]	38	40	45	52
Max. pulling force [kN]	22	34	43	56
Max. clamping force [kN]	57	86	111	144
Max. speed [rpm]	6,000	5,000	4,200	3,300
Moment of inertia [kgm <sup>2</sup> ]	0.057	0.15	0.31	0.73
Weight without top jaws [lbs]	26.46	46.30	73.85	121.25

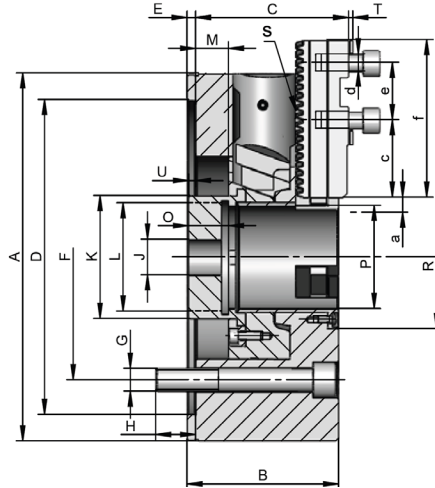
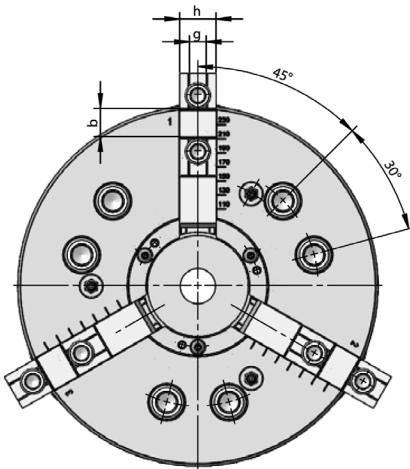
Chucks Supplied With Blank Draw Nut. Threaded Draw Nuts Available On Request

Larger sizes available upon request!



- JAW REPLACEMENT IN UNDER A MINUTE
- LOW PROFILE DESIGN

2305



- Manufactured from high grade alloy steel which extends machine life while providing higher rigidity and greater wear resistance
- Quick Jaw Change
- Made with high guide alloy steel to ensure durability and wear resistance
- Master jaws and replaceable top jaws compatible with Forkardt system
- Utilize 2 piece of solid piece quick change jaw styles

### Standard Accessories

Wrench

Mounting screws for chuck and jaws

Eye bolt (for Ø >200mm)



Code No.	7-770-0800	7-770-1000	7-770-1200
Type	2305-200-45	2305-250-72	2305-315-91
A [mm]	206	257	315
B [mm]	89	106	106
C [mm]	90	107	107
Mounting D H6 [mm]	170	220	300
E [mm]	6	6	6
F [mm]	133.4	171.4	235
G [mm]	6xM12	6xM16	6xM20
H [mm]	20	28	31
J [mm]	20	25	25
K [mm]	57	86	108
L Max [mm]	M52x2	M80x2	M100x2
Max. drawbar stroke M [mm]	20	23	23
O [mm]	24	28	28
P [mm]	45	72	91
R [mm]	73	100	122
Serration Pitch S [mm]	4.8	6	6
T [mm]	3	3	3
u min. [mm]	5	5	4
u max. [mm]	25	28	27
Max. Jaw Stroke a [mm]	7.2	8.3	8.3
b [mm]	20	20	20
c [mm]	37	54	54
d [mm]	M8x1	M12x1.5	M12x1.5
e [mm]	40	40	40
f [mm]	90	110	110
g [mm]	10	12	12
h [mm]	22	26	26
Jaws Type	F200	F250	F250
Max. Pulling Force [kn]	45	60	60
Max. Clamping Force [kn]	84	120	120
Max. Speed [rpm]	5500	4500	3500
Moment of inertia [kgm <sup>2</sup> ]	0.04	0.31	1.9
Weight without top jaws [lbs]	44	77	119

Chucks Supplied With Blank Draw Nut. Threaded Draw Nuts Available On Request

Larger sizes available upon request!



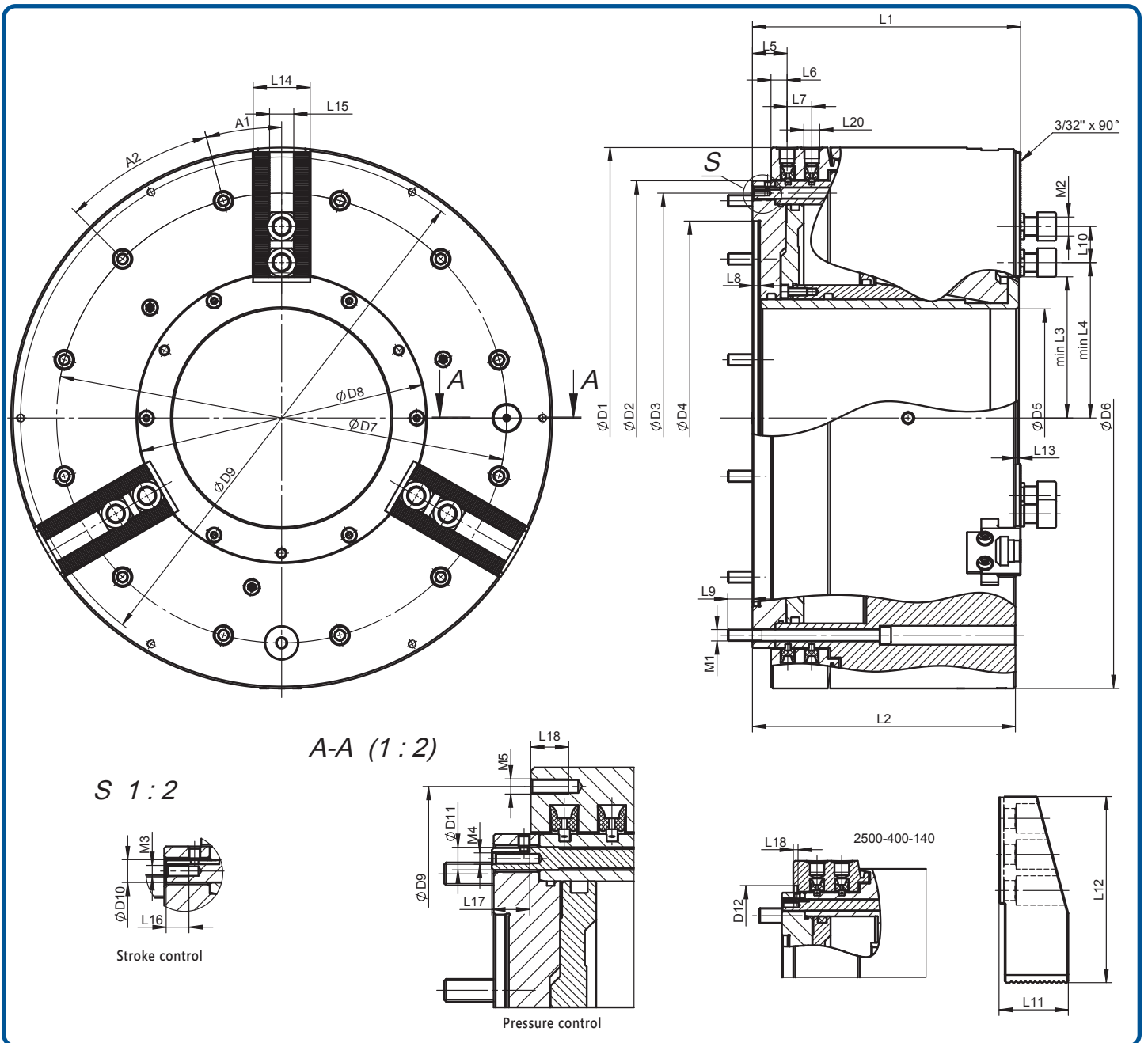
# 3-JAW POWER CHUCKS WITH PNEUMATIC CYLINDER

2500

- OUTSIDE DIAMETER CLAMPING
- RAPID IDLE AND SLOW CLAMPING STROKE



- The power chucks with an integrated pneumatic cylinder and a fixed pressure distributor (attached to the headstock) are designed for accurate turning of very long components such as pipes and similar workpieces
- The double spindle configuration increases clamping force and clamping stability
- Large through-hole
- Master jaws secured against throw-off
- Master jaws and drawbar lubricated directly
- Built-in non-return valve maintains a constant pressure flow in piston chambers in case of supply pressure drop
- Jaw stroke control device
- Air pressure safety control distributor in the clamping chamber
- Plain back mounting with clamping from the front
- G 6.3 Balance Grade



- OUTSIDE DIAMETER CLAMPING
- RAPID IDLE AND SLOW CLAMPING STROKE



Code No.	7-785-1600	7-785-2000	7-785-2500	7-785-3200	7-785-4000
Type	2500-400-140	2500-500-230	2500-630-325	2500-800-375	2500-1000-560
D1 [mm]	467	570	685	850	925
D2 [mm]	400	500	610	775	850
D3 [mm]	374	474	580	745	815
D4 [mm]	310	415	510	700	700
D5 [mm] Through-hole	140	230	325	375	560
D6 [mm]	450	570	685	850	1000
D7 [mm]	374	474	580	745	815
D8 [mm]	205	308	400	450	635
D9 [mm]	430	550	666	830	910
D10 [mm]	12	12	12	12	12
D11 [mm]	12	12	12	12	12
D12 [mm]	415	-	-	-	-
L1 [mm]	246.2	282.2	307.5	354	332
L2 [mm]	241	277	302	348.5	326.5
L3 [mm]	100	149	209	244	328
L4 [mm]	113.5	164	230	268	360
L5 [mm]	37	36.5	39.5	44.5	52.5
L6 [mm]	25	17	19.5	19.5	19.5
L7 [mm]	26	26	33	33	33
L8 [mm]	8	8	8	8	10
L9 [mm]	24	26	30	30	30
L10 [mm]	40	36	43	45	43
L11 [mm]	50	73	82	82	82
L12 [mm]	168	196	245	320	320
L13 [mm]	3.6	3.6	3.6	3.6	3.6
L14 [mm]	60	60	70	70	70
L15 [mm]	25.5	25.5	25.5	25.5	25.5
L16 [mm]	12	12	12	12	12
L17 [mm]	20	20	20	20	20
L18 [mm]	10	20	20	20	20
L19 [mm]	5	-	-	-	-
L20 [in]	3/8"	3/8"	3/8"	1/2"	1/2"
A1	20°	15°	15°	15°	15°
A2	40°	30°	30°	30°	30°
A3	30°	-	-	-	-
M1	9xM16	12xM12	12xM16	12xM16	12xM16
M2	M20	M20	M20	M20	M20
M3	M6	M6	M6	M6	M6
M4	M6	M6	M6	M6	M6
M5	6xM8	6xM8	6xM8	6xM8	6xM8
Jaw stroke [mm]	19	25.4	25.7	25.7	25.7
Clamping jaw stroke [mm]	7	8.6	8.6	8.6	8.6
Rapid jaw stroke [mm]	12	16.8	16.8	16.8	16.8
Operating pressure min./max. [MPa]	0.2/0.8	0.2/0.8	0.3/1	0.3/1	0.3/1
Clamping force (0,6 MPa) [kN]	130	180	200	200	170
Max. speed [rpm]	1,300	1,000	900	750	450
Moment of inertia [kgm <sup>2</sup> ]	6.3	16.8	36	105	160
Weight without top jaws [kg]	485.90	750.89	1.388.91	2,138.48	2,116.44

