

SB-240S

Magnetic Pulleys

REMOVE HEAVY TRAMP IRON CONTAMINANTS FROM CONVEYED MATERIALS



Magnetic Pulleys

Eriez Magnetic Pulleys are widely used as head pulleys in belt conveyors, transforming them into a powerful self cleaning magnetic separator. The magnetic circuit provides a uniform magnetic field to remove tramp iron from material, preventing machinery damage and product contamination in sand, gravel, limestone, recyclables, wood products, food, chemical, mining, rock products, ceramic, paper, plastic, rubber, coal handling and foundry operations.

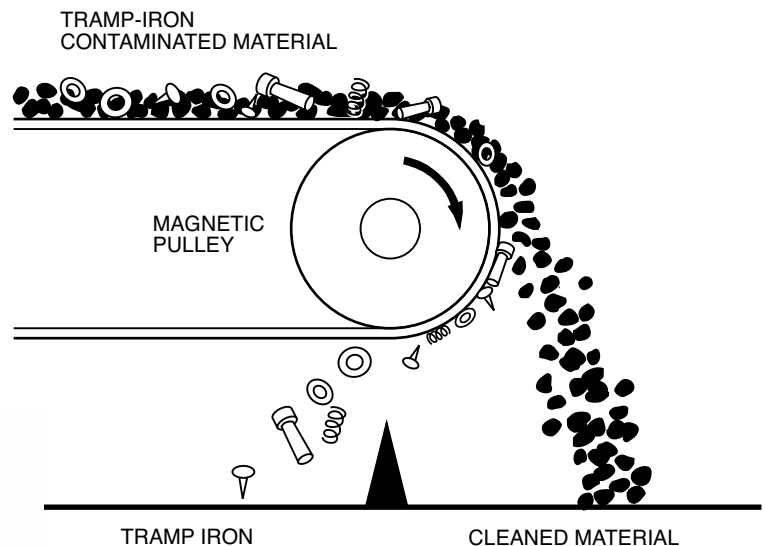
PRINCIPLE OF OPERATION

When tramp-iron contaminated material comes within the pulley's magnetic field, the tramp iron is attracted and held to the belt until it passes out of the magnetic field and is separately discharged. The cleaned material is sent over the pulley in a normal trajectory.

A stainless steel splitter assembly is required to separate segmented material fractions. An adjustable splitter will permit fine tuning and provide optimum separation performance for your application.

FEATURES & BENEFITS:

- Powerful and reliable
- Prevents machinery damage and product contamination
- Automatic separation of heavy tramp iron from conveyor transported materials



Eriez magnetic head pulley removing ferrous material being conveyed prior to processing on an eddy current separator for recovery of nonferrous metals.

PERMANENT MAGNET AIP PULLEYS

All Eriez Permanent Magnet Pulleys are constructed of quality steel center tubes with welded dividers to securely hold magnet stacks. Standard pulley models use powerful ceramic magnets in an axial interpole circuit. Pulleys are all-welded heavy duty construction for use in severe applications involving extra-long conveyors, heavy loads or start-stop operations. Pulleys are finish painted and hub bore holes are coated to prevent rust or pitting. Options available include custom pulley face widths, shafts and lagging.

High Temperature Applications

Model AA Pulleys, with a powerful agitating magnetic field, are constructed with Alnico magnet material for use in high temperature applications above 250°F (121°C). They are available in standard diameters of 8, 12, 15 and 18-inches (203, 305, 381 and 457mm), and in widths from 8 to 60-inches (203 to 1524mm).

ELECTROMAGNETIC PULLEYS

Eriez offers a complete line of electromagnetic pulleys for applications such as the concentration of magnetic materials, the purification of non-magnetics and other separations where a very high strength-to-size ratio is required.

The shaft, collector rings, brush holders with brushes and dust-resistant collector ring housing are furnished as standard equipment. Lagging is available as an option.

