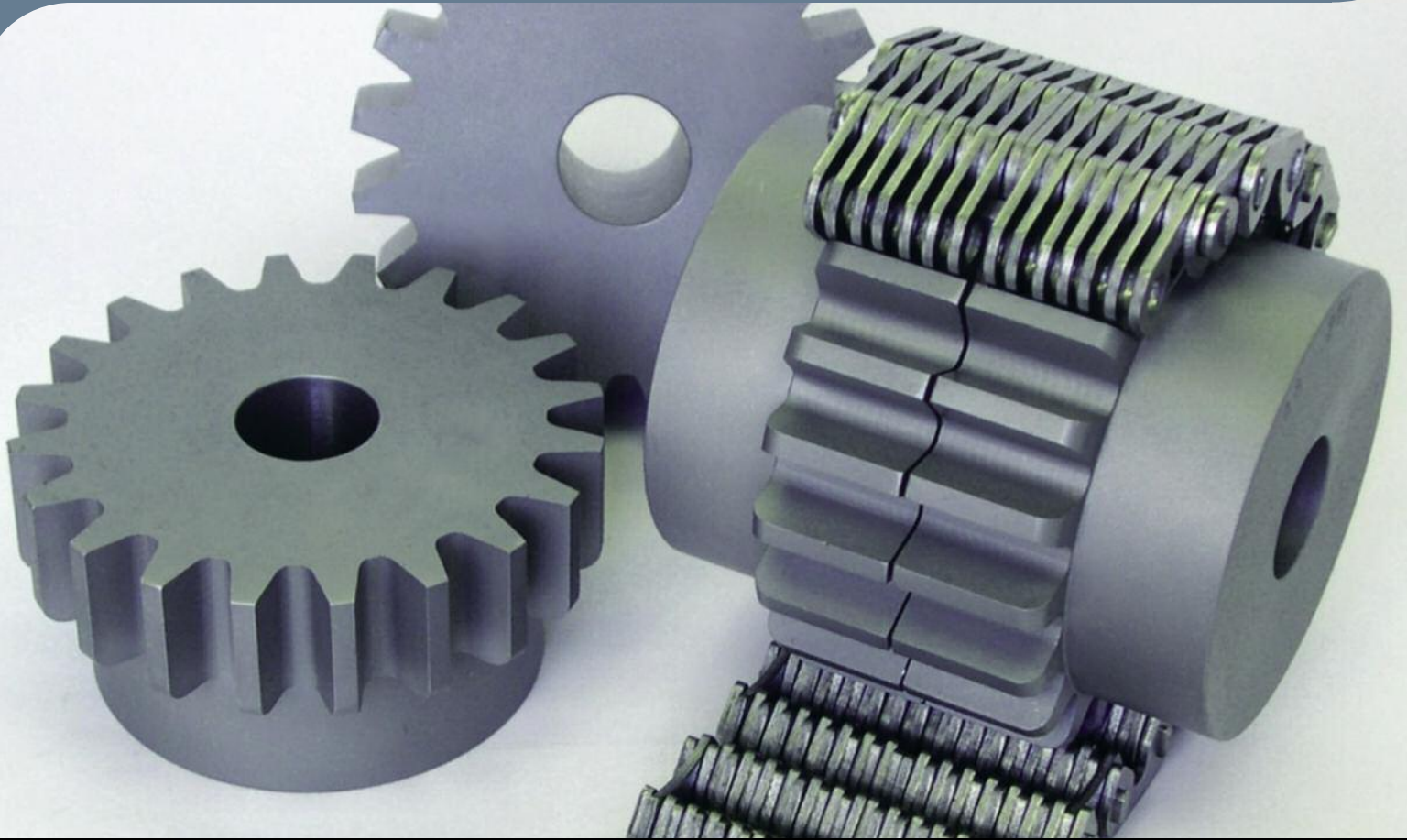


RAMSEY

Silent Chain Couplings



FLEXIBLE, STRONG, AND EASY TO INSTALL



Ramsey Products
CORPORATION

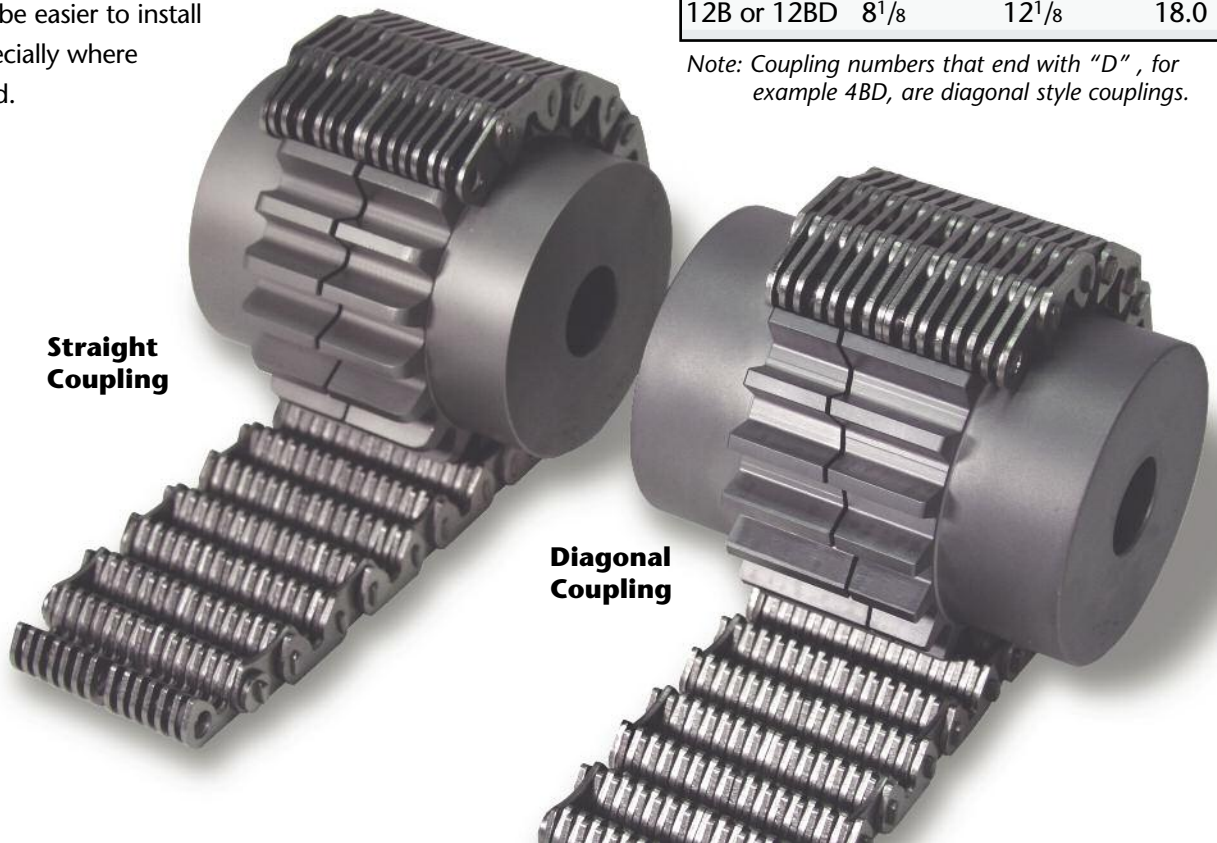
The Stronger Chain Coupling

Ramsey Silent Chain Couplings combine the simplicity and ease of installation of a chain type coupling with the strength and ruggedness of Ramsey Silent Chain. The result is a family of chain couplings that offers significantly higher torque capacities than similarly sized roller chain couplings. In fact, all Ramsey Couplings have a torque capacity that exceeds that of the largest mild steel shaft on which they can be installed.

TOLERANT OF SHAFT MISALIGNMENT Ramsey Couplings easily accommodate shaft angular misalignment of 1 degree and parallel misalignment equal to 2% of the chain pitch.

STEEL CONSTRUCTION All couplings consist of two fully machined sprockets with hardened teeth, enclosed by a Ramsey chain. Sprockets and chain are typically made from alloy carbon steel. Some sizes are also available in 316 stainless steel.

CHOICE OF STYLES AND LOAD CAPACITY Ramsey Couplings are available in two styles: straight and diagonal. Straight style couplings are machined so the sprocket faces are perpendicular to the shaft axes. Diagonal couplings are machined so the faces are at an angle to the shaft axes. Diagonal couplings have a somewhat higher load capacity due to the manner in which driving loads are distributed within the coupling chain. They can also be easier to install on shafts, especially where space is limited.