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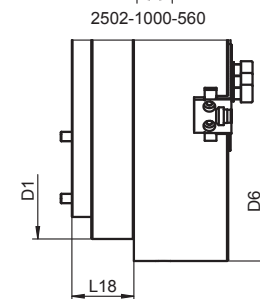
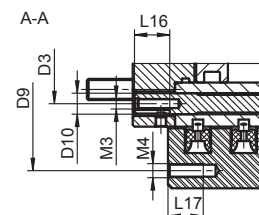
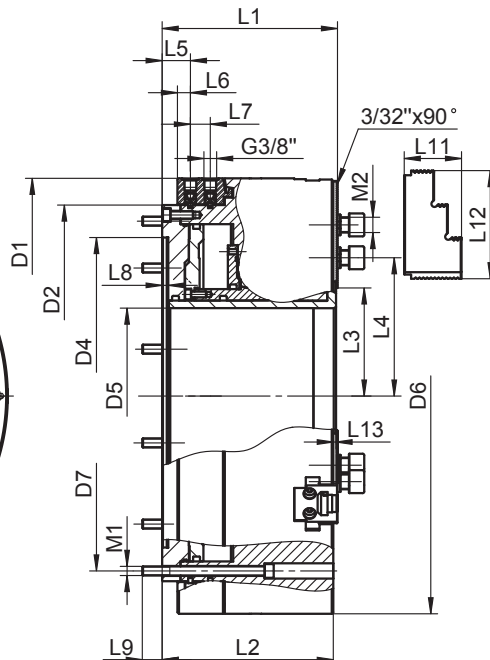
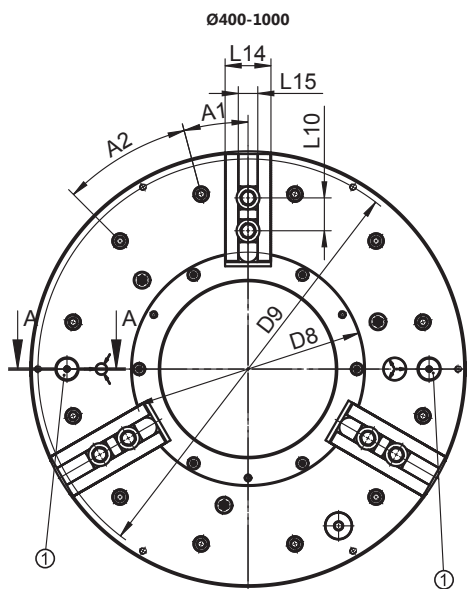
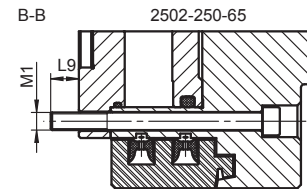
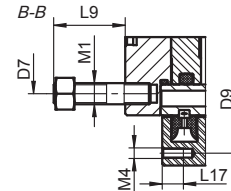
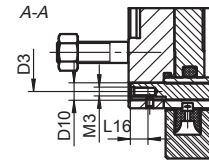
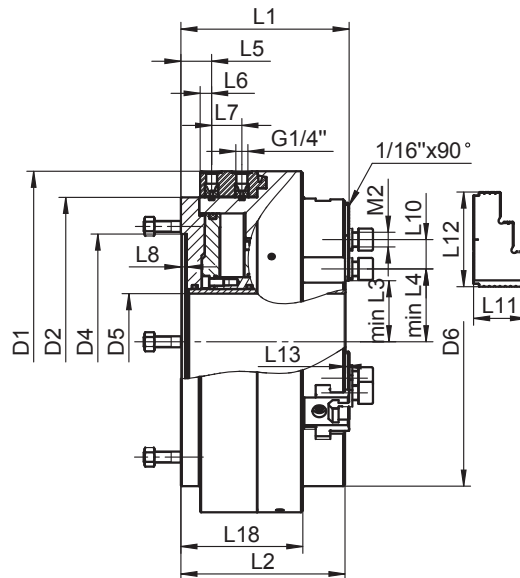
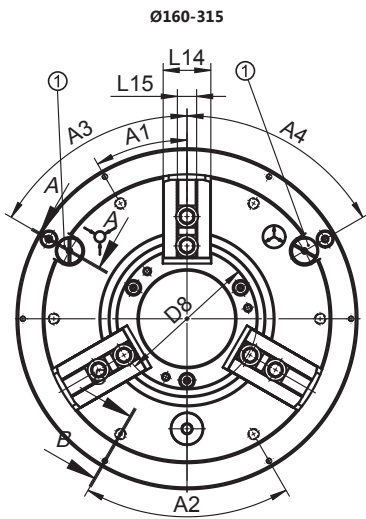
# 3-JAW POWER CHUCKS WITH PNEUMATIC CYLINDER

2502

- INSIDE AND OUTSIDE DIAMETER CLAMPING
- REVERSIBLE TOP JAWS



- The power chucks with an integrated pneumatic cylinder and a fixed pressure distributor (attached to the headstock) are designed for accurate turning of very long components such as pipes and similar workpieces
- The double spindle configuration increases clamping force and clamping stability
- Large through-hole
- Master jaws secured against throw-off
- Master jaws and drawbar lubricated directly
- Built-in non-return valve maintains a constant pressure flow in piston chambers in case of supply pressure drop
- Jaw stroke control device
- Air pressure safety control distributor in the clamping chamber
- Plain back mounting with clamping from the front
- G 6.3 Balance Grade



① Control valve

- INSIDE AND OUTSIDE DIAMETER CLAMPING
- REVERSIBLE TOP JAWS



Code No.	7-785-0600	7-785-0800	7-785-1000	7-785-1000R	7-785-1200R	7-785-1600R	7-785-2000R	7-785-2500R	7-785-3240R	7-785-3260R	7-785-4000R
Type	2502-160-38	2502-200-52	2502-250-65	2502-250-68	2502-315-105	2502-400-140	2502-500-230	2502-630-330	2502-800-365	2502-800-410	2502-1000-560
<b>D1 [mm]</b>	255	300	372	372	372	467	570	685	850	850	925
<b>D2 [mm]</b>	205	248	315	315	315	400	500	610	775	775	850
<b>D3 [mm]</b>	184	230	296	296	296	374	474	580	745	745	815
<b>D4 [mm]</b>	155	195	235	235	235	310	415	510	700	700	700
<b>D5 [mm] Through-hole</b>	38	52	65	68	105	140	230	330	365	410	560
<b>D6 [mm]</b>	168	210	254	254	315	467	570	685	850	850	1000
<b>D7 [mm]</b>	180	223.8	296	290.5	290.5	374	474	580	745	745	815
<b>D8 [mm]</b>	70	92	117	117	154	200	306	385	420	465	625
<b>D9 [mm]</b>	242	285	358	358	358	448	550	666	830	830	910
<b>D10 [mm]</b>	6	6	10	10	10	12	12	12	12	12	12
<b>L1 [mm]</b>	140.5	154	174	174	183.5	219	229.5	249	263.5	263.5	272
<b>L2 [mm]</b>	136.5	150	170	170	179	216.5	224	243	258	258	266
<b>L3 [mm]</b>	30.2	37.5	48.1	48	66.6	94.2	141.5	191.5	210	232.1	311.6
<b>L4 [mm]</b>	38.7	47	60.8	60	79	114.6	155	205.1	223.6	245.6	328.2
<b>L5 [mm]</b>	27.5	28.5	35.5	28	33.5	37	37	39.5	44.5	44.5	52.5
<b>L6 [mm]</b>	13	13.5	17	12.5	12.5	17	17	19.5	19.5	19.5	19.5
<b>L7 [mm]</b>	33	25	25	33	33	26	26	33	33	33	33
<b>L8 [mm]</b>	6.5	6.5	8	6.5	6.5	8	8	8	8	8	10
<b>L9 [mm]</b>	40	40	16	40	40	24	26	32	27	27	27
<b>L10 [mm]</b>	24	24.5	32	32	32	43	43	46	55	55	43
<b>L11 [mm]</b>	45	49	58	58	58	75	74	70	78	78	70
<b>L12 [mm]</b>	77	79	104	104	104	141.5	141.5	166.7	181.5	181.5	137
<b>L13 [mm]</b>	2.6	2.6	3	3	0.6	0.5	3.6	4.1	4.1	4.1	4.1
<b>L14 [mm]</b>	38	40	45	45	52	60	60	70	70	70	70
<b>L15 [mm]</b>	17	17	21	21	21	25.5	25.5	25.5	25.5	25.5	25.5
<b>L16 [mm]</b>	10	10	10	10	10	20	20	20	20	20	20
<b>L17 [mm]</b>	12	12	12	12	12	20	20	20	20	20	20
<b>L18 [mm]</b>	101.5	110	126	126	133	-	-	-	-	-	105.5
<b>A1</b>	30°	30°	30°	30°	30°	20°	15°	15°	15°	15°	15°
<b>A2</b>	60°	60°	60°	60°	60°	40°	30°	30°	30°	30°	30°
<b>A3</b>	60°	60°	60°	60°	60°	-	-	-	-	-	-
<b>A4</b>	60°	60°	60°	60°	60°	-	-	-	-	-	-
<b>M1</b>	6xM12	6xM12	6xM10	6xM12	6xM12	9xM12	12xM12	12xM16	12xM16	12xM16	12xM16
<b>M2</b>	M12	M12	M16	M16	M16	M20	M20	M20	M20	M20	M20
<b>M3</b>	M4	M4	M5	M5	M5	M6	M6	M6	M6	M6	M6
<b>M4</b>	6xM6	6xM6	6xM6	6xM6	6xM6	6xM8	6xM8	6xM8	6xM8	6xM8	6xM8
<b>Jaw stroke [mm]</b>	3.5	5	5	5	6	7	8.5	10	10	10	10
<b>Operating pressure min./max. [MPa]</b>	0.2/0.8	0.2/0.8	0.2/0.8	0.2/0.8	0.2/0.8	0.2/0.8	0.2/0.8	0.2/0.8	0.2/0.8	0.2/0.8	0.2/0.8
<b>Clamping force (0,6 MPa) [kN]</b>	43	68	87	87	100	180	220	200	412	400	250
<b>Max. speed [rpm]</b>	4,200	3,800	3,000	3,000	3,000	1,300	1,300	1,000	750	750	450
<b>Moment of inertia [kgm<sup>2</sup>]</b>	0.18	0.41	1.3	1.2	1.44	5.6	13	28.1	74.4	72.7	132
<b>Weight without top jaws [lbs]</b>	69.00	107.59	186.95	188.72	205.91	443.13	628.32	898.38	1,578.07	1,487.90	1,818.81