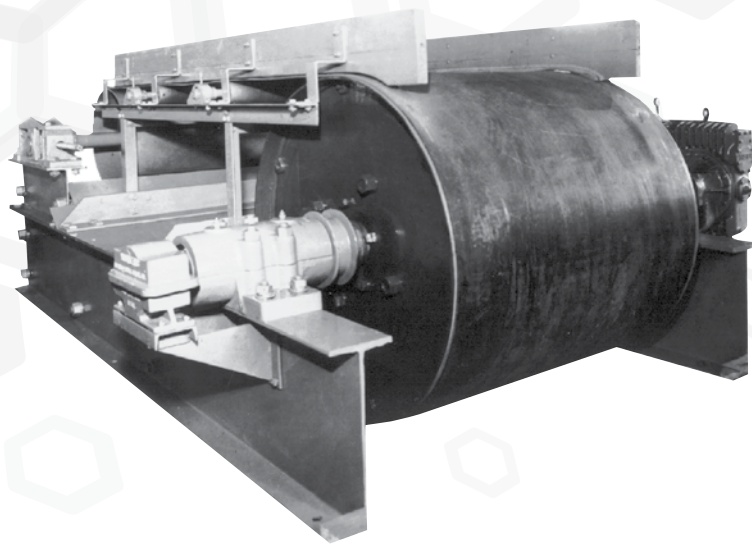
Coils are layer-wound on cores that are designed to prevent movement. High dielectric insulating materials are used on all metal surfaces adjacent to the coils.

Heavy cast bronze rings insulated by bakelite discs are used. Housing is of cast iron with a readily accessible interior.

Large carbon brushes insure positive continuous contact. The housing is equipped with grease- and dust-proof seals to prevent foreign matter from getting in.

Only direct current is suitable for energizing electromagnetic pulleys. Standard voltage is 115 VDC. Where direct current is not available, suitable rectifiers can be supplied.

Standard diameters range from 18 to 48-inches (457 to 1219mm) and belt widths from 12 to 60-inches (305 to 1524mm).

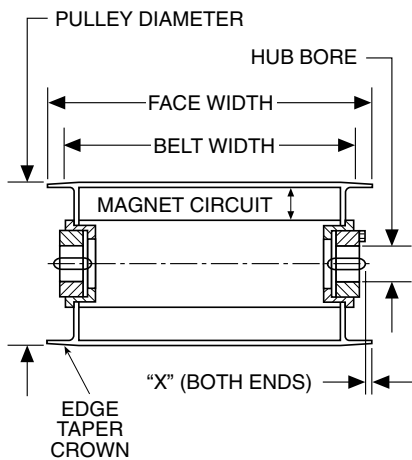


STANDARD AIP PULLEY DIMENSIONS

SPECIFICATIONS

Inch-Lb.

Listed capacities are based on operation at rated belt speed shown for each diameter and strength, which are maximum recommended belt speeds. Lower belt speeds will require a proportionate reduction in capacity to maintain a reasonable depth of flow consistent with efficient separation performance.



