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	7616	64		6680			7510	
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	7620	65		7450			7813	
	7627			7709	79		1875	94
	7657	67		7711			5348	
	7665			7720	80		7622	
				7721			7812	95
				8410	80		7815	96
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Балансированные патроны для скоростной обработки.

Во время обработки инструментами, которые дают возможность и одновременно требуют высоких параметров резания, обороты станковых шпинделей доходят от 15.000 до 20.000 а даже и 40.000 об/мин, особенно это касается пальцевых фрез с разными головками, употребляемыми для получения сложных пространственных форм, как и остальных изделий из группы по DIN 69871 и MAS 403-BT. Всегда существующая разница в распределении масс в патронах, с закреплённым инструментом, вызывает возникновение сил и моментов вызывающих вибрации и обременяющих подшипники станковых шпинделей. Не вспоминая этих, особенно безопасных и редко происходящих случаев, когда превышает сопротивление материала и происходит повреждение патрона с инструментом, вынужденная вибрация инструмента является причиной измерительных ошибок, формы и состояния обрабатываемых поверхностей.

Величина дисбаланса и ценностей сил, возникающих в обрабатываемых системах, выражаются параметром e_{dop} , которые можно называть выраженным в микрометрах передвижением середины массы системы по отношению к оси оборота. В зависимости от угловой скорости ω , если мы сохраним произведение $e_{dop} * \omega$ как постоянность, тогда можем ожидать, что системы (патроны с инструментами), имеющие похожие параметры, будут при разной форме и массе вести себя похоже во время работы. Ценность упомянутого произведения $e_{dop} * \omega$ выражена в мм/с является широко употреблённым параметром остаточного дисбаланса и подаётся следующим способом вместе с буквой **G**: **G40; G16; G6,3; G2,5; G1; G0,4**. Вместе с уменьшающимся числом остаточный дисбаланс уменьшается, а равномерность работы повышается. Схема представленная на рис. №1 показывает ценность допускаемого остаточного дисбаланса, который может иметь схему в данном классе качества балансировки при допускаемых заданных оборотах.

Сейчас стандартом стали балансируемые патроны в классе G6,3 до n_{max} 15.000 об/мин. По желанию клиента возможна балансировка в высших классах (напр. G2,5 или G1) при n_{max} = 50.000 об/мин, которая гарантирует использование производственных мощностей употребляемых сейчас станков.

Процесс динамичной балансировки BIZON-BIAL S. A. проводит на балансировочных машинах итальянской фирмы SEMH. Регулирование массы проводится методом потери и заключается в насверлении, в плоскости паза, во фланце патрона, ряда отверстий разной глубины. Кроме этого возможно использование ущербов рядом с элементами конструкций, которые являются причиной нарушения распределения масс (напр. шуруп в патронах для инструментов с оправкой Weldon). Эти случаи представлены на рис. №2.

Каждый из сбалансированных патронов имеет свидетельство соответствия с требованиями по норме ISO 1940.

При желании заказать сбалансированный патрон нужно сообщить:

- в каком классе качества должен быть сбалансирован - **G**
- для каких оборотных скоростей будет употребляться - n_{max}



Патроны обозначенные знаком б а л а н с и р у ю т с я по желанию клиента.

High-speed, balanced holders

Machining with the use of cutting tools requiring high working parameters is performed at the machine spindle rotational speeds reaching 15 000 - 20 000 rpm and even up to 40 000 rpm. It concerns especially end mills with different shaped cutting blades and other tool holders with DIN 69871 and MAS 403-BT standard shanks. Existing non-uniform mass distribution in cutting tool-holder assembly creates mass forces causing vibrations of machine spindles, which may lead to damage of spindle bearings. Forced tool vibrations are the cause of dimensional errors and undesired shape and roughness of machined surfaces.

Value of unbalance is measured by means of e_{dop} parameter, which represents eccentricity of mass center in regard to axis of rotation. Maintaining the value of product $e_{dop} * \omega$ (where ω stands for angular velocity) for different sets of cutting tool-holder is expected to result in the same working conditions and parameters. Product $e_{dop} * \omega$, expressed in mm/s, is parameter of residual unbalance and is shown with letter "G": **G40; G16; G6.3; G1; G0.4**. The smaller is the number the smaller is value of unbalance and the better conditions of work. The Fig. 1 shows dependence of permissible residual unbalance on particular class of unbalance for required rotational speed.

As for today BISON supplies its holders, as a standard, with class of unbalance G6.3 at n_{max} = 15 000 rpm. For customer request higher classes are available (for example G2.5 or G1) at n_{max} = 50 000 rpm.

Dynamic balancing of BISON tool holders is performed on balancers of Italian CBMB S.r.L. Correction of residual unbalance is done by means of weight loss method. Some of available ways of correction are shown in Fig. 2.

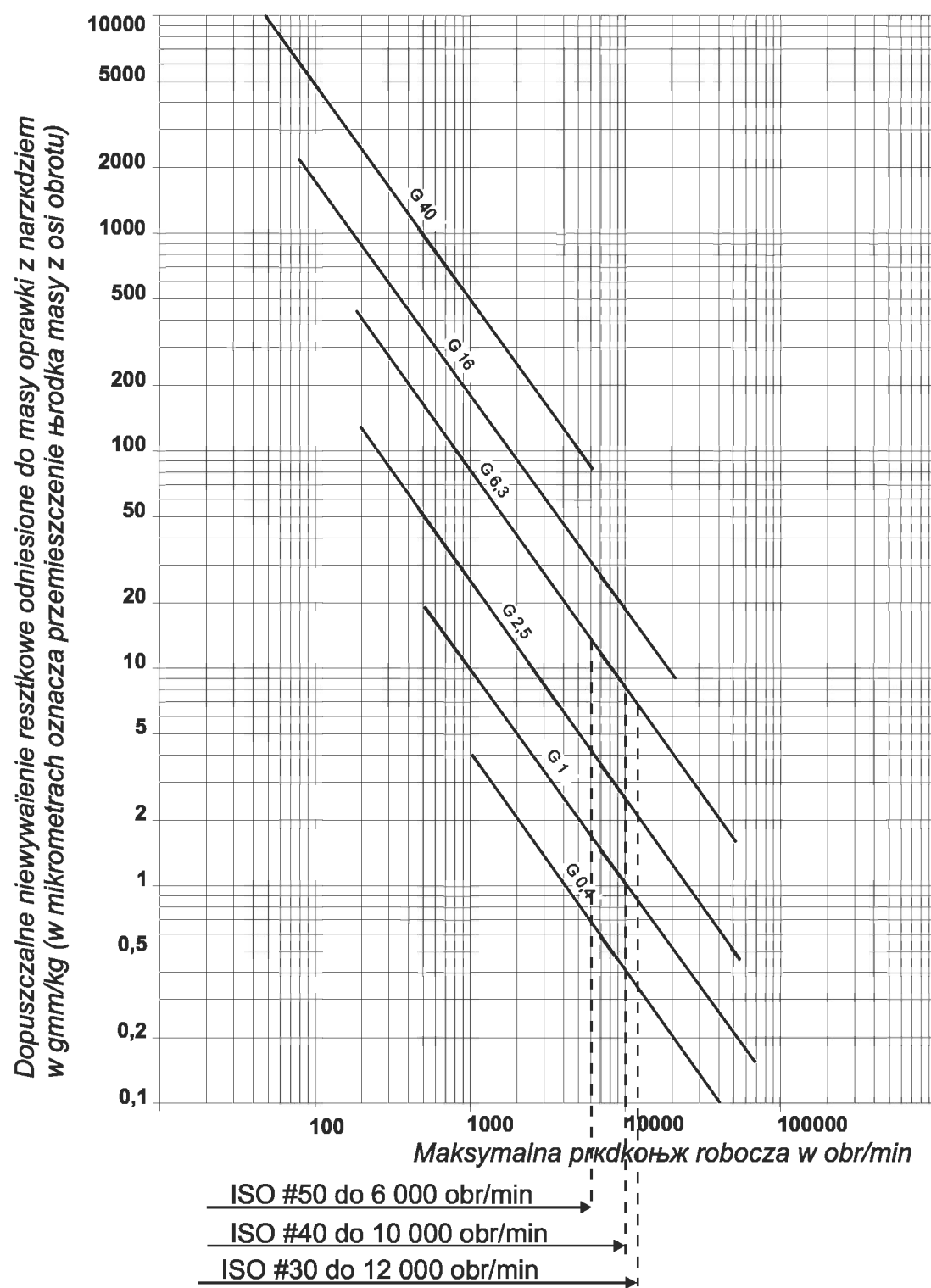
Each balanced tool holder has declaration of conformity with requirements of ISO 1940 standard.

To order BISON balanced holder please specify:

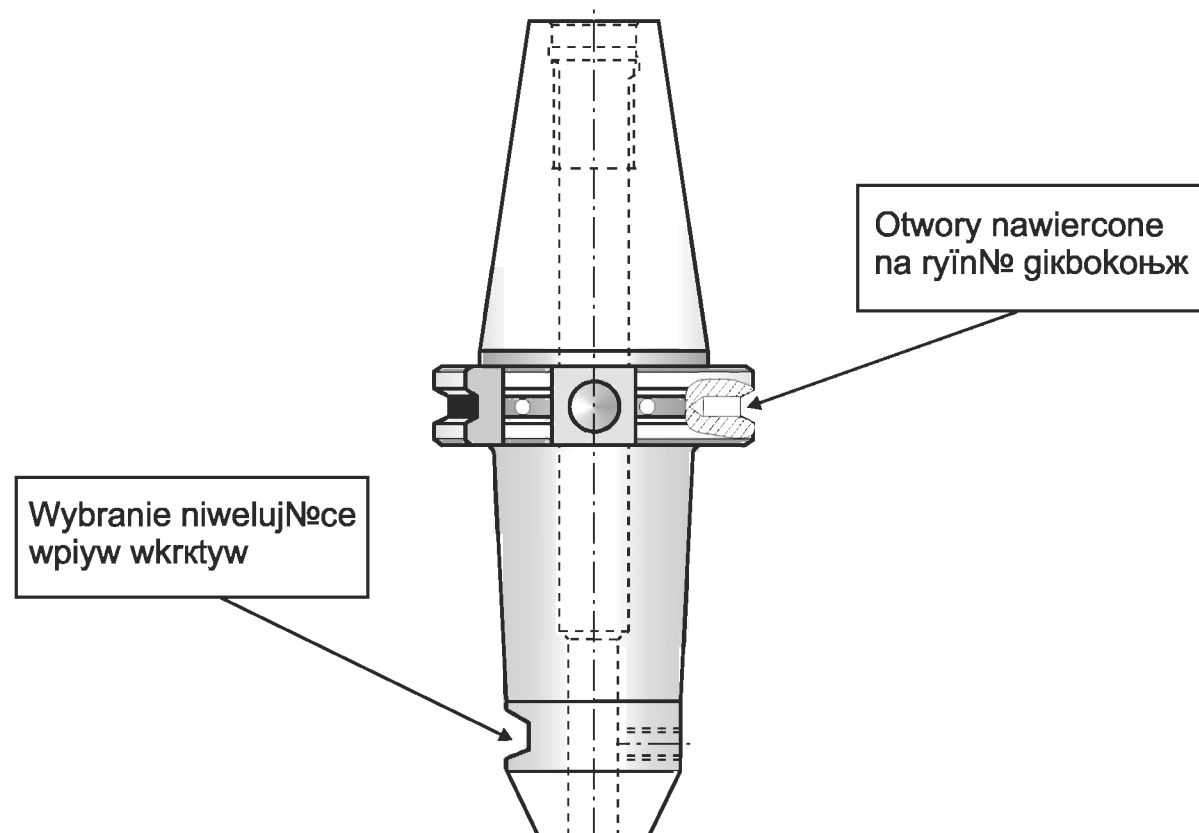
- Class of unbalance - **G**
- Maximum value of working speed - n_{max}



Toolholders marked with  sign are subject to balancing procedure only for customer request!



Rys. 1. Dopuszczalne niewyważenie reszkowe odniesione do masy oprawki z narzędziem w gmm/kg (w milimetrach oznacza przesunięcie środka masy z osi obrotu)



Rys. 2. Przykład nawiercania otworów celem wyważenia oprawki.



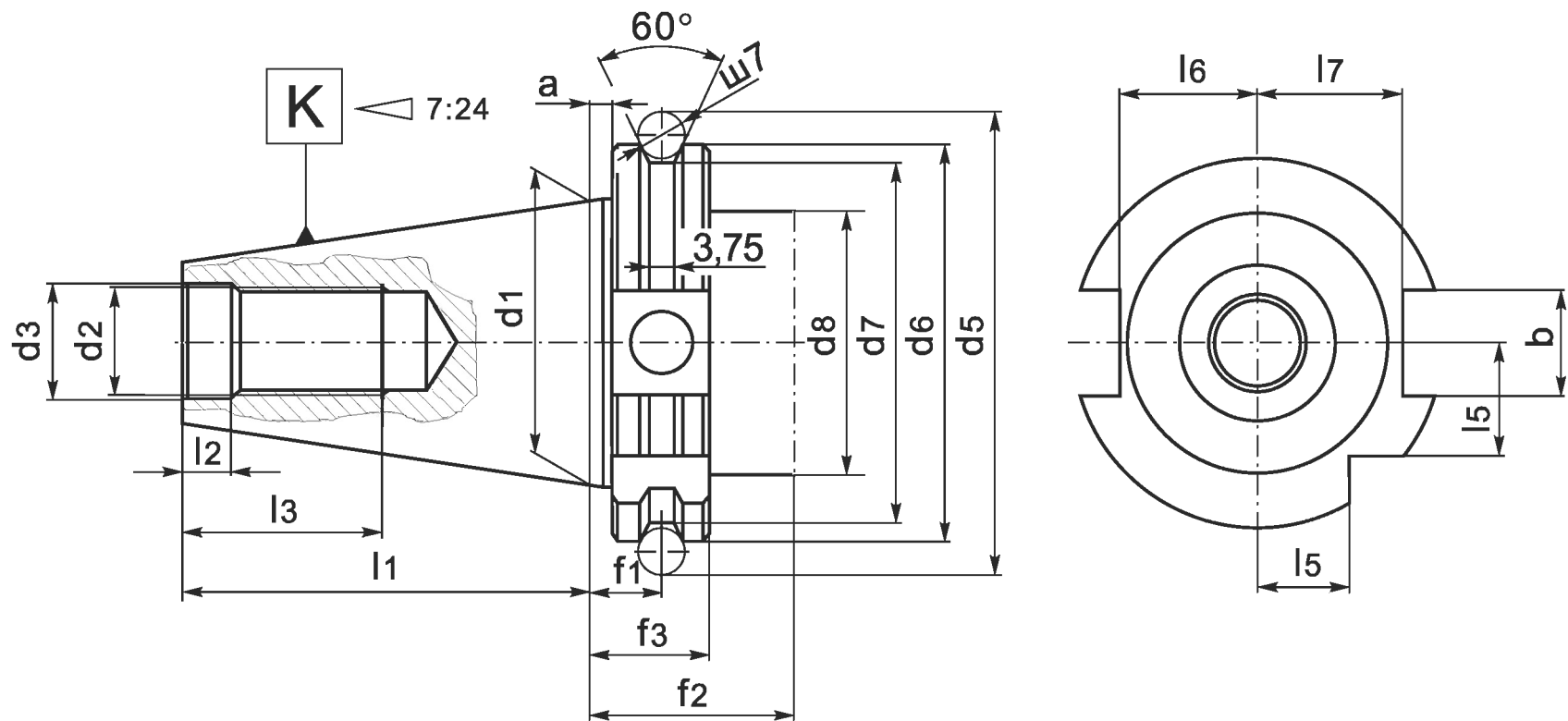
DIN 69871-A

TOOLSHANKS

with 7:24 for automatic tool exchange

ХВОСТОВИК

с конусом 7:24 для автоматического обмена



K 7:24	a	bH12	d1	d2	d3H7	d5	d6	d7	d8max
30	3,2	16,1	31,75	M12	13	59,30	50,00	44,30	45
40	3,2	16,1	44,45	M16	17	72,30	63,55	56,25	50
50	3,2	25,7	69,85	M24	25	107,25	97,50	91,25	80

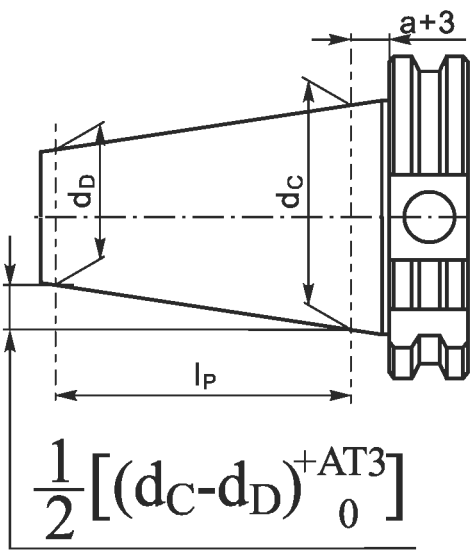
K 7:24	f1	f2min	f3	l1	l2	l3	l5	l6	l7
30	11,1	35	19,1	47,80	5,5	24	15,0	16,4	19,0
40	11,1	35	19,1	68,40	8,2	32	18,5	22,8	25,0
50	11,1	35	19,1	101,75	11,5	47	30,0	35,5	37,7

STANDARD FEATURES OF TOOLING

- * Manufactured with Chrome Manganese steel.
- * Carburized with depth of case 0,7 mm.
- * Hardened and precision ground.
- * Surface Hardness RC 58±2.
- * Taper angle: tolerance AT3.

ТЕХНИЧЕСКИЕ ТРЕБОВАНИЯ

- * Материал: легированная хромомарганцевая сталь.
- * Цементирование 0,7 мм.
- * Закалка и чистовое шлифование.
- * Твёрдость 58±2 HRC.
- * Предельные отклонения угла конуса AT3.

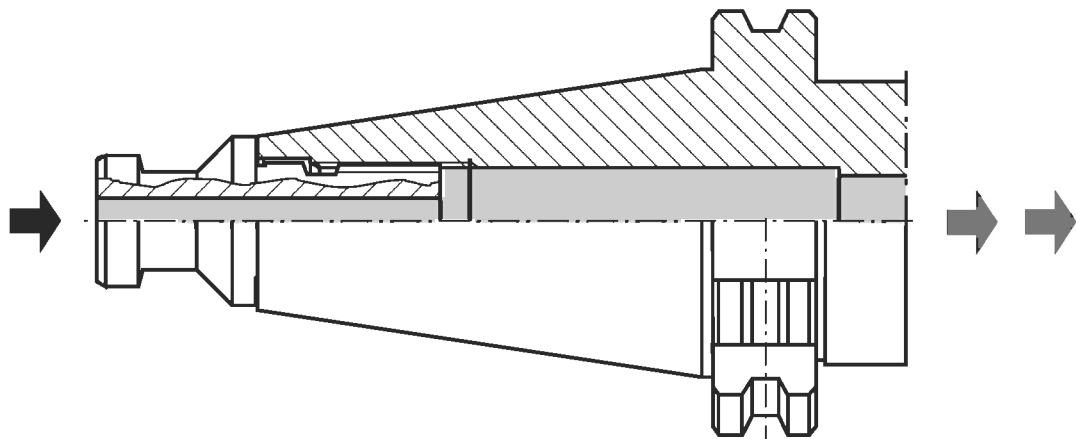


$$\frac{1}{2}[(d_C-d_D)^{+AT3}_0]$$

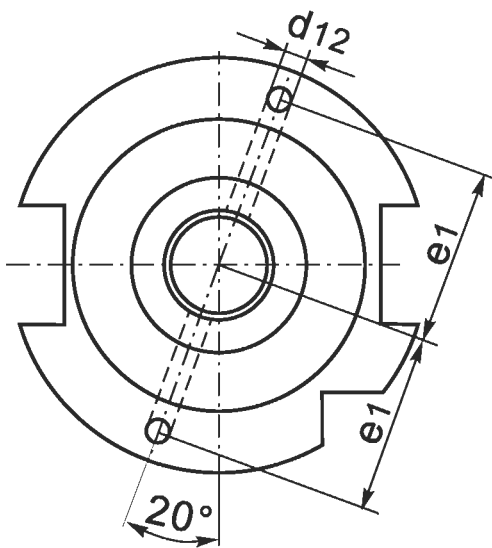
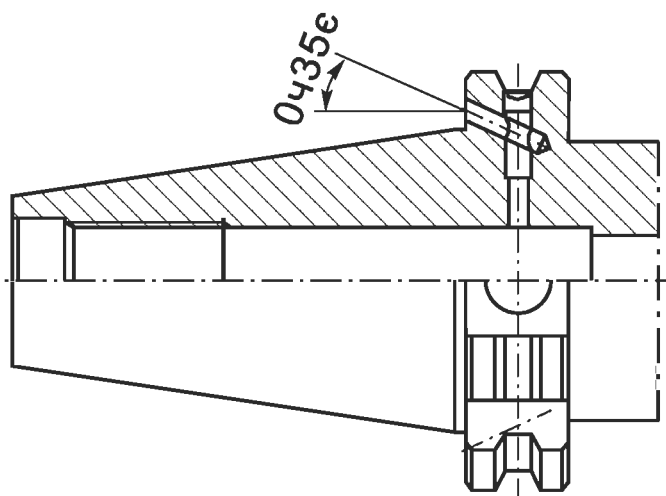
K 7:24	dC - dD	lP	a	AT3
30	12,250	42	3,2	0,002
40	17,208	59	3,2	0,003
50	26,833	92	3,2	0,004



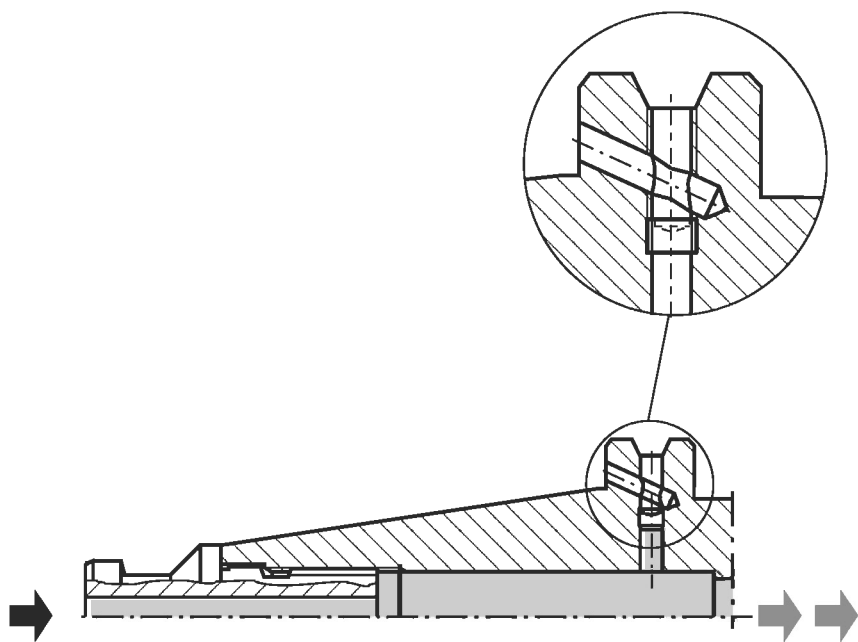
DIN 69871-AD



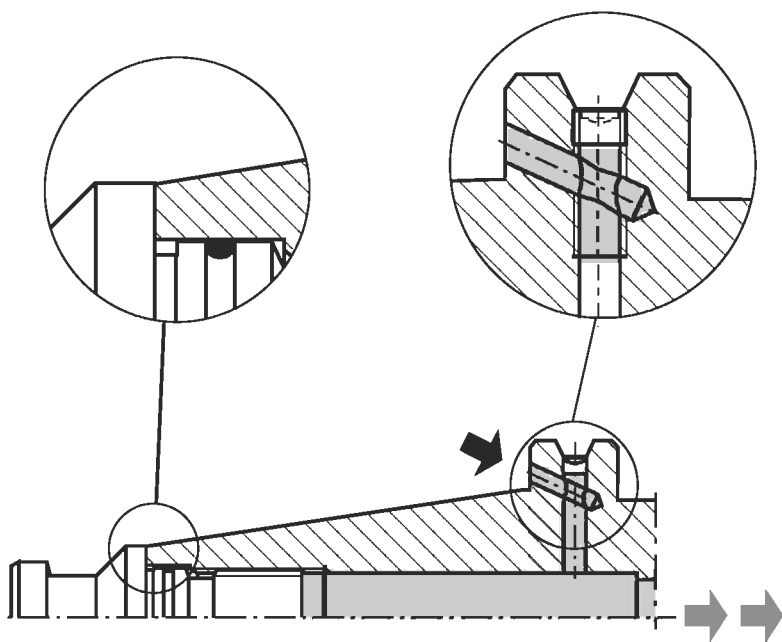
DIN 69871-AD+B



K 7:24	d12	e1
30	4	21
40	4	27
50	5	42



Form AD



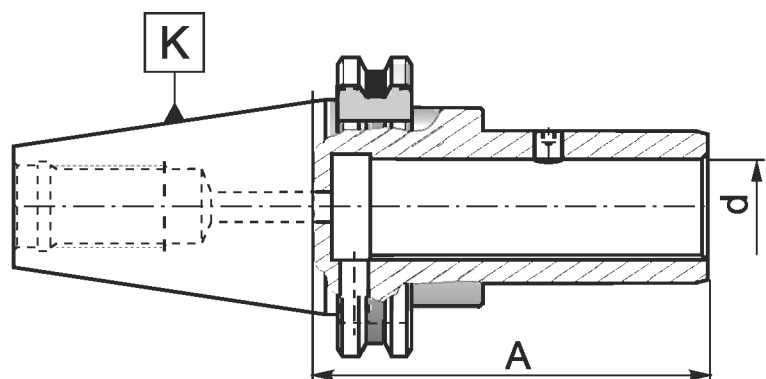
Form B

Type 1606BALANCE  page 3
on request**DIN 69871-AD****HOLDERS**

for adjustable adapters DIN 6327

ОПРАВКИ

для инструмента с цилиндрическим хвостовиком по DIN 6327



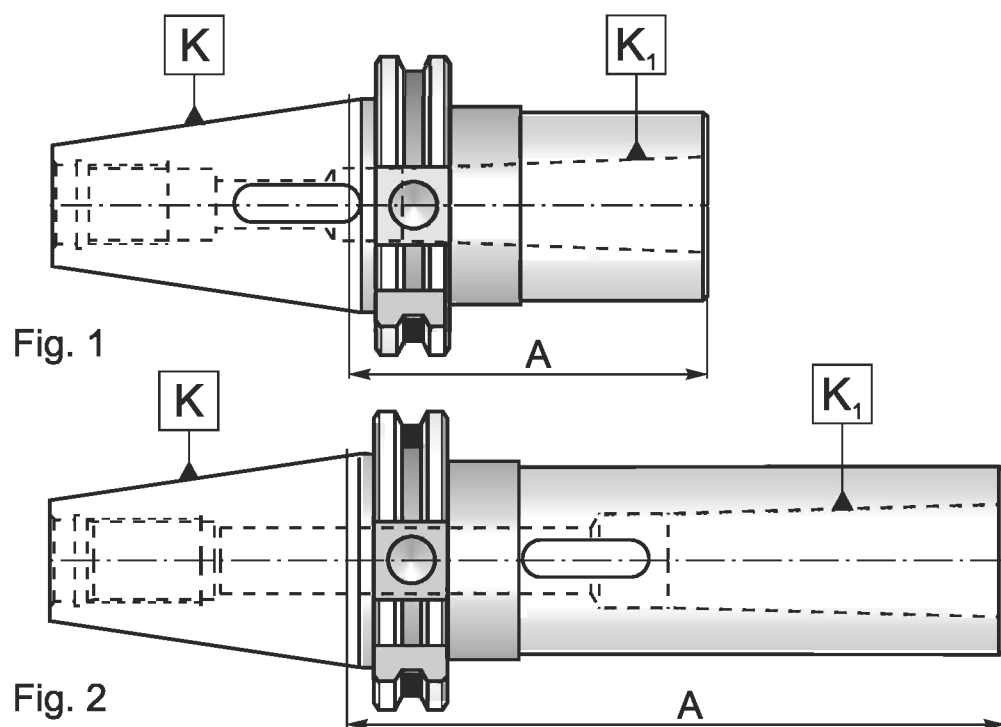
Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	d	A	kg	
060 404	111 606 120	40	16	75	1,10	
060 506	111 606 121		20	80	1,20	
060 608	111 606 122		28	100	1,95	
060 700	111 606 123		36	115	2,10	
060 801	111 606 450	50	16	85	2,50	
060 903	111 606 451		20	85	2,60	
061 008	111 606 452		28	100	2,80	
061 100	111 606 453		36	100	3,40	
061 201	111 606 454		48	105	4,80	

 Typical order: 0642 116 060 506 or 1606-40-20-80**Type 1681**BALANCE  page 3
on request**DIN 69871-AD****REDUCING ADAPTERS**

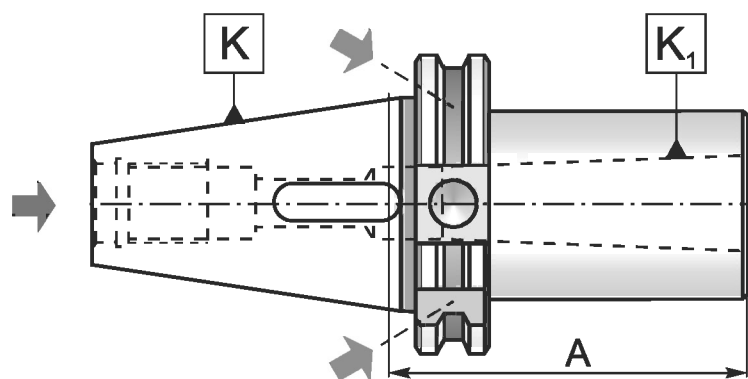
for tools with Morse taper and tang DIN 228-B shank or for tools with Morse taper shank and drawbar thread DIN 228-A

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом Морзе и лапкой по DIN 228-B или с конусом Морзе и резьбовым отверстием по DIN 228-A



Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 Morse	A	Fig.	kg
810 119	111 681 001	30	1	50	1	0,30
810 210	111 681 002		2*	60	1	0,40
810 312	111 681 003		3*	80	1	0,60
810 106	111 681 150	40	1	50	1	0,90
810 208	111 681 151		2	50	1	0,90
810 300	111 681 153		3*	70	1	1,00
810 401	111 681 154		4*	95	1	1,50
810 503	111 681 170		1	120	2	1,30
810 605	111 681 171		2	120	2	1,30
810 707	111 681 172		3*	135	2	2,00
810 809	111 681 173		4*	165	2	2,30
811 107	111 681 470	50	1	45	1	3,00
811 209	111 681 471		2	60	1	3,00
811 300	111 681 472		3	65	1	3,20
811 402	111 681 473		4	95	1	3,50
811 504	111 681 474		5*	105	1	3,20
811 606	111 681 490		1	120	2	3,50
811 708	111 681 491		2	135	2	3,50
811 800	111 681 492		3	155	2	3,50
811 901	111 681 493		4	180	2	3,80
812 108	111 681 494		5*	215	2	3,90

*only for tools with Morse taper and tang DIN 228-B shank
tylko do narzkdzi z chwytem Morse'a z pietw№ wg DIN 228-B Typical order: 0642 116 811 300 or 1681-50-3-65**Type 1681 AD+B**BALANCE  page 3
on request**DIN 69871-AD+B**

Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 Morse	A	kg
818 307	111 681 202	40	2	50	0,90
818 409	111 681 204		3*	70	1,00
818 500	111 681 206		4*	95	1,50
819 308	111 681 522	50	2	60	3,00
819 400	111 681 524		3	65	3,20
819 501	111 681 526		4	95	3,50
819 603	111 681 528		5*	120	3,40

*only for tools with Morse taper and tang DIN 228-B shank
tylko do narzkdzi z chwytem Morse'a z pietw№ wg DIN 228-B Typical order: 0642 116 819 603 or 1681-50-5-120 AD+B

Type 1682BALANCE  page 3
on request**DIN 69871-A****REDUCING ADAPTERS**

for tools with Morse taper shank and drawbar thread DIN 228-A

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом Морзе и резьбовым отверстием по DIN 228-A

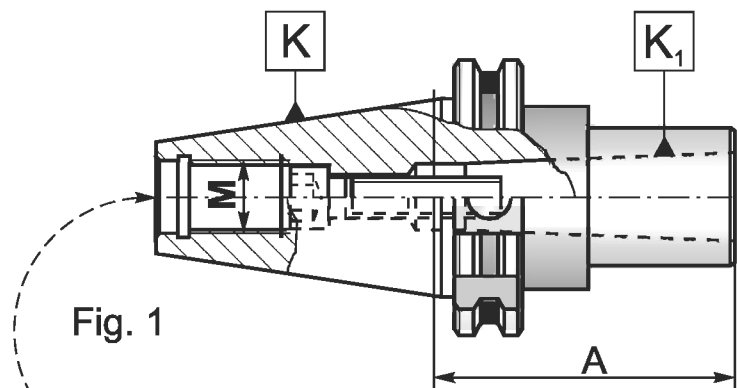


Fig. 1

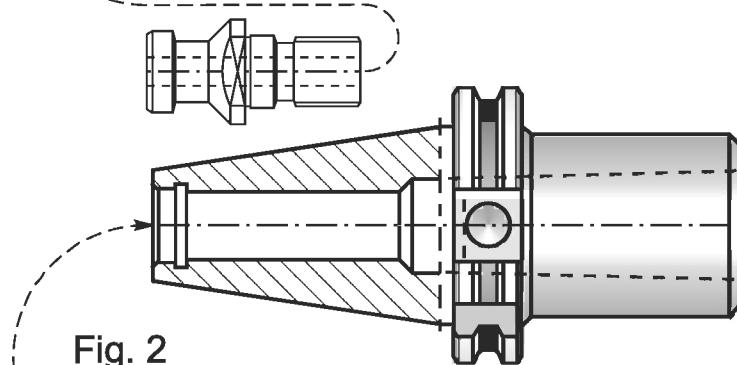
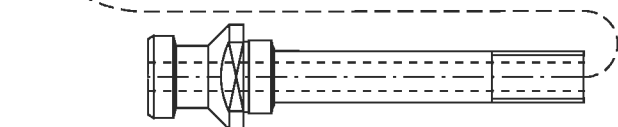


Fig. 2



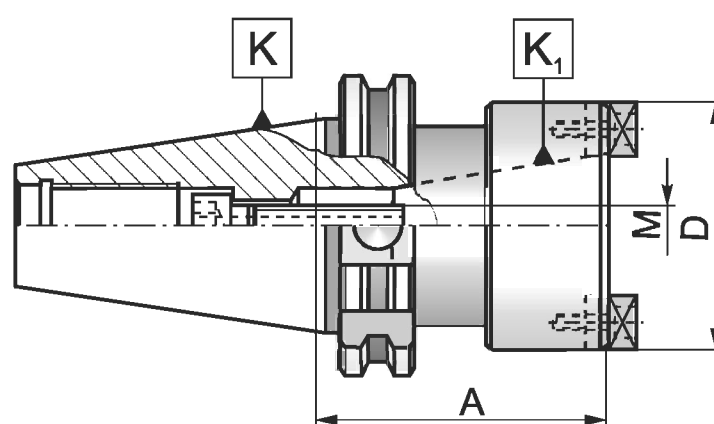
Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 Morse	A	M	fig.	kg	
820 104	111 682 120	40	1	45	M16	1	0,90	W-1091/0
820 206	111 682 121		2	60	M16	1	1,00	W-1092/0
820 308	111 682 122		3	75	—	2	1,10	—
820 400	111 682 123		4	85	—	2	1,50	—
821 105	111 682 450	50	1	45	M24	1	3,00	W-1091/0
821 207	111 682 451		2	45	M24	1	2,80	W-1095/0
821 309	111 682 452		3	60	M24	1	3,20	W-1096/0
821 400	111 682 453		4	75	M24	1	3,20	U-5984/0
821 502	111 682 454		5	75	—	2	3,00	—

 Typical order: 0642 116 821 502 or 1682-50-5-75**Type 1684**BALANCE  page 3
on request**DIN 69871-AD****TAPER ADAPTERS**

for tools with 7:24 taper shank

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом 7:24



Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 7:24	A	D	M	kg	
840 508	111 684 450	50	40	80	88	M16	3,00	

 Typical order: 0642 116 840 508 or 1684-50-40-80

Type 1695

BALANCE on request page 3

DIN 69871-AD**REDUCING ADAPTERS**

for tools with Morse taper shank and drawbar thread DIN 228-A

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом Морзе и резьбовым отверстием по DIN 228-A

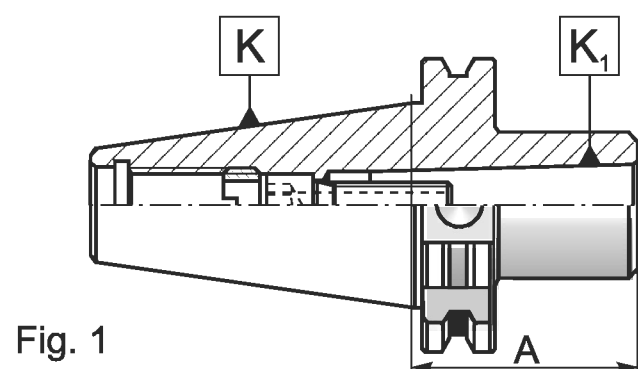


Fig. 1

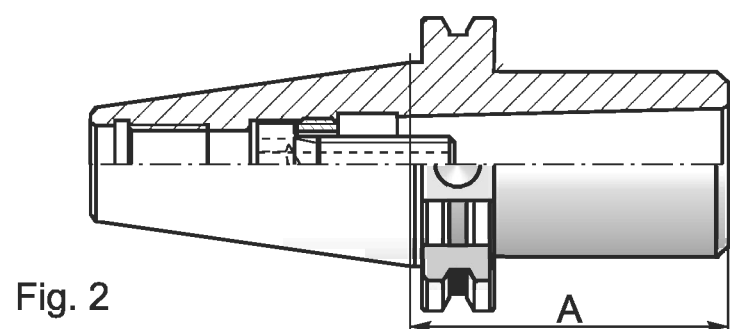


Fig. 2

Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 Morse	A	Fig.	kg	
952 108	111 695 001	30	1	50	1	0,44	W-1091/0
952 200	111 695 002		2	60	2	0,53	W-1095/0
952 301	111 695 003		3	85	2	0,74	U-7790/0
950 106	111 695 120	40	1	50	1	0,85	W-1091/0
950 208	111 695 121		2	50	1	0,85	W-1092/0
950 300	111 695 122		3	70	2	1,00	W-1093/0
950 401	111 695 123		4	95	2	1,40	W-1094/0
951 107	111 695 450	50	1	45	1	2,60	W-1091/0
951 209	111 695 451		2	60	1	2,65	W-1095/0
951 300	111 695 452		3	65	1	2,90	W-1096/0
951 402	111 695 453		4	95	1	3,00	W-1097/0
951 504	111 695 454		5	120	2	3,40	W-1098/0

Typical order: 0642 116 951 504 or 1695-50-5-120

Type 1695

BALANCE on request page 3

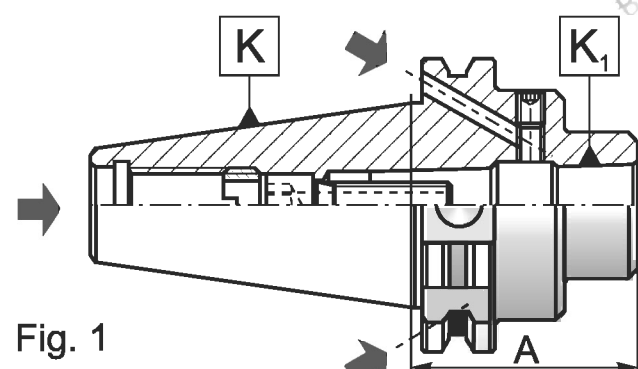
DIN 69871-AD+B

Fig. 1

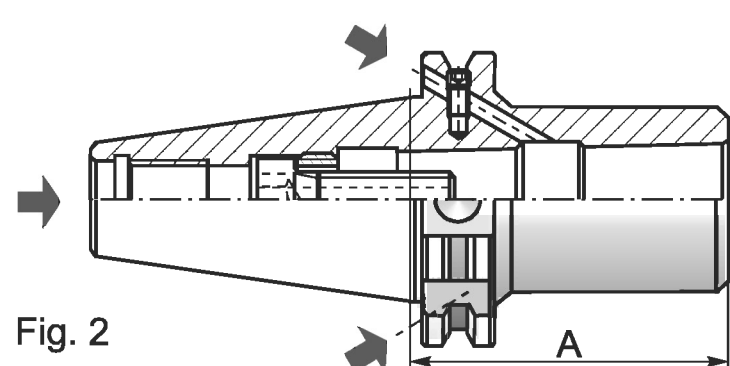


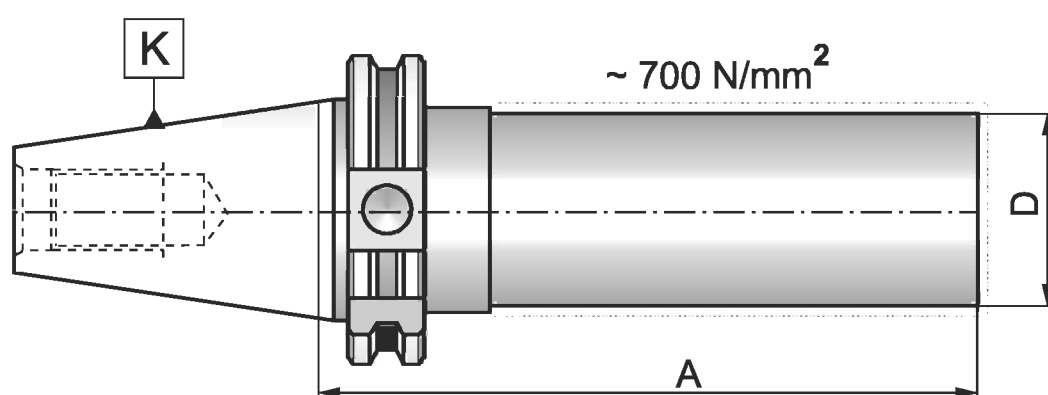
Fig. 2

Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 Morse	A	Fig.	kg	
955 304	111 695 152	40	2	50	1	0,85	W-1092/0
955 406	111 695 154		3	70	2	1,00	W-1093/0
955 508	111 695 156		4	95	2	1,40	W-1094/0
956 305	111 695 482	50	2	60	1	2,65	W-1095/0
956 407	111 695 484		3	65	1	2,90	W-1096/0
956 509	111 695 486		4	95	1	3,20	W-1097/0
956 600	111 695 488		5	120	2	3,50	W-1098/0

Typical order: 0642 116 956 600 or 1695-50-5-120 AD+B

Type 2191

BALANCE on request page 3

DIN 69871-A

Code No. 0642 121...	PKWiU 29 402 133...	K 7:24	D	A	kg
910 209	212 191 015	40	40	280	3,6
910 300	212 191 028		63	280	7,6
911 200	212 191 210	50	50	330	6,4
911 301	212 191 240		80	330	15,4

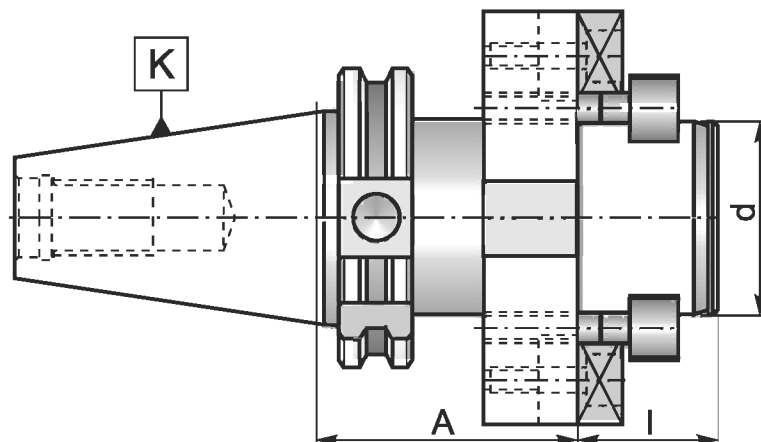
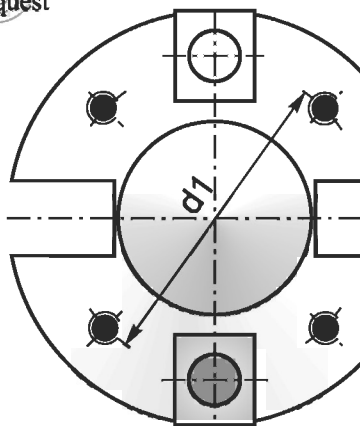
Typical order: 0642 121 911 301 or 2191-50-80-330

Type 2827BALANCE  page 3
on request**DIN 69871-A****ADAPTERS**

for indexable milling cutters

ОПРАВКИ

для фрезерных головок



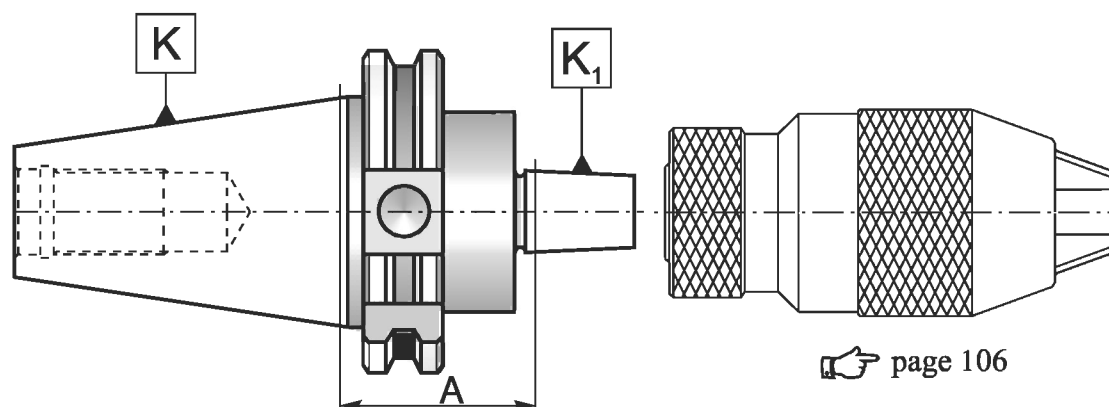
Code No. 0642 128...	PKWiU 29 402 133...	K 7:24	d	d1	A	l	kg		
270 100	232 827 087	40	40	66,7	60	30	1,50	U-6064/0	U-1414/0
270 008	232 827 098		60	101,6	60	40	2,00	U-6066/0	U-2042/0
270 201	232 827 138	50	40	66,7	70	30	2,90	U-6064/0	U-1414/0
270 303	232 827 145		60	101,6	70	40	4,40	U-6066/0	U-2042/0

 Typical order: 0642 128 270 303 or 2827-50-60
Type 5374BALANCE  page 3
on request**DIN 69871-A****DRILL CHUCK ADAPTERS**

for drill chucks taper DIN 238

ОПРАВКИ

для сверлильных патронов с укороченным конусом Морзе по DIN 238

 page 106
 Typical order: 0642 153 741 606 or 5374-50-B18-90

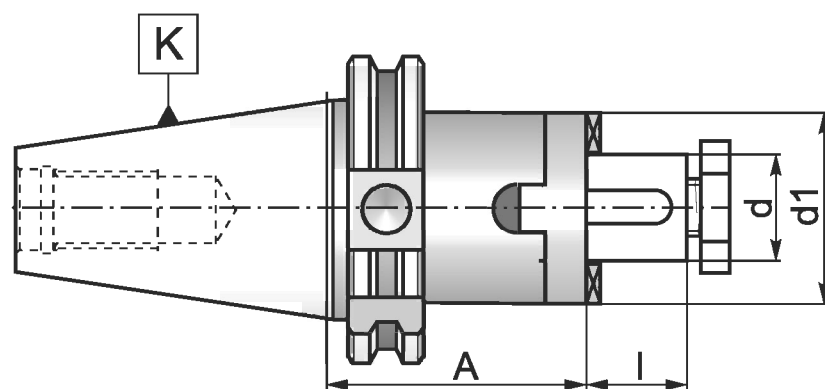
Code No. 0642 153...	PKWiU 29 402 133...	K 7:24	K1 DIN	A	kg
742 200	265 374 423	30	B12	25	0,60
742 301	265 374 424		B16	25	0,60
740 106	265 374 483	40	B12	40	1,10
740 605	265 374 490		B12	90	1,90
740 300	265 374 484		B16	40	1,10
740 707	265 374 491		B16	90	1,90
740 503	265 374 485		B18	40	1,10
740 809	265 374 492		B18	90	1,90
741 300	265 374 574	50	B16	40	2,70
741 504	265 374 579		B16	90	3,80
741 402	265 374 575		B18	40	2,70
741 606	265 374 580		B18	90	3,80
745 202	265 374 497	40	J33	40	1,10
745 600	265 374 498		J6	40	1,10
746 203	265 374 585	50	J33	40	2,70
746 600	265 374 587		J6	40	2,70

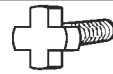
Type 7301BALANCE  page 3
on request**DIN 69871-A****COMBINATION SHELL MILL ADAPTERS**

for cutters with keyway or driving slot DIN 138

ОПРАВКИ

комбинированные для насадных торцевых фрез и насадных фрез с продольной шпонкой по DIN 138



Code No. 0642 173...	PKWiU 29 402 133...	K 7:24	d	A	l	d1	kg			
010 000	337 301 200	40	16	55	17	32	1,00			
010 101	337 301 201		22	55	19	40	1,10			
010 203	337 301 202		27	55	21	48	1,25			
010 305	337 301 203		32	60	24	58	1,55			
010 407	337 301 204		40	60	27	70	1,80			
010 509	337 301 450	50	16	55	17	32	2,80			
010 600	337 301 451		22	55	19	40	2,95			
010 702	337 301 452		27	55	21	48	3,20			
010 804	337 301 453		32	55	24	58	3,45			
010 906	337 301 454		40	55	27	70	3,80			
011 102	337 301 455		50	70	30	90	4,05			

 Typical order:

0642 173 010 600 or 7301-50-22-55



Type 7369

BALANCE on request page 3

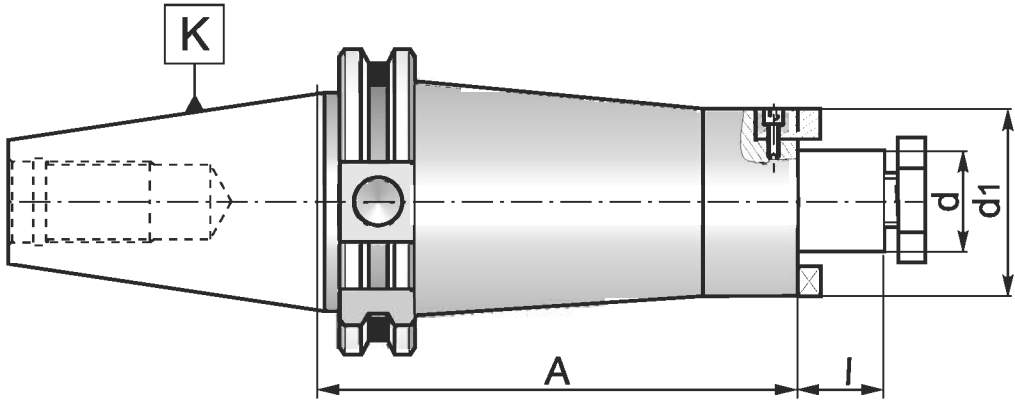
DIN 69871-A

SHELL MILLADAPTERS

for cutters with driving slot DIN 138

ОПРАВКИ

для насадных торцовых фрез по DIN 138



Code No. 0642 173...	PKWiU 29 402 133...	K 7:24	d	A	l	d1	kg		
693 205	337 369 001	30	16	35	17	32	0,50	U-0620/0	S-2117/0
693 307	337 369 002		22	35	19	40	0,58	U-0621/0	S-2121/0
693 409	337 369 003		27	60	21	48	0,63	U-0622/0	S-2111/0
693 500	337 369 004		32	60	24	58	0,78	U-0623/0	S-2114/0
690 100	337 369 200	40	16	60	17	32	1,10	U-0620/0	S-2117/0
690 600	337 369 250		16	120	17	32	1,70	U-0620/0	S-2117/0
690 202	337 369 201		22	60	19	40	1,20	U-0621/0	S-2121/0
690 701	337 369 251		22	120	19	40	1,90	U-0621/0	S-2121/0
690 304	337 369 202		27	60	21	48	1,40	U-0622/0	S-2111/0
690 803	337 369 252		27	120	21	48	2,20	U-0622/0	S-2111/0
690 406	337 369 203		32	60	24	58	1,50	U-0623/0	S-2114/0
690 905	337 369 253		32	120	24	58	2,40	U-0623/0	S-2114/0
690 508	337 369 204	50	40	60	27	70	1,90	U-0624/0	S-2124/0
691 101	337 369 450		16	60	17	32	2,80	U-0620/0	S-2117/0
691 702	337 369 490		16	110	17	32	3,15	U-0620/0	S-2117/0
691 203	337 369 451		22	60	19	40	3,00	U-0621/0	S-2121/0
691 804	337 369 491		22	110	19	40	3,40	U-0621/0	S-2121/0
691 305	337 369 452		27	60	21	48	3,25	U-0622/0	S-2111/0
691 906	337 369 492		27	110	21	48	3,70	U-0622/0	S-2111/0
691 407	337 369 453		32	60	24	58	3,40	U-0623/0	S-2114/0
692 102	337 369 493		32	110	24	58	4,10	U-0623/0	S-2114/0
691 509	337 369 454		40	60	27	70	3,60	U-0624/0	S-2124/0
692 204	337 369 494		40	110	27	70	4,30	U-0624/0	S-2124/0
691 600	337 369 455		50	60	30	90	4,00	U-0625/0	U-5974/0

Typical order: 0642 173 690 100 or 7369-40-16-60

Type 7369

BALANCE on request page 3

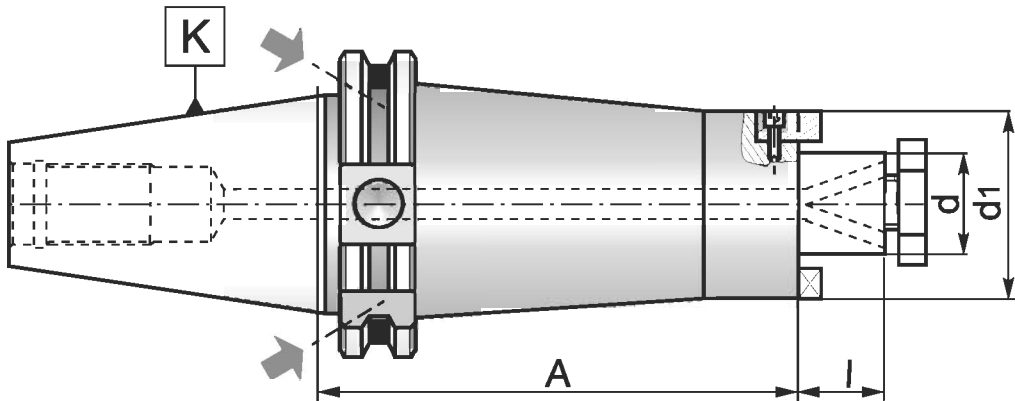
DIN 69871-AD+B

SHELL MILLADAPTERS

for cutters with driving slot DIN 138

ОПРАВКИ

для насадных торцовых фрез по DIN 138



Code No. 0642 173...	PKWiU 29 402 133...	K 7:24	d	A	l	d1	kg		
		40	16	45	17	38	1,10	U-0620/0	W-1945/0
			16	100	17	38	1,70	U-0620/0	W-1945/0
			16	130	17	38	2,10	U-0620/0	W-1945/0
			16	160	17	38	2,50	U-0620/0	W-1945/0
			22	45	19	48	1,20	U-0621/0	W-1946/0
			22	100	19	48	1,90	U-0621/0	W-1946/0
			22	130	19	48	2,40	U-0621/0	W-1946/0
			22	160	19	48	2,80	U-0621/0	W-1946/0
			27	60	21	58	1,80	U-0622/0	W-1947/0
			27	100	21	58	2,50	U-0622/0	W-1947/0
			27	130	21	58	3,00	U-0622/0	W-1947/0
			27	160	21	58	3,50	U-0622/0	W-1947/0
			32	60	24	66	1,80	U-0623/0	W-1948/0
			32	100	24	66	2,90	U-0623/0	W-1948/0
			32	130	24	66	3,70	U-0623/0	W-1948/0
			32	160	24	66	4,50	U-0623/0	W-1948/0



Type 7369

DIN 69871-AD+B

Code No. 0642 173...	PKWiU 29 402 133...	K 7:24	d	A	l	d1	kg		
695 502	337 369 286	40	40	65	27	80	2,70	U-0624/0	W-1949/0
695 528	337 369 287		40	100	27	80	4,00	U-0624/0	W-1949/0
695 543	337 369 288		40	130	27	80	5,20	U-0624/0	W-1949/0
695 569	337 369 289		40	160	27	80	6,20	U-0624/0	W-1949/0
696 208	337 369 510	50	16	50	17	38	3,40	U-0620/0	W-1945/0
696 223	337 369 511		16	100	17	38	4,00	U-0620/0	W-1945/0
696 249	337 369 512		16	130	17	38	4,30	U-0620/0	W-1945/0
696 264	337 369 513		16	160	17	38	4,70	U-0620/0	W-1945/0
696 280	337 369 514		16	200	17	38	5,10	U-0620/0	W-1945/0
696 300	337 369 515		22	50	19	48	3,50	U-0621/0	W-1946/0
696 325	337 369 516		22	100	19	48	4,40	U-0621/0	W-1946/0
696 340	337 369 517		22	130	19	48	5,00	U-0621/0	W-1946/0
696 366	337 369 518		22	160	19	48	5,40	U-0621/0	W-1946/0
696 381	337 369 519		22	200	19	48	6,00	U-0621/0	W-1946/0
696 401	337 369 520		27	55	21	58	3,70	U-0622/0	W-1947/0
696 427	337 369 521		27	100	21	58	4,80	U-0622/0	W-1947/0
696 442	337 369 522		27	130	21	58	5,50	U-0622/0	W-1947/0
696 468	337 369 523		27	160	21	58	6,20	U-0622/0	W-1947/0
696 483	337 369 524		27	200	21	58	7,00	U-0622/0	W-1947/0
696 503	337 369 525		32	60	24	66	4,00	U-0623/0	W-1948/0
696 529	337 369 526		32	100	24	66	5,30	U-0623/0	W-1948/0
696 544	337 369 527		32	130	24	66	6,20	U-0623/0	W-1948/0
696 560	337 369 528		32	160	24	66	7,10	U-0623/0	W-1948/0
696 585	337 369 529		32	200	24	66	8,10	U-0623/0	W-1948/0
696 605	337 369 530		40	65	27	80	4,80	U-0624/0	W-1949/0
696 620	337 369 531		40	100	27	80	6,00	U-0624/0	W-1949/0
696 646	337 369 532		40	130	27	80	7,00	U-0624/0	W-1949/0
696 661	337 369 533		40	160	27	80	8,00	U-0624/0	W-1949/0
696 687	337 369 534		40	200	27	80	9,10	U-0624/0	W-1949/0
696 707	337 369 535		50	70	30	90	5,40	U-0625/0	U-5974/0
696 722	337 369 536		50	100	30	90	7,10	U-0625/0	U-5974/0
696 748	337 369 537		50	130	30	90	8,50	U-0625/0	U-5974/0
696 763	337 369 538		50	160	30	90	9,90	U-0625/0	U-5974/0
696 789	337 369 539		50	200	30	90	12,00	U-0625/0	U-5974/0

Typical order: 0642 173 695 105 7369-40-16-45 AD+B
or

Type 7373

BALANCE page 3
on request

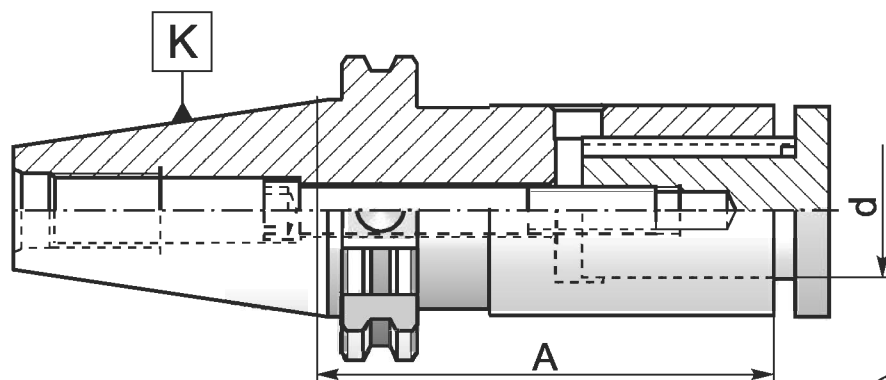
DIN 69871-A

MILLING ARBORS

for staggered tooth side milling cutters

ОПРАВКИ

для дисковых фрез



Code No. 0642 173...	PKWiU 29 402 133...	K 7:24	d	A	kg			
731 008	337 373 200	40	16	95	1,50	U-6520/0	U-6510/0	U-6526/0
731 100	337 373 201		16	125	2,00	U-6520/0	U-6511/0	U-6527/0
731 201	337 373 202		22	95	1,60	U-6523/0	U-6512/0	U-6528/0
731 303	337 373 203		22	125	2,10	U-6523/0	U-6513/0	U-6529/0
731 405	337 373 204		27	95	1,70	U-6523/0	U-6514/0	U-6530/0
731 507	337 373 205		27	125	2,25	U-6523/0	U-6515/0	U-6531/0
731 609	337 373 206		32	95	2,00	U-6523/0	U-6516/0	U-6532/0
731 700	337 373 207		32	125	2,45	U-6523/0	U-6517/0	U-6533/0
732 009	337 373 452	50	22	100	3,10	U-6524/0	U-6512/0	U-6528/0
732 100	337 373 453		22	125	3,45	U-6524/0	U-6513/0	U-6529/0
732 202	337 373 454		27	100	3,30	U-6524/0	U-6514/0	U-6530/0
732 304	337 373 455		27	125	3,80	U-6524/0	U-6515/0	U-6531/0
732 406	337 373 456		32	100	3,90	U-6524/0	U-6516/0	U-6532/0
732 508	337 373 457		32	125	4,40	U-6524/0	U-6517/0	U-6533/0
732 600	337 373 458		40	100	4,60	U-6524/0	U-6518/0	U-6534/0
732 701	337 373 459		40	125	5,30	U-6524/0	U-6519/0	U-6535/0

Typical order: 0642 173 731 405 or 7373-40-27-95

Type 7617BALANCE  page 3
on request**DIN 69871-AD****COLLET CHUCKS ER**

for tool with cylindrical shank

OPRAWKI ZACISKOWE

(do tulejek ER DIN 6499)

do narzędzi z chwytem walcowym

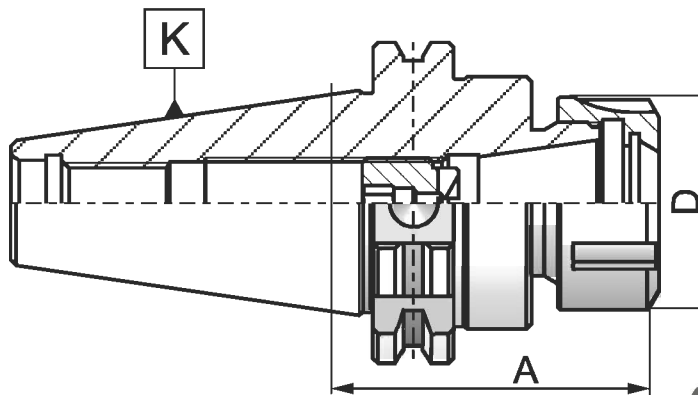
Standard**accessories:**

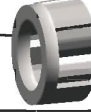
Nut - page 110,

screw

Wyposażenie podstaw.:Nakrętka - str. 110,
wkret Typical order:

0642 176 172 700 or 7617-50-40-130



Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	Collet	A	Capacity Zakres	D	kg		
170 621	217 617 361	30	ER16	60	2-10	32	0,60	9833-16	M10x11LH
170 647	217 617 367		ER32	60	2-20	50	0,90	9833-32	M18x1,5x19LH
170 005	217 617 542	40	ER25	60	2-16	42	1,00	9833-25	M18x1,5x19LH
170 300	217 617 548		ER32	70	2-20	50	1,20	9833-32	M22x1,5x24LH
171 301	217 617 571		ER32	130	2-20	50	1,80	9833-32	M22x1,5x24LH
170 901	217 617 577		ER40	70	2-26	63	1,40	9833-40	M28x1,5x30LH
171 709	217 617 732	50	ER32	70	2-20	50	3,60	9833-32	M22x1,5x24LH
172 007	217 617 745		ER32	130	2-20	50	4,70	9833-32	M22x1,5x24LH
172 302	217 617 751		ER40	80	2-26	63	4,20	9833-40	M28x1,5x30LH
172 700	217 617 767		ER40	130	2-26	63	5,00	9833-40	M28x1,5x30LH

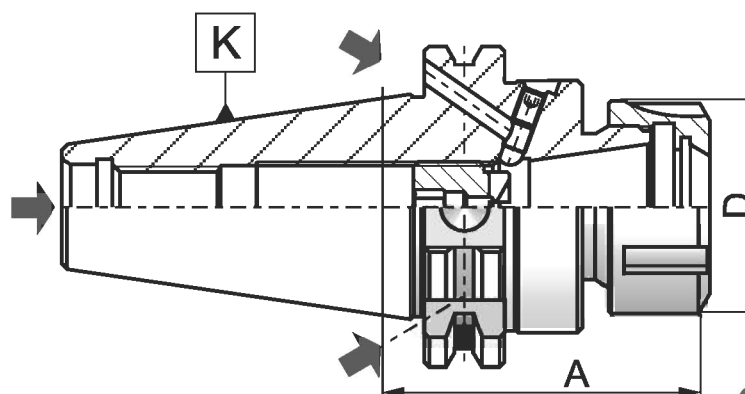
Type 7617BALANCE  page 3
on request**DIN 69871-AD+B****COLLET CHUCKS ER**

for tool with cylindrical shank

OPRAWKI ZACISKOWE

(do tulejek ER DIN 6499)

do narzędzi z chwytem walcowym

Standard**accessories:**Nut - page 110,
screw**Wyposażenie podstawowe:** Typical order:0642 176 176 820
or
7617-50-40-160 AD+B

Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	Collet	A	Capacity Zakres	D	kg		
176 347	217 617 533	40	ER16	60	2-10	32	0,8	9833-16	M12x1,5x14LH
176 464	217 617 545		ER25	60	2-16	42	1,0	9833-25	M18x1,5x19LH
176 500	217 617 553		ER32	70	2-20	50	1,2	9833-32	M22x1,5x24LH
176 540	217 617 582		ER32	160	2-20	50	1,4	9833-32	M22x1,5x24LH
176 566	217 617 575		ER40	70	2-26	63	1,9	9833-40	M28x1,5x30LH
176 668	217 617 735	50	ER32	70	2-20	50	3,6	9833-32	M22x1,5x24LH
176 744	217 617 754		ER32	160	2-20	50	4,2	9833-32	M22x1,5x24LH
176 785	217 617 747		ER40	80	2-26	63	5,0	9833-40	M28x1,5x30LH
176 820	217 617 780		ER40	160	2-26	63	5,2	9833-40	M28x1,5x30LH

Type 7617-SBALANCE  page 3
on request**DIN 69871-AD****COLLET CHUCKS ER**

for tool with cylindrical shank

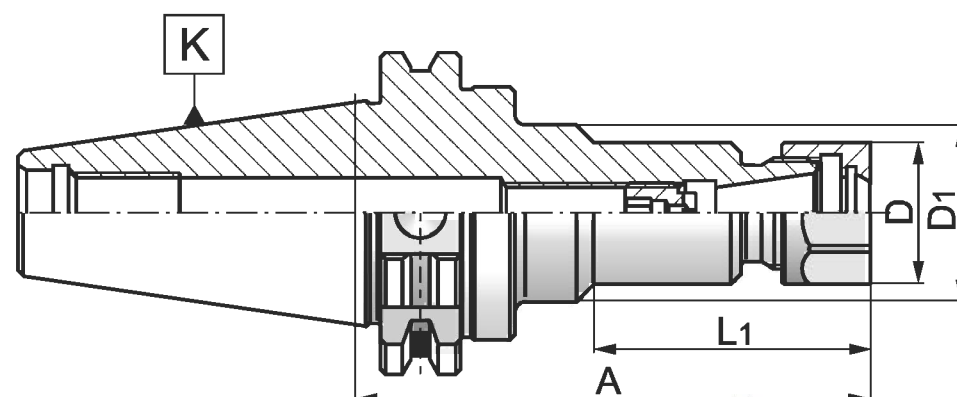
OPRAWKI ZACISKOWE

(do tulejek ER DIN 6499)

do narzędzi z chwytem walcowym

Standard**accessories:**Nut - page 110,
screw**Wyposażenie podstaw.:**Nakrętka - str. 110,
wkret**Optional** Typical order:

0642 176 174 625 or 7617-50-16-150 S



Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	Collet	A	Capacity Zakres	L1	D	D1	kg		
174 126	217 617 530	40	ER16	100	2-10	-	28	-	1,10	9833-16D	M12x1,5x14LH
174 228	217 617 536		ER16	150	2-10	85	28	40	1,60	9833-16D	M12x1,5x14LH
174 523	217 617 713	50	ER16	100	2-10	-	28	-	3,00	9833-16D	M12x1,5x14LH
174 625	217 617 719		ER16	150	2-10	85	28	40	3,30	9833-16D	M12x1,5x14LH

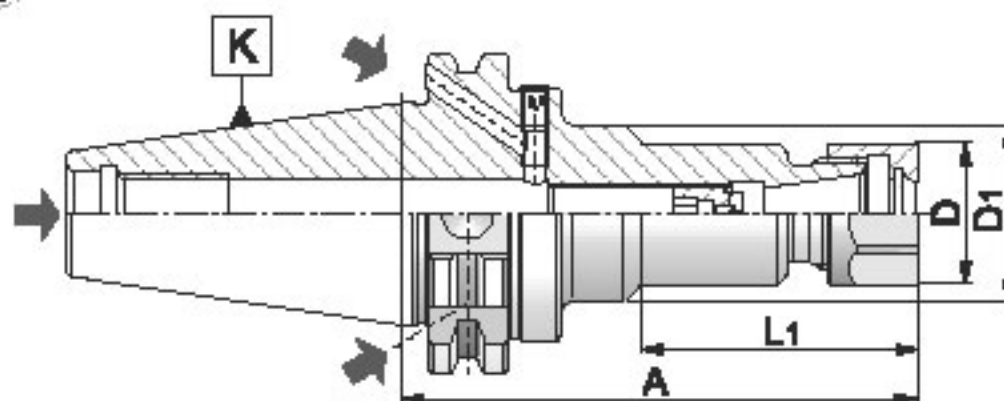
**Type 7617-S**BALANCE page 3
on request**DIN 69871-AD+B****COLLET CHUCKS ER**

for tool with cylindrical shank

OPRAWKI ZACISKOWE

(do tulejek ER DIN 6499)

do narzędzi z chwytem walcowym



Standard accessories:

Nut - page 110,
screw

Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	Collet	A	Capacity Zakres	L1	D	D1			
176 388	217 626 534	40	ER16	100	2-10	—	28	—	1,1		9833-16D
176 423	217 626 539		ER16	160	2-10	86	28	40	2,0		9833-16D
176 581	217 626 719	50	ER16	100	2-10	—	28	—	3,0		9833-16D
176 627	217 626 725		ER16	160	2-10	86	28	40	3,8		9833-16D

Typical order: 0642 176 176 627 or 7617-50-16-160 S AD+B

Type 7617BALANCE page 3
on request**DIN 69871-AD****COLLET CHUCKS ER-SET**

for tool with cylindrical shank

OPRAWKI ZACISKOWE ER-KOMPLET

do narzędzi z chwytem walcowym



Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	Collet	A	Capacity Zakres	Full set pieces
170 619	217 617 362	30	ER16	60	2-10	8
170 634	217 617 368		ER32	60	2-20	18
170 107	217 617 543	40	ER25	60	2-16	14
170 402	217 617 549		ER32	70	2-20	18
171 108	217 617 572		ER32	130	2-20	18
170 708	217 617 578		ER40	70	2-26	24
171 505	217 617 733	50	ER32	70	2-20	18
171 800	217 617 746		ER32	130	2-20	18
172 109	217 617 752		ER40	80	2-26	24
172 506	217 617 768		ER40	130	2-26	24

Type 7617-S

Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	Collet	A	Capacity Zakres	Full set pieces
174 100	217 617 532	40	ER16	100	2-10	8
174 202	217 617 537		ER16	150	2-10	8
174 508	217 617 715	50	ER16	100	2-10	8
174 600	217 617 721		ER16	150	2-10	8

Type 7617-PL

Code No.	PKWiU	K 7:24	Collet	A	Capacity Zakres	Full set pieces
		30	ER32	60	3-20	8
		Tulejki Ø 4,5,6,8,10,12,16,20				
		40	ER32	70	3-20	8
		Tulejki Ø 4,5,6,8,10,12,16,20				
		50	ER32	70	3-20	8
		Tulejki Ø 4,5,6,8,10,12,16,20				

Type 7625BALANCE  page 3
on request**DIN 69871-AD****END MILL ADAPTERS**for cutters with cylindrical shank
and weldon flat DIN 1835-B**ОПРАВКИ**

"Weldon" по DIN 1835-B

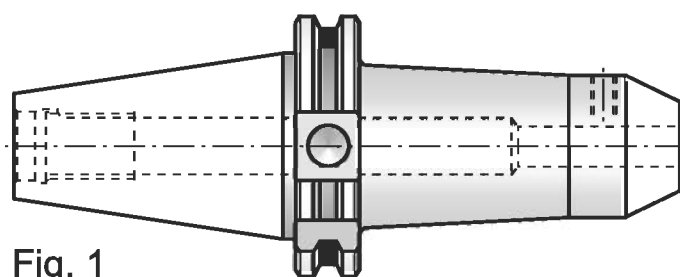


Fig. 1

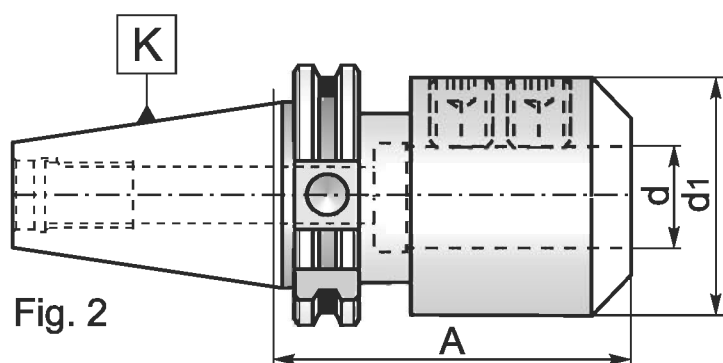


Fig. 2

Code No. 0642 176...	PKWiU 29 402 150...	K 7:24	d	A	d1	Fig.	kg	
251 213	217 625 360	30	6	50	25,0	1	0,50	U-4131/0
251 315	217 625 361		8	50	28,0	1	0,50	U-4132/0
251 417	217 625 362		10	50	35,0	1	0,60	U-4133/0
251 519	217 625 363		12	50	42,0	1	0,60	U-4134/0
251 610	217 625 368		16	63	44,0	1	0,90	U-4135/0
251 712	217 625 370		20	63	44,0	1	1,00	U-5888/0
252 201	217 625 556	40	6	30	25,0	1	0,80	U-4131/0
250 108	217 625 530		6	50	25,0	1	0,90	U-4131/0
252 255	217 625 557		6	100	25,0	1	1,10	U-4131/0
252 283	217 625 558		6	130	25,0	1	1,30	U-4131/0
252 303	217 625 560		8	30	28,0	1	0,80	U-4132/0
250 200	217 625 531		8	50	28,0	1	0,90	U-4132/0
252 357	217 625 561		8	100	28,0	1	1,20	U-4132/0
252 385	217 625 562		8	130	28,0	1	1,40	U-4132/0
252 405	217 625 563		10	32	35,0	1	0,90	U-4133/0
250 301	217 625 532		10	50	35,0	1	1,00	U-4133/0
252 459	217 625 564		10	100	35,0	1	1,50	U-4133/0
252 487	217 625 565		10	130	35,0	1	1,70	U-4133/0
252 507	217 625 566		12	34	42,0	1	1,00	U-4134/0
250 403	217 625 533		12	50	42,0	1	1,10	U-4134/0
252 550	217 625 567		12	100	42,0	1	1,70	U-4134/0
252 589	217 625 568		12	130	42,0	1	1,90	U-4134/0
252 510	217 625 569		14	34	44,0	1	1,15	U-4134/0
252 522	217 625 570		14	50	44,0	1	1,30	U-4134/0
252 535	217 625 571		14	63	44,0	1	1,40	U-4134/0
252 609	217 625 572		16	35	44,0	1	1,25	U-4135/0
250 505	217 625 538		16	63	44,5	1	1,40	U-4135/0
252 637	217 625 574		18	63	44,5	1	1,50	U-5887/0
253 100	217 625 575		20	35	44,5	1	1,20	U-6756/0
250 607	217 625 545		20	63	44,5	1	1,40	U-5888/0
253 304	217 625 577		25	60	44,5	2	1,80	U-6756/0 U-6757/0
250 709	217 625 550		25	100	63,0	2	2,00	U-4137/0 U-4137/0
253 508	217 625 578		32	70	72,0	2	2,10	U-6755/0 U-4138/0
250 800	217 625 555		32	100	72,0	2	2,30	U-4138/0 U-4138/0
251 109	217 625 710	50	6	63	25,0	1	3,30	U-4131/0
251 137	217 625 729		6	130	25,0	1	4,40	U-4131/0
251 200	217 625 711		8	63	28,0	1	3,30	U-4132/0
251 239	217 625 730		8	130	28,0	1	4,20	U-4132/0
251 302	217 625 712		10	63	35,0	1	3,60	U-4133/0
251 330	217 625 731		10	130	35,0	1	4,40	U-4133/0
251 404	217 625 713		12	63	42,0	1	3,80	U-4134/0
253 885	217 625 732		12	130	42,0	1	4,50	U-4134/0
254 000	217 625 724		14	63	44,0	1	3,90	U-4134/0
251 506	217 625 714		16	63	48,0	1	4,10	U-4135/0
251 521	217 625 726		16	100	48,0	1	4,70	U-4135/0
251 534	217 625 733		16	130	48,0	1	5,10	U-4135/0
251 550	217 625 725		18	63	50,0	1	4,10	U-4135/0
254 101	217 625 727		20	35	52,0	1	4,00	U-4136/0
251 608	217 625 716		20	63	52,0	1	4,40	U-4136/0
251 636	217 625 734		20	130	52,0	1	5,20	U-4136/0
254 305	217 625 728		25	60	69,9	2	4,70	U-4136/0 U-4137/0
251 700	217 625 720		25	80	65,0	2	5,00	U-4137/0 U-4137/0
251 738	217 625 729		25	130	65,0	2	5,10	U-4137/0 U-4137/0
254 509	217 625 735		32	70	69,9	2	5,00	U-4136/0 U-4138/0
251 801	217 625 721		32	100	72,0	2	5,30	U-4138/0 U-4138/0
251 830	217 625 736		32	130	72,0	2	6,00	U-4138/0 U-4138/0
251 855	217 625 737		32	160	72,0	2	6,50	U-4138/0 U-4138/0
251 896	217 625 738		40	100	80,0	2	5,50	U-5870/0 U-5870/0
251 903	217 625 722		40	120	90,0	2	5,60	U-5870/0 U-5870/0
252 100	217 625 723		50	130	100,0	2	6,10	U-4139/0 U-4139/0