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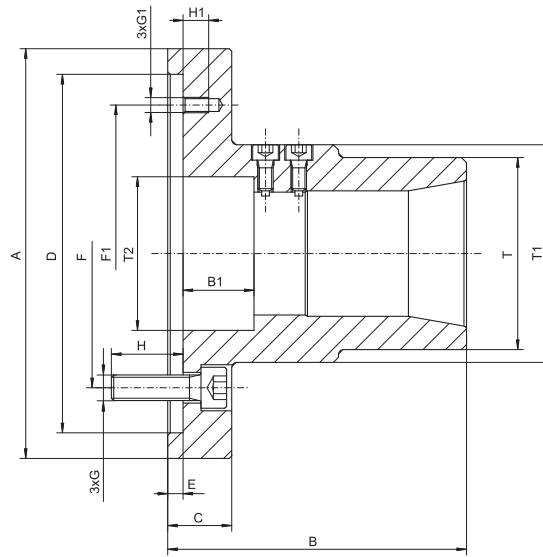
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### 2904

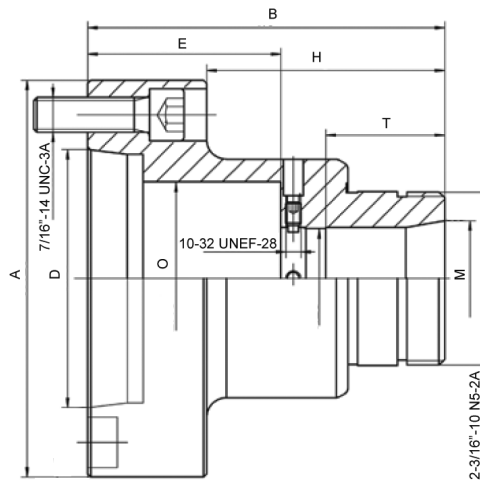
- For 5C and 16C collets
- Chucks are not equipped with collets



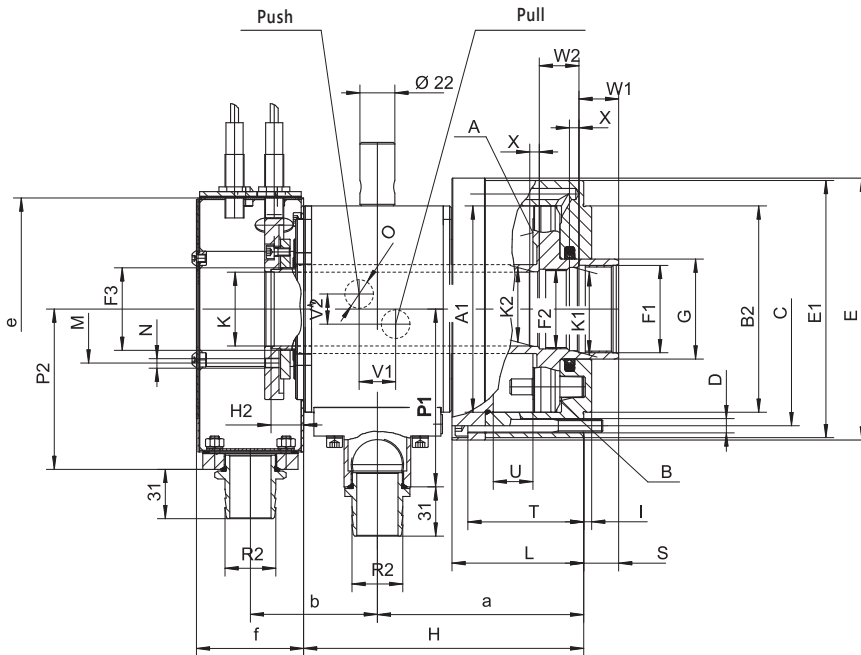
Code No.	Type	A	B	B1	C	D	E	F	F1	G	G1	H	H1	T	T1	T2	Clamping range			*Max. pulling force			
																	min	max	max	Y*	RPM	Match- col- let	Weight
																	[mm]			[kN]	1-min		[lbs]
7-775-0521	2904-150-5C	150	95	24,0	25	140	6	104,8	116	M10	M6	28	10	58	70	40	3 - 26	max. 20	max. 24	15	6,000	5C	8.82
7-775-0631	2904-160-16C	160	116,7	27,7	25	140	6	104,8	116	M10	M6	28	10	75	85	60	2 - 42	6 - 36	6 - 29	25	6,000	16C	11.68

### 2916

- For 5C collets
- Direct A2-5 Mount
- Chucks are not equipped with collets



Code No.	Type	A	B	D	E	H	M	O	T	d - Clamping range			*Max. pulling force		
										○	□	□	Y*	RPM	Weight
										[mm]			[lbf]	1/min	[lbs]
7-775-0551	2916-5"-5C	5.125	4.5	3.25	2.435	3	1.453	2.43	1.5	3 - 26	max. 20	max. 24	3,000	6,000	5.5



- Primarily used to drive lathe chucks and special powered fixtures operating in a horizontal positioning system
- The piston stroke control system located in the rear side of the cylinder is actuated via two proximity switches. These switches are not included in the delivery.
- Built-in non-return valve maintains a constant pressure flow in the powered piston chambers in case of oil supply disruption or power pressure drop
- Large through-hole
- Rear mount with screws
- G 6.3 Balance Grade

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Code No.	7-797-102B	7-797-130B	7-797-150B	7-797-225B
Type	1305-102-46-SDC	1305-130-52-SDC	1305-150-67-SDC	1305-225-95-SDC
A1 Size [mm]	130	150	165	205
B2 h6 [mm]	130	140	160	210
C [mm]	147	165	180	227
D [mm]	6 x ø9	6 x ø9	6 x ø11	6 x ø11
E [mm]	165	185	202	249
E1 [mm]	162	182	197	245
F1 [mm]	M55x2.0	M60 x 1.5	M75 x 2.0	M105 x 2.0
F2 [mm]	M50x1.5	M55 x 2.0	M72 x 1.5	M100 x 2.0
F3 [mm]	M52x1.5	M60 x 1.5	M74 x 1.5	M104 x 2.0
G [mm]	61	70	85	115
H [mm]	162.5	162.5	179	204
H2 [mm]	20.5	20.5	21	21
I [mm]	5	5	8	8
K [mm]	46.5	52.5	67.5	95.5
K1 H9 [mm]	52.5	57	72.5	102.5
K2 H9 [mm]	47	52.5	69	97
L [mm]	83	83	94	106
M [mm]	ø68	ø76	ø91	ø120
N [mm]	M6 (x2)	M6 (x2)	M6 (x2)	M6 (x2)
O [in]	G3/8	G3/8	G3/8	G3/8
P1 [mm]	120	127	137	159.5
P2 [mm]	98	98.0	130	135
P3 [mm]	116	120	130	152.5
R2* [mm]	32	32	32	32
S max. [mm]	22	22	25	31
T [mm]	73	73	82	94
U Stroke [mm]	25	25	30	35
V1 [mm]	9	9	10	11
V2 [mm]	28	28	36	36
W1	25	25	25	32
W2 [mm]	25	28	28	30
X [mm]	6	6	6	6
a [mm]	122.5	122.5	136	155
b [mm]	74	74	87.5	94
e [mm]	144	144	164	208
f [mm]	68.5	68.5	90	90
Piston area A [cm²]	110	145.5	169	243
Piston area B [cm²]	103.5	138.2	157	226
Max. pressure [MPa]	4.5	4.5	4.5	4.5
Max. push force (p=4,5 MPa) [kN]	49.5	64	75	108
Max. pull force (p=4,5 MPa) [kN]	46	61	70	100
Oil leakage (p=3 MPa, 50° C) [dm³/min]	3	3.5	4	7
Max. speed [rpm]	7,100	6,300	6,000	4,500
Moment of inertia [kgm²]	0.03	0.04	0.07	0.17
Absorbed power [KW]	1.2	1.5	1.5	2
Weight [lbs]	33.07	37.48	50.71	77.16



- FOR CHUCK TYPES 2405-K AND 2605-K
- 1.5 MM X 60° OR 3.0 MM X 60° SERRATION

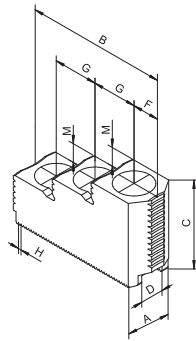


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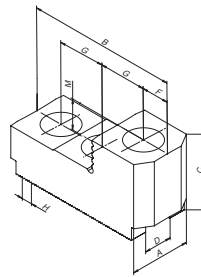
**FOR 3-JAW CHUCKS**



T-Nuts - Page 22



Version 1



Version 2

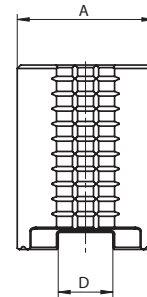
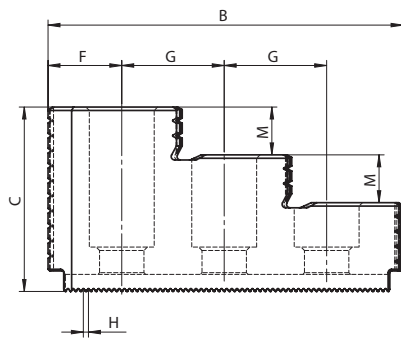


BISON Chuck Type	Code No.	Chuck Size [mm]	Version	A	B	C	D H7	F	G	H	M	Screws	Weight / set [lbs]
				[mm]							[mm]		
Ø 135 - 800 MM	2405-135-34K	7-787-305	1	23	53	36	10.0	13.0	14	1.5 mm x 60°	10	M8	3.09
	2405-160-45K	7-787-306	1	32	64	43	12.0	12.5	20	1.5 mm x 60°	10	M10	2.20
	2405-200-52K	7-787-308	1	35	79	49	14.0	14.5	25	1.5 mm x 60°	12	M12	3.53
	2405-250-75K	7-787-310	1	40	102	54	16.0	21.0	30	1.5 mm x 60°	14	M12	6.61
	2405-315-91K	7-787-312	1	45	102	58	21.0	21.0	30	1.5 mm x 60°	14	M16	6.83
	2405-400-120K	7-787-316	1	50	140	75	25.5	27	43	1.5 mm x 60°	18	M20	13.23
	2405-500-160K	7-787-320	1	50	140	75	25	27	43	3.0 mm x 60°	18	M20	13.67
	2405-630-200K	7-787-325	1	55	136	70	25	25	43	3.0 mm x 60°	28	M20	13.89
	2405-800-255K	7-787-332	1	55	136	70	25	25	43	3.0 mm x 60°	28	M20	13.89