Pulley Diameter Inches (Belt Speed)	Belt Width Inches	Shipping Wt. Lbs. Approx.	Capacity CU. Ft. Per. Hr.	Face Width Inches	Standard Hub Bore Inches	Keyway In Shaft W. x Dp. x Lg. Inches	Dimension X Inches
8 (140 FPM)	8	55	450	10			
	10	70	580	12			
	12	85	640	14			
	14	95	800	16			
	16	110	1,070	18			
	18	125	1,370	20	1 7/16	3/8 x 3/16 x 2 1/4	1/4
	20	140	1,750	22			
	24	165	2,400	26			
	30	205	4,010	32			
	36	250	5,690	38			
12 (210 FPM)	12	165	950	14			
	14	195	1,200	16			
	16	225	1,590	18			
	18	255	2,250	20			
	20	285	2,700	22			
	24	340	3,590	26	1 15/16	1/2 x 1/4 x 2 1/2	1/4
	30	430	6,020	32			
	36	520	8,530	38			
	42	610	10,800	44			
	48	700	15,120	51			
15 (240 FPM)	12	245	1,070	14			
	14	295	1,360	16			
	16	340	1,870	18			
	18	390	2,720	20			
	20	440	3,100	22			
	24	535	4,100	26	2 7/16	5/8 x 5/16 x 3	1/4
	30	680	6,880	32			
	36	820	9,750	38			
	42	965	12,320	44			
	48	1,110	17,280	51			
18 (270 FPM)	12	350	1,200	14	2 7/16	5/8 x 5/16 x 3	
	14	420	1,540	16	2 7/16	5/8 x 5/16 x 3	
	16	490	2,200	18	2 7/16	5/8 x 5/16 x 3	
	18	550	3,060	20	2 7/16	5/8 x 5/16 x 3	
	20	620	3,690	22	2 15/16	3/4 x 3/8 x 3	
	24	760	4,620	26	2 15/16	3/4 x 3/8 x 3	
	30	960	7,740	32	2 15/16	3/4 x 3/8 x 3	1/4
	36	1,160	10,970	38	2 15/16	3/4 x 3/8 x 3	
	42	1,360	13,900	44	2 15/16	3/4 x 3/8 x 3	
	48	1,560	19,450	51	2 15/16	3/4 x 3/8 x 3	
20 (300 FPM)	14	500	1,700	16			
	16	590	2,400	18			
	18	680	3,400	20			
	20	750	4,100	22			
	24	880	5,130	26			
	30	1,120	8,600	32	2 15/16	3/4 x 3/8 x 3	1/4