Typical order: 0642 176 251 801 or 7625-50-32-100

Type 7625

BALANCE  page 3
on request

DIN 69871-AD+B

END MILL ADAPTERS

for cutters with cylindrical shank
and weldon flat DIN 1835-B

ОПРАВКИ

"Weldon" по DIN 1835-B

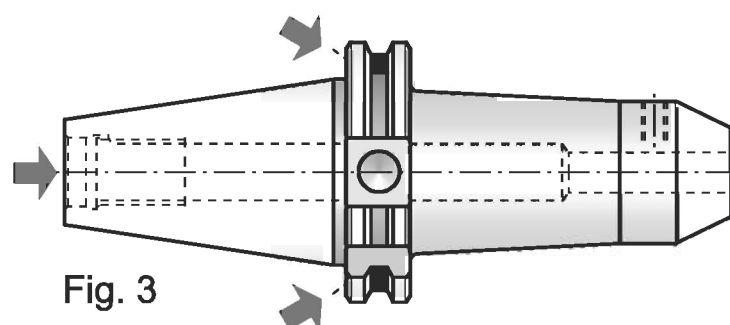


Fig. 3

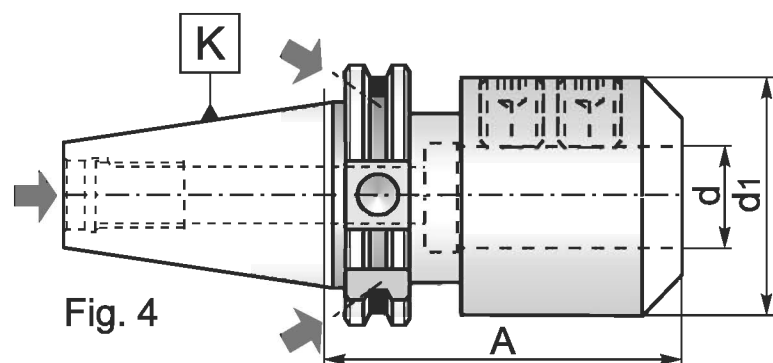


Fig. 4

Code No. 0642 176...	PKWiU 29 402 150...	K 7:24	d	A	d1	Fig.	kg	
255 102	217 625 579	40	6	50	25,0	3	0,90	U-4131/0
255 128	217 625 580		6	100	25,0	3	1,10	U-4131/0
255 143	217 625 581		6	130	25,0	3	1,30	U-4131/0
255 169	217 625 582		6	160	25,0	3	1,20	U-4131/0
255 184	217 625 583		6	200	25,0	3	1,30	U-4131/0
255 204	217 625 584		8	50	28,0	3	0,90	U-4132/0
255 220	217 625 585		8	100	28,0	3	1,20	U-4132/0
255 245	217 625 586		8	130	28,0	3	1,40	U-4132/0
255 260	217 625 587		8	160	28,0	3	1,50	U-4132/0
255 286	217 625 588		8	200	28,0	3	1,60	U-4132/0
255 306	217 625 589		10	60	35,0	3	1,00	U-4133/0
255 321	217 625 590		10	100	35,0	3	1,20	U-4133/0
255 347	217 625 591		10	130	35,0	3	1,70	U-4133/0
255 362	217 625 592		10	160	35,0	3	1,60	U-4133/0
255 388	217 625 593		10	200	35,0	3	1,80	U-4133/0
255 408	217 625 594		12	60	42,0	3	1,10	U-4134/0
255 410	217 625 595		12	100	42,0	3	1,70	U-4134/0
255 423	217 625 596		12	130	42,0	3	1,90	U-4134/0
255 436	217 625 597		12	160	42,0	3	1,70	U-4134/0
255 449	217 625 598		12	200	42,0	3	1,90	U-4134/0
255 451	217 625 599		14	60	44,0	3	1,30	U-4134/0
255 464	217 625 600		14	100	44,0	3	1,50	U-4134/0
255 477	217 625 601		14	130	44,0	3	1,70	U-4134/0
255 480	217 625 602		14	160	44,0	3	1,90	U-4134/0
255 492	217 625 603		14	200	44,0	3	1,10	U-4134/0
255 500	217 625 604		16	63	44,5	3	1,40	U-4135/0
255 512	217 625 605		16	100	48,0	3	1,60	U-4135/0
255 525	217 625 606		16	130	48,0	3	1,80	U-4135/0
255 538	217 625 607		16	160	48,0	3	2,00	U-4135/0
255 540	217 625 608		16	200	48,0	3	2,30	U-4135/0
255 553	217 625 609		18	63	49,5	3	1,50	U-4135/0
255 566	217 625 610		18	100	49,5	3	1,70	U-4135/0
255 579	217 625 611		18	130	49,5	3	1,90	U-4135/0
255 581	217 625 612		18	160	49,5	3	2,10	U-4135/0
255 594	217 625 613		18	200	49,5	3	2,30	U-4135/0
255 601	217 625 614		20	63	49,5	3	1,40	U-4136/0
255 627	217 625 615		20	100	49,5	3	1,70	U-4136/0
255 642	217 625 616		20	130	49,5	3	2,00	U-4136/0
255 668	217 625 617		20	160	49,5	3	2,30	U-4136/0
255 683	217 625 618		20	200	49,5	3	2,60	U-4136/0
255 703	217 625 620	50	25	100	63,0	4	2,00	U-4137/0 U-4137/0
255 729	217 625 621		25	130	65,0	4	2,40	U-4137/0 U-4137/0
255 744	217 625 622		25	160	65,0	4	2,80	U-4137/0 U-4137/0
255 760	217 625 623		25	200	65,0	4	3,20	U-4137/0 U-4137/0
255 805	217 625 625		32	100	72,0	4	2,30	U-4138/0 U-4138/0
255 818	217 625 626		32	130	72,0	4	2,70	U-4138/0 U-4138/0
255 820	217 625 627		32	160	72,0	4	3,00	U-4138/0 U-4138/0
255 833	217 625 628		32	200	72,0	4	3,40	U-4138/0 U-4138/0
256 103	217 625 739		6	63	25,0	3	3,30	U-4131/0
256 129	217 625 740		6	100	25,0	3	3,40	U-4131/0
256 144	217 625 741		6	130	25,0	3	4,40	U-4131/0
256 160	217 625 742		6	160	25,0	3	3,60	U-4131/0
256 185	217 625 743		6	200	25,0	3	3,70	U-4131/0
256 205	217 625 744		8	63	28,0	3	3,30	U-4132/0
256 220	217 625 745		8	100	28,0	3	3,50	U-4132/0
256 246	217 625 746		8	130	28,0	3	4,20	U-4132/0
256 261	217 625 747		8	160	28,0	3	3,70	U-4132/0
256 287	217 625 748		8	200	28,0	3	3,80	U-4132/0
256 307	217 625 749		10	63	35,3	3	3,60	U-4133/0
256 322	217 625 750		10	100	35,0	3	3,80	U-4133/0
256 348	217 625 751		10	130	35,0	3	4,00	U-4133/0

Type 7625

BALANCE on request page 3

DIN 69871-AD+B

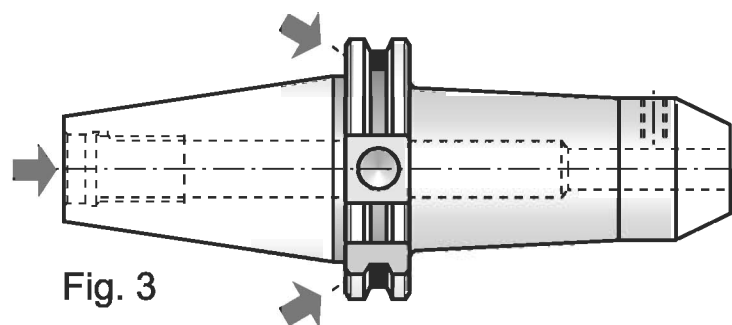


Fig. 3

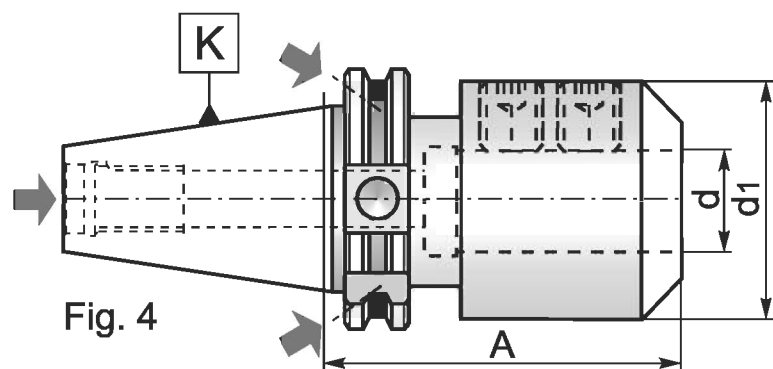


Fig. 4

Code No. 0642 176...	PKWiU 29 402 150...	K 7:24	d	A	d1	Fig.	kg	
256 363	217 625 752	50	10	160	35,0	3	4,20	U-4133/0
256 389	217 625 753		10	200	35,0	3	4,40	U-4133/0
256 409	217 625 754		12	63	42,0	3	3,80	U-4134/0
256 411	217 625 755		12	100	42,0	3	4,00	U-4134/0
256 424	217 625 756		12	130	42,0	3	4,20	U-4134/0
256 437	217 625 757		12	160	42,0	3	4,50	U-4134/0
256 440	217 625 758		12	200	42,0	3	4,80	U-4134/0
256 452	217 625 759		14	63	44,0	3	3,90	U-4134/0
256 465	217 625 760		14	100	44,0	3	4,20	U-4134/0
256 478	217 625 761		14	130	44,0	3	4,50	U-4134/0
256 480	217 625 762		14	160	44,0	3	4,80	U-4134/0
256 493	217 625 763		14	200	44,0	3	5,10	U-4134/0
256 500	217 625 764		16	63	48,0	3	4,10	U-4135/0
256 513	217 625 765		16	100	48,0	3	4,70	U-4135/0
256 526	217 625 766		16	130	48,0	3	5,10	U-4135/0
256 539	217 625 767		16	160	48,0	3	5,20	U-4135/0
256 541	217 625 768		16	200	48,0	3	5,30	U-4135/0
256 554	217 625 769		18	63	50,0	3	4,10	U-4135/0
256 567	217 625 770		18	100	50,0	3	4,50	U-4135/0
256 570	217 625 771		18	130	50,0	3	4,90	U-4135/0
256 582	217 625 772		18	160	50,0	3	5,30	U-4135/0
256 595	217 625 773		18	200	50,0	3	5,80	U-4135/0
256 602	217 625 774		20	63	52,0	3	4,40	U-4136/0
256 628	217 625 775		20	100	52,0	3	4,50	U-4136/0
256 643	217 625 776		20	130	52,0	3	5,20	U-4136/0
256 669	217 625 777		20	160	52,0	3	5,50	U-4136/0
256 684	217 625 778		20	200	52,0	3	6,00	U-4136/0
256 704	217 625 779		25	80	65,0	4	5,00	U-4137/0 U-4137/0
256 717	217 625 780		25	100	65,0	4	5,00	U-4137/0 U-4137/0
256 720	217 625 781		25	130	65,0	4	5,10	U-4137/0 U-4137/0
256 732	217 625 782		25	160	65,0	4	5,50	U-4137/0 U-4137/0
256 745	217 625 783		25	200	65,0	4	5,50	U-4137/0 U-4137/0
256 760	217 625 784		32	80	72,0	4	5,30	U-4138/0 U-4138/0
256 806	217 625 785		32	100	72,0	4	5,30	U-4138/0 U-4138/0
256 819	217 625 786		32	130	72,0	4	6,00	U-4138/0 U-4138/0
256 834	217 625 787		32	160	72,0	4	6,50	U-4138/0 U-4138/0
256 850	217 625 788		32	200	72,0	4	6,50	U-4138/0 U-4138/0
256 908	217 625 789		40	120	90,0	4	5,60	U-5870/0 U-5870/0
256 923	217 625 790		40	160	90,0	4	5,60	U-5870/0 U-5870/0
256 949	217 625 791		40	200	90,0	4	5,60	U-5870/0 U-5870/0
257 104	217 625 792		50	130	100,0	4	6,10	U-4139/0 U-4139/0
257 120	217 625 793		50	160	100,0	4	6,60	U-4139/0 U-4139/0
257 145	217 625 794		50	200	100,0	4	7,10	U-4139/0 U-4139/0



Typical order: 0642 176 257 145 or 7625-50-50-200AD+B

Type 7628BALANCE  page 3
on request**DIN 69871-A****END MILL ADAPTERS
TYPE WHISTLE-NOTCH**for tools with cylindrical shank
and inclined flat DIN 1835-E**ОПРАВКИ**

"Whistle-Notch" по DIN 1835-E

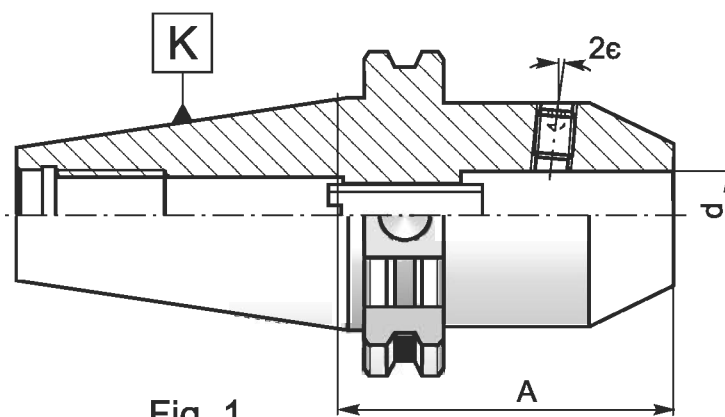


Fig. 1

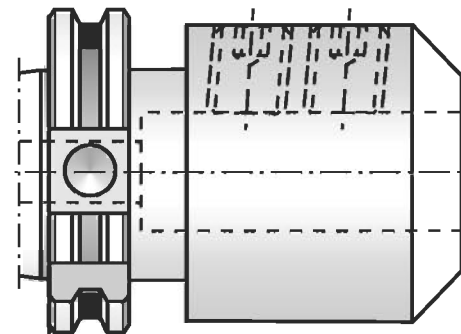


Fig. 2

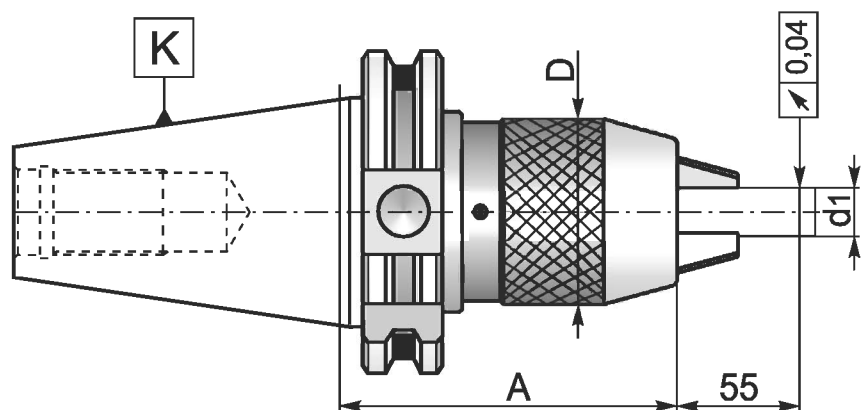
Code No. 0642 176...	PKWiU 29 402 150...	K 7:24	d	A	Fig.	kg		
282 002	217 628 530	40	6	50	1	0,90	U-4131/0	U-1599/0
282 104	217 628 531		8	50	1	0,90	U-4132/0	U-6317/0
282 206	217 628 532		10	50	1	1,00	U-4133/0	U-0293/0
282 308	217 628 533		12	50	1	1,10	U-4134/0	U-0757/0
282 400	217 628 534		14	63	1	1,30	U-4135/0	U-6318/0
282 501	217 628 535		16	63	1	1,40	U-5887/0	U-6318/0
282 603	217 628 536		18	63	1	1,40	U-5888/0	U-6793/0
282 705	217 628 537		20	63	1	1,40	U-5888/0	U-6793/0
282 807	217 628 538		25	100	2	1,90	U-4137/0 U-4137/0	U-6794/0
282 909	217 628 539		32	100	2	2,20	U-4138/0 U-4138/0	U-6794/0
280 601	217 628 710	50	6	63	1	3,30	U-4131/0	U-1599/0
280 703	217 628 711		8	63	1	3,30	U-4132/0	U-6317/0
280 805	217 628 712		10	63	1	3,60	U-4133/0	U-0293/0
280 907	217 628 713		12	63	1	3,80	U-4134/0	U-0757/0
281 001	217 628 714		14	63	1	3,90	U-4135/0	U-6318/0
281 103	217 628 715		16	63	1	4,10	U-4135/0	U-6318/0
281 205	217 628 716		18	63	1	4,20	U-4136/0	U-6793/0
281 307	217 628 717		20	63	1	4,30	U-4136/0	U-6793/0
281 409	217 628 718		25	80	2	5,00	U-4137/0 U-4137/0	U-6794/0
281 500	217 628 719		32	100	2	5,10	U-4138/0 U-4138/0	U-6794/0
281 602	217 628 720		40	120	2	5,30	U-5870/0 U-5870/0	U-6794/0

 Typical order: 0642 176 281 602 or 7628-50-40-120**Type 7655**BALANCE  page 3
on request**DIN 69871-A****KEYLESS DRILL CHUCKS**

with shank

ПАТРОНЫ СВЕРЛИЛЬНЫЕ

с хвостовиком



Code No. 0642 176...	PKWiU 29 402 150...	K 7:24	d1	A	D	kg
550 405	217 655 550	40	1-13	87	50	2,00
550 446	217 655 560		3-16	106	57	2,40
550 507	217 655 730	50	1-13	87	50	4,60
550 548	217 655 740		3-16	90	57	5,20

 Typical order: 0642 176 550 548 or 7655-50-16-90Standard accessories:
wrench

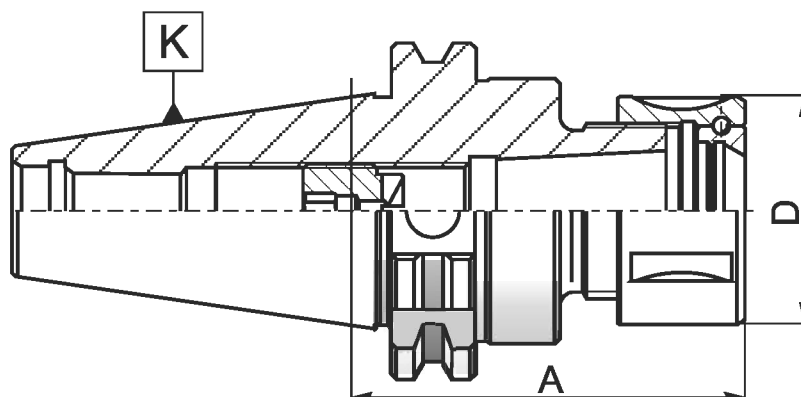
Type 7645BALANCE  page 3
on request**DIN 69871-A****COLLET CHUCKS (DIN 6388)**

for cutters with cylindrical shank

OPRAWKI ZACISKOWE

(do tulejek DIN 6388)

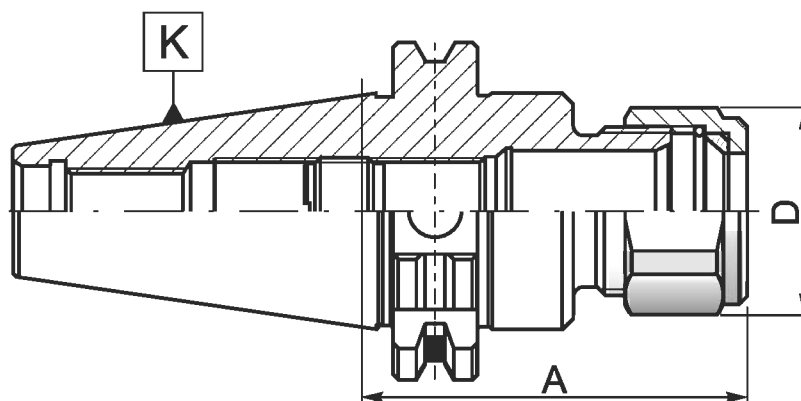
do narzędzi z chwytem walcowym

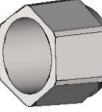
**Standard accessories:**Nut - page 110,
screw**Wyposażenie podstawowe:**Nakrętka - str. 110,
wkrt**Optional accessories:**Collets - page 100;101,
wrench - page 110**Wyposażenie dodatkowe:**Tulejki zaciskowe
- str. 100;101,
klucz - str. 110

Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	Collet	A	Capacity / Zakres		D	kg		
					Type A	Type B				
450 041	217 645 360	30	16	60	3-16	5-16	43	0,90	9835-16	M18x1,5x8LH
450 067	217 645 370		25	60	4-25	6-25	60	1,00	9835-25	M22x1,5x10LH
450 102	217 645 530	40	16	70	3-16	5-16	43	1,10	9835-16	M18x1,5x19LH
450 500	217 645 535		25	70	4-25	6-25	60	1,20	9835-25	M28x1,5x10LH
450 805	217 645 540		32	90	5-32	10-32	72	1,30	9835-32	M28x1,5x10LH
450 907	217 645 545		32	100	5-32	10-32	72	1,40	9835-32	M28x1,5x10LH
451 409	217 645 710	50	16	70	3-16	5-16	43	2,50	9835-16	M18x1,5x19LH
451 500	217 645 720		25	70	4-25	6-25	60	3,20	9835-25	M28x1,5x30LH
451 806	217 645 730		32	80	5-32	10-32	72	3,50	9835-32	M35x1,5x12LH

 Typical order: 0642 176 451 806 or 7645-50-32-80**Type 7664**BALANCE  page 3
on request**DIN 69871-A****DOUBLE ANGLE COLLET CHUCKS****OPRAWKI ZACISKOWE**

(do tulejek DA)

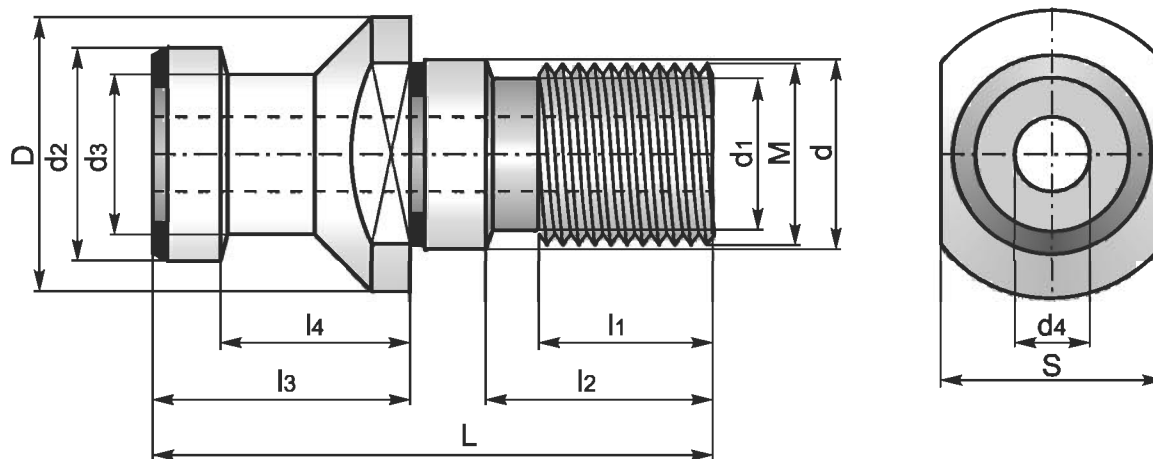
**Standard accessories:**Nut - page 110,
screw**Wyposażenie podstawowe:**Nakrętka - str. 110,
wkrt**Optional accessories:**Collets - page 99,
wrench - page 110**Wyposażenie dodatkowe:**Tulejki zaciskowe
- str. 99,
klucz - str. 110

Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	Collet	A	Capacity Zakres	D	kg		
642 803	217 664 550	40	DA 180	70	3-19	39	1,10	9836-18	M20x1,5x15LH
642 905	217 664 555		DA 180	100	3-19	39	1,20	9836-18	M20x1,5x15LH
643 000	217 664 560		DA 180	150	3-19	39	1,30	9836-18	M20x1,5x15LH
644 805	217 664 730	50	DA 180	70	3-19	39	2,50	9836-18	M20x1,5x15LH
644 907	217 664 735		DA 180	100	3-19	39	3,20	9836-18	M20x1,5x15LH
645 001	217 664 740		DA 180	150	3-19	39	3,50	9836-18	M20x1,5x15LH

 Typical order: 0642 176 642 803 or 7664-40-18-70

Type 9882**DIN 69872-A****PULLSTUDS**

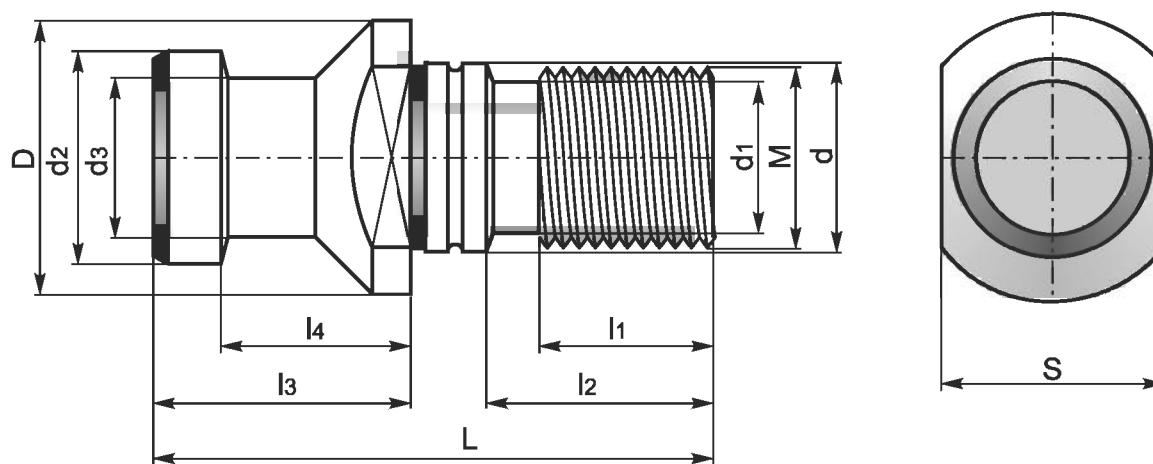
to DIN 69871

ШТРЕВЕЛИк хвостовикам
по DIN 69871

Code No. 0642 198...	PKWiU 29 402 133...	Size WielkoŹ	L	D	d	d1	d2	d3	d4	M	l1	l2	l3	l4	S
820 304	409 882 240	30	44	17	13	10,00	13	9	3,00	M12	10	15	24	19	14
820 406	409 882 330	40	54	23	17	13,50	19	14	7,00	M16	15	21	26	20	19
820 419	409 882 332		85	23	17	8,50	19	14	4,00	M10	10	52	26	20	19
820 447	409 882 338		110	23	17	10,00	19	14	5,00	M12	12	77	26	20	19
820 421	409 882 334		86	23	17	13,50	19	14	7,00	M16	15	53	26	20	19
820 450	409 882 340		111	23	17	13,50	19	14	7,00	M16	15	78	26	20	19
820 434	409 882 336		108	23	17	13,50	19	14	7,00	M16	15	75	26	20	19
820 600	409 882 440	50	74	36	25	20,00	28	21	11,50	M24	23	30	34	25	30

 Typical order: 0642 198 820 600 or 9882-50-74 A
Type 9882**DIN 69872-B****PULLSTUDS**

to DIN 69871

ШТРЕВЕЛИк хвостовикам
по DIN 69871

Code No. 0642 198...	PKWiU 29 402 133...	Size WielkoŹ	L	D	d	d1	d2	d3	M	l1	l2	l3	l4	S
821 305	409 882 241	30	44	17	13	10,00	13	9	M12	10	15	24	19	14
821 407	409 882 331	40	54	23	17	13,50	19	14	M16	15	21	26	20	19
821 600	409 882 441	50	74	36	25	20,00	28	21	M24	23	30	34	25	30

 Typical order: 0642 198 821 600 or 9882-50-74 B



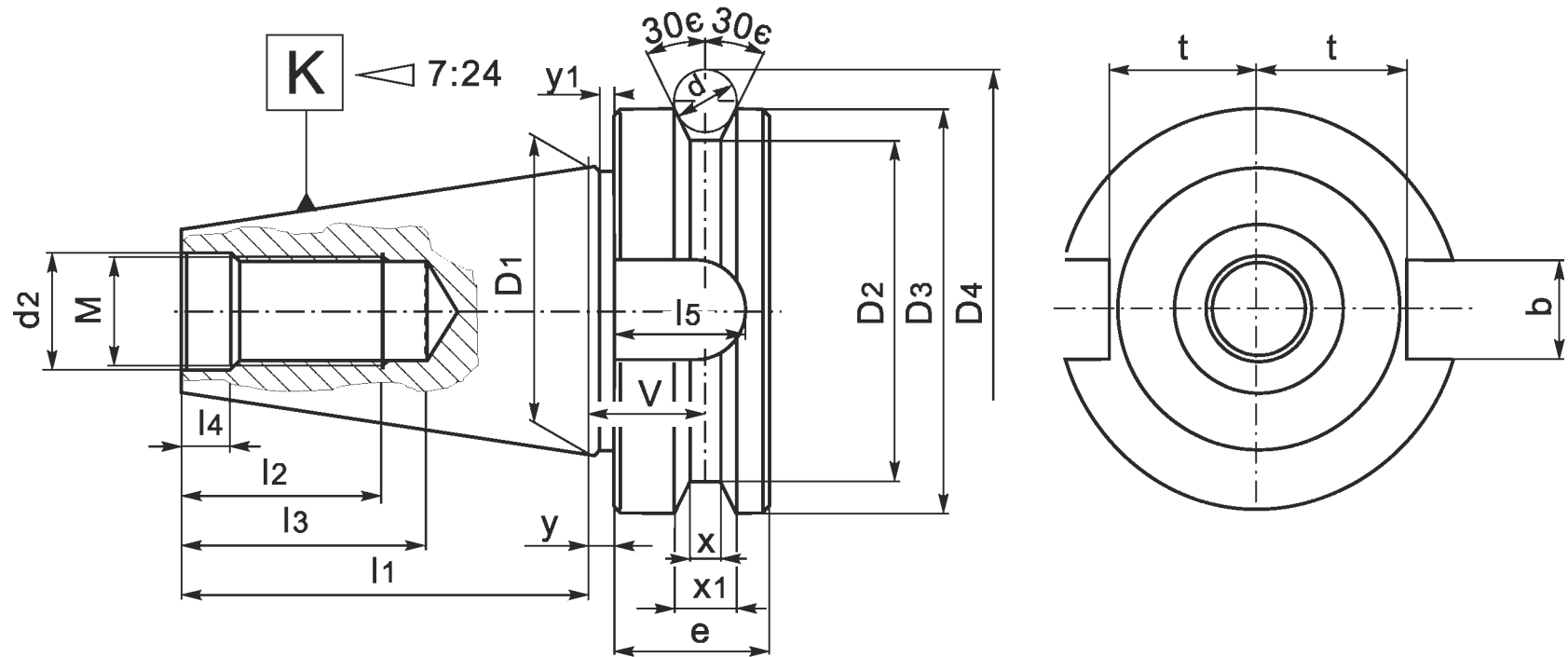
MAS 403-BT

TOOLSHANKS

with 7:24 for automatic tool exchange

ХВОСТОВИК

с конусом 7:24 для автоматического обмена



K 7:24	D ₁	D ₂	D ₃	D ₄	l ₁	l ₂	l ₃	l ₄	l ₅	bH12
30	31,75	38	46	56,1	48,4	24	34	7	17	16,1
40	44,45	53	63	75,6	65,4	30	43	9	21	16,1
50	69,85	85	100	119,0	101,8	45	62	13	31	25,7

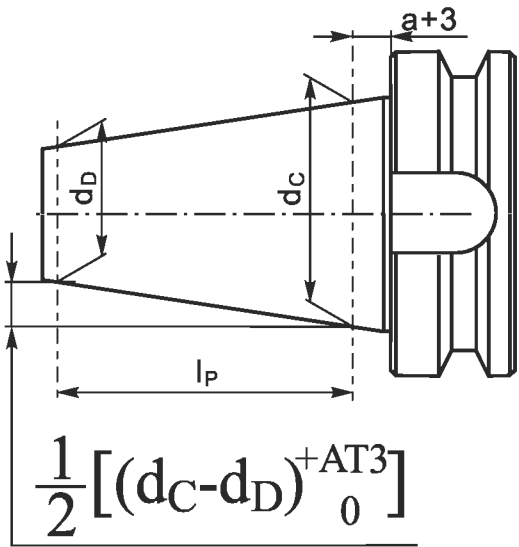
K 7:24	t	d	d ₂ H7	M	e	v	x	x ₁	y	y ₁
30	16,3	8	12,5	M12	20	13,6	4	8	2	2
40	22,6	10	17,0	M16	25	16,6	5	10	2	2
50	35,4	15	25,0	M24	35	23,2	7	15	3	3

ТЕХНИЧЕСКИЕ ТРЕБОВАНИЯ

- * Материал: легированная хромомарганцевая сталь.
- * Цементирование 0,7 мм.
- * Закалка и чистовое шлифование.
- * Твёрдость 58±2 HRC.
- * Предельные отклонения угла конуса AT3

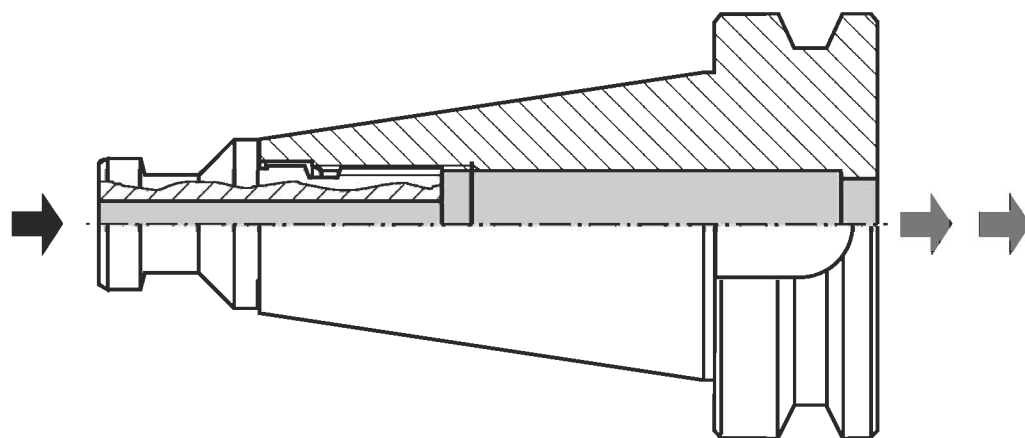
CHARAKTERYSTYKA TECHNICZNA
WYROBYW

- * Materiai: stal stopowa chromowo-manganowa.
- * Nawkglane na gikbokońж 0,7 mm.
- * Hartowane i precyzyjnie szlifowane.
- * Twardońж powierzchni 58±2 HRC.
- * Tolerancja kNota stoika AT3.

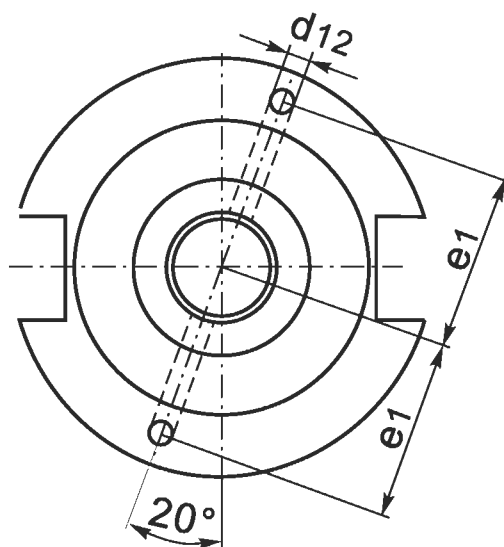
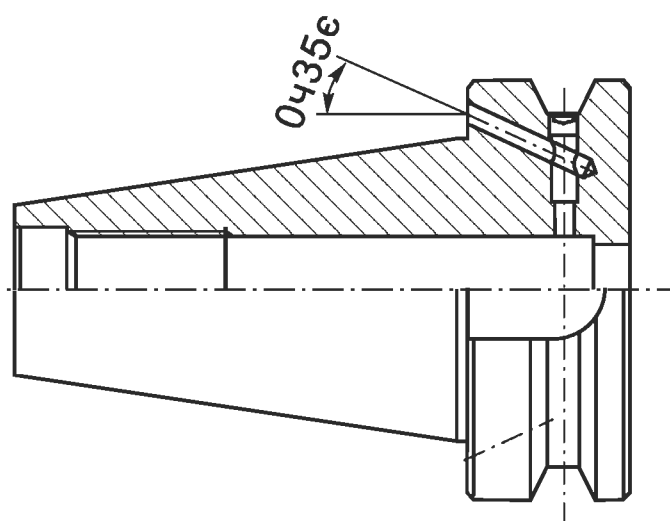


K 7:24	d _C - d _D	l _P	a	AT3
30	12,250	42	2	0,002
40	17,208	59	2	0,003
50	26,833	92	3	0,004

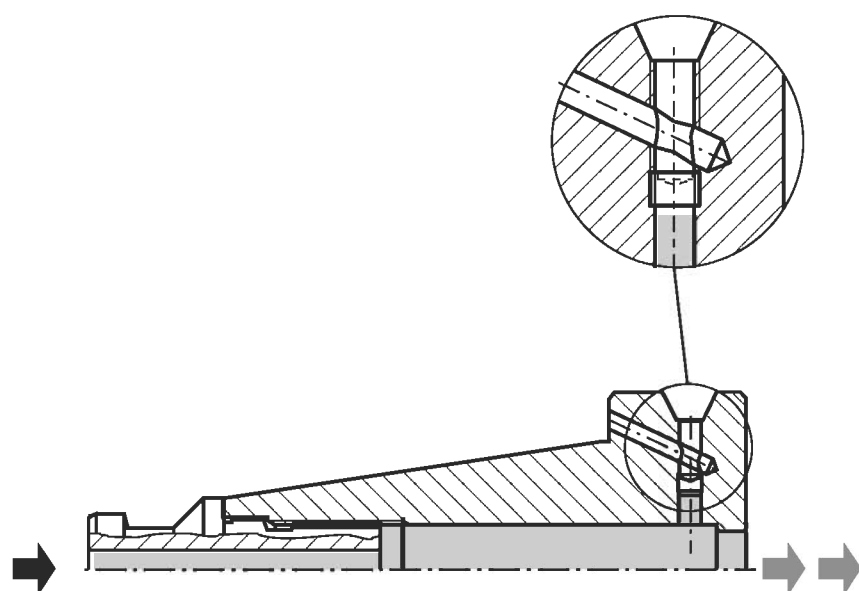
MAS 403-BT AD



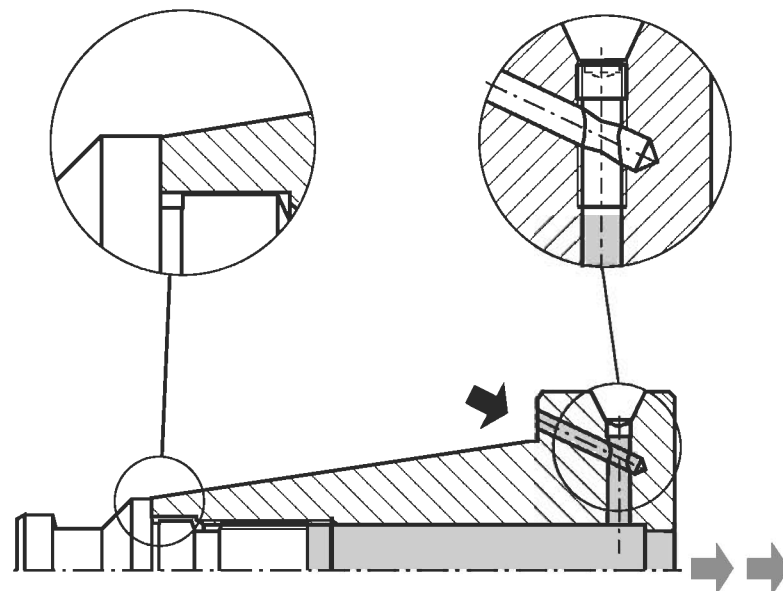
MAS 403-BT AD+B



K 7:24	d12	e1
30	4	21
40	4	27
50	5	42



Form AD



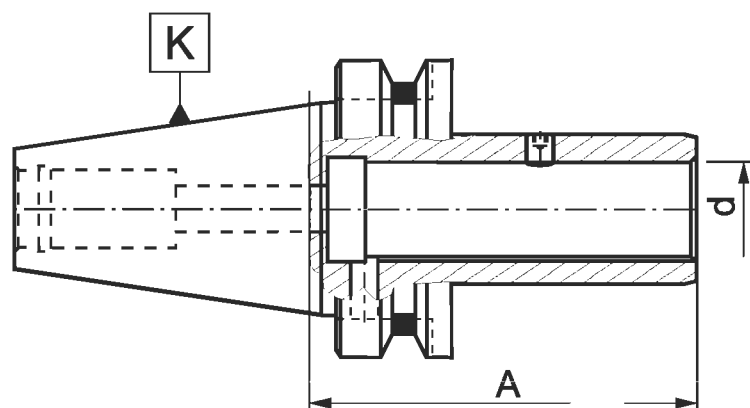
Form B

Type 1613BALANCE  page 3
on request**MAS 403-BT AD****HOLDERS**

for adjustable adapters DIN 6327

ОПРАВКИ

для инструмента с цилиндрическим хвостовиком по DIN 6327



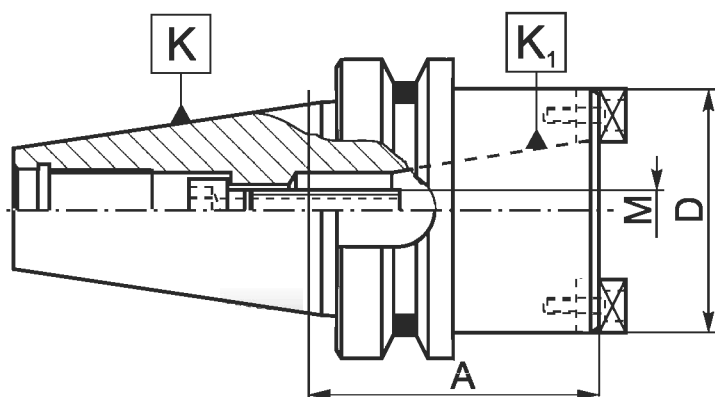
Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	d	A	kg	
136 107	111 613 120	40	16	75	1,10	U-1997/0
136 209	111 613 121		20	80	1,20	U-1997/0
136 300	111 613 123		28	100	1,95	U-7381/0
136 402	111 613 124		36	115	2,10	U-7381/0
137 108	111 613 450	50	16	85	2,50	U-1997/0
137 200	111 613 451		20	85	2,60	U-1997/0
137 301	111 613 452		28	100	2,80	U-7381/0
137 403	111 613 453		36	100	3,40	U-7381/0
137 505	111 613 454		48	105	4,80	U-7382/0

 Typical order: 0642 116 137 505 or 1613-50-48-105**Type 1660**BALANCE  page 3
on request**MAS 403-BT****TAPERADAPTERS**

for tools with 7:24 taper shank

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом 7:24



Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 7:24	A	D	M	kg	
605 505	111 660 460	50	40	80	88	M16	3,20	U-6227/0

 Typical order: 0642 116 605 505 or 1660-50-40-80**Type 1661**BALANCE  page 3
on request**MAS 403-BT****REDUCING ADAPTERS**

for tools with Morse taper and tang DIN 228-B shank or for tools with Morse taper shank and drawbar thread DIN 228-A

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом Морзе и лапкой по DIN 228-B или с конусом Морзе и резьбовым отверстием по DIN 228-A

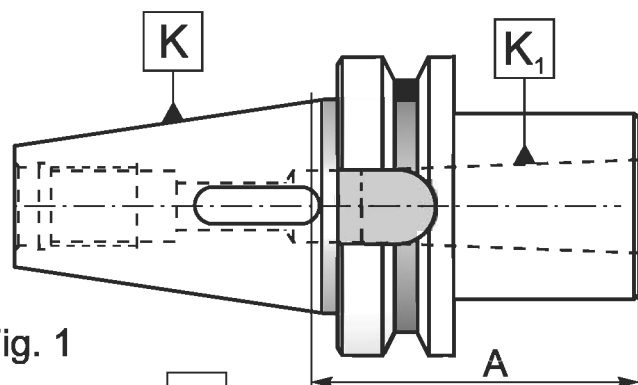


Fig. 1

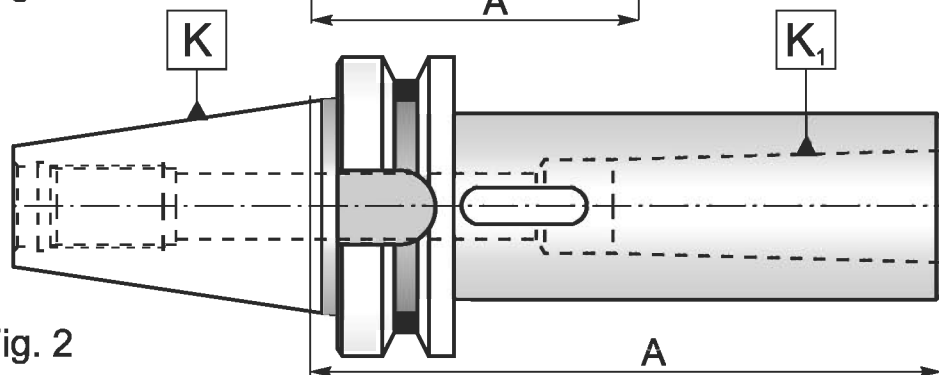


Fig. 2

Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 Morse	A	Fig.	kg
617 108	111 661 001	30	1	50	1	0,30
617 200	111 661 002		2*	60	1	0,40
617 301	111 661 003		3*	79	1	0,60
613 104	111 661 200	40	1	50	1	0,90
613 206	111 661 201		2	50	1	1,20
613 308	111 661 202		3*	70	1	1,00
613 400	111 661 203		4*	95	1	1,50
613 501	111 661 120		1	120	2	1,30
613 603	111 661 121		2	120	2	1,40
613 705	111 661 122		3*	135	2	2,00
613 807	111 661 123		4*	165	2	2,30
614 105	111 661 550	50	1	45	1	3,00
614 207	111 661 551		2	60	1	3,00
614 309	111 661 552		3	65	1	3,20
614 400	111 661 553		4	95	1	3,30
614 502	111 661 554		5*	105	2	3,20
614 604	111 661 450		1	120	2	3,50
614 706	111 661 451		2	135	2	3,50
614 808	111 661 452		3	155	2	3,50
614 900	111 661 453		4	180	2	3,80
615 106	111 661 454		5*	215	2	3,90

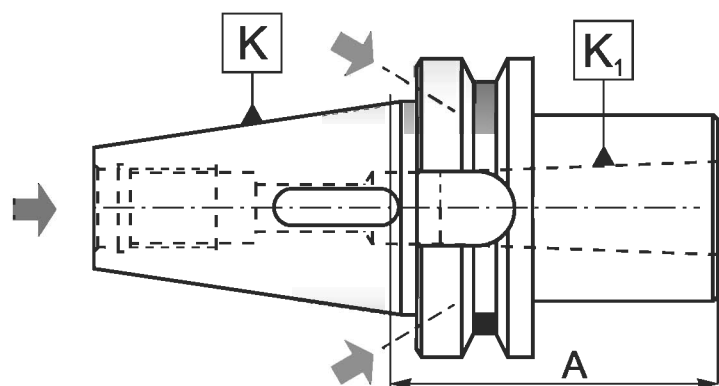
 Typical order: 0642 116 615 106 or 1661-50-5-215*only for tools with Morse taper and tang DIN 228-B shank
tylko do narzkdzi z chwytem Morse'a z pietw№ wg DIN 228-B

Type 1661BALANCE  page 3
on request**MAS 403-BT AD+B****REDUCING ADAPTERS**

for tools with Morse taper and tang DIN 228-B shank or for tools with Morse taper shank and drawbar thread DIN 228-A

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом Морзе и лапкой по DIN 228-B или с конусом Морзе и резьбовым отверстием по DIN 228-A



Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 Morse	A	kg
615 223	111 661 261	40	2	50	0,90
615 249	111 661 262		3*	70	1,00
615 264	111 661 263		4*	95	1,50
615 427	111 661 571	50	2	60	3,00
615 442	111 661 572		3	65	3,20
615 468	111 661 573		4	95	3,50
615 483	111 661 574		5*	120	3,40

 Typical order: 0642 116 615 483 or 1661-50-5-120 AD+B

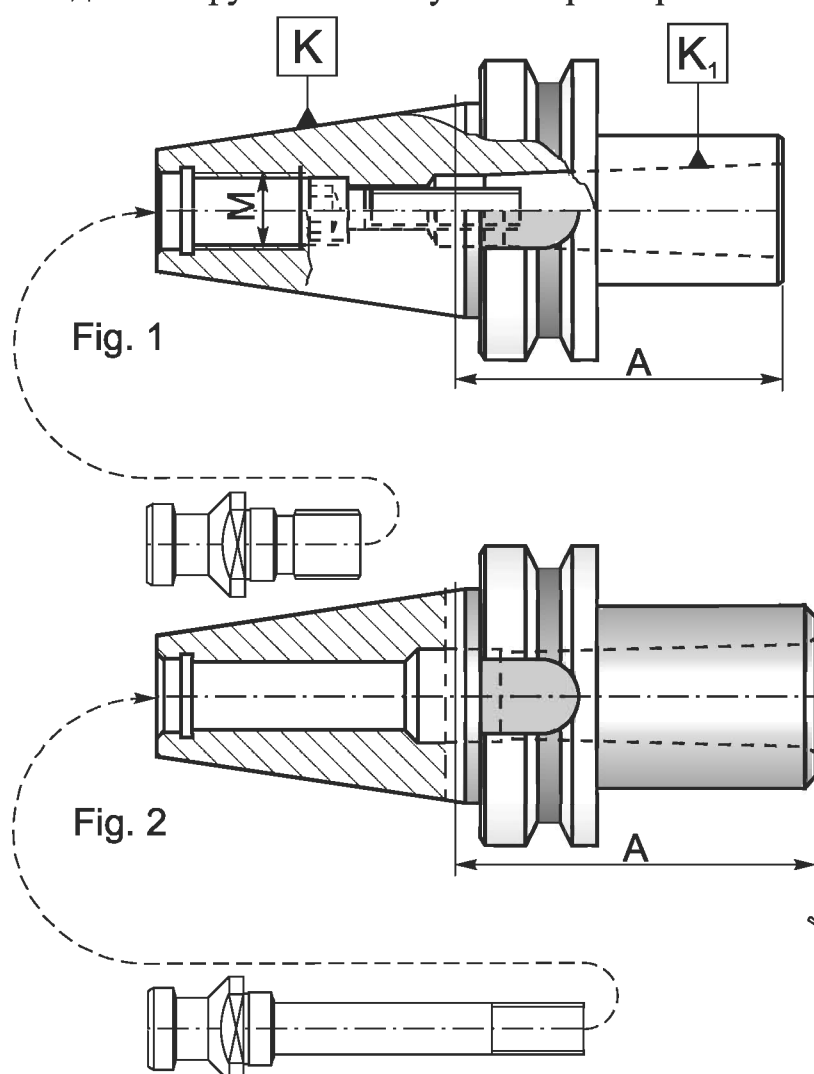
*only for tools with Morse taper and tang DIN 228-B shank
tylko do narzkdzi z chwytem Morse'a z pietw№ wg DIN 228-B

Type 1663BALANCE  page 3
on request**MAS 403-BT****REDUCING ADAPTERS**

for tools with Morse taper shank and drawbar thread DIN 228-A

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом Морзе и резьбовым отверстием по DIN 228-A



Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 Morse	A	M	fig.	kg	
634 101	111 663 001	30	1	45	M12	1	0,30	W-1348/0
634 203	111 663 002		2	60	—	2	0,40	—
635 102	111 663 170	40	1	45	M16	1	0,90	W-1091/0
635 204	111 663 171		2	60	M16	1	1,20	W-1092/0
635 306	111 663 172		3	75	—	2	1,00	—
635 408	111 663 173		4	85	—	2	1,50	—
636 103	111 663 490	50	1	45	M24	1	3,70	W-1091/0
636 205	111 663 491		2	45	M24	1	3,70	W-1095/0
636 307	111 663 492		3	60	M24	1	3,10	W-1096/0
636 409	111 663 493		4	75	M24	1	3,10	U-5984/0
636 500	111 663 494		5	75	—	2	3,00	—

 Typical order: 0642 116 636 500 or 1663-50-5-75

Type 1694BALANCE  page 3
on request**MAS 403-BT AD****REDUCING ADAPTERS**

for tools with Morse taper shank and drawbar thread DIN 228-A

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом Морзе и резьбовым отверстием по DIN 228-A

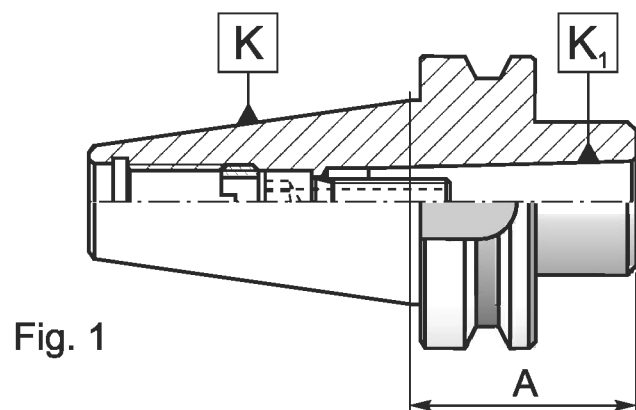


Fig. 1

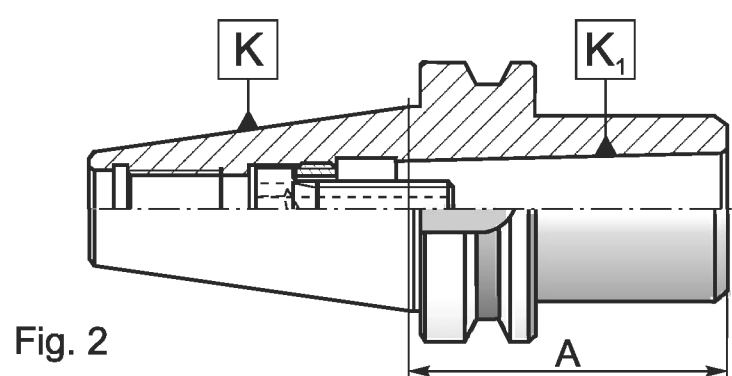


Fig. 2

Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 Morse	A	fig	kg	
942 100	111 694 001	30	1	50	1	0,45	W-1091/0
942 201	111 694 002		2	62	2	0,54	W-1095/0
942 303	111 694 003		3	82	2	0,75	U-7790/0
940 108	111 694 120	40	1	50	1	0,60	W-1091/0
940 200	111 694 121		2	50	1	0,65	W-1092/0
940 301	111 694 122		3	70	2	1,00	W-1093/0
940 403	111 694 123		4	95	2	1,40	W-1094/0
941 109	111 694 450	50	1	45	1	2,80	W-1091/0
941 200	111 694 451		2	60	1	2,95	W-1095/0
941 302	111 694 452		3	65	1	3,00	W-1096/0
941 404	111 694 453		4	90	1	3,10	W-1097/0
941 506	111 694 454		5	120	2	3,40	W-1098/0

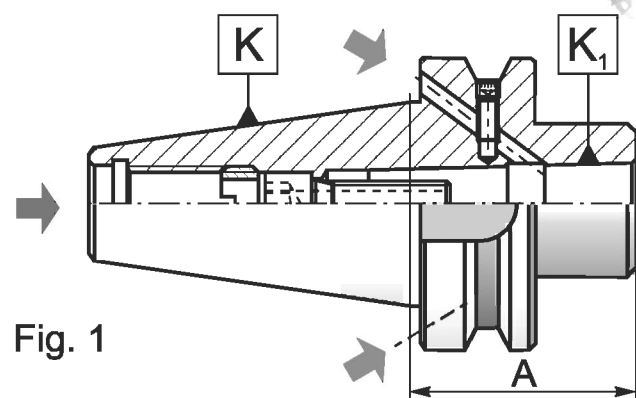
 Typical order: 0642 116 941 506 or 1694-50-5-120**Type 1694**BALANCE  page 3
on request**MAS 403-BT AD+B**

Fig. 1

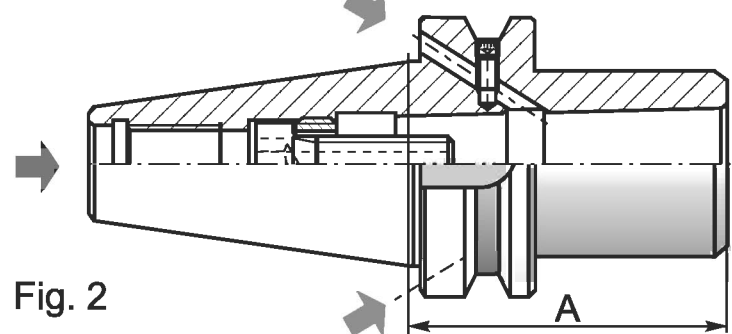
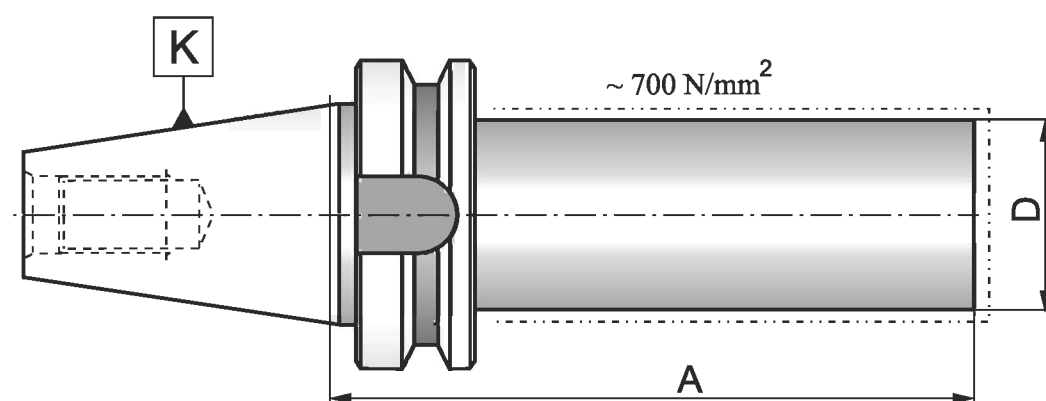


Fig. 2

Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 Morse	A	fig	kg	
945 306	111 694 201	40	2	50	1	0,65	W-1092/0
945 408	111 694 202		3	70	2	1,00	W-1093/0
945 500	111 694 203		4	95	2	1,30	W-1094/0
946 307	111 694 511	50	2	60	1	2,95	W-1095/0
946 409	111 694 512		3	65	1	3,00	W-1096/0
946 500	111 694 513		4	95	1	3,20	W-1097/0
946 602	111 694 514		5	120	2	3,50	W-1098/0

 Typical order: 0642 116 946 602 or 1694-50-5-120 AD+B**Type 2192**BALANCE  page 3
on request**MAS 403-BT**

Code No. 0642 121...	PKWiU 29 402 133...	K 7:24	D	A	kg
920 207	212 192 014	40	40	280	3,6
920 309	212 192 028		63	280	7,6
921 208	212 192 210	50	50	330	6,4
921 300	212 192 240		80	330	15,4

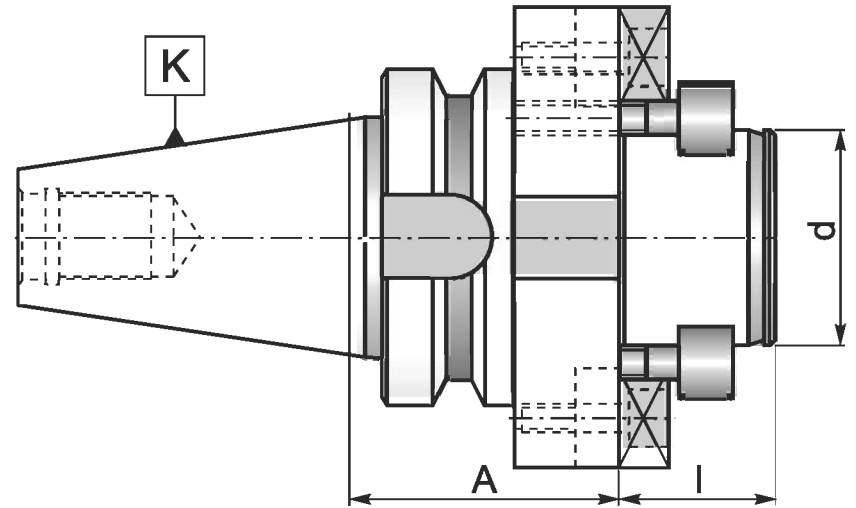
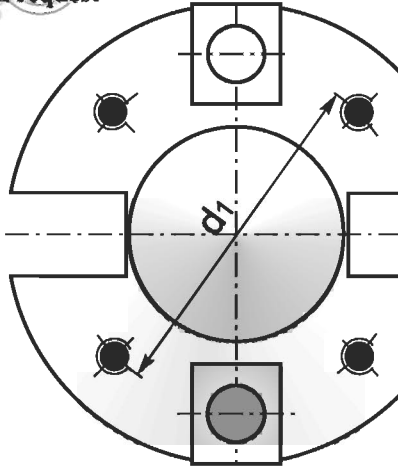
 Typical order: 0642 121 921 300 or 2192-50-80-330

Type 2826BALANCE  page 3
on request**MAS 403-BT****ADAPTERS**

for indexable milling cutters

ОПРАВКИ

для фрезерных головок



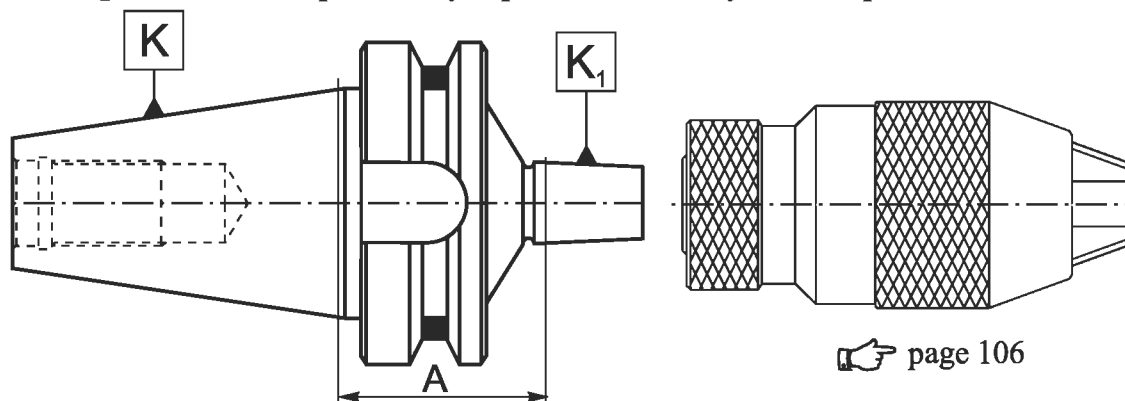
Code No. 0642 128...	PKWiU 29 402 133...	K 7:24	d	d1	A	l	kg		
260 101 260 000	232 826 087 232 826 095	40	40 60	66,7 101,6	60 60	30 40	1,50 2,00	U-6064/0 U-6066/0	U-1414/0 U-2042/0
260 203 260 305	232 826 138 232 826 142	50	40 60	66,7 101,6	70 80	30 40	2,90 4,40	U-6064/0 U-6066/0	U-1414/0 U-2042/0

 Typical order: 0642 128 260 305 or 2826-50-60**Type 5373**BALANCE  page 3
on request**MAS 403-BT****DRILL CHUCK ADAPTERS**

for drill chucks taper DIN 238

ОПРАВКИ

для сверлильных патронов с укороченным конусом Морзе по DIN 238

 page 106

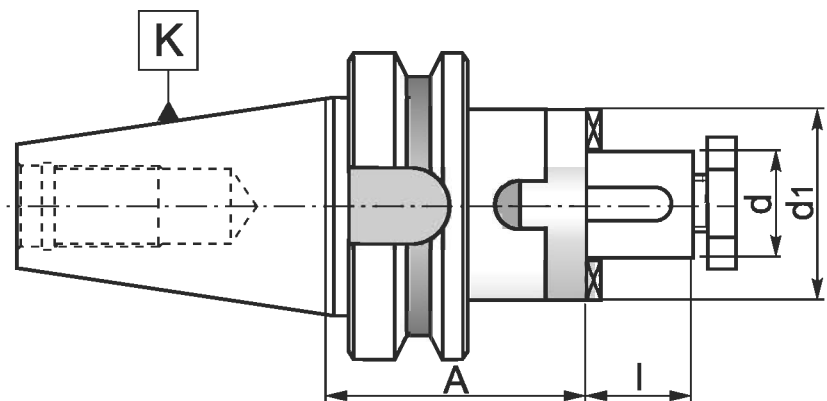
Code No. 0642 153...	PKWiU 29 402 133...	K 7:24	K1 DIN	A	kg
736 103 736 205	265 373 422 265 373 423	30	B12 B16	30 30	0,60 0,60
733 100 733 600 733 304 733 701 733 508 733 803	265 373 482 265 373 487 265 373 484 265 373 488 265 373 486 265 373 489	40	B12 B12 B16 B16 B18 B18	40 90 42 90 42 90	1,20 2,00 1,20 2,00 1,20 2,00
734 305 735 306 734 509 735 500	265 373 574 265 373 579 265 373 575 265 373 580	50	B16 B16 B18 B18	45 90 45 90	2,70 3,90 2,70 3,90
737 807	265 373 430	30	J6	30	0,60
738 400 738 808	265 373 495 265 373 496	40	J33 J6	42 42	1,20 1,20
739 401 739 809	265 373 585 265 373 587	50	J33 J6	45 45	2,70 2,70

 Typical order: 0642 153 735 500 or 5373-50-B18-90**Type 7361**BALANCE  page 3
on request**MAS 403-BT****COMBINATION SHELL MILL ADAPTERS**

for cutters with keyway or driving slot DIN 138

ОПРАВКИ

комбинированные для насадных торцевых фрез и насадных фрез с продольной шпонкой по DIN 138



Code No. 0642 173...	PKWiU 29 402 133...	K 7:24	d	A	l	d1	kg			
617 000 617 101 617 203 617 305 617 407	337 361 250 337 361 251 337 361 252 337 361 253 337 361 254	40	16 22 27 32 40	55 55 55 60 60	17 19 21 24 27	32 40 48 58 70	1,20 1,40 1,70 1,95 2,15	U-0620/0 U-0621/0 U-0622/0 U-0623/0 U-0624/0	U-1364/0 U-1365/0 U-1366/0 U-1367/0 U-1368/0	U-1355/0 U-1356/0 U-1357/0 U-6355/0 U-1359/0
617 509 617 600 617 702 617 804 617 906 618 000	337 361 500 337 361 501 337 361 502 337 361 503 337 361 504 337 361 505	50	16 22 27 32 40 50	70 70 70 70 70 70	17 19 21 24 27 30	32 40 48 58 70 90	3,00 3,15 3,35 3,60 3,95 4,15	U-0620/0 U-0621/0 U-0622/0 U-0623/0 U-0624/0 U-0625/0	U-1364/0 U-1365/0 U-1366/0 U-1367/0 U-1368/0 U-1369/0	U-1355/0 U-1356/0 U-1357/0 U-6355/0 U-1359/0 U-1360/0

 Typical order:

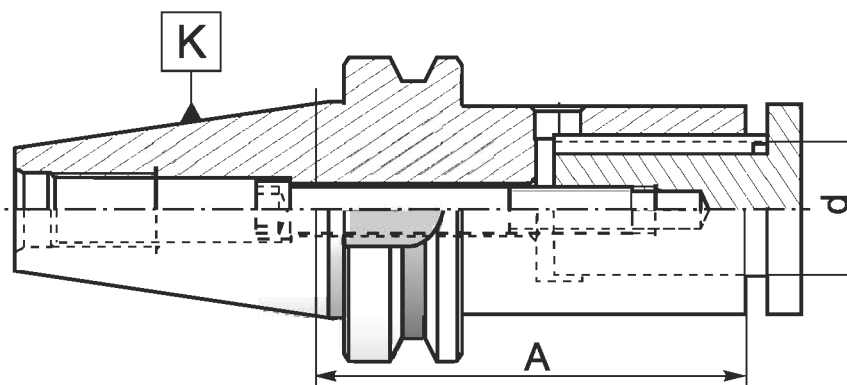
0642 173 618 000 or 7361-50-50-70

**Type 7372**BALANCE page 3
on request**MAS 403-BT****MILLING ARBORS**

for staggered tooth side milling cutters

ОПРАВКИ

Для дисковых фрез



Code No. 0642 173...	PKWiU 29 402 133...	K 7:24	d	A	kg			
721 000	337 372 200	40	16	95	1,50	U-6520/0	U-6510/0	U-6526/0
721 101	337 372 201		16	125	2,00	U-6520/0	U-6511/0	U-6527/0
721 203	337 372 202		22	95	1,60	U-6523/0	U-6512/0	U-6528/0
721 305	337 372 203		22	125	2,10	U-6523/0	U-6513/0	U-6529/0
721 407	337 372 204		27	95	1,70	U-6523/0	U-6514/0	U-6530/0
721 509	337 372 205		27	125	2,25	U-6523/0	U-6515/0	U-6531/0
721 600	337 372 206		32	95	2,00	U-6523/0	U-6516/0	U-6532/0
721 702	337 372 207		32	125	2,45	U-6523/0	U-6517/0	U-6533/0
722 000	337 372 452	50	22	100	3,10	U-6524/0	U-6512/0	U-6528/0
722 102	337 372 453		22	125	3,45	U-6524/0	U-6513/0	U-6529/0
722 204	337 372 454		27	100	3,30	U-6524/0	U-6514/0	U-6530/0
722 306	337 372 455		27	125	3,80	U-6524/0	U-6515/0	U-6531/0
722 408	337 372 456		32	100	3,90	U-6524/0	U-6516/0	U-6532/0
722 500	337 372 457		32	125	4,40	U-6524/0	U-6517/0	U-6533/0
722 601	337 372 458		40	100	4,60	U-6524/0	U-6518/0	U-6534/0
722 703	337 372 459		40	125	5,30	U-6524/0	U-6519/0	U-6535/0

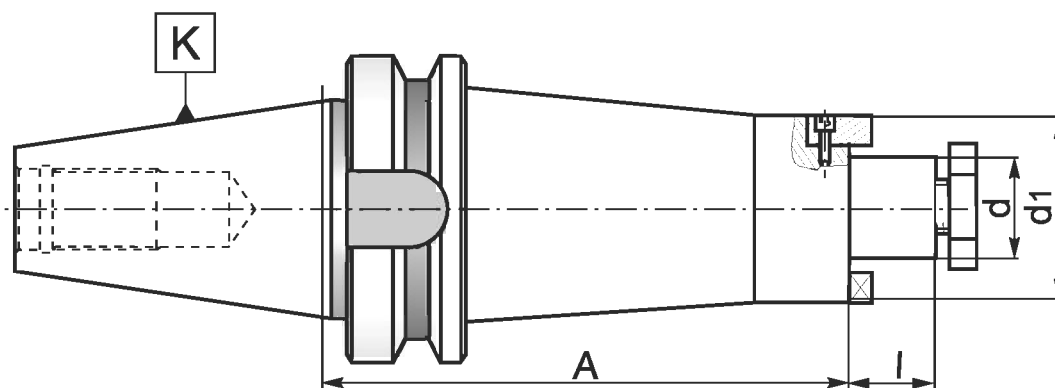
Typical order: 0642 173 722 703 or 7372-50-40-125

Type 7388BALANCE page 3
on request**MAS 403-BT****SHELL MILL ADAPTERS**

for cutters with driving slot DIN 138

ОПРАВКИ

для насадных торцевых фрез по DIN 138



Code No. 0642 173...	PKWiU 29 402 133...	K 7:24	d	A	l	d1	kg		
883 100	337 388 001	30	16	43	17	32	0,50	U-0620/0	S-2117/0
883 201	337 388 002		22	43	19	40	0,58	U-0621/0	S-2121/0
883 303	337 388 003		27	43	21	48	0,63	U-0622/0	S-2111/0
883 405	337 388 004		32	45	24	58	0,78	U-0623/0	S-2114/0
880 107	337 388 200	40	16	52	17	32	1,10	U-0620/0	S-2117/0
880 606	337 388 250		16	120	17	32	1,70	U-0620/0	S-2117/0
880 209	337 388 201		22	52	19	40	1,20	U-0621/0	S-2121/0
880 708	337 388 251		22	120	19	40	1,90	U-0621/0	S-2121/0
880 300	337 388 202		27	52	21	48	1,40	U-0622/0	S-2111/0
880 800	337 388 252		27	120	21	48	2,20	U-0622/0	S-2111/0
880 402	337 388 203		32	52	24	58	1,50	U-0623/0	S-2114/0
880 901	337 388 253		32	120	24	58	2,40	U-0623/0	S-2114/0
880 504	337 388 204		40	60	27	70	1,90	U-0624/0	S-2124/0
881 108	337 388 450	50	16	65	17	32	2,80	U-0620/0	S-2117/0
881 709	337 388 480		16	110	17	32	3,15	U-0620/0	S-2117/0
881 200	337 388 451		22	65	19	40	3,00	U-0621/0	S-2121/0
881 800	337 388 481		22	110	19	40	3,40	U-0621/0	S-2121/0
881 301	337 388 452		27	65	21	48	3,25	U-0622/0	S-2111/0
881 902	337 388 482		27	110	21	48	3,40	U-0622/0	S-2111/0
881 403	337 388 453		32	65	24	58	3,40	U-0623/0	S-2114/0
882 109	337 388 483		32	110	24	58	4,10	U-0623/0	S-2114/0
881 505	337 388 454		40	78	27	70	3,60	U-0624/0	S-2124/0
882 200	337 388 484		40	110	27	70	4,30	U-0624/0	S-2124/0
881 607	337 388 455		50	78	30	90	4,00	U-0625/0	U-5974/0

