

4

BOX JAWS AND MILLING FIXTURES

BOX JAWS AND MILLING FIXTURES



All of our indexing fixtures and our spindle tooling are thoroughly inspected and must meet our strictly quality control standards before they can carry the BISON name.

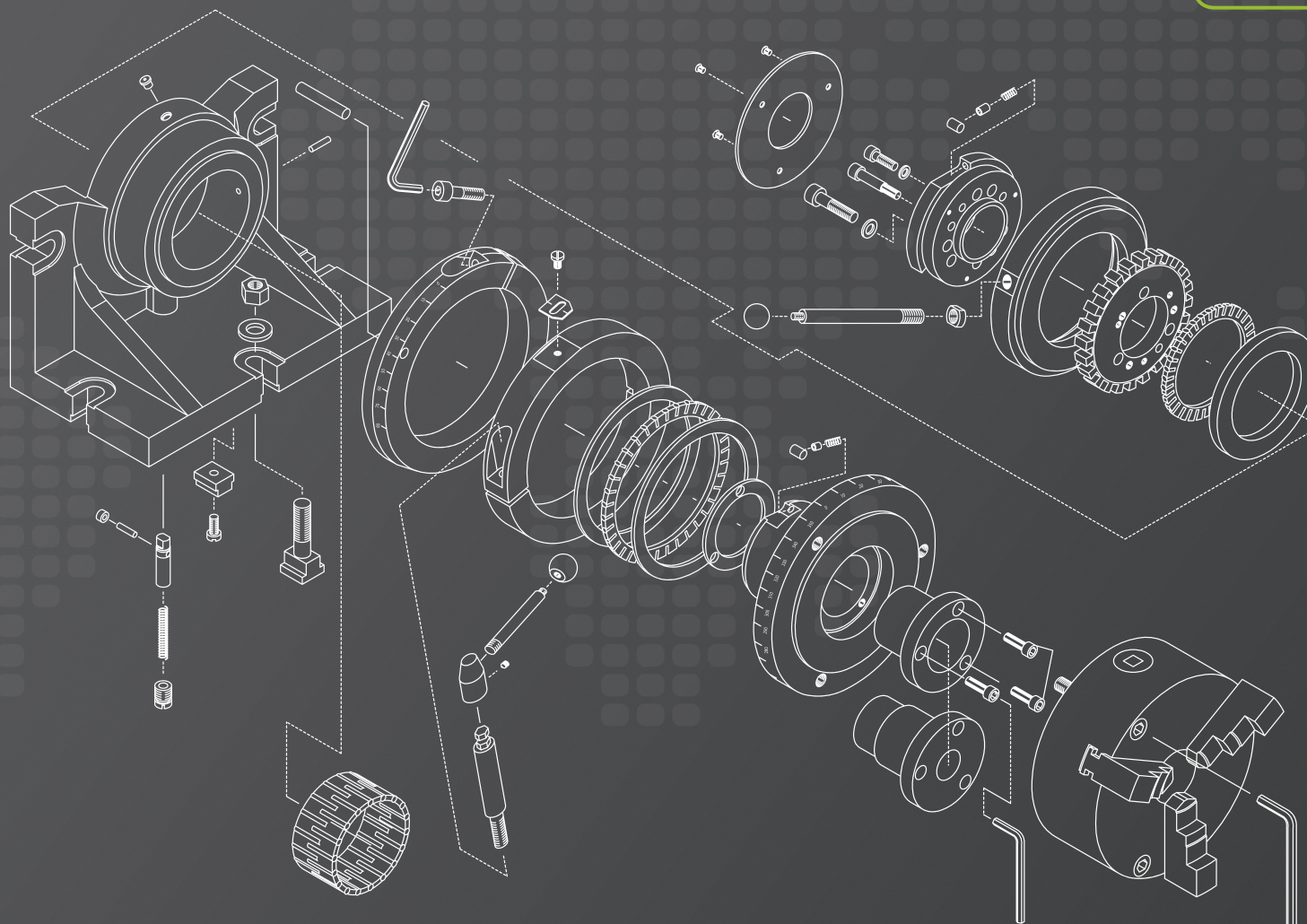




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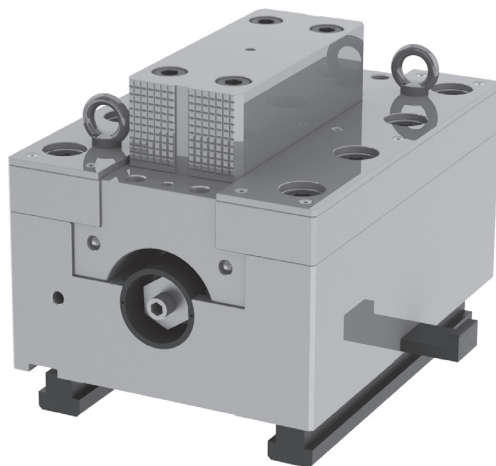
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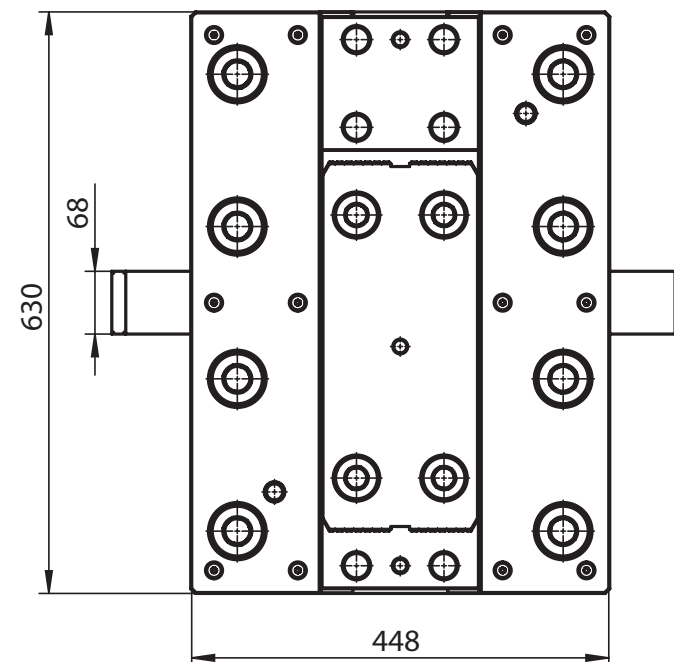
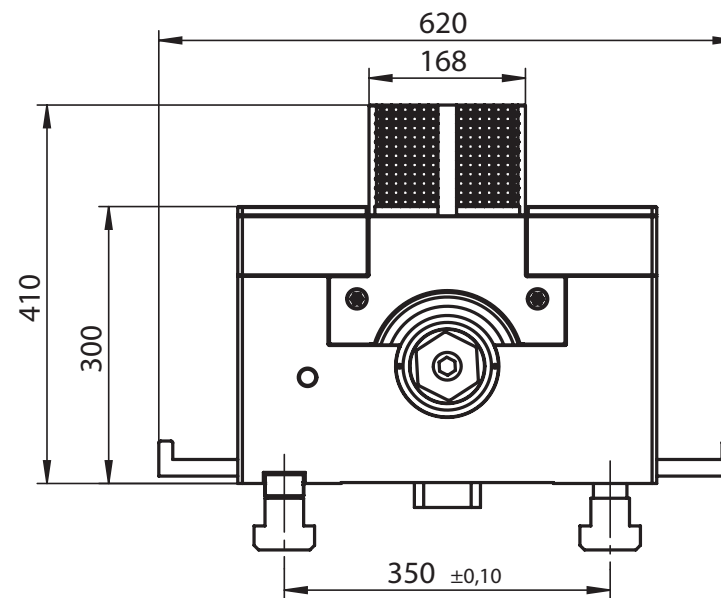
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9171 MSPD