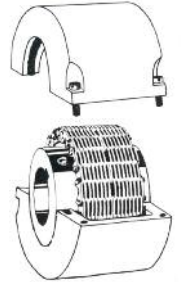


Straight Coupling

Diagonal Coupling

OPTIONAL COUPLING COVERS

Covers help to protect couplings from environmental contamination and corrosion. Standard covers consist of 2 machined aluminum castings with grease seals at each end. Stainless steel covers are also available.



COVER DIMENSIONS

COUPLING NO.	OVERALL LENGTH	APPROX. DIAMETER	APPROX. WEIGHT, LB
3A or 3AD	2 ⁵ / ₈	3 ³ / ₁₆	1.0
4A or 4AD	3 ¹ / ₈	4	1.2
4B or 4BD	3 ¹ / ₈	4 ⁵ / ₈	1.25
4C or 4CD	3 ¹ / ₈	5 ¹ / ₄	2.0
5BD	3 ⁵ / ₈	5 ³ / ₄	3.0
6B or 6BD	4 ⁵ / ₁₆	6 ⁵ / ₈	4.2
6C or 6CD	4 ⁵ / ₁₆	7 ⁵ / ₈	5.0
8B or 8BD	5 ⁷ / ₈	8 ¹ / ₄	6.5
8C or 8CD	5 ⁷ / ₈	9 ¹ / ₂	9.0
12A or 12AD	8 ¹ / ₈	10 ¹ / ₄	15.0
12B or 12BD	8 ¹ / ₈	12 ¹ / ₈	18.0

Note: Coupling numbers that end with "D", for example 4BD, are diagonal style couplings.

COUPLING SIZING AND SELECTION

When sizing a coupling, multiply the power to be transmitted by an appropriate service factor to obtain the design power. Referring to the power capacity tables, find the expected rotational speed (RPM) of the coupling then choose a coupling size with a rating that is equal to, or higher than, the design power.

SERVICE FACTORS			
OPERATING CHARACTERISTICS	SERVICE	ELECTRIC MOTOR	GAS OR DIESEL ENGINE
Uniform loading with starting load only slightly higher than running load	10 hrs/day	1	1.2
	24 hrs/day	1.3	1.5
Variable running load with frequent starting and high starting load	10 hrs/day	1.4	1.6
	24 hrs/day	1.7	1.9
Very high starting load with reversing or shock loads	10 hrs/day	1.6	1.9
	24 hrs/day	2	2.5

POWER RATINGS (HORSEPOWER)

STRAIGHT COUPLINGS													
COUPLING NUMBER	REVOLUTIONS PER MINUTE			400	500	600	700	900	1200	1500	1800	2400	3600
	100	200	300										
3AA	1.6	2.2	2.8	3.2	3.6	4.0	4.2	4.8	5.5	6.2	6.6	8.0	9.2
3A	2.4	3.4	4.2	4.8	5.4	5.9	6.4	7.2	8.3	9.3	10	12	14
4A	6.0	8.5	11	12	13	14	16	18	21	23	25	29	36
4B	9.5	14	17	19	21	23	25	29	33	37	40	46	57
4C	13	18	22	26	29	32	34	39	45	50	55	64	78
6B	30	42	52	60	67	74	80	90	105	115	125	145	-
6C	44	62	76	88	98	110	115	130	150	170	185	215	-
8B	70	100	120	140	155	170	185	210	240	270	300	-	-
8C	100	140	175	200	225	250	265	300	350	390	430	-	-
12A	150	210	260	300	335	370	400	450	520	580	-	-	-
12B	240	335	410	475	530	580	630	715	825	-	-	-	-
TYPE I LUBRICATION						TYPE II LUBRICATION							