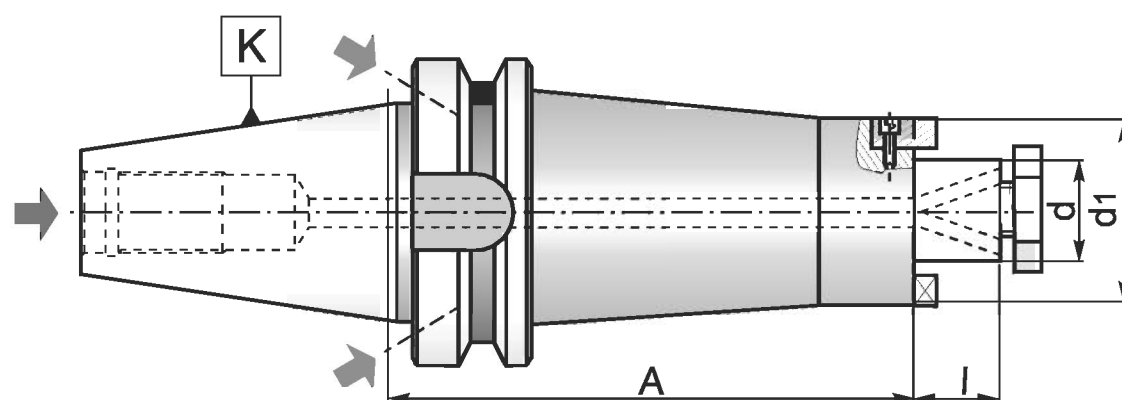
Typical order: 0642 173 881 607 or 7388-50-50-78

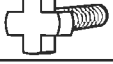
Type 7388BALANCE  page 3**MAS 403-BT AD+B****SHELL MILL ADAPTERS**

for cutters with driving slot DIN 138

ОПРАВКИ

для насадных торцовых фрез по DIN 138



Code No. 0642 173...	PKWiU 29 402 133...	K 7:24	d	A	l	d1	kg		
887 103	337 388 279	40	16	45	17	38	1,10	U-0620/0	W-1945/0
887 129	337 388 280		16	100	17	38	1,70	U-0620/0	W-1945/0
887 144	337 388 281		16	130	17	38	2,00	U-0620/0	W-1945/0
887 160	337 388 282		16	160	17	38	2,30	U-0620/0	W-1945/0
887 185	337 388 283		22	45	19	48	1,30	U-0621/0	W-1946/0
887 205	337 388 284		22	100	19	48	1,90	U-0621/0	W-1946/0
887 220	337 388 285		22	130	19	48	2,40	U-0621/0	W-1946/0
887 246	337 388 286		22	160	19	48	2,80	U-0621/0	W-1946/0
887 261	337 388 287		27	50	21	58	1,60	U-0622/0	W-1947/0
887 287	337 388 288		27	100	21	58	2,50	U-0622/0	W-1947/0
887 307	337 388 289		27	130	21	58	3,00	U-0622/0	W-1947/0
887 322	337 388 290		27	160	21	58	3,50	U-0622/0	W-1947/0
887 348	337 388 291		32	55	24	66	1,90	U-0623/0	W-1948/0
887 363	337 388 292		32	100	24	66	3,10	U-0623/0	W-1948/0
887 389	337 388 293		32	130	24	66	4,00	U-0623/0	W-1948/0
887 409	337 388 294		32	160	24	66	4,80	U-0623/0	W-1948/0
887 424	337 388 295		40	60	27	80	2,70	U-0624/0	W-1949/0
887 440	337 388 296		40	100	27	80	4,20	U-0624/0	W-1949/0
887 465	337 388 297		40	130	27	80	5,30	U-0624/0	W-1949/0
887 480	337 388 298		40	160	27	80	6,50	U-0624/0	W-1949/0
888 104	337 388 530	50	16	55	17	38	3,80	U-0620/0	W-1945/0
888 120	337 388 531		16	100	17	38	4,20	U-0620/0	W-1945/0
888 145	337 388 532		16	130	17	38	4,50	U-0620/0	W-1945/0
888 160	337 388 533		16	160	17	38	4,80	U-0620/0	W-1945/0
888 186	337 388 534		16	200	17	38	5,20	U-0620/0	W-1945/0
888 206	337 388 535		22	55	19	48	3,90	U-0621/0	W-1946/0
888 221	337 388 536		22	100	19	48	4,60	U-0621/0	W-1946/0
888 247	337 388 537		22	130	19	48	5,00	U-0621/0	W-1946/0
888 262	337 388 538		22	160	19	48	5,40	U-0621/0	W-1946/0
888 288	337 388 539		22	200	19	58	5,80	U-0621/0	W-1947/0
888 308	337 388 540		27	60	21	58	4,30	U-0622/0	W-1947/0
888 323	337 388 541		27	100	21	58	5,30	U-0622/0	W-1947/0
888 349	337 388 542		27	130	21	58	6,00	U-0622/0	W-1947/0
888 364	337 388 543		27	160	21	58	6,70	U-0622/0	W-1947/0
888 380	337 388 544		27	200	21	58	7,70	U-0622/0	W-1947/0
888 400	337 388 545		32	65	24	66	4,50	U-0623/0	W-1948/0
888 425	337 388 546		32	100	24	66	5,60	U-0623/0	W-1948/0
888 440	337 388 547		32	130	24	66	6,50	U-0623/0	W-1948/0
888 466	337 388 548		32	160	24	66	7,40	U-0623/0	W-1948/0
888 481	337 388 549		32	200	24	66	8,60	U-0623/0	W-1948/0
888 501	337 388 550		40	70	27	80	5,40	U-0624/0	W-1949/0
888 527	337 388 551		40	100	27	80	6,40	U-0624/0	W-1949/0
888 542	337 388 552		40	130	27	80	7,40	U-0624/0	W-1949/0
888 568	337 388 553		40	160	27	80	8,40	U-0624/0	W-1949/0
888 583	337 388 554		40	200	27	80	9,70	U-0624/0	W-1949/0
888 603	337 388 555		50	70	30	90	6,00	U-0625/0	U-5974/0
888 629	337 388 556		50	100	30	90	7,50	U-0625/0	U-5974/0
888 644	337 388 557		50	130	30	90	9,00	U-0625/0	U-5974/0
888 660	337 388 558		50	160	30	90	10,50	U-0625/0	U-5974/0
888 685	337 388 559								

 Typical order: 0642 173 888 685 or 7388-50-50-200 AD+B

Type 7624BALANCE  page 3
on request**MAS 403-BT****END MILL ADAPTERS**for cutters with cylindrical shank
and weldon flat DIN 1835-B**ОПРАВКИ**

"Weldon" по DIN 1835-B

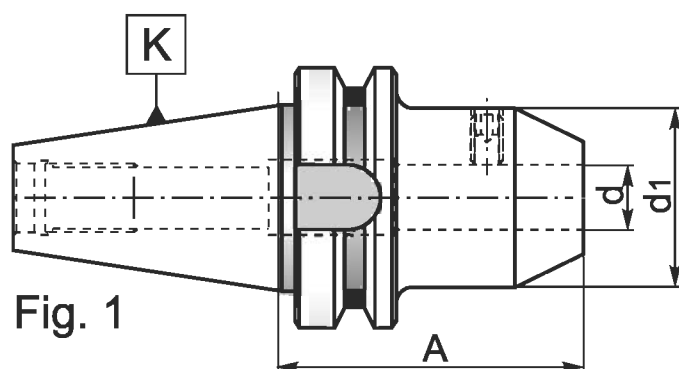


Fig. 1

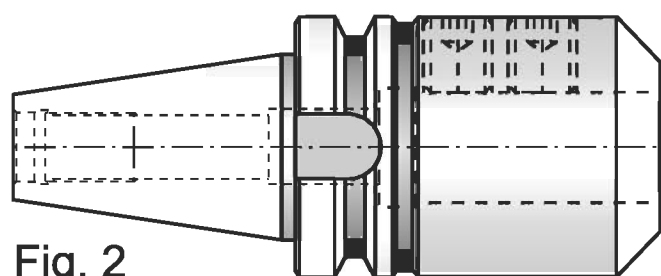


Fig. 2

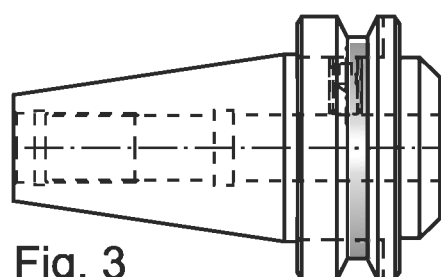


Fig. 3

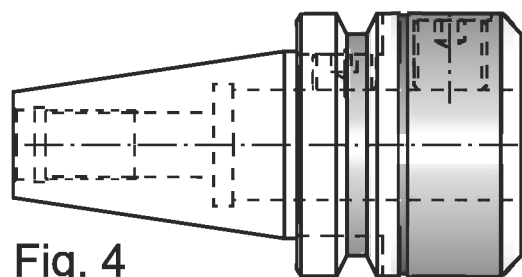


Fig. 4

Code No. 0642 176...	PKWiU 29 402 150...	K 7:24	d	A	d1	fig.	kg	
242 203	217 624 360	30	6	50	25	1	0,50	U-4131/0
242 305	217 624 361		8	50	28	1	0,50	U-4132/0
242 407	217 624 362		10	50	35	1	0,60	U-4133/0
242 509	217 624 363		12	50	42	1	0,60	U-4134/0
242 600	217 624 367		16	63	48	1	0,90	U-4135/0
242 702	217 624 370		20	63	52	1	1,00	U-4136/0
243 204	217 624 530	40	6	35	25	3	0,80	U-4131/0
240 100	217 624 570		6	50	25	1	0,90	U-4131/0
243 306	217 624 531		8	35	28	3	0,80	U-4132/0
240 201	217 624 571		8	50	28	1	0,90	U-4132/0
243 408	217 624 540		10	37	35	3	0,90	U-4133/0
240 303	217 624 572		10	63	35	1	1,00	U-4133/0
243 500	217 624 546		12	37	42	3	1,00	U-4134/0
240 405	217 624 573		12	63	42	1	1,10	U-4134/0
243 512	217 624 547		14	37	44	3	1,15	U-4134/0
243 525	217 624 555		14	63	44	1	1,30	U-4134/0
243 601	217 624 560		16	37	48	3	1,25	U-4135/0
240 507	217 624 574		16	63	48	1	1,40	U-4135/0
243 703	217 624 562		20	37	50	3	1,20	U-6756/0
240 609	217 624 575		20	63	50	1	1,40	U-4136/0
243 805	217 624 563		25	60	63	4	1,80	U-4137/0 U-6755/0
240 700	217 624 576		25	90	63	2	2,00	U-4137/0 U-4137/0
243 907	217 624 565		32	65	72	4	2,10	U-4138/0 U-6755/0
240 802	217 624 577		32	100	72	2	2,30	U-4138/0 U-4138/0
241 100	217 624 750	50	6	63	25	1	3,30	U-4131/0
241 202	217 624 751		8	63	28	1	3,30	U-4132/0
241 304	217 624 752		10	63	35	1	3,60	U-4133/0
241 406	217 624 753		12	80	42	1	3,80	U-4134/0
244 307	217 624 714		14	80	44	1	3,90	U-4134/0
241 508	217 624 754		16	80	48	1	4,10	U-4135/0
244 409	217 624 720		20	40	52	3	4,00	U-4136/0
241 600	217 624 755		20	80	52	1	4,30	U-4136/0
244 500	217 624 730		25	60	63	4	4,70	U-4137/0 U-4137/0
241 701	217 624 756		25	100	63	2	5,00	U-4137/0 U-4137/0
244 602	217 624 740		32	70	72	4	5,00	U-4138/0 U-4138/0
241 803	217 624 757		32	105	72	2	5,30	U-4138/0 U-4138/0
241 905	217 624 758		40	120	90	2	5,60	U-5870/0 U-5870/0
242 101	217 624 759		50	130	100	2	6,10	U-4139/0 U-4139/0

 Typical order: 0642 176 242 101 or 7624-50-50-130

Type 7624BALANCE  page 3
on request**MAS 403-BT AD+B****END MILL ADAPTERS**for cutters with cylindrical shank
and weldon flat DIN 1835-B**ОПРАВКИ**

"Weldon" по DIN 1835-B

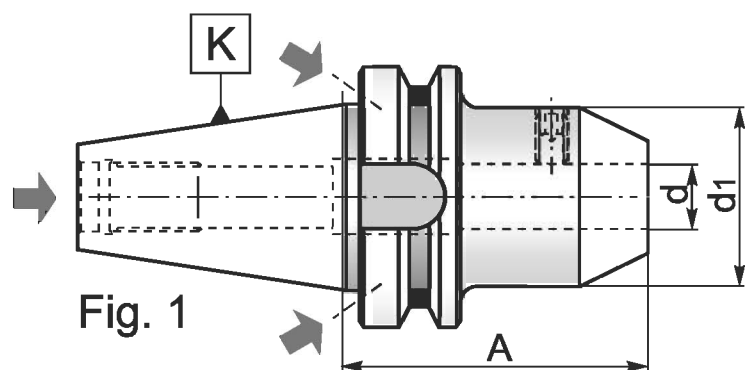


Fig. 1

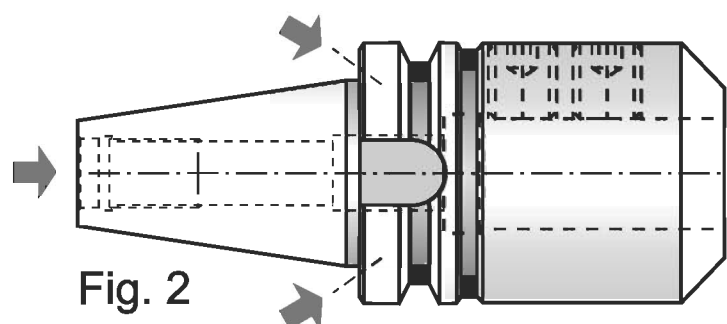


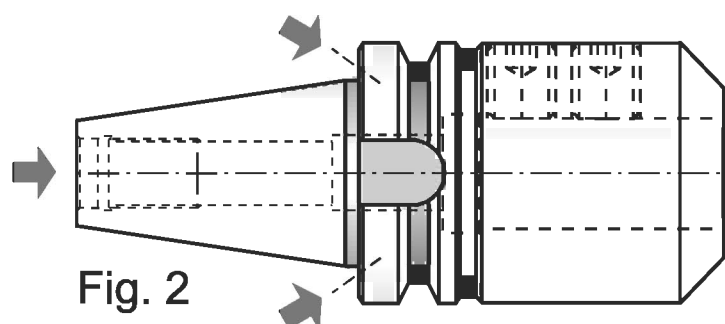
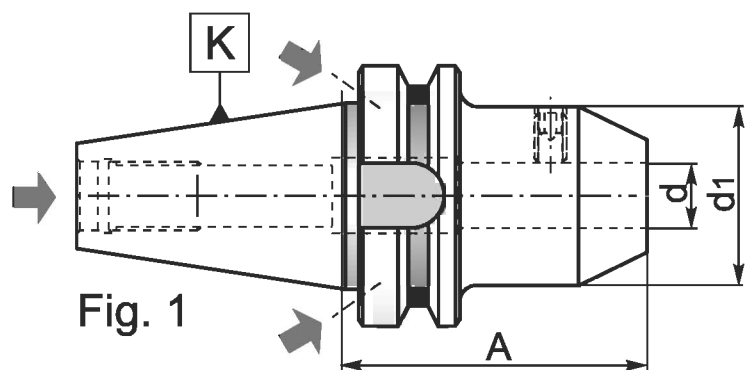
Fig. 2

Code No. 0642 176...	PKWiU 29 402 150...	K 7:24	d	A	d1	Fig.	kg	
248 300	217 624 610	40	6	50	25,0	1	0,90	U-4131/0
248 313	217 624 611		6	100	25,0	1	1,10	U-4131/0
248 326	217 624 612		6	130	25,0	1	1,30	U-4131/0
248 339	217 624 613		6	160	25,0	1	1,20	U-4131/0
248 341	217 624 614		6	200	25,0	1	1,30	U-4131/0
248 354	217 624 615		8	50	28,0	1	0,90	U-4132/0
248 367	217 624 616		8	100	28,0	1	1,20	U-4132/0
248 370	217 624 617		8	130	28,0	1	1,40	U-4132/0
248 382	217 624 618		8	160	28,0	1	1,50	U-4132/0
248 395	217 624 619		8	200	28,0	1	1,60	U-4132/0
248 402	217 624 620		10	60	35,0	1	1,00	U-4133/0
248 415	217 624 621		10	100	35,0	1	1,20	U-4133/0
248 428	217 624 622		10	130	35,0	1	1,70	U-4133/0
248 430	217 624 623		10	160	35,0	1	1,60	U-4133/0
248 443	217 624 624		10	200	35,0	1	1,80	U-4133/0
248 456	217 624 625		12	60	42,0	1	1,10	U-4134/0
248 469	217 624 626		12	100	42,0	1	1,70	U-4134/0
248 471	217 624 627		12	130	42,0	1	1,90	U-4134/0
248 484	217 624 628		12	160	42,0	1	1,70	U-4134/0
248 497	217 624 629		12	200	42,0	1	1,90	U-4134/0
248 504	217 624 630		14	60	44,0	1	1,30	U-4134/0
248 517	217 624 631		14	100	44,0	1	1,70	U-4134/0
248 520	217 624 632		14	130	44,0	1	2,00	U-4134/0
248 532	217 624 633		14	160	44,0	1	2,30	U-4134/0
248 545	217 624 634		14	200	44,0	1	2,70	U-4134/0
248 558	217 624 635		16	63	48,0	1	1,40	U-4135/0
248 560	217 624 636		16	100	48,0	1	1,60	U-4135/0
248 573	217 624 637		16	130	48,0	1	1,80	U-4135/0
248 586	217 624 638		16	160	48,0	1	2,00	U-4135/0
248 599	217 624 639		16	200	48,0	1	2,30	U-4135/0
248 606	217 624 640		18	63	49,5	1	1,50	U-4135/0
248 619	217 624 641		18	100	49,5	1	1,70	U-4135/0
248 621	217 624 642		18	130	49,5	1	1,90	U-4135/0
248 634	217 624 643		18	160	49,5	1	2,10	U-4135/0
248 647	217 624 644		18	200	49,5	1	2,30	U-4135/0
248 650	217 624 645		20	63	49,5	1	1,40	U-4136/0
248 662	217 624 646		20	100	49,5	1	1,70	U-4136/0
248 675	217 624 647		20	130	49,5	1	2,00	U-4136/0
248 688	217 624 648		20	160	49,5	1	2,30	U-4136/0
248 690	217 624 649		20	200	49,5	1	2,60	U-4136/0
248 708	217 624 650	50	25	100	63,0	2	2,00	U-4137/0 U-4137/0
248 710	217 624 651		25	130	63,0	2	2,40	U-4137/0 U-4137/0
248 723	217 624 652		25	160	63,0	2	2,80	U-4137/0 U-4137/0
248 736	217 624 653		25	200	63,0	2	3,20	U-4137/0 U-4137/0
248 749	217 624 654		32	100	72,0	2	2,30	U-4138/0 U-4138/0
248 751	217 624 655		32	130	72,0	2	2,70	U-4138/0 U-4138/0
248 764	217 624 656		32	160	72,0	2	3,00	U-4138/0 U-4138/0
248 777	217 624 657		32	200	72,0	2	3,40	U-4138/0 U-4138/0
249 108	217 624 790		6	63	25,0	1	3,30	U-4131/0
249 110	217 624 791		6	100	25,0	1	3,40	U-4131/0
249 123	217 624 792		6	130	25,0	1	4,00	U-4131/0
249 136	217 624 793		6	160	25,0	1	4,20	U-4131/0
249 149	217 624 794		6	200	25,0	1	4,50	U-4131/0
249 151	217 624 795		8	63	28,0	1	3,70	U-4132/0
249 164	217 624 796		8	100	28,0	1	3,90	U-4132/0
249 177	217 624 797		8	130	28,0	1	4,10	U-4132/0
249 180	217 624 798		8	160	28,0	1	4,30	U-4132/0
249 192	217 624 799		8	200	28,0	1	4,60	U-4132/0
249 200	217 624 800		10	70	35,0	1	3,60	U-4133/0
249 212	217 624 801		10	100	35,0	1	3,80	U-4133/0
249 225	217 624 802		10	130	35,0	1	4,00	U-4133/0

Type 7624

BALANCE on request page 3

MAS 403-BT AD+B



Code No. 0642 176...	PKWiU 29 402 150...	K 7:24	d	A	d1	Fig.	kg	
249 238	217 624 803	50	10	160	35,0	1	4,20	U-4133/0
249 240	217 624 804		10	200	35,0	1	4,40	U-4133/0
249 253	217 624 805		12	80	42,0	1	3,80	U-4134/0
249 266	217 624 806		12	100	42,0	1	4,00	U-4134/0
249 279	217 624 807		12	130	42,0	1	4,20	U-4134/0
249 281	217 624 808		12	160	42,0	1	4,50	U-4134/0
249 294	217 624 809		12	200	42,0	1	4,80	U-4134/0
249 301	217 624 810		14	80	44,0	1	3,90	U-4134/0
249 314	217 624 811		14	100	44,0	1	4,20	U-4134/0
249 327	217 624 812		14	130	44,0	1	4,50	U-4134/0
249 330	217 624 813		14	160	44,0	1	4,80	U-4134/0
249 342	217 624 814		14	200	44,0	1	5,10	U-4134/0
249 355	217 624 815		16	80	48,0	1	4,10	U-4135/0
249 368	217 624 816		16	100	48,0	1	4,70	U-4135/0
249 370	217 624 817		16	130	48,0	1	5,10	U-4135/0
249 383	217 624 818		16	160	48,0	1	5,20	U-4135/0
249 396	217 624 819		16	200	48,0	1	5,30	U-4135/0
249 403	217 624 820		18	80	50,0	1	4,10	U-4135/0
249 416	217 624 821		18	100	50,0	1	4,50	U-4135/0
249 429	217 624 822		18	130	50,0	1	4,90	U-4135/0
249 431	217 624 823		18	160	50,0	1	5,30	U-4135/0
249 444	217 624 824		18	200	50,0	1	5,80	U-4135/0
249 457	217 624 825		20	80	52,0	1	4,40	U-4136/0
249 460	217 624 826		20	100	52,0	1	4,50	U-4136/0
249 472	217 624 827		20	130	52,0	1	5,20	U-4136/0
249 485	217 624 828		20	160	52,0	1	5,50	U-4136/0
249 498	217 624 829		20	200	52,0	1	6,00	U-4136/0
249 505	217 624 830		25	100	65,0	2	5,00	U-4137/0 U-4137/0
249 518	217 624 831		25	130	65,0	2	5,10	U-4137/0 U-4137/0
249 520	217 624 832		25	160	65,0	2	5,50	U-4137/0 U-4137/0
249 533	217 624 833		25	200	65,0	2	6,70	U-4137/0 U-4137/0
249 546	217 624 834		32	105	72,0	2	5,30	U-4138/0 U-4138/0
249 559	217 624 835		32	130	72,0	2	6,00	U-4138/0 U-4138/0
249 561	217 624 836		32	160	72,0	2	6,70	U-4138/0 U-4138/0
249 574	217 624 837		32	200	72,0	2	7,80	U-4138/0 U-4138/0
249 587	217 624 838		40	120	90,0	2	6,60	U-5870/0 U-5870/0
249 590	217 624 839		40	160	90,0	2	8,60	U-5870/0 U-5870/0
249 607	217 624 840		40	200	90,0	2	10,30	U-5870/0 U-5870/0

 Typical order: 0642 176 248 607 or 7624-50-40-200 AD+B

Type 7626BALANCE  page 3
on request**MAS 403-BT****COLLET CHUCKS ER**

for tool with cylindrical shank

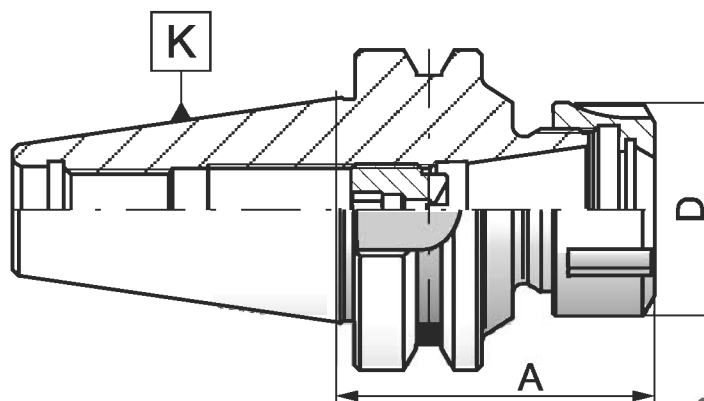
OPRAWKI ZACISKOWE

(do tulejek ER DIN 6499)

do narzędzi z chwytem walcowym

Standard accessories:Nut - page 110,
screw**Wyposażenie podstawowe:**Nakrętka - str. 110,
wkręt Typical order:

0642 176 262 505 or 7626-50-40-130



Code No.	PKWiU	K	Collet	A	Capacity	D	kg		
0642 176...	29 407 150...	7:24	Collet		Zakres				
263 302	217 626 366	30	ER16	60	2-10	32	0,6	9833-16	M10x11LH
263 007	217 626 376		ER32	60	2-20	50	0,9	9833-32	M18x1,5x19LH
260 004	217 626 547	40	ER25	60	2-16	42	1,3	9833-25	M18x1,5x19LH
260 300	217 626 551		ER32	70	2-20	50	1,6	9833-32	M22x1,5x24LH
261 300	217 626 565		ER32	130	2-20	50	1,8	9833-32	M22x1,5x24LH
260 900	217 626 571		ER40	70	2-26	63	1,9	9833-40	M28x1,5x30LH
260 926	217 626 577		ER40	80	2-26	63	2,1	9833-40	M28x1,5x30LH
261 402	217 626 721	50	ER32	70	2-20	50	3,5	9833-32	M22x1,5x24LH
261 901	217 626 727		ER32	130	2-20	50	4,3	9833-32	M22x1,5x24LH
262 006	217 626 733		ER40	80	2-26	63	4,1	9833-40	M28x1,5x30LH
262 505	217 626 739		ER40	130	2-26	63	4,3	9833-40	M28x1,5x30LH

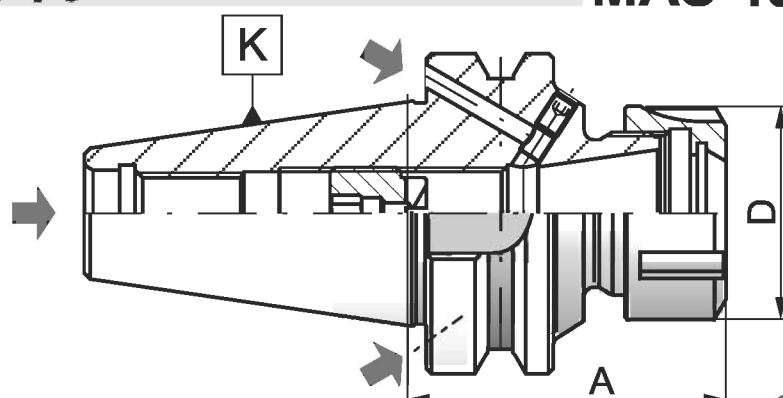
Type 7626BALANCE  page 3
on request**MAS 403-BT AD+B****COLLET CHUCKS ER**

for tool with cylindrical shank

OPRAWKI ZACISKOWE

(do tulejek ER DIN 6499)

do narzędzi z chwytem walcowym

Standard accessories:Nut - page 110,
screw Typical order:0642 176 268 821
or
7626-50-40-160 AD+B

Code No.	PKWiU	K	Collet	A	Capacity	D	kg		
0642 176...	29 407 150...	7:24	Collet		Zakres				
268 348	217 626 534	40	ER16	60	2-10	32		9833-16	M12x1,5x14LH
268 465	217 626 549							9833-25	M18x1,5x19LH
268 500	217 626 556		ER25	60	2-16	42	1,3	9833-32	M22x1,5x24LH
268 541	217 626 569		ER32	70	2-20	50	1,6	9833-32	M22x1,5x24LH
268 567	217 626 574		ER32	160	2-20	50	2,0	9833-40	M28x1,5x30LH
			ER40	70	2-26	63	1,9		
268 669	217 626 724	50						9833-32	M22x1,5x24LH
268 745	217 626 731		ER32	70	2-20	50	3,5	9833-32	M22x1,5x24LH
268 786	217 626 736		ER32	160	2-20	50	3,5	9833-40	M28x1,5x30LH
268 821	217 626 760		ER40	80	2-26	63	4,1	9833-40	M28x1,5x30LH

Type 7626-SBALANCE  page 3
on request**MAS 403-BT****COLLET CHUCKS ER**

for tool with cylindrical shank

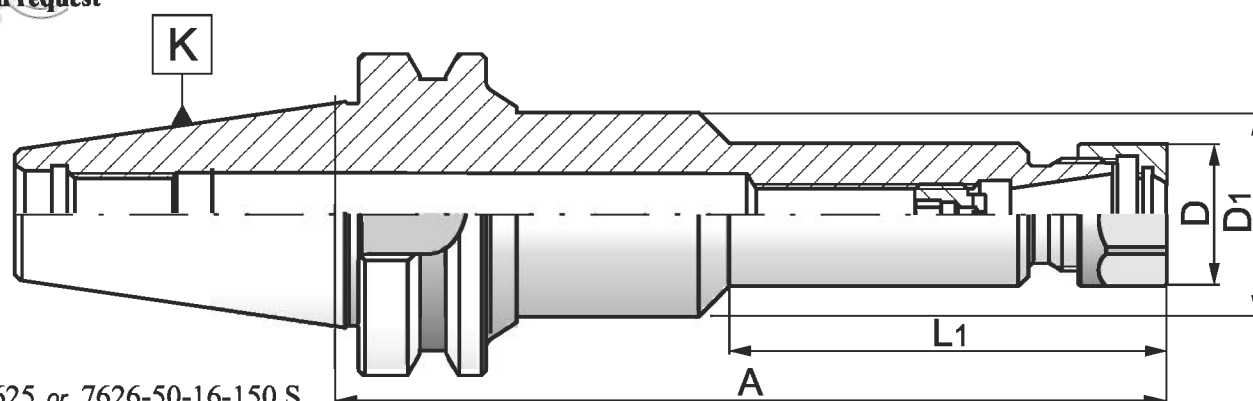
OPRAWKI ZACISKOWE

(do tulejek ER DIN 6499)

do narzędzi z chwytem walcowym

Standard accessories:Nut - page 110,
screw Typical order:

0642 176 265 625 or 7626-50-16-150 S



Code No.	PKWiU	K	Collet	A	Capacity	L1	D	D1	kg		
0642 176...	29 407 150...	7:24	Collet		Zakres						
265 126	217 626 535	40	ER16	100	2-10	—	28	—	1,1	9833-16D	M12x1,5x14LH
265 228	217 626 540		ER16	150	2-10	85	28	40	1,6	9833-16D	M12x1,5x14LH
265 523	217 626	50	ER16	100	2-10	—	28	—	3,0	9833-16D	M12x1,5x14LH
710			ER16	150	2-10	85	28	40	3,3	9833-16D	M12x1,5x14LH

**Type 7626-S**

BALANCE page 3

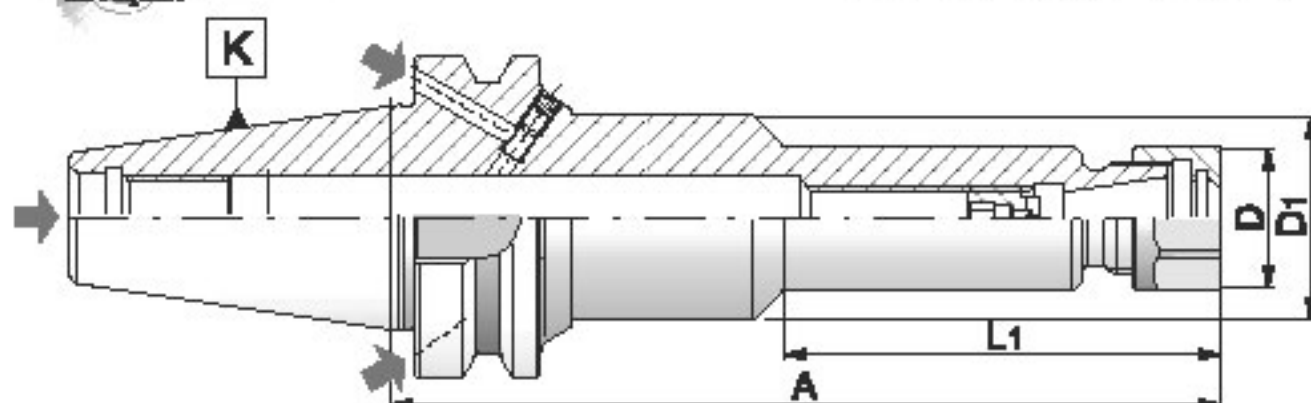
MAS 403-BT AD+B**COLLET CHUCKS ER**

for tool with cylindrical shank

OPRAWKI ZACISKOWE

(do tulejek ER DIN 6499)

do narzędzi z chwytom walcowym

Standard
accessories:Nut - page 110,
screw

Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	Collet	A	Capacity Zakres	L1	D	D1	kg		
268 389	217 626 538	40	ER16	100	2-10	—	28	—	1,1	9833-16D	M12x1,5x14LH
268 424	217 626 545		ER16	160	2-10	86	28	40	1,7	9833-16D	M12x1,5x14LH
268 582	217 626	50	ER16	100	2-10	—	28	—	3,0	9833-16D	M12x1,5x14LH
713			ER16	160	2-10	86	28	40	3,4	9833-16D	M12x1,5x14LH
268 628	217 626 719										

Typical order: 0642 176 268 628 or 7626-50-16-160 S AD+B

Type 7626

BALANCE page 3

MAS 403-BT**COLLET CHUCKS ER - SET**

for tool with cylindrical shank

OPRAWKI ZACISKOWE ER - KOMPLET

do narzędzi z chwytom walcowym

Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	Collet	A	Capacity Zakres	Full set pieces
263 404	217 626 367	30	ER16	60	2-10	8
263 109	217 626 377		ER32	60	2-20	18
260 106	217 626 548	40	ER25	60	2-16	14
260 401	217 626 552		ER32	70	2-20	18
261 107	217 626 566		ER32	130	2-20	18
260 707	217 626 572		ER40	70	2-26	24
261 504	217 626 722	50	ER32	70	2-20	18
261 708	217 626 728		ER32	130	2-20	18
262 108	217 626 734		ER40	80	2-26	24
262 301	217 626 740		ER40	130	2-26	24

Type 7626-S

Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	Collet	A	Capacity Zakres	Full set pieces
265 100	217 626 537	40	ER16	100	2-10	8
265 202	217 626 542		ER16	150	2-10	8
265 508	217 626 712	50	ER16	100	2-10	8
265 600	217 626 717		ER16	150	2-10	8

Type 7626-PL

Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	Collet	A	Capacity Zakres	Full set pieces
263 111	217 626 378	30	ER32	60	3-20	8
			Tulejki Ø 4,5,6,8,10,12,16,20			
260 516	217 626 553	40	ER32	70	3-20	8
			Tulejki Ø 4,5,6,8,10,12,16,20			
261 517	217 626 723	50	ER32	70	3-20	8
			Tulejki Ø 4,5,6,8,10,12,16,20			



Type 7629BALANCE  page 3
on request**MAS 403-BT****END MILL ADAPTERS
TYPE WHISTLE-NOTCH**for tools with cylindrical shank
and inclined flat DIN 1835-E**ОПРАВКИ**

“Whistle-Notch” по DIN 1835-E

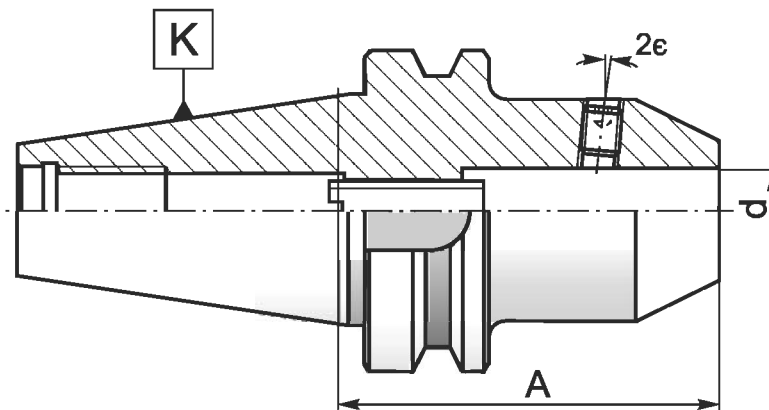


Fig. 1

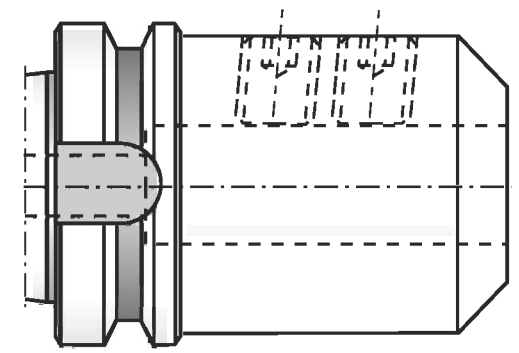


Fig. 2

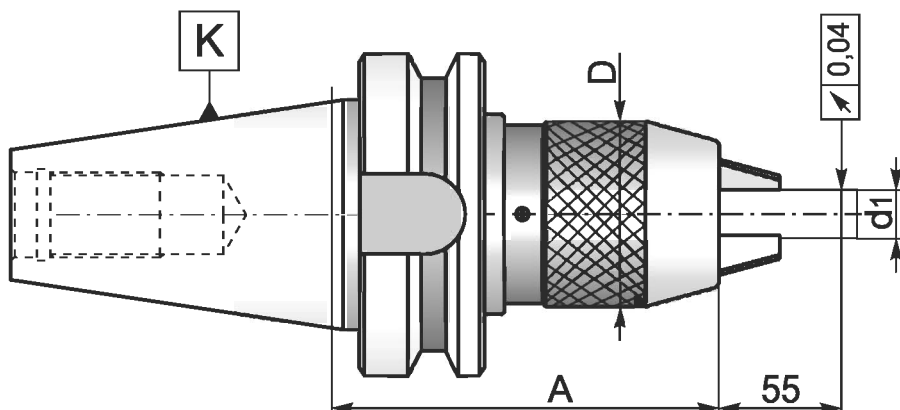
Code No. 0642 176...	PKWiU 29 402 150...	K 7:24	d	A	Fig.	kg		
290 009	217 629 530	40	6	50	1	0,90	U-4131/0	U-1599/0
290 100	217 629 531		8	50	1	0,90	U-4132/0	U-6317/0
290 202	217 629 532		10	63	1	1,00	U-4133/0	U-0293/0
290 304	217 629 533		12	63	1	1,10	U-4134/0	U-0757/0
290 406	217 629 534		14	63	1	1,30	U-4135/0	U-6318/0
290 508	217 629 535		16	63	1	1,40	U-4135/0	U-6318/0
290 600	217 629 536		18	63	1	1,40	U-4136/0	U-6793/0
290 701	217 629 537		20	63	1	1,40	U-4136/0	U-6793/0
290 803	217 629 538		25	90	2	1,90	U-4137/0 U-4137/0	U-6794/0
290 905	217 629 539		32	100	2	2,20	U-4138/0 U-4138/0	U-6794/0
291 000	217 629 710	50	6	63	1	3,30	U-4131/0	U-1599/0
291 101	217 629 711		8	63	1	3,30	U-4132/0	U-6317/0
291 203	217 629 712		10	65	1	3,60	U-4133/0	U-0293/0
291 305	217 629 713		12	80	1	3,80	U-4134/0	U-0757/0
291 407	217 629 714		14	80	1	3,90	U-4135/0	U-6318/0
291 509	217 629 715		16	80	1	4,10	U-4135/0	U-6318/0
291 600	217 629 716		18	80	1	4,20	U-4136/0	U-6793/0
291 702	217 629 717		20	80	1	4,30	U-4136/0	U-6793/0
291 804	217 629 718		25	100	2	5,00	U-4137/0 U-4137/0	U-6794/0
291 906	217 629 719		32	105	2	5,10	U-4138/0 U-4138/0	U-6794/0
292 102	217 629 720		40	120	2	5,30	U-5870/0 U-5870/0	U-6794/0

 Typical order: 0642 176 292 102 or 7629-50-40-120**Type 7656**BALANCE  page 3
on request**MAS 403-BT****KEYLESS DRILL CHUCKS**

with shank

ПАТРОНЫ СВЕРЛИЛЬНЫЕ

с хвостовиком



Code No. 0642 176...	PKWiU 29 402 150...	K 7:24	d1	A	D	kg
560 403	217 656 550	40	1-13	95	50	2,00
560 444	217 656 560		3-16	100	57	2,40
560 505	217 656 730	50	1-13	105	50	4,60
560 546	217 656 740		3-16	110	57	5,20

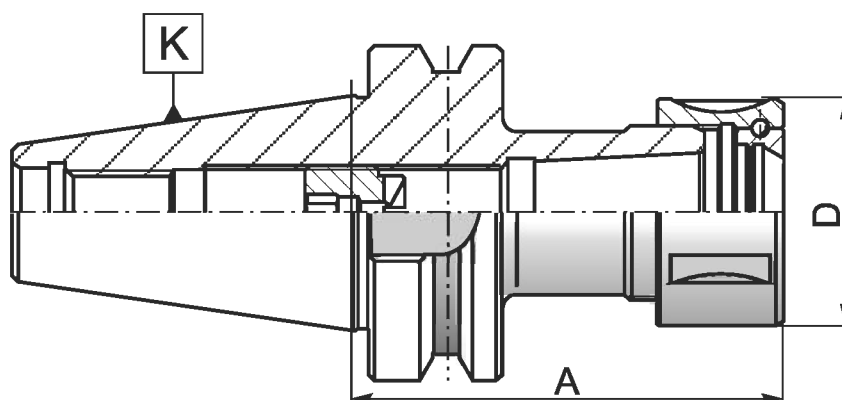
 Typical order: 0642 176 560 546 or 7656-50-16-110Standard accessories:
wrench

Type 7606BALANCE  page 3
on request**MAS 403-BT****COLLET CHUCKS (DIN 6388)**

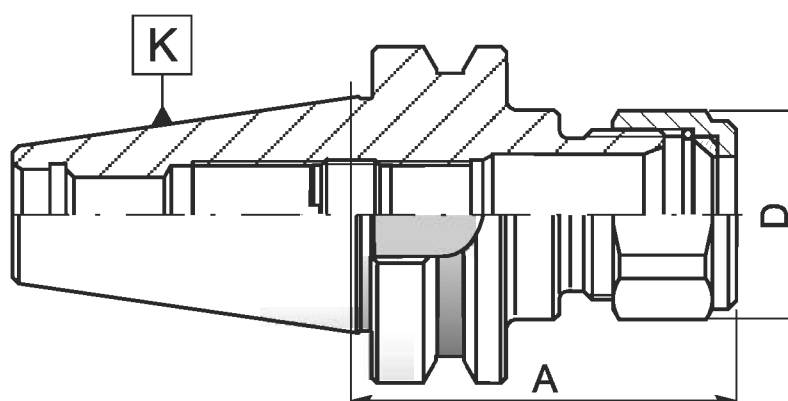
for tools with cylindrical shank

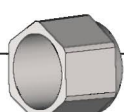
**OPRAWKI ZACISKOWE
(do tulejek DIN 6388)**

do narzędzi z chwytem walcowym

**Standard
accessories:**Nut - page 110,
screw**Wyposażenie podstawowe:**Nakrętka - str. 110,
wkret**Optional**

Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	Collet	A	Capacity / Zakres		D	kg		
					Type A	Type B				
060 203	217 606 530	40	16	70	3-16	5-16	43	1,00	9835-16	M18x1,5x19LH
060 305	217 606 540		16	80	3-16	5-16	43	1,10	9835-16	M18x1,5x19LH
061 102	217 606 550		25	70	4-25	6-25	60	1,30	9835-25	M28x1,5x10LH
061 408	217 606 560		32	72	5-32	10-32	72	1,30	9835-32	M28x1,5x10LH
061 500	217 606 570		32	90	5-32	10-32	72	1,40	9835-32	M28x1,5x10LH
063 104	217 606 710	50	25	85	4-25	6-25	60	4,10	9835-25	M35x1,5x12LH
063 501	217 606 720		32	90	5-32	10-32	72	4,50	9835-32	M35x1,5x12LH

 Typical order: 0642 176 063 501 or 7606-50-32-90**Type 7650**BALANCE  page 3
on request**MAS 403-BT****DOUBLE ANGLE COLLET CHUCKS****OPRAWKI ZACISKOWE
(do tulejek DA)****Standard
accessories:**Nut - page 110,
screw**Wyposażenie podstawowe:**Nakrętka - str. 110,
wkret**Optional****accessories:**

Code No.	PKWiU	K 7:24	Collet	A	Capacity Zakres	D	kg		
								9836-18	M20x1,5x15LH
								9836-18	M20x1,5x15LH
								9836-18	M20x1,5x15LH
								9836-18	M20x1,5x15LH
								9836-18	M20x1,5x15LH
								9836-18	M20x1,5x15LH

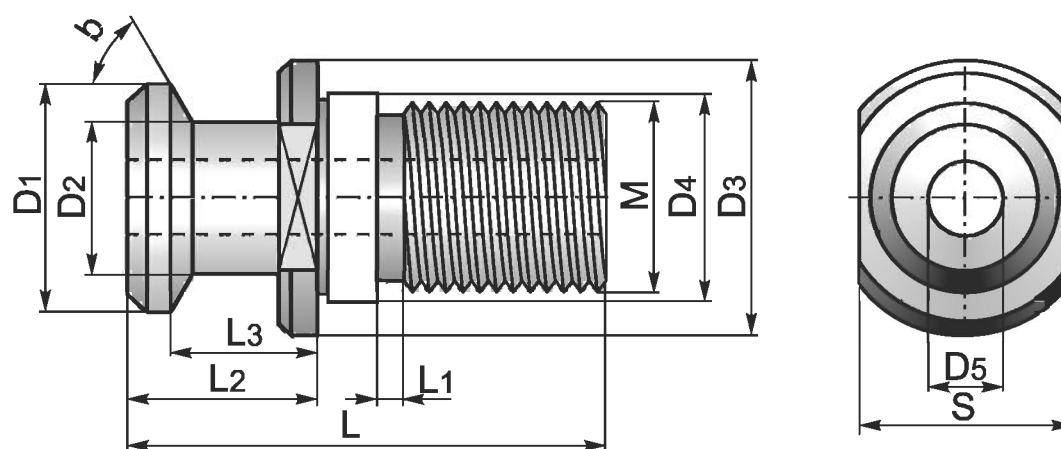
 Typical order: 0642 176 500 109 or 7650-40-18-70

Type 9883**MAS 403-BT A****PULL STUDS**

to MAS 403-BT

ШТРЕВЕЛИ

к хвостовикам по MAS 403-BT



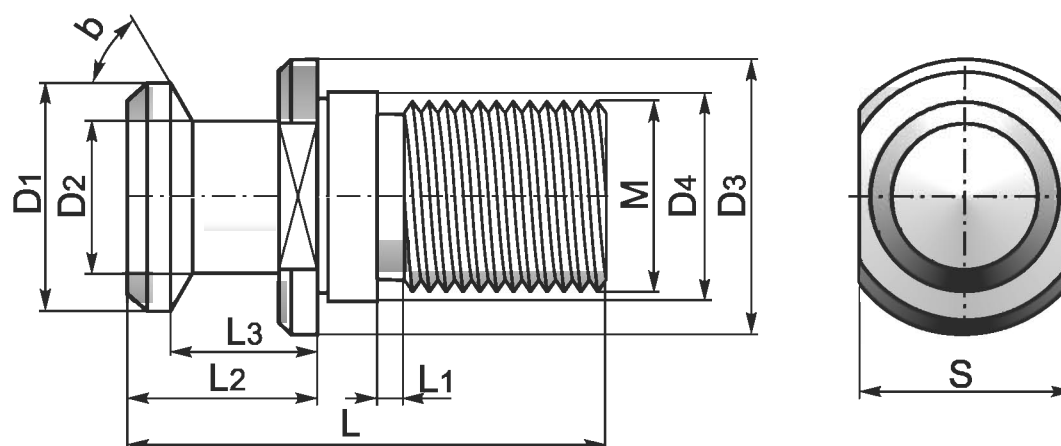
Code No. 0642 198...	PKWiU 29 402 133...	Size WielkoŹ	L	b	M	L1	L2	L3	D1	D2	D3	D4	D5	S
835 500	409 883 390	40	60	45°	M16	4	35	28	15	10	23	17	4	19
836 501	409 883 391		60	60°	M16	4	35	28	15	10	23	17	4	19
837 309	409 883 392		60	90°	M16	4	35	28	15	10	23	17	4	19
835 602	409 883 470	50	85	45°	M24	8	45	35	23	17	38	25	6	30
836 603	409 883 471		85	60°	M24	8	45	35	23	17	38	25	6	30
837 706	409 883 472		85	90°	M24	8	45	35	23	17	38	25	6	30

 Typical order: 0642 198 837 706 or 9883-50-85-90 A
Type 9883**MAS 403-BT B****PULL STUDS**

to MAS 403-BT

ШТРЕВЕЛИ

к хвостовикам по MAS 403-BT



Code No. 0642 198...	PKWiU 29 402 133...	Size WielkoŹ	L	b	M	L1	L2	L3	D1	D2	D3	D4	S
830 506	409 883 330	40	60	45°	M16	4	35	28	15	10	23	17	19
831 507	409 883 340		60	60°	M16	4	35	28	15	10	23	17	19
832 304	409 883 350		60	90°	M16	4	35	28	15	10	23	17	19
830 534	409 883 331		120	45°	M12	64	35	28	15	10	23	17	19
831 535	409 883 341		120	60°	M12	64	35	28	15	10	23	17	19
832 406	409 883 351		120	90°	M12	64	35	28	15	10	23	17	19
830 547	409 883 332		125	45°	M16	69	35	28	15	10	23	17	19
831 548	409 883 342		125	60°	M16	69	35	28	15	10	23	17	19
832 508	409 883 352		125	90°	M16	69	35	28	15	10	23	17	19
830 608	409 883 440	50	85	45°	M24	8	45	35	23	17	38	25	30
831 609	409 883 446		85	60°	M24	8	45	35	23	17	38	25	30
832 701	409 883 454		85	90°	M24	8	45	35	23	17	38	25	30
830 636	409 883 441		125	45°	M24	48	45	35	23	17	38	25	30
831 637	409 883 447		125	60°	M24	48	45	35	23	17	38	25	30
832 803	409 883 455		125	90°	M24	48	45	35	23	17	38	25	30

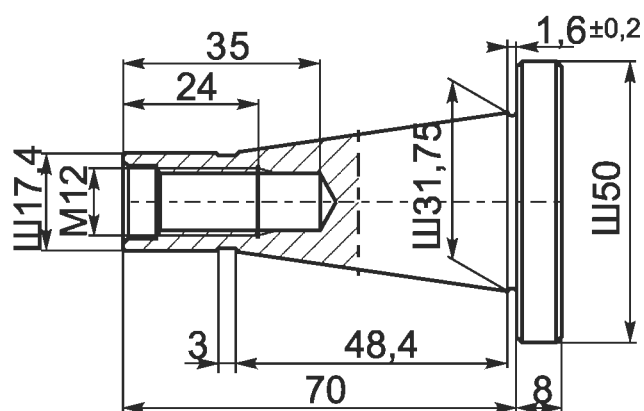
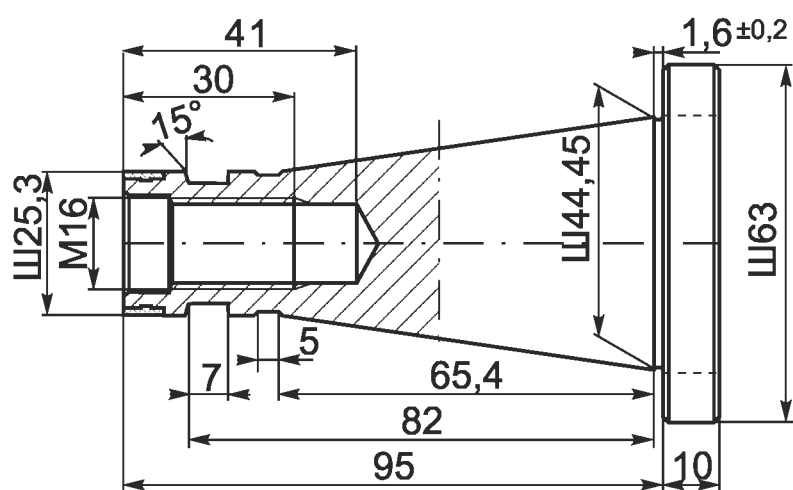
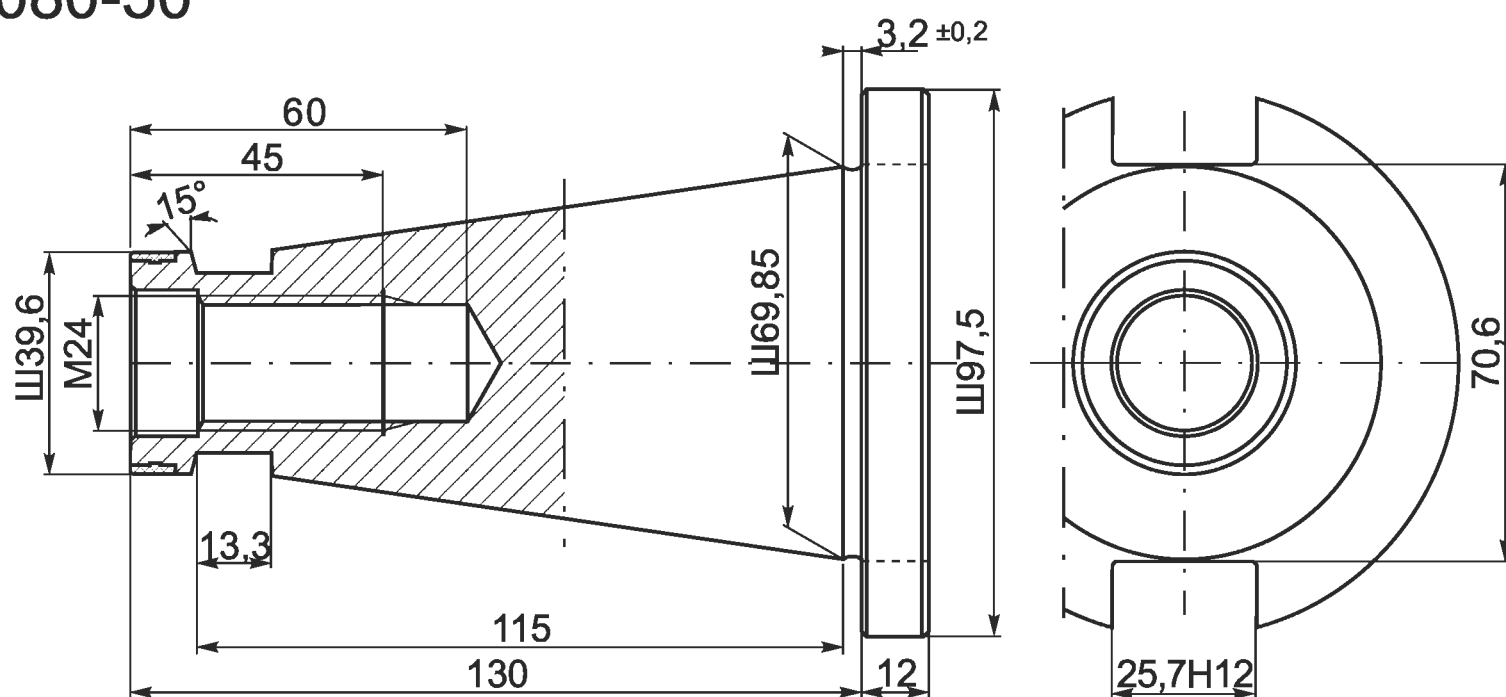
 Typical order: 0642 198 832 803 or 9883-50-125-90 B

TOOLSHANKS

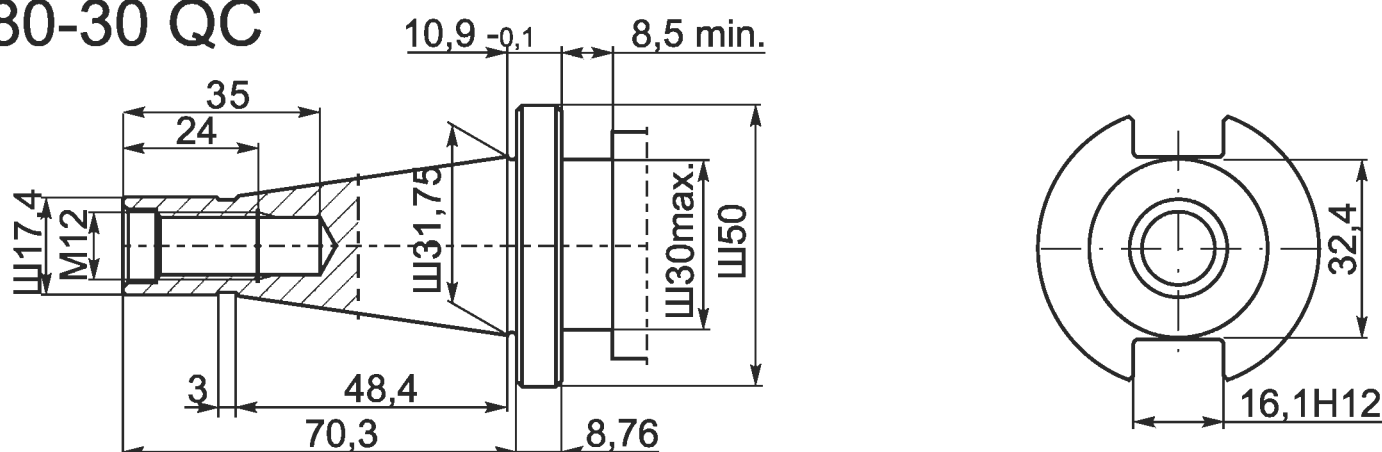
with 7:24 taper

ХВОСТОВИК

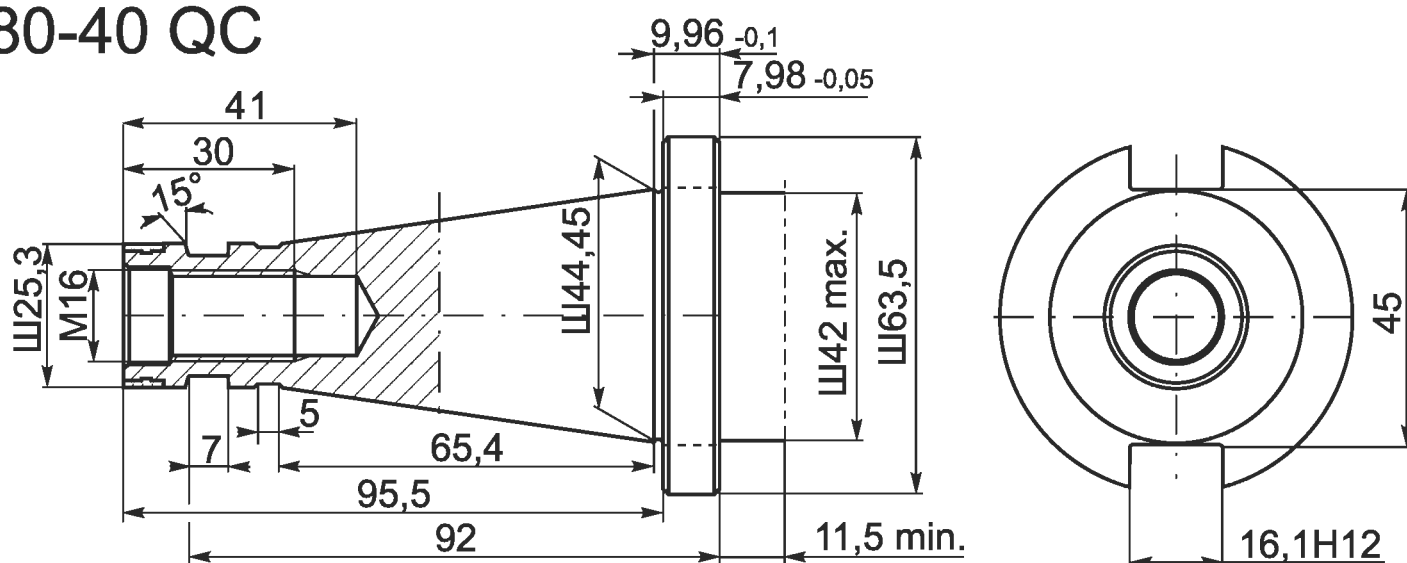
с конусом 7:24

DIN 2080-30**DIN 2080-40****DIN 2080-50**

DIN 2080-30 QC



DIN 2080-40 QC

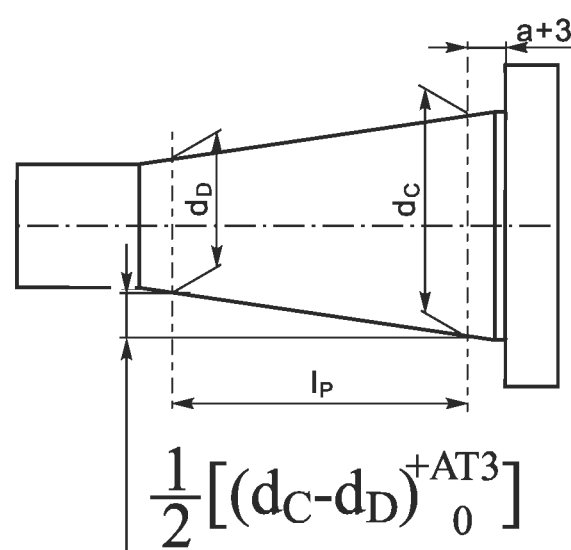


STANDARD FEATURES OF TOOLING

- * Manufactured with Chrome Manganese steel.
- * Carburized with depth of case 0,7 mm.
- * Hardened and precision ground.
- * Surface Hardness RC 58±2.
- * Taper angle: tolerance AT3.

ТЕХНИЧЕСКИЕ ТРЕБОВАНИЯ

- * Материал: легированная хромомарганцевая сталь.
- * Цементирование 0,7 мм.
- * Закалка и чистовое шлифование.
- * Твёрдость 58±2 HRC.
- * Предельные отклонения угла конуса AT3.



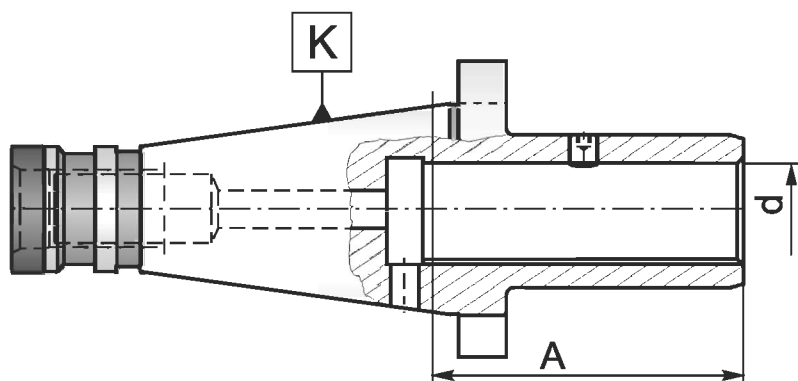
K 7:24	d _C - d _D	l _P	a	AT3
30	12,250	42	1,6	0,002
40	17,208	59	1,6	0,003
50	26,833	92	3,2	0,004

Type 1616**DIN 2080****HOLDERS**

for adjustable adapters DIN 6327

ОПРАВКИ

для инструмента с цилиндрическим хвостовиком по DIN 6327



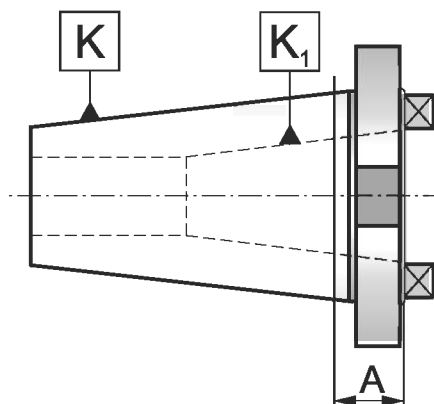
Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	d	A	kg	
160 401	111 616 120	40	16	60	0,90	U-1997/0
160 503	111 616 121		20	60	1,00	U-1997/0
160 605	111 616 122		28	100	1,75	U-7381/0
160 707	111 616 123		36	120	2,00	U-7381/0
160 809	111 616 450	50	16	60	2,20	U-1997/0
160 900	111 616 451		20	60	2,30	U-1997/0
161 005	111 616 452		28	100	2,70	U-7381/0
161 107	111 616 453		36	100	3,30	U-7381/0
161 209	111 616 454		48	100	4,70	U-7382/0

 Typical order: 0642 116 161 209 or 1616-50-48-100
Type 1650**DIN 2080****TAPER ADAPTERS**

for tools with DIN 2080 taper shank

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом 7:24



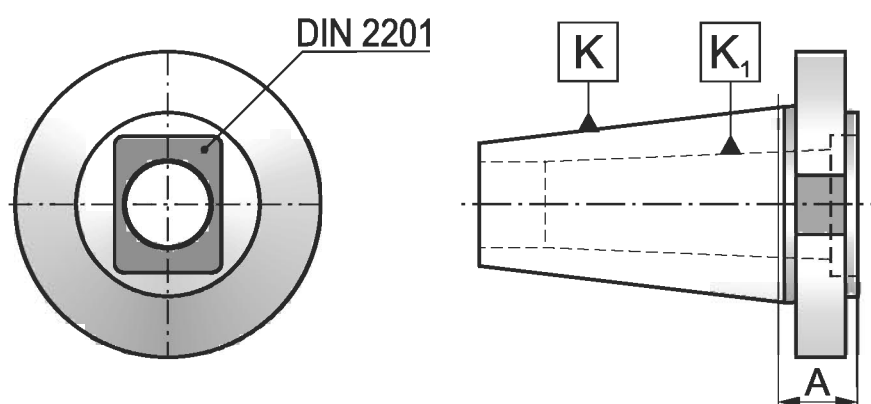
Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 7:24	A	kg
501 005	111 650 120	40	30	13,0	0,80
503 007	111 650 450	50	30	15,9	2,05
503 109	111 650 451		40	15,9	1,75

 Typical order: 0642 116 503 109 or 1650-50-40
Type 1653**DIN 2080****TAPER ADAPTERS**

for tools with Morse taper shank and drawbar thread DIN 228-A

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом Морзе и резьбовым отверстием по DIN 228-A



Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 Morse	A	kg
531 305	111 653 120	40	3	38	0,86
531 407	111 653 121		4	61	1,21
533 307	111 653 450	50	3	16	2,25
533 409	111 653 451		4	22	2,08
533 500	111 653 452		5	51	2,00

 Typical order: 0642 116 533 500 or 1653-50-5

Type 1655**DIN 2080****TAPERADAPTERS**

for tools with Morse taper shank

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом Морзе

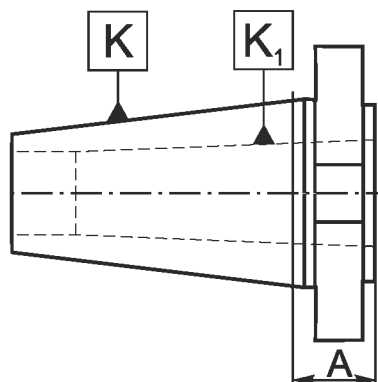


Fig. 1

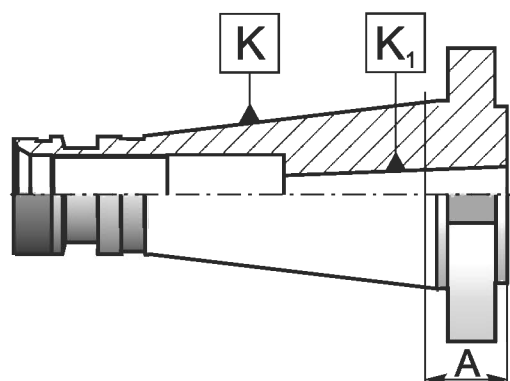


Fig. 2

Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 Morse	A	fig	kg
550 209	111 655 001	30	2	18	1	0,57
550 300	111 655 002		3	72	1	0,46
555 101	111 655 160	40	1	14	2	0,62
555 203	111 655 161		2	14	1	0,59
555 305	111 655 162		3	14	1	0,52
555 407	111 655 163		4	43	1	0,57
555 509	111 655 164		4	67	1	0,85
556 102	111 655 490	50	1	17	2	2,70
556 204	111 655 491		2	21	1	2,52
556 306	111 655 492		3	21	1	2,40
556 408	111 655 493		4	21	1	2,15
556 500	111 655 494		5	65	1	2,65



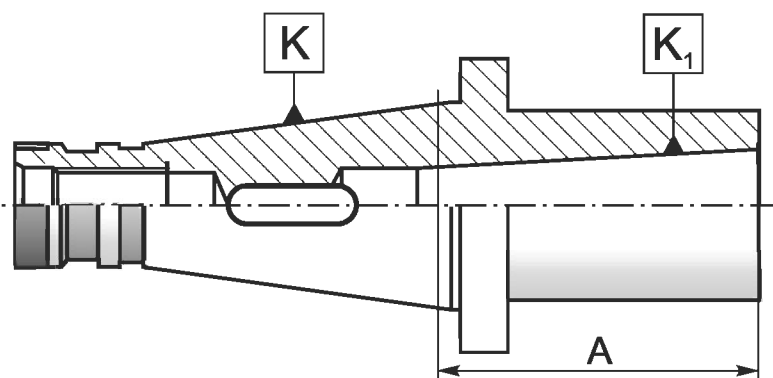
Typical order: 0642 116 556 500 or 1655-50-5-65

Type 1657**DIN 2080****REDUCINGADAPTERS**

for tools with Morse taper and tang DIN 228-B shank

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом Морзе и лапкой по DIN 228-B



Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 Morse	A	kg
570 103	111 657 001	30	1	50	0,43
570 205	111 657 002		2	57	0,48
570 307	111 657 003		3	72	0,60
577 100	111 657 128	40	1	50	0,85
577 201	111 657 129		2	50	0,90
577 303	111 657 130		3	65	1,00
577 405	111 657 131		4	95	1,40
571 002	111 657 124		5	170	3,20
571 206	111 657 450	50	2	23	2,70
571 308	111 657 451		3	33	2,70
571 400	111 657 452		4	53	2,80
571 501	111 657 453		5	86	3,00



Typical order: 0642 116 571 501 or 1657-50-5-86

Type 1676**DIN 2080****REDUCING ADAPTERS**

for tools with Morse taper shank and drawbar thread
DIN 228-A

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом Морзе и резьбовым отверстием по DIN 228-A

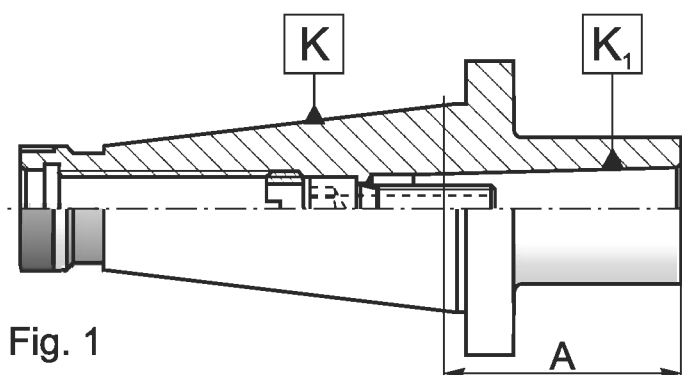


Fig. 1

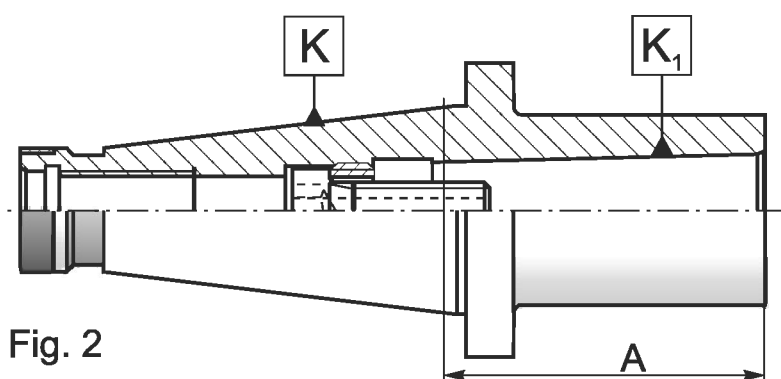


Fig. 2

Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 Morse	A	fig	kg	
761 100	111 676 001	30	1	50	1	0,45	U-2369/0
761 202	111 676 002		2	50	2	0,48	W-1092/0
761 304	111 676 003		3	78	2	0,68	U-7790/0
760 100	111 676 120	40	1	50	1	0,90	W-1091/0
760 201	111 676 121		2	50	1	0,90	W-1092/0
760 303	111 676 122		3	65	2	1,10	W-1093/0
760 405	111 676 123		4	95	2	1,50	W-1094/0
760 507	111 676 450	50	1	45	1	3,00	W-1091/0
760 609	111 676 451		2	45	1	3,00	W-1095/0
760 700	111 676 452		3	60	1	3,20	W-1096/0
760 802	111 676 453		4	65	1	3,40	W-1097/0
760 904	111 676 454		5	120	2	3,60	W-1098/0



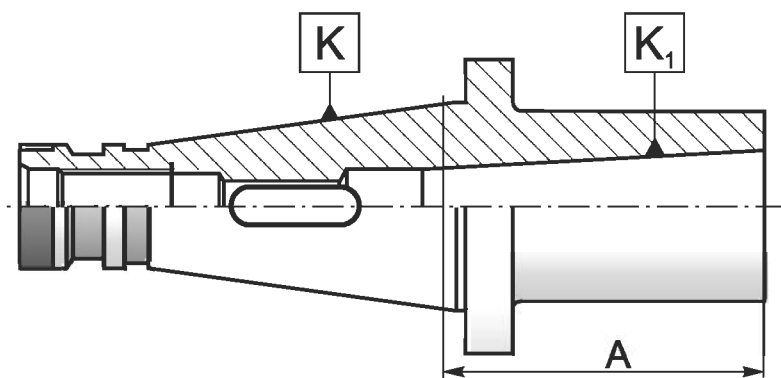
Typical order: 0642 116 760 904 or 1676-50-5-120

Type 1679**DIN 2080****REDUCING ADAPTERS**

for tools with Morse taper and tang DIN 228-B shank or for tools
with Morse taper shank and drawbar thread DIN 228-A

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом Морзе и лапкой по DIN 228-B
или с конусом Морзе и резьбовым отверстием по DIN 228-A



Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 Morse	A	kg
794 915	111 679 020	30	1	50	0,35
794 928	111 679 021		2*	50	0,40
794 930	111 679 022		3*	72	0,60
795 109	111 679 170	40	1	50	0,90
791 105	111 679 120		1	92	1,10
795 200	111 679 171		2	50	0,90
791 207	111 679 121		2	109	1,25
795 302	111 679 172		3*	65	1,00
791 309	111 679 122		3*	129	1,50
795 404	111 679 173		4*	95	1,50
791 400	111 679 123		4*	152	2,25
796 100	111 679 490	50	1	45	3,00
792 106	111 679 450		1	96	3,30
796 201	111 679 491		2	60	3,00
792 208	111 679 451		2	113	3,30
796 303	111 679 492		3	65	3,20
792 300	111 679 452		3	133	3,45
796 405	111 679 493		4	70	3,20
792 401	111 679 453		4	163	3,70
796 507	111 679 494		5*	105	3,20
792 503	111 679 454		5*	193	3,70

*only for tools with Morse taper and tang DIN 228-B shank
только для инструмента с конусом Морзе и лапкой по DIN 228-B