BOX JAWS WITH JAKOB®
POWER-CLAMPING MSPD SCREWS

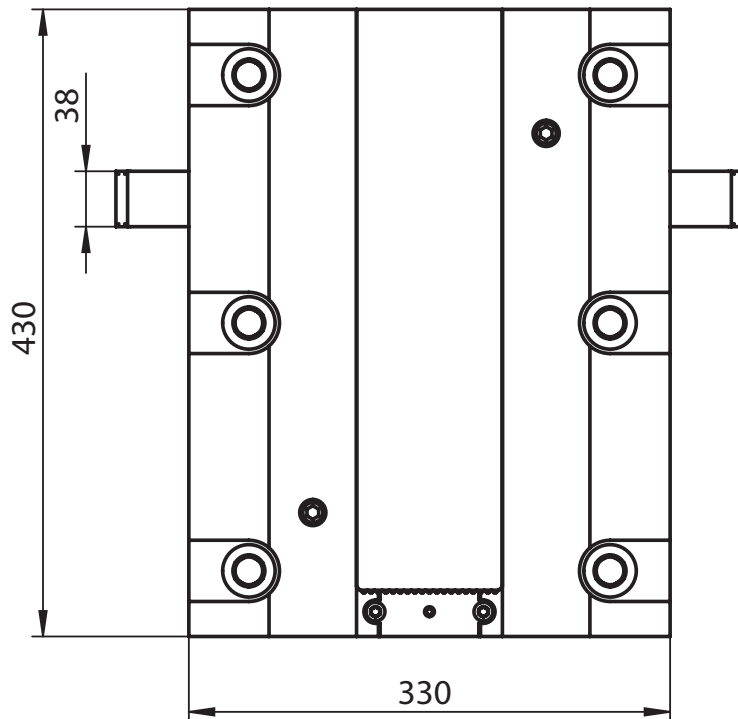
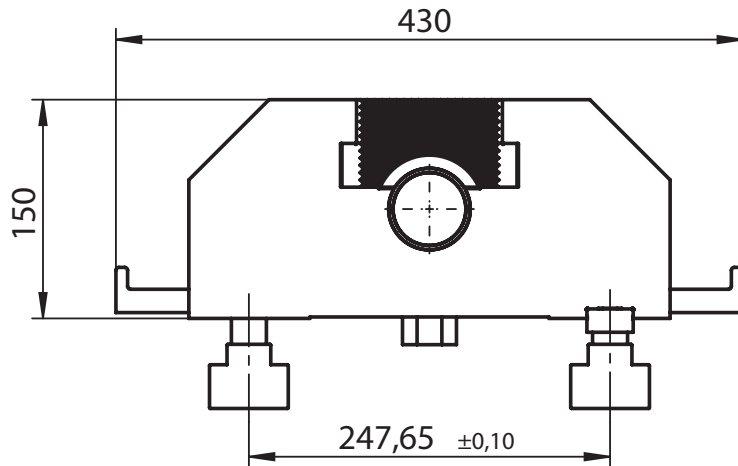


- Increased Clamping force up to 400kN
- Steel body, hardened and ground guideways
- Hardened clamping jaws HRC 57÷60
- High clamping force obtained with operator minimum effort
- Used in turning, drilling, reaming and milling of irregular shaped workpieces
- Primarily suited for integration with face plates



Code No.	Type	Clamping force [kN]	Weight of 1 box jaw [lbs]	Slot nut dimensions* [mm]
7-643-2500	9171-630-40T MSPD	400	1,554.26	42 x 24 x 110

* Width x height x length



9171 MSP

BOX JAWS WITH JAKOB®
POWER-CLAMPING MSP SCREWS

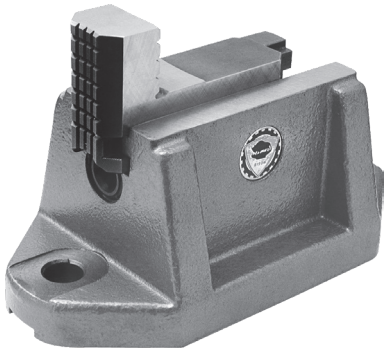
- Increased clamping force up to 200kN
- Steel body, hardened and ground guideways
- Hardened clamping jaws HRC 57÷60
- High clamping force obtained with operator minimum effort
- Used in turning, drilling, reaming and milling of irregular shaped workpieces
- Primarily suited for integration with face plates

Code No.	Type	Clamping force [kN]	Weight of 1 box jaw [lbs]	Slot nut dimensions* [mm]
7-643-1700	9171-430-20T MSP	200	361.56	31.75 x 16 x 88