	36	1,350	12,190	38			
	42	1,600	15,400	44			
	48	1,850	21,600	51			
	54	2,050	28,410	57			
24 (340 FPM)	14	765	2,000	16	2 15/16	3/4 x 3/8 x 3	
	16	885	2,720	18	2 15/16	3/4 x 3/8 x 3	
	18	1,010	4,420	20	2 15/16	3/4 x 3/8 x 3	
	20	1,130	4,670	22	2 15/16	3/4 x 3/8 x 3	
	24	1,380	5,850	26	2 15/16	3/4 x 3/8 x 3	
	30	1,750	9,800	32	3 7/16	7/8 x 7/16 x 3	1/4
	36	2,150	16,250	38	3 15/16	1 x 1/2 x 3	
	42	2,500	17,500	44	3 15/16	1 x 1/2 x 3	
	48	2,900	24,500	51	3 15/16	1 x 1/2 x 3	
	54	3,250	32,390	57	3 15/16	1 x 1/2 x 3	
30 (400 FPM)	18	1,350	4,550	20	3 15/16	1 x 1/2 x 3	
	20	1,500	5,460	22	3 15/16	1 x 1/2 x 3	
	24	1,850	6,840	26	4 3/16	1 x 1/2 x 3	
	30	2,350	11,460	32	4 11/16	1 1/4 x 5/8 x 3 1/2	1/4
	36	2,850	16,250	38	4 11/16	1 1/4 x 5/8 x 3 1/2	
	42	3,400	20,600	44	5 3/16	1 1/4 x 5/8 x 3 1/2	
	48	3,900	28,800	51	5 3/16	1 1/4 x 5/8 x 3 1/2	
	54	4,450	37,870	57	5 5/16	1 1/4 x 5/8 x 3 1/2	
	60	4,950	49,320	63	5 5/16	1 1/4 x 5/8 x 3 1/2	
36 (440 FPM)	18	1,900	5,100	20	4 3/16	1 x 1/2 x 3	
	20	2,100	6,050	22	4 3/16	1 x 1/2 x 3	
	24	2,600	7,500	26	4 11/16	1 1/4 x 5/8 x 3 1/2	
	30	3,250	12,600	32	4 11/16	1 1/4 x 5/8 x 3 1/2	
	36	3,950	17,900	38	5 3/16	1 1/4 x 5/8 x 3 1/2	
	42	4,650	22,600	44	5 3/16	1 1/4 x 5/8 x 3 1/2	1/4
	48	5,350	31,700	51	5 5/16	1 1/4 x 5/8 x 3 1/2	
	54	6,050	41,700	57	6 3/16	1 1/2 x 3/4 x 4	
	60	6,800	54,400	63	7 3/16	1 3/4 x 7/8 x 4 7/8	

Special Hub Bores Available Upon Request

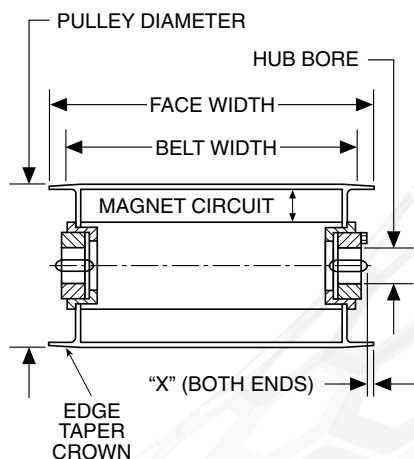
Specifications are subjected to change without notice.