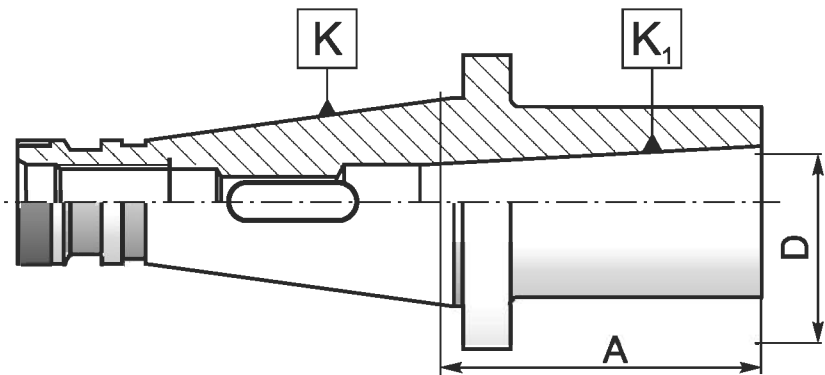
Typical order: 0642 116 792 503 or 1679-50-5-193

Type 1679**DIN 2080****QUICK CHANGE****REDUCING ADAPTERS**

for tools with Morse taper and tang DIN 228-B shank or for tools with Morse taper shank and drawbar thread DIN 228-A

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом Морзе и лапкой по DIN 228-B или с конусом Морзе и резьбовым отверстием по DIN 228-A



Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 Morse	A	D	kg
798 114	111 679 040	30	1	50	25	0,35
798 127	111 679 041		2*	50	32	0,40
798 130	111 679 042		3*	72	40	0,60
798 216	111 679 200	40	1	50	25	0,90
798 229	111 679 201		1	92	25	1,10
798 318	111 679 202		2	50	32	0,90
798 320	111 679 203		2	109	32	1,25
798 410	111 679 204		3*	65	40	1,00
798 422	111 679 205		3*	129	40	1,50
798 511	111 679 206		4*	95	48	1,50
798 524	111 679 207		4*	160	48	2,25

 Typical order: 0642 116 798 524 or 1679-40-4-160QC

*only for tools with Morse taper and tang DIN 228-B shank

только для инструмента с конусом Морзе и лапкой по DIN 228-B

Type 1699**DIN 2080****TAPER ADAPTERS**

for tools with 7:24 taper shank

ВТУЛКИ ПЕРЕХОДНЫЕ

для инструмента с конусом 7:24

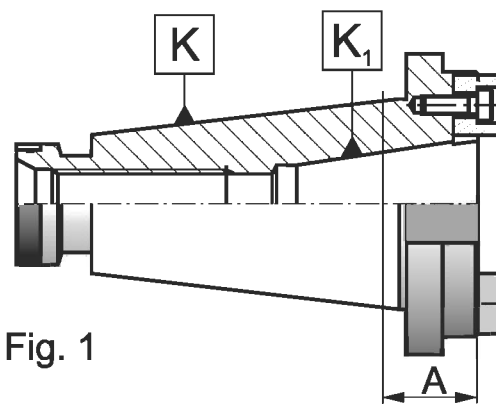


Fig. 1

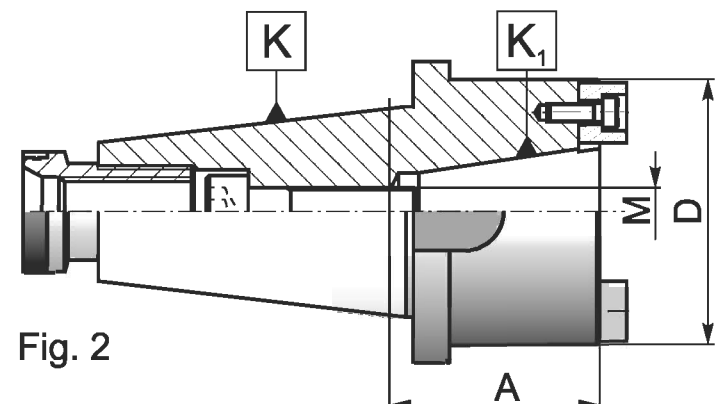
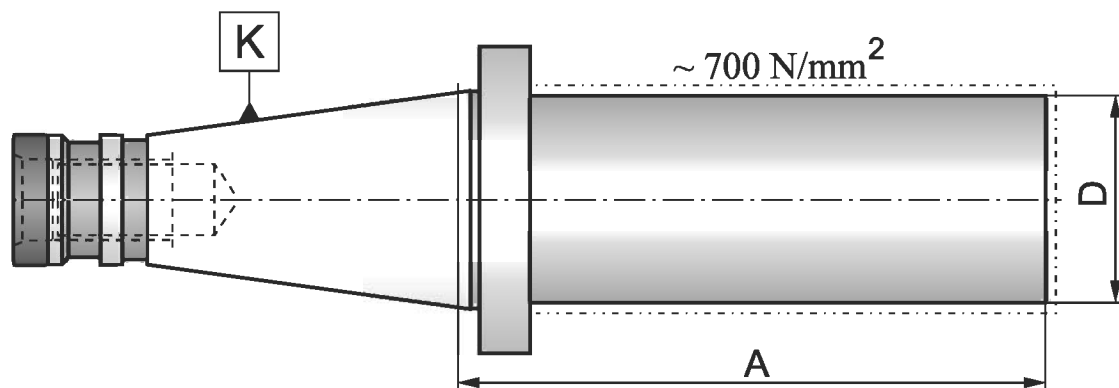


Fig. 2

Code No. 0642 116...	PKWiU 29 402 133...	K 7:24	K1 7:24	A	Fig.	D	M	kg	
991 100	111 699 450	50	40	27	1	88	M16	2,20	U-6227/0
991 507	111 699 455		40	65	2	88	M16	2,70	U-6227/0

 Typical order: 0642 116 991 507 or 1699-50-40-65

Type 2190**DIN 2080**

Code No. 0642 121...	PKWiU 29 402 133...	K 7:24	D	A	kg
900 200	212 190 013	40	40	280	3,70
900 302	212 190 025		63	280	7,70
901 201	212 190 210	50	50	330	6,60
901 303	212 190 240		80	330	15,60

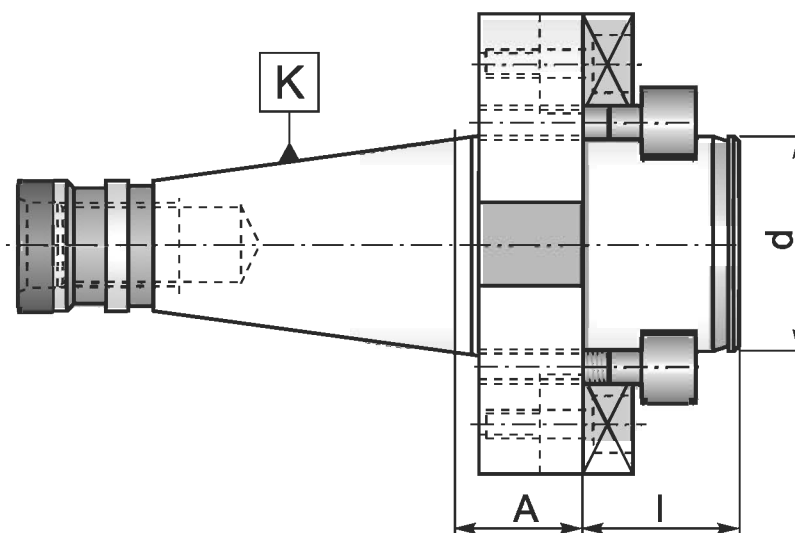
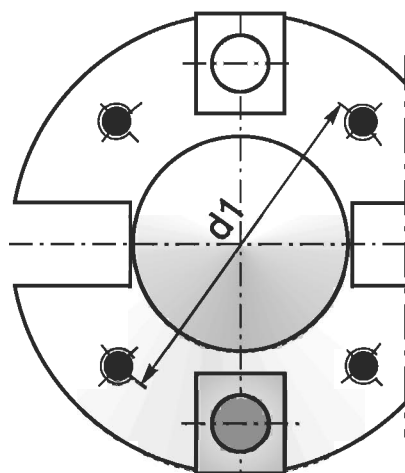
 Typical order: 0642 121 901 303 or 2190-50-80-330

Type 2824**DIN 2080****ADAPTERS**

for indexable milling cutters

TRZPIENIE FREZARSKIE

do giowic frezarskich

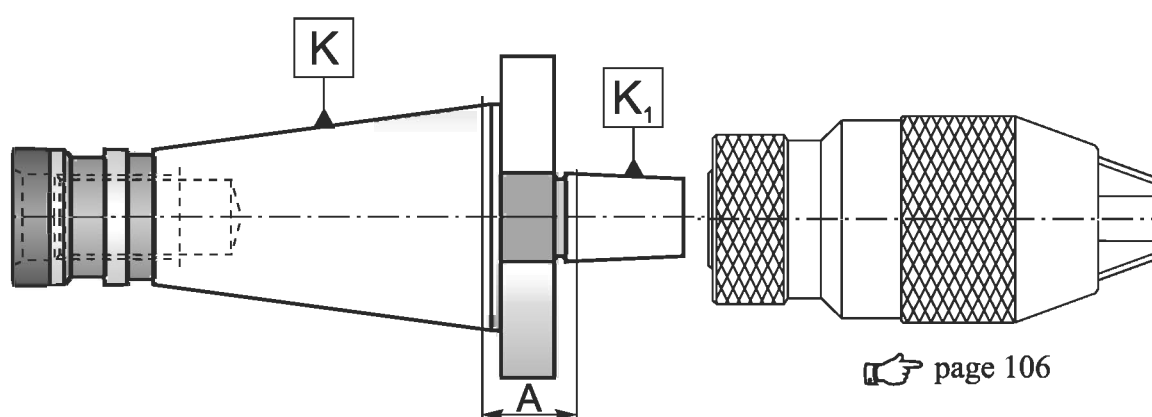


Code No.	PKWiU	K	d	d1	A	l	kg		
0642 128...	29 402 133...	7:24							
240 105	232 824 085	40	40	66	30	30	1,30	U-6064/0	U-1414/0
240 207	232 824 089		50	101	30	40	1,50	U-6065/0	U-2042/0
240 309	232 824 093		60	101	30	40	2,00	U-6066/0	U-2042/0
240 400	232 824 135	50	40	66	30	30	2,80	U-6064/0	U-1414/0
240 502	232 824 139		50	101	30	40	3,00	U-6065/0	U-2042/0
240 604	232 824 143		60	101	30	40	4,50	U-6066/0	U-2042/0

 Typical order: 0642 128 240 604 or 2824-50-60

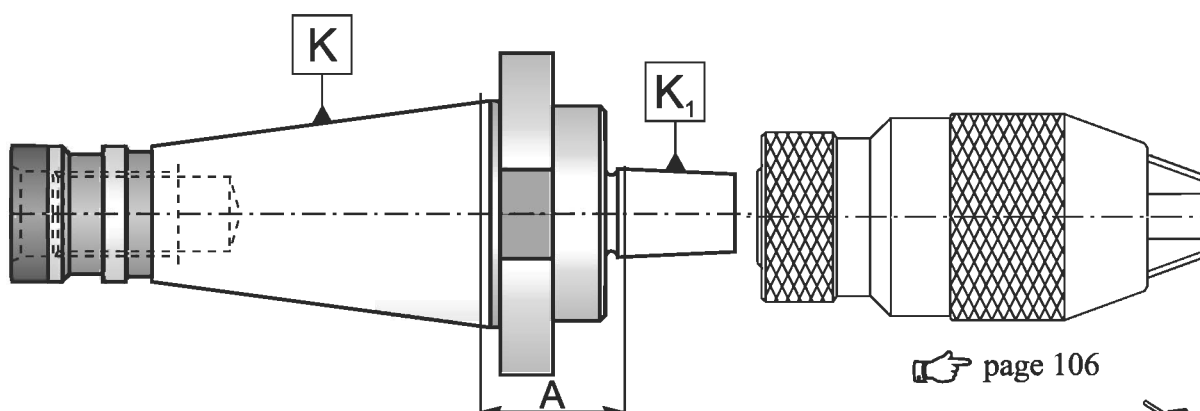
Type 5370**DIN 2080****DRILL CHUCK ADAPTERS**

for drill chucks taper DIN 238

TRZPIENIEdo uchwytów wiertarskich
ze stołkiem DIN 238

Code No.	PKWiU	K	K1	A	kg
0642 153...	29 402 133...	7:24	DIN		
700 103	265 370 421	30	B10	15	0,60
700 205	265 370 422		B12	15	0,60
700 307	265 370 423		B16	15	0,60
700 409	265 370 424		B18	15	0,60
700 500	265 370 425		B22	15	0,60
701 206	265 370 482	40	B12	17	1,00
701 100	265 370 495		B12	90	1,90
701 308	265 370 483		B16	17	1,00
701 201	265 370 496		B16	90	1,90
701 400	265 370 484		B18	17	1,00
701 303	265 370 497	50	B18	90	1,90
701 501	265 370 485		B22	17	1,00
701 603	265 370 486		B24	17	1,00
702 309	265 370 573		B16	20	2,70
706 109	265 370 586		B16	90	3,90
702 400	265 370 574	30	B18	20	2,70
706 200	265 370 587		B18	90	3,90
702 502	265 370 575		B22	20	2,70
702 604	265 370 576		B24	20	2,70
540 000	265 354 420	30	J0	12	0,60
540 101	265 354 421		J1	12	0,60
540 305	265 354 423		J2	12	0,60
540 702	265 354 427		J3	12	0,60
540 407	265 354 424		J33	12	0,60
540 509	265 354 425	40	J6	12	0,60
541 306	265 354 483		J2	14	1,00
541 703	265 354 487		J3	14	1,00
541 408	265 354 484		J33	14	1,00
541 500	265 354 485		J6	14	1,00
542 704	265 354 577	50	J3	18	2,60
542 409	265 354 574		J33	18	2,60
542 908	265 354 579		J4	18	2,60
543 002	265 354 580		J5	18	2,60
542 500	265 354 575		J6	18	2,60

 Typical order: 0642 153 702 604 or 5370-50-B24-20

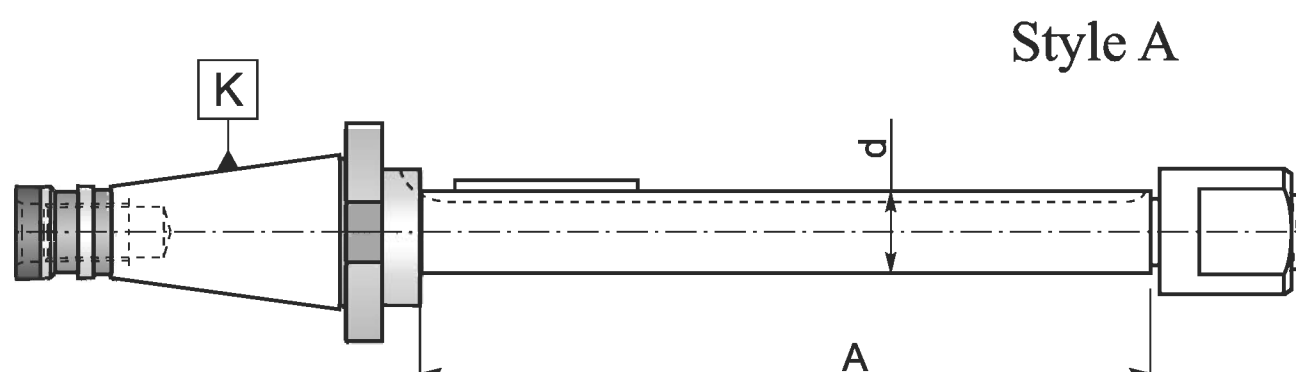
Type 5370**DIN 2080****QUICK CHANGE**

Code No.	PKWiU	K	K1	A	kg
0642 153...	29 402 133...	7:24	Jacobs		
549 446	265 354 431	30	J33	21	0,60
549 459	265 354 432		J6	21	0,60
549 548	265 354 491	40	J33	23	1,00
549 550	265 354 492		J6	23	1,00

 Typical order: 0642 153 549 550 or 5370-40-J6-11 QC

Type 7175

DIN 2080



Code No. 0642 171...	PKWiU 29 407 133...	K 7:24	d	A	kg		
750 306	317 175 004	30	16	200	1,12	4x4x45	M16x1,5
750 408	317 175 005		16	250	1,21	4x4x45	M16x1,5
750 500	317 175 006		16	315	1,33	4x4x45	M16x1,5
750 907	317 175 016		22	200	1,32	6x6x50	M20x2
751 001	317 175 017		22	250	1,45	6x6x50	M20x2
751 103	317 175 018		22	315	1,65	6x6x50	M20x2
751 205	317 175 019		22	400	1,92	6x6x50	M20x2
751 602	317 175 028		27	200	1,60	7x7x50	M24x2
751 704	317 175 029		27	250	1,82	7x7x50	M24x2
751 806	317 175 030		27	315	2,10	7x7x50	M24x2
751 908	317 175 031		27	400	2,50	7x7x50	M24x2
752 308	317 175 103	40	16	200	1,20	4x4x45	M16x1,5
752 400	317 175 104		16	250	1,39	4x4x45	M16x1,5
752 501	317 175 105		16	315	1,60	4x4x45	M16x1,5
752 603	317 175 106		16	400	1,85	4x4x45	M16x1,5
753 003	317 175 115		22	200	1,40	6x6x50	M20x2
753 105	317 175 116		22	250	1,61	6x6x50	M20x2
753 207	317 175 117		22	315	1,81	6x6x50	M20x2
753 309	317 175 118		22	400	2,01	6x6x50	M20x2
753 400	317 175 119		22	500	2,31	6x6x50	M20x2
753 808	317 175 127		27	200	1,60	7x7x50	M24x2
753 900	317 175 128		27	250	1,93	7x7x50	M24x2
754 004	317 175 129		27	315	2,30	7x7x50	M24x2
754 106	317 175 130		27	400	2,70	7x7x50	M24x2
754 208	317 175 131		27	500	3,20	7x7x50	M24x2
754 300	317 175 132		27	630	4,10	7x7x50	M24x2
754 605	317 175 138		32	160	2,57	8x7x63	M27x2
754 809	317 175 140		32	250	2,93	8x7x63	M27x2
754 900	317 175 141		32	315	3,10	8x7x63	M27x2
755 005	317 175 142		32	400	3,60	8x7x63	M27x2
755 107	317 175 143		32	500	4,70	8x7x63	M27x2
755 209	317 175 144		32	630	5,15	8x7x63	M27x2
755 708	317 175 153		40	315	4,73	10x8x63	M33x2
755 800	317 175 154		40	400	5,55	10x8x63	M33x2
755 901	317 175 155		40	500	6,10	10x8x63	M33x2
756 006	317 175 156		40	630	7,78	10x8x63	M33x2
760 508	317 175 303	50	22	200	4,08	6x6x50	M20x2
760 600	317 175 304		22	250	4,22	6x6x50	M20x2
760 701	317 175 305		22	315	4,43	6x6x50	M20x2
760 803	317 175 306		22	400	4,67	6x6x50	M20x2
760 905	317 175 307		22	500	4,98	6x6x50	M20x2
761 000	317 175 308		22	630	5,60	6x6x50	M20x2
761 600	317 175 317		27	315	4,92	7x7x50	M24x2
761 702	317 175 318		27	400	5,30	7x7x50	M24x2
761 804	317 175 319		27	500	5,75	7x7x50	M24x2

Type 7175

DIN 2080

Code No. 0642 171...	PKWiU 29 407 133...	K 7:24	d	A	kg		
761 906	317 175 320	50	27	630	6,34	7x7x50	M24x2
762 000	317 175 321		27	800	7,405	7x7x50	M24x2
762 601	317 175 329		32	315	4,40	8x7x63	M27x2
762 703	317 175 330		32	400	4,90	8x7x63	M27x2
762 805	317 175 331		32	500	5,60	8x7x63	M27x2
762 907	317 175 332		32	630	6,70	8x7x63	M27x2
763 001	317 175 333		32	800	7,40	8x7x63	M27x2
763 103	317 175 334		32	900	9,30	8x7x63	M27x2
763 205	317 175 335		32	1000	11,40	8x7x63	M27x2
763 806	317 175 342		40	400	6,06	10x8x63	M33x3
763 908	317 175 343		40	500	7,10	10x8x63	M33x3
764 002	317 175 344		40	630	9,10	10x8x63	M33x3
764 104	317 175 348		40	800	10,20	10x8x63	M33x3
764 206	317 175 349		40	900	13,10	10x8x63	M33x3
764 308	317 175 350		40	1000	14,50	10x8x63	M33x3
764 400	317 175 357		50	400	10,60	12x8x80	M39x3
764 501	317 175 358		50	500	11,50	12x8x80	M39x3
764 603	317 175 359		50	630	13,20	12x8x80	M39x3
764 705	317 175 360		50	800	16,20	12x8x80	M39x3
764 807	317 175 361		50	900	17,60	12x8x80	M39x3
764 909	317 175 362		50	1000	19,90	12x8x80	M39x3
765 207	317 175 371	60	630	18,05	14x9x80	M45x3	
765 309	317 175 372		800	20,90	14x9x80	M45x3	
765 400	317 175 373		900	23,00	14x9x80	M45x3	
765 502	317 175 374		1000	25,86	14x9x80	M45x3	

 Typical order: 0642 171 753 003 or 7175-40/22/200

Type 7178

DIN 2080

Style B



Code No. 0642 171...	PKWiU 29 407 133...	K 7:24	d	A	Pierścienie * b rings										
					1	2	3	6	10	20	30	60	100		
					Liczba szt na 1 trzpieć * Nombre of pcs 1 arbor										
780 300	317 178 004	30	16	200	2	3	4	2	4	2	3	-	-	1,60	
780 402	317 178 005		16	250	2	3	4	2	4	3	4	-	-	1,70	
780 504	317 178 006		16	315	1	4	2	2	4	5	5	-	-	1,86	
780 901	317 178 016		22	200	1	3	1	2	2	2	2	1	-	1,77	
781 006	317 178 017		22	250	1	3	1	2	1	2	2	2	-	1,91	
781 108	317 178 018		22	315	1	4	2	2	2	3	3	2	-	2,10	
781 200	317 178 019		22	400	1	3	1	2	3	4	3	3	-	2,40	
781 607	317 178 028		27	200	1	3	1	2	2	2	2	1	-	2,10	
781 709	317 178 029		27	250	1	3	1	2	1	2	2	2	-	2,30	
781 800	317 178 030		27	315	1	4	2	2	2	3	3	2	-	2,62	
781 902	317 178 031		27	400	1	3	1	2	1	3	3	2	1	3,04	



Type 7178

DIN 2080



Code No. 0642 171...	PKWiU 29 407 133...	K 7:24	d	A	1 Liczba szt	2 na 1	3 trzonek	6 * b rings	10 * Numbre	20 of pcs	30 1	60 arbor	100	 kg
782 302	317 178 103	40	16	200	2	3	4	2	4	2	3	-	-	2,20
782 404	317 178 104		16	250	2	3	4	2	4	3	4	-	-	2,30
782 506	317 178 105		16	315	1	4	2	2	4	5	5	-	-	2,50
782 608	317 178 106		16	400	1	5	3	2	4	6	7	-	-	3,05
783 008	317 178 115		22	200	1	3	1	2	2	2	2	1	-	2,40
783 100	317 178 116		22	250	1	3	1	2	1	2	2	2	-	2,59
783 201	317 178 117		22	315	1	4	2	2	2	3	3	2	-	2,79
783 303	317 178 118		22	400	1	3	1	2	3	4	3	3	-	3,34
783 405	317 178 119		22	500	2	3	2	3	3	4	4	4	-	4,27
783 802	317 178 127		27	200	1	3	1	2	2	2	2	1	-	3,10
783 904	317 178 128		27	250	1	3	1	2	1	2	2	2	-	3,38
784 009	317 178 129		27	315	1	4	2	2	2	3	3	2	-	4,20
784 100	317 178 130		27	400	1	3	1	2	1	3	3	2	1	4,80
784 202	317 178 131		27	500	2	3	2	3	2	2	3	2	2	5,86
784 304	317 178 132		27	630	2	3	2	3	2	2	2	3	3	7,10
784 600	317 178 138		32	160	2	3	4	2	3	2	2	-	-	5,10
784 803	317 178 140		32	250	1	3	1	2	1	2	2	2	-	5,62
784 905	317 178 141		32	315	1	4	2	2	2	3	3	2	-	6,10
785 000	317 178 142		32	400	1	3	1	2	1	3	3	2	1	6,60
785 101	317 178 143		32	500	2	3	2	3	2	2	3	2	2	8,20
785 203	317 178 144		32	630	2	3	2	3	2	2	2	3	3	9,16
785 702	317 178 153		40	315	1	4	2	2	2	3	3	2	-	7,63
785 804	317 178 154		40	400	1	3	1	2	1	3	3	2	1	8,70
785 906	317 178 155		40	500	2	3	2	3	2	2	3	2	2	10,30
786 000	317 178 156		40	630	2	3	2	3	2	2	2	3	3	12,09
790 502	317 178 303		50	22	200	1	3	1	2	2	2	2	1	-
790 604	317 178 304	22		250	1	3	1	2	1	2	2	2	-	6,10
790 706	317 178 305	22		315	1	4	2	2	2	3	3	2	-	6,70
790 808	317 178 306	22		400	1	3	1	2	3	4	3	3	-	7,03
790 900	317 178 307	22		500	2	3	2	3	3	4	4	4	-	7,95
791 004	317 178 308	22		630	2	3	2	3	5	5	5	5	-	8,82
791 605	317 178 317	27		315	1	4	2	2	2	3	3	2	-	6,90
791 707	317 178 318	27		400	1	3	1	2	1	3	3	2	1	7,20
791 809	317 178 319	27		500	2	3	2	3	2	2	3	2	2	8,54
791 900	317 178 320	27		630	2	3	2	3	2	2	2	3	3	10,00
792 005	317 178 321	27		800	4	4	4	3	4	3	4	4	3	12,10
792 606	317 178 329	32		315	1	4	2	2	2	3	3	2	-	7,30
792 708	317 178 330	32		400	1	3	1	2	1	3	3	2	1	8,10
792 800	317 178 331	32		500	2	3	2	3	2	2	3	2	2	9,60
792 901	317 178 332	32		630	2	3	2	3	2	2	2	3	3	11,11
793 006	317 178 333	32		800	4	4	4	3	4	3	4	4	3	13,31
793 108	317 178 334	32		900	4	4	4	3	4	3	4	4	4	21,42
793 200	317 178 335	32		1000	4	4	4	3	4	3	4	4	5	23,80
793 800	317 178 342	40		400	1	3	1	2	1	3	3	2	1	10,60
793 902	317 178 343	40		500	2	3	2	3	2	2	3	2	2	11,93
794 007	317 178 344	40		630	2	3	2	3	2	2	2	3	3	14,31
794 109	317 178 345	40		800	4	4	4	3	4	3	4	4	3	17,29
794 200	317 178 346	40		900	4	4	4	3	4	3	4	4	4	19,86
794 302	317 178 347	40		1000	4	4	4	3	4	3	4	4	5	21,75
794 404	317 178 354	50		400	1	3	1	2	1	3	3	2	1	16,12
794 506	317 178 355	50		500	2	3	2	3	2	2	3	2	2	18,06
794 608	317 178 356	50		630	2	3	2	3	2	2	2	3	3	21,69
794 700	317 178 357	50		800	4	4	4	3	4	3	4	4	3	26,50
794 801	317 178 358	50		900	4	4	4	3	4	3	4	4	4	27,91
794 903	317 178 359	50		1000	4	4	4	3	4	3	4	4	5	29,30
795 201	317 178 368	60		630	2	3	2	3	2	2	2	3	3	30,21
795 303	317 178 369	60		800	4	4	4	3	4	3	4	4	3	39,28
795 405	317 178 370	60		900	4	4	4	3	4	3	4	4	4	43,50
795 507	317 178 371	60		1000	4	4	4	3	4	3	4	4	5	47,75



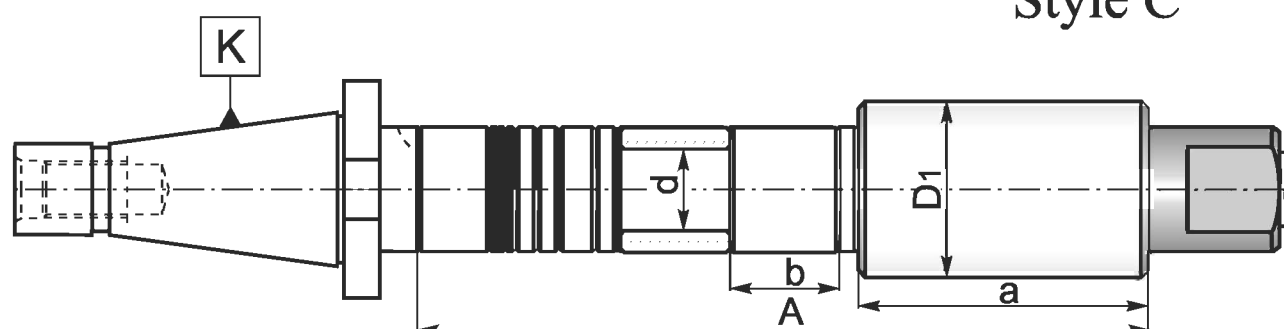
Typical order: 0642 171 783 008 or 7178 -40-22-200



Type 7181

DIN 2080

Style C



Code No. 0642 171...	PKWiU 29 407 133...	K 7:24	d	A	Pięćścienie * b rings											Bushing Tuleja walcowa dxD1xa
					1 Liczba szt	2 na 1	3 trzpiec	6 *	10 Numbre of	20 pcs	30 1	60 arbor	100			
810 005	317 181 001	30	16	200	1	3	3	1	2	2	2	-	-	1,60	16x42x60	
810 107	317 181 002		16	250	1	3	3	1	4	2	3	-	-	1,70	16x42x60	
810 209	317 181 003		16	315	3	3	4	1	5	3	4	-	-	1,86	16x42x60	
810 300	317 181 010		22	200	1	3	3	1	2	2	2	-	-	2,16	22x42x60	
810 402	317 181 011		22	250	1	3	3	1	1	2	2	1	-	2,61	22x42x60	
810 504	317 181 012		22	315	1	4	2	2	2	3	3	1	-	2,73	22x42x60	
810 606	317 181 013		22	400	1	3	3	1	2	3	2	3	-	3,19	22x42x60	
810 708	317 181 019		27	200	1	1	1	1	2	2	2	-	-	2,84	27x48x70	
810 800	317 181 020		27	250	1	1	1	1	1	2	2	1	-	3,21	27x48x70	
810 901	317 181 021		27	315	1	2	2	1	2	3	3	1	-	3,84	27x48x70	
811 006	317 181 022		27	400	1	1	1	1	2	1	2	2	1	4,72	27x48x70	
811 108	317 181 100	40	16	200	2	1	2	2	2	1	2	-	-	3,96	16x56x80	
811 200	317 181 101		16	250	1	3	3	1	4	1	3	-	-	4,37	16x56x80	
811 301	317 181 102		16	315	3	3	4	1	5	2	4	-	-	4,60	16x56x80	
811 403	317 181 103		16	400	2	3	4	2	5	3	6	-	-	5,12	16x56x80	
811 505	317 181 109		22	200	1	3	3	1	2	1	2	-	-	4,03	22x56x80	
811 607	317 181 110		22	250	1	3	3	1	1	1	2	1	-	4,29	22x56x80	
811 709	317 181 111		22	315	1	4	2	2	2	2	3	1	-	4,49	22x56x80	
811 800	317 181 112		22	400	1	3	3	1	2	2	2	3	-	5,20	22x56x80	
811 902	317 181 113		22	500	1	3	3	1	3	2	3	4	-	5,74	22x56x80	
812 007	317 181 119		27	250	1	3	3	1	2	2	1	1	-	4,72	27x56x80	
812 109	317 181 120		27	315	2	2	3	2	1	1	2	2	-	5,37	27x56x80	
812 200	317 181 121		27	400	2	1	2	2	2	3	2	1	1	6,15	27x56x80	
812 302	317 181 122		27	500	2	1	2	2	2	3	2	1	2	7,21	27x56x80	
812 404	317 181 123		27	630	2	3	4	2	2	3	2	3	2	8,10	27x56x80	
812 506	317 181 128		32	250	1	3	3	1	2	2	1	1	-	6,11	32x56x80	
812 608	317 181 129		32	315	2	2	3	2	1	1	2	2	-	6,90	32x56x80	
812 700	317 181 130		32	400	2	1	2	2	2	3	2	1	1	7,53	32x56x80	
812 801	317 181 131		32	500	2	1	2	2	2	3	2	1	2	9,13	32x56x80	
812 903	317 181 132		32	630	2	3	4	2	2	3	2	3	2	10,24	32x56x80	
813 008	317 181 138		40	315	2	2	3	2	1	1	2	2	-	8,01	40x56x80	
813 100	317 181 139		40	400	2	1	2	2	2	3	2	1	1	9,16	40x56x80	
813 201	317 181 140		40	500	2	1	2	2	2	3	2	1	2	10,03	40x56x80	
813 303	317 181 141		40	630	2	3	4	2	2	3	2	3	2	11,80	40x56x80	
815 702	317 181 300	50	22	200	1	3	1	2	1	2	1	-	-	5,20	22x70x100	
815 804	317 181 301		22	250	1	3	1	2	1	3	2	-	-	6,30	22x70x100	
815 906	317 181 302		22	315	1	4	2	2	1	3	2	1	-	6,90	22x70x100	
816 000	317 181 303		22	400	1	3	1	2	1	3	1	3	-	7,14	22x70x100	
816 102	317 181 304		22	500	2	3	4	2	4	3	3	3	-	8,02	22x70x100	
816 204	317 181 305		22	630	2	3	4	2	4	2	4	5	-	9,10	22x70x100	
816 306	317 181 311		27	315	2	2	3	2	2	1	1	2	-	7,83	27x70x100	
816 408	317 181 312		27	400	2	1	2	2	4	3	2	2	-	8,28	27x70x100	
816 500	317 181 313		27	500	2	1	2	2	3	4	3	3	-	9,43	27x70x100	
816 601	317 181 314		27	630	2	3	4	2	2	2	2	3	2	10,51	27x70x100	
816 703	317 181 315		27	800	2	1	2	2	3	3	3	5	2	13,22	27x70x100	

Type 7181

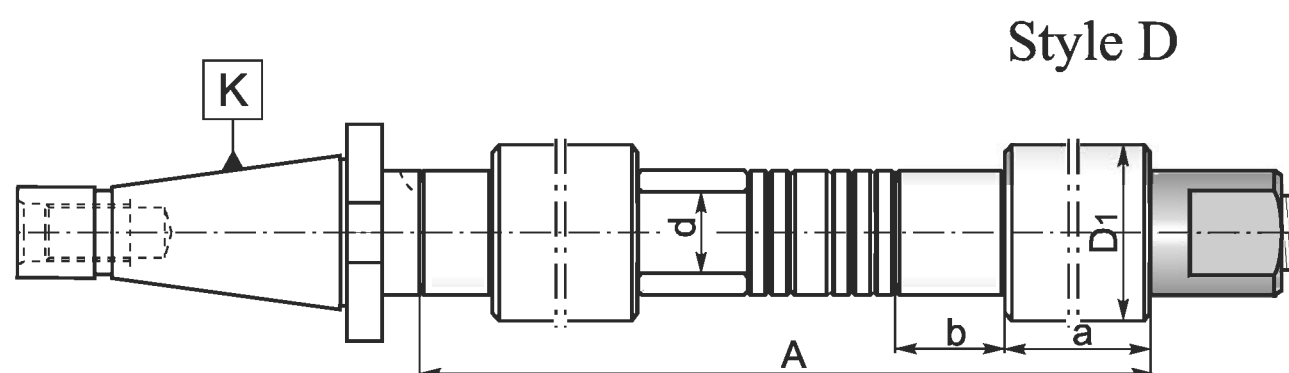
DIN 2080

Code No. 0642 171...	PKWiU 29 407 133...	K 7:24	d	A	Pierścienie * b rings											Bushing Tuleja walcowa dxD1xa
					1 Liczba szt	2 na 1	3 trzpiec	6 *	10 Numbre	20 of pcs	30 1	60 arbor	100			
816 805	317 181 320	50	32	315	2	2	3	2	2	1	1	2	-	8,31	32x70x100	
816 907	317 181 321		32	400	2	1	2	2	4	3	2	2	-	8,92	32x70x100	
817 001	317 181 322		32	500	2	1	2	2	3	4	3	3	-	10,58	32x70x100	
817 103	317 181 323		32	630	2	3	4	2	2	2	2	3	2	11,44	32x70x100	
817 205	317 181 325		32	800	2	1	2	2	3	3	3	5	2	14,32	32x70x100	
817 307	317 181 326		32	900	2	1	2	2	3	3	3	5	3	22,53	32x70x100	
817 409	317 181 327		32	1000	2	1	2	2	3	3	3	5	4	25,04	32x70x100	
817 500	317 181 330		40	400	2	1	2	2	4	2	2	2	-	10,66	40x85x120	
817 602	317 181 331		40	500	2	1	2	2	3	3	3	3	-	12,30	40x85x120	
817 704	317 181 332		40	630	2	3	4	2	-	2	2	3	2	14,68	40x85x120	
817 806	317 181 335		40	800	2	1	2	2	3	2	3	5	2	17,68	40x85x120	
817 908	317 181 336		40	900	2	1	2	2	3	2	3	5	3	20,40	40x85x120	
818 002	317 181 337		40	1000	2	1	2	2	3	2	3	5	4	22,19	40x85x120	
818 104	317 181 339		50	400	2	1	2	2	4	2	2	2	-	19,42	50x85x120	
818 206	317 181 340		50	500	2	1	2	2	3	3	3	3	-	21,30	50x85x120	
818 308	317 181 341		50	630	2	3	4	2	2	1	2	3	2	23,41	50x85x120	
818 400	317 181 342		50	800	2	1	2	2	3	2	3	5	2	28,28	50x85x120	
818 501	317 181 343		50	900	2	1	2	2	3	2	3	5	3	29,78	50x85x120	
818 603	317 181 344		50	1000	2	1	2	2	3	2	3	5	4	31,04	50x85x120	
818 909	317 181 350		60	630	2	3	2	3	2	3	2	2	2	26,40	60x110x120	
819 003	317 181 351		60	800	4	4	4	3	3	3	3	4	2	28,10	60x110x120	
819 105	317 181 352		60	900	4	4	4	3	3	3	3	4	3	31,03	60x110x120	
819 207	317 181 353		60	1000	4	4	4	3	3	3	3	4	4	33,12	60x110x120	

 Typical order: 0642 171 811 505 or 7181-40-22-200

Type 7184

DIN 2080



Code No. 0642 171...	PKWiU 29 407 133...	K 7:24	d	A	Pierścienie * b rings											Bushing Tuleja walcowa dxD1xa
					1	2	3	6	10	20	30	60	100			
					Liczba szt na 1 trzpiec * Numbre of pcs 1 arbor											
840 000	317 184 001	30	16	315	2	2	2	2	2	3	3	-	-	2,43	16x42x60	
840 101	317 184 008		22	315	2	2	2	2	2	3	3	-	-	2,86	22x42x60	
840 203	317 184 009		22	400	2	1	3	1	3	4	3	1	-	3,31	22x42x60	
840 305	317 184 015		27	315	2	2	1	3	2	2	3	-	-	4,02	27x48x70	
840 407	317 184 016		27	400	2	1	2	2	3	3	3	1	-	4,93	27x48x70	
840 509	317 184 100	40	16	315	2	2	1	3	3	3	2	-	-	4,71	16x48x70	
840 600	317 184 101		16	400	2	3	2	3	3	4	4	-	-	5,29	16x48x70	
840 702	317 184 107		22	315	2	2	1	3	1	3	2	-	-	4,50	22x56x80	
840 804	317 184 108		22	400	2	1	2	2	2	4	2	1	-	5,30	22x56x80	
840 906	317 184 110		22	500	2	1	2	2	2	3	2	3	-	5,96	22x56x80	
841 000	317 184 114		27	315	2	2	1	3	3	2	2	-	-	5,49	27x56x80	
841 102	317 184 115		27	400	2	1	2	2	4	3	2	1	-	6,80	27x56x80	
841 204	317 184 116		27	500	2	3	2	3	4	3	3	2	-	8,21	27x56x80	
841 306	317 184 118		27	630	4	4	4	3	2	2	3	3	1	9,12	27x56x80	



Type 7184

DIN 2080

Code No. 0642 171...	PKWiU 29 407 133...	K 7:24	d	A	Pierścienie * b rings											Bushing Tuleja walcowa dxDlxa
					1 Liczba	2 szt	3 na 1	6 trzpiec	10 *	20 Numbre	30 of pcs	60 1	100 arbor			
841 408	317 184 121	40	32	315	2	2	1	3	3	2	2	-	-	7,24	32x56x80	
841 500	317 184 122		32	400	2	1	2	2	4	3	2	1	-	7,86	32x56x80	
841 601	317 184 123		32	500	2	3	2	3	4	3	3	2	-	10,00	32x56x80	
841 703	317 184 124		32	630	4	4	4	3	2	2	3	3	1	11,02	32x56x80	
841 805	317 184 128		40	315	2	2	1	3	2	2	1	-	-	8,60	40x70x100	
841 907	317 184 129		40	400	2	1	2	2	2	2	2	1	-	9,72	40x70x100	
842 001	317 184 130		40	500	2	3	2	3	2	2	3	2	-	11,39	40x70x100	
842 103	317 184 131		40	630	4	4	4	3	2	3	3	2	1	12,46	40x70x100	
844 003	317 184 300	50	22	315	2	2	3	2	2	2	1	-	-	7,08	22x70x100	
844 105	317 184 301		22	400	2	1	2	2	3	3	3	-	-	7,29	22x70x100	
844 207	317 184 302		22	500	2	1	2	2	4	3	2	2	-	8,29	22x70x100	
844 309	317 184 303		22	630	2	1	2	2	4	2	3	4	-	8,90	22x70x100	
844 400	317 184 307		27	315	2	2	3	2	2	2	1	-	-	8,01	27x70x100	
844 502	317 184 308		27	400	2	1	2	2	3	3	3	-	-	8,40	27x70x100	
844 604	317 184 309		27	500	2	1	2	2	4	3	2	2	-	8,92	27x70x100	
844 706	317 184 310		27	630	4	4	4	3	4	2	3	2	1	9,30	27x70x100	
844 808	317 184 311		27	800	4	4	4	3	2	2	4	3	2	10,50	27x70x100	
844 900	317 184 314		32	315	2	2	3	2	2	2	1	-	-	8,50	32x70x100	
845 004	317 184 315		32	400	2	1	2	2	3	3	3	-	-	9,10	32x70x100	
845 106	317 184 316		32	500	2	1	2	2	4	3	2	2	-	10,70	32x70x100	
845 208	317 184 318		32	630	4	4	4	3	4	2	3	2	1	11,60	32x70x100	
845 300	317 184 319		32	800	4	4	4	3	2	2	4	3	2	14,80	32x70x100	
845 401	317 184 320		32	900	4	4	4	3	2	2	4	3	3	22,80	32x70x100	
845 503	317 184 321		32	1000	4	4	4	3	2	2	4	3	4	25,74	32x70x100	
845 605	317 184 323		40	400	2	1	2	2	2	3	2	-	-	11,20	40x85x120	
845 707	317 184 324		40	500	2	1	2	2	3	3	1	2	-	13,46	40x85x120	
845 809	317 184 325		40	630	4	4	4	3	3	2	2	2	1	15,13	40x85x120	
845 900	317 184 326		40	800	4	4	4	3	1	2	3	3	2	18,05	40x85x120	
846 005	317 184 327		40	900	4	4	4	3	1	2	3	3	3	21,07	40x85x120	
846 107	317 184 328		40	1000	4	4	4	3	1	2	3	3	4	22,57	40x85x120	
846 209	317 184 330		50	400	2	1	2	2	2	3	2	-	-	20,42	50x85x120	
846 300	317 184 331		50	500	2	1	2	2	3	3	1	2	-	22,63	50x85x120	
846 402	317 184 332		50	630	4	4	4	3	3	2	2	2	1	25,11	50x85x120	
846 504	317 184 333		50	800	4	4	4	3	1	2	3	3	2	28,71	50x85x120	
846 606	317 184 334		50	900	4	4	4	3	1	2	3	3	3	30,70	50x85x120	
846 708	317 184 335		50	1000	4	4	4	3	1	2	3	3	4	32,26	50x85x120	
847 006	317 184 339		63	630	4	4	4	3	1	1	2	2	1	32,58	63x110x140	
847 108	317 184 340		63	800	4	4	4	3	2	1	2	3	2	34,32	63x110x140	
847 200	317 184 341		63	900	4	4	4	3	2	1	2	3	3	36,24	63x110x140	
847 301	317 184 342		63	1000	4	4	4	3	2	1	2	3	4	38,68	63x110x140	

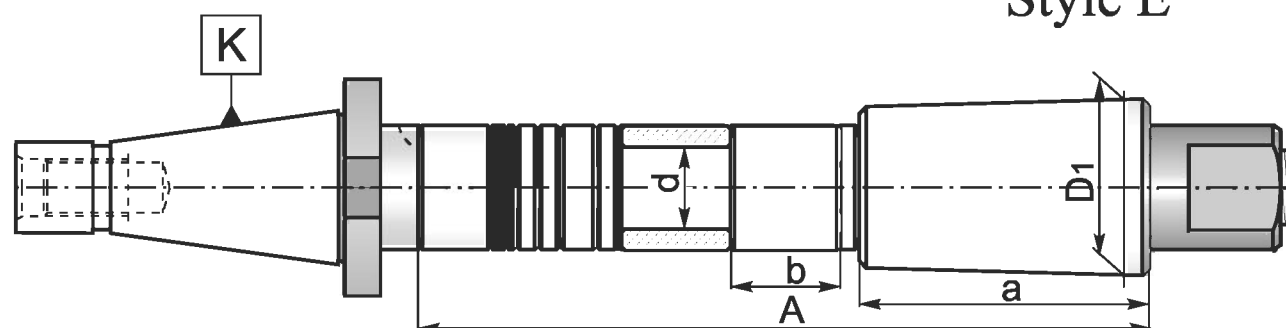
Typical order: 0642 171 840 702 or 7184-40-22-315



Type 7186

DIN 2080

Style E



Code No. 0642 171...	PKWiU 29 407 133...	K 7:24	d	A	Pierścienie * b rings											Bushing Tuleja stoikowa dxD1xa
					1 Liczba szt	2 na 1	3 trzpiec	6 *	10 Numbre	20 of	30 pcs	60 1	100 arbor			
860 006	317 186 100	40	22	200	1	3	3	1	2	1	2	-	-	2,90	22x47x80	
860 108	317 186 101		22	250	1	3	3	1	1	1	2	1	-	3,08	22x47x80	
860 200	317 186 102		22	315	1	4	2	2	2	2	3	1	-	3,39	22x47x80	
860 301	317 186 103		22	400	1	3	3	1	2	2	2	3	-	4,06	22x47x80	
860 403	317 186 104		22	500	1	3	3	1	3	2	3	4	-	4,75	22x47x80	
860 505	317 186 110		27	250	1	3	3	1	2	2	1	1	-	3,55	27x47x80	
860 607	317 186 111		27	315	2	2	3	2	1	1	2	2	-	4,20	27x47x80	
860 709	317 186 112		27	400	2	1	2	2	2	3	2	1	1	4,98	27x47x80	
860 800	317 186 113		27	500	2	1	2	2	2	3	2	1	2	6,04	27x47x80	
860 902	317 186 114		27	630	2	3	4	2	2	3	2	3	2	7,23	27x47x80	
861 007	317 186 119		32	250	1	3	3	1	2	2	1	1	-	4,91	32x47x80	
861 109	317 186 120		32	315	2	2	3	2	1	1	2	2	-	5,53	32x47x80	
861 200	317 186 121		32	400	2	1	2	2	2	3	2	1	1	6,47	32x47x80	
861 302	317 186 122		32	500	2	1	2	2	2	3	2	1	2	8,07	32x47x80	
861 404	317 186 123		32	630	2	3	4	2	2	3	2	3	2	8,96	32x47x80	
863 009	317 186 300	50	22	200	1	3	1	2	1	2	1	-	-	4,98	22x70x100	
863 100	317 186 301		22	250	1	3	1	2	1	3	2	-	-	5,21	22x70x100	
863 202	317 186 302		22	315	1	4	2	2	1	3	2	1	-	5,74	22x70x100	
863 304	317 186 303		22	400	1	3	1	2	1	3	1	3	-	6,63	22x70x100	
863 406	317 186 304		22	500	2	3	4	2	4	3	3	3	-	7,80	22x70x100	
863 508	317 186 306		22	630	2	3	4	2	4	2	4	5	-	9,02	22x70x100	
863 600	317 186 312		27	315	2	2	3	2	2	1	1	2	-	6,63	27x70x100	
863 701	317 186 313		27	400	2	1	2	2	4	3	2	2	-	6,58	27x70x100	
863 803	317 186 314		27	500	2	1	2	2	3	4	3	3	-	8,02	27x70x100	
863 905	317 186 315		27	630	2	3	4	2	2	2	2	3	2	9,11	27x70x100	
864 000	317 186 316		27	800	2	1	2	2	3	3	3	5	2	10,42	27x70x100	
864 101	317 186 321		32	315	2	2	3	2	2	1	1	2	-	8,02	32x70x100	
864 203	317 186 322		32	400	2	1	2	2	4	3	2	2	-	8,71	32x70x100	
864 305	317 186 323		32	500	2	1	2	2	3	4	3	3	-	9,20	32x70x100	
864 407	317 186 324		32	630	2	3	4	2	2	2	2	3	2	10,60	32x70x100	
864 509	317 186 325		32	800	2	1	2	2	3	3	3	5	2	14,34	32x70x100	
864 600	317 186 326		32	900	2	1	2	2	3	3	3	5	3	15,27	32x70x100	
864 702	317 186 327		32	1000	2	1	2	2	3	3	3	5	4	17,42	32x70x100	
864 804	317 186 331		40	400	2	1	2	2	4	3	2	2	-	11,92	40x70x100	
864 906	317 186 332		40	500	2	1	2	2	3	4	3	3	-	12,43	40x70x100	
865 000	317 186 333		40	630	2	3	4	2	2	2	2	3	2	16,44	40x70x100	
865 102	317 186 334		40	800	2	1	2	2	3	3	3	5	2	17,72	40x70x100	
865 204	317 186 335		40	900	2	1	2	2	3	3	3	5	3	19,07	40x70x100	
865 306	317 186 336		40	1000	2	1	2	2	3	3	3	5	4	21,34	40x70x100	
865 408	317 186 340		50	400	2	1	2	2	4	3	2	2	-	17,83	50x86x100	
865 500	317 186 341		50	500	2	1	2	2	3	4	3	3	-	21,46	50x86x100	
865 601	317 186 342		50	630	2	3	4	2	2	2	2	3	2	23,66	50x86x100	
865 703	317 186 343		50	800	2	1	2	2	3	3	3	5	2	28,55	50x86x100	
865 805	317 186 344		50	900	2	1	2	2	2	3	3	5	3	30,27	50x86x100	
865 907	317 186 345		50	1000	2	1	2	2	2	3	3	5	4	34,22	50x86x100	
866 205	317 186 351		60	630	2	3	4	2	2	2	2	3	2	29,97	63x86x100	
866 307	317 186 352		60	800	2	1	2	2	3	3	3	5	2	39,04	63x86x100	
866 409	317 186 353		60	900	2	1	2	2	3	3	3	5	3	43,27	63x86x100	
866 500	317 186 354		60	1000	2	1	2	2	3	3	3	5	4	47,50	63x86x100	

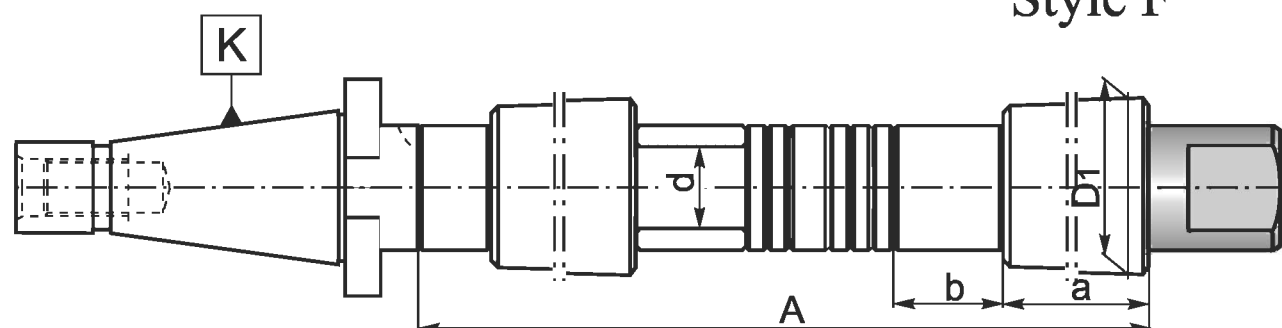
 Typical order: 0642 171 861 200 or 7186-40-32-400



Type 7188

DIN 2080

Style F



Code No. 0642 171...	PKWiU 29 407 133...	K 7:24	d	A	Pierścienie * b rings											Bushing Tuleja stołkowa dxD1xa
					1 Liczba szt	2 na 1	3 trzpiec	6	10	20	30	60	100			
					* Numbre of pcs 1 arbor											
880 002	317 188 100	40	22	315	2	2	1	3	1	3	2	-	-	4,26	22x47x80	
880 104	317 188 101		22	400	2	1	2	2	2	4	2	1	-	4,41	22x47x80	
880 206	317 188 102		22	500	2	1	2	2	2	3	2	3	-	5,29	22x47x80	
880 308	317 188 107		27	315	2	2	1	3	3	2	2	-	-	4,45	22x47x80	
880 400	317 188 108		27	400	2	1	2	2	4	3	2	1	-	5,78	22x47x80	
880 501	317 188 109		27	500	2	3	2	3	4	3	3	2	-	6,23	27x47x80	
880 603	317 188 110		27	630	4	4	4	3	2	2	3	3	1	7,48	27x47x80	
880 705	317 188 114	50	32	315	2	2	1	3	3	2	2	-	-	5,50	32x47x80	
880 807	317 188 115		32	400	2	1	2	2	4	3	3	2	-	6,44	32x47x80	
880 909	317 188 116		32	500	2	3	2	3	4	3	3	2	-	8,80	32x47x80	
881 003	317 188 117		32	630	4	4	4	3	2	2	3	3	1	9,26	32x47x80	
882 208	317 188 300		22	315	2	2	3	2	2	2	1	-	-	6,73	22x70x100	
882 300	317 188 301		22	400	2	1	2	2	3	3	3	-	-	7,78	22x70x100	
882 401	317 188 302		22	500	2	1	2	2	4	3	2	2	-	8,87	22x70x100	
882 503	317 188 303		22	630	2	1	2	2	4	2	3	4	-	10,12	22x70x100	
882 605	317 188 307		27	315	2	2	3	2	2	2	1	-	-	7,12	27x70x100	
882 707	317 188 308		27	400	2	1	2	2	3	3	3	-	-	7,72	27x70x100	
882 809	317 188 309		27	500	2	1	2	2	4	3	2	2	-	9,12	27x70x100	
882 900	317 188 310		27	630	4	4	4	3	4	2	3	2	1	10,21	27x70x100	
883 005	317 188 311		27	800	4	4	4	3	2	2	4	3	2	11,56	27x70x100	
883 107	317 188 314		32	315	2	2	3	2	2	2	1	-	-	8,73	32x70x100	
883 209	317 188 315		32	400	2	1	2	2	3	3	3	-	-	9,02	32x70x100	
883 300	317 188 316		32	500	2	1	2	2	4	3	2	2	-	9,37	32x70x100	
883 402	317 188 317		32	630	4	4	4	3	4	2	3	2	1	10,78	32x70x100	
883 504	317 188 318		32	800	4	4	4	3	2	2	4	3	2	15,53	32x70x100	
883 606	317 188 319		32	900	4	4	4	3	2	2	4	3	3	16,37	32x70x100	
883 708	317 188 320		32	1000	4	4	4	3	2	2	4	3	4	18,21	32x70x100	
883 800	317 188 322		40	400	2	1	2	2	3	3	3	-	-	13,02	40x70x100	
883 901	317 188 323	40	500	2	1	2	2	4	3	2	2	-	14,20	40x70x100		
884 006	317 188 324	40	630	4	4	4	3	4	2	3	2	1	15,30	40x70x100		
884 108	317 188 325	40	800	4	4	4	3	2	2	4	3	2	19,70	40x70x100		
884 200	317 188 326	40	900	4	4	4	3	2	2	4	3	3	21,48	40x70x100		
884 301	317 188 327	40	1000	4	4	4	3	2	2	4	3	4	23,70	40x70x100		
884 403	317 188 329	50	400	2	1	2	2	3	3	3	-	-	23,51	50x86x100		
884 505	317 188 330	50	500	2	1	2	2	4	3	2	2	-	24,40	50x86x100		
884 607	317 188 331	50	630	4	4	4	3	4	2	3	2	1	25,60	50x86x100		
884 709	317 188 332	50	800	4	4	4	3	2	2	4	3	2	30,52	50x86x100		
884 800	317 188 333	50	900	4	4	4	3	2	2	4	3	3	32,87	50x86x100		
884 902	317 188 334	50	1000	4	4	4	3	2	2	4	3	4	36,20	50x86x100		
885 200	317 188 338	60	630	4	4	4	3	4	2	3	2	1	29,73	63x86x100		
885 302	317 188 339	60	800	4	4	4	3	2	2	4	3	2	38,80	63x86x100		
885 404	317 188 340	60	900	4	4	4	3	2	2	4	3	3	43,03	63x86x100		
885 506	317 188 341	60	1000	4	4	4	3	2	2	4	3	4	47,26	63x86x100		



Typical order: 0642 171 885 506 or 7188-50-60-1000

tel.: (095) 775-18-80

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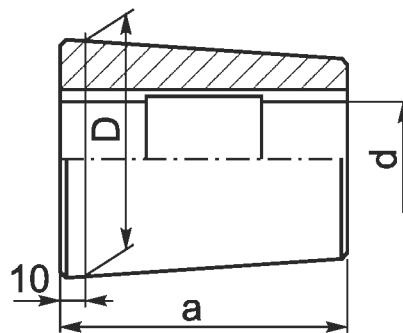
Type 7272

ARBOR RUNNING BUSHINGS

for milling machine arbors

TULEJE STOIKOWE

do trzpieni frezarskich



Code No. 0642 172...	PKWiU 29 407 133...	d	D	a	kg
720 501	327 272 001	16	47	80	0,82
720 603	327 272 050	22	47	80	0,70
721 604	327 272 051		70	100	2,37
720 705	327 272 100	27	47	80	0,57
721 706	327 272 101		70	100	2,21
720 807	327 272 150	32	47	80	0,43

Code No. 0642 172...	PKWiU 29 407 133...	d	D	a	kg
721 808	327 272 151	32	70	100	2,02
721 900	327 272 201	40	70	100	1,65
722 900	327 272 202		86	100	3,12
722 004	327 272 251	50	70	100	1,09
723 005	327 272 252		86	100	2,55
723 107	327 272 302	60	86	100	1,85

 Typical order: 0642 172 720 705 or 7272-27x47x80

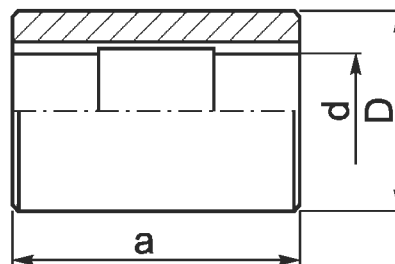
Type 7275

ARBOR RUNNING BUSHINGS

for milling machine arbors

TULEJE WALCOWE

do trzpieni frezarskich



Code No. 0642 172...	PKWiU 29 407 133...	d	D	a	kg
730 306	327 275 010	16	42	60	0,55
730 500	327 275 012		48	70	0,75
730 703	327 275 014		56	80	1,41
731 205	327 275 062	22	42	60	0,46
731 409	327 275 064		48	70	0,77
731 602	327 275 066		56	80	1,29
731 704	327 275 068		70	100	2,71
732 206	327 275 112	27	42	60	0,37
732 400	327 275 114		48	70	0,66
732 603	327 275 116		56	80	1,17
732 705	327 275 120		70	100	2,55
732 909	327 275 122		85	120	4,78
733 309	327 275 163	32	48	70	0,53
733 502	327 275 165		56	80	1,02

Code No. 0642 172...	PKWiU 29 407 133...	d	D	a	kg
733 604	327 275 168	32	70	100	2,37
733 808	327 275 170		85	120	4,56
734 401	327 275 214	40	56	80	0,73
734 503	327 275 218		70	100	2,00
734 707	327 275 220		85	120	4,12
735 300	327 275 263	50	70	100	1,44
735 504	327 275 265		85	120	3,15
735 606	327 275 267		110	140	8,23
736 301	327 275 313	60	110	140	7,27
736 607	327 275 366	80	110	140	7,80
737 404	327 275 416	100	140	160	9,25

 Typical order: 0642 172 737 404 or 7275-100x140x160



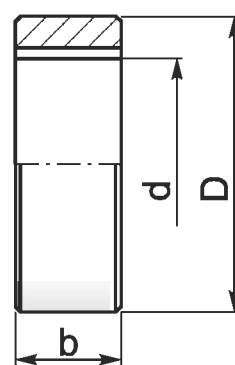
Type 7285

ARBOR SOLID SPACERS

for milling machine arbors

PIERŚCIENIE

do trzpieni frezarskich



Code No. 0642 172...	PKWiU 29 407 133...	d	D	b	kg
810 103	327 285 001	16	26	1	0,002
810 205	327 285 002		27	2	0,006
810 307	327 285 003		27	3	0,009
810 409	327 285 004		27	6	0,017
810 500	327 285 005		27	10	0,029
810 602	327 285 006		27	20	0,057
810 704	327 285 007		27	30	0,086
810 806	327 285 050	22	33	1	0,004
810 908	327 285 051		34	2	0,008
811 002	327 285 052		34	3	0,012
811 104	327 285 053		34	6	0,024
811 206	327 285 054		34	10	0,040
811 308	327 285 055		34	20	0,081
811 400	327 285 056		34	30	0,121
811 501	327 285 057		34	60	0,242
811 603	327 285 100	27	40	1	0,005
811 705	327 285 101		41	2	0,011
811 807	327 285 102		41	3	0,017
811 909	327 285 103		41	6	0,034
812 003	327 285 104		41	10	0,057
812 105	327 285 105		41	20	0,114
812 207	327 285 106		41	30	0,171
812 309	327 285 107	32	41	60	0,343
812 400	327 285 108		41	100	0,573
812 502	327 285 150		46	1	0,006
812 604	327 285 151		47	2	0,014
812 706	327 285 152		47	3	0,021
812 808	327 285 153		47	6	0,049
812 900	327 285 154		47	10	0,071
813 004	327 285 155		47	20	0,142

Code No. 0642 172...	PKWiU 29 407 133...	d	D	b	kg
813 106	327 285 156	32	47	30	0,214
813 208	327 285 157		47	60	0,428
813 300	327 285 158		47	100	0,714
813 401	327 285 200	40	54	1	0,008
813 503	327 285 201		55	2	0,017
813 605	327 285 202		55	3	0,025
813 707	327 285 203		55	6	0,051
813 809	327 285 204		55	10	0,085
813 900	327 285 205		55	20	0,170
814 005	327 285 206		55	30	0,255
814 107	327 285 207	50	55	60	0,511
814 209	327 285 208		55	100	0,853
814 300	327 285 250		68	1	0,013
814 402	327 285 251		69	2	0,027
814 504	327 285 252		69	3	0,041
814 606	327 285 253		69	6	0,082
814 708	327 285 254		69	10	0,136
814 800	327 285 255	60	69	20	0,272
814 901	327 285 256		69	30	0,409
815 006	327 285 257		69	60	0,818
815 108	327 285 258		69	100	1,364
815 200	327 285 300		83	1	0,020
815 301	327 285 301		84	2	0,042
815 403	327 285 302		84	3	0,063
815 505	327 285 303	84	84	6	0,125
815 607	327 285 304		84	10	0,208
815 709	327 285 305		84	20	0,417
815 800	327 285 306		84	30	0,626
815 902	327 285 308		84	60	1,253
816 007	327 285 309		84	100	2,089

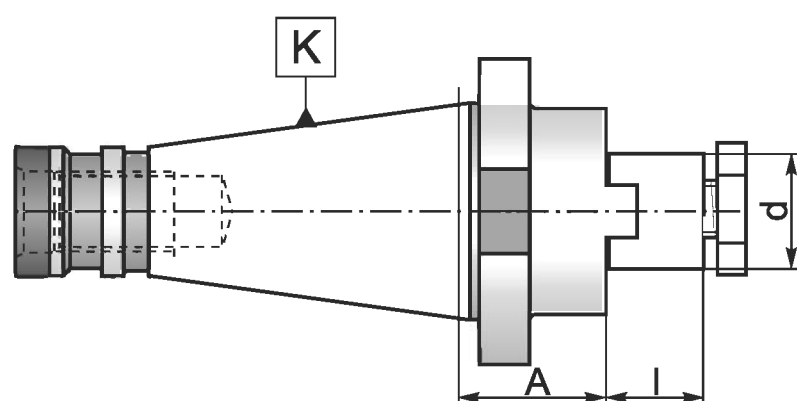
 Typical order: 0642 172 812 105 or 7285-27x20

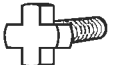
Type 7310**DIN 2080****SHELL MILL ADAPTERS**

for cutter with driving slot DIN 138

TRZPIENIE FREZARSKIE ZABIERAKOWE

do frezyw z rowkiem zabierakowym DIN 138



Code No. 0642 173...	PKWiU 29 402 133...	K 7:24	d	A	l	kg	
100 202	337 310 001	30	16	21,6	17	0,43	U-0620/0
100 304	337 310 002		22	21,6	19	0,52	U-0621/0
100 406	337 310 003		27	21,6	21	0,64	U-0622/0
100 508	337 310 004		32	21,6	24	1,05	U-0623/0
101 203	337 310 200	40	16	21,6	17	0,87	U-0620/0
101 305	337 310 201		22	21,6	19	0,95	U-0621/0
101 407	337 310 202		27	21,6	21	1,04	U-0622/0
101 509	337 310 203		32	21,6	24	1,21	U-0623/0
101 600	337 310 204		40	21,6	27	2,06	U-0624/0
101 702	337 310 205		50	21,6	30	2,91	U-0625/0
103 205	337 310 450	50	16	22,2	17	2,87	U-0620/0
103 307	337 310 451		22	22,2	19	2,93	U-0621/0
103 409	337 310 452		27	22,2	21	3,01	U-0622/0
103 500	337 310 453		32	22,2	24	3,14	U-0623/0
103 602	337 310 454		40	22,2	27	3,41	U-0624/0
103 704	337 310 455		50	22,2	30	3,82	U-0625/0



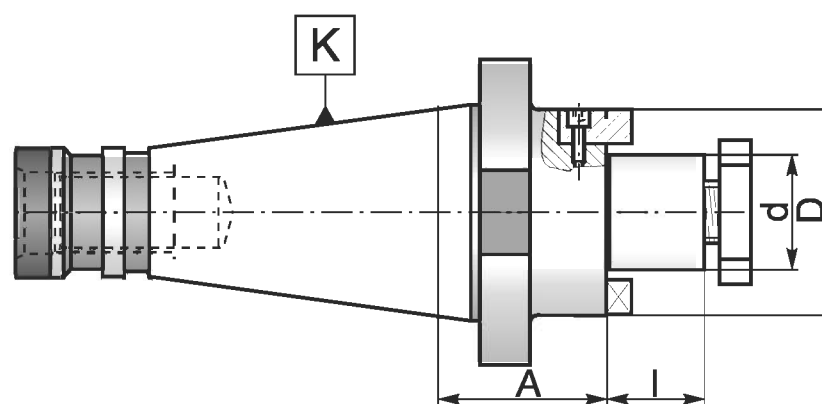
Typical order: 0642 173 103 704 or 7310-50-50

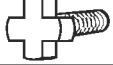
Type 7311**DIN 2080****SHELL MILL ADAPTERS**

for cutter with driving slot DIN 138

TRZPIENIE FREZARSKIE ZABIERAKOWE

do frezyw z rowkiem zabierakowym DIN 138



Code No. 0642 173...	PKWiU 29 402 133...	K 7:24	d	A	l	D	kg		
115 103	337 311 001	30	16	35	17	32	0,50	U-0620/0	S-
115 129	337 311 002		22	35	19	40	0,58	2117/0	
115 144	337 311 003		27	35	21	48	0,63	U-0621/0	S-
115 157	337 311 004		32	35	24	58	0,78	2121/0	
115 307	337 311 200	40	16	37	17	32	0,95	U-0622/0	S-
119 107	337 311 230		16	90	17	32	1,50	2111/0	
115 409	337 311 201		22	37	19	40	1,00	U-0623/0	S-
119 209	337 311 231		22	90	19	40	1,60	2114/0	
115 500	337 311 202		27	37	21	48	1,15	U-0620/0	S-
117 502	337 311 220		27	90	21	48	1,60	2117/0	
115 602	337 311 203	50	32	37	24	58	1,28	U-0622/0	S-
117 604	337 311 221		32	90	24	58	1,90	2111/0	
115 704	337 311 204		40	37	27	70	1,85	U-0620/0	S-
117 706	337 311 222		40	90	27	70	2,40	2121/0	
118 401	337 311 450		22	40	19	40	3,00	U-0621/0	S-
116 400	337 311 472		22	100	19	40	3,40	2121/0	
118 503	337 311 451		27	40	21	48	3,25	U-0622/0	S-
116 501	337 311 473		27	100	21	48	3,70	2111/0	
118 605	337 311 452		32	40	24	58	3,40	U-0623/0	S-
116 603	337 311 474		32	100	24	58	4,10	2114/0	
118 707	337 311 453	50	40	40	27	70	3,60	U-0620/0	S-
116 705	337 311 475		40	100	27	70	4,30	2117/0	
118 809	337 311 454		50	40	30	90	3,95	U-0623/0	S-
116 807	337 311 476		50	100	30	90	4,80	2124/0	



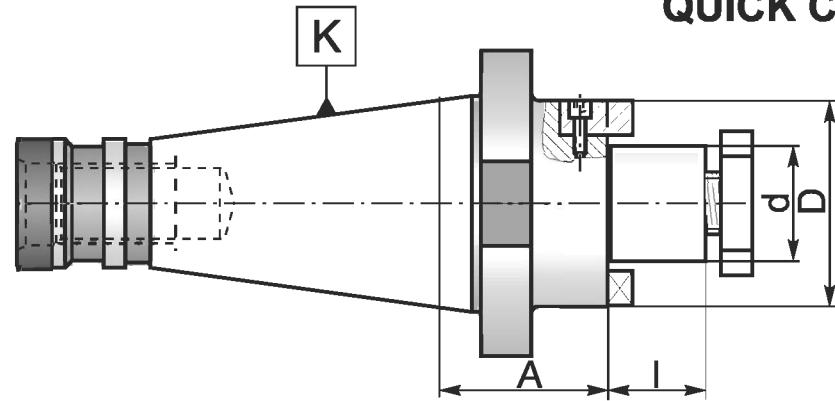
Typical order: 0642 173 119 107 or 7311-40-16-90

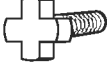
Type 7311**DIN 2080****QUICK CHANGE****SHELL MILL ADAPTERS**

for cutter with driving slot DIN 138

TRZPIENIE FREZARSKIE ZABIERAKOWE

do frezyw z rowkiem zabierakowym DIN 138



Code No. 0642 173...	PKWiU 29 402 133...	K 7:24	d	A	l	D	kg		
115 220	337 311 050	30	16	45	17	32	0,50	U-0620/0	S-2117/0
115 233	337 311 051		22	45	19	40	0,58	U-0621/0	S-2121/0
115 246	337 311 052		27	45	21	48	0,63	U-0622/0	S-2111/0
115 259	337 311 053		32	45	24	58	0,78	U-0623/0	S-2114/0
115 806	337 311 250	40	16	50	17	32	0,95	U-0620/0	S-2117/0
115 819	337 311 251		16	90	17	32	1,50	U-0620/0	S-2117/0
115 821	337 311 252		22	50	19	40	1,00	U-0621/0	S-2121/0
115 834	337 311 253		22	90	19	40	1,60	U-0621/0	S-2121/0
115 847	337 311 254		27	50	21	48	1,15	U-0622/0	S-2111/0
115 850	337 311 255		27	90	21	48	1,60	U-0622/0	S-2111/0
115 862	337 311 256		32	50	24	58	1,28	U-0623/0	S-2114/0
115 875	337 311 257		32	90	24	58	1,90	U-0623/0	S-2114/0
115 888	337 311 258		40	50	27	70	1,85	U-0624/0	S-2124/0
115 890	337 311 259		40	90	27	70	2,40	U-0624/0	S-2124/0



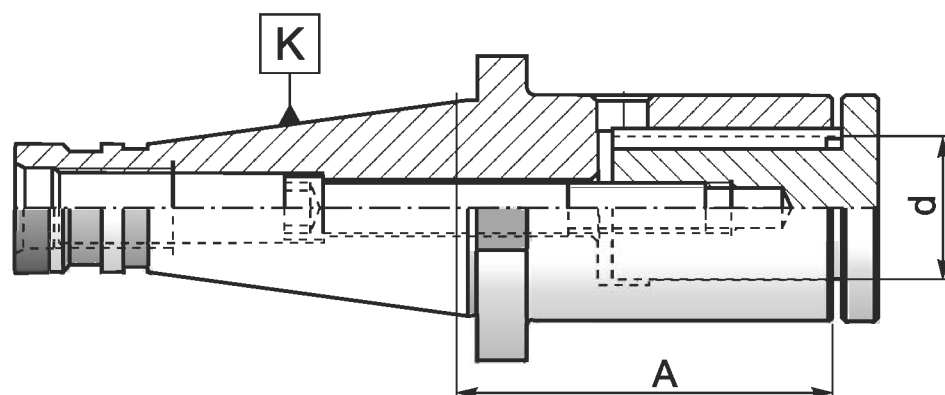
Typical order: 0642 173 115 890 or 7311-40-40-90 QC

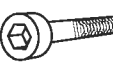
Type 7314**DIN 2080****MILLING ARBORS**

for stagger tool side milling cutters

TRZPIENIE FREZARSKIE

do frezyw tarczowych



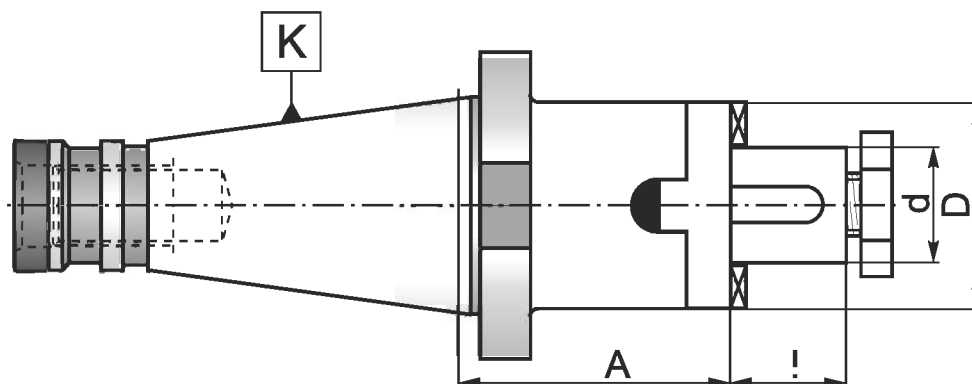
Code No. 0642 173...	PKWiU 29 402 133...	K 7:24	d	A	kg			
141 104	337 314 200	40	16	70	1,40	U-6520/0	U-6510/0	U-6526/0
141 603	337 314 230		16	100	1,90	U-6520/0	U-6511/0	U-6527/0
141 206	337 314 201		22	70	1,50	U-6523/0	U-6512/0	U-6528/0
141 705	337 314 231		22	100	2,00	U-6523/0	U-6513/0	U-6529/0
141 308	337 314 202		27	70	1,60	U-6523/0	U-6514/0	U-6530/0
141 807	337 314 232		27	100	2,15	U-6523/0	U-6515/0	U-6531/0
141 400	337 314 203		32	70	1,90	U-6523/0	U-6516/0	U-6532/0
141 909	337 314 233		32	100	2,40	U-6523/0	U-6517/0	U-6533/0
141 501	337 314 204		40	70	2,35	U-6523/0	U-6518/0	U-6534/0
142 003	337 314 234		40	100	3,15	U-6523/0	U-6519/0	U-6535/0
142 105	337 314 450	50	27	75	3,10	U-6524/0	U-6514/0	U-6530/0
142 400	337 314 480		27	105	3,60	U-6524/0	U-6515/0	U-6531/0
142 207	337 314 451		32	75	3,70	U-6524/0	U-6516/0	U-6532/0
142 502	337 314 481		32	105	4,20	U-6524/0	U-6517/0	U-6533/0
142 309	337 314 452		40	75	4,40	U-6524/0	U-6518/0	U-6534/0
142 604	337 314 482		40	105	5,10	U-6524/0	U-6519/0	U-6535/0