**FOR 4-JAW CHUCKS**

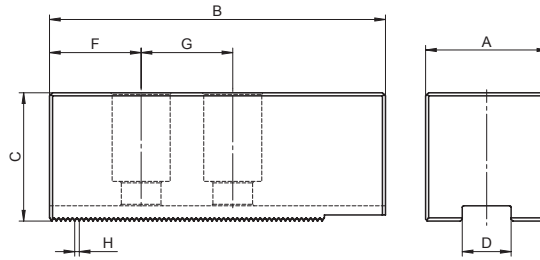


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BISON Chuck Type	Code No.	Chuck Size [mm]	A	B	C	D H7	F	G	H	M	Screws	Weight / set [lbs]
			[mm]							[mm]		
Ø 135 - 315 MM	2605-135-34K	7-787-405	23	53	36	10	13	14	1.5 mm x 60°	10	M8	1.10
	2605-160-45K	7-787-406	32	64	43	12	12.5	20	1.5 mm x 60°	10	M10	2.87
	2605-200-52K	7-787-408	35	79	49	14	14.5	25	1.5 mm x 60°	12	M12	4.63
	2605-250-75K	7-787-410	40	102	54	16	21	30	1.5 mm x 60°	14	M12	6.39
	2605-315-91K	7-787-412	45	102	58	21	21	30	1.5 mm x 60°	14	M16	8.82





### FOR 2-JAW CHUCKS

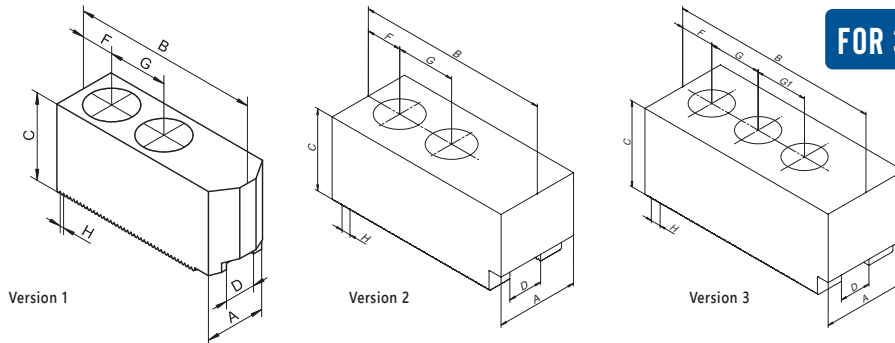


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Ø 135 - 315 MM

BISON Chuck Type	Code No.	Chuck Size [mm]	A	B	C	D H7	F	G	H	Screws	Weight / set [lbs]
2105-135-34K	7-788-205	135	25	54	25	10	12	14	1.5 mm x 60°	M8	0.88
2105-160-45K	7-788-206	160	40	65	40	12	12	20	1.5 mm x 60°	M10	2.87
2105-200-52K	7-788-208	200	40	95	40	14	24	25	1.5 mm x 60°	M12	4.41
2105-250-75K	7-788-210	250	50	105	50	16	30	30	1.5 mm x 60°	M12	7.72
2105-315-91K	7-788-212	315	50	110	50	21	21	30	1.5 mm x 60°	M16	7.50

Ø 135 - 800 MM



### FOR 3-JAW CHUCKS



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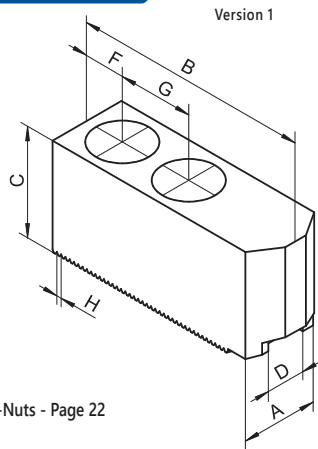
BISON Chuck Type	Code No.	Chuck Size [mm]	Version	A	B	C	D H7	F	G	G1	H	Screws	Weight / set [lbs]
2405-135-34K	7-788-305	135	1	25	54	25	10	12	14	-	1.5 mm x 60°	M8	1.32
2405-160-45K	7-788-306	160	1	40	65	40	12	12	20	-	1.5 mm x 60°	M10	3.97
2405-200-52K	7-788-308	200	1	40	95	40	14	24	25	-	1.5 mm x 60°	M12	6.17
2405-250-75K	7-788-310	250	1	50	105	50	16	30	30	-	1.5 mm x 60°	M12	11.24
2405-315-91K	7-788-312	315	1	50	110	50	21	21	30	-	1.5 mm x 60°	M16	11.02
2405-400-120K	7-788-316	400	2	60	140	60	25.5	26	43	-	1.5 mm x 60°	M20	20.94
2405-500-160K	7-788-320	500	2	60	140	60	25	26	43	-	3.0 mm x 60°	M20	20.94
2405-630-200K	7-788-325	630	3	70	170	70	25	27	43	43	3.0 mm x 60°	M20	33.51
2405-800-255K	7-788-325	800	3	70	170	70	25	27	43	43	3.0 mm x 60°	M20	33.51



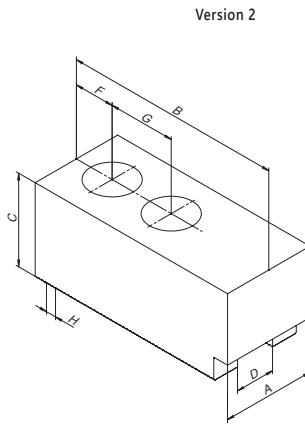
- FOR CHUCK TYPE 2605-K
- 1.5 MM X 60° OR 3.0 MM X 60° SERRATION



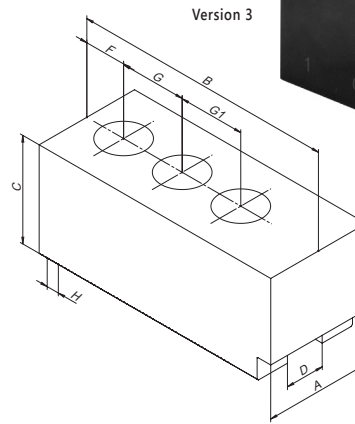
**FOR 4-JAW CHUCKS**



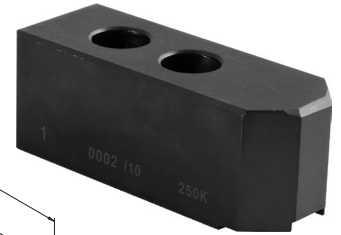
Version 1



Version 2



Version 3



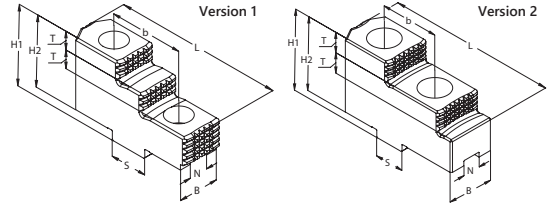
T-Nuts - Page 22

BISON Chuck Type	Code No.	Chuck Size [mm]	Version	A	B	C	D H7	F	G	G1	H	Screws	Weight / set
				[mm]									[lbs]
2605-135-34K	7-788-405	135	1	25	54	25	10	12	14	-	1.5 mm x 60°	M8	1.76
2605-160-45K	7-788-406	160	1	40	65	40	12	12	20	-	1.5 mm x 60°	M10	5.07
2605-200-52K	7-788-408	200	1	40	95	40	14	24	25	-	1.5 mm x 60°	M12	8.16
2605-250-75K	7-788-410	250	1	50	105	50	16	30	30	-	1.5 mm x 60°	M12	14.55
2605-315-91K	7-788-412	315	1	50	110	50	21	21	30	-	1.5 mm x 60°	M16	14.55
2605-400-120K	7-788-416	400	2	60	140	60	25.5	26	43	-	1.5 mm x 60°	M20	20.94
2605-500-160K	7-788-420	500	2	60	140	60	25	26	43	-	3.0 mm x 60°	M20	20.94
2605-630-200K	7-788-425	630	3	70	170	70	25	27	43	43	3.0 mm x 60°	M20	33.51
2605-800-255K	7-788-425	800	3	70	170	70	25	27	43	43	3.0 mm x 60°	M20	33.51

Ø 135 - 800 MM

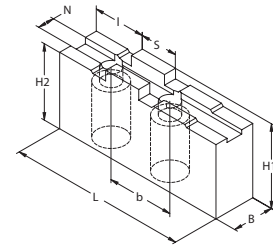
### HARD TOP JAWS

Code No.	Jaws Type	Chuck Size	Version	N	S	B	H1	H2	L	T	b	Weight [lbs/set]
				[mm]								
7-787-3308	SGT 200 F	2305-200	1	10	20	22	43	38	72	10	40	1.8
7-787-3310	SGT 250 F	2305-250/315	2	12	20	32	55	50	90	14	40	4.7



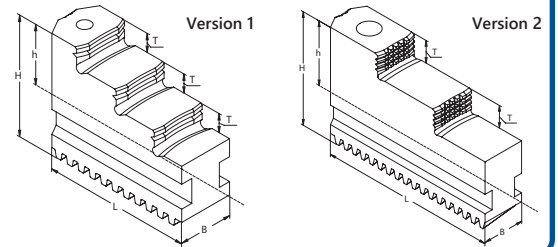
### SOFT TOP JAWS

Code No.	Jaws Type	Chuck Size	N	S	B	H1	H2	L	b	l	Weight [lbs/set]
			[mm]								
7-788-3308	SGM 200 F	2305-200	10	20	22	47	43	105	40	34	4.4
7-788-3310	SGM 250 F	2305-250/315	12	20	32	55	50	125	40	36	8.2



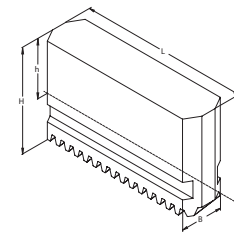
### HARD SOLID JAWS

Code No.	Jaws Type	Chuck Size	Version	B	H	L	T	h	Weight [lbs/set]
				[mm]					
7-788-3408	SJT 200 F	2305-200	1	22	60	94	10	35	4.2
7-788-3410	SJT 250 F	2305-250/315	2	26	70	115	14	40	7.3



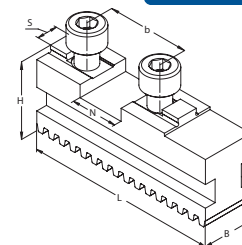
### SOFT SOLID JAWS

Code No.	Jaws Type	Chuck Size	B	H	h	L	Weight [lbs/set]
			[mm]				
7-788-3508	SJM 200 F	2305-200	22	60	35	94	5.7
7-788-3510	SJM 250 F	2305-250/315	26	70	40	115	9.7