METRIC AIP PULLEY DIMENSIONS

SPECIFICATIONS

Metric

Listed capacities are based on operation at rated belt speed shown for each diameter and strength, which are maximum recommended belt speeds. Lower belt speeds will require a proportionate reduction in capacity to maintain a reasonable depth of flow consistent with efficient separation performance.



Special Hub Bores Available Upon Request

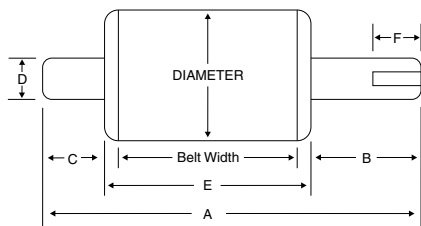
Pulley Diameter mm (Belt Speed)	Belt Width mm	Shipping Wt. Kg. Approx.	Capacity CU. Mtr. Per. Hr.	Face Width mm	Standard Hub Bore mm	Keyway In Shaft W. x Dp. x Lg. mm	Dimension X mm
203mm (43 MTR P.M.)	203	25	12.7	254	36.5	9.53 x 4.77 x 58	6
	254	32	16.4	305			
	305	39	18.1	356			
	356	43	22.6	406			
	406	50	30.3	457			
	457	57	38.8	508			
	508	64	50	559			
	610	75	68	660			
	762	93	114	813			
	914	114	161	965			
305mm (64 MTR P.M.)	305	75	27	356	49.2	12.7 x 6.3 x 63.5	6
	356	89	34	406			
	406	102	45	457			
	457	116	64	508			
	508	129	77	559			
	610	154	102	660			
	762	195	170	813			
	914	236	242	965			
	1,067	277	306	1,118			
	1,219	318	428	1,295			
381mm (73 MTR P.M.)	305	111	30	356	61.9	15.88 x 7.94 x 76	6
	356	134	39	406			
	406	154	53	457			
	457	177	77	508			
	508	200	88	559			
	610	243	116	660			
	762	309	195	813			
	914	372	276	965			
	1,067	438	349	1,118			
	1,219	504	489	1,295			
457mm (82 MTR P.M.)	305	159	34	356	61.9	15.88 x 7.94 x 76	6
	356	191	44	406	61.9	15.88 x 7.94 x 76	
	406	222	62	457	61.9	15.88 x 7.94 x 76	
	457	250	87	508	61.9	15.88 x 7.94 x 76	
	508	281	105	559	74.6	19.05 x 9.53 x 76	
	610	345	132	660	74.6	19.05 x 9.53 x 76	
	762	436	219	813	74.6	19.05 x 9.53 x 76	
	914	527	310	965	74.6	19.05 x 9.53 x 76	
	1,067	617	394	1,118	74.6	19.05 x 9.53 x 76	
	1,219	708	550	1,295	74.6	19.05 x 9.53 x 76	
508mm (91 MTR P.M.)	356	227	48	406	74.6	19.05 x 9.53 x 76	6
	406	268	68	457			
	457	309	96	508			
	508	341	116	559			
	610	400	145	660			
	762	508	244	813			
	914	613	345	965			
	1,067	726	436	1,118			
	1,219	840	615	1,295			
	1,372	931	810	1,448			
610mm (104 MTR P.M.)	356	347	57	406	74.6	19.05 x 9.53 x 76	6
	406	402	77	457	74.6	19.05 x 9.53 x 76	
	457	459	125	508	74.6	19.05 x 9.53 x 76	
	508	513	132	559	74.6	19.05 x 9.53 x 76	
	610	627	166	660	74.6	19.05 x 9.53 x 76	
	762	795	280	813	87.3	22.23 x 11.11 x 76	
	914	976	460	965	87.3	22.23 x 11.11 x 76	
	1,067	1,135	500	1,118	100	25.4 x 12.7 x 76	
	1,219	1,317	700	1,295	100	25.4 x 12.7 x 76	
	1,372	1,476	920	1,448	100	25.4 x 12.7 x 76	
762mm (122 MTR P.M.)	457	613	130	508	100	25.4 x 12.7 x 76	6
	508	681	155	559	100	25.4 x 12.7 x 76	
	610	840	195	660	106.4	25.4 x 12.7 x 76	
	762	1,067	325	813	119	31.75 x 15.88 x 89	
	914	1,294	460	965	119	31.75 x 15.88 x 89	
	1,067	1,544	585	1,118	131.8	31.75 x 15.88 x 89	
	1,219	1,771	815	1,295	131.8	31.75 x 15.88 x 89	
	1,372	2,020	1,071	1,448	134.9	31.75 x 15.88 x 89	
	1,524	2,247	1,400	1,600	134.9	31.75 x 15.88 x 89	
914mm (134 MTR P.M.)	457	863	145	508	106.4	25.4 x 12.7 x 76	6
	508	953	175	559	106.4	25.4 x 12.7 x 76	
	610	1,180	215	660	119	31.75 x 15.88 x 89	
	762	1,476	360	813	119	31.75 x 15.88 x 89	
	914	1,793	510	965	131.8	31.75 x 15.88 x 89	
	1,067	2,111	640	1,118	131.8	31.75 x 15.88 x 89	
	1,219	2,429	900	1,295	134.9	31.75 x 15.88 x 89	
	1,372	2,747	1,180	1,448	151.2	38.1 x 19.05 x 102	
	1,524	3,087	1,540	1,600	182.5	44.45 x 22.23 x 124	