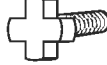


Typical order: 0642 173 142 003 or 7314-40-40-100

Type 7332**DIN 2080****COMBINATION SHELL****MILLADAPTERS**

for cutters with keyway or driving slot DIN 138

TRZPIENIE FREZARSKIE**UNIWERSALNE**do frezyw z rowkiem wpustowym
lub rowkiem zabierakowym DIN 138

Code No. 0642 173...	PKWiU 29 402 133...	K 7:24	d	A	l	D	kg			
320 203	337 330 001	30	16	35	17	32	0,53	U-0620/0	U-1364/0	U-1355/0
300 207	337 332 001		16	50	17	32	0,65	U-0620/0	U-1364/0	U-1355/0
350 208	337 335 001		16	73	17	32	0,75	U-0620/0	U-1364/0	U-1355/0
320 305	337 330 002		22	35	19	40	0,65	U-0621/0	U-1365/0	U-1356/0
300 309	337 332 002		22	50	19	40	0,85	U-0621/0	U-1365/0	U-1356/0
350 300	337 335 002		22	73	19	40	1,00	U-0621/0	U-1365/0	U-1356/0
320 407	337 330 003		27	35	21	48	0,82	U-0622/0	U-1366/0	U-1357/0
300 400	337 332 003		27	50	21	48	0,95	U-0622/0	U-1366/0	U-1357/0
350 401	337 335 003		27	73	21	48	1,30	U-0622/0	U-1366/0	U-1357/0
305 507	337 332 043		32	50	24	58	1,10	U-0623/0	U-1367/0	U-1358/0
321 204	337 330 200	40	16	37	17	32	0,98	U-0620/0	U-1364/0	U-1355/0
301 208	337 332 200		16	52	17	32	1,10	U-0620/0	U-1364/0	U-1355/0
351 209	337 335 200		16	75	17	32	1,20	U-0620/0	U-1364/0	U-1355/0
321 306	337 330 201		22	37	19	40	1,12	U-0621/0	U-1365/0	U-1356/0
301 300	337 332 201		22	52	19	40	1,30	U-0621/0	U-1365/0	U-1356/0
351 300	337 335 201		22	75	19	40	1,50	U-0621/0	U-1365/0	U-1356/0
321 408	337 330 202		27	37	21	48	1,30	U-0622/0	U-1366/0	U-1357/0
301 401	337 332 202		27	52	21	48	1,60	U-0622/0	U-1366/0	U-1357/0
351 402	337 335 202		27	75	21	48	1,80	U-0622/0	U-1366/0	U-1357/0
321 500	337 330 203		32	41	24	58	1,54	U-0623/0	U-1367/0	U-1358/0
301 503	337 332 203	50	32	52	24	58	1,85	U-0623/0	U-1367/0	U-1358/0
351 504	337 335 203		32	75	24	58	2,20	U-0623/0	U-1367/0	U-1358/0
321 601	337 330 204		40	45	27	70	1,95	U-0624/0	U-1368/0	U-1359/0
301 605	337 332 204		40	52	27	70	2,05	U-0624/0	U-1368/0	U-1359/0
351 606	337 335 204		40	75	27	70	3,00	U-0624/0	U-1368/0	U-1359/0
303 200	337 332 450		16	55	17	32	2,98	U-0620/0	U-1364/0	U-1355/0
353 200	337 335 450		16	78	17	32	3,10	U-0620/0	U-1364/0	U-1355/0
303 301	337 332 452		22	55	19	40	3,05	U-0621/0	U-1365/0	U-1356/0
353 302	337 335 451		22	78	19	40	3,30	U-0621/0	U-1365/0	U-1356/0
303 403	337 332 453		27	55	21	48	3,25	U-0622/0	U-1366/0	U-1357/0
353 404	337 335 452	50	27	78	21	48	3,70	U-0622/0	U-1366/0	U-1357/0
303 505	337 332 454		32	55	24	58	3,50	U-0623/0	U-1367/0	U-1358/0
353 506	337 335 453		32	78	24	58	4,10	U-0623/0	U-1367/0	U-1358/0
303 607	337 332 455		40	55	27	70	3,85	U-0624/0	U-1368/0	U-1359/0
353 608	337 335 454		40	78	27	70	4,90	U-0624/0	U-1368/0	U-1359/0
303 709	337 332 456		50	55	30	90	4,05	U-0625/0	U-1369/0	U-1360/0
353 700	337 335 455		50	78	30	90	6,30	U-0625/0	U-1369/0	U-1360/0



Typical order: 0642 173 303 709 or 7332-50-50-55



Type 7332

DIN 2080

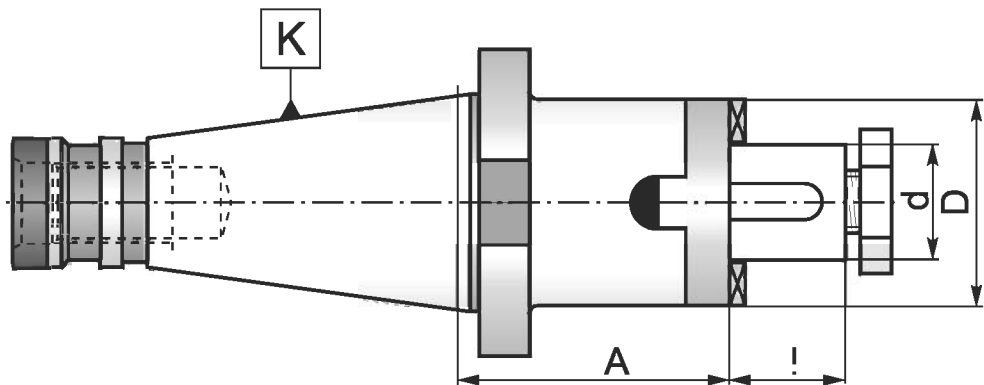
QUICK CHANGE

COMBINATION SHELL MILLADAPTERS

for cutters with keyway or driving slot DIN 138

TRZPIENIE FREZARSKIE UNIWERSALNE

do frezyw z rowkiem wpustowym
lub rowkiem zabierakowym DIN 138



Code No. 0642 173...	PKWiU 29 402 133...	K 7:24	d	A	l	D	kg			
309 220	337 332 050	30	16	52	17	32	0,53	U-0620/0	U-1364/0	U-1355/0
309 233	337 332 051		22	52	19	40	0,65	U-0621/0	U-1365/0	U-1356/0
309 246	337 332 052		27	54	21	48	0,82	U-0622/0	U-1366/0	U-1357/0
309 259	337 332 053		32	58	24	58	1,10	U-0623/0	U-1367/0	U-1358/0
309 322	337 332 260	40	16	52	17	32	1,10	U-0620/0	U-1364/0	U-1355/0
309 335	337 332 261		22	52	19	40	1,30	U-0621/0	U-1365/0	U-1356/0
309 348	337 332 262		27	54	21	48	1,60	U-0622/0	U-1366/0	U-1357/0
309 350	337 332 263		32	58	24	58	1,85	0623/0 U-	1367/0 U-	1358/0
309 363	337 332 264		40	60	27	70	2,05	U-0624/0	U-1368/0	U-1359/0

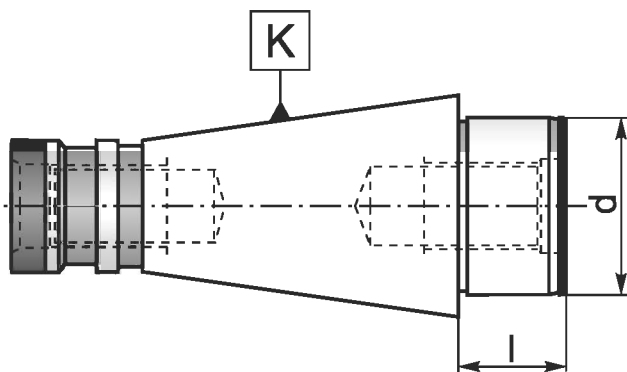
 Typical order: 0642 173 309 350 or 7332-40-32 QC

Type 7350

DIN 2080

CENTRING PLUG ARBORS

TRZPIEC FREZARSKI ĆRODKUJĄCY



Code No. 0642 173...	PKWiU 29 402 133...	K 7:24	d	l	kg
506 105	337 350 230	40	40	30	0,95
501 508	337 350 200		40	40	1,10
506 207	337 350 231		50	29	1,10
507 106	337 350 480	50	40	30	2,50
507 208	337 350 481		50	30	2,65
503 601	337 350 451		50	40	2,80
507 300	337 350 482		60	40	2,95
503 703	337 350 452		60	48	3,20
508 300	337 350 620	60	60	40	10,00
505 705	337 350 600		60	48	10,20

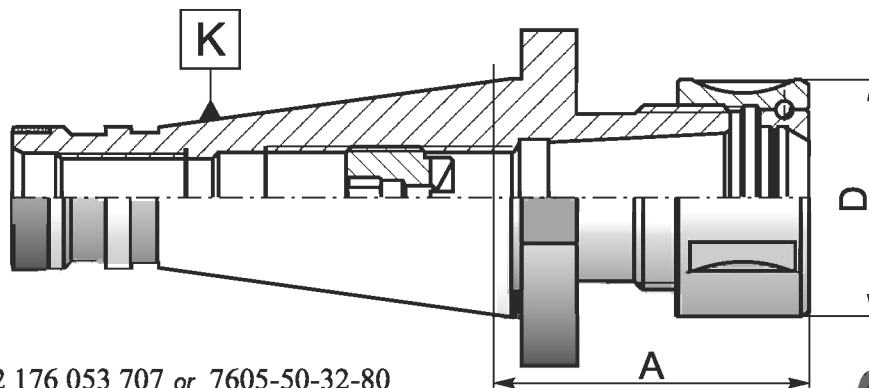
 Typical order: 0642 173 505 705 or 7350-60-60-48

Type 7605**DIN 2080****COLLET CHUCKS (DIN 6388)**

for cutters with cylindrical shank

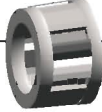
OPRAWKI ZACISKOWE**(do tulejek DIN 6388)**

do narzędzi z chwytem walcowym



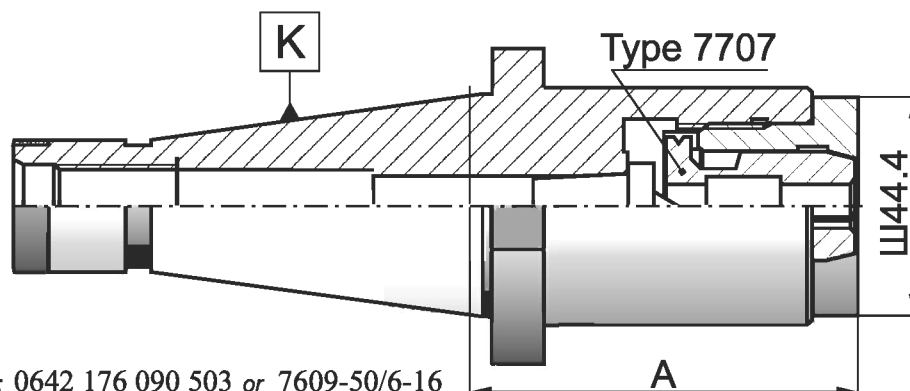
 Typical order: 0642 176 053 707 or 7605-50-32-80

Standard accessories:Nut - page 110,
screw**Wyposażenie podstawowe:**Nakrętka - str. 110,
wkład**Optional accessories:**

Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	Collet 7642	A	Capacity * Zakres		D	kg		
					Type A	Type B				
050 042	217 605 360	30	16	60	3-16	5-16	43	0,80	9835-16	M18x1,5x19LH
050 068	217 605 362		25	70	4-25	6-25	60	1,00	9835-25	M18x1,5x19LH
050 205	217 605 530	40	16	50	3-16	5-16	43	1,00	9835-16	M18x1,5x19LH
050 103	217 605 532		16	58	3-16	5-16	43	1,10	9835-16	M18x1,5x19LH
050 307	217 605 534		16	60	3-16	5-16	43	1,10	9835-16	M18x1,5x19LH
051 206	217 605 536		25	60	4-25	6-25	60	1,20	9835-25	M28x1,5x10LH
051 104	217 605 538		25	64	4-25	6-25	60	1,30	9835-25	M28x1,5x10LH
051 308	217 605 540		25	70	4-25	6-25	60	1,30	9835-25	M28x1,5x10LH
051 400	217 605 542		32	80	5-32	10-32	72	1,40	9835-32	M28x1,5x10LH
051 501	217 605 544		32	89	5-32	10-32	72	1,40	9835-32	M28x1,5x10LH
051 603	217 605 546		32	90	5-32	10-32	72	1,20	9835-32	M28x1,5x10LH
053 004	217 605 710	50	16	60	3-16	5-16	43	3,60	9835-16	M18x1,5x19LH
053 106	217 605 712		25	60	4-25	6-25	60	4,10	9835-25	M28x1,5x30LH
053 605	217 605 714		32	70	5-32	10-32	72	4,50	9835-32	M35x1,5x12LH
053 503	217 605 716		32	71	5-32	10-32	72	4,50	9835-32	M35x1,5x12LH
053 707	217 605 718		32	80	5-32	10-32	72	4,70	9835-32	M35x1,5x12LH

Type 7609**DIN 2080****COLLET CHUCKS**

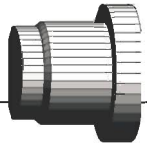
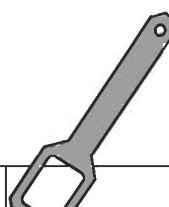
for screwed shank cutters

OPRAWKI ZACISKOWEdo narzędzi z chwytem walcowym
z gwintem

 Typical order: 0642 176 090 503 or 7609-50/6-16

Standard accessories:Nut, centre,
collets - page 102,
wrench - page 110**Wyposażenie podstawowe:**

Nakrętka,

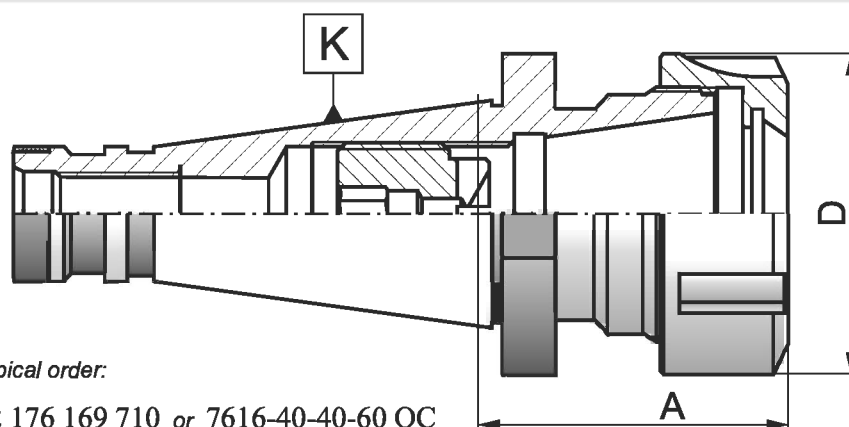
Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	A	Capacity Zakres	Full set pieces	kg			
090 106	217 609 360	30	63,5	6-16	4	0,65	0642 981...	0642 981...	0642 981...
090 300	217 609 530	40	53,9	6-16	4	1,35	519 003 771 000	519 105	519 105
090 503	217 609 710	50	42,8	6-16	4	3,64	519 003 771 000	519 105	519 105

Type 7616**DIN 2080****QUICK CHANGE****COLLET CHUCKS ER**

for tool with cylindrical shank

OPRAWKI ZACISKOWE**(do tulejek ER DIN 6499)**

do narzędzi z chwytem walcowym



 Typical order:

0642 176 169 710 or 7616-40-40-60 QC

Standard accessories:Nut - page 110,
screw**Wyposażenie podstawowe:**Nakrętka - str. 110,
wkład**Optional accessories:**

Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	Collet	A	Capacity Zakres	D	kg		
168 618	217 616 363	30	ER16	50	2-10	32	0,60	9833-16	M10x11LH
168 710	217 616 378		ER32	50	2-20	50	0,90	9833-32	M18x1,5x8LH
168 776	217 616 533	40	ER16	100	2-10	32	1,00	9833-16	M12x1,5x14LH
168 913	217 616 557		ER32	60	2-20	50	1,20	9833-32	M22x1,5x24LH
169 517	217 616 568		ER32	130	2-20	50	1,80	9833-32	M22x1,5x24LH
169 710	217 616 584		ER40	60	2-26	63	1,20	9833-40	M28x1,5x30LH

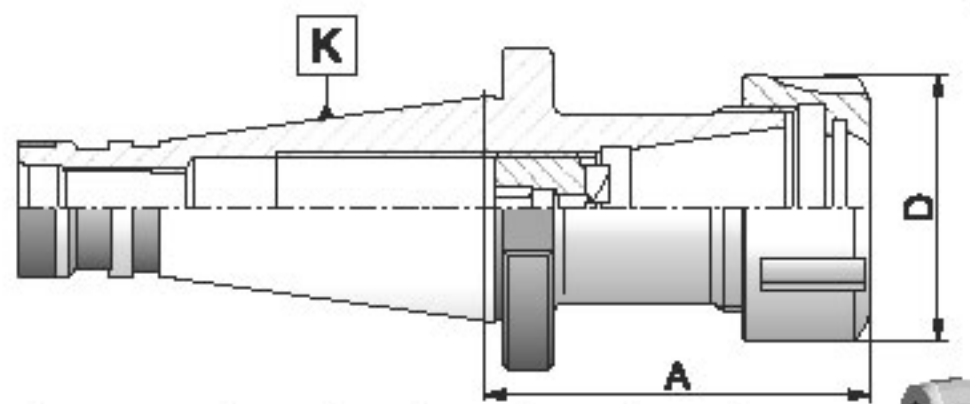
**Type 7616****DIN 2080****COLLET CHUCKS ER**

for tool with cylindrical shank

OPRAWKI ZACISKOWE

(do tulejek ER DIN 6499)

do narzędzi z chwytem walcowym



Standard accessories:

Nut - page 110,
screw

Wyposażenie podstawowe:

Nakrętka - str. 110,
wkrętOptional
accessories:

0642 176 162 600 or 7616-50-40-130

Code No.	PKWiU	K 7:24	Collet	A	Capacity Zakres	D	kg		
0642 176...	29 407 150...								
160 417	217 616 361	30	ER16	50	2-10	32	0,60	9833-16	M10x11LH
160 623	217 616 367		ER32	50	2-20	50	0,90	9833-32	M18x1,5x19LH
160 302	217 616 546	40	ER25	60	2-16	42	1,00	9833-25	M18x1,5x19LH
160 700	217 616 551		ER32	60	2-20	50	1,20	9833-32	M22x1,5x24LH
163 600	217 616 566		ER32	130	2-20	50	1,80	9833-32	M22x1,5x24LH
161 303	217 616 575		ER40	60	2-26	63	1,20	9833-40	M28x1,5x30LH
161 802	217 616 732	50	ER32	70	2-20	50	3,10	9833-32	M22x1,5x24LH
162 905	217 616 748		ER32	130	2-20	50	3,90	9833-32	M22x1,5x24LH
162 304	217 616 757		ER40	70	2-26	63	3,20	9833-40	M28x1,5x30LH
162 600	217 616 771		ER40	130	2-26	63	4,30	9833-40	M28x1,5x30LH

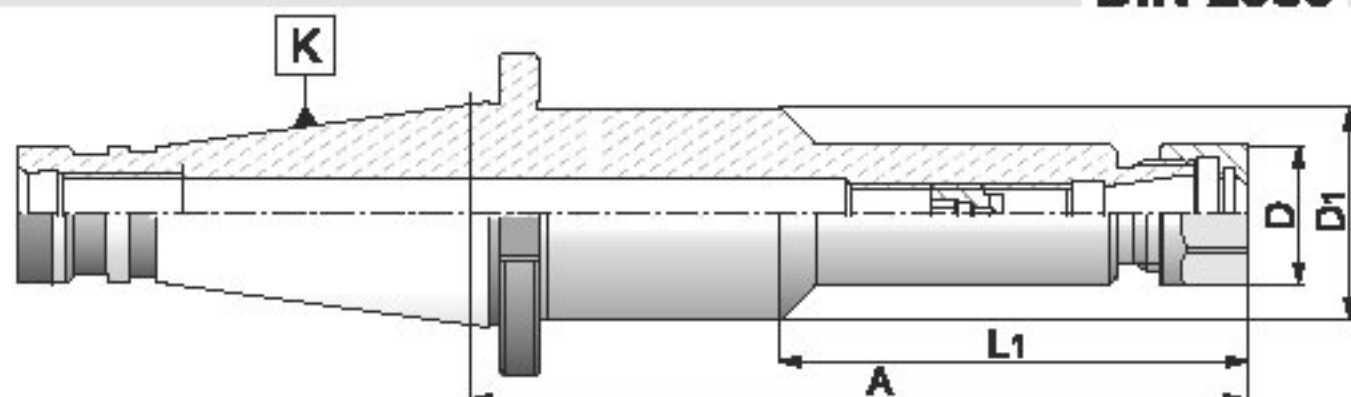
Type 7616-S**DIN 2080****COLLET CHUCKS ER**

for tool with cylindrical shank

OPRAWKI ZACISKOWE

(do tulejek ER DIN 6499)

do narzędzi z chwytem walcowym



Standard accessories:

Nut - page 110,
screw

Wyposażenie podstawowe:

Nakrętka - str. 110,
wkręt

Typical order: 0642 176 164 627 or 7616S-50-16-150 S

Code No.	PKWiU	K 7:24	Collet	A	Capacity Zakres	L1	D	D1	kg		
0642 176...	29 407 150...										
164 128	217 616 530	40	ER16	100	2-10	-	28	-	1,10	9833-16D	M12x1,5x14LH
164 220	217 616 536		ER16	150	2-10	85	28	40	1,70	9833-16D	M12x1,5x14LH
164 525	217 616 710	50	ER16	100	2-10	-	28	-	2,90	9833-16D	M12x1,5x14LH
164 627	217 616 716		ER16	150	2-10	85	28	40	3,30	9833-16D	M12x1,5x14LH

Type 7616**DIN 2080****COLLET CHUCKS ER-SET**

for tool with cylindrical shank

OPRAWKI ZACISKOWE ER-KOMPLET

do narzędzi z chwytem walcowym



Code No.	PKWiU	K 7:24	Collet	A	Capacity Zakres	Full set pieces
0642 176...	29 402 150...					
160 404	217 616 362	30	ER16	50	2-10	8
160 506	217 616 368		ER32	50	2-20	18
160 109	217 616 547	40	ER25	60	2-16	14
160 801	217 616 552		ER32	60	2-20	18
163 407	217 616 567		ER32	130	2-20	18
161 100	217 616 576		ER40	60	2-26	24
161 609	217 616 733	50	ER32	70	2-20	18
162 701	217 616 749		ER32	130	2-20	18
162 100	217 616 758		ER40	70	2-26	24

Type 7616-PL

160 519	217 616 369	30	ER32	50	3-20	8
160 827	217 616 555	40	ER32	60	3-20	8
161 611	217 616 737	50	ER32	70	3-20	8

Type 7616-S

164 102	217 616 532	40	ER16	100	2-10	8
164 204	217 616 538		ER16	150	2-10	8
164 500	217 616 712	50	ER16	100	2-10	8
164 601	217 616 718		ER16	150	2-10	8

Type 7620

DIN 2080

END MILL ADAPTERS

for cutters with cylindrical shank
and weldon flat DIN 1835-B

OPRAWKI ZACISKOWE

do narzędzi z chwytem walcowym
Weldon'a DIN 1835-B

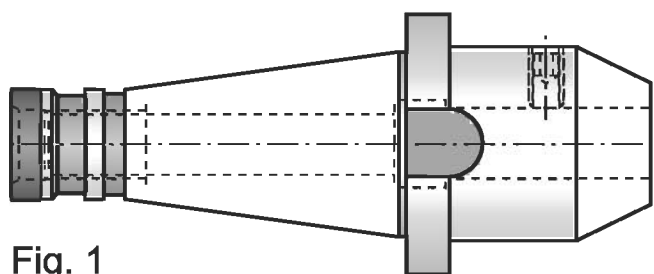


Fig. 1

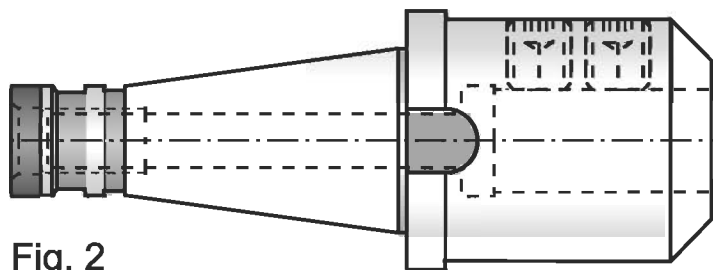


Fig. 2

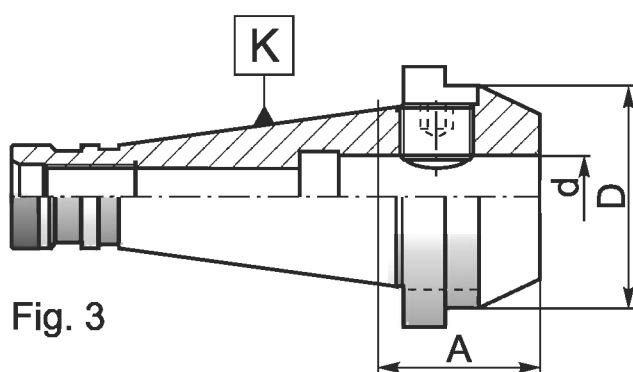


Fig. 3

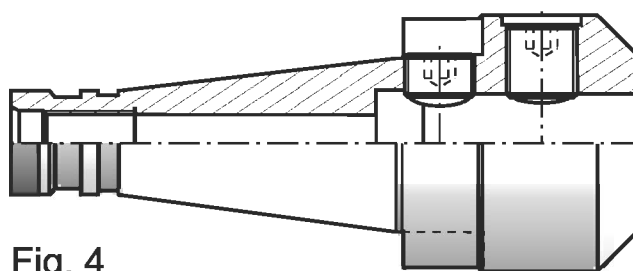


Fig. 4

Code No. 0642 176...	PKWiU 29 402 150...	K 7:24	d	A	D	Fig.	kg	
210 105	217 620 390	30	6	40	25	1	0,50	U-4131/0
210 207	217 620 391		8	40	28	1	0,50	U-4132/0
210 309	217 620 392		10	40	35	1	0,60	U-4133/0
210 400	217 620 393		12	40	42	1	0,60	U-4134/0
210 502	217 620 394		16	50	48	1	0,90	U-4135/0
210 604	217 620 395		20	63	52	1	1,00	U-4136/0
210 706	217 620 396		25	68	63	2	1,20	U-4137/0
217 203	217 620 546	40	6	25	25	3	0,70	U-4131/0
211 106	217 620 570		6	50	25	1	0,80	U-4131/0
217 305	217 620 547		8	25	28	3	0,70	U-4132/0
211 208	217 620 571		8	50	28	1	0,80	U-4132/0
217 101	217 620 548		10	27	35	3	0,80	U-4133/0
211 300	217 620 572		10	50	35	1	0,90	U-4133/0
217 407	217 620 549		12	29	42	3	0,90	U-4134/0
211 401	217 620 573		12	50	42	1	1,00	U-4134/0
217 410	217 620 550		14	30	44	3	1,15	U-4134/0
217 422	217 620 551		14	50	44	1	1,30	U-4134/0
217 509	217 620 552		16	31	44	3	1,25	U-5887/0
211 503	217 620 574		16	63	48	1	1,40	U-4135/0
207 055	217 620 553		18	63	50	1	1,40	U-4135/0
207 103	217 620 554		20	35	52	3	1,25	U-6756/0
211 605	217 620 575		20	63	52	1	1,40	U-4136/0
207 307	217 620 555		25	60	65	4	1,80	U-6756/0 U-4137/0
211 707	217 620 576		25	80	63	2	2,00	U-4137/0 U-4137/0
207 500	217 620 556		32	70	72	2	2,10	U-4138/0 U-4138/0
211 809	217 620 577		32	80	72	2	2,30	U-4138/0 U-4138/0
207 602	217 620 557		32	100	72	2	2,50	U-4138/0 U-4138/0
213 108	217 620 790	50	6	63	25	1	3,30	U-4131/0
208 807	217 620 730		6	130	25	1	3,80	U-4131/0
213 200	217 620 791		8	63	28	1	3,30	U-4132/0
208 790	217 620 731		8	130	28	1	3,90	U-4132/0
213 301	217 620 792		10	63	35	1	3,60	U-4133/0
208 810	217 620 732		10	130	35	1	4,10	U-4133/0
213 403	217 620 793		12	63	42	1	3,80	U-4134/0
208 822	217 620 733		12	130	42	1	4,20	U-4134/0
208 002	217 620 740		14	63	44	1	3,90	U-4135/0
213 505	217 620 794		16	63	48	1	4,10	U-4135/0
208 835	217 620 734		16	130	48	1	5,00	U-4135/0
208 848	217 620 770		16	160	48	1	5,50	U-4135/0
208 850	217 620 780		16	200	48	1	5,80	U-4135/0
208 015	217 620 743		18	63	50	1	4,20	U-4135/0
208 104	217 620 760		20	36	52	3	4,00	U-4136/0
213 607	217 620 795		20	63	52	1	4,30	U-4136/0
208 863	217 620 735		20	130	52	1	5,30	U-4136/0
208 308	217 620 761		25	60	65	4	4,70	U-4137/0 U-4137/0
213 709	217 620 796		25	80	65	2	5,00	U-4137/0 U-4137/0
208 351	217 620 765		25	130	65	2	5,80	U-4137/0 U-4137/0
208 876	217 620 771		25	160	65	2	6,40	U-4137/0 U-4137/0
208 501	217 620 762		32	70	70	4	5,00	U-4138/0 U-4138/0
213 800	217 620 797		32	81	70	2	5,30	U-4138/0 U-4138/0
208 603	217 620 763		32	100	70	2	5,50	U-4138/0 U-4138/0
208 629	217 620 736		32	130	72	2	6,10	U-4138/0 U-4138/0
208 889	217 620 772		32	160	72	2	6,80	U-4138/0 U-4138/0
213 902	217 620 798		40	91	90	2	5,60	U-4138/0 U-4138/0
208 705	217 620 764		40	100	90	2	6,20	U-4138/0 U-4138/0
214 109	217 620 799		50	110	97	2	6,10	U-4139/0 U-4139/0
214 200	217 620 800		63	115	97	2	6,30	U-4139/0 U-4139/0



Typical order: 0642 176 214 200 or 7620-50-63-115

Type 7620

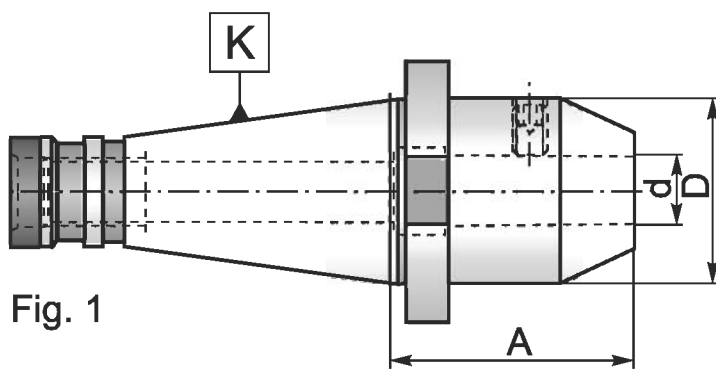
DIN 2080
QUICK CHANGE

Fig. 1

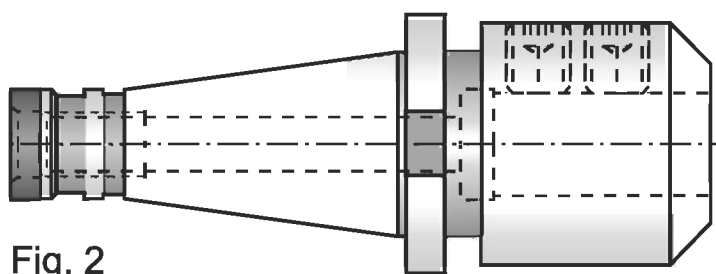


Fig. 2

Code No. 0642 176...	PKWiU 29 402150...	K 7:24	d	A	D	Fig.	kg	
218 204	217 620 400	30	6	50	25	1	0,50	U-4131/0
218 217	217 620 401		8	50	28	1	0,50	U-4132/0
218 220	217 620 402		10	50	35	1	0,60	U-4133/0
218 232	217 620 403		12	50	42	1	0,60	U-4134/0
218 245	217 620 404		16	63	48	1	0,90	U-4135/0
218 258	217 620 405		20	63	52	1	1,00	U-4136/0
218 319	217 620 590	40	6	50	25	1	0,80	U-4131/0
218 334	217 620 591		8	50	28	1	0,80	U-4132/0
218 350	217 620 592		10	50	35	1	0,90	U-4133/0
218 375	217 620 593		12	50	42	1	1,00	U-4134/0
218 390	217 620 594		14	63	42	1	1,30	U-4134/0
218 410	217 620 595		16	63	48	1	1,40	U-4135/0
218 436	217 620 596		20	63	52	1	1,40	U-4136/0
218 500	217 620 597		25	85	63	2	2,00	U-4137/0 U-4137/0
218 566	217 620 598		32	90	72	2	2,30	U-4138/0 U-4138/0

 Typical order: 0642 176 218 566 or 7620-40-32-90 QC

Type 7627

DIN 2080

END MILL ADAPTERS
TYPE WHISTLE-NOTCH

for tools with cylindrical shank
and inclined flat DIN 1835-E

OPRAWKI ZACISKOWE
TYPU WHISTLE-NOTCH

do narzędzi z chwytem walcowym
ze spłaszczeniem klinowym DIN 1835-E

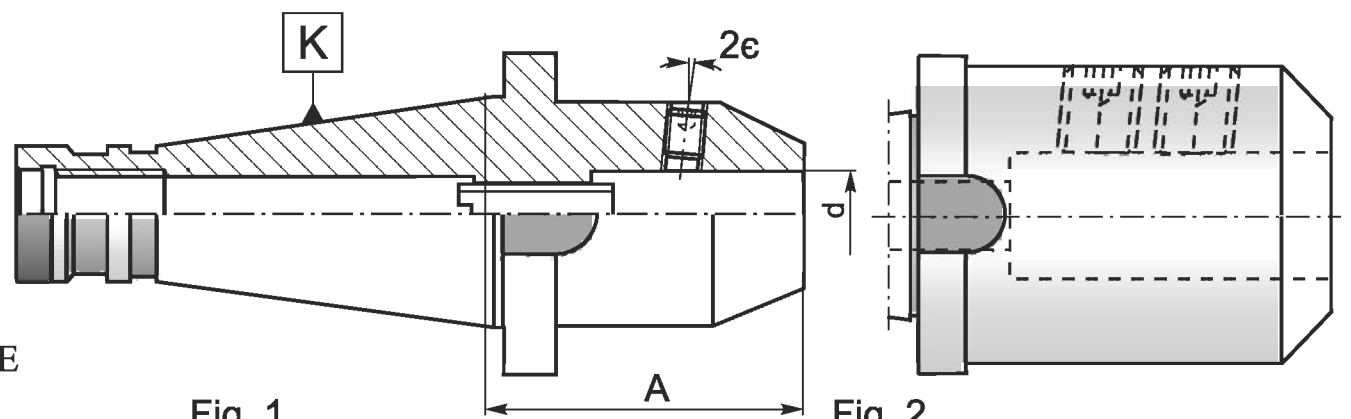


Fig. 1

Fig. 2

Code No. 0642 176...	PKWiU 29 402 150...	K 7:24	d	A	Fig.	kg		
270 104	217 627 530	40	6	50	1	0,90	U-4131/0	U-1599/0
270 206	217 627 531		8	50	1	0,90	U-4132/0	U-6317/0
270 308	217 627 532		10	50	1	1,00	U-4133/0	U-0293/0
270 400	217 627 533		12	50	1	1,10	U-4134/0	U-0757/0
270 501	217 627 534		14	50	1	1,30	U-4134/0	U-6318/0
270 603	217 627 535		16	63	1	1,40	U-4135/0	U-6318/0
270 705	217 627 536		18	63	1	1,40	U-4136/0	U-6793/0
270 807	217 627 537		20	63	1	1,40	U-4136/0	U-6793/0
270 909	217 627 538		25	80	2	1,90	U-4137/0	U-4137/0 U-6794/0
271 003	217 627 539		32	80	2	2,20	U-4138/0	U-4138/0 U-6794/0
271 105	217 627 710	50	6	63	1	3,30	U-4131/0	U-1599/0
271 207	217 627 711		8	63	1	3,30	U-4132/0	U-6317/0
271 309	217 627 712		10	63	1	3,60	U-4133/0	U-0293/0
271 400	217 627 713		12	63	1	3,80	U-4134/0	U-0757/0
271 502	217 627 714		14	63	1	3,90	U-4135/0	U-6318/0
271 604	217 627 715		16	63	1	4,10	U-4135/0	U-6318/0
271 706	217 627 716		18	63	1	4,20	U-4136/0	U-6793/0
271 808	217 627 717		20	63	1	4,30	U-4136/0	U-6793/0
271 900	217 627 718		25	80	2	5,00	U-4137/0	U-4137/0 U-6794/0
272 004	217 627 719		32	80	2	5,10	U-4138/0	U-4138/0 U-6794/0
272 106	217 627 720		40	90	2	5,30	U-5870/0	U-5870/0 U-6794/0

 Typical order: 0642 176 272 106 or 7627-50-40-90



Type 7657

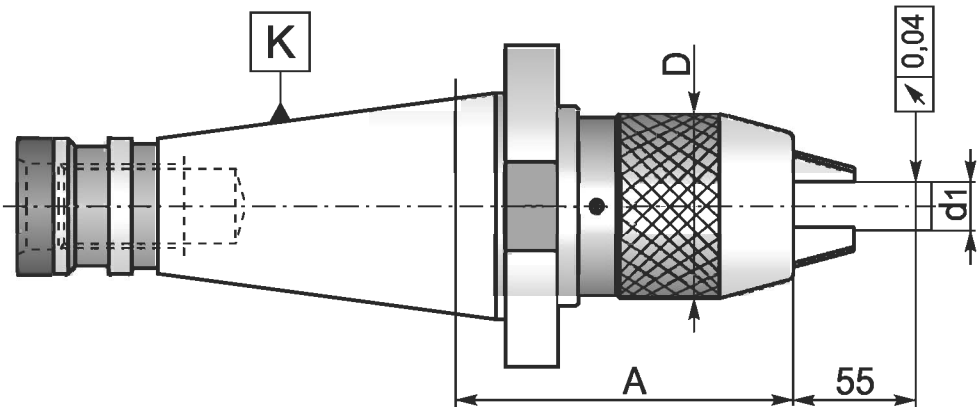
DIN 2080

KEYLESS DRILL CHUCKS

with shank

OPRAWKA

z uchwytem wiertarskim bezkluczykowym



Standard accessories:

Wrench.

Code No. 0642 176...	PKWiU 29 402 150...	K 7:24	d1	A	D	kg
570 401	217 657 550	40	1-13	88	50	2,00
570 442	217 657 560		3-16	99	57	2,40
570 503	217 657 730	50	1-13	85	50	4,60
570 544	217 657 740		3-16	89	57	5,20

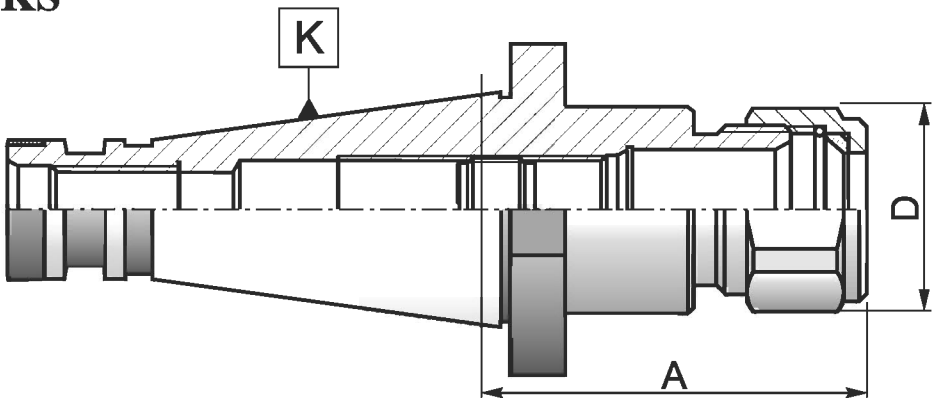
Typical order: 0642 176 570 544 or 7657-50-16-89

Type 7665

DIN 2080

DOUBLE ANGLE COLLET CHUCKS

OPRAWKI ZACISKOWE
(do tulejek DA)



Standard accessories:

Nut - page 110,
screw

Wyposażenie podstawowe:
Nakrętka - str. 110,
wkręt

Optional accessories:

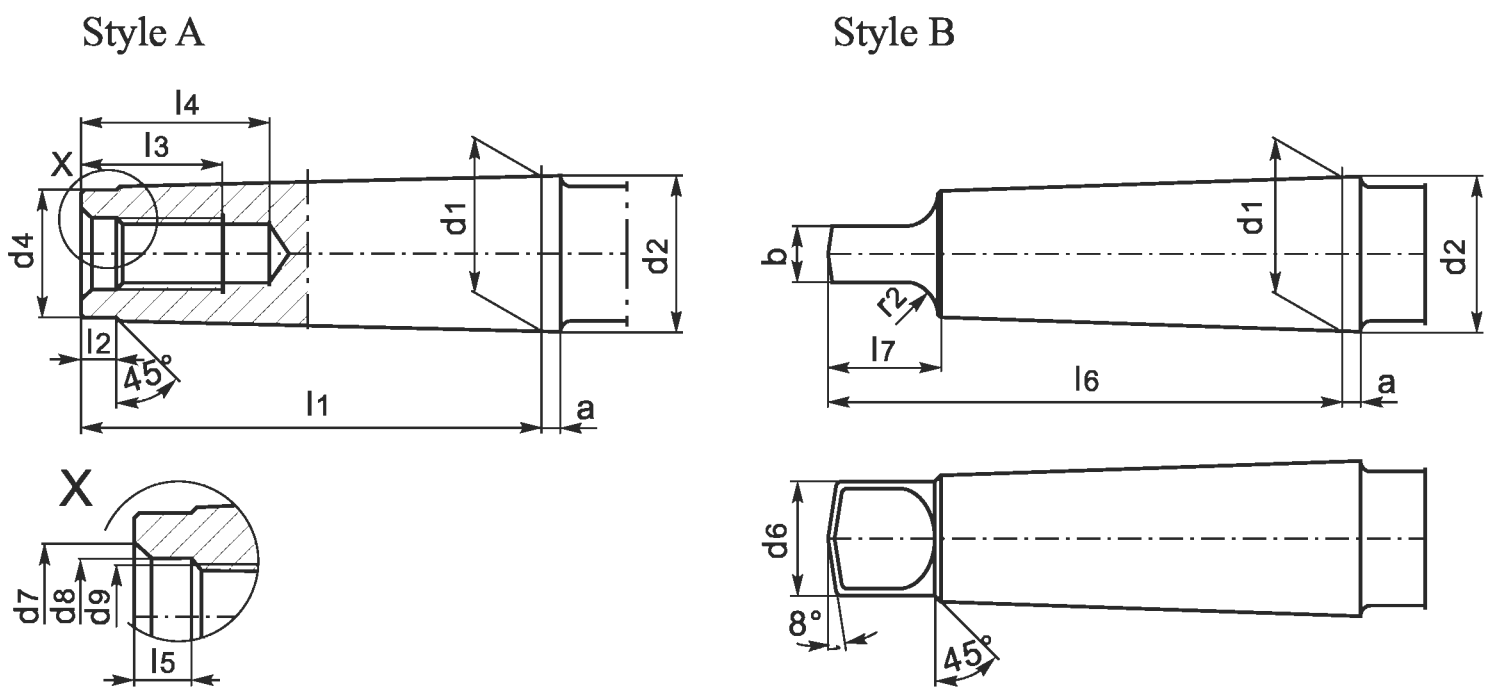
Code No. 0642 176...	PKWiU 29 407 150...	K 7:24	Collet	A	Capacity Zakres	D	kg		
650 800	217 665 370	30	DA 180	60	3-19	39	1,10	9836-18	M20x1,5x15LH
652 801	217 665 550	40	DA 180	70	3-19	39	1,20	9836-18	M20x1,5x15LH
655 804	217 665 380	30QC	DA 180	60	3-19	39	2,50	9836-18	M20x1,5x15LH
658 807	217 665 560	40QC	DA 180	70	3-19	39	3,20	9836-18	M20x1,5x15LH

Typical order: 0642 176 650 800 or 7665-30-18-60



MORSE TAPER

CHWYT MORSE'A



K Morse	a	b	d1	d2	d4	d6	d7	d8	d9
0	3	3.9	9.045	9.2	6	6	—	—	
1	3.5	5.2	12.065	12.2	9	8.7	8.5	6.4	
M6									
2	5	6.3	17.780	18	14	13.5	13.2	10.5	
M10									
3	5	7.9	23.825	24.1	19	18.5	16	13	
M12									
4	6.5	11.9	31.267	31.6	25	24.5	21.5	17	

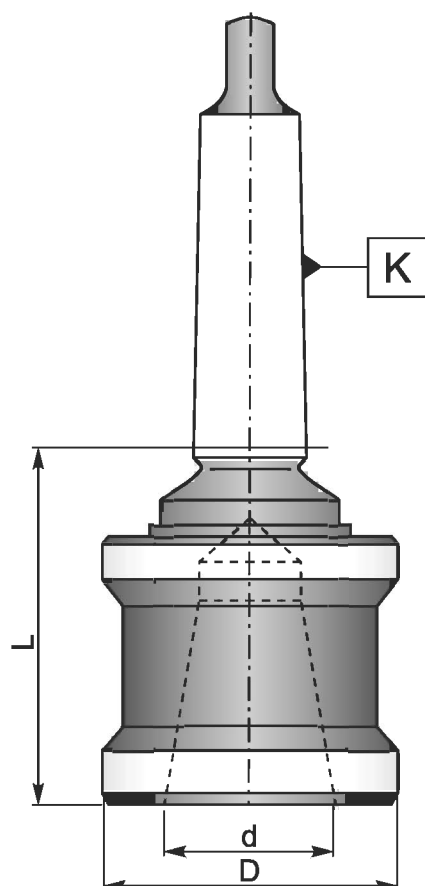
K Morse	l1	l2	l3	l4	l5	l6	l7	r2	α/2
0	50	4	—	—	—	56.5	10.5	4	1°29'27"
1	53.5	5	16	22	4	62	13.5	5	1°25'43"
2	64	5	24	31.5	5	75	16	6	1°25'50"
3	81	7	24	33.5	5.5	94	20	7	1°26'16"
4	102.5	9	32	42.5	8.2	117.5	24	8	1°29'15"
5	129.5	10	40	52.5	10	149.5	29	10	1°30'26"
6	182	16	47	61.5	11.5	210	40	13	1°29'36"

STANDARD FEATURES OF TOOLING

- * Manufactured with Chrome Manganese steel.
- * Carburized with depth of case 0,7 mm.
- * Hardened and precision ground.
- * Surface Hardness RC 58±2.

CHARAKTERYSTYKA TECHNICZNA
WYROBYW

- * Materiai: stal stopowa chromowo-manganowa.
- * Nawkglane na gikbokoъж 0,7 mm.
- * Hartowane i precyzyjnie szlifowane.
- * Twardoъж powierzchni 58±2 HRC.

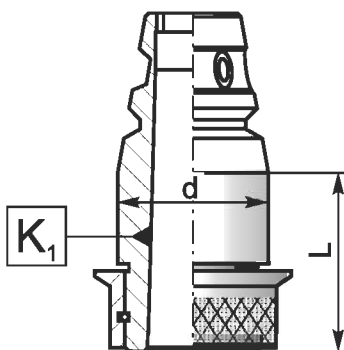
Type 1721**DIN 228****QUICK-CHANGE HOLDERS****OPRAWKI SZYBKOMOCUJĄCE**

Code No. 0642 117...	PKWiU 29 402 133...	Size Wielk.	K Morse	d	D	L	kg
212 304	121 721 101	2-40	2	40,0	65	82,5	1,10
213 305	121 721 201	3-40	3	40,0	65	81,0	1,20
214 306	121 721 301	4-40	4	40,0	65	80,0	1,50
214 408	121 721 302	4-51	4	51,5	83	102,0	2,50
215 409	121 721 402	5-51	5	51,5	83	98,5	2,50

QUICK-CHANGE ADAPTERS**Type 5216**

* WITH MORSE TAPER SEAT

* Z GNIAZDEM STOŹKOWYM MORSE'A



Code No. 0642 152...	PKWiU 29 402 135...	Size Wielk.	d	K1 Morse	L	kg
162 104	225 216 281	40-1	40,0	1	29	0,45
162 206	225 216 282	40-2	40,0	2	29	0,40
162 308	225 216 283	40-3	40,0	3	47	0,47
163 105	225 216 331	51-1	51,5	1	34	1,00
163 207	225 216 332	51-2	51,5	2	34	1,00
163 309	225 216 333	51-3	51,5	3	34	1,00
163 400	225 216 334	51-4	51,5	4	57	1,00

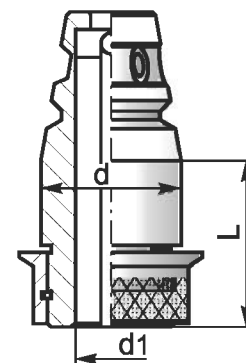
Type 5217

* FOR HOLDERS

WITH AXIAL ADJUSTMENT

* DO OPRAWEK

Z REGULACJĄ OSIOWĄ

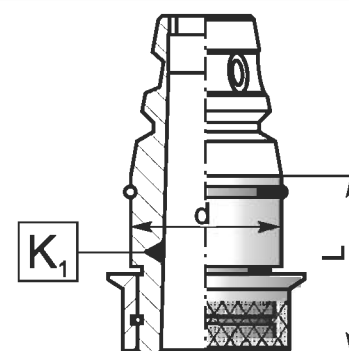


Code No. 0642 152...	PKWiU 29 402 135...	Size Wielk.	d	d1	L	kg
170 100	225 217 281	40-20	40,0	20	54	0,55
170 508	225 217 335	51-28	51,5	28	55	1,00

Type 5219

* FOR REAMERS

* DO ROZWIERTAKÓW

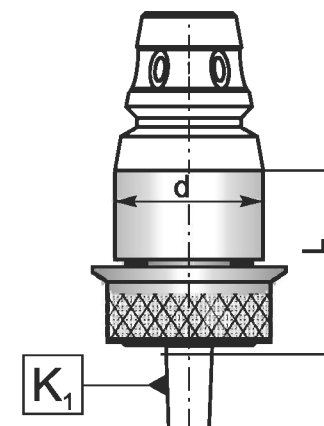


Code No. 0642 152...	PKWiU 29 402 135...	Size Wielk.	d	K1 Morse	L	kg
190 300	225 219 281	40-2	40,0	2	29	0,50
190 402	225 219 282	40-3	40,0	3	47	0,47
190 504	225 219 334	51-4	51,5	4	57	1,00

Type 5366

* FOR DRILL CHUCKS

* DO UCHWYTÓW WIERTARSKICH

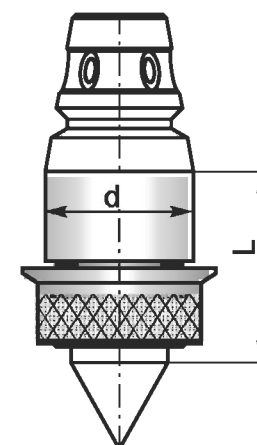


Code No. 0642 153...	PKWiU 29 402 133...	Size Wielk.	d	K1 DIN	L	kg
660 105	265 366 482	40-B12	40,0	B12	32,5	0,60
660 400	265 366 483	40-B16	40,0	B16	34,0	0,65
660 502	265 366 603	51-B16	51,5	B16	39,0	1,20

Type 5367

* WITH CENTRE

* Z KJEM



Code No. 0642 153...	PKWiU 29 402 133...	Size Wielk.	d	L	kg
670 409	265 367 480	40-60	40,0	61	1,60
670 500	265 367 600	51-60	51,5	66	2,80

DIN 228

REDUCING SLEEVES

for tools with Morse taper shank

TULEJE REDUKCYJNE

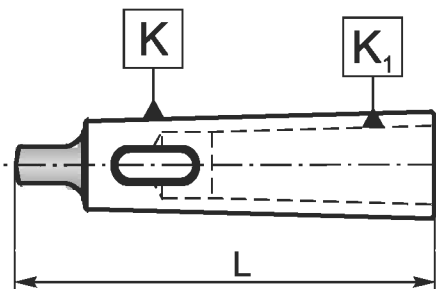
do narzędzi z chwytem Morse'a

Type 1751

- Completely hardened, ground internally and externally
- Caia tuleja hartowana, szlifowany stołek wewnętrzny i zewnętrzny

Type 1752

- Hardened tang, ground internally and externally
- Hartowana tylko pietwa, szlifowany stołek zewnętrzny i wewnętrzny



 Typical order: 0642 117 511 509 or 1751-6-5

Type 1751		Type 1752		K Morse	K1 Morse	L				
Code No. 0642 117...	PKWiU 29 402 133...	Code No. 0642 117...	PKWiU 29 402 133...							
501 103	121 750 001	—	—	1	0	85				0,04
510 100	121 751 100	520 109	121 752 100	2	1	92				0,10
510 202	121 751 200	520 200	121 752 200	3	1	99				0,22
510 304	121 751 201	520 302	121 752 201		2	112				0,19
510 406	121 751 300	520 404	121 752 300	4	1	124				0,50
510 508	121 751 301	520 506	121 752 301		2	124				0,45
510 600	121 751 302	520 608	121 752 302		3	140				0,40
510 701	121 751 400	520 700	121 752 400	5	1	156				1,45
510 803	121 751 401	520 801	121 752 401		2	156				1,52
510 905	121 751 402	520 903	121 752 402		3	156				1,36
511 000	121 751 403	521 008	121 752 403		4	174				0,95
511 203	121 751 501	521 201	121 752 501	6	2	218				4,05
511 305	121 751 502	521 303	121 752 502		3	218				4,10
511 407	121 751 503	521 405	121 752 503		4	218				3,60
511 509	121 751 504	521 507	121 752 504		5	218				2,55

Type 1754

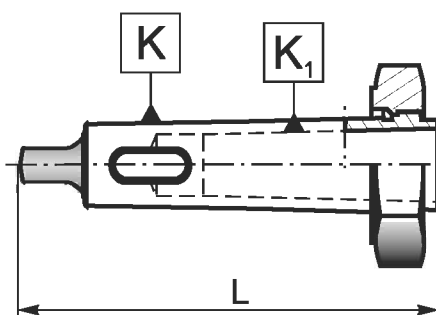
REDUCING SLEEVES

for tools with Morse taper shank with forcing nut

TULEJE REDUKCYJNE

do narzędzi z chwytem Morse'a i z nakrętką siłującą

- Completely hardened, ground internally and externally
- Caia tuleja hartowana, szlifowany stołek wewnętrzny i zewnętrzny



 Typical order: 0642 117 541 707 or 1754-6-5

Code No. 0642 117...	PKWiU 29 402 133...	K Morse	K1 Morse	L				
540 105	121 754 100	2	1	92,0			0,14	S-0776/0
540 309	121 754 200	3	1	119,0			0,36	S-0778/0
540 400	121 754 201		2	119,0			0,27	S-0778/0
540 604	121 754 300	4	1	146,5			0,67	S-0780/0
540 706	121 754 301		2	146,5			0,59	S-0780/0
540 808	121 754 302		3	146,5			0,47	S-0780/0
541 106	121 754 401	5	2	178,0			1,75	S-0782/0
541 208	121 754 402		3	178,0			1,59	S-0782/0
541 300	121 754 403		4	178,0			1,27	S-0782/0
541 503	121 754 502	6	3	245,0			4,63	S-0784/0
541 605	121 754 503		4	245,0			4,11	S-0784/0
541 707	121 754 504		5	245,0			3,00	S-0784/0

DIN 228

EXTENSION SLEEVES

for tools with Morse taper

TULEJE REDUKCYJNE DJUGIE

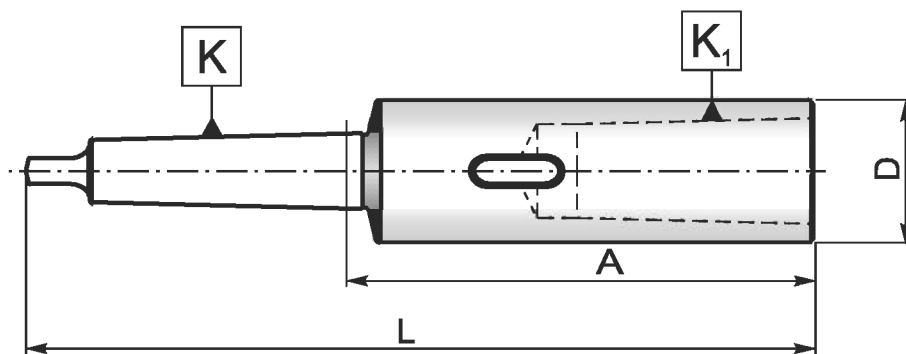
do narzędzi z chwytem Morse'a

Type 1761

- Completely hardened, ground internally and externally
- Caia tuleja hartowana, szlifowany stołek wewnętrzny i zewnętrzny

Type 1762

- Hardened tang, ground internally and externally
- Hartowana tylko pietwa, szlifowany stołek zewnętrzny i wewnętrzny



DIN 228

Type 1761		Type 1762		K Morse	K1 Morse	L	A	D	
Code No. 0642 117...	PKWiU 29 402 133...	Code No. 0642 117...	PKWiU 29 402 133...						
610 108	121 761 001	620 106	121 762 001	1	1	145	83,0	20	0,19
610 200	121 761 002	620 208	121 762 002		2	160	98,0	30	0,34
610 301	121 761 003	620 300	121 762 003		3	183	121,0	36	0,40
610 403	121 761 100	620 401	121 762 100	2	1	160	85,0	20	0,25
610 505	121 761 101	620 503	121 762 101		2	175	100,0	30	0,40
610 607	121 761 102	620 605	121 762 102		3	196	121,0	36	0,84
610 709	121 761 103	620 707	121 762 103		4	221	146,0	48	0,93
610 800	121 761 200	620 809	121 762 200	3	1	175	81,0	20	0,40
610 902	121 761 201	620 900	121 762 201		2	194	100,0	30	0,55
611 007	121 761 202	621 005	121 762 202		3	215	121,0	36	0,86
611 109	121 761 203	621 107	121 762 203		4	240	146,0	48	1,18
611 200	121 761 204	621 209	121 762 204		5	275	181,0	63	1,24
611 302	121 761 300	621 300	121 762 300	4	1	200	82,5	20	0,80
611 404	121 761 301	621 402	121 762 301		2	215	97,5	30	0,85
611 506	121 761 302	621 504	121 762 302		3	240	122,5	36	1,30
611 608	121 761 303	621 606	121 762 303		4	265	147,5	48	1,90
611 700	121 761 304	621 708	121 762 304		5	300	182,5	63	3,31
611 801	121 761 305	621 800	121 762 305		6	361	243,5	82	5,36
611 903	121 761 400	621 901	121 762 400	5	1	232	82,5	20	1,80
612 008	121 761 401	622 006	121 762 401		2	247	97,5	30	1,90
612 100	121 761 402	622 108	121 762 402		3	268	118,5	36	2,15
612 201	121 761 403	622 200	121 762 403		4	300	150,5	48	2,75
612 303	121 761 404	622 301	121 762 404		5	335	185,5	63	4,20
612 405	121 761 405	622 403	121 762 405		6	396	246,5	82	6,40
612 507	121 761 500	622 505	121 762 500	6	1	294	84,0	20	4,10
612 609	121 761 501	622 607	121 762 501		2	309	99,0	30	4,35
612 700	121 761 502	622 709	121 762 502		3	330	120,0	36	4,58
612 802	121 761 503	622 800	121 762 503		4	355	145,0	48	5,42
612 904	121 761 504	622 902	121 762 504		5	390	180,0	63	6,75
613 009	121 761 505	623 007	121 762 505		6	451	241,0	82	9,27



Typical order: 0642 117 613 009 or 1761-6-6

DIN 228**ELONGATING SLEEVES**

for tools with Morse taper shank

TULEJE PRZEDJUŹAJTCE

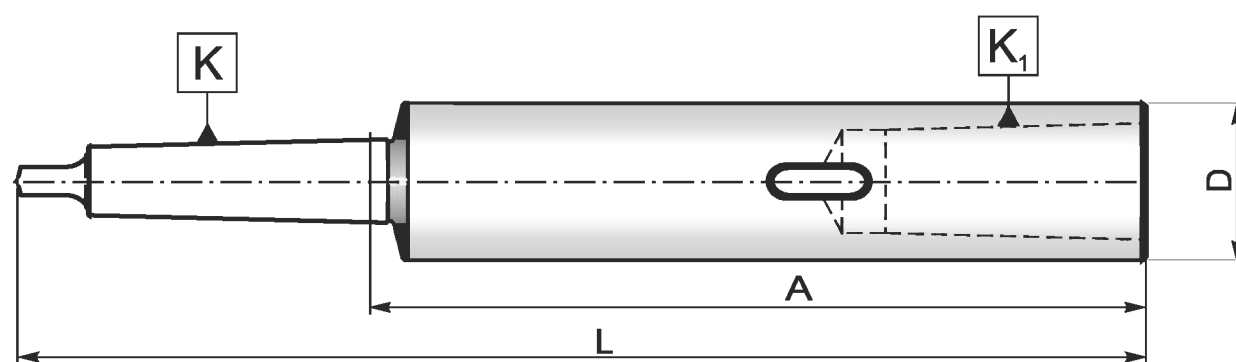
do narzędzi z chwytem Morse'a

Type 1764

- Completely hardened, ground internally and externally
- Caia tuleja hartowana, szlifowany stołek wewnętrzny i zewnętrzny

Type 1765

- Hardened tang, ground internally and externally
- Hartowana tylko pietwa, szlifowany stołek zewnętrzny i wewnętrzny



Type 1764		Type 1765		K Morse	K1 Morse	L	A	D	
Code No. 0642 117...	PKWiU 29 402 133...	Code No. 0642 117...	PKWiU 29 402 133...						
645 107	121 764 001	655 105	121 765 001	1	1	200	138,0	20	0,25
645 209	121 764 002	655 207	121 765 002		1	250	188,0	20	0,37
645 300	121 764 003	655 309	121 765 003		1	300	238,0	20	0,50
645 402	121 764 004	655 400	121 765 004		1	350	288,0	20	0,62
645 504	121 764 005	655 502	121 765 005		1	400	338,0	20	0,75
645 606	121 764 006	655 604	121 765 006		1	450	388,0	20	0,87
645 708	121 764 007	655 706	121 765 007		1	500	438,0	20	1,00

Type 1764		Type 1765		K Morse	K1 Morse	L	A	D	kg
Code No. 0642 117...	PKWiU 29 402 133...	Code No. 0642 117...	PKWiU 29 402 133...						
646 108	121 764 100	656 106	121 765 100	2	2	200	125,0	25	0,43
646 200	121 764 101	656 208	121 765 101		2	250	175,0	25	0,62
646 301	121 764 102	656 300	121 765 102		2	300	225,0	25	0,82
646 403	121 764 103	656 401	121 765 103		2	350	275,0	25	1,02
646 505	121 764 104	656 503	121 765 104		2	400	325,0	25	1,20
646 607	121 764 105	656 605	121 765 105		2	450	375,0	25	1,40
646 709	121 764 106	656 707	121 765 106		2	500	425,0	25	1,60
646 800	121 764 107	656 809	121 765 107		2	600	525,0	25	1,80
647 109	121 764 201	657 107	121 765 201	3	3	250	156,0	32	1,00
647 200	121 764 202	657 209	121 765 202		3	300	206,0	32	1,30
647 302	121 764 203	657 300	121 765 203		3	350	256,0	32	1,55
647 404	121 764 204	657 402	121 765 204		3	400	306,0	32	1,85
647 506	121 764 205	657 504	121 765 205		3	450	356,0	32	2,10
647 608	121 764 206	657 606	121 765 206		3	500	406,0	32	2,40
647 700	121 764 207	657 708	121 765 207		3	600	506,0	32	2,70
648 100	121 764 300	658 108	121 765 300	4	4	300	182,5	40	1,65
648 201	121 764 301	658 200	121 765 301		4	350	232,5	40	2,15
648 303	121 764 302	658 301	121 765 302		4	400	282,5	40	2,65
648 405	121 764 303	658 403	121 765 303		4	450	332,5	40	3,10
648 507	121 764 304	658 505	121 765 304		4	500	382,5	40	3,60
648 609	121 764 305	658 607	121 765 305		4	600	482,5	40	4,20



Typical order: 0642 117 648 609 or 1764-4-4-600

Type 1770

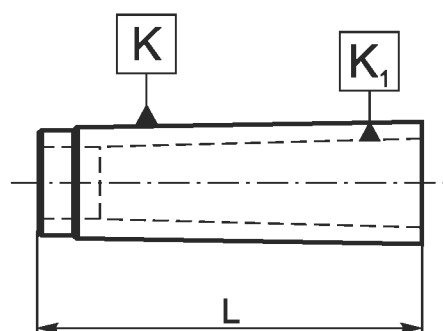
SPINDLE SLEEVES

for tools with Morse taper shank

TULEJE REDUKCYJNE

do narzędzi z chwytem Morse'a

- Completely hardened, ground internally and externally
- Cała tuleja hartowana, szlifowany stołek wewnętrzny i zewnętrzny



Code No. 0642 117...	PKWiU 29 402 133...	K Morse	K1 Morse	L			kg
700 209	121 770 100	2	1	50			0,05
700 300	121 770 200	3	1	55			0,15
700 402	121 770 201		2	65			0,10
700 606	121 770 301	4	2	70			0,25
700 708	121 770 302		3	75			0,20
701 200	121 770 401	5	2	80			0,75
701 301	121 770 402		3	90			0,70
701 403	121 770 403		4	100			0,60
701 800	121 770 502	6	3	110			2,15
701 902	121 770 503		4	120			2,00
702 007	121 770 504		5	130			1,50

Code No. 0642 117...	PKWiU 29 402 133...	K Metr. 1:20	K1 Morse	L			kg
702 506	121 770 704	80	5	135			3,50
702 608	121 770 705		6	170			2,50
703 201	121 770 745	100	6	180			6,40



Typical order: 0642 117 702 007 or 1770-6-5

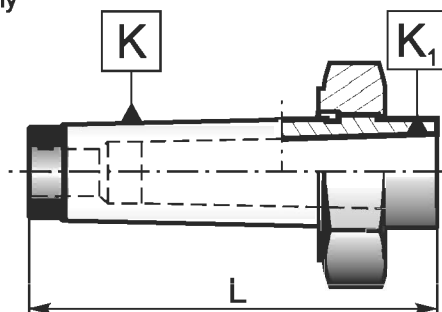
Type 1774**DIN 228****SPINDLE SLEEVES**

for tools with Morse taper shank with forcing nut

TULEJE REDUKCYJNE

do narzędzi z chwytem Morse'a z nakrętką dociskającą

- Completely hardened, ground internally and externally
- Caia tuleja hartowana, szlifowany stołek wewnętrzny i zewnętrzny



Code No. 0642 117...	PKWiU 29 402 133...	K Morse	K1 Morse	L			kg	
741 100	121 774 200	3	2	80			0,10	S-0778/0
741 304	121 774 300	4	2	86			0,30	S-0780/0
741 406	121 774 301		3	91			0,20	S-0780/0
741 600	121 774 400	5	2	102			0,90	S-0782/0
741 701	121 774 401		3	112			0,70	S-0782/0
741 803	121 774 402		4	122			0,90	S-0782/0
742 101	121 774 501	6	3	137			2,30	S-0784/0
742 203	121 774 502		4	147			2,10	S-0784/0
742 305	121 774 503		5	157			1,50	S-0784/0



Typical order: 0642 117 742 305 or 1774-6-5

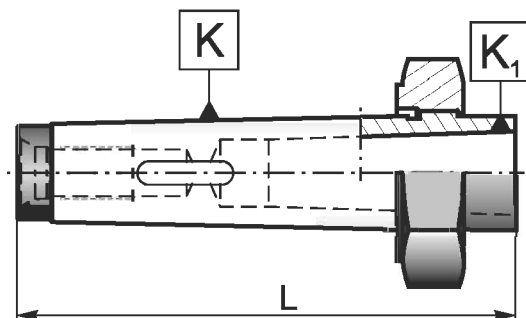
Type 1775**DIN 228****SPINDLE SLEEVES**

for tools with Morse taper shank with forcing nut

TULEJE REDUKCYJNE

do narzędzi z chwytem Morse'a z nakrętką dociskającą

- Completely hardened, ground internally and externally
- Caia tuleja hartowana, szlifowany stołek wewnętrzny i zewnętrzny



Typical order: 0642 117 751 801 or 1775-6-5

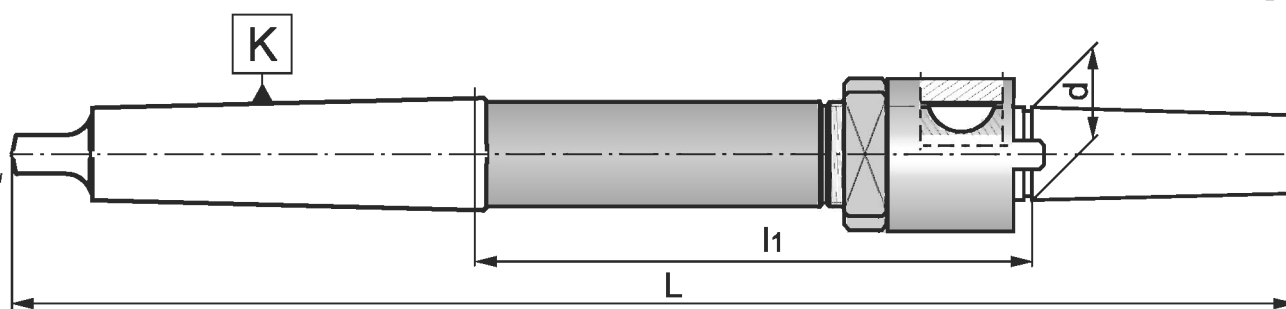
Code No. 0642 117...	PKWiU 29 402 133...	K Morse	K1 Morse	L			kg	
750 108	121 775 100	2	1	100,0			0,10	S-0776/0
750 301	121 775 200	3	1	112,0			0,30	S-0778/0
750 403	121 775 201		2	125,0			0,20	S-0778/0
750 607	121 775 300	4	1	135,5			0,70	S-0780/0
750 709	121 775 301		2	147,0			0,50	S-0780/0
750 800	121 775 302		3	165,0			0,35	S-0780/0
751 109	121 775 401	5	2	160,0			1,40	S-0782/0
751 200	121 775 402		3	167,0			1,20	S-0782/0
751 302	121 775 403		4	171,5			0,90	S-0782/0
751 608	121 775 502	6	3	217,0			4,20	S-0784/0
751 700	121 775 503		4	217,0			3,80	S-0784/0
751 801	121 775 504		5	217,0			2,70	S-0784/0

Type 5310**DIN 228****DRIVER ARBORS**

for reamers

TRZPIENIE ZABIERAKOWE

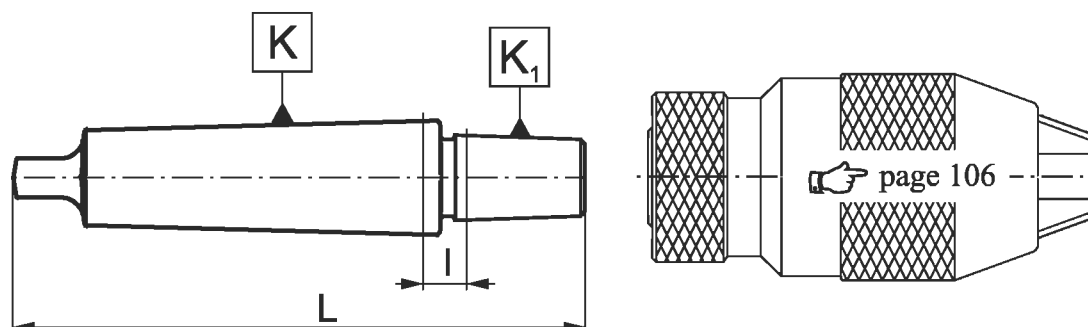
do rozwiertaków nasadzanych



Code No. 0642 153	PKWiU 29 402 133	K Morse	d	L	l1		kg			
102 101	265 310 030	2	10	220	105,8		0,28	S-0881/0	S-0880/0	U-0097/0
103 204	265 310 061	3	13	250	111,9		0,58	S-0884/0	S-0883/0	U-0097/0
103 306	265 310 062		16	261	117,9		0,82	S-0887/0	S-0886/0	U-0648/0
103 408	265 310 063		19	270	121,1		0,90	S-0891/0	S-0890/0	U-0098/0
103 500	265 310 064		22	278	122,1		0,96	S-0894/0	S-0893/0	U-0098/0
104 307	265 310 093	4	19	298	125,6		1,47	S-0891/0	S-0890/0	U-0098/0
104 409	265 310 094		22	312	132,6		1,74	S-0894/0	S-0893/0	U-0098/0
104 500	265 310 095		27	325	137,6		1,97	S-0897/0	S-0896/0	S-0898/0
104 602	265 310 096		32	345	148,9		2,35	S-0901/0	S-0900/0	U-0649/0
105 308	265 310 125	5	27	359	139,6		3,27	S-0897/0	S-0896/0	S-0898/0
105 400	265 310 126		32	376	147,9		4,13	S-0901/0	S-0900/0	U-0649/0
105 501	265 310 127		40	396	157,9		6,05	S-0905/0	S-0904/0	U-0650/0
105 603	265 310 128		50	416	167,9		7,20	S-0909/0	S-0908/0	U-0106/0



Typical order: 0642 153 105 603 or 5310-5-50

**Type 5361****DRILL CHUCK MANDRELS**

for drill chucks taper DIN 238

TRZPIENIE

do uchwytów wiertarskich ze stożkiem DIN 238

Code No. 0642 153...	PKWiU 29 402 133...	K Morse	K1 DIN	L	l	kg
611 105	265 361 008	1	B10	86,0	6,0	0,05
611 207	265 361 009		B12	89,0	5,0	0,06
611 309	265 361 010		B16	99,0	8,0	0,09
611 400	265 361 011		B18	107,0	8,0	0,11
616 507	265 361 005		B18V	97,0	8,0	0,10
612 106	265 361 038	2	B10	105,0	12,0	0,13
612 208	265 361 039		B12	106,0	9,0	0,14
612 300	265 361 040		B16	112,0	8,0	0,16
612 401	265 361 041		B18	119,0	7,0	0,18
616 609	265 361 035		B18V	108,5	6,5	0,17
612 503	265 361 042	3	B22	130,0	9,5	0,25
613 107	265 361 068		B10	121,0	9,0	0,25
613 209	265 361 069		B12	127,0	11,0	0,28
613 300	265 361 070		B16	134,0	11,0	0,31
613 402	265 361 071		B18	140,0	9,0	0,33
617 406	265 361 065	4	B18V	132,0	11,0	0,31
613 504	265 361 072		B22	147,0	17,5	0,38
613 606	265 361 073		B24	157,0	17,5	0,44
614 200	265 361 099		B12	152,5	13,0	0,56
614 301	265 361 100		B16	158,0	11,5	0,60
614 403	265 361 101	5	B18	166,5	12,0	0,63
617 508	265 361 095		B18V	159,0	14,5	0,61
614 505	265 361 102		B22	176,0	13,0	0,71
614 607	265 361 103		B24	186,0	13,0	0,76
615 200	265 361 129		B12	186,5	15,0	1,36
615 302	265 361 130	5	B16	193,0	14,5	1,40
615 404	265 361 131		B18	200,5	14,0	1,43
617 510	265 361 125		B18V	191,0	14,5	1,47
615 506	265 361 132		B22	208,5	13,5	1,51
615 608	265 361 133		B24	221,0	16,0	1,56