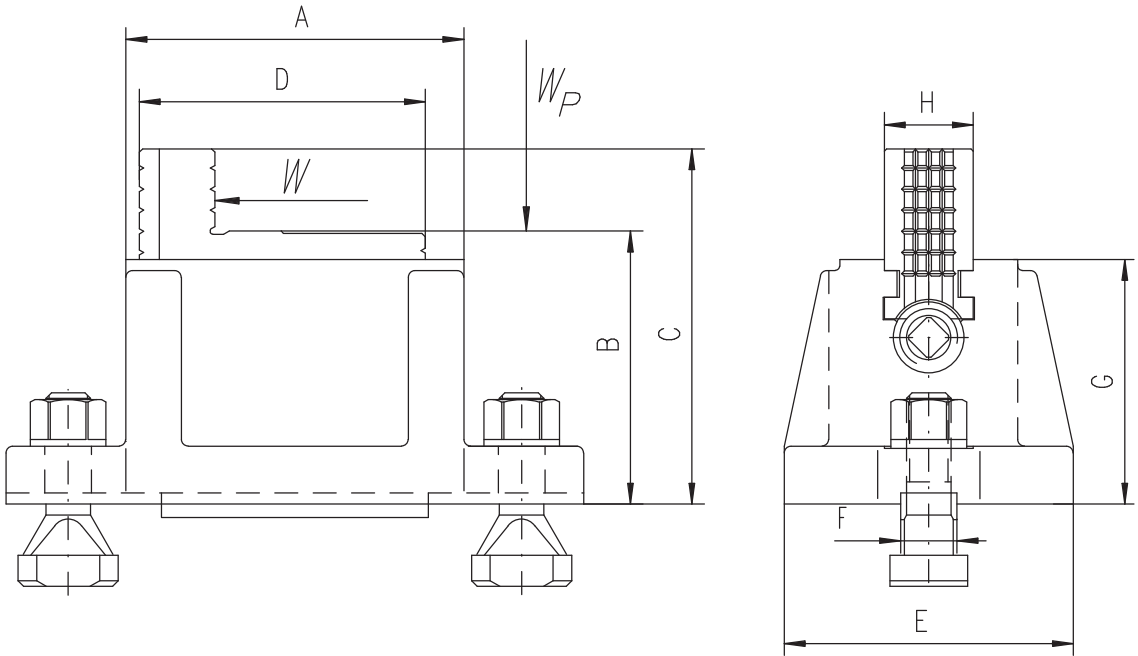
* Width x height x length

9170

SET OF 4 BOX JAWS



- Cast iron body, hardened and ground guideways
- Hardened reversible clamping jaws HRC 57÷60
- Used in turning, drilling, reaming and milling of irregular shaped workpieces
- Primarily suited for integration with face plates



Code No.	Type	A	B	C	D	E	F	G	H	Clamping force	Max load		Weight of 1 box jaw	
											W	W _p		
		[mm]									[lbs]			
7-645-006	9170-150	152	122.8	159.8	127	130	25.4	110	40	28	6,985	13,970	27.56	
7-645-008	9170-200	200	132	169.8	150	140	25.4	110	52	35	8,976	17,952	34.83	

1 DIMENSIONS ACCORDING TO THE DRAWINGS IN MM

A	B
C	D
E	F
G	H

2 CLAMPING FORCE

PLEASE SPECIFY DESIRED CLAMPING FORCE [kN]:

3 SPINDLE VERSION

- ☐ STANDARD SPINDLE
- ☐ POWER SPINDLE
- ☐ STANDARD SPINDLE + TORQUE AMPLIFIER

4 VERSION OF THE BODY

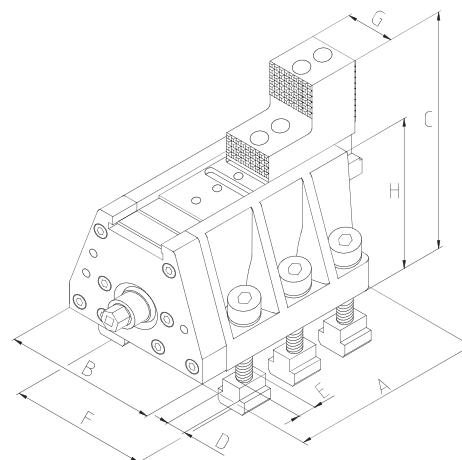
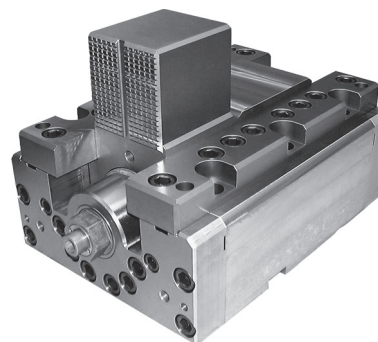
- ☐ OPEN VERSION
- ☐ CLOSED VERSION
- ☐ CLOSED VERSION WITH LUBRICATION FOR GUIDEWAYS AND DRIVE ELEMENTS

CONTACT DETAILS

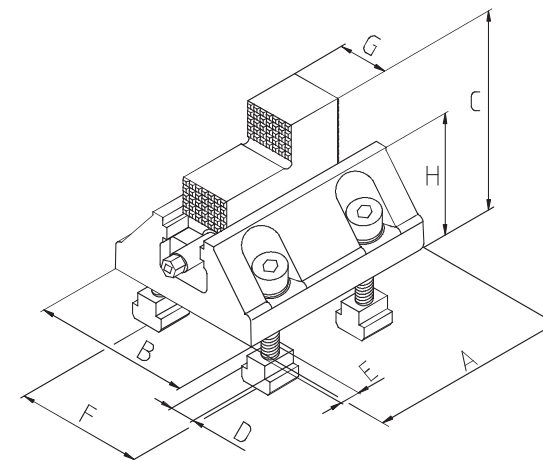
COMPANY NAME: PHONE NUMBER:

CONTACT PERSON: E-MAIL:

ADDRESS:



CLOSED VERSION



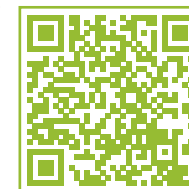
OPEN VERSION

INQUIRY FORM

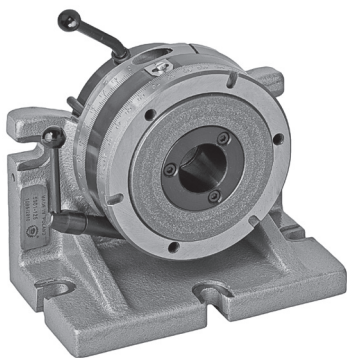
- Increased clamping force up to 400kN
- Steel body
- Used in turning, drilling, reaming and milling of irregular shaped workpieces
- Primarily suited for integration with face plates

For printable version of the inquiry form and more information please visit www.bison-america.com