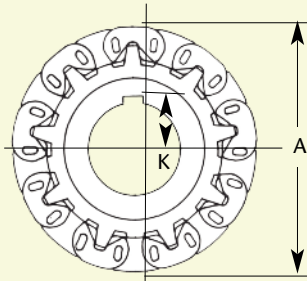
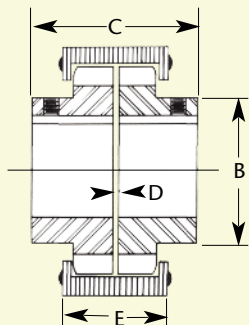
DIAGONAL COUPLINGS													
COUPLING NUMBER	REVOLUTIONS PER MINUTE			400	500	600	700	900	1200	1500	1800	2400	3600
	100	200	300										
3AD	2.5	3.5	4.5	5	5.5	6	6.5	7.5	8.5	9.5	11	13	15
4AD	6	9	11	13	14	15	17	19	22	24	26	30	38
4BD	10	14	17	20	22	24	26	30	34	39	42	48	59
4CD	14	19	23	27	30	33	35	41	47	52	57	67	81
5BD	19	26	32	37	42	46	50	57	65	73	79	92	115
6BD	31	44	54	62	70	77	83	95	110	120	130	150	-
6CD	46	65	79	92	100	115	120	135	155	175	195	225	-
8BD	75	105	125	145	160	175	190	220	250	280	310	350	-
8CD	105	145	180	210	235	260	275	310	360	405	445	-	-
12AD	155	220	270	310	350	380	410	465	540	600	-	-	-
12BD	250	350	430	500	560	610	660	750	870	970	-	-	-
TYPE I LUBRICATION						TYPE II LUBRICATION							

For maximum service life, lubricate well and use a cover when operating to the right of the line.

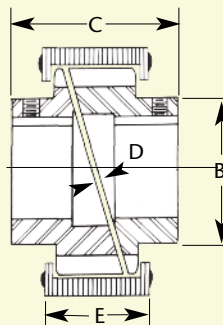
TYPES OF LUBRICATION: TYPE I - MANUAL, BRUSH OR OIL CUP TYPE II - OIL BATH OR DISK

Specifications

STRAIGHT COUPLING



DIAGONAL COUPLING



DIMENSIONS

COUPLING NUMBER	PITCH & NO. TEETH	*MAX. BORE	MIN. PLAIN BORE	A	B	C STD TYPE	C TYPE D	D	E	K	APPROX. WEIGHT, LBS
3AA	3/8-16T	7/8	1/6	2 1/4	1 1/6	2 3/6	-	1/6	1	1/6	1 1/8
3A or 3AD	3/8-16T	7/8	1/2	2 1/4	1 1/6	2 1 1/6	2 1 1/6	1/6	1 1/2	1/6	1 1/2
4A or 4AD	1/2-16T	1 1/4	3/4	3 1/6	1 7/8	3 3/6	3 1 1/6	1/8	2	3/4	4
4B or 4BD	1/2-20T	1 3/4	3/4	3 1 1/6	2 1/2	3 3/6	3 1 1/6	1/8	2	1 1/6	6 1/4
4C or 4CD	1/2-24T	2 1/4	1	4 3/8	3 3/8	3 3/6	3 1 1/6	1/8	2	1 3/8	10
5BD	5/8-20T	2 1/4	1	4 5/8	3 3/8	-	3 3/4	1/8	2	1 3/8	10
6B or 6BD	3/4-20T	2 5/8	1 1/4	5 9/16	3 3/4	4 1/2	4 15/16	1/8	3	1 5/8	20
6C or 6CD	3/4-24T	3 5/16	1 1/4	6 1/2	4 3/4	4 1/2	4 15/16	1/8	3	2 1/8	30
8B or 8BD	1-20T	3 3/8	1 1/2	7 3/8	5	5 7/8	5 7/8	3/16	4	2 5/2	40
8C or 8CD	1-24T	4 1/2	1 1/2	8 1 1/6	6 1/4	5 7/8	5 7/8	3/16	4	2 3/4	60
12A or 12AD	1 1/2-16T	3 3/4	1 3/4	9 1/8	5 5/8	8 1/8	8 1/8	1/4	6	2 5/6	95
12B or 12BD	1 1/2-20T	5 1/4	2	11	7 1/2	8 1/8	8 1/8	1/4	6	3 1/4	105

* The maximum bores can be exceeded slightly but the keyway depth cannot exceed "K" dimension.

Note: Coupling numbers that end with "D", for example 4BD, are diagonal style couplings.

Printed in U.S.A.
Catalog C1109

Replacing "SA" style couplings: Ramsey also manufactures "SA" style couplings that directly interchange with couplings manufactured by Emerson Power Transmission. Contact Ramsey for more information



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