Specifications are subjected to change without notice.

STANDARD SHAFT DIMENSIONS

SPECIFICATIONS

Inch-Lb.



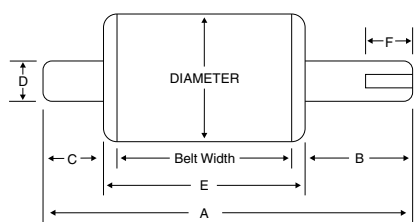
Pulley Diameter mm (Belt Speed)	Belt Width	A	B	C	D	E	F	Keyway
8 (140 FPM)	8 10 12 14 16 18 20 24 30 36	25 27 29 31 33 35 37 41 47 53	9	6	1 7/16	10 12 14 16 18 20 22 26 32 38	2 7/8	0.375 x 0.212
12 (210 FPM)	12 14 16 18 20 24 30 36 42 48	34 36 38 40 44 48 55 61 69 75	12 12 12 13 13 14 14 15 15 14	8 8 8 9 9 9 9 9 10 10	1 15/16	14 16 18 20 22 26 32 38 44 51	3 7/8	0.500 x 0.281
15 (240 FPM)	12 14 16 18 20 24 30 36 42 48	34 36 41 43 47 53 60 66 74 80	12 12 14 14 15 16 17 17 18 17	8 8 9 9 10 11 11 11 12 12	2 7/16	14 16 18 20 22 26 32 38 44 51	3 7/8 3 7/8 4 7/8 4 7/8 4 7/8 5 7/8 5 7/8 5 7/8 5 7/8 5 7/8	0.625 x 0.344
18 (270 FPM)	12 14 16 18 20 24 30 36 42 48	37 39 41 43 47 53 60 66 74 80	14 14 14 14 15 16 17 17 18 17	9 9 9 9 10 11 11 11 12 12	2 7/16 2 7/16 2 7/16 2 7/16 2 15/16 2 15/16 2 15/16 2 15/16 2 15/16 2 15/16	14 16 18 20 22 26 32 38 44 51	4 7/8 4 7/8 4 7/8 4 7/8 4 7/8 5 7/8 5 7/8 5 7/8 5 7/8 5 7/8	0.625 x 0.344 0.625 x 0.344 0.625 x 0.344 0.625 x 0.344 0.750 x 0.406 0.750 x 0.406 0.750 x 0.406 0.750 x 0.406 0.750 x 0.406 0.750 x 0.406
20 (300 FPM)	14 16 18 20 24 30 36 42 48 54 60	39 41 45 47 53 60 66 74 80 87 93	14 14 15 15 16 17 17 18 18 18 18	9 9 10 10 11 11 11 12 12 12 12	2 15/16	16 18 20 22 26 32 38 44 51 57 63	4 7/8 4 7/8 4 7/8 4 7/8 4 7/8 5 7/8 5 7/8 5 7/8 5 7/8 6 7/8 6 7/8	0.750 x 0.406
24 (340 FPM)	14 16 18 20 24 30 36 42 48 54 60	39 41 45 47 53 64 70 79 85 94 102	14 14 15 15 16 19 19 21 20 22 23	9 9 10 10 11 13 13 14 14 15 16	2 15/16 2 15/16 2 15/16 2 15/16 2 15/16 3 7/16 3 7/16 3 15/16 3 15/16 3 15/16 3 15/16	16 18 20 22 26 32 38 44 51 57 63	4 7/8 4 7/8 4 7/8 4 7/8 4 7/8 5 7/8 5 7/8 6 7/8 6 7/8 7 7/8 7 7/8	0.750 x 0.406 0.750 x 0.406 0.750 x 0.406 0.750 x 0.406 0.750 x 0.406 0.875 x 0.469 0.875 x 0.469 1.000 x 0.531 1.000 x 0.531 1.000 x 0.531 1.000 x 0.531
30 (400 FPM)	18 20 24 30 36 42 48 54 60	53 1/2 57 61 71 77 87 93 106 110	19 3/4 20 1/2 20 1/2 23 23 25 1/2 24 1/2 29 1/2 28	13 3/4 14 1/2 14 1/2 16 16 17 1/2 17 1/2 20 19	3 15/16 3 15/16 4 7/16 4 7/16 4 7/16 4 15/16 4 15/16 5 7/16 5 7/16 5 7/16	20 22 26 32 38 44 51 57 63	6 6 6 6 6 7 7 9 9	1.000 x 0.531 1.000 x 0.531 1.000 x 0.531 1.000 x 0.531 1.000 x 0.531 1.250 x 0.656 1.250 x 0.656 1.250 x 0.656 1.250 x 0.656
36 (440 FPM)	18 20 24 30 36 42 48 54 60	49 1/2 52 1/2 59 65 74 80 91 99 111	18 1/4 18 1/2 20 1/2 20 1/2 22 1/2 22 1/2 24 1/2 26 1/2 30 1/2	11 1/4 11 1/2 12 1/2 12 1/2 13 1/2 13 1/2 15 1/2 15 1/2 17 1/2	3 15/16 3 15/16 4 7/16 4 7/16 4 15/16 4 15/16 5 7/16 6 7	20 22 26 32 38 44 51 57 63	6 6 6 6 7 7 9 11 13	1.000 x 0.531 1.000 x 0.531 1.000 x 0.531 1.000 x 0.531 1.250 x 0.656 1.250 x 0.656 1.250 x 0.656 1.500 x 0.781 1.750 x 0.656

Special Shaft Sizes Available Upon Request

Specifications are subjected to change without notice.