### HARD MASTER JAWS

Code No.	Jaws Type	Chuck Size	N	S	B	H	L	b	Weight [lbs/set]
			[mm]						
7-788-3608	SP 200 F	2305-200	20	10	22	35	90	40	2.7
7-788-3610	SP 250 F	2305-250/315	20	12	26	40	110	40	4





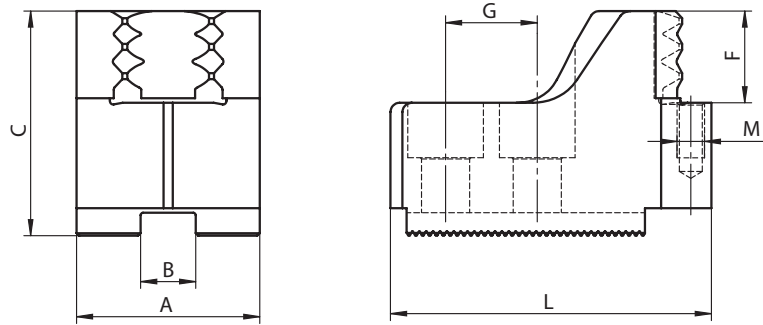
# POWER CHUCK JAWS

## HARD CLAW JAWS

- OUTSIDE DIAMETER CLAMPING
- 1.5 MM X 60° SERRATION



- 1
- 2
- 3
- 4
- 5



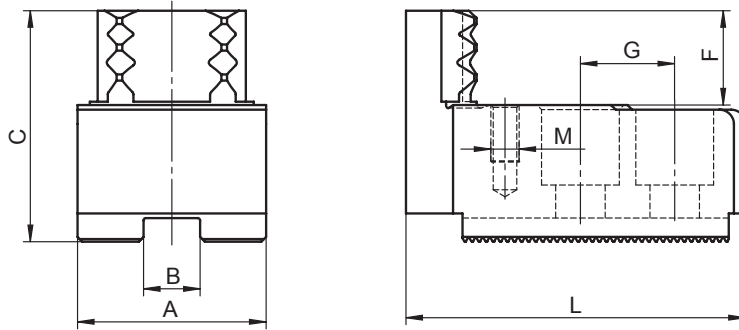
T-Nuts - Page 22



Workpiece stops - Page 23

BISON Chuck Type	Code No.	Chuck Size	Clamping range	A	B	C	F	G	L	M	Weight / set
											[lbs]
3 jaw set											
[mm]											
2405-160-45K	7-792-0061	160	28 - 55	40	12	49	20	20	74.0	M6	4.19
2405-160-45K	7-792-0062	160	36 - 68	40	12	49	20	20	68.0	M6	3.75
2405-160-45K	7-792-0063	160	50 - 81	40	12	49	20	20	70.0	M6	3.97
2405-160-45K	7-792-0064	160	63 - 97	40	12	49	20	20	60.0	M6	3.31
2405-160-45K	7-792-0065	160	80 - 112	40	12	49	20	20	60.0	M6	3.75
2405-200-52K	7-792-0081	200	29 - 72	40	14	49	20	25	83.0	M6	4.41
2405-200-52K	7-792-0082	200	63 - 100	40	14	49	20	25	69.0	M6	3.97
2405-200-52K	7-792-0083	200	92 - 129	40	14	49	20	25	57.0	M6	3.31
2405-200-52K	7-792-0084	200	111 - 158	40	14	49	20	25	50.0	M6	2.65
2405-200-52K	7-792-0085	200	150 - 189	40	14	49	20	25	73.5	M6	4.41
2405-250-75K	7-792-0101	250	40 - 94	40	16	59	25	30	97.0	M6	6.39
2405-250-75K	7-792-0102	250	78 - 130	40	16	59	25	30	78.0	M6	4.85
2405-250-75K	7-792-0103	250	121 - 173	40	16	59	25	30	67.0	M6	4.41
2405-250-75K	7-792-0104	250	166 - 215	40	16	59	25	30	66.5	M6	4.41
2405-250-75K	7-792-0105	250	203 - 252	40	16	59	25	30	85.5	M6	5.73
2405-315-91K	7-792-0122	315	41 - 127	50	21	59	30	30	120.0	M8	8.82
2405-315-91K	7-792-0121	315	89 - 181	50	21	59	30	30	95.0	M8	7.05
2405-315-91K	7-792-0123	315	153 - 245	50	21	59	30	30	75.0	M8	5.29
2405-315-91K	7-792-0124	315	219 - 300	50	21	59	30	30	85.0	M8	6.83

1.5 MM X 60°



T-Nuts - Page 22



Workpiece stops - Page 23

BISON Chuck Type	Code No.	Chuck Size	Clamping range	A	B	C	F	G	L	M	Weight / set
											[lbs]
3 jaw set											
[mm]											
2405-160-45K	7-792-1061	160	43 - 70	40	12	49	20	20	75	M6	3.75
2405-160-45K	7-792-1062	160	48 - 81	40	12	49	20	20	72	M6	3.53
2405-160-45K	7-792-1063	160	67 - 99	40	12	49	20	20	72	M6	3.75
2405-160-45K	7-792-1064	160	89 - 123	40	12	49	20	20	64	M6	3.97
2405-200-52K	7-792-1081	200	46 - 89	40	14	49	20	25	82	M6	3.97
2405-200-52K	7-792-1082	200	80 - 117	40	14	49	20	25	69	M6	3.75
2405-200-52K	7-792-1083	200	106 - 150	40	14	49	20	25	63	M6	3.75
2405-200-52K	7-792-1084	200	138 - 182	40	14	49	20	25	60	M6	3.97
2405-250-75K	7-792-1101	250	59 - 110	40	16	59	25	30	97	M6	5.51
2405-250-75K	7-792-1102	250	95 - 147	40	16	59	25	30	80	M6	5.29
2405-250-75K	7-792-1103	250	133 - 185	40	16	59	25	30	71	M6	4.85
2405-250-75K	7-792-1085	250	172 - 224	40	16	59	25	30	65	M6	5.73
2405-315-91K	7-792-1121	315	74 - 156	50	21	49	20	30	105	M8	6.61
2405-315-91K	7-792-1122	315	134 - 216	50	21	49	20	30	82	M8	5.51
2405-315-91K	7-792-1123	315	192 - 278	50	21	49	20	30	82	M8	5.73
2405-315-91K	7-792-1124	315	252 - 330	50	21	49	20	30	90	M8	7.28

1.5 MM X 60°

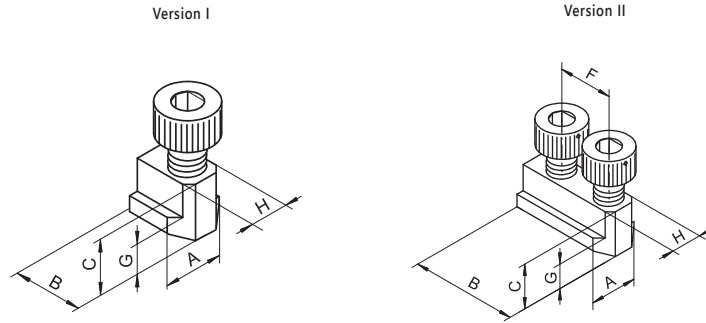


T-NUTS

- SINGLE OR DOUBLE CONFIGURATION
- SCREWS INCLUDED



- 1
- 2
- 3
- 4
- 5



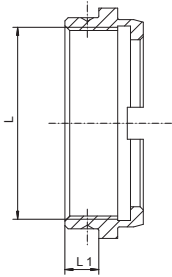
Code No.	Version	A	B	C	F	G	H h6	Screws*	Weight	BISON Chuck Type
1 pc	Version	[mm]							[lbs]	
7-789-905	II	15.0	26.0	15.0	14	5.5	10.0	M8x16	0.04	2104-135K, 2105-135-34K 2405-135K, 2405-135-34K 2605-135K, 2605-135-34K
7-789-906S	II	17.5	36.0	18.5	20	7.5	12.0	M10x20	0.09	2105-160K, 2105-160-45K 2405-160K, 2405-160-45K 2605-160K, 2605-160-45K
7-789-906	II	17.5	34	16.0	18	7.5	12	M10x20	0.09	2409-160-46
7-789-908S	II	23	42	21.5	24	9.5	17.0	M12x25	0.22	2104-160, 2105-160-45 2404-160, 2405-160-45 2604-160, 2605-160-45 2409-200-66
7-789-908	II	20.5	46.5	20.5	25	8.5	14.0	M12x25	0.20	2104-200K, 2105-200-52K 2404-200K, 2405-200-52K 2604-200K, 2605-200-52K
7-789-910S	I	23	19	21.5	-	9.0	17.0	M12x25	0.07	2104-200, 2105-200-52 2404-200, 2405-200-52 2604-200, 2605-200-52 2409-250-91 2409-315-91 2488-200
7-789-910	II	22.5	51.0	21.5	30	8.5	16.0	M12x30	0.26	2104-250, 2105-250-75K 2404-250, 2405-250-75K 2604-250, 2605-250-75K
7-789-912	I	27	24	25.5	-	10.5	21.0	M16x30	0.11	2104-250, 2105-250-75 2404-250, 2405-250-75 2604-250, 2605-250-75 2488-315
7-789-912S	II	29.0	55.5	27.0	30	10.5	21.0	M16x30	0.46	2104-315K, 2105-315-91K 2404-315K, 2405-315-91K 2605-315K, 2605-315-91K
7-789-912	I	27	24	25.5	-	10.5	21.0	M16x30	0.11	2104-315, 2105-315-91 2404-315, 2405-315-91 2604-315, 2605-315-91
7-789-916	II	34.0	80.0	31.0	43	12.0	25.5	M20x40	0.84	2404-400K, 2405-400-120K
7-789-920	I	34	30	29.0	-	12.0	25.5	M20x40	0.20	2404-400, 2405-400-120
7-789-920S	I	34	30	29.0	-	12.0	25.0	M20x40	0.20	2404-500K, 2405-500-160K 2404-630K, 2405-630-200K 2404-800K, 2405-800-255K
7-789-920	I	34	30	29.0	-	12.0	25.5	M20x40	0.20	2404-500, 2405-500-160 2404-630, 2405-630-200 2404-800, 2405-800-255