SIMPLY FAX TO:
 513.823.3167



5901

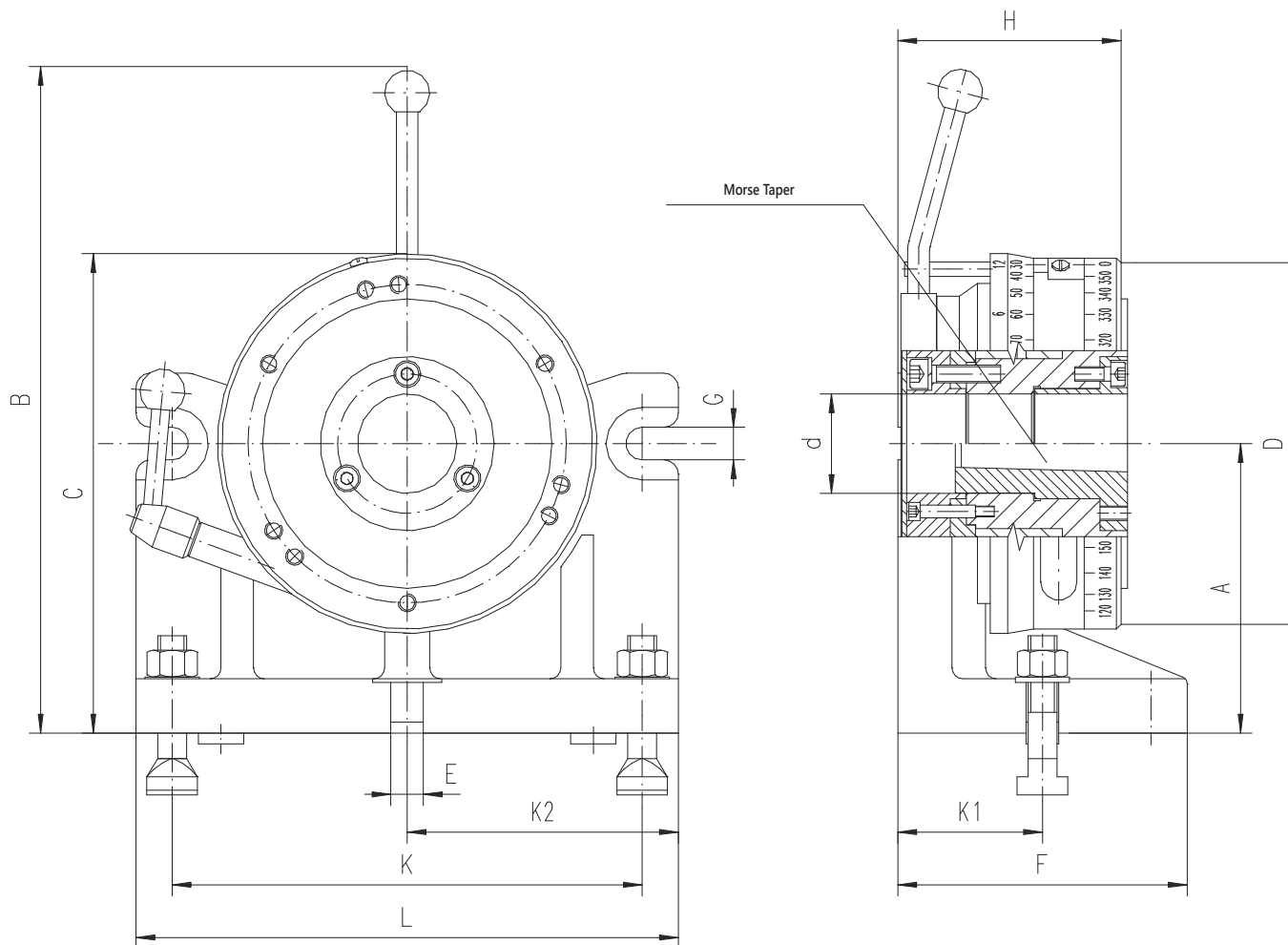


■ Simple and compact design provides for three types of indexing:

- 1) basic indexing - which is done by means of catch device in 2, 3, 4, 6, 8, 12 and 24 divisions
- 2) angular indexing - which can be performed through sleeve with scale graduated in 360° in 1° increment
- 3) alternative indexing - which can be performed by means of catch device and specified changeable dividing plate (with Z=13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 or 24 units number of divisions). To obtain required number of divisions replace Z=24 plate with one of the above specified plates.

■ Indexing accuracy 2'

- True run-out of tapered centre bore 0.02mm
- Squareness (base to chuck) 0.02mm
- Parallelism over face 0.02mm
- Concentricity of mounting flange with precision or standard chuck 0.03÷0.06mm
- Dividing plate made of high quality alloy steel, hardened and ground
- Body made of cast iron
- Designed for equal or unequal precision indexing in milling, drilling and related machining operations
- Chuck not included

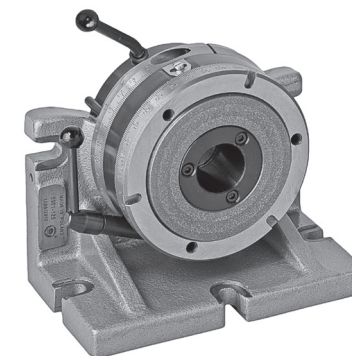
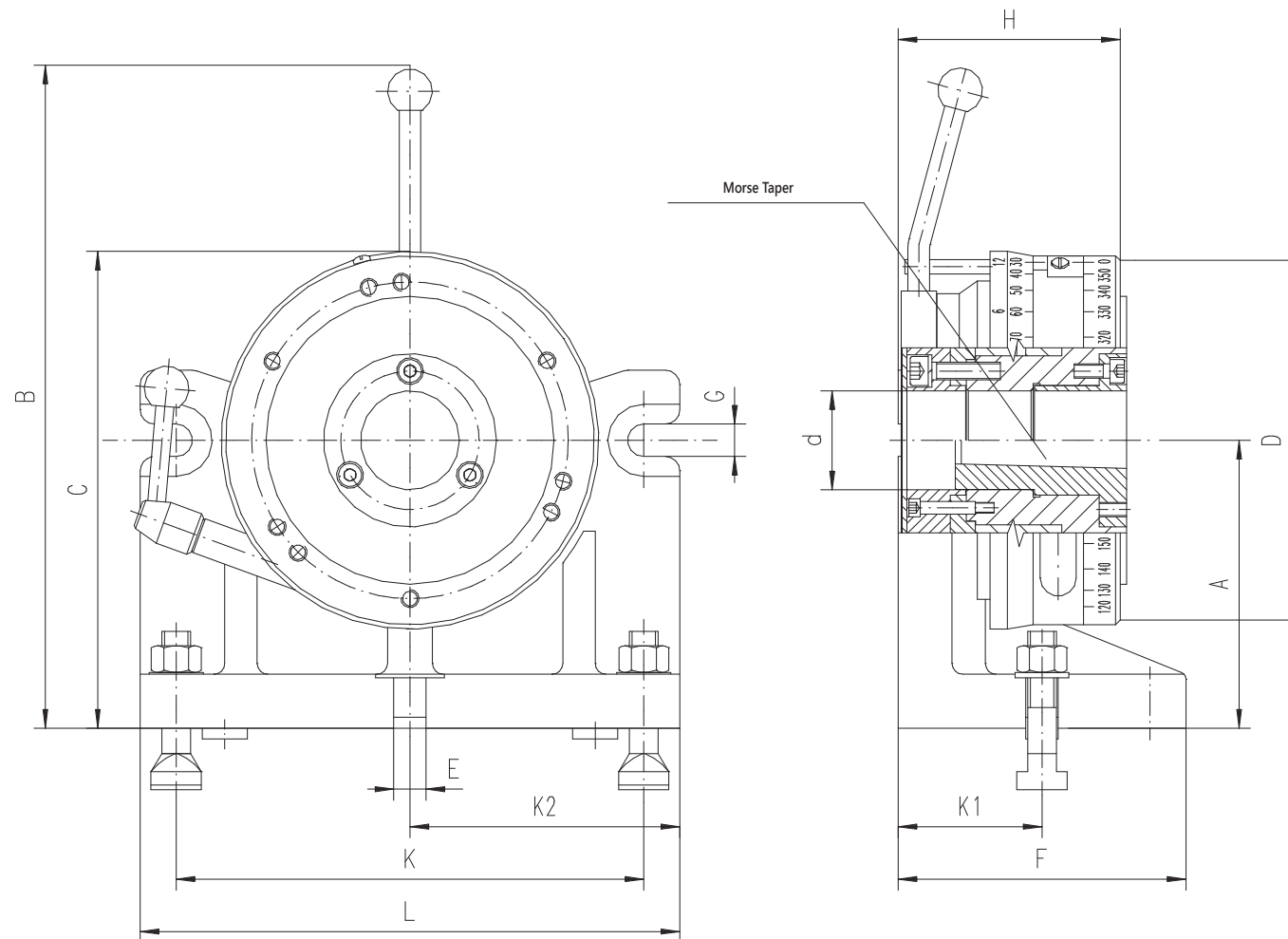