 Typical order: 0642 153 615 608 or 5361-5-B24
Type 5362**DRILL CHUCK MANDRELS**

for Jacobs drill chucks

TRZPIENIE

do uchwytów wiertarskich ze stożkiem Jacobs'a

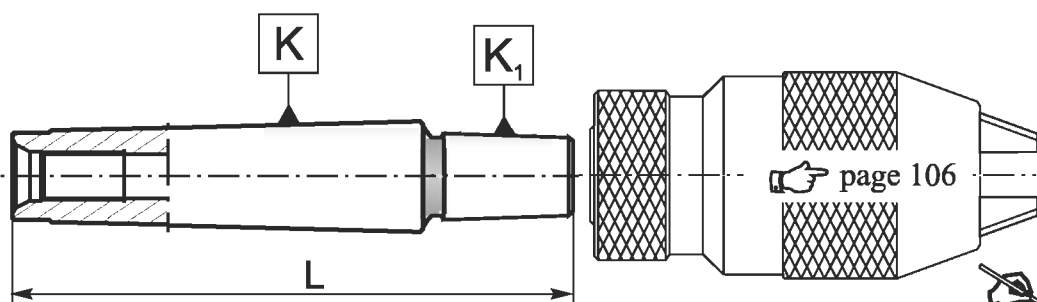
Code No. 0642 153...	PKWiU 29 402 133...	K Morse	K1 Jacobs	L	l	kg
616 008	265 362 001	1	J0	80,5	7,4	0,07
616 100	265 362 002		J1	83,8	5,1	0,10
616 201	265 362 003		J2	90,5	6,3	0,08
616 405	265 362 005		J3	100,5	7,5	0,12
616 303	265 362 004		J33	95,0	7,6	0,08
616 700	265 362 008	2	J6	95,0	7,6	0,09
616 904	265 362 030		J0	95,5	9,5	0,11
617 009	265 362 031		J1	102,5	9,8	0,13
617 100	265 362 032		J2	106,0	8,8	0,14
617 304	265 362 034		J3	112,5	6,5	0,19
617 202	265 362 033	3	J33	107,0	6,6	0,17
619 805	265 362 035		J4	128,5	11,4	0,24
617 600	265 362 037		J6	107,0	6,6	0,18
617 905	265 362 061		J1	120,5	9,8	0,27
618 000	265 362 062		J2	127,0	10,8	0,29
618 305	265 362 064	4	J3	131,5	6,5	0,37
618 203	265 362 063		J33	126,0	6,6	0,33
618 101	265 362 065		J4	146,0	10,0	0,47
618 407	265 362 066		J5	153,0	11,4	0,63
618 509	265 362 067		J6	129,0	9,6	0,30
619 703	265 362 092	5	J2	151,5	11,8	0,58
618 702	265 362 094		J3	160,5	12,0	0,65
618 600	265 362 093		J33	155,0	12,0	0,60
618 804	265 362 095		J4	170,0	10,4	0,78
619 000	265 362 096		J5	175,5	10,4	0,95
618 906	265 362 097	5	J6	155,0	12,0	0,61
619 306	265 362 124		J3	193,5	12,5	1,53
619 204	265 362 123		J33	189,5	14,6	1,50
619 408	265 362 125		J4	203,5	11,4	1,67
619 500	265 362 126		J5	209,5	12,4	1,84
619 601	265 362 127		J6	187,0	12,1	1,49

 Typical order: 0642 153 633 307 or 5363-4-B16
Type 5363**DRILL CHUCK MANDRELS**

for drill chucks taper DIN 238

TRZPIENIE

do uchwytów wiertarskich ze stożkiem DIN 238



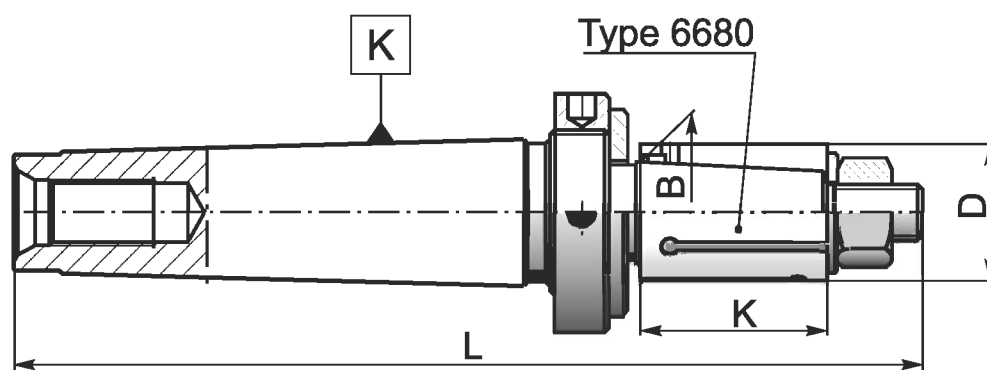
Code No. 0642 153...	PKWiU 29 402 133...	K Morse	K1 DIN	L	kg
631 101	265 363 032	2	B12	95	0,11
631 305	265 363 033		B16	101	0,14
632 306	265 363 063	3	B16	121	0,29
633 307	265 363 093	4	B16	143	0,58

Type 6610**DIN 228****LATHE MANDRELS**

with collets

TRZPIENIE TOKARSKIE

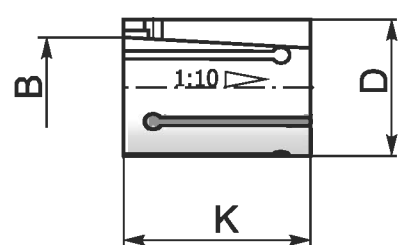
z tulejkami rozprkinyymi



Code No. 0642 566...	PKWiU 29 402 250...	K Morse	D	L	B	K	kg	
100 102	536 610 001	3	12-14	141	9,7	22	0,70	12; 13; 14
100 204	536 610 030		15-18	150	11,7	27	0,80	15; 16; 17; 18
100 306	536 610 070		19-22	160	14,7	32	0,90	19; 20; 21; 22
100 601	536 610 111	4	23-27	190	17,7	37	1,70	23; 24; 25; 26; 27
100 703	536 610 161		28-32	200	21,7	42	2,00	28; 30; 32
100 805	536 610 211		33-38	210	25,6	48	2,30	33; 34; 35; 36; 38
101 103	536 610 282	5	40-45	255	31,6	54	5,50	40; 42; 44; 45
101 205	536 610 342		46-52	265	37,6	60	6,00	46; 48; 50; 50
101 307	536 610 432		55-60	285	44,5	70	6,80	55; 58; 60
101 409	536 610 512		63-70	310	51,5	80	8,50	63; 65; 68; 70



Typical order: 0642 566 101 409 or 6610-5-63-70

Type 6680**SPRING COLLETS****TULEJKI
ROZPRKINE**

Code No. 0642 566...	PKWiU 29 402 250...	D	B	K	kg	Code No. 0642 566...	PKWiU 29 402 250...	D	B	K	kg
800 205	536 680 001	12	9,7	22	0,02	802 400	536 680 220	34	25,6	48	0,24
800 307	536 680 010	13	9,7	22	0,02	802 502	536 680 230	35	25,6	48	0,28
800 409	536 680 020	14	9,7	22	0,02	802 604	536 680 240	36	25,6	48	0,32
800 500	536 680 030	15	11,7	27	0,04	802 808	536 680 260	38	25,6	48	0,38
800 602	536 680 040	16	11,7	27	0,04	803 004	536 680 280	40	31,6	54	0,42
800 704	536 680 050	17	11,7	27	0,50	803 208	536 680 300	42	31,6	54	0,48
800 806	536 680 060	18	11,7	27	0,50	803 401	536 680 320	44	31,6	54	0,54
800 908	536 680 070	19	14,7	32	0,06	803 503	536 680 330	45	31,6	54	0,60
801 002	536 680 080	20	14,7	32	0,06	803 605	536 680 340	46	37,6	60	0,64
801 104	536 680 090	21	14,7	32	0,07	803 809	536 680 360	48	37,6	60	0,70
801 206	536 680 100	22	14,7	32	0,08	804 005	536 680 380	50	37,6	60	0,75
801 308	536 680 110	23	17,7	37	0,10	804 209	536 680 400	52	37,6	60	0,80
801 400	536 680 120	24	17,7	37	0,10	804 504	536 680 430	55	44,5	70	0,90
801 501	536 680 130	25	17,7	37	0,12	804 800	536 680 460	58	44,5	70	1,05
801 603	536 680 140	26	17,7	37	0,13	805 006	536 680 480	60	44,5	70	1,20
801 705	536 680 150	27	17,7	37	0,14	805 200	536 680 510	63	51,5	80	1,35
801 807	536 680 160	28	21,7	42	0,15	805 505	536 680 530	65	51,5	80	1,48
802 003	536 680 180	30	21,7	42	0,17	805 800	536 680 560	68	51,5	80	1,65
802 207	536 680 200	32	21,7	42	0,19	806 007	536 680 580	70	51,5	80	1,80
802 309	536 680 210	33	25,6	48	0,20						



Typical order:

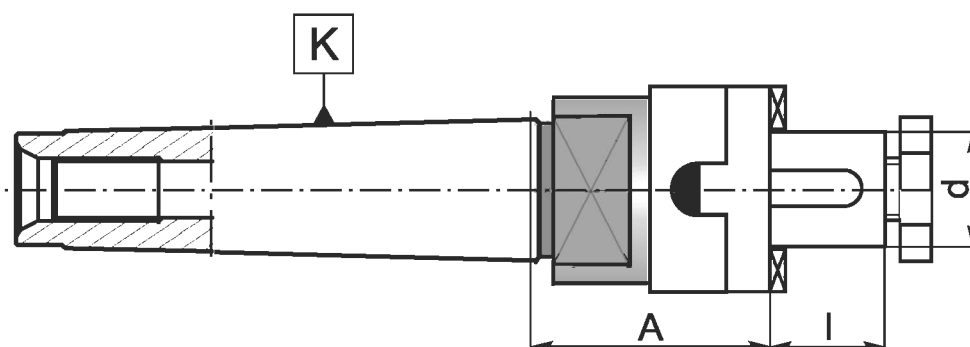
0642 566 800 205 or 6680-12

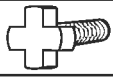
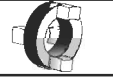
Type 7430**DIN 228****COMBINATION SHELL MILL ADAPTERS**

for cutters with keyway or driving slot DIN 138

TRZPIENIE FREZARSKIE UNIWERSALNE

do frezyw z rowkiem wpustowym lub rowkiem zabierakowym DIN 138



Code No. 0642 174...	PKWiU 29 402 133...	K Morse	d	A	l	kg			
322 201	347 430 052	2	16	46	17	0,28	U-0620/0	U-1364/0	U-1355/0
302 205	347 432 052		16	61	17	0,41	U-0620/0	U-1364/0	U-1355/0
322 303	347 430 053		22	46	19	0,41	U-0621/0	U-1365/0	U-1356/0
302 307	347 432 053		22	61	19	0,60	U-0621/0	U-1365/0	U-1356/0
323 202	347 430 102	3	16	48	17	0,44	U-0620/0	U-1364/0	U-1355/0
303 206	347 432 102		16	63	17	0,68	U-0620/0	U-1364/0	U-1355/0
323 304	347 430 103		22	48	19	0,50	U-0621/0	U-1365/0	U-1356/0
303 308	347 432 103		22	63	19	0,70	U-0621/0	U-1365/0	U-1356/0
323 406	347 430 104		27	48	21	0,57	U-0622/0	U-1366/0	U-1357/0
303 400	347 432 104		27	63	21	1,00	U-0622/0	U-1366/0	U-1357/0
303 501	347 432 105		32	63	24	1,25	U-0623/0	U-1367/0	U-1358/0
324 203	347 430 152	4	16	55	17	0,79	U-0620/0	U-1364/0	U-1355/0
304 207	347 432 152		16	70	17	1,08	U-0620/0	U-1364/0	U-1355/0
324 305	347 430 153		22	55	19	0,84	U-0621/0	U-1365/0	U-1356/0
304 309	347 432 153		22	70	19	1,15	U-0621/0	U-1365/0	U-1356/0
324 407	347 430 154		27	55	21	0,92	U-0622/0	U-1366/0	U-1357/0
304 400	347 432 154		27	70	21	1,37	U-0622/0	U-1366/0	U-1357/0
324 509	347 430 155		32	55	24	0,98	U-0623/0	U-1367/0	U-1358/0
304 502	347 432 155		32	70	24	1,70	U-0623/0	U-1367/0	U-1358/0
304 604	347 432 156		40	70	27	2,10	U-0624/0	U-1368/0	U-1359/0
305 208	347 432 202	5	16	75	17	2,00	U-0620/0	U-1364/0	U-1355/0
305 300	347 432 203		22	75	19	2,22	U-0621/0	U-1365/0	U-1356/0
305 401	347 432 204		27	75	21	2,42	U-0622/0	U-1366/0	U-1357/0
305 503	347 432 205		32	75	24	2,72	U-0623/0	U-1367/0	U-1358/0
305 605	347 432 206		40	75	27	3,25	U-0624/0	U-1368/0	U-1359/0
305 707	347 432 207		50	75	30	4,30	U-0625/0	U-1369/0	U-1360/0



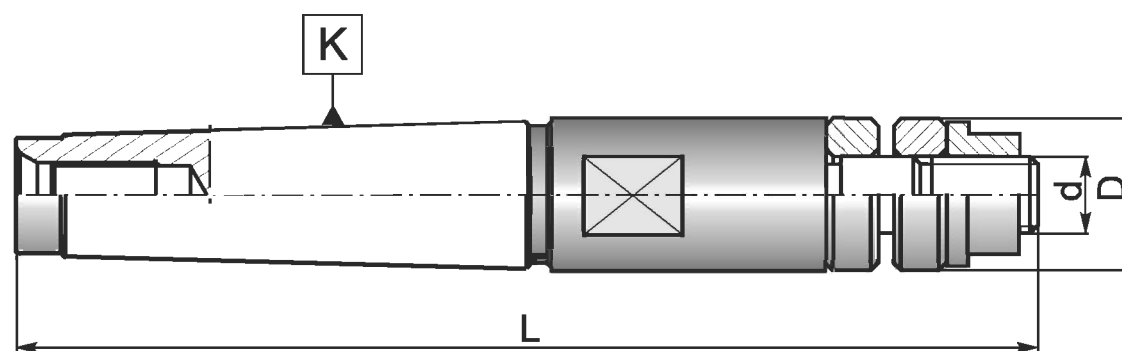
Typical order: 0642 174 305 707 or 7430-5-50-75

Type 7450**DIN 228****MILLING ARBORS**

for disk milling cutters

TRZPIENIE FREZARSKIE

do frezyw piikowych



Code No. 0642 174...	PKWiU 29 402 133...	K Morse	d	D	L	kg
502 108	347 450 051	2	5	10	105.0	0,12
502 200	347 450 052		8	15	125.0	0,17
502 301	347 450 053		10	20	135.0	0,23
503 404	347 450 104	3	13	25	165.0	0,54
503 506	347 450 105		16	32	180.0	0,75
504 609	347 450 156	4	22	40	215.5	1,40
504 700	347 450 157		27	50	220.5	1,70
504 802	347 450 158		32	63	225.5	2,30
504 904	347 450 159		40	80	235.5	3,50
505 905	347 450 209	5	50	100	282.0	5,40



Typical order: 0642 174 502 108 or 7450-2-5

Type 7709**DIN 228****COLLET CHUCKS**

for threaded shank cutters

OPRAWKI ZACISKOWE

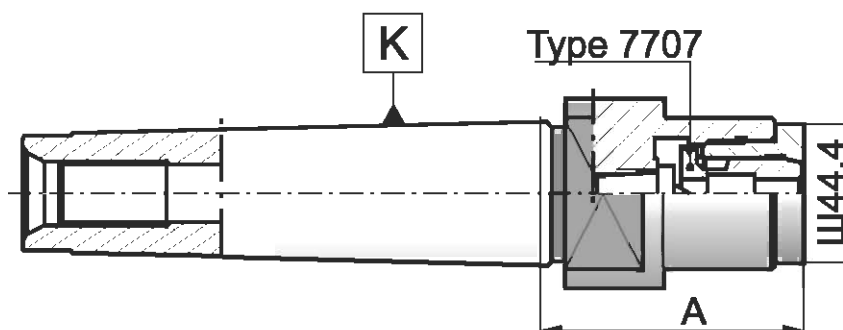
do narzędzi z chwytem walcowym z gwintem

Standard
accessories:Collets - page 102,
nut, centre,
wrench**Wyposażenie podstawowe:**

Tulejki zaciskowe - str. 102,

nakrętka, kiel,
Typical order:

0642 177 090 408 or 7709-5



Code No. 0642 177...	PKWiU 29 402 150...	K Morse	A	Capacity Zakres	Full set pieces	kg	0642 981...	0642 981...	0642 981...
090 102	227 709 030	2	58,7	6-16	4	1,30	519 003 771 000	519 105	
090 204	227 709 130	3	73,0	6-16	4	1,62	519 003 771 000	519 105	
090 306	227 709 230	4	73,8	6-16	4	1,97	519 003 771 000	519 105	
090 408	227 709 330	5	46,0	6-16	4	2,65	519 003 771 000	519 105	

Type 7711**DIN 228****COLLET CHUCKS ER**

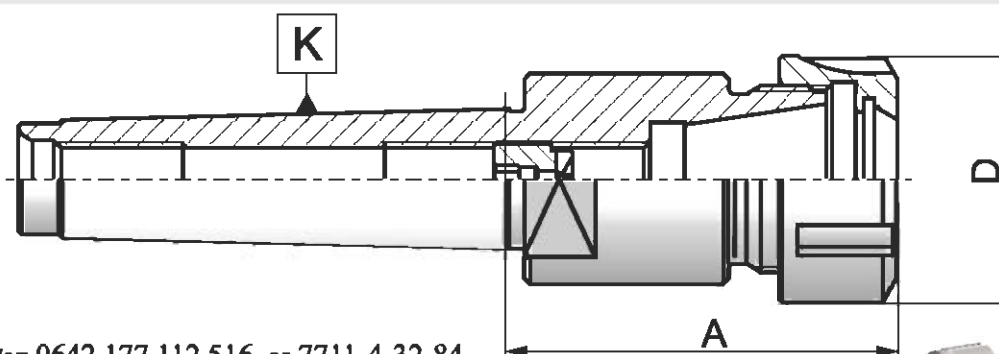
for tool with cylindrical shank

OPRAWKI ZACISKOWE

(do tulejek ER DIN 6499)

do narzędzi z chwytem walcowym

Typical order: 0642 177 112 516 or 7711-4-32-84

Standard
accessories:Nut - page 110,
screw**Wyposażenie podstawowe:**Nakrętka - str. 110,
wkret

Code No. 0642 177...	PKWiU 29 407 150...	K Morse	Collet	A	Capacity Zakres	D	kg	9833-16	M10x11LH
112 017	227 711 031	2	ER16	43,5	2-10	32	0,195	9833-16	M10x11LH
112 119	227 711 035		ER20	47,5	2-13	35	0,215	9833-20	M10x11LH
112 150	227 711 039		ER32	65,5	2-20	50	0,600	9833-32	M10x11LH
112 190	227 711 131	3	ER16	43,5	2-10	32	0,500	9833-16	M12x1,5x14LH
112 210	227 711 135		ER20	45,5	2-13	35	0,347	9833-20	M12x1,5x14LH
112 292	227 711 139		ER25	68,0	2-16	42	0,544	9833-25	M12x1,5x14LH
112 325	227 711 143		ER32	73,5	2-20	50	0,800	9833-32	M12x1,5x14LH
112 414	227 711 131	4	ER25	54,5	2-16	42	0,690	9833-25	M18x1,5x19LH
112 516	227 711 235		ER32	84,0	2-20	50	0,900	9833-32	M18x1,5x19LH
112 618	227 711 331	5	ER32	65,5	2-20	50	1,100	9833-32	M22x1,5x24LH

Type 7711**DIN 228****COLLET CHUCKS ER - SET**

for tool with cylindrical shank

OPRAWKI ZACISKOWE ER - KOMPLET

do narzędzi z chwytem walcowym

Code No. 0642 177...	PKWiU 29 407 150...	K Morse	Collet	A	Capacity Zakres	Full set pieces
112 004	227 711 030	2	ER16	43,5	2-10	8
112 106	227 711 034		ER20	47,5	2-13	11
112 147	227 711 038		ER32	65,5	2-20	18
112 188	227 711 130	3	ER16	43,5	2-10	8
112 208	227 711 134		ER20	45,5	2-13	11
112 300	227 711 138		ER25	68	2-16	14
112 312	227 711 142		ER32	73,5	2-20	18
112 401	227 711 230	4	ER25	54,5	2-16	14
112 503	227 711 234		ER32	84	2-20	18
112 605	227 711 330	5	ER32	65,5	2-20	18
112 707	227 711 335		ER40	67,5	2-26	24

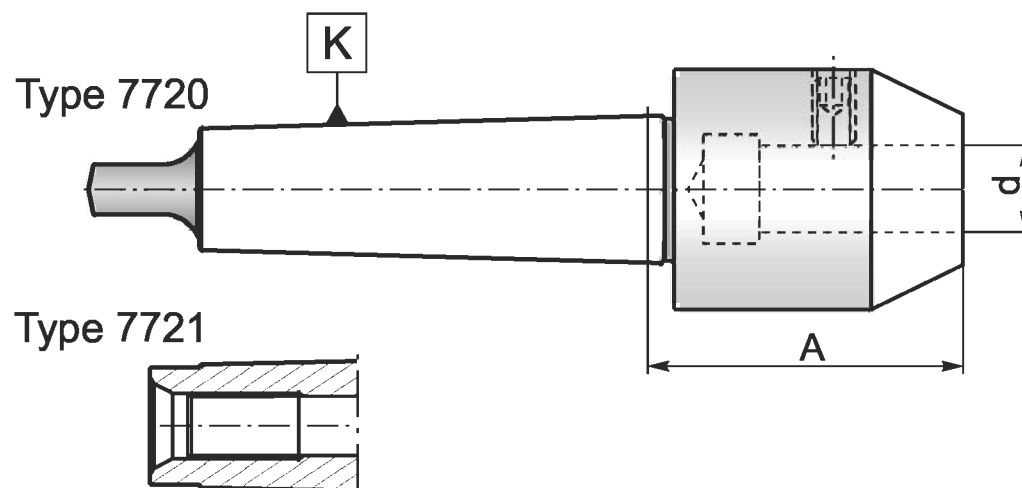
**Type 7711-PL**

Code No. 0642 177...	PKWiU 29 407 150...	K Morse	Collet	A	Capacity Zakres	Full set pieces
113 209	227 711 144	3	ER32	73,5	3-20	8
113 402	227 711 236	4	ER32	84	3-20	8
113 606	227 711 332	5	ER32	65,5	3-20	8

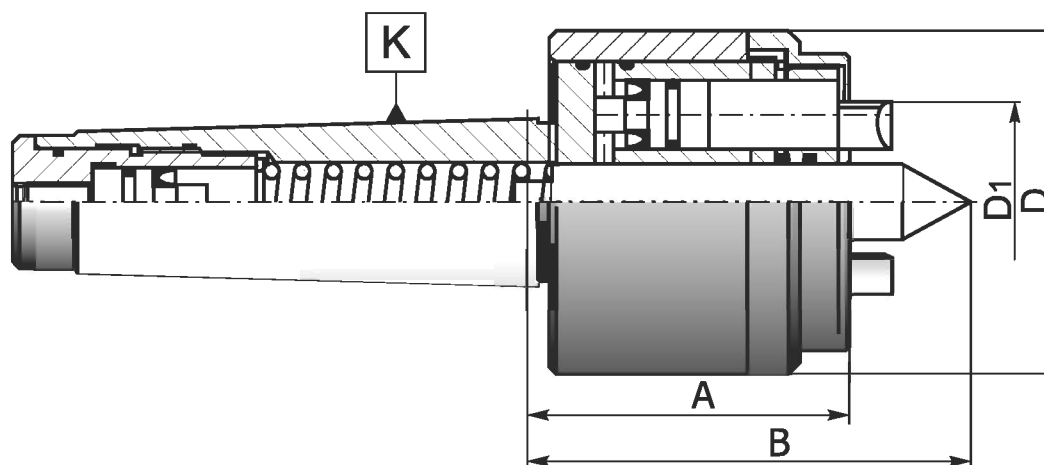
Tulejki Ø 4,5,6,8,10,12,16,20
Tulejki Ø 4,5,6,8,10,12,16,20
Tulejki Ø 4,5,6,8,10,12,16,20

Type 7720**DIN 228****END MILL ADAPTORS**for cutters with cylindrical shank
and weldon flat DIN 1835-B**OPRAWKI ZACISKOWE**

do narzkdzi z chwytem walcowym DIN 1835-B

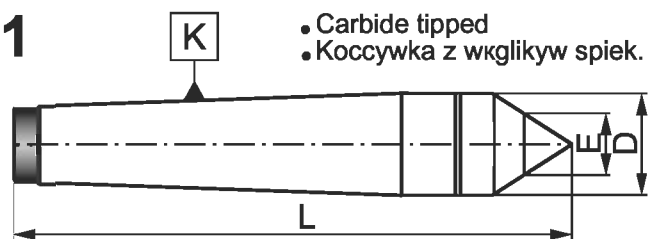
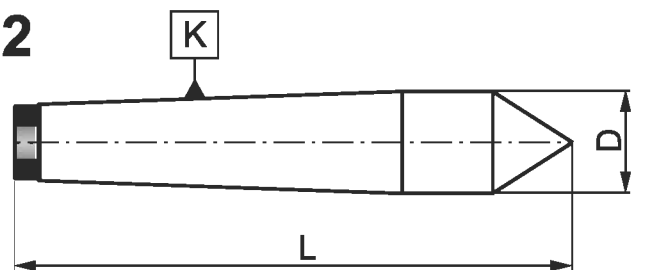
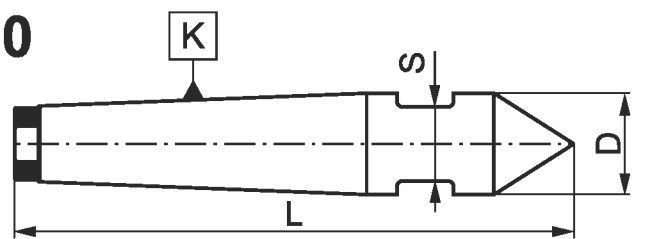
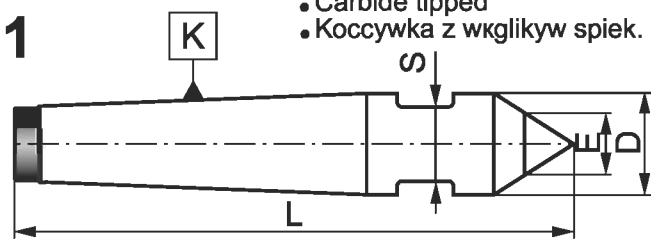
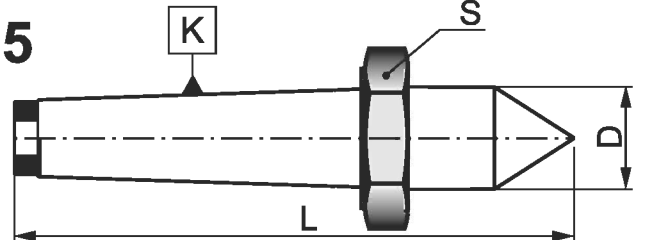
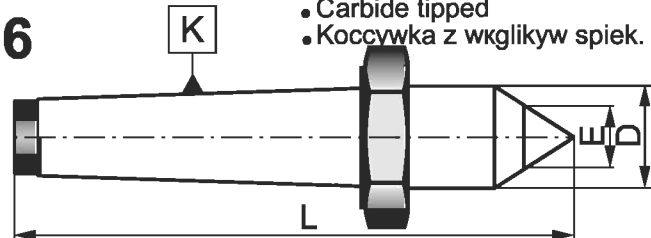
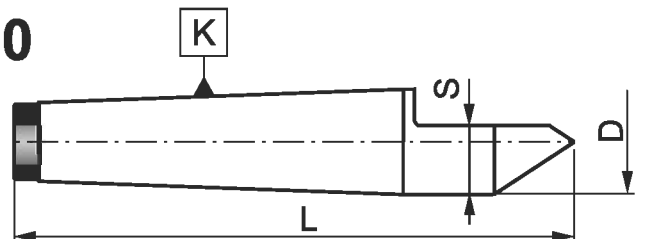
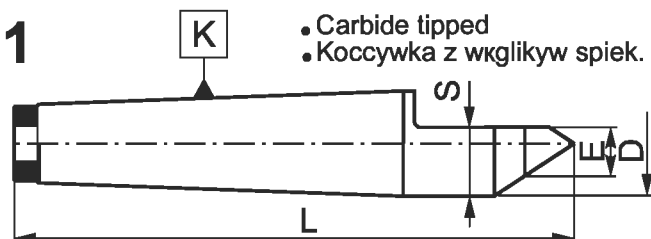
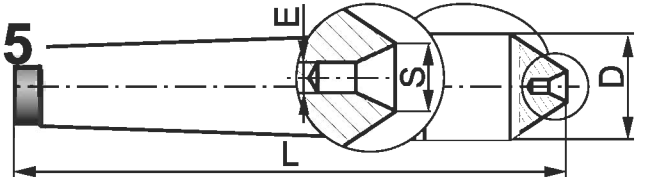
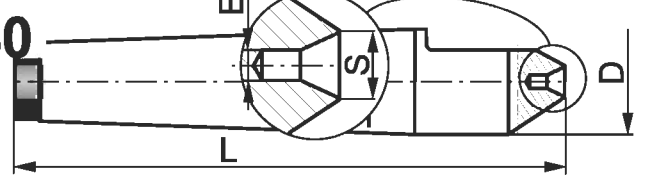
Type 7721

Type 7720		Type 7721		K Morse	d	A	kg	
Code No.	PKWiU	Code No.	PKWiU					
0642 177	29 402 150	0642 177	29 402 150					
222 305	227 720 040	232 303	227 721 050	2	6	50,0	0,28	U-4131/0
222 407	227 720 041	232 405	227 721 051		8	50,0	0,35	U-4132/0
222 509	227 720 042	232 507	227 721 052		10	55,0	0,63	U-4133/0
222 600	227 720 043	232 609	227 721 053		12	68,0	0,71	U-4134/0
222 702	227 720 044	232 700	227 721 054		16	70,0	0,85	U-4135/0
223 306	227 720 140	233 304	227 721 150	3	6	50,0	0,35	U-4131/0
223 408	227 720 141	233 406	227 721 151		8	50,0	0,45	U-4132/0
223 500	227 720 142	233 508	227 721 152		10	55,0	0,59	U-4133/0
223 601	227 720 143	233 600	227 721 153		12	68,0	0,82	U-4134/0
223 703	227 720 144	233 701	227 721 154		16	76,0	0,91	U-4135/0
223 805	227 720 145	233 803	227 721 155		20	76,0	0,98	U-4136/0
224 307	227 720 240	234 305	227 721 250	4	6	51,5	0,35	U-4131/0
224 409	227 720 241	234 407	227 721 251		8	51,5	0,45	U-4132/0
224 500	227 720 242	234 509	227 721 252		10	56,5	0,59	U-4133/0
224 602	227 720 243	234 600	227 721 253		12	62,5	0,82	U-4134/0
224 704	227 720 244	234 702	227 721 254		16	62,5	0,91	U-4135/0
224 806	227 720 245	234 804	227 721 255		20	77,5	0,98	U-4136/0
225 308	227 720 340	235 306	227 721 350	5	6	51,5	1,09	U-4131/0
225 400	227 720 341	235 408	227 721 351		8	51,5	1,77	U-4132/0
225 501	227 720 342	235 500	227 721 352		10	62,5	1,81	U-4133/0
225 603	227 720 343	235 601	227 721 353		12	69,5	1,83	U-4134/0
225 705	227 720 344	235 703	227 721 354		16	69,5	1,85	U-4135/0
225 807	227 720 345	235 805	227 721 355		20	69,5	1,92	U-4136/0

 Typical order: 0642 177 222 305 or 7720-2-6
Type 8410**DIN 228****HYDRAULIC FACE DRIVERS****ZABIERAKI CZOJOWE
HYDRAULICZNE**

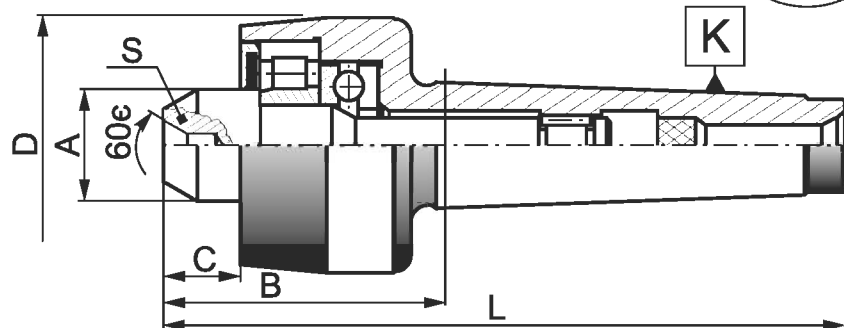
Code No.	PKWiU	D1	K Morse	D	A	B	Concentr. error max. Bicie max.	Workpiece weight kg Max.masa przed.obr.	kg	R - Right	L - Left
0642 584...	29 402 250...										
101 305	748 410 100	27	4	68	64	80	0,02	55	2,0	S-2084/0	S-2084/1
101 407	748 410 101		5	68	64	80	0,02	55	3,0	S-2084/0	S-2084/1
104 308	748 410 120	40	4	81	67	84	0,02	65	2,7	S-2031/0	S-2031/1
104 400	748 410 121		5	81	67	84	0,02	65	3,4	S-2031/0	S-2031/1
105 309	748 410 140	50	5	90	86	113	0,03	100	5,2	S-2041/0	S-2041/1
105 401	748 410 160	63	5	100	86	113	0,03	100	6,5	S-2242/0	S-2243/0

 Typical order: 0642 584 101 305 or 8410-27-4-L

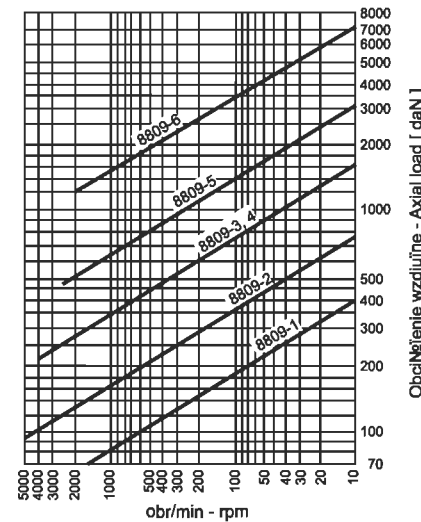
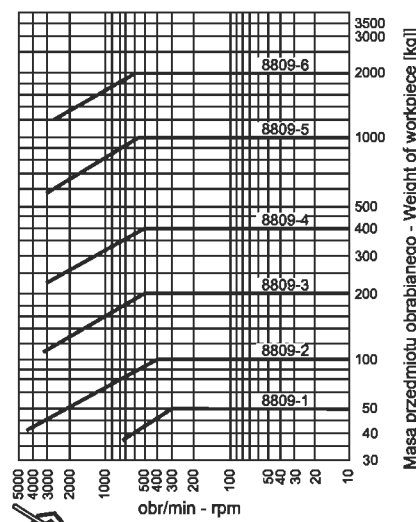
60° DEAD CENTRES * KJY STAJE 60°		Code No. 0642 587...	PKWiU 2084012500.	K Morse	L	D	E	S	kg	
Type 8711 external zewnktrzne  - Carbide tipped - Koccywka z wnglikyw spiek.		110 200	768 711 001	0	70	9,2	5		0,03	
		111 200	768 711 020	1	80	12,2	7		0,06	
		112 201	768 711 040	2	100	18,0	7		0,20	
		113 202	768 711 060	3	125	24,1	11		0,30	
		114 203	768 711 080	4	160	31,6	14		0,70	
		115 204	768 711 100	5	200	44,7	18		1,80	
		116 205	768 711 120	6	270	63,8	18		5,20	
Type 8712 external zewnktrzne 		120 300	768 712 001	0	70	9,2			0,03	
		121 300	768 712 020	1	80	12,2			0,06	
		122 301	768 712 040	2	100	18,0			0,20	
		123 302	768 712 060	3	125	24,1			0,30	
		124 303	768 712 080	4	160	31,6			0,70	
		125 304	768 712 100	5	200	44,7			1,80	
		126 305	768 712 120	6	270	63,8			5,20	
				7	360	83,5			11,00	
Type 8720 external with spanner flats zewnktrzne z piaskN pod klucz 		200 107	768 720 001	0	78	9,2		7	0,03	
		201 108	768 720 020	1	90	12,2		10	0,06	
		202 109	768 720 040	2	112	18,0		13	0,17	
		203 100	768 720 060	3	138	24,1		19	0,38	
		204 100	768 720 080	4	175	31,6		24	0,83	
		205 101	768 720 100	5	217	44,7		36	2,00	
		206 102	768 720 120	6	290	63,8		55	5,40	
Type 8721 external with spanner flats zewnktrzne z piaskN pod klucz  - Carbide tipped - Koccywka z wnglikyw spiek.		210 207	768 721 001	0	78	9,2	5	7	0,03	
		211 208	768 721 020	1	90	12,2	7	10	0,06	
		212 209	768 721 040	2	112	18,0	7	13	0,17	
		213 200	768 721 060	3	138	24,1	11	19	0,38	
		214 200	768 721 080	4	175	31,6	14	24	0,83	
		215 201	768 721 100	5	217	44,7	18	36	2,00	
		216 202	768 721 120	6	290	63,8	18	55	5,40	
Type 8725 external with nut zewnktrzne z nakrctkN 		250 108	768 725 001	0	78	9,2		19	0,07	S-0772/0
		251 109	768 725 020	1	90	12,2		24	0,10	S-0774/0
		252 100	768 725 040	2	112	18,0		32	0,25	S-0776/0
		253 100	768 725 060	3	138	24,1		41	0,50	S-0778/0
		254 101	768 725 080	4	175	31,6		55	1,10	S-0780/0
		255 102	768 725 100	5	217	44,7		75	2,60	S-0782/0
		256 103	768 725 120	6	290	63,8		100	6,60	S-0784/0
Type 8726 external with nut zewnktrzne z nakrctkN  - Carbide tipped - Koccywka z wnglikyw spiek.		260 208	768 726 001	0	78	9,2	5	19	0,07	S-0772/0
		261 209	768 726 020	1	90	12,2	7	24	0,10	S-0774/0
		262 200	768 726 040	2	112	18,0	7	32	0,25	S-0776/0
		263 200	768 726 060	3	138	24,1	11	41	0,50	S-0778/0
		264 201	768 726 080	4	175	31,6	14	55	1,10	S-0780/0
		265 202	768 726 100	5	217	44,7	18	75	2,60	S-0782/0
		266 203	768 726 120	6	290	63,8	18	100	6,60	S-0784/0
Type 8730 external with chamfer zewnktrzne ze hskciem 		300 104	768 730 001	0	70	9,2		5,6	0,03	
		301 105	768 730 020	1	80	12,2		7,6	0,05	
		302 106	768 730 040	2	100	18,0		11,0	0,13	
		303 107	768 730 060	3	125	24,1		15,0	0,30	
		304 108	768 730 080	4	160	31,6		20,8	0,70	
		305 109	768 730 100	5	200	44,7		29,3	1,70	
		306 100	768 730 120	6	270	63,8		42,6	4,60	
Type 8731 external with chamfer zewnktrzne ze hskciem  - Carbide tipped - Koccywka z wnglikyw spiek.		310 204	768 731 001	0	70	9,2	5	7,8	0,03	
		311 205	768 731 020	1	80	12,2	7	10,3	0,05	
		312 206	768 731 040	2	100	18,0	7	13,0	0,13	
		313 207	768 731 060	3	125	24,1	11	18,3	0,30	
		314 208	768 731 080	4	160	31,6	14	23,5	0,70	
		315 209	768 731 100	5	200	44,7	18	32,0	1,70	
		316 200	768 731 120	6	270	63,8	18	41,7	4,60	
Type 8735 internal wewntrzne 		350 105	768 735 001	0	66	9,2	1,0	2,12	0,03	
		351 106	768 735 020	1	74	12,2	1,6	3,35	0,05	
		352 107	768 735 040	2	94	18,0	2,5	5,30	0,15	
		353 108	768 735 060	3	115	24,1	4,0	8,50	0,32	
		354 109	768 735 080	4	146	31,6	6,3	13,20	0,72	
Type 8740 internal with chamfer wewntrzne ze hskciem 		400 101	768 740 001	0	66	9,2	1,0	2,20	0,03	
		401 102	768 740 020	1	74	12,2	1,6	3,35	0,05	
		402 103	768 740 040	2	94	18,0	2,5	5,30	0,14	
		403 104	768 740 060	3	115	24,1	4,0	8,50	0,30	

**Type 8809****DIN 228****LIVE CENTRES**

internal tipped

KJY TOKARSKIE OBROTOWEz kocywk_N z wewn_Ktrzn_N

Трwałość łożysk - Durability of bearings - 2000 h

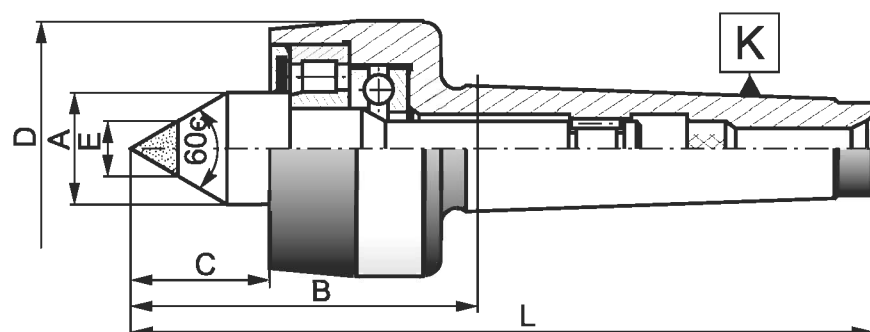


Typical order: (precision) 0642 588 091 103 or 8809-1-I

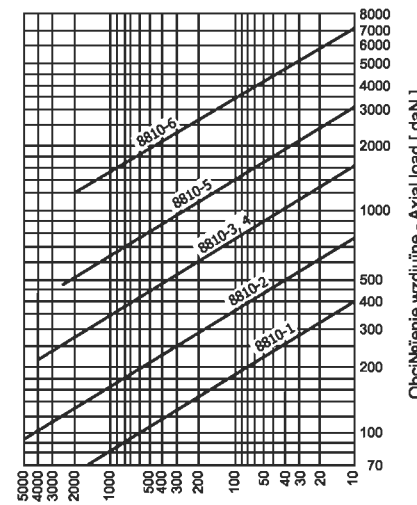
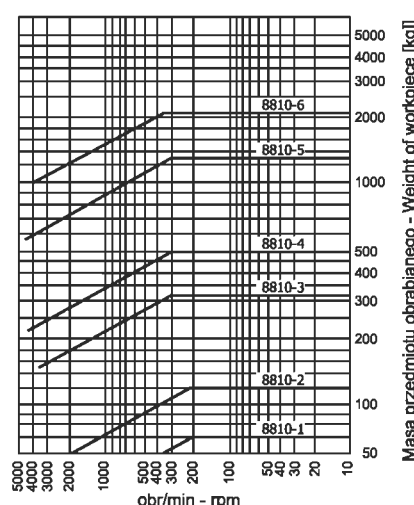
K Morse	Workpiece weight max. kg Max. masa przedm. obr. kg	Speed max. min ⁻¹ Max. prdk. obr. min ⁻¹	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	A	B	C	D	L	E	F	kg
1	50	5000	0,005	091 103	778 809 001	0,008	091 205	778 809 002	15	44.5	12.5	38	98	1,6	3,35	0.26
2	100	5000	0,003	092 104	778 809 030	0,008	092 206	778 809 031	18	51.0	16.5	40	115	2,5	5,3	0.40
3	200	4000	0,003	093 105	778 809 060	0,008	093 207	778 809 061	25	66.0	19.3	56	147	4,0	8,5	0.95
4	400	3000	0,003	094 106	778 809 090	0,008	094 208	778 809 091	28	67.0	17.3	64	170	6,3	13,2	1.57
5	1000	2500	0,005	095 107	778 809 120	0,010	095 209	778 809 121	41	94.0	31.3	85	223	6,3	13,2	3.59
6	2000	2000	0,005	096 108	778 809 150	0,010	096 200	778 809 151								

Type 8810**DIN 228****LIVE CENTRES**

carbide tipped

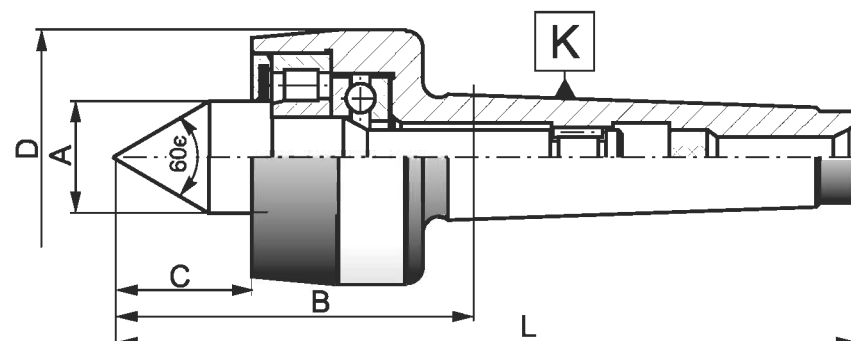
KJY TOKARSKIE OBROTOWEz kocywk_N z w_Kgliw spiekanych

Трwałość łożysk - Durability of bearings - 2000 h

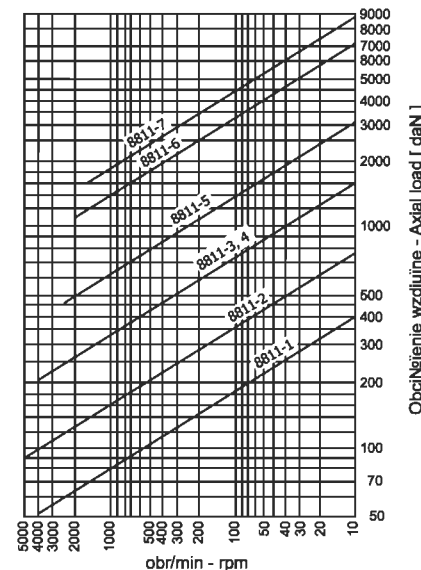
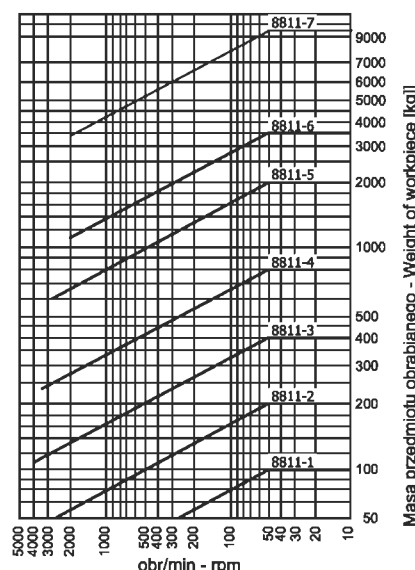


Typical order: (standard) 0642 588 101 209 or 8810-1

K Morse	Workpiece weight max. kg Max. masa przedm. obr. kg	Speed max. min ⁻¹ Max. prdk. obr. min ⁻¹	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	A	B	C	D	E	L	kg
1	60	5000	0,005	101 107	778 810 001	0,008	101 209	778 810 002	15	50,0	18,0	38	7	103,5	0,26
2	120	5000	0,003	102 108	778 810 030	0,008	102 200	778 810 031	18	56,5	22,0	40	7	120,5	0,40
3	320	4000	0,003	103 109	778 810 060	0,008	103 200	778 810 061	25	75,0	28,5	56	11	156,0	0,95
4	500	3000	0,003	104 100	778 810 090	0,008	104 201	778 810 091	28	81,5	31,5	64	14	184,0	1,58
5	1250	2500	0,005	105 100	778 810 120	0,010	105 202	778 810 121	41	107,5	45,0	85	18	237,0	3,60
			0,005	106 101	778 810 150	0,010	106 203	778 810 151	63	151,5	64,0	130	18	333,5	11,00

Type 8811**DIN 228****LIVE CENTRES****KJY TOKARSKIE OBROTOWE**

Трwałość łożysk - Durability of bearings - 2000 h



Typical order:

(precision)

0642 588 111 105

or 8811-1-I

(standard)

0642 588 111 207

or 8811-1

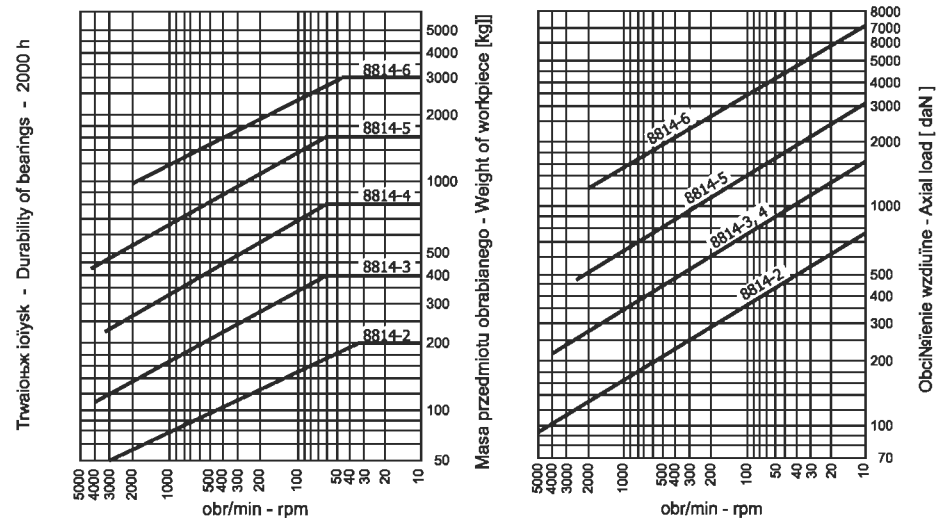
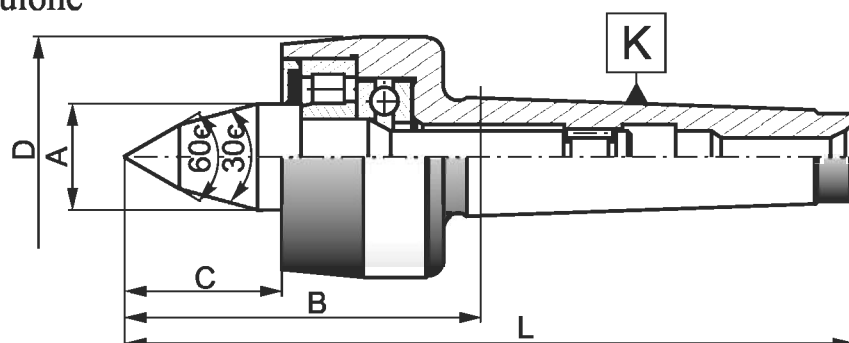
K Morse	Workpiece weight max. kg Max. masa przedm. obr. kg	Speed max. min ⁻¹ Max. prdk. obr. min ⁻¹	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	A	B	C	D	L	kg
1	100	5000	0,005	111 105	778 811 001	0,008	111 207	778 811 002	15	50,0	18,0	38	103,5	0,26
2	210	5000	0,003	112 106	778 811 030	0,008	112 208	778 811 031	18	56,5	22,0	40	120,5	0,40
3	420	4000	0,003	113 107	778 811 060	0,008	113 209	778 811 061	25	75,0	28,5	56	156,0	0,95
4	840	3000	0,003	114 108	778 811 090	0,008	114 200	778 811 091	28	81,5	31,5	64	184,0	1,58
5	2000	2500	0,005	115 109	778 811 120	0,010	115 200	778 811 121	41	107,5	45,0	85	237,0	3,60
6	3500	2000	0,005	116 100	778 811 150	0,010	116 201	778 811 151	63	151,5	64,0	130	333,5	11,00
				117 100	778 811 180		117 202	778 811 181						

**Type 8814****DIN 228****LIVE CENTRES**

extension

KJYTOKARSKIE OBROTOWE

wydiużone

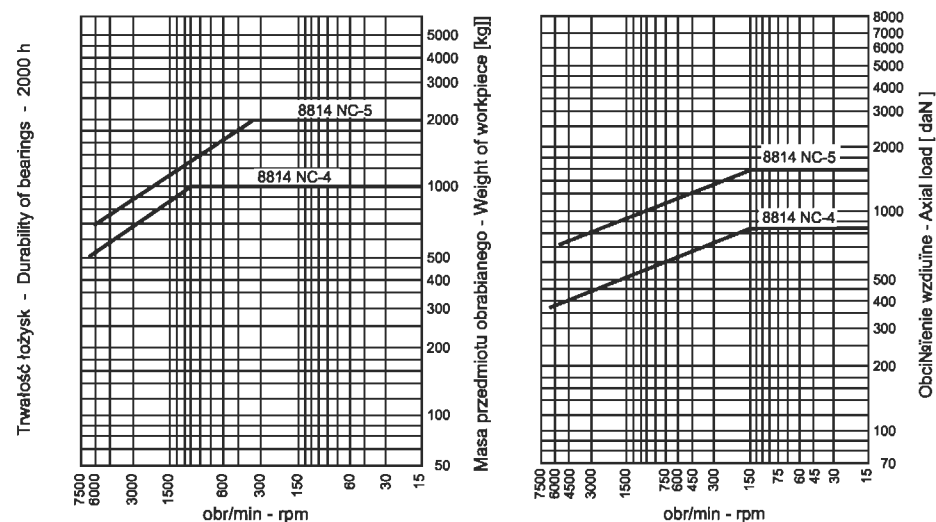
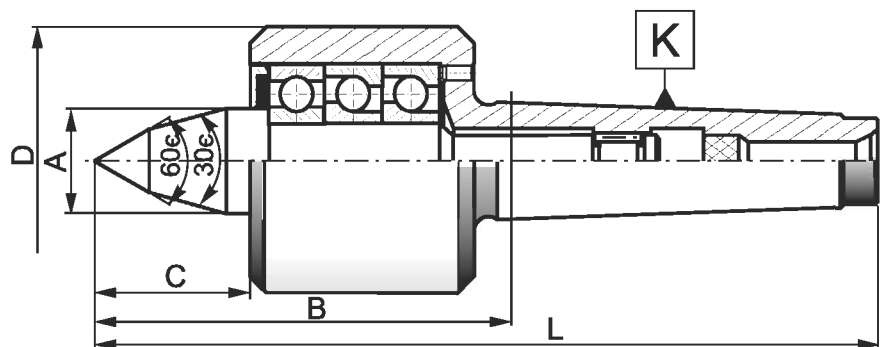


Typical order:

(precision)
0642 588 142 100
or 8814-1-I

(standard)
0642 588 142 202
or 8814-1

K Morse	Workpiece weight max. kg Max. masa przedm. obr. kg	Speed max. min ⁻¹ Max. prędk. obr. min ⁻¹	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	A	B	C	D	L	kg
				precision			standard							
2	200	5000	0,008	142 100	778 814 030	0,015	142 202	778 814 031	18,0	72,5	33,0	40	136,5	0,41
3	400	4000	0,008	143 101	778 814 060	0,015	143 203	778 814 061	24,8	87,8	41,8	56	166,8	0,97
4	800	3000	0,008	144 102	778 814 090	0,015	144 204	778 814 091	28,0	98,3	48,8	64	200,8	1,61
5	1600	2500	0,010	145 103	778 814 120	0,020	145 205	778 814 121	40,7	129,3	67,3	85	258,8	3,73
6	3000	2000	0,010	146 104	778 814 150	0,020	146 206	778 814 151	62,4	178,3	91,8	130	360,5	11,45

Type 8814NC**DIN 228**

Typical order:

(precision)
0642 588 147 309
or 8814-4NC-I

(standard)
0642 588 147 311
or 8814-4NC

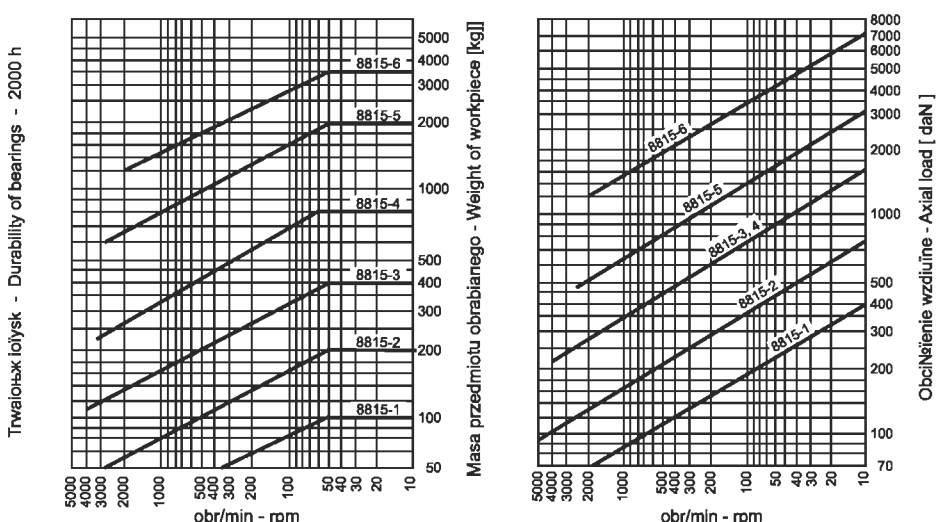
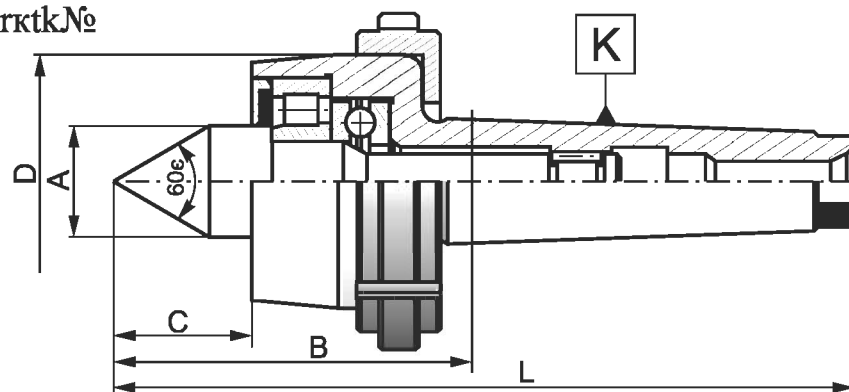
K Morse	Workpiece weight max. kg Max. masa przedm. obr. kg	Speed max. min ⁻¹ Max. prędk. obr. min ⁻¹	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402	A	B	C	D	L	kg
				250.precision			250.standard							
4	1000	7000	0,005			0,010			28,0	116,5	48,5	70	219,0	2,50
5	2000	6000		147 309	778 814 093		147 311	778 814 094	40,0	149,0	67,0	95	278,5	5,00

Type 8815**DIN 228****LIVE CENTRES**

with nut

KJYTOKARSKIE OBROTOWE

z nakrętką



Typical order:

(precision)
0642 588 151 108
or 8815-1-I

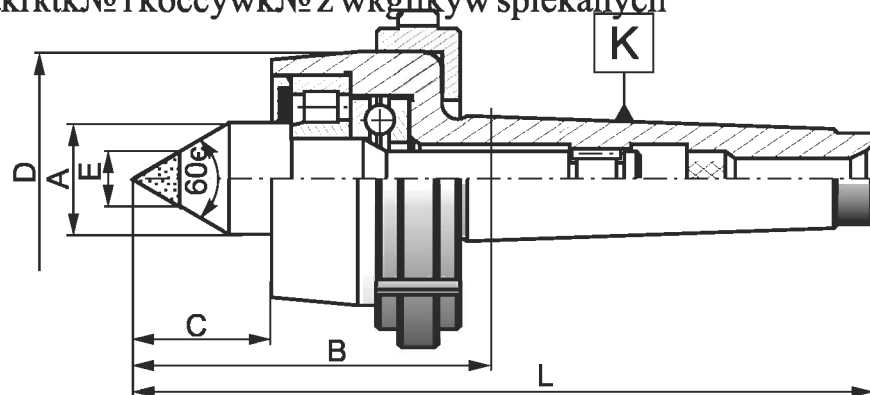
(standard)
0642 588 151 200
or 8815-1

K Morse	Workpiece weight max. kg Max. masa przedm. obr. kg	Speed max. min ⁻¹ Max. prędk. obr. min ⁻¹	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	A	B	C	D	L	kg
				precision			standard							
1	100	5000	0,005	151 108	778 815 001	0,008	151 200	778 815 002	15	50,0	18,0	38	103,5	0,38
2	210	5000	0,003	152 109	778 815 030	0,008	152 200	778 815 031	18	56,5	22,0	40	120,5	0,50
3	420	4000	0,003	153 100	778 815 060	0,008	153 201	778 815 061	25	75,0	28,5	56	156,0	1,22
4	840	3000	0,003	154 100	778 815 090	0,008	154 202	778 815 091	28	81,5	31,5	64	184,0	1,87
5	2000	2500	0,005	155 101	778 815 120	0,010	155 203	778 815 121	41	107,5	45,0	85	237,0	4,14
			0,005	156 102	778 815 150	0,010	156 204	778 815 151						

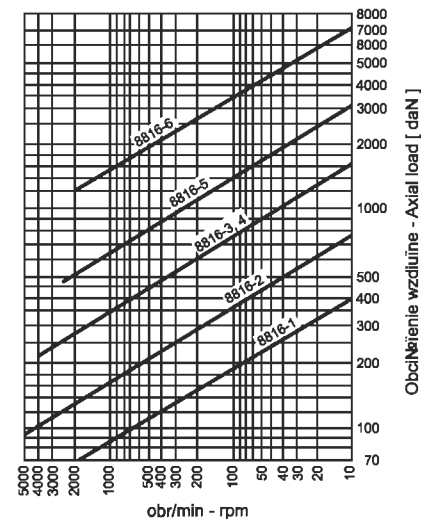
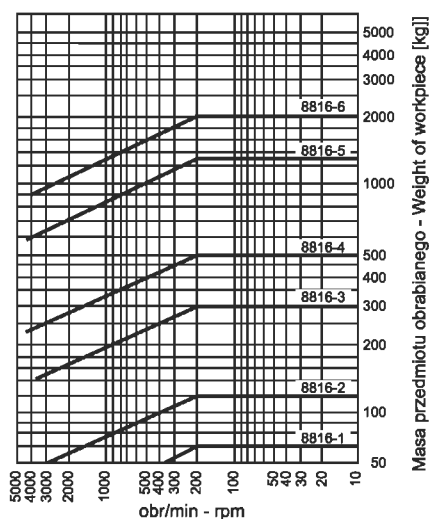
Type 8816**DIN 228**

LIVE CENTRES
with nut and carbide tipped

KJY TOKARSKIE OBROTOWE
z nakrętką i kłosem węglowym

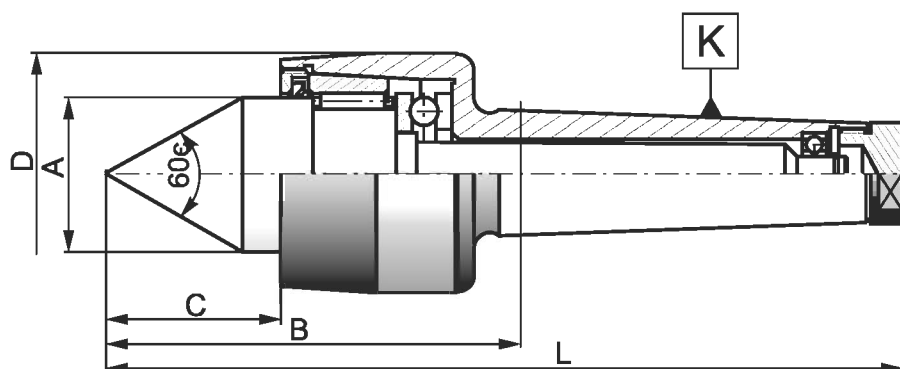


Тривалість ізолюк - Durability of bearings - 2000 h

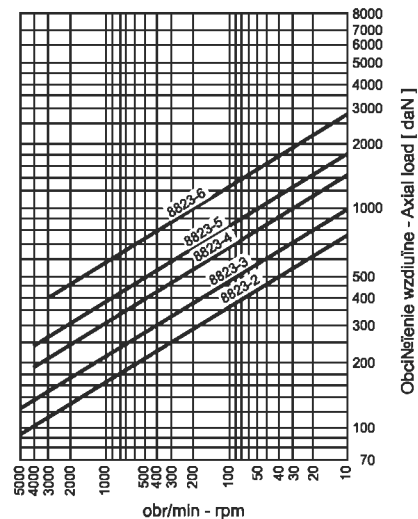
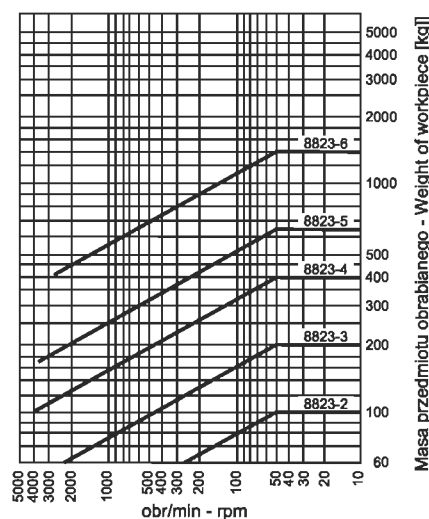


Typical order: (precision) 0642 588 161 106 or 8816-1-I

K Morse	Workpiece weight max. kg Max. masa przedm. obr. kg	Speed max. min ⁻¹ Max. prędk. obr. min ⁻¹	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	A	B	C	D	E	L	kg
				precision			standard								
1	60	5000	0,005	161 106	778 816 001	0,008	161 208	778 816 002	15	50,0	18,0	38	7	103,5	0,38
2	120	5000	0,003	162 107	778 816 030	0,008	162 209	778 816 031	28	56,5	22,0	40	7	120,5	0,50
3	300	4000	0,003	163 108	778 816 060	0,008	163 200	778 816 061	25	75,0	28,5	56	11	156,0	1,22
4	500	3000	0,003	164 109	778 816 090	0,008	164 200	778 816 091	28	81,5	31,5	64	14	184,0	1,87
5	1250	2500	0,005	165 100	778 816 120	0,010	165 201	778 816 121	41	107,5	45,0	85	18	237,0	4,14
			0,005	166 100	778 816 150	0,010	166 202	778 816 151							

Type 8823**DIN 228**

Тривалість ізолюк - Durability of bearings - 2000 h



Typical order:

(precision)
0642 588 232 405
or 8823-2-I

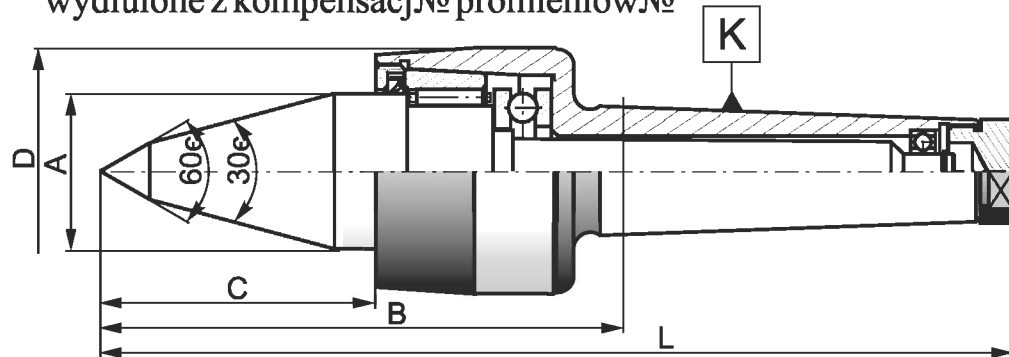
(standard)
0642 588 232 109
or 8823-2

K Morse	Workpiece weight max. kg Max. masa przedm. obr. kg	Speed max. min ⁻¹ Max. prędk. obr. min ⁻¹	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	A	B	C	D	L	kg
				250.precision			standard							
2	100	8000	0,005	232 405	778 823 032	0,008	232 100	778 823 030	23	73,0	26	44	137,5	0,54
3	200	6000	0,003	233 406	778 823 062	0,008	233 100	778 823 060	28	85,5	32	48	166,0	0,84
4	400	4500	0,003	234 407	778 823 092	0,008	234 101	778 823 090	39	94,5	43	60	196,5	1,51
5	650	4000	0,003	235 408	778 823 122	0,008	235 102	778 823 120	50	116,5	55	75	246,0	3,18
6	1400	3000					236 103	778 823 150						

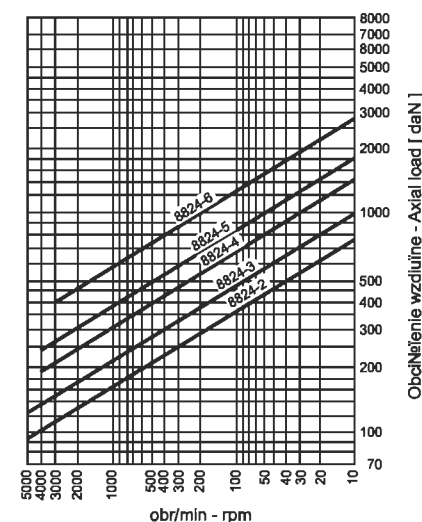
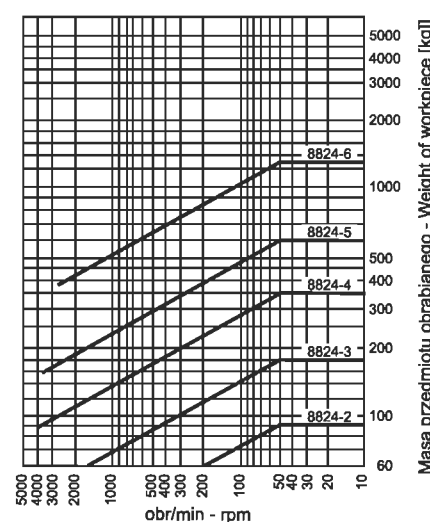
Type 8824**DIN 228**

LIVE CENTRES
extension

KJY TOKARSKIE OBROTOWE
wydłużone z kompensacją promieni



Тривалість ізолюк - Durability of bearings - 2000 h



Typical order: 0642 588 242 301 or 8824-2

K Morse	Workpiece weight max. kg Max. masa przedm. obr. kg	Speed max. min ⁻¹ Max. prędk. obr. min ⁻¹	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	A	B	C	D	L	kg
2	90	8000	0,015	242 301	778 824 030	23	85,5	38,5	44	150	0,56
3	180	6000	0,015	243 302	778 824 060	28	100,5	47,0	48	181	0,87
4	350	4500	0,015	244 303	778 824 090	39	118,0	66,5	60	220	1,60
5	600	4000	0,015	245 304	778 824 120	50	147,5	86,0	75	277	3,35
6	1300	3000	0,015	246 305	778 824 150	61	167,0	94,0	90	349	7,50



Type 8831-K

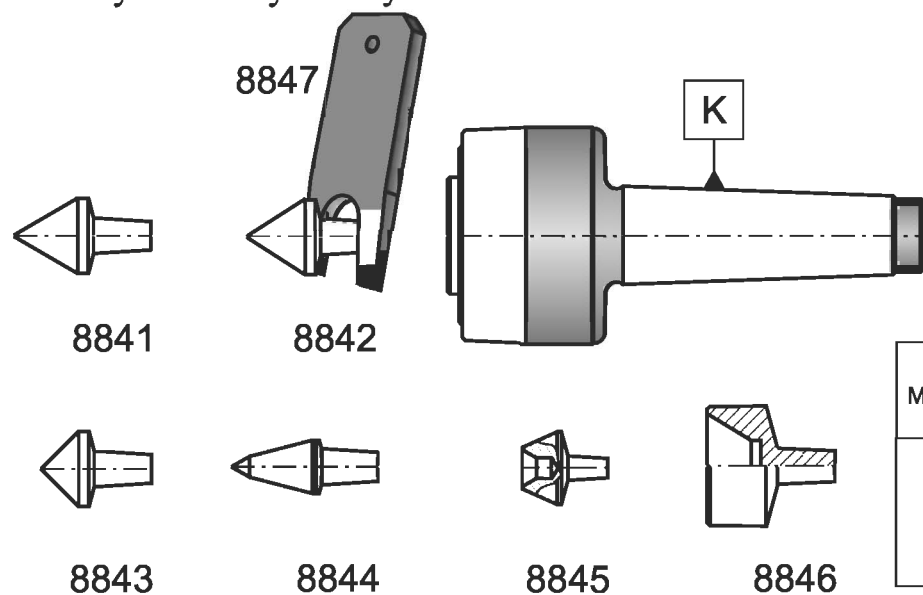
DIN 228

LIVE CENTRES

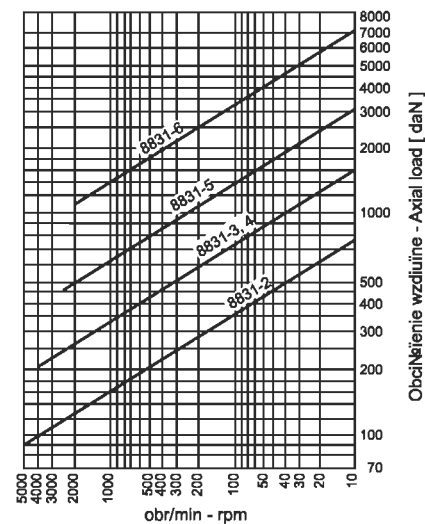
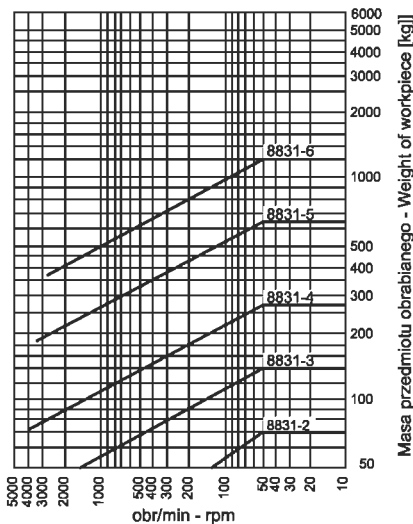
with interchangeable inserts

KJY TOKARSKIE OBROTOWE

z koccywkami wymiennymi



Trwałość łożysk - Durability of bearings - 2000 h



K Morse	Workpiece weight max. kg Max. masa przedm. obr. kg	Speed max. min. ⁻¹ Max. prdk. obr. min. ⁻¹	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...
				precision			standard	
2	70	5000	0,010	312 009	778 831 030	0,020	312 202	778 831 031
3	120	4000	0,010	313 000	778 831 060	0,020	313 203	778 831 061
4	280	3000	0,010	314 000	778 831 090	0,020	314 204	778 831 091
5	650	2500	0,015	315 001	778 831 120	0,030	315 205	778 831 121
6	1200	2000	0,015	316 002	778 831 150	0,030	316 206	778 831 151

Live Center with all inserts and extractor (complete in a wooden case)

Kieł obrotowy z koccywkami wymiennymi i ściąągaczem (komplet w drewnianej kasie)



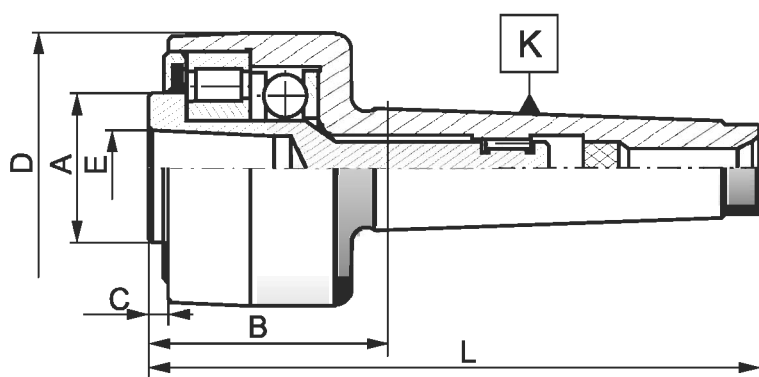
Typical order: (precision)

0642 588 312 009 or 8831-2-I

Type 8831

LIVE CENTRES BODY

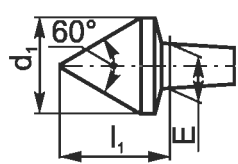
KJY TOKARSKIE OBROTOWE - KORPUS



K Morse	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...
		precision			standard	
2	0,010	312 011	778 831 030	0,020	312 215	778 831 031
3	0,010	313 012	778 831 060	0,020	313 216	778 831 061
4	0,010	314 013	778 831 090	0,020	314 217	778 831 091
5	0,015	315 014	778 831 120	0,030	315 218	778 831 121
6	0,015	316 015	778 831 150	0,030	316 219	778 831 151