D 135 - 800 MM

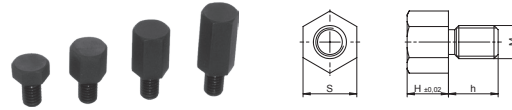


### THREADED DRAW NUT

FOR TYPE  
210S-K, 240S-K, 260S-K



Code No.	Size [mm]	L [mm]	L1 [mm]	Weight [lbs]
7-789-0522	135	M20x1.5	15.5	0.44
7-789-0532	135	M38x1.5	15.5	0.22
7-789-0534	135	M38x2.0	15.5	0.22
7-789-0542	135	M40x1.5	15.5	0.22
7-789-0544	135	M40x2.0	15.5	0.22
7-789-0624	160	M27x2.0	8.0	0.66
7-789-0642	160	M42x1.5	8.0	0.44
7-789-0652	160	M55x1.5	8.0	0.22
7-789-0644	160	M42x2.0	8.0	0.44
7-789-0650	160	M50x1.5	8.0	0.22
7-789-0654	160	M55x2.0	8.0	0.22
7-789-0834	200	M36x2.0	11.6	1.10
7-789-0852	200	M50x1.5	11.6	0.66
7-789-0862	200	M55x1.5	11.6	0.44
7-789-0872	200	M60x1.5	11.6	0.44
7-789-0854	200	M50x2.0	11.6	0.66
7-789-0864	200	M55x2.0	11.6	0.44
7-789-0874	200	M60x2.0	11.6	0.44
7-789-1054	250	M50x2.0	23.0	2.20
7-789-1062	250	M60x1.5	23.0	1.85
7-789-1082	250	M80x2	23.0	0.88
7-789-1074	250	M85x1.5	23.0	1.98
7-789-1080	250	M60x2	23.0	1.10
7-789-1084	250	M85x2.0	23.0	0.88
7-789-1075	250	M74x1.5	23.0	1.32
7-789-1076	250	M76x1.5	23.0	1.32
7-789-1264	315	M56x2.0	24.0	3.31
7-789-1292	315	M100x1.5	24.0	1.10
7-789-1294	315	M100x2.0	24.0	1.10
7-789-1664	400	M68x2.0	23.0	8.16
7-789-2064	500	M68x2.0	21.0	16.31
7-789-2564	630	M68x2.0	37.0	31.53
7-789-3264	800	M68x2.0	47.0	49.16



### WORKPIECE STOPS

FOR CLAW JAWS

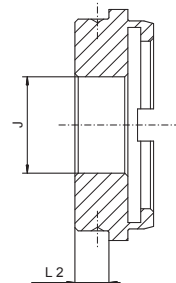
Code No. 3-pc set	Type	H [mm]	S [mm]	h [mm]	Weight / set [lbs]
<b>M 5</b>					
7-792-951	KB KB-M5x5	5	8	8	0.022
7-792-952	KB KB-M5x10	10	8	8	0.035
7-792-953	KB KB-M5x15	15	8	8	0.051
<b>M 6</b>					
7-792-961	KB KB-M6x5	5	10	10	0.035
7-792-962	KB KB-M6x10	10	10	10	0.057
7-792-963	KB KB-M6x15	15	10	10	0.082
7-792-964	KB KB-M6x20	20	10	10	0.104
7-792-981	KB KB-M6x25	25	10	10	0.126
<b>M 8</b>					
7-792-982	KB KB-M8x5	5	13	10	0.060
7-792-983	KB KB-M8x10	10	13	10	0.104
7-792-984	KB KB-M8x15	15	13	10	0.141
7-792-985	KB KB-M8x20	20	13	10	0.179
7-792-986	KB KB-M8x25	25	13	10	0.216
7-792-987	KB KB-M8x30	30	13	10	0.249

■ Possibility of adjusting the clamping depth of the workpiece 'T' by means of removable workpiece stops.

■ If requested, the height of the workpiece stops can be designed to customer's specification.

### BLANK DRAW NUT

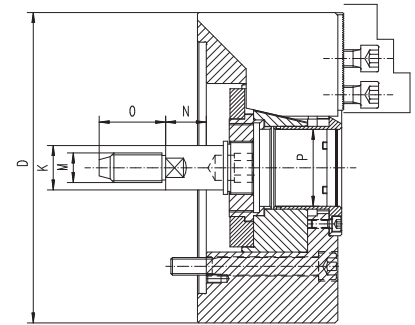
FOR TYPE  
210S-K, 240S-K, 260S-K



Code No.	Size [mm]	J [mm]	L2 [mm]	Max. thread [mm]	Weight [lbs]
7-789-0501	135	12	15.5	M40x1.5	0.51
7-789-0601	160	20	8.0	M55x2.0	0.77
7-789-0602	160	20	8.0	M62x2.0	0.99
7-789-0801	200	20	11.6	M60x2.0	1.04
7-789-0802	200	20	11.6	M75x2.0	1.79
7-789-1001	250	25	23.0	M82x2.0	2.76
7-789-1002	250	25	23.0	M90x2.0	2.80
7-789-1201	315	25	24.0	M100x2.0	3.99
7-789-1202	315	25	24.0	M120x2.0	5.82
7-789-1601	400	60	23.0	M130x2.5	8.25
7-789-2001	500	60	21.0	M170x3.0	16.64
7-789-2501	630	60	37.0	M200x3.0	32.01
7-789-3201	800	60	47.0	M250x3.0	49.69

### THRU-HOLE PLUG KIT

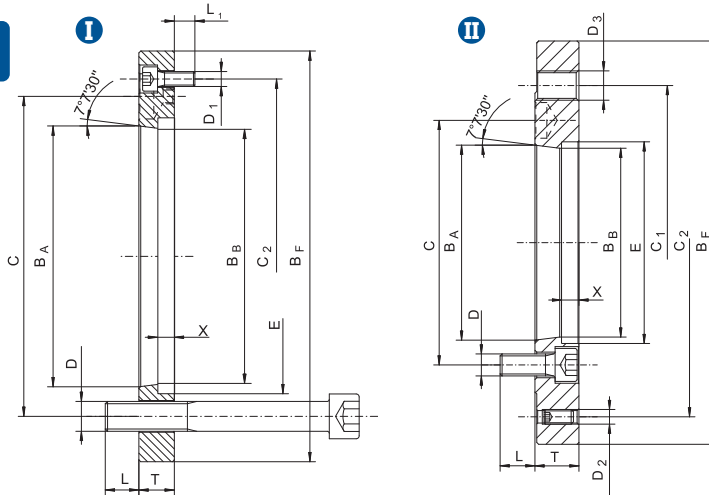
FOR TYPE  
210S-K, 240S-K, 260S-K



- A special insert enables to convert through-hole into a non through-hole
- The set includes:
  - 1) Cover, to be mounted on the chuck front face
  - 2) A special screw for connecting the adjusting nut with drawbar of the actuating cylinder
- Kits available in sizes to match chuck and thru-hole diameters

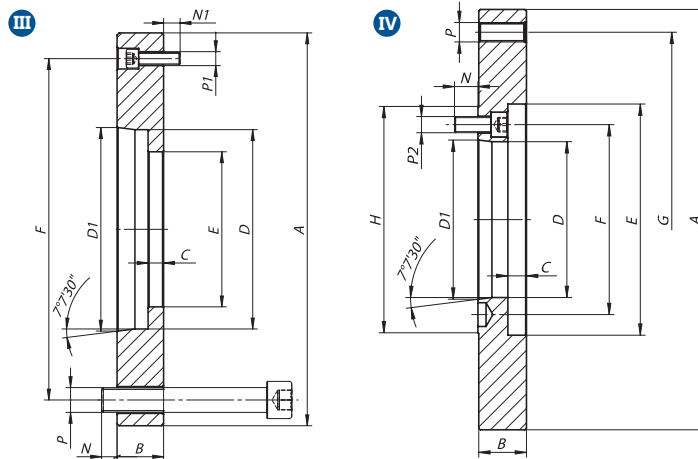
Code No.	Size [mm]	D [mm]	P [mm]	K [mm]	M	N [mm]	O [mm]
7-791-005	135-34	135	34	20	M12	20.5	35
7-791-006	160-45	169	45	24	M16	25.5	40
7-791-008	200-52	210	52	30	M20	27.5	45
7-791-010	250-75	254	75	36	M24	33	55
7-791-012	315-91	315	91	36	M24	34	55
7-791-016	400-120	400	120	36	M24	27	55

FOR 3-JAW CHUCKS



\*Adapter version \*\*DIN 55026

Code No.	Type	Z*	Size [mm]	Spindle nose**	[mm]											[mm]				Weight [lbs]
					B F	BA	BB	C	C1	C2	D	D1	D2	D3	L	L1	T	E	X	
7-789-5054	8213-135/4	I	135	A4	110	63.513	61.0	82.6	-	94	3xM10	3xM6	-	-	14.5	8	22	-	-	2.65
7-789-5055	8213-135/5	I	135	A5	120	82.563	72	104.8	-	94	3xM10	3xM6	-	-	13.5	7	17	-	-	2.42
7-789-5065	8213-160/5	I	160	A5	140	82.563	79.5	104.8	-	116	6xM10	3xM6	-	-	10.5	8	20	92	3	3.75
7-789-5066	8213-160/6	II	160	A6	140	106.375	76	133.4	104.8	-	6xM12	-	-	6xM10	19	-	35	100	3	7.70
7-789-5085	8213-200/5	II	200	A5	170	82.563	79.5	104.8	133.4	150	6xM10	-	3xM8	6xM16	17	-	26	115	6.5	6.61
7-789-5086	8213-200/6	I	200	A6	170	106.375	103.0	133.4	-	150	6xM12	3xM6	-	-	13.5	7	23	115	6.5	6.17
7-789-5088	8213-200/8	II	200	A8	170	139.719	103.0	171.4	133.4	-	6xM16	-	-	6xM12	24	-	40	117	6.5	13.64
7-789-5106	8213-250/6	II	250	A6	220	106.375	103.0	133.4	171.4	190	6xM12	-	3xM8	6xM16	19	-	33	149	7.5	12.79
7-789-5108	8213-250/8	I	250	A8	220	139.719	136.1	171.4	-	190	6xM16	3xM8	-	-	23	11	37	149	7.5	14.33
7-789-5126	8213-315/6	II	315	A6	220	106.375	103.0	133.4	171.4	190	6xM12	-	3xM8	6xM16	18	-	37	165	20	15.43
7-789-5128	8213-315/8	I	315	A8	220	139.719	136.1	171.4	-	190	6xM16	3xM8	-	-	20	11	37	165	4	16.09
7-789-51211	8213-315/11	II	315	A11	220	196.869	120	235	171.4	-	6xM20	-	-	6xM16	23.5	-	48	120	4	29.92
7-789-51608	8213-400/8	II	400	A8	300	139.719	136.1	171.4	235	250	8xM20	-	3xM10	8xM16	22.5	-	35	202	11	28.44
7-789-51611	8213-400/11	I	400	A11	300	196.869	192.8	235	-	260	6xM20	3xM10	-	-	34	12	44	198	11	37.92