Code No. (no chuck)	Code No. (with chuck)*	Type	A	B	C	D	d	Morse Taper	E	F	G	H	K	K1	K2	L	Permissible weight of workpieces				Weigh
																	with chuck		without chuck		
			without support	with support	without support	with support															
			[mm]								[mm]								[daN]		
7-609-014	-	5901-100	100	256	167.5	125	38.5	3	18	130	14	109.5	185	65	107.5	215	20	40	30	60	30.9
7-609-016	7-609-006	5901-125	125	301	210.0	160	42	3	18	140	14	108.5	215	70	122.5	245	30	60	40	70	50.7
7-609-018	7-609-008	5901-160	160	382	265.0	200	55	4	18	160	18	123.5	260	80	150.0	300	35	70	51	86	90.4

A - For tailstock D - For chuck * - 7-812-... chuck included

Please select an appropriate chuck:			
Solid jaws	2-piece jaws		Page
3274 (7-811-...)	3275 (7-812-...)	3-jaw, cast iron body	33
3574 (7-817-...)	3575 (7-813-...)	3-jaw, steel body	32
3674 (7-815-...)	3675 (7-814-...)	4-jaw, cast iron body	45
3774 (7-844-...)	3775 (7-814-...)	4-jaw, steel body	44

5911



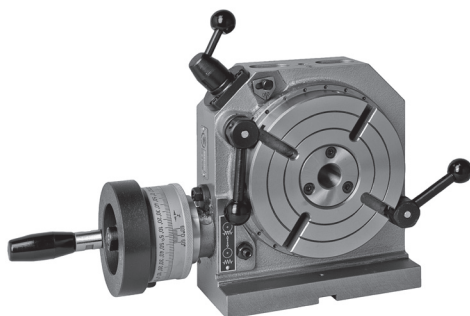
- Simple and compact design provides for three types of indexing:
 - 1) basic indexing - which is done by means of catch device in 2, 3, 4, 6, 8, 12 and 24 divisions
 - 2) angular indexing - which can be performed through sleeve with scale graduated in 360° in 1° increment
 - 3) alternative indexing - which can be performed by means of catch device and specified changeable dividing plate (with Z=13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 or 24 units number of divisions). To obtain required number of divisions replace Z=24 plate with one of the above specified plates.
- Indexing accuracy 2'
- True run-out of tapered centre bore 0.02mm
- Squareness (base to chuck) 0.02mm
- Parallelism over face 0.02mm
- Concentricity of mounting flange with precision or standard chuck 0.03÷0.06mm
- Dividing plate made of high quality alloy steel, hardened and ground
- Body made of cast iron
- Chuck not included

Please select an appropriate chuck:			
Solid jaws	2-piece jaws		Page
3274 (7-811-...)	3275 (7-812-...)	3-jaw, cast iron body	33
3574 (7-817-...)	3575 (7-813-...)	3-jaw, steel body	32
3674 (7-815-...)	3675 (7-814-...)	4-jaw, cast iron body	45
3774 (7-844-...)	3775 (7-814-...)	4-jaw, steel body	44

Code No. (no chuck)	Code No. (with chuck)*	Type	A	B	C	D	d	Morse Taper	E	F	G	H	K	K1	K2	L	Permissible weight of workpieces				Weight [lbs]
																	with chuck		without chuck		
			without support	with support	without support	with support															
			[mm]		[mm]							[daN]									
7-609-020	7-609-010	5911-200	200	469	330	250	76	4	18	180	18	139.5	300	90	170	340	40	80	70	110	134.5
7-609-022	7-609-012	5911-250	250	555	411	315	103	5	18	200	18	157.5	360	100	200	400	50	90	95	135	235.9