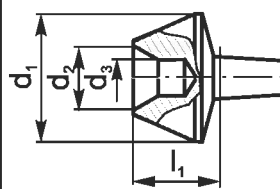
K Morse	A	B	C	D	L	E	kg
2	18	39	4,5	42	103,0	7	0,35
3						12	
4	25	52	5,0	56	132,0	15	0,90
5						22	
6	28	56	5,5	64	158,0		1,41

Type 8841



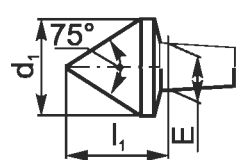
Size Wielk.	d1	E	l1	kg	Code No. 0642 588...	PKWiU 29 402 250...
2	18	7	21,0	0,022	412 108	778 841 030
3	25	12	28,0	0,064	413 109	778 841 060
4	28	15	30,5	0,078	414 100	778 841 090
5	40	22	42,5	0,265	415 100	778 841 120
6	60	28	61,5	0,710	416 101	778 841 150

Type 8845



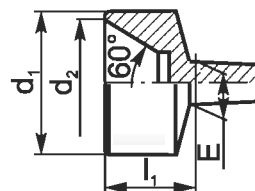
Size Wielk.	d1	d2	d3	l1	kg	Code No. 0642 588...	PKWiU 29 402 250...
2	28	12	6	18,5	0,055	452 100	778 845 030
3	40	19	10	24,0	0,152	453 101	778 845 060
4	55	22	10	36,5	0,258	454 102	778 845 090
5	70	32	10	42,0	0,744		
6	100	50	15	56,0	1,486		

Type 8842



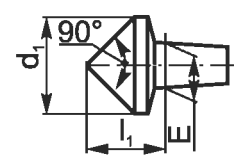
Size Wielk.	d1	E	l1	kg	Code No. 0642 588...	PKWiU 29 402 250...
2	18	7	17,5	0,020	422 106	778 842 030
3	25	12	23,0	0,055	423 107	778 842 060
4	28	15	25,0	0,070	424 108	778 842 090
5	40	22	34,0	0,220		
6	60	28	50,5	0,628		

Type 8846



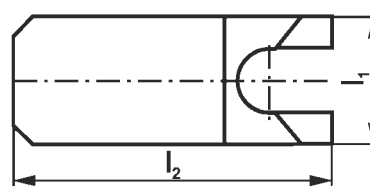
Size Wielk.	d1	d2	E	l1	kg	Code No. 0642 588...	PKWiU 29 402 250...
2	28	24	7	21,5	0,067	462 109	778 846 030
3	40	35	12	26,5	0,170	463 100	778 846 060
4	55	48	15	39,0	0,457	464 100	778 846 090
5	70	63	22	47,0	0,908	465 101	778 846 120
6	100	90	28	62,0	2,328	466 102	778 846 150

Type 8843



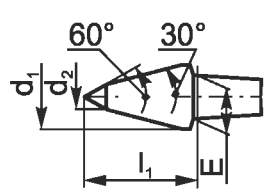
Size Wielk.	d1	E	l1	kg	Code No. 0642 588...	PKWiU 29 402 250...
2	18	7	15,0	0,018	432 104	778 843 030
3	25	12	19,0	0,051	433 105	778 843 060
4	28	15	21,0	0,064	434 106	778 843 090
5	40	22	28,0	0,212		
6	60	28	40,0	0,541	435 107	778 843 120

Type 8847



Size Wielk.	l1	l2	kg	Code No. 0642 588...	PKWiU 29 402 250...
2	20	50	0,030	472 107	778 847 030
3	30	70	0,067	473 108	778 847 060
4	45	100	0,160	474 109	778 847 090
5	55	120	0,270	475 100	778 847 120
6	65	160	0,430		

Type 8844



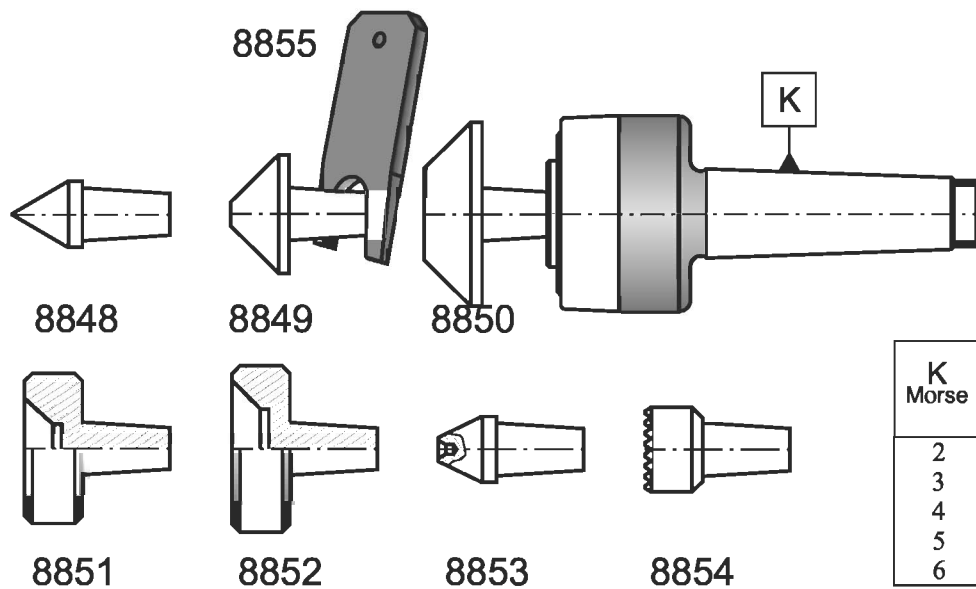
Size Wielk.	d1	d2	E	l1	kg	Code No. 0642 588...	PKWiU 29 402 250...
2	15	6	7	27,0	0,022	442 102	778 844 030
3	18	8	12	31,0	0,048	443 103	778 844 060
4	25	12	15	40,5	0,091	444 104	778 844 090
5	28	13	22	45,5	0,102		
6	40	18	28	63,5	0,467		

Type 8832-K**DIN 228****LIVE CENTRES**

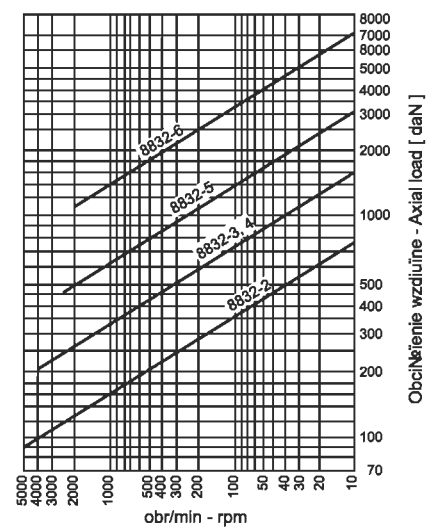
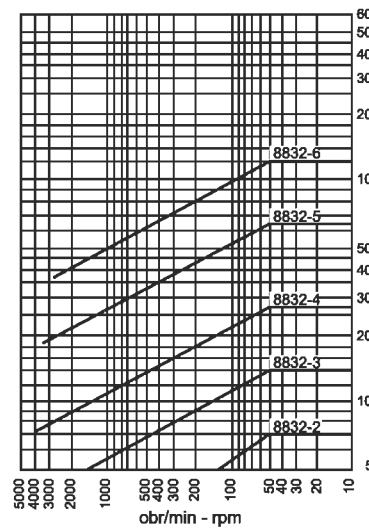
with interchangeable inserts

KJY TOKARSKIE OBROTOWE

z koccywkami wymiennymi



Trwałość łożysk - Durability of bearings - 2000 h



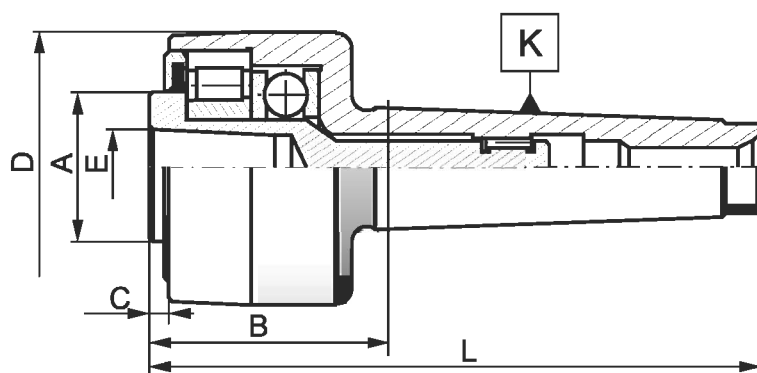
K Morse	Workpiece weight max. kg Max. masa przedm. obr. kg	Speed max. min-1 Max. prdk. obr. min-1	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...
				precision			standard	
2	70	5000	0,010	320 209	778 832 032	0,020	321 200	778 832 033
3	120	4000	0,010	320 300	778 832 062	0,020	321 301	778 832 063
4	280	3000	0,010	320 402	778 832 092	0,020	321 403	778 832 093
5	650	2500	0,015	320 504	778 832 122	0,030	321 505	778 832 123
6	1200	2000	0,015	320 606	778 832 152	0,030	321 607	778 832 153

Live Center with all inserts and extractor (complete in a wooden case)

Kieł obrotowy z koccywkami wymiennymi i ściąągaczem (komplet w drewnianej kasie)

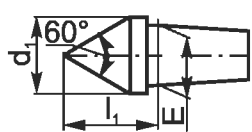
Typical order: (precision)

0642 588 320 209 or 8832-2-1

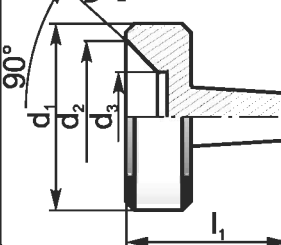
Type 8832**LIVE CENTRES BODY****KJY TOKARSKIE OBROTOWE - KORPUS**

K Morse	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...
		precision			standard	
2	0,010	320 211	778 832 030	0,020	321 212	778 832 031
3	0,010	320 313	778 832 060	0,020	321 314	778 832 061
4	0,010	320 415	778 832 090	0,020	321 416	778 832 091
5	0,015	320 517	778 832 120	0,030	321 518	778 832 121
6	0,015	320 619	778 832 150	0,030	321 610	778 832 151

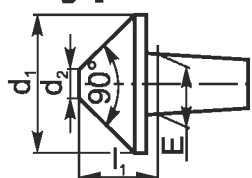
K Morse	A	B	C	D	L	E	kg
2	18	41	2,0	43	105,0	10	0,45
3						15	
4	25	52	5,0	56	132,0	20	0,90
5						25	
6	28	62	5,5	74	164,0		1,75

Type 8848

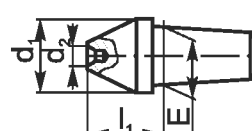
Size Wielk.	d1	E	l1	kg	Code No. 0642 588...	PKWiU 29 402 250...
2	15	10	19	0,018	480 205	778 848 030
3	20	15	25	0,053	480 307	778 848 060
4	25	20	30	0,106	480 409	778 848 090
5	32	25	35	0,212	480 500	778 848 120
6	36	30	44	0,349	480 602	778 848 150

Type 8852

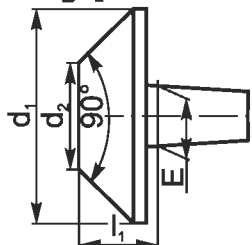
Size Wielk.	d1	d2	d3	l1	kg	Code No. 0642 588...	PKWiU 29 402 250...
2	30	25	15	15	0,065	520 203	778 852 030
3	45	38	22	22	0,210	520 305	778 852 060
4	63	53	30	25	0,460	520 407	778 852 090
5	70	60	36	30	0,698	520 509	778 852 120
6	100	88	54	36	1,502	520 600	778 852 150

Type 8849

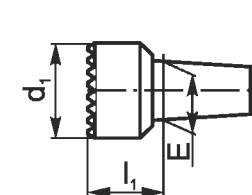
Size Wielk.	d1	d2	E	l1	kg	Code No. 0642 588...	PKWiU 29 402 250...
2	22	3	10	15	0,024	490 203	778 849 030
3	36	6	15	22	0,087	490 305	778 849 060
4	45	10	20	25	0,173	490 407	778 849 090
5	56	14	25	30	0,337	490 509	778 849 120
6	70	18	30	36	0,615	490 600	778 849 150

Type 8853

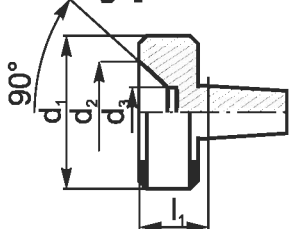
Size Wielk.	d1	d2	E	l1	kg	Code No. 0642 588...	PKWiU 29 402 250...
2	15	1,25	10	15	0,017	530 201	778 853 030
3	20	1,25	15	22	0,052	530 303	778 853 060
4	25	2,5	20	25	0,104	530 405	778 853 090
5	32	2,5	25	30	0,209	530 507	778 853 120
6	36	4,0	30	36	0,345	530 609	778 853 150

Type 8850

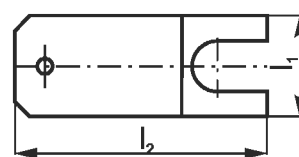
Size Wielk.	d1	d2	E	l1	kg	Code No. 0642 588...	PKWiU 29 402 250...
2	37	18	10	15	0,071	500 207	778 850 030
3	63	33	15	22	0,305	500 309	778 850 060
4	70	35	20	25	0,444	500 400	778 850 090
5	80	38	25	30	0,698	500 502	778 850 120
6	100	50	30	36	1,320	500 604	778 850 150

Type 8854

Size Wielk.	d1	E	l1	kg	Code No. 0642 588...	PKWiU 29 402 250...
2	18	10	15	0,034	540 200	778 854 030
3	25	15	22	0,105	540 301	778 854 060
4	32	20	25	0,203	540 403	778 854 090
5	45	25	30	0,452	540 505	778 854 120
6	56	30	36	0,825	540 607	778 854 150

Type 8851

Size Wielk.	d1	d2	d3	l1	kg	Code No. 0642 588...	PKWiU 29 402 250...
2	22	18	8	15	0,042	510 205	778 851 030
3	36	28	12	22	0,160	510 307	778 851 060
4	45	37	17	25	0,287	510 409	778 851 090
5	56	44	20	30	0,540	510 500	778 851 120
6						510 602	778 851 150

Type 8855

Size Wielk.	l1	l2	kg	Code No. 0642 588...	PKWiU 29 402 250...
2	20	60	0,032	550 208	778 855 030
3	30	80	0,070	550 300	778 855 060
4	40	100	0,125	550 401	778 855 090
5	50	120	0,230	550 503	778 855 120
6	60	160	0,440	550 605	778 855 150

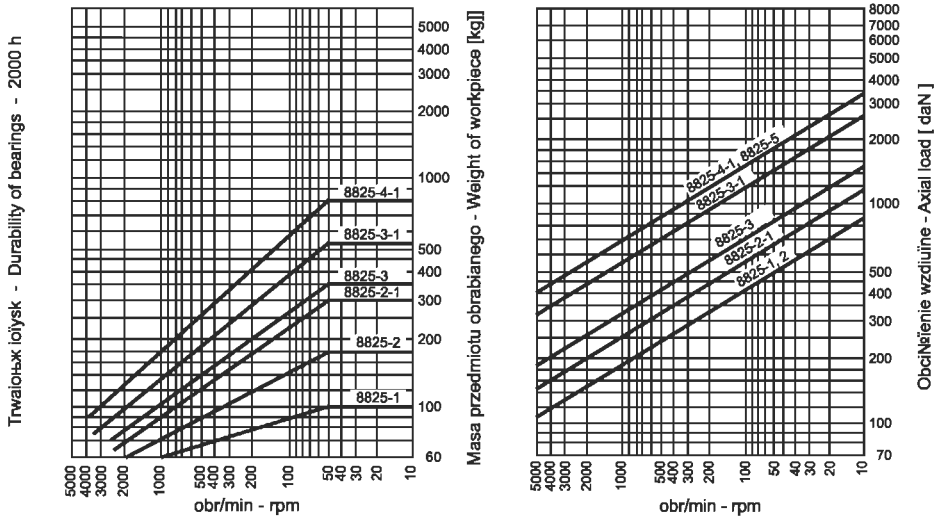
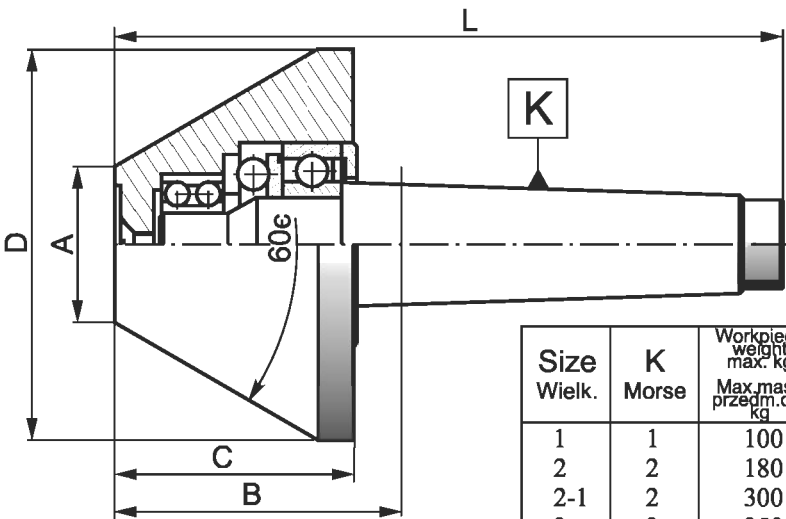


Type 8825

DIN 228

REVOLVING CENTERING TAPER truncated

KJY TOKARSKIE OBROTOWE do rur



Typical order:
0642 588 252 208 or 8825-2-1

Size Wielk.	K Morse	Workpiece weight max. kg Max.masa przedm.obr. kg	Speed max min-1 Max. prdk. obr. min-1	Concentr. error max. Bicie max.	Code No. 0642 588...	PKWiU 29 402 250...	A	B	C	D	L	kg
1	1	100	5000	0,008	251 105	778 825 001	20	39,5	35	50	93,0	0,35
2	2	180	5000	0,008	252 106	778 825 030	30	40,5	35	60	104,5	0,60
2-1	2	300	4500	0,008	252 208	778 825 031	30	59,0	53	80	123,0	1,25
3	3	350	4500	0,008	253 107	778 825 060	30	59,0	53	80	140,0	1,35
3-1	3	550	3000	0,008	253 209	778 825 061	40	67,0	61	100	148,0	2,30
3-2	3	600	3000	0,008	253 300	778 825 062	50	76,0	70	120	157,0	2,50
4	4	600	3000	0,008	254 108	778 825 090	40	68,5	61	100	171,0	2,55
4-1	4	700	3000	0,008	254 200	778 825 091	50	77,5	70	120	180,0	3,65
4-2	4	700	3000	0,010	254 301	778 825 092	70	77,5	70	140	180,0	5,00
5	5	750	3000	0,010	255 109	778 825 120	50	77,5	70	120	207,0	4,50
5-1	5	750	2000	0,020	255 200	778 825 121	100	77,5	70	170	207,0	8,00
6	6	2000	1000	0,050	256 100	778 825 150	180	116,0	107	292	298,0	34,00

Type 8882

DIN 228

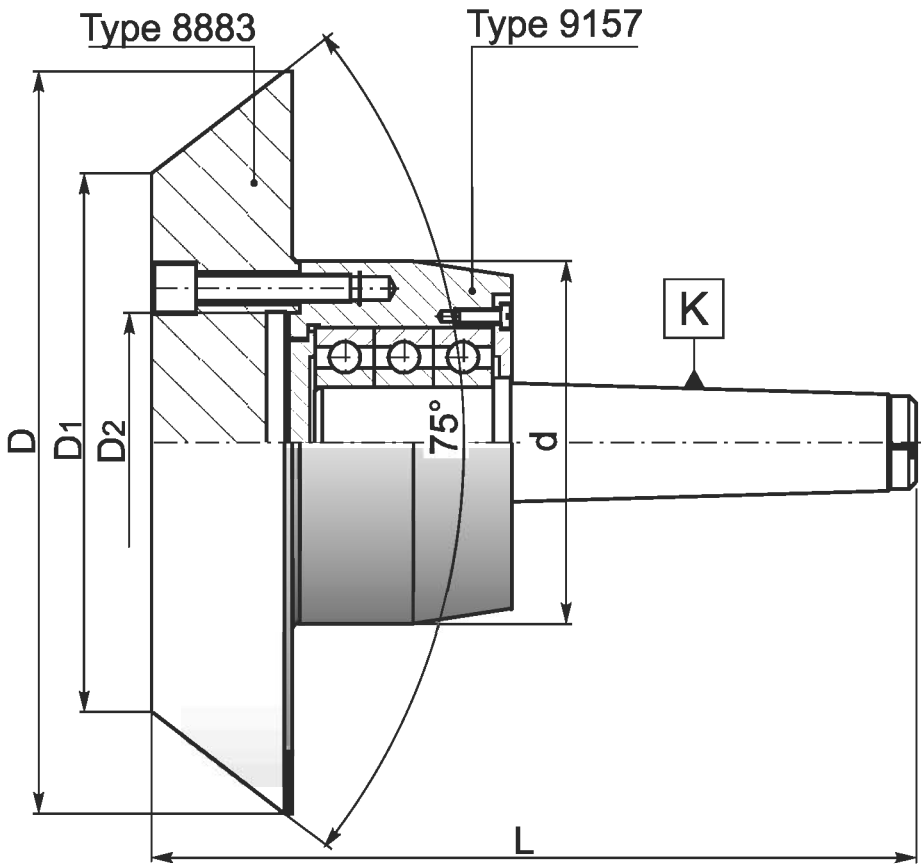
REVOLVING CENTERING TAPER

KJY TOKARSKIE OBROTOWE z wymiennymi tarczami stożkowymi

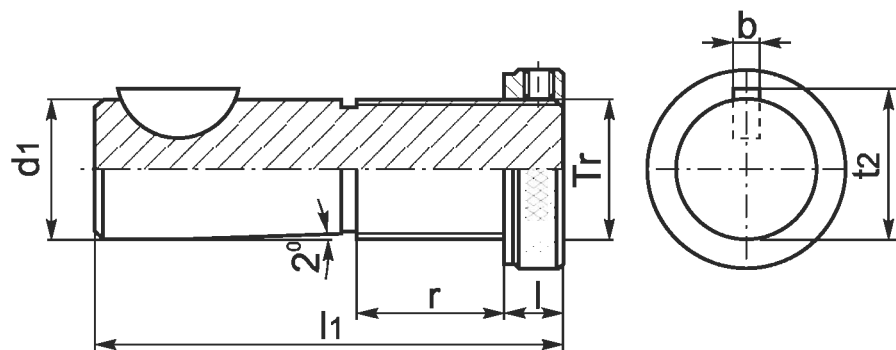
Typical order: SET
0642 588 821 104 or (8882-K-d-D) 8882-3-80-150

Typical order: CENTERING TAPER
0642 588 831 102 or (8883-d-D) 8883-80-150

Typical order: BODY ROTATING
0642 591 571 104 or (9157-K-d) 9157-3-80



K Morse	d	D	D1	D2	L	Workpiece weight max. kg Max.masa przedm.obr. kg	Speed max min-1 Max. prdk. obr. min-1	Concentr. error max. Bicie max.	8882 SET KOMPLET			8883 CENTERING TAPER TARCZA STOŻKOWA			9157 BODY ROTATING OPRAWA OBROTOWA		
									Code No.	PKWiU	kg	Code No.	PKWiU	kg	Code No.	PKWiU	kg
3	80	150	95	56	180	700	4000	0,05	0642 588 821 104	778 882 210	6,0	0642 588 831 102	778 883 210	3,5	0642 591 571 104	889 157 021	2,5
	80	200	145	56	180	700	4000	0,05	821 206	778 882 211	10,2	831 204	778 883 211	7,7	571 104	889 157 021	2,5
4	100	150	95	70	206	1000	3500	0,05	821 400	778 882 240	7,5	831 408	778 883 240	3,5	571 308	889 157 122	4,0
	100	200	145	70	206	1000	3500	0,05	821 501	778 882 241	11,5	831 500	778 883 241	7,5	571 308	889 157 122	4,0
	100	250	195	70	206	1000	3500	0,05	821 603	778 882 242	14,8	831 601	778 883 242	10,8	571 308	889 157 122	4,0
	125	200	145	95	215	1500	3200	0,05	821 807	778 882 267	14,0	832 103	778 883 271	7,5	571 501	889 157 242	6,5
5	125	250	195	95	215	1500	3200	0,05	821 909	778 882 268	17,7	832 205	778 883 272	11,2	571 501	889 157 242	6,5
	125	300	245	95	215	1500	3200	0,05	822 003	778 882 269	23,7	832 307	778 883 273	17,2	571 501	889 157 242	6,5
	125	200	145	95	242	1500	3200	0,05	822 105	778 882 271	14,5	832 103	778 883 271	7,5	571 603	889 157 243	7,0
	125	250	195	95	242	1500	3200	0,05	822 207	778 882 272	18,7	832 205	778 883 272	11,7	571 603	889 157 243	7,0
6	160	250	195	125	245	1800	3000	0,05	822 309	778 882 273	24,2	832 307	778 883 273	17,2	571 603	889 157 243	7,0
	160	300	245	125	245	1800	3000	0,05	822 502	778 882 302	18,8	832 500	778 883 302	10,8	571 909	889 157 383	8,0
						1800	3000	0,05	822 604	778 882 303	26,5	832 602	778 883 303	18,5	571 909	889 157 383	8,0

DIN 6327
AXIALLY ADJUSTABLE SHANK
CHWYT Z REGULACJĄ OSIOWĄ


Tr	d1	l1	l	r	b	t2
Tr 16x1,5	16	85	12	28	5	
17,1						
Tr 20x2	20	88	12	28	5	
21,1						
Tr 28x2	28	95	12	30	6	

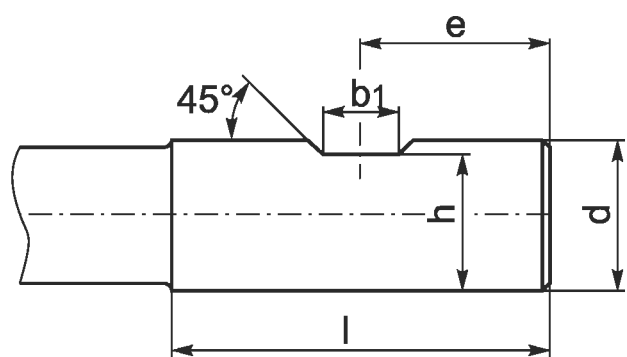
DIN 1835**STRAIGHT SHANK****CHWYT WALCOWY**

Form A
Odmiana A

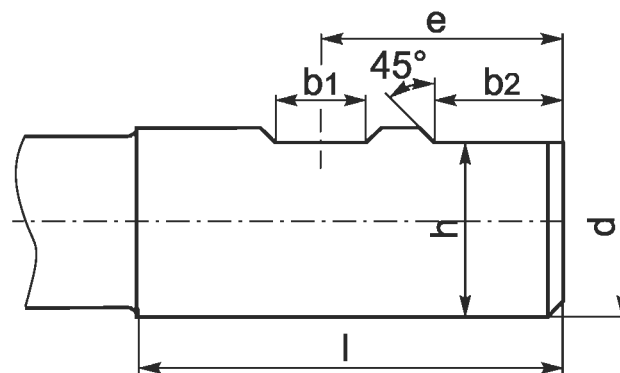


d _{h6}	l	b ₁	b ₂	h _{h11}	e
6	36	4,2	-	5,1	
18,0					
8	36	5,5	-	6,9	
18,0					
10	40	7,0	-	8,5	
20,0					
12	45	8,0	-	10,4	
22,5					
14	45	8,0	-	12,7	22,5
16	48	10,0	-	14,2	24,0
18	48	10,0	-	16,2	24,0

Form B - with one clamping flat (Weldon)
Odmiana B - z jednym spłaszczeniem (Weldon)
d = 6 ı 20 mm



Form B - with two clamping flat (Weldon)
Odmiana B - z dwoma spłaszczeniami (Weldon)
d = 25 ı 32 mm

**STANDARD FEATURES OF TOOLING**

- * Manufactured with Chrome Manganese steel.
- * Carburized with depth of case 0,7 mm.
- * Hardened and precision ground.
- * Surface Hardness RC 58±2.

CHARAKTERYSTYKA TECHNICZNA WYROBYW

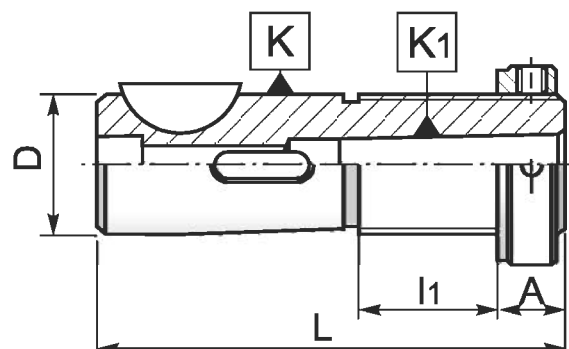
- * Materiał: stal stopowa chromowo-manganowa.
- * Nawęglane na gębkokońę 0,7 mm.
- * Hartowane i precyzyjnie szlifowane.
- * Twardość powierzchni 58±2 HRC.

Type 1830**DIN 6327****ADJUSTABLE ADAPTERS**

for tools with Morse taper shank

TULEJE Z REGULACJI OSIOWI

do narzędzi z chwytem Morse'a



Code No.	PKWiU	K D	K1 Morse	L	l1	A	kg	
0642 118	29 402 133							
300 117	131 830 341	16	1	85	28	12	0,10	
300 219	131 830 451	20	1	88	28	12	0,38	
300 514	131 830 571	28	1	95	30	12	0,58	
300 616	131 830 573		2	95	30	12	0,63	
300 718	131 830 691	36	1	118	36	14	0,92	
300 810	131 830 693		2	118	36	14	0,86	
300 911	131 830 695		3	118	36	14	0,73	
301 016	131 830 791	48	1	144	47	18	2,17	
301 118	131 830 793		2	144	47	18	2,10	
301 210	131 830 795		3	144	47	18	1,89	
301 311	131 830 797		4	144	47	18	1,67	



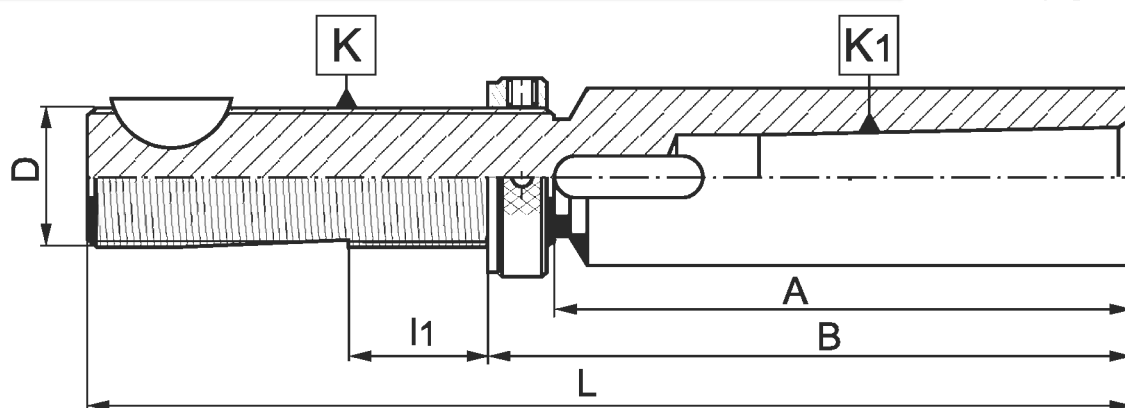
Typical order: 0642 118 301 311 or 1830-48-4-K

Type 1831**DIN 6327****ADJUSTABLE ADAPTERS**

for tools with Morse taper shank

TULEJE Z REGULACJI OSIOWI

do narzędzi z chwytem Morse'a



Code No.	PKWiU	K D	K1 Morse	L	A	l1	B	kg	
0642 118	29 402 133								
311 116	131 831 352	16	1	164	79	28	91	0,21	
311 218	131 831 359		2	179	94	28	106	0,38	
311 910	131 831 465	20	2	182	94	28	106	0,55	
313 810	131 831 589	28	3	212	117	30	129	1,11	
315 211	131 831 715	36	4	264	146	36	160	2,27	



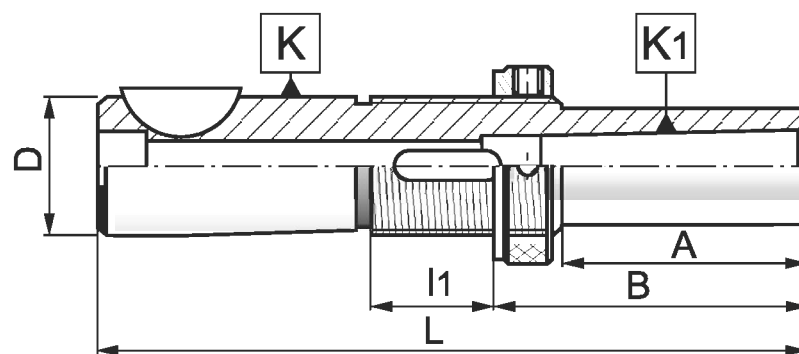
Typical order: 0642 118 315 211 or 1831-36-4-K

Type 1833**DIN 6327****ADJUSTABLE ADAPTERS**

for tools with Morse taper shank

TULEJE Z REGULACJI OSIOWI

do narzędzi z chwytem Morse'a



Code No.	PKWiU	K D	K1 Morse	A	L	l1	B	kg	
0642 118	29 402 133								
330 200	131 833 340	16	1	25	110	28	37	0,11	
330 302	131 833 341		1	50	135	28	62	0,13	
330 404	131 833 342		1	75	135	28	87	0,13	
330 506	131 833 343		1	100	185	28	112	0,18	
331 201	131 833 450	20	1	25	135	28	37	0,27	
331 303	131 833 451		1	50	138	28	62	0,27	
331 405	131 833 452		1	75	163	28	87	0,32	
331 507	131 833 453		1	100	188	28	112	0,37	
332 202	131 833 570	28	1	25	120	30	37	0,52	
332 304	131 833 571		1	50	145	30	62	0,62	
332 406	131 833 572		1	75	170	30	87	0,72	

Type 1833

DIN 6327

Code No.	PKWiU	K D	K ₁ Morse	A	L	l ₁	B	kg	
0642 118...	29 402 133...								
333 203	131 833 574	28	2	25	120	30	37	0,41	
333 305	131 833 575		2	50	145	30	62	0,50	
333 407	131 833 576		2	75	170	30	87	0,58	
333 509	131 833 577		2	100	195	30	112	0,67	
334 204	131 833 690	36	2	30	148	36	44	1,02	
334 306	131 833 691		2	60	178	36	74	1,22	
334 408	131 833 692		2	90	208	36	104	1,43	
334 500	131 833 693		2	120	238	36	134	1,63	
335 205	131 833 694		3	30	148	36	44	0,82	
335 307	131 833 695		3	60	178	36	74	0,98	
335 409	131 833 696		3	90	208	36	104	1,15	
335 500	131 833 697		3	120	238	36	134	1,31	
336 206	131 833 790	48	3	40	184	47	58	2,16	
336 308	131 833 791		3	80	224	47	98	2,63	
336 400	131 833 792		3	120	264	47	138	3,10	
336 501	131 833 793		3	160	304	47	178	3,58	
337 207	131 833 794		4	40	184	47	58	1,85	
337 309	131 833 795		4	80	224	47	98	2,25	
337 400	131 833 796		4	120	264	47	138	2,65	
337 502	131 833 797		4	160	304	47	178	3,10	

Typical order: 0642 118 337 502 or 1833-48-4-160

Type 5365

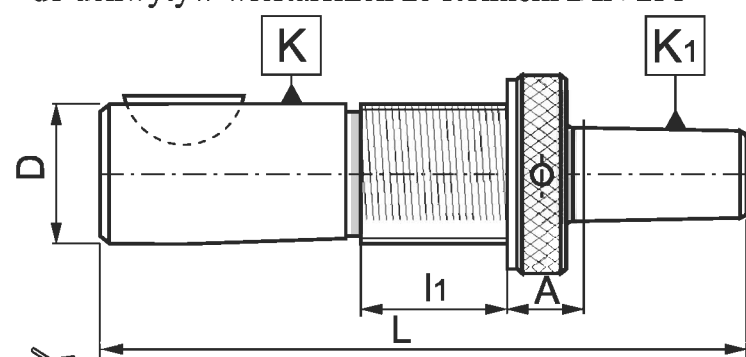
DIN 6327

ADJUSTABLE ADAPTERS

for drill chucks with DIN 238 taper

TRZPIENIE Z REGULACJI OSIOWI

do uchwytów wiertarskich ze stożkiem DIN 238



Typical order: 0642 153 657 513 or 5365-48-B22-K

Code No.	PKWiU	K D	K ₁ DIN	L	l ₁	A	kg	
0642 153	29 402 133							
653 214	265 365 312	20	B12	110	28	4,5	0,50	
653 316	265 365 314		B16	117	28	5,0	0,58	
655 216	265 365 392	28	B12	118	30	4,5	0,70	
655 318	265 365 394		B16	124	30	5,0	0,78	
655 410	265 365 396		B18	132	30	5,0	0,82	
656 319	265 365 453	36	B16	147	36	5,0	0,86	
656 410	265 365 455		B18	155	36	5,0	0,91	
656 512	265 365 457		B22	163	36	4,5	0,96	
657 310	265 365 543	48	B16	173	47	5,0	1,84	
657 411	265 365 545		B18	181	47	5,0	1,88	
657 513	265 365 547		B22	189	47	4,5	1,93	

Type 7510

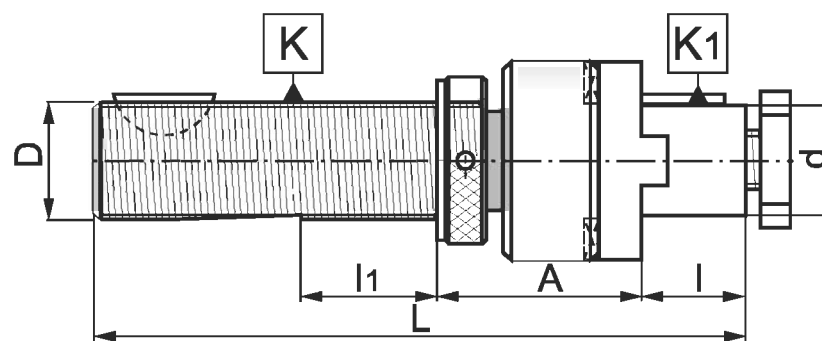
DIN 6327

ADJUSTABLE ADAPTERS

for cutters with keyway or driving slot DIN 138

TRZPIENIE Z REGULACJI OSIOWI

do frezów z rowkiem wpustowym lub rowkiem zabierakowym DIN 138



Code No.	PKWiU	K D	K ₁ d	L	l ₁	A	I	kg			
0642 175...	29 402 133...										
103 312	357 510 190	20	16	133	20	50	17	0,55	U-0620/0	U-1364/0	Z-1276/0
103 414	357 510 191		22	138	20	50	19	0,68	U-0621/0	U-1365/0	Z-1276/0
105 314	357 510 330	28	16	140	30	50	17	0,86	U-0620/0	U-1364/0	Z-1278/0
105 416	357 510 331		22	145	30	50	19	0,92	U-0621/0	U-1365/0	Z-1278/0
105 518	357 510 332		27	155	30	50	21	0,98	U-0622/0	U-1366/0	Z-1278/0
105 610	357 510 333		32	155	30	50	24	1,21	U-0623/0	U-1367/0	Z-1278/0
106 315	357 510 410	36	16	165	36	50	17	1,02	U-0620/0	U-1364/0	Z-1279/0
106 417	357 510 411		22	170	36	50	19	1,21	U-0621/0	U-1365/0	Z-1279/0
106 519	357 510 412		27	175	36	50	21	1,38	U-0622/0	U-1366/0	Z-1279/0
106 610	357 510 413		32	180	36	50	24	1,73	U-0623/0	U-1367/0	Z-1279/0
107 316	357 510 460	48	16	190	47	50	17	1,94	U-0620/0	U-1364/0	Z-1280/0
107 418	357 510 461		22	195	47	50	19	2,20	U-0621/0	U-1365/0	Z-1280/0
107 510	357 510 462		27	200	47	50	21	2,14	U-0622/0	U-1366/0	Z-1280/0
107 611	357 510 463		32	205	47	50	24	2,76	U-0623/0	U-1367/0	Z-1280/0
107 713	357 510 464		40	210	47	50	27	3,23	U-0624/0	U-1368/0	Z-1280/0

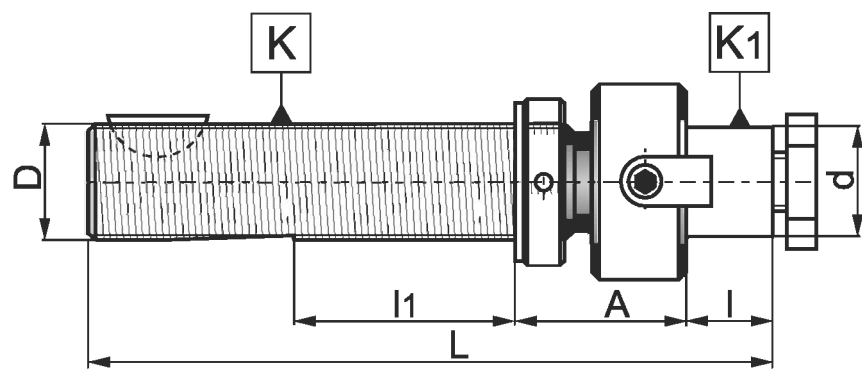
Typical order:
0642 175 107 713 or
7510-48-40-K

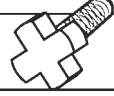
Type 7520**DIN 6327****ADJUSTABLE ADAPTERS**

for cutters with driving slot DIN 138

TRZPIENIE Z REGULACJĄ OSIOWĄ

do frezów z rowkiem zabierakowym DIN 138



Code No. 0642 175...	PKWiU 29 402 133...	K D	K1 d	L	l1	A	l	kg		
200 009	357 520 323	28	16	140	30	36	17	0,86	U-0620/0	Z-1278/0
200 100	357 520 324		22	142	30	36	19	0,92	U-0621/0	Z-1278/0
220 113	357 520 325		27	144	30	36	21	0,98	U-0622/0	Z-1278/0
200 202	357 520 326		32	149	30	38	24	1,21	U-0623/0	Z-1278/0
200 215	357 520 403	36	16	163	36	38	17	1,02	U-0620/0	Z-1279/0
200 304	357 520 404		22	165	36	38	19	1,21	U-0621/0	Z-1279/0
200 317	357 520 405		27	167	36	38	21	1,38	U-0622/0	Z-1279/0
200 406	357 520 406		32	172	36	40	24	1,73	U-0623/0	Z-1279/0
200 419	357 520 453	48	16	189	47	42	17	1,94	U-0620/0	Z-1280/0
200 508	357 520 454		22	191	47	42	19	2,20	U-0621/0	Z-1280/0
200 510	357 520 455		27	193	47	42	21	2,14	U-0622/0	Z-1280/0
200 600	357 520 456		32	198	47	44	24	2,76	U-0623/0	Z-1280/0
200 612	357 520 457		40	202	47	45	27	3,23	U-0624/0	Z-1280/0

 Typical order: 0642 175 200 612 or 7520-48-40-K

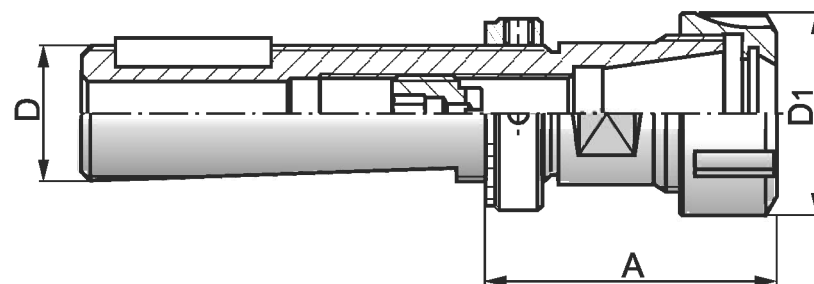
Type 7813**DIN 6327****COLLET CHUCKS ER**

for tool with cylindrical shank

OPRAWKI ZACISKOWE

(do tulejek ER DIN 6499)

do narzędzi z chwytem walcowym

**Standard accessories:**Nut - page 110,
screw**Wyposażenie podstawowe:**Nakrętka - str. 110,
wkręt**Optional accessories:**

Code No. 0642 178...	PKWiU 29 407 150...	D	Collet	A	Capacity Zakres	D1	kg		
131 006	297 813 101	28	ER25	60	2-16	42	1,50	9833-25	M16x1,5x17LH
131 200	297 813 103		ER32	70	2-20	50	1,80	9833-32	M16x1,5x17LH
131 403	297 813 151	36	ER32	65	2-20	50	0,30	9833-32	M18x1,5x19LH
131 607	297 813 153		ER40	78	3-26	63	0,30	9833-40	M18x1,5x19LH
131 902	297 813 192	48	ER40	82	3-26	63	0,30	9833-40	M18x1,5x19LH

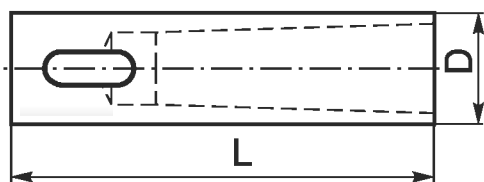
 Typical order: 0642 178 131 902 or 7813-48-40-82

Type 1875**DIN 1835****ADAPTERS**

for tools with Morse taper

TULEJE REDUKCYJNE

do narzędzi z chwytem Morse'a



- Completely hardened, ground internally and externally
- Cała tuleja hartowana, szlifowany stołek wewnętrzny i zewnętrzny

Code No. 0642 118...	PKWiU 29 402 133...	D	K1 Morse	L	kg
753 005	131 875 450	20	1	75	0,35
753 107	131 875 500	25	1	75	0,48
754 607	131 875 501		1	89	0,50
753 209	131 875 507		2	75	0,46
754 709	131 875 509		2	100	0,55
754 800	131 875 642	32	1	89	1,10
753 456			1	100	1,15
753 300	131 875 646		2	100	1,00
753 402	131 875 649		3	100	0,90
754 108	131 875 650		3	120	1,10
754 902	131 875 741	40	1	89	1,50
753 252			1	100	1,70
753 504	131 875 746		2	100	1,30
753 606	131 875 749		3	100	1,20
754 200	131 875 750		3	120	2,00
753 708	131 875 752		4	120	1,40
754 301	131 875 753		4	152	1,80
755 109	131 875 842	50	2	100	3,30
754 403	131 875 844		3	120	3,20
754 505	131 875 848		4	152	3,30



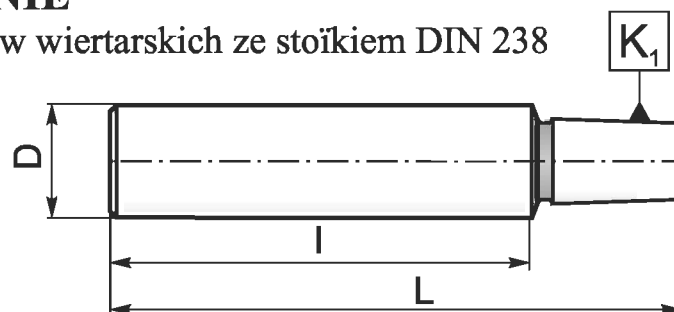
Typical order: 0642 118 753 504 or 1875-40-2-100

Type 5348**DIN 1835****DRILL CHUCK MANDRELS**

for drill chucks taper DIN 238

TRZPIENIE

do uchwytów wiertarskich ze stołkiem DIN 238



Code No. 0642 153...	PKWiU 29 402 133...	D	l	K1 DIN	L	kg
480 005	265 348 181	8	35	B10	55.5	0,02
480 300	265 348 237	10	48	B12	72.5	0,04
480 107	265 348 211		50	B10	69.5	0,04
480 209	265 348 212		50	B12	74.5	0,04
480 211	265 348 213		50	B16	83.5	0,05
480 504	265 348 243	12	50	B16	83.5	0,07
480 606	265 348 247		60	B16	93.5	0,08
480 708	265 348 263	16	50	B16	81.0	0,12
480 812	265 348 270		70	B16	101.0	0,15
480 800	265 348 271		70	B18	110.0	0,16
481 108	265 348 314	20	30	B16	63.0	0,15
481 505	265 348 319		60	B12	87.0	0,20
481 200	265 348 320		60	B16	93.0	0,22
481 607	265 348 321		60	B18	100.0	0,23
481 301	265 348 344	25	75	B16	109.0	0,40
481 416	265 348 424	30	70	B16	106.0	0,56
481 403	265 348 425		70	B18	112.0	0,59



Typical order: 0642 153 480 504 or 5348-12x50-B16

Type 7622**DIN 1835****REDUCING BUSHINGS**

for cutters with cylindrical shank and weldon flat DIN 1835-B

REDUKTORY

do narzędzi z chwytem walcowym Weldon'a DIN 1835-B

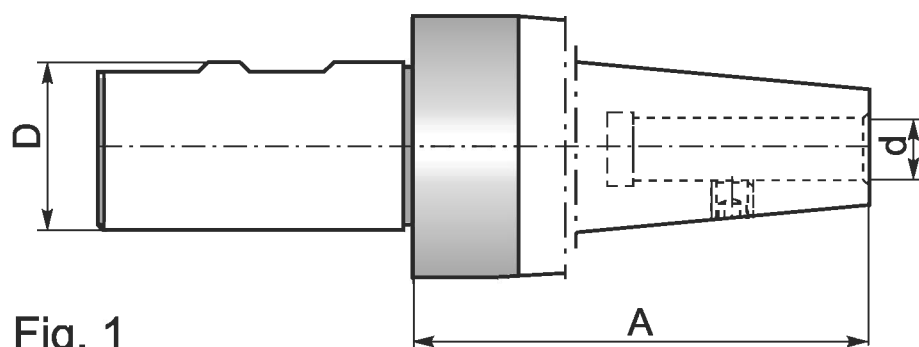


Fig. 1

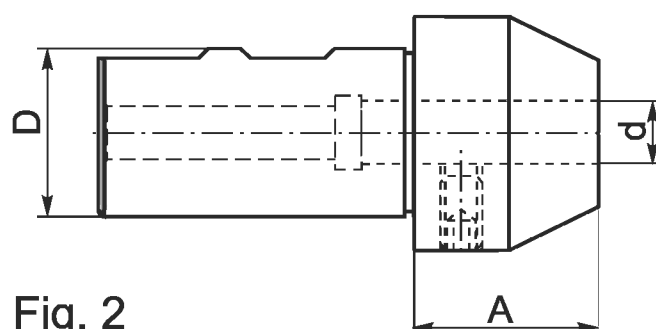


Fig. 2

Code No. 0642 176...	PKWiU 29 402 150...	D	d	A	Fig.	kg
220 103	217 622 160	20	6	30	2	0,30
220 205	217 622 161		8	30	2	0,30
220 307	217 622 162		10	30	2	0,40
220 409	217 622 163		12	35	2	0,60
221 104	217 622 430	32	6	25	2	0,40
221 206	217 622 431		8	25	2	0,40
221 308	217 622 432		10	30	2	0,50
221 400	217 622 433		12	35	2	0,50
221 501	217 622 434		14	40	2	0,70
221 603	217 622 435		16	40	2	0,80
221 705	217 622 436		18	40	2	1,00
221 807	217 622 437		20	40	2	1,20
222 105	217 622 530	40	8	175	1	2,70
222 207	217 622 531		10	175	1	2,70
222 309	217 622 532		12	175	1	2,70
222 400	217 622 533		16	175	1	2,50
222 502	217 622 534		20	175	1	2,50
222 604	217 622 535		25	175	1	2,50
222 706	217 622 536		32	180	1	3,80



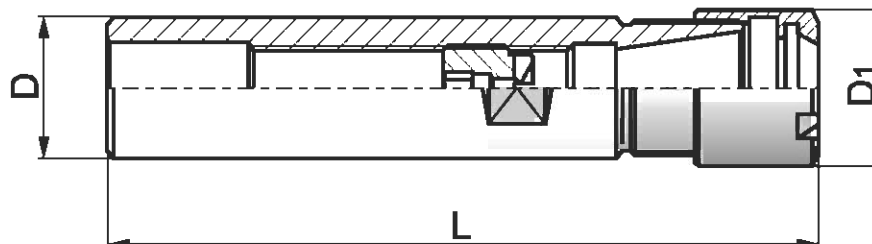
Typical order: 0642 176 221 807 or 7622-32-20

Type 7812**DIN 1835****COLLET CHUCKS ER**

for tool with cylindrical shank

OPRAWKI ZACISKOWE**(do tulejek ER DIN 6499)**

do narzędzi z chwytem walcowym

**Standard accessories:**Nut - page 110,
screw**Wyposażenie podstawowe:**Nakrętka - str. 110,
wkręt**Optional accessories:**

Code No. 0642 178...	PKWiU 29 407 150...	D	Collet	L	Capacity Zakres	D1	kg		
122 421	297 812 002	16	ER16	160	2-10	22	0,30	9833-16S	M10x11LH
121 420	297 812 031	20	ER16	100	2-10	22	0,30	9833-16S	M12x1,5x14LH
120 007	297 812 036		ER16	160	2-10	22	0,30	9833-16S	M12x1,5x14LH

 Typical order: 0642 178 120 007 or 7812-20-16-160
Type 7812**DIN 1835****COLLET CHUCKS ER - SET**

for tool with cylindrical shank

OPRAWKI ZACISKOWE ER - KOMPLET

do narzędzi z chwytem walcowym



Code No. 0642 178...	PKWiU 29 407	D	Collet	L	Capacity Zakres	Full set pieces
150...		16	ER16	160	2-10	8
122 406	297 812 003	20	ER16	100	2-10	8
121 405	297 812 032		ER16	160	2-10	8
120 200	297 812 037					

 Typical order: 0642 178 120 200 or 7812-20-16-160 SET

Type 7815

COLLET CHUCKS ER

for tool with cylindrical shank

OPRAWKI ZACISKOWE

(do tulejek ER DIN 6499)

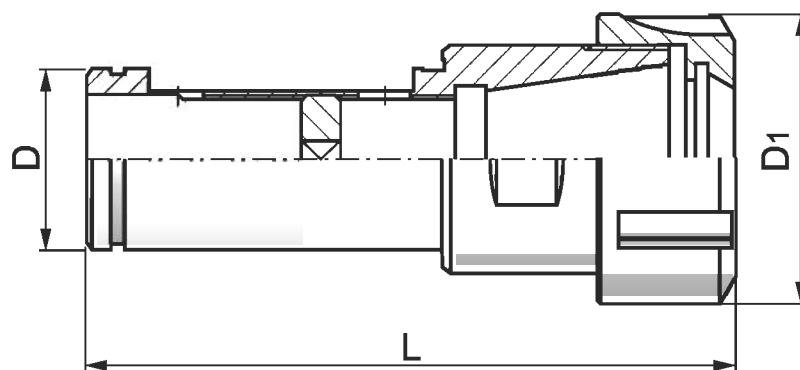
do narzędzi z chwytem walcowym

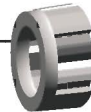
Standard
accessories:

Nut - page 110,
screw

Wyposażenie podstawowe:

Nakrętka - str. 110, w
krętk

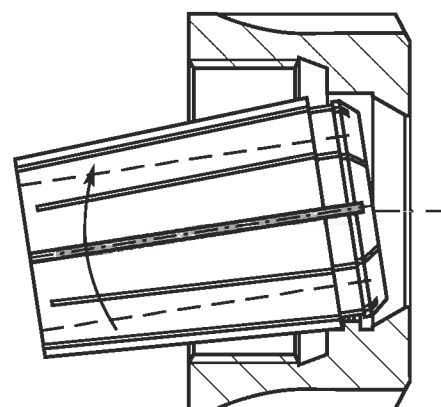
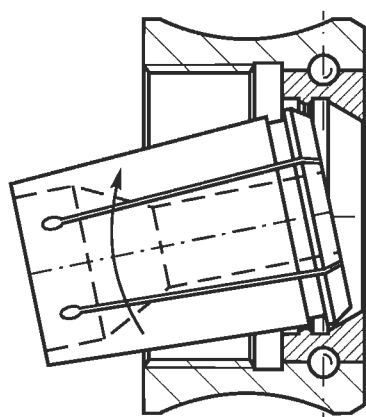


Code No.	PKWiU	D	Collet	L	Capacity Zakres	D1	kg		
								9833-32	M22x1,5x10LH
								9833-32	M22x1,5x10LH

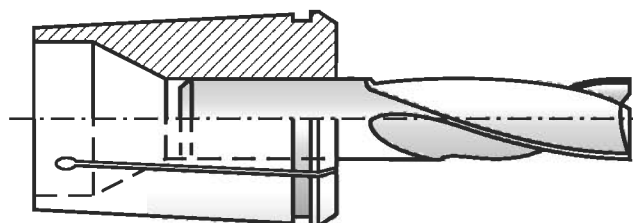
 Typical order: 0642 178 152 207 or 7815-40-32

CLAMPING OF TOOLS IN COLLET HOLDERS

MOCOWANIE NARZĘDZI W TULEJKACH ZACISKOWYCH

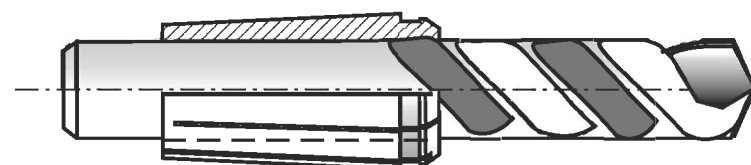


- * To use, first insert the collet into the chuck nut by squeezing the collet and pressing
- * Its face into the chuck nut's collar ring until the collet's collar is fully seated
- * Then load the collet into the chuck
- * Put the tool into the collet's hole and clamp the nut by the wrench
- * For collet removal simply squeeze the collet while pulling it from chuck nut at the angle.
- * Do nakrętki wkładamy tulejkę pod kłosem
- * Zaczepiam kanaikiem tulejki o minnowodowy występnakrętki (dla 7618) lub o cylindryczny występnakrętki (dla 7642)
- * Wcisnęję tulejkę w nakrętkę i wioję do oprawki
- * W tulejkę wioję narzędzie i dokręcam nakrętkę
- * Przy wyjmowaniu tulejki należy czupności wykonać w odwrotnej kolejności.



DIN 6388-A

- * single slotted, with shorter clamping bore
- * jednostronne rozcięcie, z krótkim otworem mocującym



DIN 6388-B

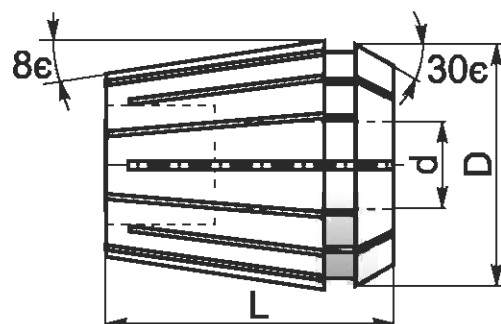
- * double slotted
- * dwustronnie rozcięte, z przelotowym otworem mocującym

Type 7618

COLLETS ER (DIN 6499)

for tools with cylindrical shank

TULEJKI ZACISKOWE ER (DIN 6499)



Code No. 0642 176...	PKWiU 29 407 150...	Collet	Range Zakres d	D	L
180 003	217 618 060	ER16	3-2	17	27,5
180 105	217 618 061		4-3	17	27,5
180 207	217 618 062		5-4	17	27,5
180 309	217 618 063		6-5	17	27,5
180 400	217 618 064		7-6	17	27,5
180 502	217 618 065		8-7	17	27,5
180 604	217 618 066		9-8	17	27,5
180 706	217 618 067		10-9	17	27,5
181 004	217 618 160	ER20	3-2	21	31,5
181 106	217 618 161		4-3	21	31,5
181 208	217 618 162		5-4	21	31,5
181 300	217 618 163		6-5	21	31,5
181 401	217 618 164		7-6	21	31,5
181 503	217 618 165		8-7	21	31,5
181 605	217 618 166		9-8	21	31,5
181 707	217 618 167		10-9	21	31,5
181 809	217 618 168		11-10	21	31,5
181 900	217 618 169		12-11	21	31,5
182 005	217 618 170		13-12	21	31,5
183 505	217 618 210	ER25	3-2	26	34,0
183 607	217 618 211		4-3	26	34,0
183 709	217 618 212		5-4	26	34,0
183 800	217 618 213		6-5	26	34,0
183 902	217 618 214		7-6	26	34,0
184 007	217 618 215		8-7	26	34,0
184 109	217 618 216		9-8	26	34,0
184 200	217 618 217		10-9	26	34,0
184 302	217 618 218		11-10	26	34,0
184 404	217 618 219		12-11	26	34,0
184 506	217 618 220		13-12	26	34,0
184 608	217 618 221		14-13	26	34,0
184 700	217 618 222		15-14	26	34,0
184 801	217 618 223		16-15	26	34,0
185 100	217 618 430	ER32	3-2	33	40,0
185 201	217 618 431		4-3	33	40,0
185 303	217 618 432		5-4	33	40,0
185 405	217 618 433		6-5	33	40,0
185 507	217 618 434		7-6	33	40,0
185 609	217 618 435		8-7	33	40,0
185 700	217 618 436		9-8	33	40,0
185 802	217 618 437		10-9	33	40,0
185 904	217 618 438		11-10	33	40,0

Code No. 0642 176...	PKWiU 29 407 150...	Collet	Range Zakres d	D	L
186 009	217 618 439	ER32	12-11	33	40,0
186 100	217 618 440		13-12	33	40,0
186 202	217 618 441		14-13	33	40,0
186 304	217 618 442		15-14	33	40,0
186 406	217 618 443		16-15	33	40,0
186 508	217 618 444		17-16	33	40,0
186 600	217 618 445		18-17	33	40,0
186 701	217 618 446		19-18	33	40,0
186 803	217 618 447		20-19	33	40,0
187 101	217 618 530	ER40	3-2	41	46,0
187 203	217 618 531		4-3	41	46,0
187 305	217 618 532		5-4	41	46,0
187 407	217 618 533		6-5	41	46,0
187 509	217 618 534		7-6	41	46,0
187 600	217 618 535		8-7	41	46,0
187 702	217 618 536		9-8	41	46,0
187 804	217 618 537		10-9	41	46,0
187 906	217 618 538		11-10	41	46,0
188 000	217 618 539		12-11	41	46,0
188 102	217 618 540		13-12	41	46,0
188 204	217 618 541		14-13	41	46,0
188 306	217 618 542		15-14	41	46,0
188 408	217 618 543		16-15	41	46,0
188 500	217 618 544		17-16	41	46,0
188 601	217 618 545		18-17	41	46,0
188 703	217 618 546		19-18	41	46,0
188 805	217 618 547		20-19	41	46,0
188 907	217 618 548		21-20	41	46,0
189 001	217 618 549		22-21	41	46,0
189 103	217 618 550		23-22	41	46,0
189 205	217 618 551		24-23	41	46,0
189 307	217 618 552		25-24	41	46,0
189 409	217 618 553		26-25	41	46,0

Code No. 0642 176...	PKWiU 29 407 150...	Collet	Range Zakres d	Full set pieces
180 808	217 618 070	ER16	2-10	8
182 107	217 618 173	ER20	2-13	11
184 896	217 618 230	ER25	2-16	14
186 816	217 618 450	ER32	2-20	18
189 411	217 618 560	ER40	2-26	24

 Typical order: 0642 176 180 003 or 7618-3-16



Type 7600

ER COLLETS - SET

(without chuck) for SA, BT, DIN

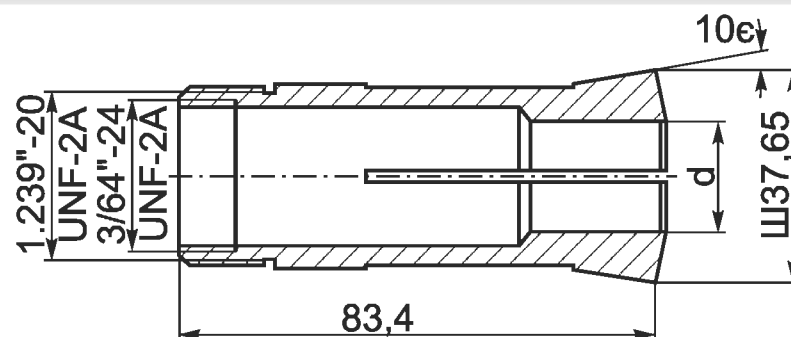
TULEJKI ZACISKOWE ER - KPL

(bez oprawki) do SA, BT, DIN



Code No. 0642 176...	PKWiU 29 407 150...	Size Wielkość	7:24	Collet 7618 ER DIN 6499	Pcs.	Спецкы	A max
000 000	217 600 360	30-16-8-80	30	16-3,4,5,6,7,8,9,10	8	2-10	80
000 306	217 600 362	30/40-32-8-80	30, 40	32-6,8,10,12,14,16,18,20	8	5-20	80
000 805	217 600 530	30/40-32-8-80PL	30, 40	32-4,5,6,8,10,12,16,20	8PL	3-20	80
000 859	217 600 531	30/40-32-18-80	30, 40	32-3,4,5,6,7,8,9,10,11,12, 13,14,15,16,17,18,19,20	18	2-20	80
000 887	217 600 580	40-25-14-60	40	25-3,4,5,6,7,8,9,10,11,12, 13,14,15,16	14	2-16	60
000 950	217 600 536	40-32-10-70	40	32-3,4,6,8,10,12,14,16,18,20	10	2-20	70
000 907	217 600 534	40-32-18-80-130	40	32-3,4,5,6,7,8,9,10,11,12,13, 14,15,16,17,18,19,20	18	2-20	80-130
001 001	217 600 538	40-40-24-80	40	40-3,4,5,6,7,8,9,10,11,12,13, 14,15,16,17,18,19,20,21, 22,23,24,25,26	24	2-26	80
001 409	217 600 710	50-32-8-70PL	50	32-4,5,6,8,10,12,16,20	8PL	3-20	70
001 452	217 600 712	50-32-18-130	50	32-3,4,5,6,7,8,9,10,11,12,13, 14,15,16,17,18,19,20	18	2-20	130
001 500	217 600 714	50-40-24-130	50	40-3,4,5,6,7,8,9,10,11,12,13, 14,15,16,17,18,19,20,21, 22,23,24,25,26	24	2-26	130
001 874	217 600 540	40-16-8-150S	40	16-3,4,5,6,7,8,9,10	8	2-10	150
001 205	217 600 716	50-16-8-150S	50	16-3,4,5,6,7,8,9,10	8	2-10	150

 Typical order: 0642 176 000 000 or 7600-30-16-8-80

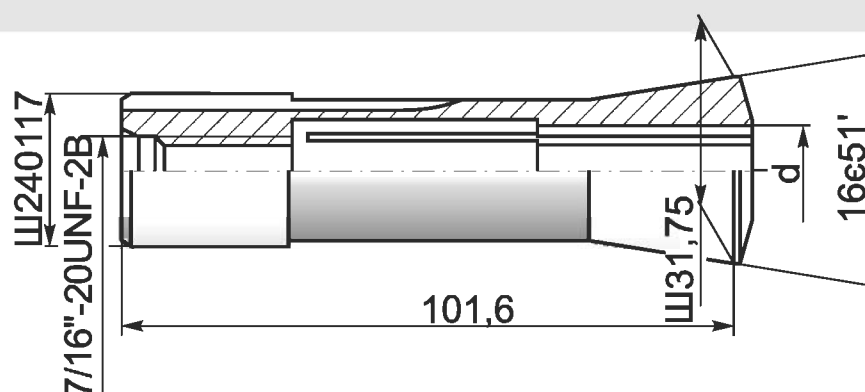
**Type 3000****COLLETS 5C****TULEJKI ZACISKOWE 5C**

Typical order: 0642 830 000 002 or 3000-5C-3

Code No. 0642 830...	PKWiU 29 407 251...	Size	d
000 002	123 000 002	5C-3	3
000 104	123 000 012	5C-4	4
000 186	123 000 020	5C-5	5
000 262	123 000 028	5C-6	6
000 400	123 000 042	5C-7	7
000 440	123 000 048	5C-8	8
000 481	123 000 052	5C-9	9
000 542	123 000 058	5C-10	10

Code No. 0642 830...	PKWiU 29 407 251...	Size	d
000 603	123 000 064	5C-11	11
000 644	123 000 068	5C-12	12
000 685	123 000 072	5C-13	13
000 720	123 000 076	5C-14	14
000 761	123 000 080	5C-15	15
000 807	123 000 084	5C-16	16
000 848	123 000 088	5C-17	17
000 889	123 000 092	5C-18	18

Code No. 0642 830...	PKWiU 29 407 251...	Size	d
000 924	123 000 096	5C-19	19
000 965	123 000 100	5C-20	20
001 003	123 000 104	5C-21	21
001 044	123 000 108	5C-22	22
001 085	123 000 112	5C-23	23
001 120	123 000 116	5C-24	24
001 161	123 000 120	5C-25	25

Type 7641**COLLETS R8****TULEJKI ZACISKOWE R8**

Typical order: 0642 176 412 101 or 7641-R8-3

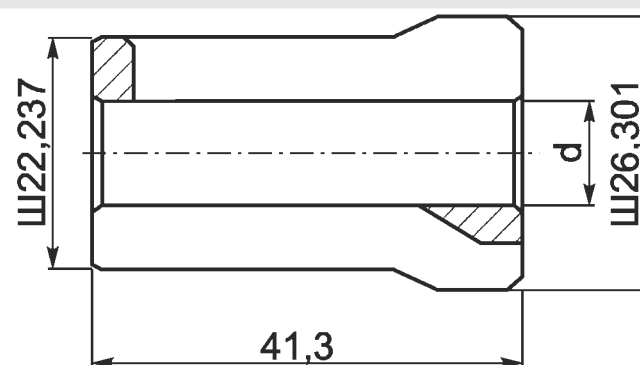
Code No. 0642 176...	PKWiU 29 407	Size	d
150...		R8-3	3
412 101	217 641 880	R8-4	4
412 600	217 641 885	R8-5	5
413 000	217 641 889	R8-6	6
413 408	217 641 893	R8-7	7
414 103	217 641 900	R8-8	8

Code No. 0642 176...	PKWiU 29 407	Size	d
150...		R8-9	9
414 500	217 641 904	R8-10	10
414 806	217 641 907	R8-11	11
415 104	217 641 909	R8-12	12
415 308	217 641 911	R8-13	13
415 501	217 641 913	R8-14	14

Code No. 0642 176...	PKWiU 29 407	Size	d
150...		R8-15	15
415 909	217 641 917	R8-16	16
416 105	217 641 919	R8-17	17
416 210	217 641 921	R8-18	18
416 250	217 641 923	R8-19	19
416 276	217 641 925	R8-20	20
416 291	217 641 927		

Type 7651**COLLETS DA18****TULEJKI ZACISKOWE DA18**

Code No. 0642 176...	PKWiU 29 407	Range Zakres d	Full set pieces
150...			
514 803	217 651 099	3-19	17



Typical order: 0642 176 510 107 or 7651-18-3

Code No. 0642 176...	PKWiU 29 407	Size	d
150...		18-3	3
510 107	217 651 061	18-3,5	3,5
510 209	217 651 062	18-4	4
510 300	217 651 063	18-4,5	4,5
510 402	217 651 064	18-5	5
510 504	217 651 065	18-5,5	5,5
510 606	217 651 066	18-6	6
510 708	217 651 067	18-6,5	6,5
510 800	217 651 068	18-7	7
510 901	217 651 069	18-7,5	7,5
511 006	217 651 070	18-8	8

Code No. 0642 176...	PKWiU 29 407	Size	d
150...		18-8,5	8,5
511 200	217 651 072	18-9	9
511 301	217 651 073	18-9,5	9,5
511 403	217 651 074	18-10	10
511 505	217 651 075	18-10,5	10,5
511 607	217 651 076	18-11	11
511 709	217 651 077	18-11,5	11,5
511 800	217 651 078	18-12	12
511 902	217 651 079	18-12,5	12,5
512 007	217 651 080	18-13	13
512 109	217 651 081	18-13,5	13,5
512 200	217 651 082		

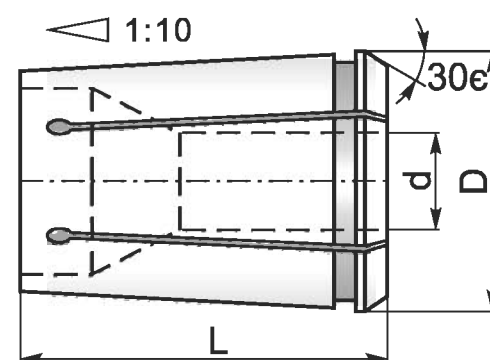
Code No. 0642 176...	PKWiU 29 407	Size	d
150...		18-14	14
512 302	217 651 083	18-14,5	14,5
512 404	217 651 084	18-15	15
512 506	217 651 085	18-15,5	15,5
512 608	217 651 086	18-16	16
512 700	217 651 087	18-16,5	16,5
512 801	217 651 088	18-17	17
512 903	217 651 089	18-17,5	17,5
513 008	217 651 090	18-18	18
513 100	217 651 091	18-18,5	18,5
513 201	217 651 092	18-19	19
513 303	217 651 093		



Type 7642-A

COLLETS DIN6388 Type A

TULEJKI ZACISKOWE DIN6388 Odmiana A



Code No.	PKWiU	Collet	d	D	L
0642 176	29 407 150				
420 006	217 642 060	16	3,0	25,50	40
420 019	217 642 061		3,5	25,50	40
420 108	217 642 062		4,0	25,50	40
420 110	217 642 063		4,5	25,50	40
420 200	217 642 064		5,0	25,50	40
420 212	217 642 065		5,5	25,50	40
420 301	217 642 066		6,0	25,50	40
420 314	217 642 067		6,5	25,50	40
420 403	217 642 068		7,0	25,50	40
420 416	217 642 069		7,5	25,50	40
420 505	217 642 070		8,0	25,50	40
420 518	217 642 071		8,5	25,50	40
420 607	217 642 072		9,0	25,50	40
420 610	217 642 073		9,5	25,50	40
420 709	217 642 074		10,0	25,50	40
420 711	217 642 075		10,5	25,50	40
420 800	217 642 076		11,0	25,50	40
420 813	217 642 077		11,5	25,50	40
420 902	217 642 078		12,0	25,50	40
420 915	217 642 079		12,5	25,50	40
421 007	217 642 080		13,0	25,50	40
421 010	217 642 081		13,5	25,50	40
421 109	217 642 082		14,0	25,50	40
421 111	217 642 083		14,5	25,50	40
421 200	217 642 084		15,0	25,50	40
421 213	217 642 085		15,5	25,50	40
421 302	217 642 086		16,0	25,50	40
423 009	217 642 210	25	3,0	35,05	52
423 100	217 642 211		3,5	35,05	52
423 113	217 642 212		4,0	35,05	52
423 126	217 642 213		4,5	35,05	52
423 139	217 642 214		5,0	35,05	52
423 141	217 642 215		5,5	35,05	52
423 154	217 642 216		6,0	35,05	52
423 167	217 642 217		6,5	35,05	52
423 170	217 642 218		7,0	35,05	52
423 182	217 642 219		7,5	35,05	52
423 195	217 642 220		8,0	35,05	52
423 202	217 642 221		8,5	35,05	52
423 215	217 642 222		9,0	35,05	52
423 228	217 642 223		9,5	35,05	52
423 230	217 642 224		10,0	35,05	52
423 243	217 642 225		10,5	35,05	52
423 256	217 642 226		11,0	35,05	52
423 269	217 642 227		11,5	35,05	52
423 271	217 642 228		12,0	35,05	52
423 284	217 642 229		12,5	35,05	52
423 297	217 642 230		13,0	35,05	52
423 304	217 642 231		13,5	35,05	52
423 317	217 642 232		14,0	35,05	52
423 320	217 642 233		14,5	35,05	52
423 332	217 642 234		15,0	35,05	52
423 345	217 642 235		15,5	35,05	52
423 358	217 642 236		16,0	35,05	52
423 360	217 642 237		16,5	35,05	52
423 373	217 642 238		17,0	35,05	52
423 386	217 642 239		17,5	35,05	52
423 399	217 642 240		18,0	35,05	52
423 406	217 642 241		18,5	35,05	52
423 419	217 642 242		19,0	35,05	52
423 421	217 642 243		19,5	35,05	52
423 434	217 642 244		20,0	35,05	52
423 447	217 642 245		20,5	35,05	52
423 450	217 642 246		21,0	35,05	52