\*Adapter version \*\*DIN 55026

Code No.	Type	Z*	Size [mm]	Spindle nose**	[mm]											[mm]			Weight [lbs]
					A	B	C	D	D1	E	F	G	H	N	N1	P	P1	P2	
7-789-52011	8213-500-11	IV	500	A11	380	55	18	192.8	196.869	274	235	330.2	280	29	-	6xM24	-	6xM20	58.64
7-789-52015	8213-500-15	III	500	A15	380	46	-	281.4	285.775	246	330.2	-	-	29	15	6xM24	3xM12	-	53.79
7-789-52511	8213-630-11	IV	630	A11	520	60	23	192.8	196.869	234	235	463.6	280	29	-	6xM24	-	6xM20	139.33
7-789-52515	8213-630-15	IV	630	A15	520	55	-	281.4	285.775	234	330.2	463.6	380	32	-	6xM24	-	6xM24	119.05
7-789-53211	8213-800-11	IV	800	A11	520	60	23	192.8	196.869	287	235	463.6	280	29	-	6xM24	-	8xM20	131.40
7-789-53215	8213-800-15	IV	800	A15	520	45	23	281.4	285.775	287	330.2	463.6	380	32	-	6xM24	-	6xM24	95.90
7-789-53220	8213-800-20	III	800	A20	520	45	-	408	412.775	287	463.6	-	-	29	15	6xM24	3xM12	-	95.90



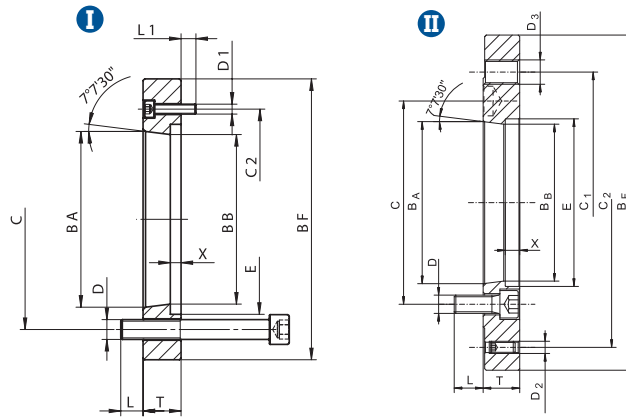
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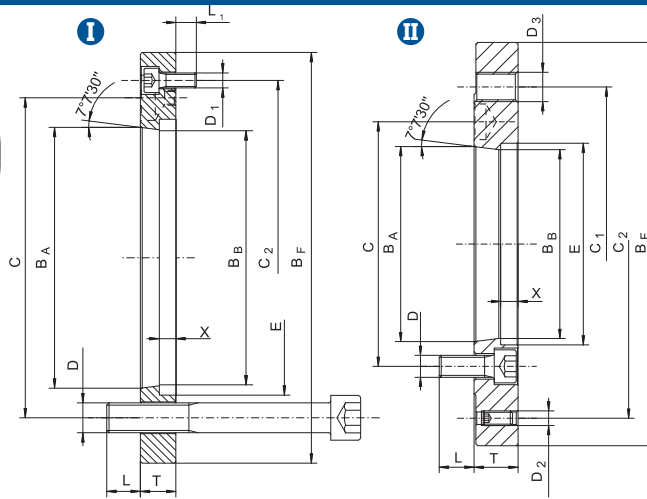
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**FOR 2- & 4-JAW CHUCKS**

\*Adapter version \*\*DIN 55026

Code No.	Type	Z*	Size [mm]	Spindle nose**	B F	B A	B B	C	C 1	C 2	D	D 1	D 2	D 3	L	L 1	T	E	X	Weight
					[mm]														[mm]	
7-789-6065	8213-160-5 2-4	I	160	A5	140	82.563	79.5	104.8	-	116	4xM10	3xM6	-	-	13.5	8	20	100	3.0	3.53
7-789-6086	8213-200-6 2-4	I	200	A6	170	106.375	103	133.4	-	150	4xM12	3xM6	-	-	13.5	7	23	117	6.5	5.73
7-789-6108	8213-250-8 2-4	I	250	A8	220	139.719	136	171.4	-	190	4xM16	3xM8	-	-	23.0	11	35	149	7.5	13.23
7-789-6128	8213-315-8 2-4	I	315	A8	220	139.719	136	171.4	-	190	4xM16	3xM8	-	-	20.0	11	37	165	4.0	14.99
7-789-6168	8213-400-8 2-4	II	400	A8	300	139.719	142	171.4	235.0	235	6xM16	-	3xM10	8xM20	21.5	-	41	202	11	36.42
7-789-61611	8213-400-11 2-4	I	400	A11	300	196.869	192.8	235.0	-	260	4xM20	3xM10	-	-	34	13	44	198	11	35.91
7-789-62011	8213-500-11 2-4	II	500	A11	380	196.869	192.8	235.0	330.2	330.2	6xM20	-	3xM16	8xM24	29	-	55	274	18	58.09
7-789-62015	8213-500-15 2-4	I	500	A15	380	281.4	285.775	330.2	-	330.2	8xM24	3xM12	-	-	29	15	46	246	-	56.53



**FOR QUICK JAW CHANGE CHUCKS**

\*Adapter version \*\*DIN 55026

Code No.	Type	Z*	Size [mm]	Spindle nose**	B F	B A	B B	C	C 1	C 2	D	D 1	D 2	D 3	L	L 1	T	E	X	Weight
					[mm]														[mm]	
7-789-4085	8213-200-5 2305	II	200	A5	170	82.563	79.6	104.8	133.4	-	6xM10	-	-	6xM12	17	-	40	-	-	11.00
7-789-4086	8213-200-6 2305	I	200	A6	170	106.375	103.2	133.4	-	150	3xM12	3xM6	-	-	16	7	38	-	-	9.90
7-789-4106	8213-250-6 2305	II	250	A6	220	106.375	103.2	133.4	171.4	-	6xM12	-	-	6xM16	19	-	45	-	-	20.90
7-789-4108	8213-250-8 2305	II	250	A8	220	139.719	125	171.4	171.4	-	6xM16	-	-	6xM16	23	-	47	-	-	18.48
7-789-4126	8213-315-6 2305	II	315	A6	300	106.375	102.3	133.4	235	-	6xM12	-	-	6xM20	17.6	-	50	-	-	48.40
7-789-4128	8213-315-8 2305	II	315	A8	300	139.719	136.1	171.4	235	-	6xM16	-	-	6xM20	21	-	46	-	-	41.80

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2

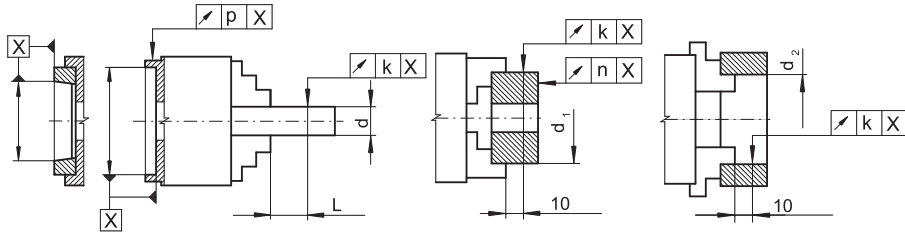
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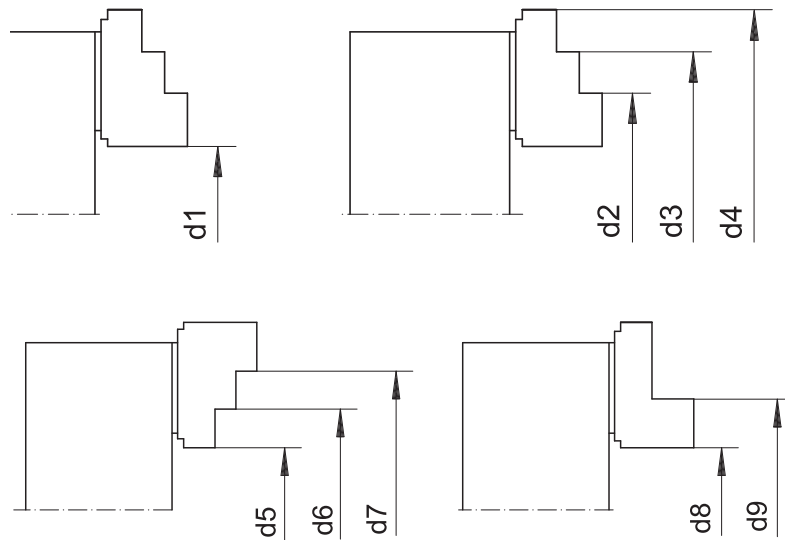
## CENTERING ACCURACY

FOR TYPE 240S-K



Ø	d	d1	d2	L	k	n	p
[mm]							
135	18	32	40	100	75	40	0.02 0.02 0.01
160	20	32	50	125	100	40	0.025 0.02 0.01
200	32	50	80	200	125	40	0.025 0.02 0.01
250	32	50	80	200	162	60	0.03 0.03 0.01
315	50	80	125	250	162	80	0.04 0.03 0.01
400	75	100	125	250	252	80	0.05 0.04 0.01
500	-	125	160	275	300	120	0.06 0.05 0.01
630	-	200	400	520	400	120	0.08 0.05 0.01
800	-	250	520	-	600	120	0.15 0.06 0.01

## CLAMPING RANGE



FOR TYPE 2500

Ø	d1
[mm]	
400-140	20 - 140
500-230	65 - 280
630-325	138 - 335
1000-560	340 - 565
315/300	74 - 200

FOR TYPE 2502

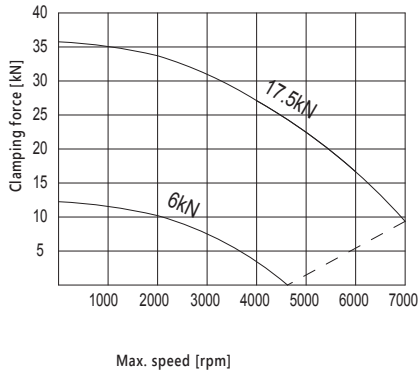
Ø	d1	d2	d3	d4	d5	d6	d7
[mm]							
160-38	7-74	67-130	115-180	163-180	18-67	66-115	114-160
200-52	20-104	83-178	130-216	180-216	22-104	70-153	119-202
250-65	24-130	106-208	168-266	232-266	26-130	89-194	153-258
250-68	24-130	106-208	168-266	232-266	26-130	89-194	153-258
315-105	64-184	142-262	206-326	270-326	64-184	128-252	192-316
400-140	90-300	200-404	286-480	373-480	90-280	178-368	264-454
500-230	176-402	286-510	370-596	460-600	176-402	264-490	350-576
630-330	272-500	407-625	-	605-724	272-500	-	472-704
800-365	326-674	434-780	-	600-862	326-674	-	494-842
800-410	330-600	453-768	-	691-866	435-600	-	675-840
1000-560	530-766	636-951	-	804-1026	530-845	-	698-1006