A - For tailstock D - For chuck * - 7-812-... chuck included

5859



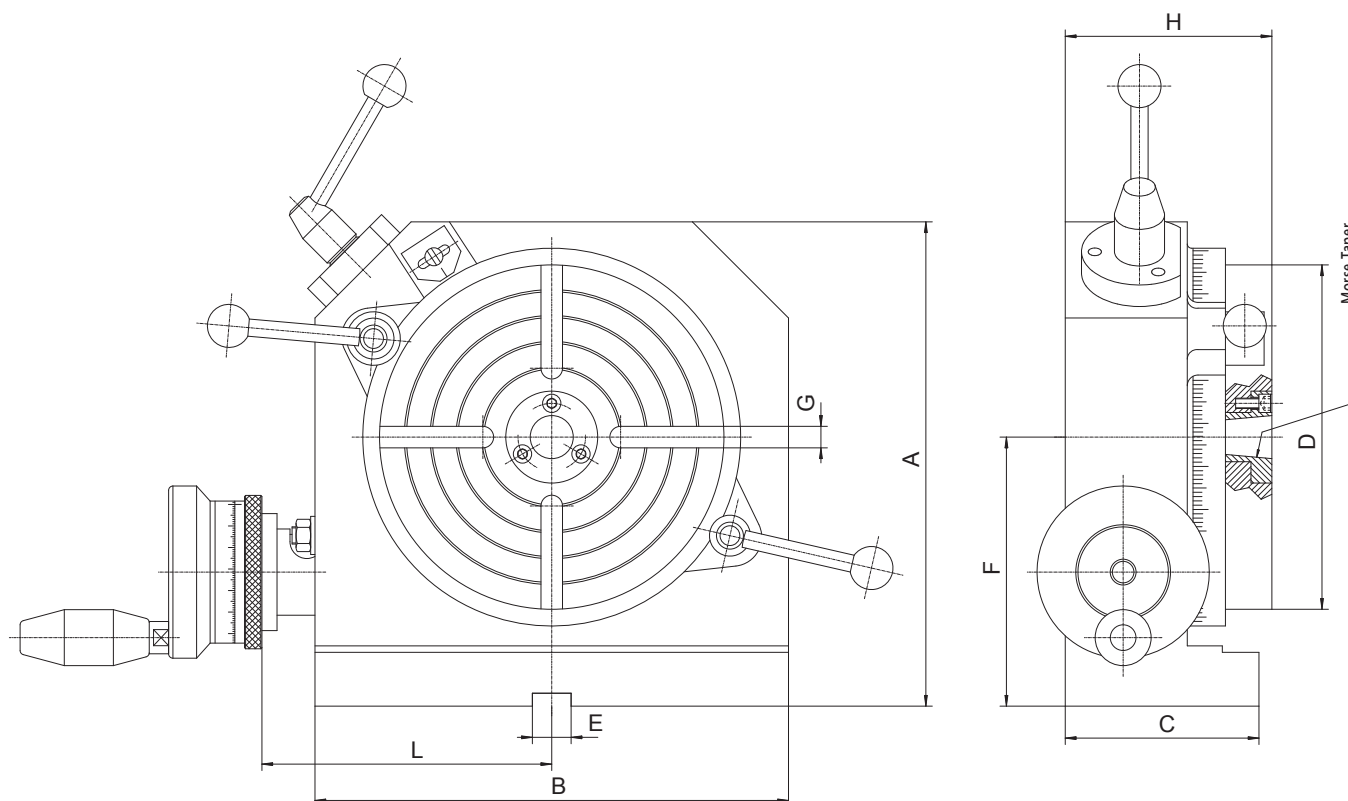
- Due to the three dividing plates, division into the required number of sections is obtained with an accuracy of 1'
- Dividing means of graduated drum with 1'30"
- Centering Morse taper sleeves are hardened and ground, extending machine life
- Depending on the size gear ratio is 1:60, 1:90, 1:120

Standard accessories

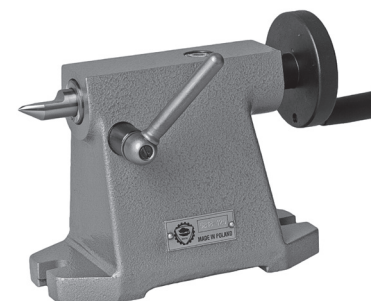
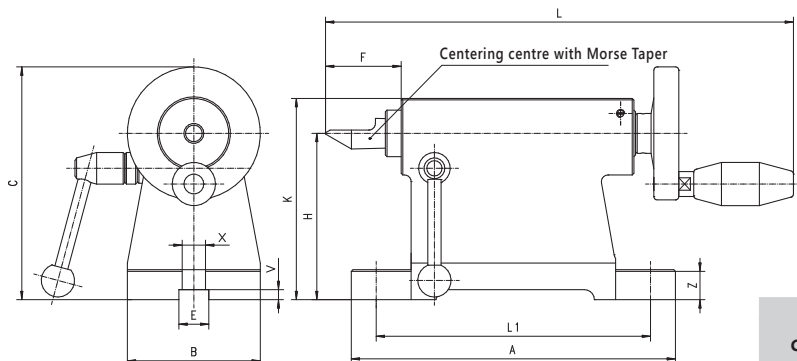
Three dividing plates with clamping bolts

Slot nuts

Table lever



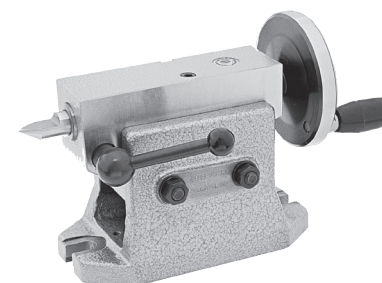
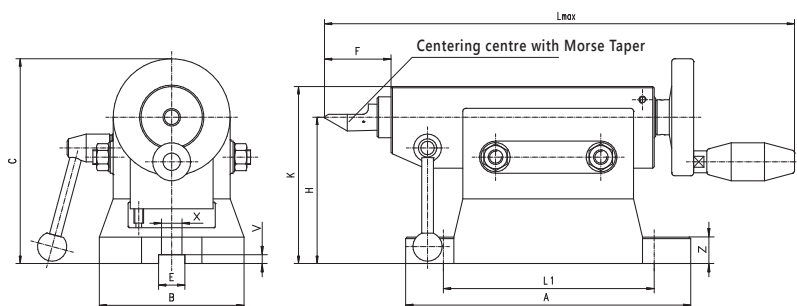
Code No.	Type	Worm ratio	A	B	C	D	E	F	G	H	L	Morse Taper	Adapters Ø	Chucks Ø	Tailstocks		Permissible weight of workpieces		Weight
			[mm]	[mm]	5818	5819	Horizontal	Vertical	[lbs]										
										[daN]									
7-621-006	5859-160	1:60	225	200	90	160	14	125	4x10	96	127	3	160	160	125	95÷130	85	40	44.1
7-621-008	5859-200	1:60	270	240	95	200	14	150	4x10	98	147	3	160, 200	160, 200	-	130÷170	120	45	55.1
7-621-010	5859-250	1:90	318	285	115	250	18	175	4x12	115	175	3	250	250	-	170÷200	160	80	121.3
7-621-012	5859-320	1:90	374	348	115	320	18	200	4x12	120	207	3	315, 250	315, 250	200	170÷200	210	110	176.4
7-621-016	5859-400	1:90	465	430	125	400	18	250	6x14	135	248	4	400	400	250	220÷250	350	125	269.0
7-621-020	5859-500	1:120	582	535	170	500	18	315	8x16	175	310	5	-	-	-	-	420	200	573.2



5818

- This tailstock is designed for use with indexing fixtures, rotary tables and dividing heads

Code No.	Type	A	B	C	E	F		H	K	L	L max.	V	X	Z	Morse Taper	Weight
						min.	max.									
		[mm]														
7-610-103	5818-80	164	68	120	18	26.0	44.0	80	95	244	134	6	14	14.5	1	5.5
7-610-104	5818-100	195	80	140	18	33.0	63.0	100	121	299	165	6	14	18.0	2	13.5
7-610-106	5818-125	195	90	178	18	39.0	69.0	125	146	315	165	6	14	18.0	2	16.3
7-610-108	5818-160	250	115	213	18	48.0	85.0	160	187	366	210	6	18	18.0	3	28.0
7-610-110	5818-200	275	130	253	18	59.5	99.5	200	233	420	235	6	18	20.0	4	39.5
7-610-112	5818-250	280	150	303	18	59.5	99.5	250	283	420	240	6	18	23.0	4	50.9