METRIC SHAFT DIMENSIONS

SPECIFICATIONS Metric



Pulley Diameter mm (Belt Speed)	Belt Width	A	B	C	D	E	F	Keyway
203mm (43 MTR P.M.)	203	635				254		
	254	686				305		
	305	737				356		
	356	787				406		
	406	838				457		
	457	889	229	152	36.5	508	73	9.53 x 5.38
	508	940				559		
	610	1041				660		
	762	1194				813		
	914	1346				965		
305mm (64 MTR P.M.)	305	864	305	203		356		
	356	914	305	203		406		
	406	965	305	203		457		
	457	1016	305	203		508		
	508	1118	330	229		559		
	610	1219	330	229	49.2	660	98	12.70 x 7.14
	762	1397	356	229		813		
	914	1549	356	229		965		
	1067	1753	381	254		1118		
	1219	1905	356	254		1295		
381mm (73 MTR P.M.)	305	864	305	203		356	98	
	356	914	305	203		406	98	
	406	1041	356	229		457	124	
	457	1092	356	229		508	124	
	508	1194	381	254		559	124	
	610	1346	406	279	61.9	660	124	15.88 x 8.74
	762	1524	432	279		813	149	
	914	1676	432	279		965	149	
	1067	1880	457	305		1118	149	
	1219	2032	432	305		1295	149	
457mm (82 MTR P.M.)	305	940	356	229	61.9	356	124	15.88 x 8.74
	356	991	356	229	61.9	406	124	15.88 x 8.74
	406	1041	356	229	61.9	457	124	15.88 x 8.74
	457	1092	356	229	61.9	508	124	15.88 x 8.74
	508	1194	381	254	74.6	559	124	19.05 x 10.31
	610	1346	406	279	74.6	660	124	19.05 x 10.31
	762	1524	432	279	74.6	813	149	19.05 x 10.31
	914	1676	432	279	74.6	965	149	19.05 x 10.31
	1067	1880	457	305	74.6	1118	149	19.05 x 10.31
	1219	2032	432	305	74.6	1295	149	19.05 x 10.31
508mm (91 MTR P.M.)	356	991	356	229		406	124	
	406	1041	356	229		457	124	
	457	1143	381	254		508	124	
	508	1194	381	254		559	124	
	610	1346	406	279		660	124	
	762	1524	432	279	74.6	813	149	19.05 x 10.31
	914	1676	432	279		965	149	
	1067	1880	457	305		1118	149	
	1219	2032	432	305		1295	149	
	1372	2210	457	305		1448	175	
610mm (104 MTR P.M.)	1524	2362	457	305		1600	175	
	356	991	356	229	74.6	406	124	19.05 x 10.31
	406	1041	356	229	74.6	457	124	19.05 x 10.31
	457	1143	381	254	74.6	508	124	19.05 x 10.31
	508	1194	381	254	74.6	559	124	19.05 x 10.31
	610	1346	406	279	74.6	660	124	19.05 x 10.31
	762	1626	483	330	87.3	813	149	22.23 x 11.91
	914	1778	483	330	87.3	965	149	22.23 x 11.91
	1067	2007	533	356	100.0	1118	175	25.40 x 13.49
	1219	2159	508	356	100.0	1295	175	25.40 x 13.49
762mm (122 MTR P.M.)	1372	2388	559	381	100.0	1448	200	25.40 x 13.49
	1524	2591	584	406	100.0	1600	200	25.40 x 13.49
	457	1359	502	349	100.0	508	152	25.40 x 13.49
	508	1448	521	368	100.0	559	152	25.40 x 13.49
	610	1549	521	368	112.7	660	152	25.40 x 13.49
	762	1803	584	406	112.7	813	152	25.40 x 13.49
	914	1956	584	406	112.7	965	152	25.40 x 13.49
	1067	2210	648	445	125.4	1118	178	31.75 x 16.66
	1219	2362	622	445	125.4	1295	178	31.75 x 16.66
	1372	2692	737	508	138.1	1448	229	31.75 x 16.66
914mm (134 MTR P.M.)	1524	2794	711	483	138.1	1600	229	31.75 x 16.66
	457	1257	464	286	100.0	508	152	25.40 x 13.49
	508	1321	470	292	100.0	559	152	25.40 x 13.49
	610	1499	521	318	112.7	660	152	25.40 x 13.49
	762	1651	521	318	112.7	813	152	25.40 x 13.49
	914	1880	572	343	125.4	965	178	31.75 x 16.66
	1067	2032	672	343	125.4	1118	178	31.75 x 16.66
	1219	2311	622	394	138.1	1295	229	31.75 x 16.66
	1372	2515	673	394	152.4	1448	279	38.10 x 19.84
	1524	2819	775	445	177.8	1600	330	44.45 x 16.66

Special Shaft Sizes Available Upon Request

Specifications are subjected to change without notice.



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