FOR TYPE 240S-K

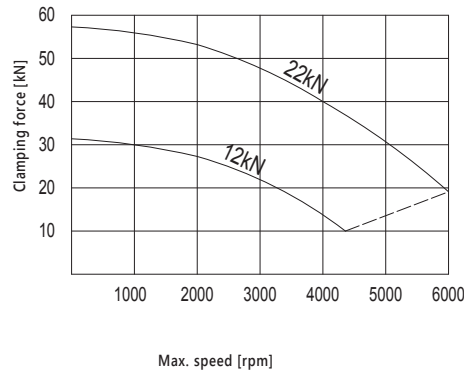
Ø	d1	d2	d3	d4	d5	d6	d7
[mm]							
135	10-72	52-112	83-144	118-180	14-73	50-109	82-141
160	15-95	66-144	104-184	145-226	20-97	62-139	102-179
200	14-118	77-179	125-229	175-279	25-118	89-168	153-218
250	18-134	100-214	162-277	226-342	25-140	89-204	153-268
315	38-197	118-274	177-334	246-403	38-197	107-266	167-326
400	46-234	157-343	240-429	328-517	46-234	134-322	220-408
500	84-338	193-447	278-533	366-621	100-338	187-426	273-512
630	174-475	281-582	-	448-749	183-475	-	351-643
800	255-550	414-657	-	308-550	309-523	-	477-691

### GRIPPING FORCE LOSS DURING CHUCK ROTATION 240S-K; 230S

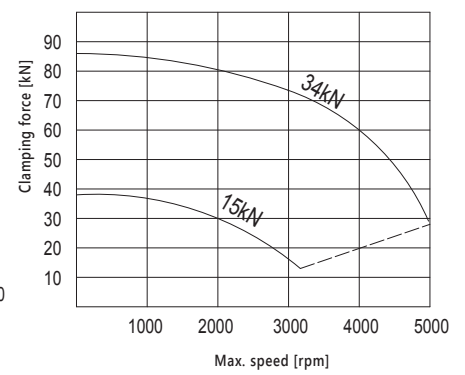
Chuck size 135 mm



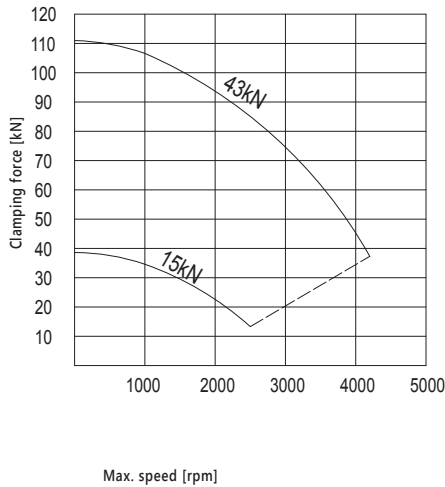
Chuck size 160 mm



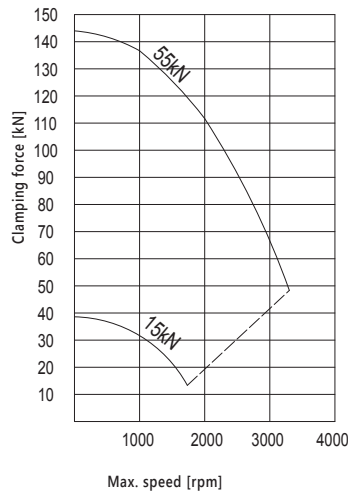
Chuck size 200 mm



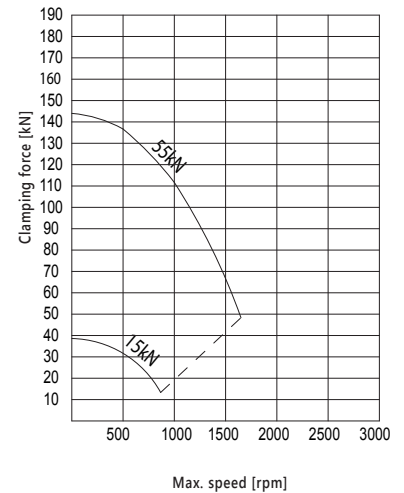
Chuck size 250 mm



Chuck size 315 mm



Chuck size 400 mm



1

2

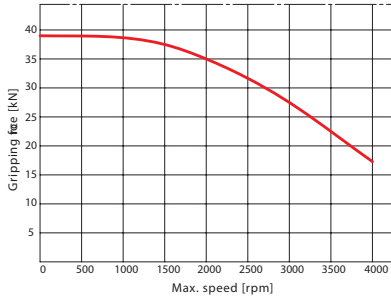
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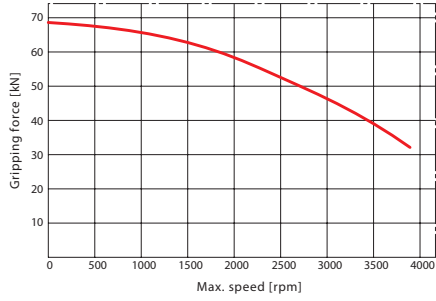
5

**GRIPPING FORCE LOSS DURING CHUCK ROTATION 2502**

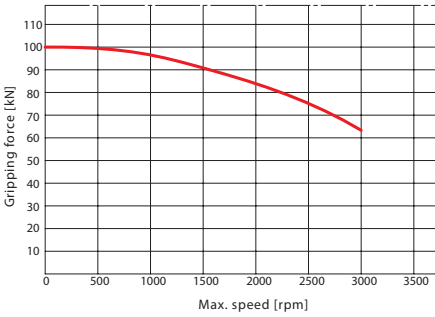
2502-160-38



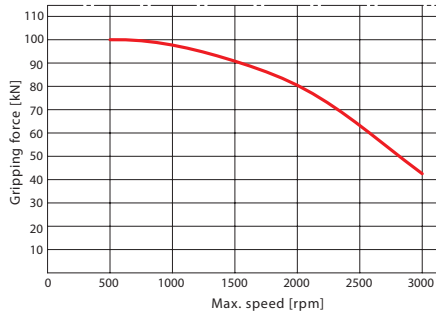
2502-200-52



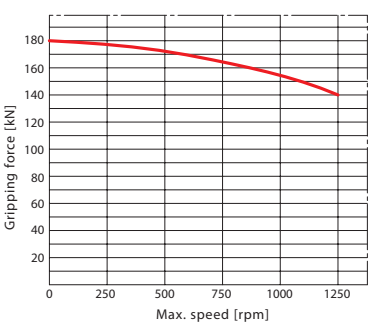
2502-250-65



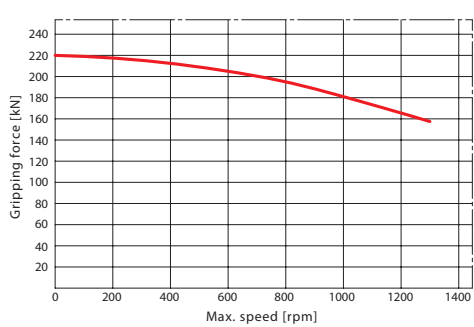
2502-315-38



2502-400-140



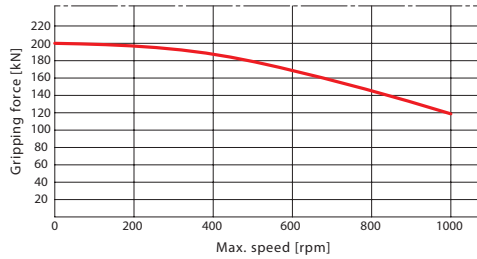
2502-500-230



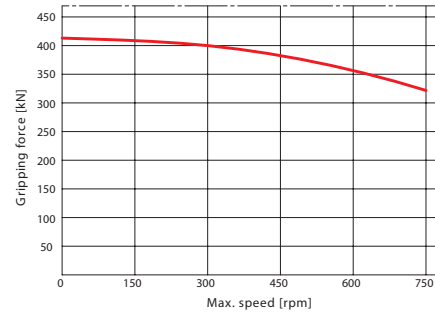


### GRIPPING FORCE LOSS DURING CHUCK ROTATION 2502

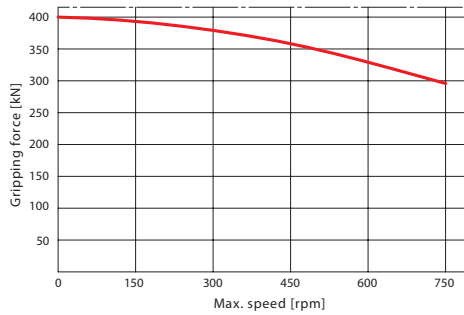
2502-630-330



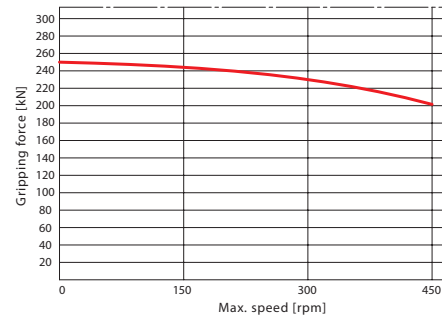
2502-800-365



2502-800-410



2502-1000-560



- 1
- 2
- 3
- 4
- 5



1

2

3

4

5

Large grid area for notes or calculations.



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- Self Centering Scroll Chucks
- Collet Chucks
- Combination Chucks
- Oil-Country Chucks with Large Thru-Hole
- Independent Chucks
- Body with Morse Taper
- Lathe Chucks for Sharpening Drills
- Self Centering Wedge Bar Chucks

# 2

## POWER & PNEUMATIC CHUCKS

- Hydraulic Power Chucks
- Pneumatic Chucks
- Hydraulic Collet Chucks
- Hydraulic Cylinders
- Pneumatic Cylinders

# 3

## STATIONARY WORKHOLDING

- Precision Vises
- Machine Vises
- Bench Vises
- Toolmaker & Inspection Vises
- Rotary Tables & Indexing Fixtures
- Tailstocks
- Box Jaws
- Bases for Self-Centering Fixtures

# 4

## LIVE & DEAD CENTERS

- Precision Live Centers
- High Speed Live Centers
- Hollow Tipped Live Centers
- Heavy Duty Live Centers
- Bull Nose Live Centers
- Live Center Sets With Tips
- Carbide Tipped Dead Centers
- Half-Point Dead Centers

# 5

## TOOLHOLDERS

- CAT, HSK, BT, NMTB Holders
- Capto Holders
- Arbors
- ER, 5C, R8, 173E Collets
- Reduction Sleeves
- Keyless Drill Chucks
- Quick Change Toolposts
- Square Toolholders
- Cylindrical or Morse Taper Shank



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