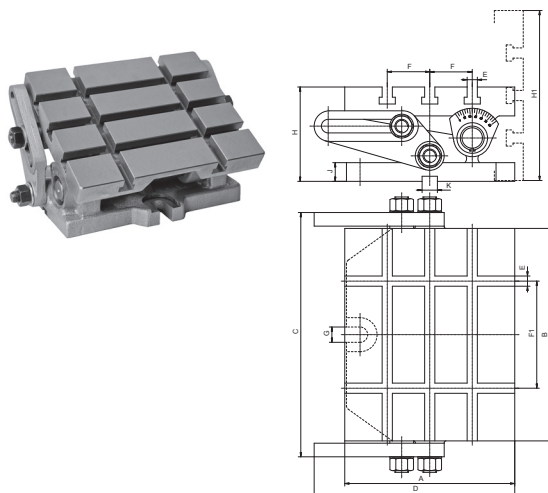
5819

- Height (H) is precisely adjusted by means of a screw and, after the adjustment, the spindle is locked in a vertical position
- These tailstocks are designed for use with indexing fixtures, rotary tables and dividing heads

Code No.	Type	A	B	C max.	E H7	F		H		K	L max.	L1	V	X	Z	Morse Taper	Weight
						min.	max.	min.	max.								[lbs]
						[mm]											
7-610-806	5819-95-130	195	100	183	18	40	70	95	130	155	335	165	6	14	16/18	2	26.5
7-610-808	5819-130-170	250	120	223	18	50	90	130	170	200	409	210	6	18.5	20/22	3	41.5
7-610-810	5819-170-200	280	142	253	18	50	90	170	200	230	433	240	6	18.5	23/25	3	56.2
7-610-812	5819-200-220	280	142	270	18	50	90	200	220	250	433	240	6	18.5	23/25	3	63.3
7-610-816	5819-220-250	300	164	303	18	60	100	220	250	285	465	260	6	18.5	23/25	4	94.8

5150

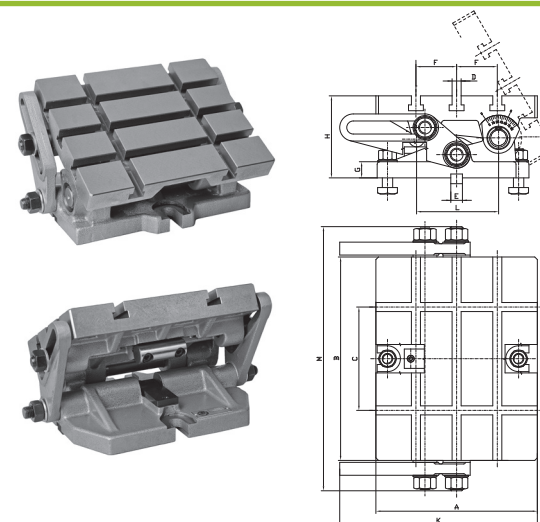
- Easily set at any angle between horizontal and vertical plates
- The plate will accept accessories and workpieces larger than the table top



Code No.	Type	A	B	C	D	E	F	F1	G	H	H1	J	K	Max. working weight	Weight
		[mm]													
7-615-008	5150-200x250	200	250	324	236	12	50	126	18	111	201	22	18	132	46.3
7-615-010	5150-250x315	250	315	405	306	14	63	160	18	127	252	25	18	220	81.6

5155

- Easily set at any angle between horizontal and vertical plates
- Swivel plates type 5155 (sine) permit accurate angle setting in $0 \div 60^\circ$ range by means of gauge blocks



Code No.	Type	A	B	C	D	E	F	G	H	K	L	M	Max. working weight	Weight
		[mm]												[lbs]
7-615-208	5155-200x250	200	250	126	12	18	50	22	111	236	100	324	132	46.3
7-615-210	5155-250x315	250	315	160	14	18	63	25	127	306	127	405	100	81.6

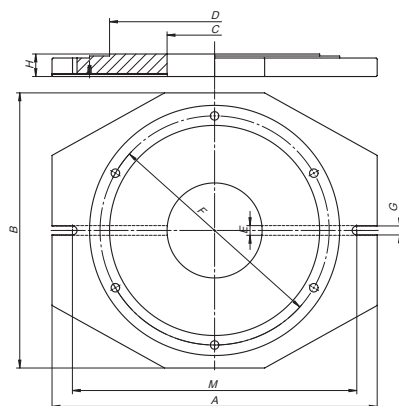
9450

BASES

Standard accessories

- Slot nuts
- Clamping bolts

FOR PLAIN BACK CHUCKS



Code No.	Type	Chuck Size	A	B	C	D	d	E	F	G	H	M	Weight
													[lbs]
7-630-006	9450-160	160	250	190	90	125	11	18	140	14	28	224	10.6
7-630-008	9450-200	200	300	234	130	160	11	18	176	18	32	264	16.5
7-630-010	9450-250	250	354	292	147	200	14	18	224	18	32	322	25.5
7-630-012	9450-315	315	426	362	170	260	17	18	286	18	40	394	35.3
7-630-016	9450-400	400	520	450	170	330	17	18	362	18	48	488	50.7
7-630-020	9450-500	500	640	560	240	420	17	18	458	17	48	608	126.8

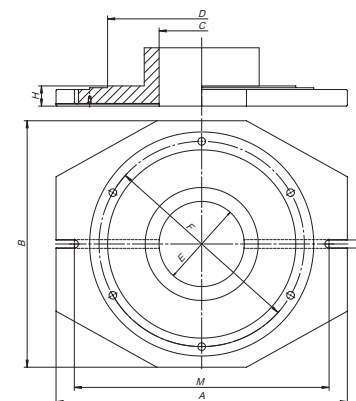
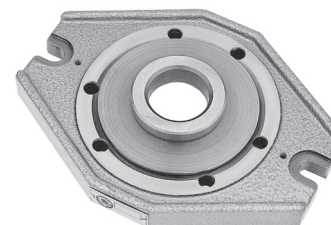
9452