Code No.	PKWiU	Collet	d	D	L
0642 176	29 407 150				
423 462	217 642 247	25	21,5	35,05	52
423 475	217 642 248		22,0	35,05	52
423 488	217 642 249		22,5	35,05	52
423 490	217 642 250		23,0	35,05	52
423 508	217 642 251		23,5	35,05	52
423 510	217 642 252		24,0	35,05	52
423 523	217 642 253		24,5	35,05	52
423 536	217 642 254		25,0	35,05	52
423 701	217 642 430	32	4,5	43,70	60
423 714	217 642 431		5,0	43,70	60
423 727	217 642 432		5,5	43,70	60
423 730	217 642 433		6,0	43,70	60
423 742	217 642 434		6,5	43,70	60
423 755	217 642 435		7,0	43,70	60
423 768	217 642 436		7,5	43,70	60
423 770	217 642 437		8,0	43,70	60
423 783	217 642 438		8,5	43,70	60
423 796	217 642 439		9,0	43,70	60
423 803	217 642 440		9,5	43,70	60
423 816	217 642 441		10,0	43,70	60
423 829	217 642 442		10,5	43,70	60
423 831	217 642 443		11,0	43,70	60
423 844	217 642 444		11,5	43,70	60
423 857	217 642 445		12,0	43,70	60
423 860	217 642 446		12,5	43,70	60
423 872	217 642 447		13,0	43,70	60
423 885	217 642 448		13,5	43,70	60
423 898	217 642 449		14,0	43,70	60
423 905	217 642 450		14,5	43,70	60
423 918	217 642 451		15,0	43,70	60
423 920	217 642 452		15,5	43,70	60
423 933	217 642 453		16,0	43,70	60
423 946	217 642 454		16,5	43,70	60
423 959	217 642 455		17,0	43,70	60
423 961	217 642 456		17,5	43,70	60
423 974	217 642 457		18,0	43,70	60
423 987	217 642 458		18,5	43,70	60
423 990	217 642 459		19,0	43,70	60
424 000	217 642 460		19,5	43,70	60
424 012	217 642 461		20,0	43,70	60
424 025	217 642 462		20,5	43,70	60
424 038	217 642 463		21,0	43,70	60
424 040	217 642 464		21,5	43,70	60
424 053	217 642 465		22,0	43,70	60
424 066	217 642 466		22,5	43,70	60
424 079	217 642 467		23,0	43,70	60
424 081	217 642 468		23,5	43,70	60
424 094	217 642 469		24,0	43,70	60
424 101	217 642 470		24,5	43,70	60
424 114	217 642 471		25,0	43,70	60
424 127	217 642 472		25,5	43,70	60
424 130	217 642 473		26,0	43,70	60
424 142	217 642 474		26,5	43,70	60
424 155	217 642 475		27,0	43,70	60
424 168	217 642 476		27,5	43,70	60
424 170	217 642 477		28,0	43,70	60
424 183	217 642 478		28,5	43,70	60
424 196	217 642 479		29,0	43,70	60
424 203	217 642 480		29,5	43,70	60
424 216	217 642 481		30,0	43,70	60
424 229	217 642 482		30,5	43,70	60
424 231	217 642 483		31,0	43,70	60
424 244	217 642 484		31,5	43,70	60
424 257	217 642 485		32,0	43,70	60

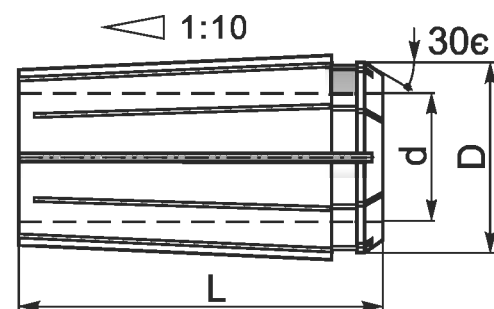
 Typical order: 0642 176 420 006 or 7642-16-3A



Type 7642-B

COLLETS DIN6388 Type B

TULEJKI ZACISKOWE DIN6388 Odmiana B



Code No.	PKWiU	Collet	d	D	L
0642 176...	29 407 150...				
425 102	217 642 087	6	3,0-2,5	25,50	40
425 128	217 642 088		3,5-3,0	25,50	40
425 130	217 642 089		4,0-3,5	25,50	40
425 143	217 642 090		4,5-4,0	25,50	40
425 156	217 642 091		5,0-4,5	25,50	40
425 169	217 642 092		5,5-5,0	25,50	40
425 171	217 642 093		6,0-5,5	25,50	40
425 184	217 642 094		6,5-6,0	25,50	40
425 197	217 642 095		7,0-6,5	25,50	40
425 204	217 642 096		7,5-7,0	25,50	40
425 217	217 642 097		8,0-7,5	25,50	40
425 220	217 642 098		8,5-8,0	25,50	40
425 232	217 642 099		9,0-8,5	25,50	40
425 245	217 642 100		9,5-9,0	25,50	40
425 258	217 642 101		10,0-9,5	25,50	40
425 260	217 642 102		10,5-10,0	25,50	40
425 273	217 642 103		11,0-10,5	25,50	40
425 286	217 642 104		11,5-11,0	25,50	40
425 299	217 642 105		12,0-11,5	25,50	40
425 306	217 642 106		12,5-12,0	25,50	40
425 319	217 642 107		13,0-12,5	25,50	40
425 321	217 642 108		13,5-13,0	25,50	40
425 334	217 642 109		14,0-13,5	25,50	40
425 347	217 642 110		14,5-14,0	25,50	40
425 350	217 642 111		15,0-14,5	25,50	40
425 362	217 642 112		15,5-15,0	25,50	40
425 375	217 642 113		16,0-15,5	25,50	40
426 103	217 642 160	20	6,0-5,5	29,80	45
426 116	217 642 161		6,5-6,0	29,80	45
426 129	217 642 162		7,0-6,5	29,80	45
426 131	217 642 163		7,5-7,0	29,80	45
426 144	217 642 164		8,0-7,5	29,80	45
426 157	217 642 165		8,5-8,0	29,80	45
426 160	217 642 166		9,0-8,5	29,80	45
426 172	217 642 167		9,5-9,0	29,80	45
426 185	217 642 168		10,0-9,5	29,80	45
426 198	217 642 169		10,5-10,0	29,80	45
426 205	217 642 170		11,0-10,5	29,80	45
426 218	217 642 171		11,5-11,0	29,80	45
426 220	217 642 172		12,0-11,5	29,80	45
426 233	217 642 173		12,5-12,0	29,80	45
426 246	217 642 174		13,0-12,5	29,80	45
426 259	217 642 175		13,5-13,0	29,80	45
426 261	217 642 176		14,0-13,5	29,80	45
426 274	217 642 177		14,5-14,0	29,80	45
426 287	217 642 178		15,0-14,5	29,80	45
426 290	217 642 179		15,5-15,0	29,80	45
426 307	217 642 180		16,0-15,5	29,80	45
426 310	217 642 181		16,5-16,0	29,80	45
426 322	217 642 182		17,0-16,5	29,80	45
426 335	217 642 183		17,5-17,0	29,80	45
426 348	217 642 184		18,0-17,5	29,80	45
426 350	217 642 185		18,5-18,0	29,80	45
426 363	217 642 186		19,0-18,5	29,80	45
426 376	217 642 187		19,5-19,0	29,80	45
426 389	217 642 188		20,0-19,5	29,80	45
427 104	217 642 249	25	3,0-2,5	35,05	52
427 117	217 642 250		3,5-3,0	35,05	52
427 120	217 642 251		4,0-3,5	35,05	52
427 132	217 642 252		4,5-4,0	35,05	52
427 145	217 642 253		5,0-4,5	35,05	52
427 158	217 642 254		5,5-5,0	35,05	52
427 160	217 642 255		6,0-5,5	35,05	52
427 173	217 642 256		6,5-6,0	35,05	52
427 186	217 642 257		7,0-6,5	35,05	52
427 199	217 642 258		7,5-7,0	35,05	52
427 206	217 642 259		8,0-7,5	35,05	52
427 219	217 642 260		8,5-8,0	35,05	52
427 221	217 642 261		9,0-8,5	35,05	52
427 234	217 642 262		9,5-9,0	35,05	52
427 247	217 642 263		10,0-9,5	35,05	52
427 250	217 642 264		10,5-10,0	35,05	52
427 262	217 642 265		11,0-10,5	35,05	52
427 275	217 642 266		11,5-11,0	35,05	52
427 288	217 642 267		12,0-11,5	35,05	52
427 290	217 642 268		12,5-12,0	35,05	52
427 308	217 642 269		13,0-12,5	35,05	52

Code No.	PKWiU	Collet	d	D	L
0642 176...	29 407 150...				
427 310	217 642 270	25	13,5-13,0	35,05	52
427 323	217 642 271		14,0-13,5	35,05	52
427 336	217 642 272		14,5-14,0	35,05	52
427 349	217 642 273		15,0-14,5	35,05	52
427 351	217 642 274		15,5-15,0	35,05	52
427 364	217 642 275		16,0-15,5	35,05	52
427 377	217 642 276		16,5-16,0	35,05	52
427 380	217 642 277		17,0-16,5	35,05	52
427 392	217 642 278		17,5-17,0	35,05	52
427 400	217 642 279		18,0-17,5	35,05	52
427 412	217 642 280		18,5-18,0	35,05	52
427 425	217 642 281		19,0-18,5	35,05	52
427 438	217 642 282		19,5-19,0	35,05	52
427 440	217 642 283		20,0-19,5	35,05	52
427 453	217 642 284		20,5-20,0	35,05	52
427 466	217 642 285		21,0-20,5	35,05	52
427 479	217 642 286		21,5-21,0	35,05	52
427 481	217 642 287		22,0-21,5	35,05	52
427 494	217 642 288		22,5-22,0	35,05	52
427 501	217 642 289		23,0-22,5	35,05	52
427 514	217 642 290		23,5-23,0	35,05	52
427 527	217 642 291		24,0-23,5	35,05	52
427 530	217 642 292		24,5-24,0	35,05	52
427 542	217 642 293		25,0-24,5	35,05	52
427 733	217 642 486	32	6,0-5,5	43,70	60
427 746	217 642 487		6,5-6,0	43,70	60
427 759	217 642 488		7,0-6,5	43,70	60
427 761	217 642 489		7,5-7,0	43,70	60
427 774	217 642 490		8,0-7,5	43,70	60
427 787	217 642 491		8,5-8,0	43,70	60
427 790	217 642 492		9,0-8,5	43,70	60
427 807	217 642 493		9,5-9,0	43,70	60
427 810	217 642 494		10,0-9,5	43,70	60
427 822	217 642 495		10,5-10,0	43,70	60
427 835	217 642 496		11,0-10,5	43,70	60
427 848	217 642 497		11,5-11,0	43,70	60
427 850	217 642 498		12,0-11,5	43,70	60
427 863	217 642 499		12,5-12,0	43,70	60
427 876	217 642 500		13,0-12,5	43,70	60
427 889	217 642 501		13,5-13,0	43,70	60
427 891	217 642 502		14,0-13,5	43,70	60
427 909	217 642 503		14,5-14,0	43,70	60
427 911	217 642 504		15,0-14,5	43,70	60
427 924	217 642 505		15,5-15,0	43,70	60
427 937	217 642 506		16,0-15,5	43,70	60
427 940	217 642 507		16,5-16,0	43,70	60
427 952	217 642 508		17,0-16,5	43,70	60
427 965	217 642 509		17,5-17,0	43,70	60
427 978	217 642 510		18,0-17,5	43,70	60
427 980	217 642 511		18,5-18,0	43,70	60
427 993	217 642 512		19,0-18,5	43,70	60
428 003	217 642 513		19,5-19,0	43,70	60
428 016	217 642 514		20,0-19,5	43,70	60
428 029	217 642 515		20,5-20,0	43,70	60
428 031	217 642 516		21,0-20,5	43,70	60
428 044	217 642 517		21,5-21,0	43,70	60
428 057	217 642 518		22,0-21,5	43,70	60
428 060	217 642 519		22,5-22,0	43,70	60
428 072	217 642 520		23,0-22,5	43,70	60
428 085	217 642 521		23,5-23,0	43,70	60
428 098	217 642 522		24,0-23,5	43,70	60
428 105	217 642 523		24,5-24,0	43,70	60
428 118	217 642 524		25,0-24,5	43,70	60
428 120	217 642 525		25,5-25,0	43,70	60
428 133	217 642 526		26,0-25,5	43,70	60
428 146	217 642 527		26,5-26,0	43,70	60
428 159	217 642 528		27,0-26,5	43,70	60
428 161	217 642 529		27,5-27,0	43,70	60
428 174	217 642 880		28,0-27,5	43,70	60
428 187	217 642 881		28,5-28,0	43,70	60
428 190	217 642 882		29,0-28,5	43,70	60
428 207	217 642 883		29,5-29,0	43,70	60
428 210	217 642 884		30,0-29,5	43,70	60
428 222	217 642 885		30,5-30,0	43,70	60
428 235	217 642 886		31,0-30,5	43,70	60
428 248	217 642 887		31,5-31,0	43,70	60
428 250	217 642 888		32,0-31,5	43,70	60

Typical order: 0642 176 425 156 or 7642-16-5-4,5 B

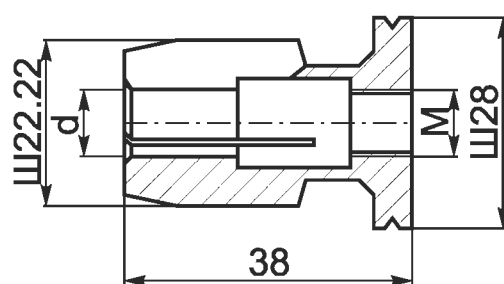
Type 7707

COLLETS

for self locking chucks

TULEJKI ZACISKOWE

do narzędzi z chwytem walcowym z gwintem



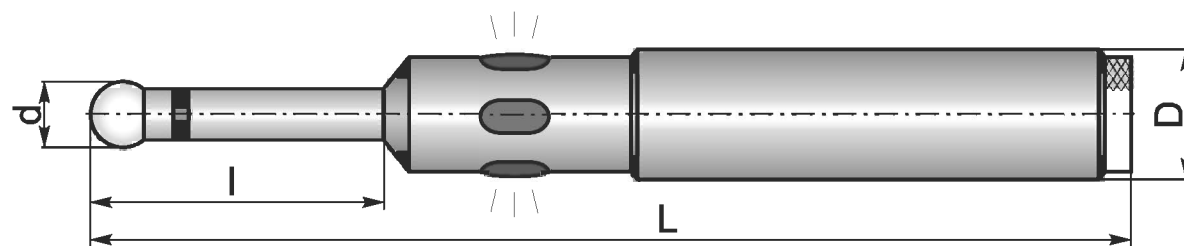
Code No. 0642 177...	PKWiU 29 407	d	M
150...			
070 106	227 707 430	6	M6x1,27
070 208	227 707 460	10	M10x1,27
070 300	227 707 490	12	M12x1,27
070 401	227 707 520	16	M16x1,27

 Typical order: 0642 177 070 401 or 7707-16

Type 1911

OPTICAL EDGE FINDER

CZUJNIK DOTYKOWY



Code No. 0642 919...	PKWiU 29 407 231...	Type	D	d	L	l	kg
110 202	291 911 081	1911	20	10	160	45	0,19
111 203	291 911 080	1911-K	20	10	93	33	0,13

 Typical order: 0642 919 110 202 or 1911-20x160

- * Quick locating edges of workpieces
- * saving time of tools positioning for milling machines, jog borers and other machine tools
- * accuracy 0.005 mm
- * when the finder is used in connection with the control system of machine tool or CNC system it gives possibility of:
 - measuring of inside or outside dimension of workpiece
 - centring and measuring of bores diameters
 - measuring of highness and deepness
- * using 2 dry batteries 1.5 V (not included).

- * szybkie ustalenie położenia krawędzi przedmiotów obrabianych
- * zyskanie na czasie przy pozycjonowaniu narzędzi na frezarkach, wiertarkach i innych obrabiarkach
- * dokładność 0,005 mm
- * gdy czujnik używany jest w połączeniu z systemem pomiarowym obrabiarki lub systemem CNC możliwe jest:
 - mierzenie wymiarów wewnętrznych i zewnętrznych przedmiotu obrabianego
 - centrowanie i pomiar średnic otworów
 - mierzenie wysokości i głębokości
- * dwie baterie 1,5V (nie stanowiły wyposażenia)

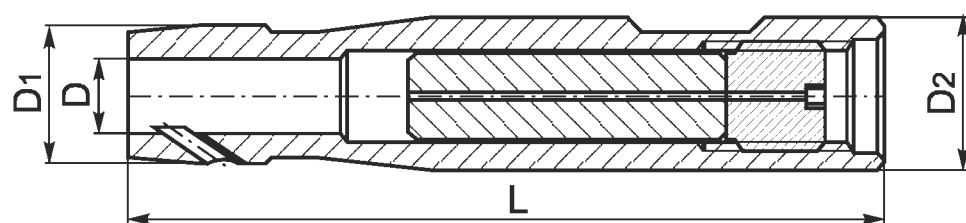
Type 7691

EXTENSION

for toolholders

PRZEDJUŹACZ

do oprawek do frezyw z chwytem walcowym z piasknikiem



Code No. 0642 176...	PKWiU 29 407 150...	D	D1	D2	L	kg
910 106	217 691 020	6	12	16	100	0,2
910 208	217 691 030	8	14	16	100	0,2
910 300	217 691 040	10	16	20	100	0,2
910 401	217 691 050	12	20	25	110	0,4
910 503	217 691 060	16	24	32	125	0,6
910 605	217 691 160	20	30	32	130	0,7

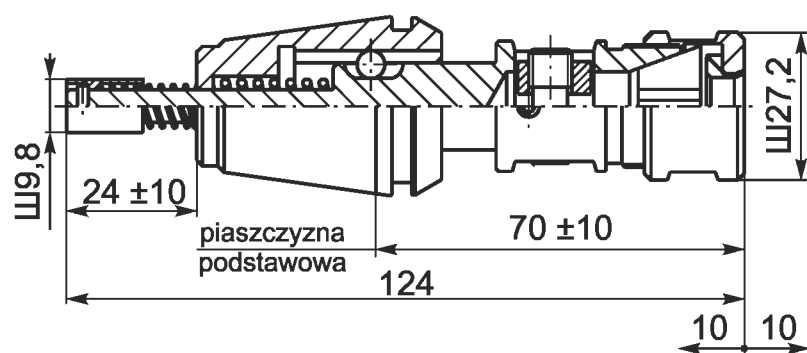
 Typical order: 0642 176 910 106 or 7691-6x100

Type 5424

TAPPING UNITS

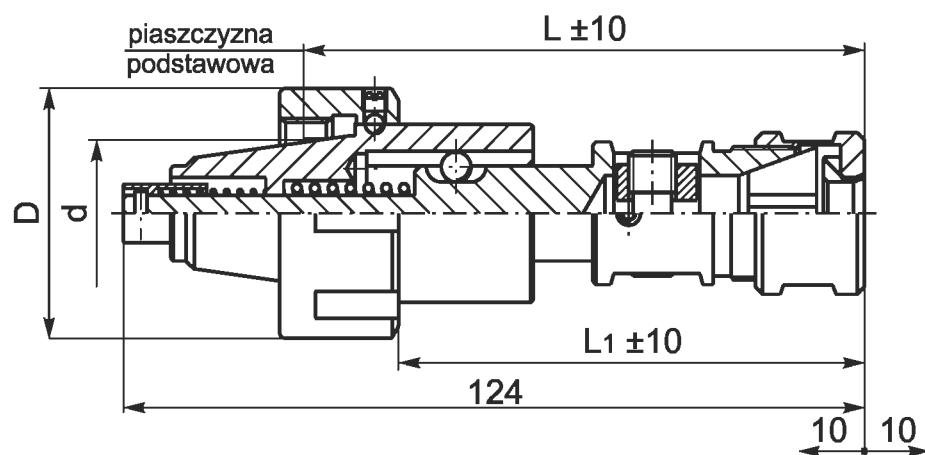
WKJADKA DO GWINTOWANIA

5424-32-J33



5424-20-J33

5424-25-J33



Standard accessories:

Collets J421 (Ш3,5-6,5) and
J422 (Ш6,5-10), hex

key

Wyposażenie podstawowe:

Wkiadki zaciskowe J421 (Ш3,5-6,5) i

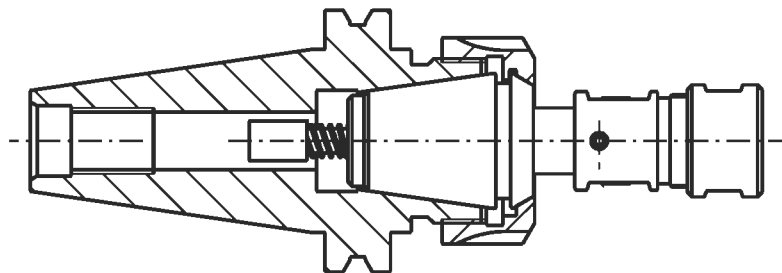
Code No. 0642 154...	PKWiU 29 407 133...	Size	Capacity	D	d	L	L1	kg
240 401	295 424 250	20-J33	M3-M12	35	20	100	88	0,41
240 503	295 424 280	25-J33	M3-M12	42	25	90	78	0,46
240 605	295 424 346	32-J33	M3-M12	—	—	—	—	0,36



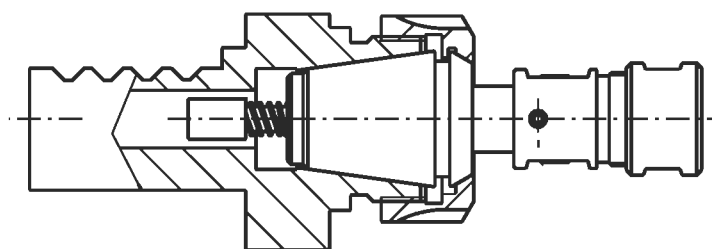
Typical order: 0642 154 240 605 or 5424-32-J33

Wkiadki mocuje się w oprawkach zaciskowych (do tulejek ER DIN 6499) np.:

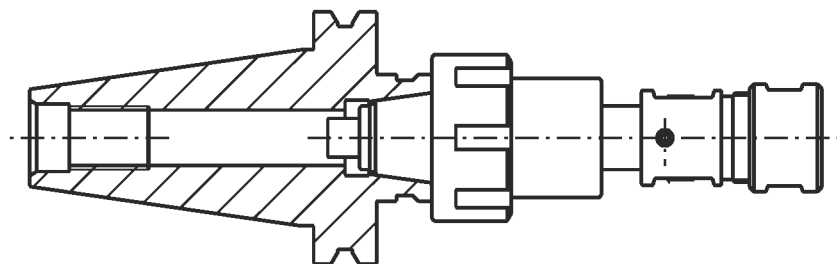
7617-40-32



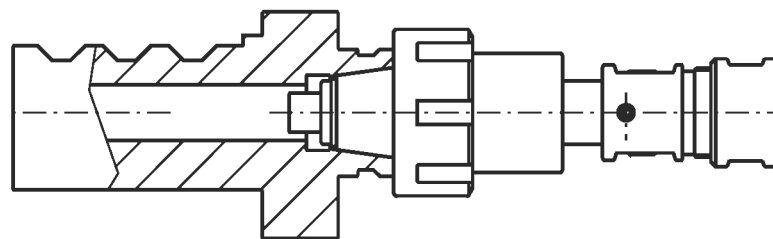
VDI 1220-40-ER32



7617-40-25



VDI 1220-40-ER25

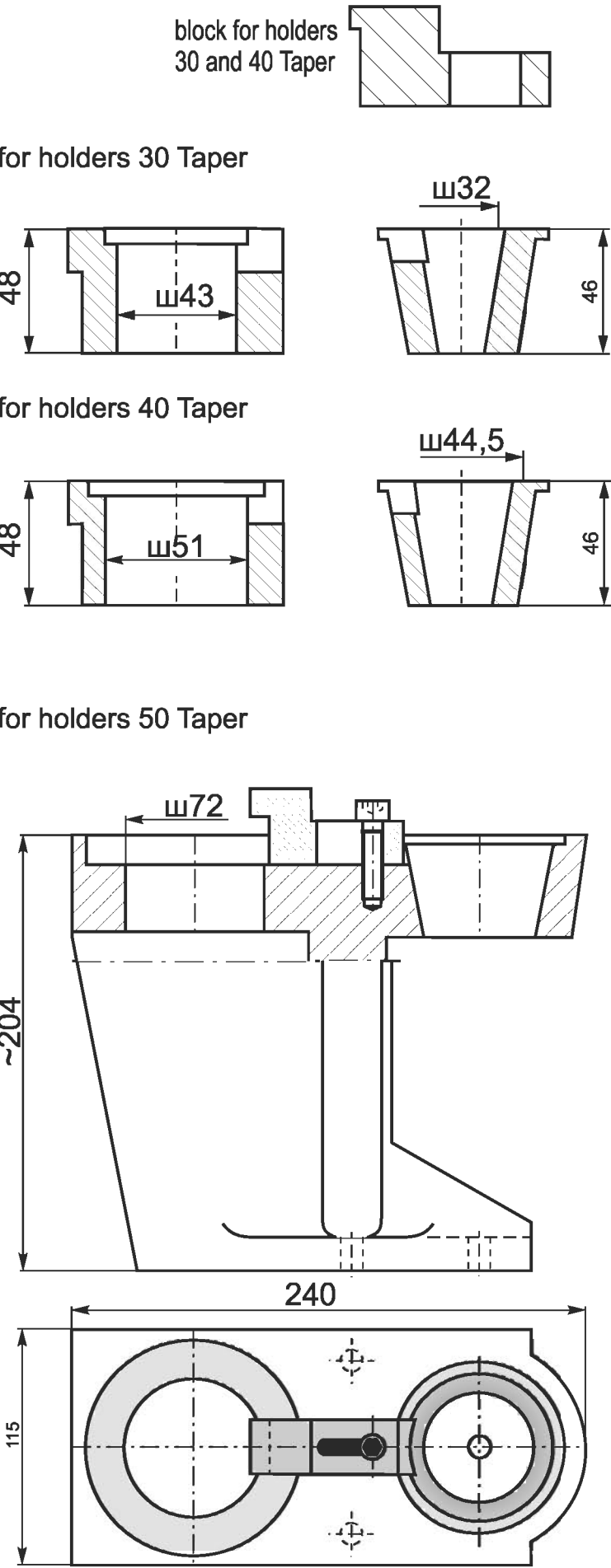




Type 1115-M

CLAMPING DEVICE

PODSTAWA UNIWERSALNA
DO OPRAWEK



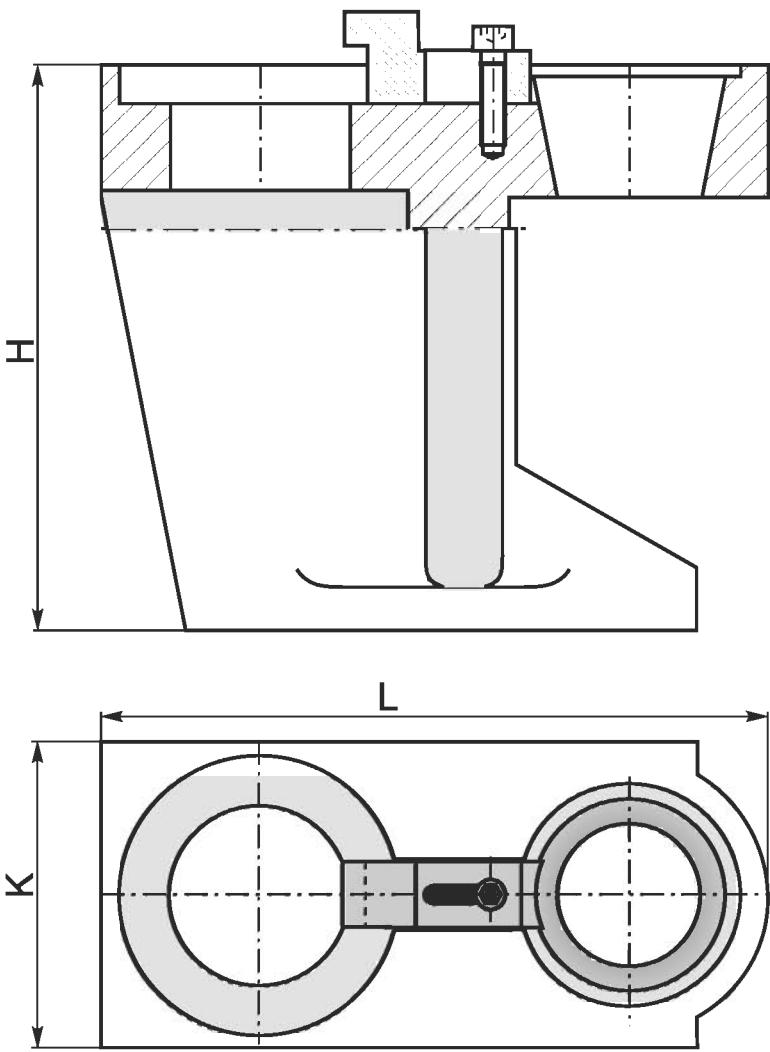
Code No. 0642 911...	PKWiU 29 407 231...	Size WielkoŃż	kg
150 703	211 115 002		

Typical order: 0642 911 150 703 or 1115-30-50

Type 1115

CLAMPING DEVICE

PODSTAWA DO OPRAWEK



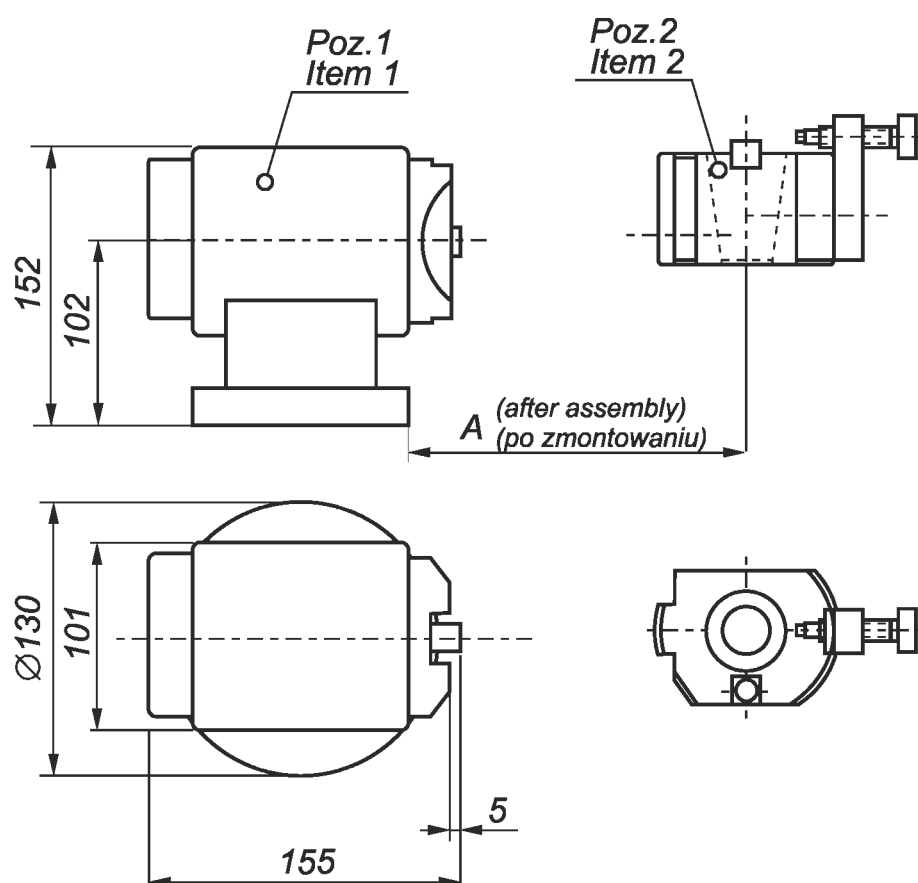
Code No. 0642 911...	PKWiU 29 407 231...	Size WielkoŃż	H	K	L	kg
150 102	211 115 050					
150 204	211 115 150					

Typical order: 0642 911 150 102 or 1115-40

Type 1117

INDEXABLE ASSEMBLY SUPPORT WITH INTERCHANGABLE SEATS

PODSTAWA OBROTOWA Z WKJADKAMI MOCUJĄCYMI



Podstawa obrotowa do oprawek OSN (poz. 1) Indexable assembly support (item 1)				Do opravek z chwytem For shank size 7:24
Type	Code No.	PKWiU	kg	
1117	0642 911 170 109	29 407	14	30
		231 211		40
		117 001		45
				50

Wkładka mocująca (poz. 2) Interchangeable holding seat (item 2)				Do opravek z chwytem For shank size 7:24
Type	Code No.	PKWiU	kg	
1118-30 SK	0642 911 180 107	231 211 118 001	2,2	30
1118-40 SK	0642 911 180 209	231 211 118 050		40
1118-45 SK	0642 911 180 300	231 211 118 100	3,6	45
1118-50 SK	0642 911 180 402	231 211 118 150	3,8	50

Podstawa obrotowa z wkładką mocującą (poz. 1 i 2) Indexable assembly support with interchangeable holding seat (item 1 & 2)					Do opravek z chwytem For shank size 7:24
Type	Code No.	PKWiU	kg	A	
1118-30 SK	0642 911 170 302	231 211 117 004	16,2	65	30
1118-40 SK	0642 911 170 404	231 211 117 050	16,8	65	40
1118-45 SK	0642 911 170 506	231 211 117 100	17,6	65	45
1118-50 SK	0642 911 170 608	231 211 117 150	17,8	65	50

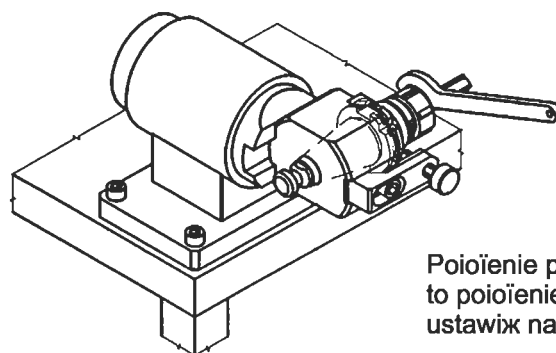
 Typical order: 0642 911 170 109 or 1117

THE POSITION OF SEATS ACCORDING TO USER'S NEEDS

POJÓŻENIE WKJADEK MOCUJĄCYCH W ZALEŻNOŚCI OD POTRZEB UŻYTKOWNIKA

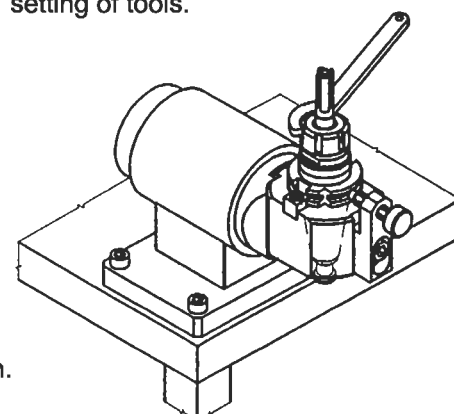
Położenie poziome na prawo;
to położenie pozwala na
montaż i demontaż narzędzia.

Horizontal position right;
in this position tools can be
assembled or dismantled



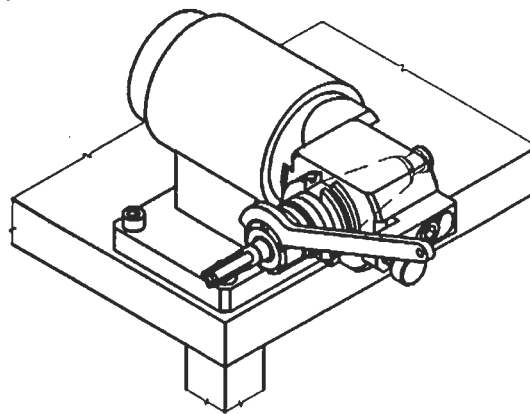
Położenie pionowe do góry;
to położenie pozwala z łatwością
ustawić narzędzie.

Vertical position high up;
this position allows easy
setting of tools.



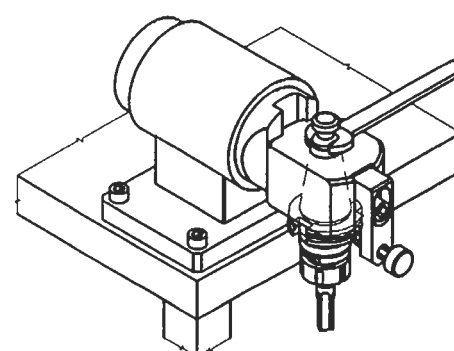
Położenie poziome na lewo;
to położenie jest wygodne
przede wszystkim dla leworęcznych.

Horizontal position left;
this is suited for lefthanded
persons.



Położenie pionowe do dołu;
to położenie pozwala na montaż i
demontaż kołczyki mocującej do
uchwyty.

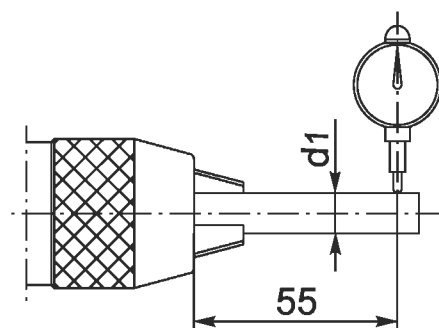
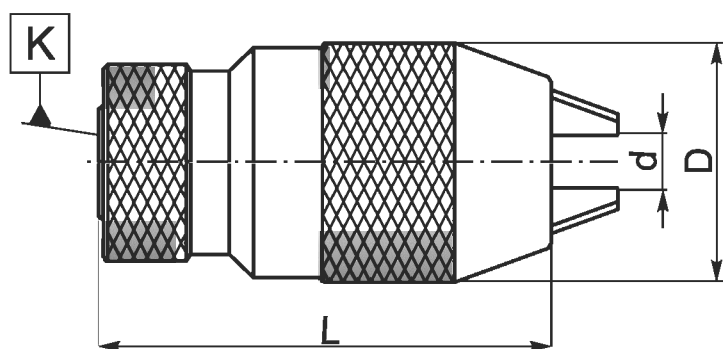
Vertical position opposite;
in this position pull studs can
be assembled or dismantled.



Type 5133

KEYLESS DRILL CHUCKS

UCHWYT WIERTARSKI bezkłuczykowy



Typical order:

(class I)

0642 151 331 209

or

5133-10-B12-I

(class II)

0642 151 331 211

or

5133-10-B12-II

Concentr. error max. Bicie max.	Code No. 0642 151...	PKWiU 29 402 135...	Concentr. error max. Bicie max.	Code No. 0642 151...	PKWiU 29 402 135...	d _{max}	K	Capacity Zakres	D	L	d1	kg
class I * klasa I			class II * klasa II									
0,04	331 209 332 200 332 460	215 133 033 215 133 035 215 133 037	0,15	331 211 332 212 332 472	215 133 034 215 133 036 215 133 038	10	B12 J2 J33	0-10	43	84	6; 10	0,48
0,04	331 300 331 402 332 301 332 403 332 505	215 133 043 215 133 044 215 133 045 215 133 047 215 133 049	0,15	331 313 331 415 332 314 332 416 332 518	215 133 063 215 133 064 215 133 065 215 133 067 215 133 069	13	B12 B16 J2 J6 J33	1-13	50	95	6; 13	0,98
0,04	335 304 335 406 336 407 336 509	337 313 054 337 313 055 337 313 057 337 313 059	0,15	335 317 335 419 336 410 335 511	337 313 074 337 313 075 337 313 077 337 313 079	16	B16 B18 J6 J3	3-16	58	105	6; 16	1,48

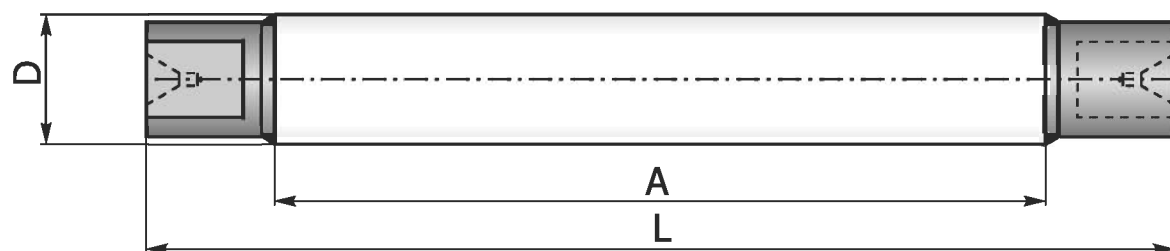
Type 8500

LATHE MANDRELS

plain solid with flat driver

TRZPIENIE TOKARSKIE

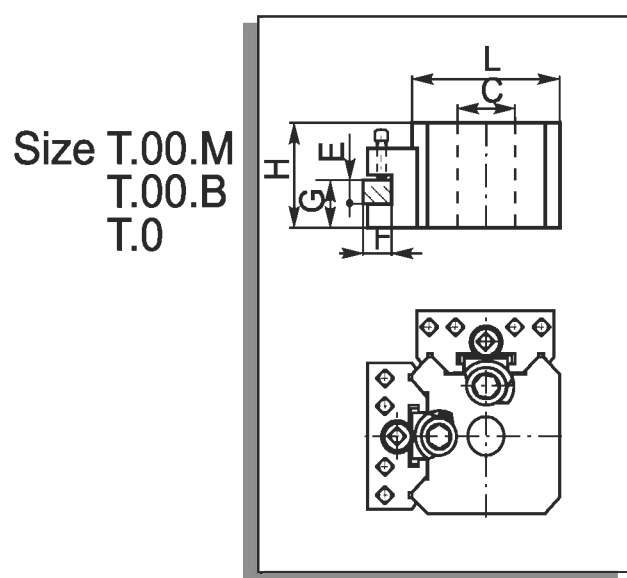
stałe z zabierakami piaskimi



Code No. 0642 585...	PKWiU 29 402 250...	D	A	L	kg	Code No. 0642 585...	PKWiU 29 402 250...	D	A	L	kg	Code No. 0642 585...	PKWiU 29 402 250...	D	A	L	kg
000 008	758 500 001	3	36	55	0,003	002 305	758 500 240	23	130	170	0,530	005 603	758 500 470	56	231	305	5,57
000 100	758 500 010	3,2	45	65	0,004	002 407	758 500 250	24	130	170	0,580	005 807	758 500 480	58	231	305	5,99
000 201	758 500 020	3,5	45	65	0,005	002 509	758 500 260	25	130	170	0,640	006 003	758 500 490	60	231	305	6,43
000 303	758 500 030	4	45	65	0,006	002 600	758 500 270	26	130	170	0,700	006 207	758 500 500	62	248	330	7,43
000 405	758 500 040	4,5	50	70	0,010	002 702	758 500 280	27	137	185	0,790	006 309	758 500 510	63	248	330	7,68
000 507	758 500 050	5	50	70	0,010	002 804	758 500 290	28	137	185	0,840	006 502	758 500 520	65	248	330	8,20
000 609	758 500 070	6	50	70	0,010	003 000	758 500 300	30	137	185	0,980	006 808	758 500 540	68	248	330	8,90
000 700	758 500 080	7	65	85	0,020	003 204	758 500 310	32	170	220	1,340	007 004	758 500 550	70	248	330	9,53
000 802	758 500 090	8	65	85	0,030	003 408	758 500 320	34	170	220	1,520	007 106	758 500 560	71	266	360	9,80
000 904	758 500 100	9	71	95	0,040	003 500	758 500 330	35	178	230	1,650	007 208	758 500 570	72	266	360	10,90
001 009	758 500 110	10	71	95	0,060	003 601	758 500 340	36	178	230	1,750	007 503	758 500 580	75	266	360	11,90
001 100	758 500 120	11	87	115	0,080	003 703	758 500 350	37	178	230	1,80	007 809	758 500 590	78	266	360	12,80
001 202	758 500 130	12	87	115	0,100	003 805	758 500 360	38	178	230	1,95	008 005	758 500 600	80	266	360	13,50
001 304	758 500 140	13	87	115	0,110	004 001	758 500 370	40	187	245	2,30	008 209	758 500 610	82	298	400	15,80
001 406	758 500 150	14	87	115	0,130	004 205	758 500 380	42	187	245	2,54	008 504	758 500 620	85	298	400	16,80
001 508	758 500 160	15	96	130	0,170	004 409	758 500 390	44	187	245	2,80	008 800	758 500 630	88	298	400	18,20
001 600	758 500 170	16	96	130	0,190	004 500	758 500 400	45	199	265	3,15	009 006	758 500 640	90	298	400	19,30
001 701	758 500 180	17	96	130	0,220	004 602	758 500 410	46	199	265	3,31	009 200	758 500 650	92	316	430	21,30
001 803	758 500 190	18	96	130	0,250	004 806	758 500 420	48	199	265	3,60	009 505	758 500 660	95	316	430	22,70
001 905	758 500 200	19	124	160	0,340	005 002	758 500 430	50	199	265	3,88	009 800	758 500 670	98	316	430	24,00
002 000	758 500 210	20	124	160	0,370	005 206	758 500 440	52	231	305	4,80	009 902	758 500 680	100	316	430	25,20
002 101	758 500 220	21	124	160	0,410	005 400	758 500 450	54	231	305	5,22						
002 203	758 500 230	22	124	160	0,460	005 501	758 500 460	55	231	305	5,42						

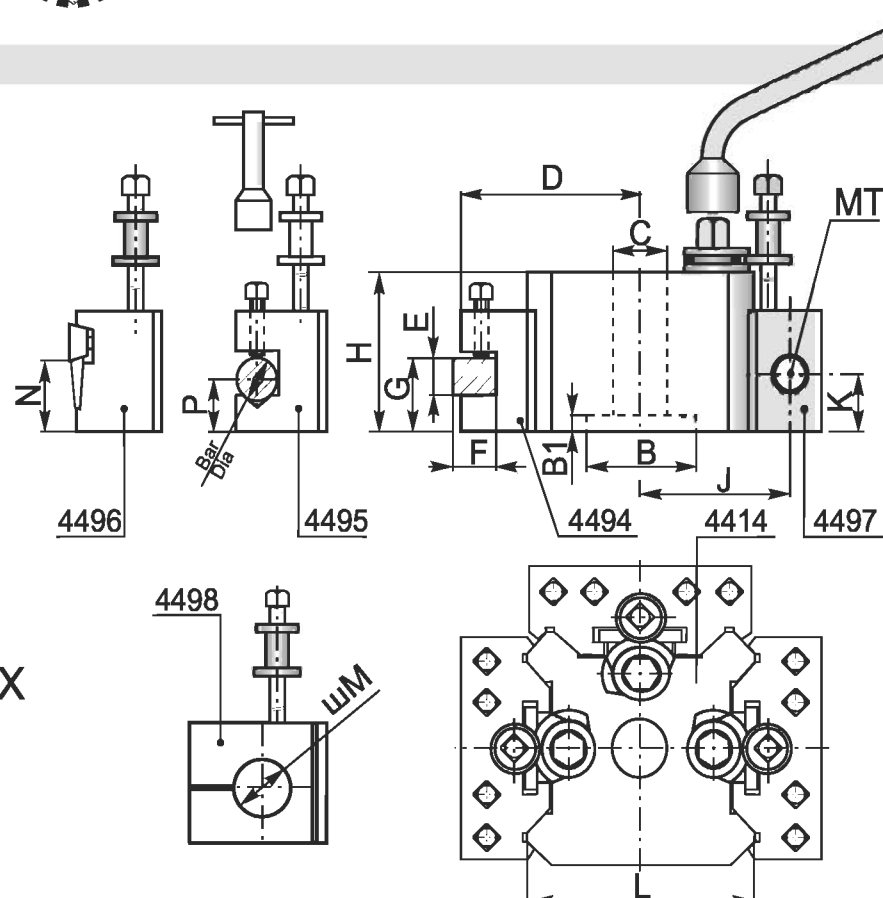


Typical order: 0642 585 000 008 or 8500-3

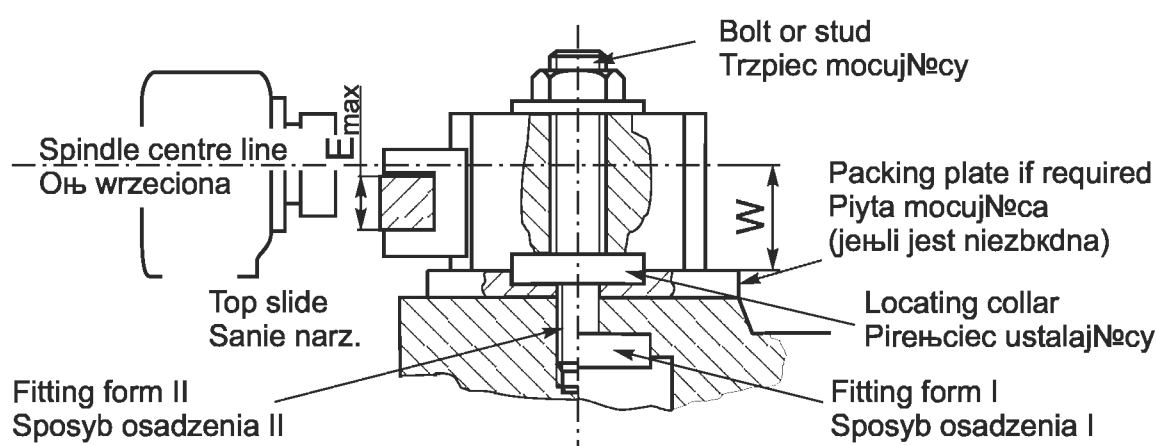
Type 4414**QUICK CHANGE TOOLPOST****SZYBKOWYMIENNY IMAK TOKARSKI**

Size T.00.M
T.00.B
T.0

Size T.1
T.1.X
T.2
T.2.T
T.3
T.3.HX



Size	H	B	B ₁	C	D	E	F	G _{max}	G _{min}	Bar Dia	P _{max}	P _{min}	Taper	J	K _{max}	K _{min}	L	N	M
T.00.M	37,0	—	—	11,2	50,0	10,0	11,0	27,0	17,0	11,0	22,5	12,5	—	—	—	—	58,0	16,0	—
T.00.B	42,0	—	—	16,0	50,0	10,0	11,0	32,0	17,0	11,0	27,5	12,5	—	—	—	—	58,0	16,0	—
T.0	51,0	22,22	5,0	19,0	62,0	19,0	13,0	36,5	20,5	16,0	32,0	16,0	1	52,5	28,5	16,0	73,0	27,0	19,0
T.1	63,5	31,75	6,5	19,0	62,0	19,0	13,0	46,0	30,0	16,0	44,5	25,5	1	52,5	41,0	22,0	73,0	27,0	19,0
T.1.X	73,0	31,75	6,5	19,0	62,0	19,0	13,0	57,0	35,0	16,0	54,0	32,0	1&2	52,5	51,0	28,5	73,0	27,0	19,0
T.2	71,5	44,45	8,0	25,5	74,5	19,0	19,0	52,5	36,5	19,0	46,0	24,0	2	65,0	47,5	27,0	97,0	33,5	25,4
T.2.T	76,0	44,45	8,0	25,5	84,0	25,5	25,5	58,5	39,5	19,0	50,0	24,0	2	70,0	51,0	27,0	106,0	33,5	25,4
T.3	95,5	50,80	9,5	25,5	101,5	31,5	25,5	74,5	51,0	25,5	51,0	28,5	3	85,5	58,2	36,5	125,5	39,5	38,0
T.3.HX	108,0	50,50	12,5	25,5	101,5	31,5	25,5	84,0	62,0	25,5	65,0	41,0	3	85,5	58,2	36,5	125,5	39,5	38,0



Size	W	max. tools size max. wym. narz. E _{max}	bolt size średnica trzpień.
T.00	33,5-19,0	12	11,5
T.0	36,5-21,0	12	16,0
T.1	46,0-30,0	20	16,0
T.2	54,0-36,5	20	16,0
T.2.T	55,5-40,0	25	16,0
T.3	73,0-51,0	32	24,0

Dimensions in mm * Wymiary w mm

Fitting Instructions

The Toolpost body is fixed to the centre lathe topline with a centre bolt or stud (see sketch). Where a tee slot is provided, a tee bolt of the appropriate size is employed.

The body is set square on the topline, flat face towards the operator; a hole should then be drilled and reamed into the topline to register with the locating pin. The depth of this hole need not exceed 8 mm.

The precision ground recess in the base of the main body is for locating purposes and a collar should be fitted as illustrated.

Operating Instructions

1. Tool height is adjusted by the knurled sleeve and locked by the screw with the key provided.
 2. Clamping and release of the toolholders is with a single action of the operating key.
 3. Tools should be re-ground without removing them from the toolholders.
 4. Sets of toolholders can be stored for specific component production and called up in the same way as other tooling fixtures.
 5. The number of operations and tool changes is limited only by the number of toolholders used.
- Toolholders are available separately for all sizes of Quick Change Toolposts

Instrukcja montażu

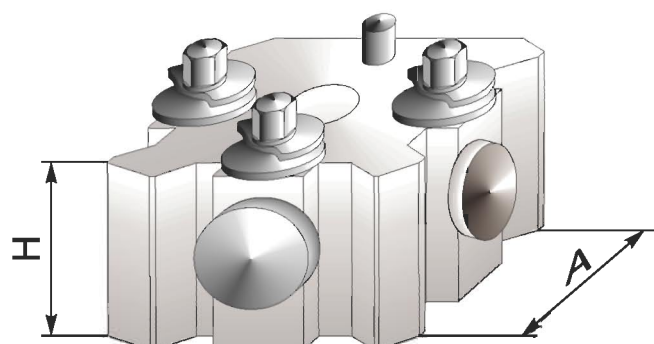
Korpus imaka osadzony jest na saniach narzędziowych tokarki przy pomocy trzpienia jak na rysunku. W otworze przeznaczonym do mocowania zwykłego imaka (np. czteroosiowego), osadzony jest odpowiedniej wielkości trzpiec mocujący imaka szybkowymiennego.

Korpus jest umieszczony kwadratowo podstawa na gładkiej powierzchni sady: piaskowej powierzchni bez prowadnic zwirzony ku operatorowi. Otwór na trzpiec ustalający powinien być wierzony i rozwiercany bazując na położeniu trzpienia w korpusie imaka a jego głębokość nie musi być większa niż 8 mm.

Precyzyjnie wykonany stopień otworu w korpusie służy do ustalenia imaka z wykorzystaniem pierścienia jak na rysunku.

Instrukcja Obsługi

1. Wysokość narzędzia jest regulowana radeikowanymi tulejkami i ustalana kluczem przy pomocy klucza.
 2. Mocowanie i zwalnianie oprawki odbywa się jednym ruchem zainstalowanego klucza.
 3. Wymiana narzędzia odbywa się niezależnie z oprawkami narzędziowymi.
 4. Zestawy oprawek narzędziowych mogą być dowolnie kompletowane wg potrzeb produkcji i zamawiane podobnie jak inne wyroby narzędziowe.
 5. Liczba wykonywanych operacji z danego imaka i możliwych zmian narzędzi ograniczona jest jedynie ilością posiadanych oprawek narzędziowych.
- Oprawki są dostępne oddzielnie dla wszystkich wymiarów imaków wg katalogu, oraz w dowolnej ilości poszczególnych rodzajów.

Type 4414**QUICK CHANGE TOOLPOST****SZYBKOWYMIENNY IMAK TOKARSKI**

Code No. 0642 444...	PKWiU 29 402 135...	TYPE	A x H	LATHE CAPACITY	kg
141 200	434 414 001	T.00.M	48x37	Up to 89 mm	0,9
141 301	434 414 003	T.00.B	48x42	Up to 89 mm	1,1
142 109	434 414 100	T.0	62x51	Up to 114 mm	2,0
142 200	434 414 101	T.1	62x63	114 mm to 127 mm	2,3
142 302	434 414 102	T.1.X	62x73	114 mm to 127 mm	2,6
141 607	434 414 200	T.2	82x71	127 mm to 203 mm	4,6
141 505	434 414 201	T.2.T	82x76	127 mm to 203 mm	5,8
142 404	434 414 300	T.3	100x92	203 mm to 292 mm	10,8
142 506	434 414 301	T.3.HX	100x108	203 mm to 292 mm	11,5

Type 4494**STANDARD TOOLHOLDERS
OPRAWKA STANDARDOWA**

Code No. 0642 444... 135...	PKWiU 29 402	Size Wielk.	USED ON Stosowany do	b x h	kg
941 106	434 494 010	48	T.00M T.00B	58x27	0,23
942 107	434 494 100	62N	T.0	73x35	0,49
942 209	434 494 101	62	T.1 T.1X	73x44	0,53
941 401	434 494 200	82N	T.2	98,5x50	1,00
941 300	434 494 201	82	T.2T	98,5x57	1,10
942 300	434 494 300	100	T.3 T.3HX	124x70	2,00

Type 4495**VEE TOOLHOLDERS
OPRAWKA V**

Code No. 0642 444... 135...	PKWiU 29 402	Size Wielk.	USED ON Stosowany do	Ød _{max}	kg
951 104	434 495 010	48	T.00M T.00B	11,0	0,24
952 105	434 495 100	62N	T.0	16,0	0,50
952 207	434 495 101	62	T.1 T.1X	16,0	0,58
951 400	434 495 200	82N	T.2	19,0	1,00
951 308	434 495 201	82	T.2T	19,0	1,10
952 309	434 495 300	100	T.3 T.3HX	25,5	2,00

Type 4496**P/O TOOLHOLDERS
OPRAWKA SPECJALNA**

Code No. 0642 444... 135...	PKWiU 29 402 135...	Size Wielk.	USED ON Stosowany do	b x h	kg
961 102	434 496 010	48	T.00M T.00B	58x32	0,32
962 205	434 496 100	62	T.0,T.1 T.1X	73x47,5	0,68
961 306	434 496 210	82	T.2 T.2T	98,5x57	1,44
962 307	434 496 300	100	T.3 T.3HX	124x70	2,50

Type 4497**MORSE TAPER TOOLHOLDERS
OPRAWKA Z GNIAZDEM MORSE'A**

Code No. 0642 444... 135...	PKWiU 29 402 135...	Size Wielk.	USED ON Stosowany do	Morse	kg
972 101	434 497 100	62/1N	T.0	1	0,50
972 203	434 497 101	62/1	T.1 T.1X	1	0,60
972 229	434 497 102	62/2	T.1 T.1X	2	0,90
971 304	434 497 205	82/2	T.2 T.2T	2	1,20
972 305	434 497 305	100/3	T.3 T.3HX	3	2,50

Type 4498**TOOLHOLDERS for boring bars
OPRAWKA z gniazdem walcowym**

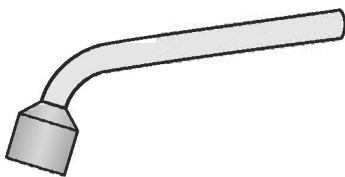
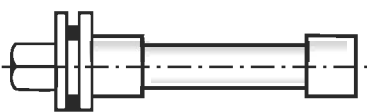
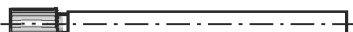
Code No. 0642 444... 135...	PKWiU 29 402 135...	Size Wielk.	USED ON Stosowany do	ØD	kg
980 200	434 498 101		T.0,T.1 T.1X		
980 301	434 498 201		T.2 T.2T		
980 505	434 498 301		T.3 T.3HX		

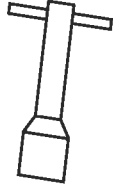
Type 4499**TOOLHOLDERS for boring bars
OPRAWKA z gniazdem walcowym**

Code No. 0642 444... 135...	PKWiU 29 402 135...	Size Wielk.	USED ON Stosowany do	ØD	kg
990 208	434 499 100		T.0,T.1 T.1X		
990 300	434 499 200		T.2 T.2T		
990 401	434 499 300		T.3 T.3HX		

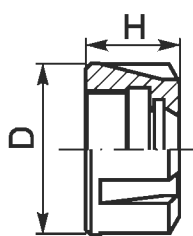
SPARE PARTS FOR TOOLPOST

CZĘŚCI ZAMIENNE DO IMAKA TOKARSKIEGO

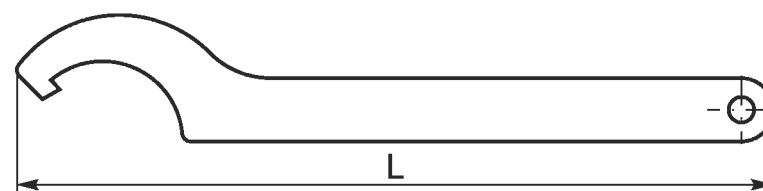
NAME OF PART	Code No. 0642 981...	PKWiU 29 402 231...	USED ON Stosować do
HEX WRENCH KLUCZ Z GNIAZDEM 6-KT. 	446 008	414 414 631	T.00M, T.00B
	446 100	414 414 746	T.0, T.1, T.1X
	446 201	414 414 787	T.2, T.2T
	446 303	414 414 986	T.3, T.3HX
CLAMP BOLT MIMOBRZYD 	441 003	414 414 632	T.00M
	441 105	414 414 633	T.00B
	441 207	414 414 741	T.0, T.1, T.1X
	441 309	414 414 782	T.2
	441 400	414 414 783	T.2T
	441 502	414 414 981	T.3, T.3HX
STOP TULEJKA 	449 013	414 494 720	T.00M
	449 000	414 494 630	T.00B
	449 102	414 494 740	T.0, T.1, T.1X
	449 204	414 494 780	T.2, T.2T
	449 306	414 494 980	T.3, T.3HX
LOCATION PIN KOJEK USTALAJĄCY 	442 208	414 414 742	T.0
	442 300	414 414 743	T.1, T.1X
	442 401	414 414 784	T.2, T.2T
	442 503	414 414 982	T.3
	442 605	414 414 983	T.3HX
SPRING SPRĄŻYNA 	443 005	414 414 634	T.00M, T.00B
	443 107	414 414 744	T.0, T.1, T.1X
	443 209	414 414 785	T.2, T.2T
	443 300	414 414 984	T.3, T.3HX
CLAMP PAD DOCISK 	440 002	414 414 630	T.00M
	440 104	414 414 631	T.00B
	440 206	414 414 740	T.0, T.1, T.1X
	440 308	414 414 780	T.2
	440 400	414 414 781	T.2T
	440 501	414 414 980	T.3, T.3HX

NAME OF PART	Code No.	PKWiU	USED ON Stosować do
STUD WKRKT 	U-5515/1	—	T.00M
	U-5515/0	—	T.00B
	U-8578/0	—	T.0, T.1, T.1X
	U-5754/0	—	T.2, T.2T
	U-5997/0	—	T.3, T.3HX
SQUARE HEAD SCREW HBRUBA 	U-5516/1	—	T.00M
	U-5516/0	—	T.00B
	U-6877/0	—	T.0, T.1, T.1X
	U-7386/0	—	T.2, T.2T
	U-6881/0	—	T.3, T.3HX
STOP SCREW HBRUBA 	U-5517/1	—	T.00M
	U-5517/0	—	T.00B
	U-6877/1	—	T.0, T.1, T.1X
	U-7386/1	—	T.2, T.2T
	U-6881/1	—	T.3, T.3HX
T WRENCH KLUCZ Z GNIAZDEM 4-KT. 	448 000	414 414 639	T00M, T00B
NAME OF PART	Code No. 0642 982...	PKWiU 29 402 231...	USED ON Stosować do
T WRENCH KLUCZ Z GNIAZDEM 4-KT. 	700 201	414 414 210	T0, T1, T1X
	700 507	414 414 260	T2, T2T
	700 802	414 414 330	T3, T3HX

Type 9833

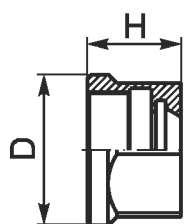


Code No. 0642 198...	PKWiU 29 407 133...	For Do	DIN 6499	D	H
330 102	409 833 051	ER16	D16	32	17,5
330 204	409 833 110	ER20	D20	35	19,0
330 306	409 833 200	ER25	D25	42	20,0
330 408	409 833 260	ER32	D32	50	22,5
330 500	409 833 330	ER40	D40	63	25,5

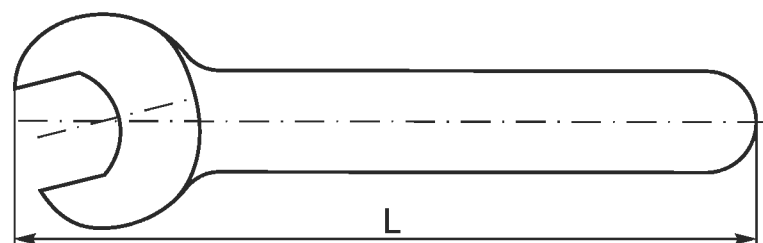


Code No. 0642 981...	PKWiU 29 407 231...	For Do	L
772 000	419 833 460	ER16	158
772 000	419 833 460	ER20	158
772 013	419 833 530	ER25	183
772 026	419 833 630	ER32	204
772 041	419 833 740	ER40	252

Type 9833-D

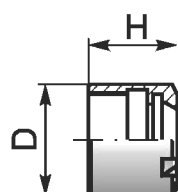


Code No. 0642 198...	PKWiU 29 407 133...	For Do	D	H	
331 103	409 833 052	ER16	28	17,5	

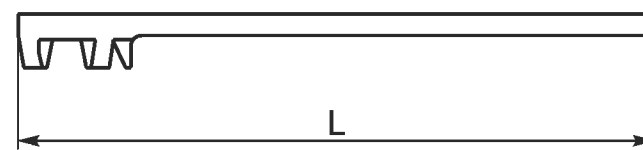


Code No. 0642 981...	PKWiU 29 407 231...	For Do	L
771 950	417 626 310	ER16	170

Type 9833-S

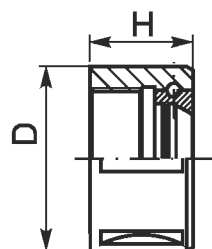


Code No. 0642 198...	PKWiU 29 407 133...	For Do	D	H	
330 204	409 833 110	ER16	22	18	



Code No. 0642 198...	PKWiU 29 407 231...	For Do	L
770 104	409 877 050	ER16	119

Type 9835

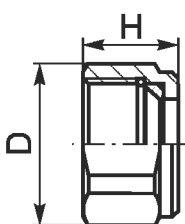


Code No. 0642 198...	PKWiU 29 407 133...	For Do	DIN 6388	D	H
350 109	409 835 050	7642-16	D16	43	24,0
350 200	409 835 110	7642-20	D20	50	28,0
350 302	409 835 200	7642-25	D25	60	30,0
350 404	409 835 260	7642-32	D32	72	33,5
350 506	409 835 330	7642-40	D40	85	37,0

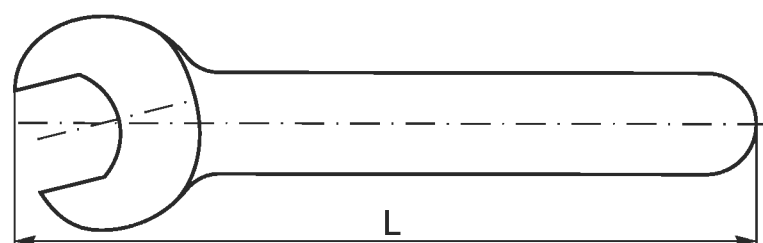


Code No. 0642 981...	PKWiU 29 407 231...	For Do	L
772 013	419 833 530	16	183
772 026	419 833 630	20	204
772 039	419 833 700	25	227
772 041	419 833 740	32	252
772 067	419 833 780	40	322

Type 9836



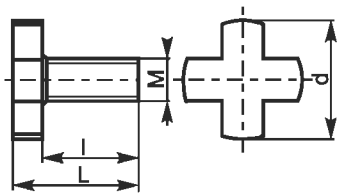
Code No. 0642 198...	PKWiU 29 407 133...	For Do	D	H	
331 103	409 833 052	DA180	39	23	



Code No. 0642 981...	PKWiU 29 407 231...	For Do	L
771 934	417 650 230	DA180	170

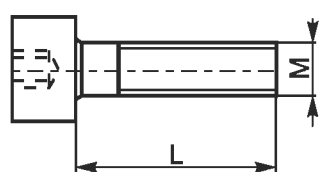
ACCESSORIES • CZĘŚCI ZAMIENNE

Cutter retaining screw * Hrubą mocujNoca



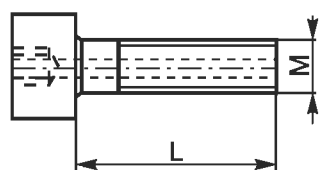
Code No.	M	l	d	L
U-0620/0	M8	16	20	22
U-0621/0	M10	18	28	25
U-0622/0	M12	22	35	30
U-0623/0	M16	26	42	35
U-0624/0	M20	30	52	40
U-0625/0	M24	36	63	48

Screw * Hrubą



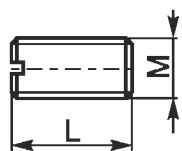
Code No.	M	L		
U-1414/0	M12	40		
U-2042/0	M16	50		
U-5335/0	M8	40		
U-6520/0	M8	70		
U-6523/0	M10	80		
U-6524/0	M10	80		
U-7682/0	M6	35		
U-7683/0	M10	40		

Screw * Hrubą



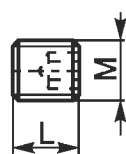
Code No.	M	L		
U-7790/0	M12	35		
W-1091/0	M6	25		
W-1092/0	M10	25		
W-1093/0	M12	35		
W-1094/0	M16	40		
W-1095/0	M10	30		
W-1096/0	M12	40		
W-1097/0	M16	40		
W-1098/0	M20	50		

Screw * Wkrętk



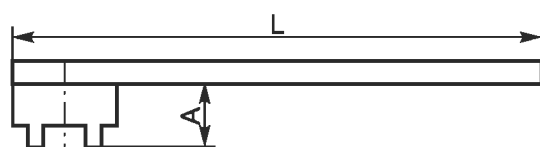
Code No.	M	L		
U-0293/0	M8	16		
U-0757/0	M10	20		
U-1599/0	M5	12		
U-6317/0	M6	14		
U-6318/0	M12	22		
U-6793/0	M16	30		
U-6794/0	M20	40		

Screw * Wkrętk



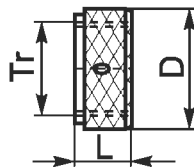
Code No.	M	L		
S-2628/0	M14x1	7		
U-1997/0	M6	6		
U-4131/0	M6	10		
U-4132/0	M8	10		
U-4133/0	M10	12		
U-4134/0	M12	16		
U-4135/0	M14	16		
U-4136/0	M16	16		
U-4137/0	M18x2	20		
U-4138/0	M20x2	20		
U-4139/0	M24x2	25		
U-5870/0	M20x2	25		
U-5887/0	M14	15		
U-5888/0	M16	13		
U-6755/0	M16x1	6,5		
U-6756/0	M16	10		
U-6757/0	M18x2	9,5		
U-7381/0	M8	6		
U-7382/0	M10	10		

Clamping Key * Klucz



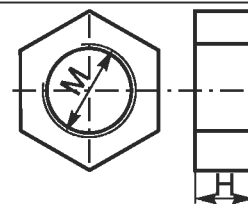
Code No.	PKWiU	Size	L	A
0642 198...	29 402 133...	Wielk.		
760 106	409 876 040	13	160	16
760 208	409 876 050	16	180	20
760 300	409 876 160	22	200	23
760 401	409 876 220	27	225	32
760 503	409 876 260	32	250	36
760 605	409 876 330	40	280	40
760 707	409 876 440	50	315	45
760 809	409 876 490	60	355	50

Nut * Nakrętk



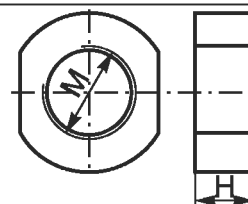
Code No.	Tr	D	L
Z-1275/0	Tr16x1,5	24,6	12
Z-1276/0	Tr20x2	31,6	12
Z-1278/0	Tr28x2	39,6	12
Z-1279/0	Tr36x2	49,6	14
Z-1280/0	Tr48x2	66,6	18

Nut * Nakrętk



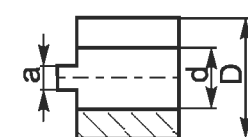
Code No.	M	H	
S-0772/0	12x1,5	10,5	
S-0774/0	16x1,5	12	
S-0776/0	22x1,5	15,5	
S-0778/0	27x1,5	17,5	
S-0780/0	36x1,5	21	
S-0782/0	48x1,5	23	
S-0784/0	68x1,5	25,5	

Nut * Nakrętk



Code No.	M	H	
S-0881/0	M12x1	6	
S-0884/0	M16x1,5	7	
S-0887/0	M20x1	8	
S-0891/0	M22x1	9	
S-0894/0	M27x2	12	
S-0897/0	M30x2	12	
S-0901/0	M36x3	14	
S-0905/0	M45x3	16	
S-0909/0	M52x3	16	

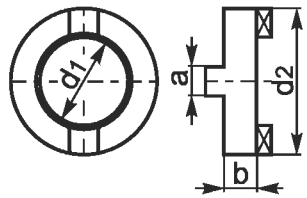
Driving Ring * Zabierak



Code No.	a	d	D	
S-0880/0	4	10	18	
S-0883/0	4	13	21	
S-0886/0	5	16	27	
S-0890/0	6	19	32	
S-0893/0	7	22	39	
S-0896/0	8	27	46	
S-0900/0	10	32	56	
S-0904/0	12	40	65	
S-0908/0	14	50	80	

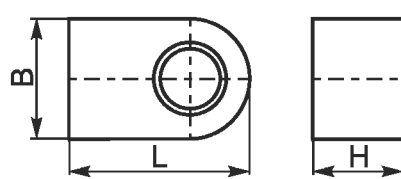
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Driving Ring * Zabierak



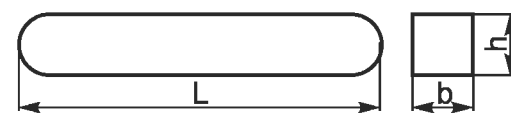
Code No.	d1	d2	a	b
U-1364/0	16	32	8	10
U-1365/0	22	40	10	12
U-1366/0	27	48	12	12
U-1367/0	32	58	14	14
U-1368/0	40	70	16	14
U-1369/0	50	90	18	16

Drive tang * Kamiec



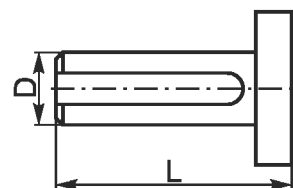
Code No.	B	H	L
S-2111/0	12	9	24,3
S-2114/0	14	12	28
S-2117/0	8	7	17
S-2121/0	10	8	20,6
S-2124/0	16	12	32
U-5974/0	18	16	33
U-6064/0	15,9	16	20
U-6065/0	25,4	25	34,5
U-6066/0	25,4	25	29,5

Key * Wpust



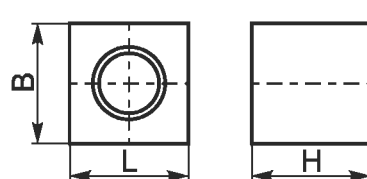
Code No.	L	b	h
U-1355/0	20	4	5
U-1356/0	25	6	5
U-1357/0	25	7	8
U-1358/0	32	8	7,6
U-1359/0	32	10	8,6
U-1360/0	36	12	9
U-6526/0	45	4	4
U-6527/0	75	4	4
U-6528/0	45	6	6
U-6529/0	75	6	6
U-6530/0	45	7	7
U-6531/0	75	7	7
U-6532/0	45	8	7
U-6533/0	75	8	7
U-6534/0	45	10	8
U-6535/0	75	10	8

Docisk



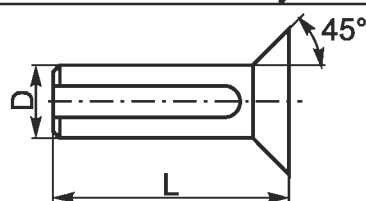
Code No.	L	D
U-6510/0	52	16
U-6511/0	82	16
U-6512/0	52	22
U-6513/0	82	22
U-6514/0	52	27
U-6515/0	82	27
U-6516/0	52	32
U-6517/0	82	32
U-6518/0	52	40
U-6519/0	82	40

Square drive * Kamiec



Code No.	B	L	H
U-5936/0	25,4	21,0	25

Docisk kłotowy



Code No.	L	D
U-6510/1	52	16
U-6511/1	82	16
U-6512/1	52	22
U-6513/1	82	22
U-6514/1	52	27
U-6515/1	82	27
U-6516/1	52	32
U-6517/1	82	32
U-6518/1	52	40
U-6519/1	82	40

Key * Wpust



Code No.	b	h
S-0898/0	6	9
U-0097/0	3	3,7
U-0098/0	5	6,5
U-0106/0	12	19
U-0648/0	4	5
U-0649/0	8	11
U-0650/0	10	16



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8726	60° DEAD CENTRES * KJY STAJE 60°	81
8730	60° DEAD CENTRES * KJY STAJE 60°	81
8731	60° DEAD CENTRES * KJY STAJE 60°	81
8735	60° DEAD CENTRES * KJY STAJE 60°	81
8740	60° DEAD CENTRES * KJY STAJE 60°	81
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