SWIVEL BASES

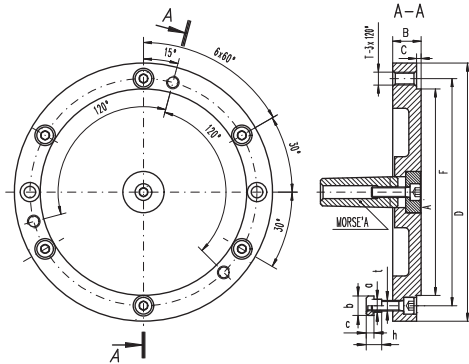
Standard accessories

- Slot nuts
- Clamping bolts

FOR SET-TRU MOUNTING



Code No.	Type	Chuck Size	A	B	C	D	E	F	H	Weight
										[lbs]
7-630-606	9452-160	160	250	190	90	86.0	140.0	60	28	10.3
7-630-608	9452-200	200	300	234	130	110.0	176.0	70	32	16.2
7-630-610	9452-250	250	354	292	147	145.0	224.0	100	32	25.0
7-630-612	9452-315	315	426	362	170	180.0	286.0	120	40	35.5
7-630-616	9452-400	400	520	450	170	298.5	371.5	120	48	51.2



8293

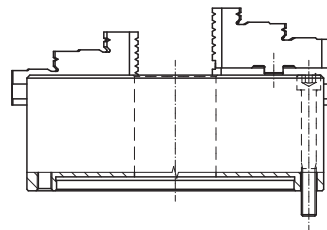
- Designed for use with rotary tables with 4 and 6 T-slots



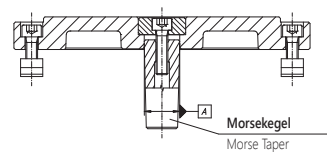
Code No.	F	A	B	C	MT	T	a	b	c	h	t	For rotary table	Chuck Size (D)	
													3274, 3574, 3275, 3575	
													[mm]	
7-872-306	140	125	20	3.5	3	M10	10	15	6	12	4xM8	5859-160	160	
7-872-308	176	160	22	3.5	3	M10	10	15	6	12	4xM8	5859-200	200	
7-872-310	224	200	25	4.5	3	M12	12	18	7	14	4xM10	5859-250	250	
7-872-312	286	260	30	4.5	3	M16	12	18	7	14	4xM10	5859-320	315	
7-872-316	362	330	32	4.5	4	M16	14	22	8	16	6xM12	5859-400	400	
7-872-320	458	420	35	4.5	5	M16	18	28	10	20	6xM16	5859-500	500	

USE OF ADAPTER TYPE 8293

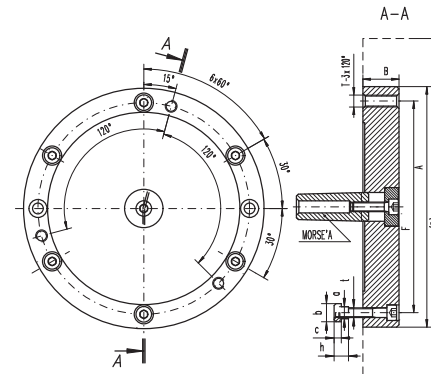
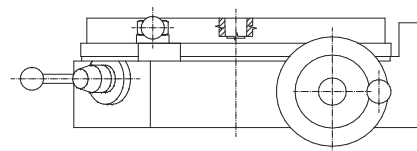
Self-centering lathe chucks
3274, 3275, 3574, 3575



Adapter 8293



Rotary table 5859



8298

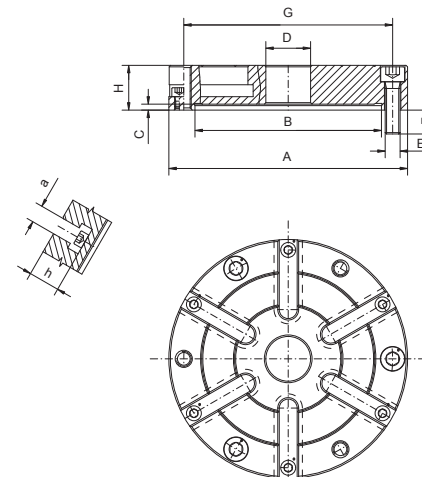
- Designed for use with rotary tables with 4 and 6 T-slots



Code No.	F	A	B	B ₁	MT	T	a	b	c	h	t	For rotary table	Chuck Size (D)	
													3564, 3864, 3565, 3865	
													[mm]	
7-872-606	140.0	86.00	33.5	16	3	M10	10	15	6	12	M8	5859-160	160	
7-872-608	176.0	110.00	36.5	17	3	M10	10	15	6	12	M8	5859-200	200	
7-872-610	224.0	145.00	39.5	19	3	M12	12	18	7	14	M10	5859-250	250	
7-872-612	286.0	180.00	44.5	19	3	M16	12	18	7	14	M10	5859-320	315	
7-872-616	171.4	298.45	30.0	-	4	M16	14	22	8	16	M12	5859-400	400	
7-872-620	235.0	407.00	35.0	-	5	M20	18	28	10	20	M16	5859-500	500	

9440

- Made of high quality cast iron
- Face plates 9440 can be used with indexing fixtures 5901, 5902, 5911, 5912

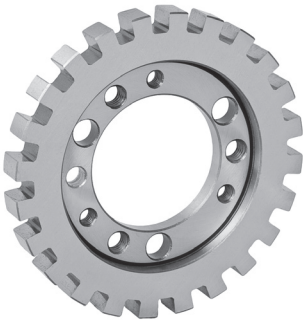


Code No.	A	B	C	D	E	F	G	H	a	h	For indexing fixtures	Weight
											[mm]	[lbs]
7-610-506	160	125	4	30	M10x35	16.0	140	30	12	21	125	7.5
7-610-508	200	160	5	40	M10x40	16.0	176	35	14	24	160	11.9
7-610-510	250	200	5	50	M12x60	23.0	224	50	18	31	200	27.4
7-610-512	315	260	5	50	M16x60	27.5	286	50	18	31	250	38.8

1
2
3
4
5
6

INTERCHANGEABLE DIVIDING PLATE

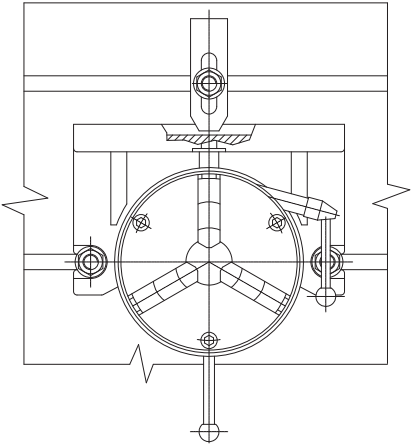
■ Dividing plates with other number of divisions upon request



Part name	Number of divisions	Code No.			
		5901-125	5901-160	5911-200	5911-250
Z=24	2; 3; 4; 6; 8; 12; 24	7-609-0701	7-609-0735	7-609-0759	7-609-0765

EXAMPLE OF POSITIONING ON THE MACHINE TABLE

■ Vertical position



■ Horizontal position

