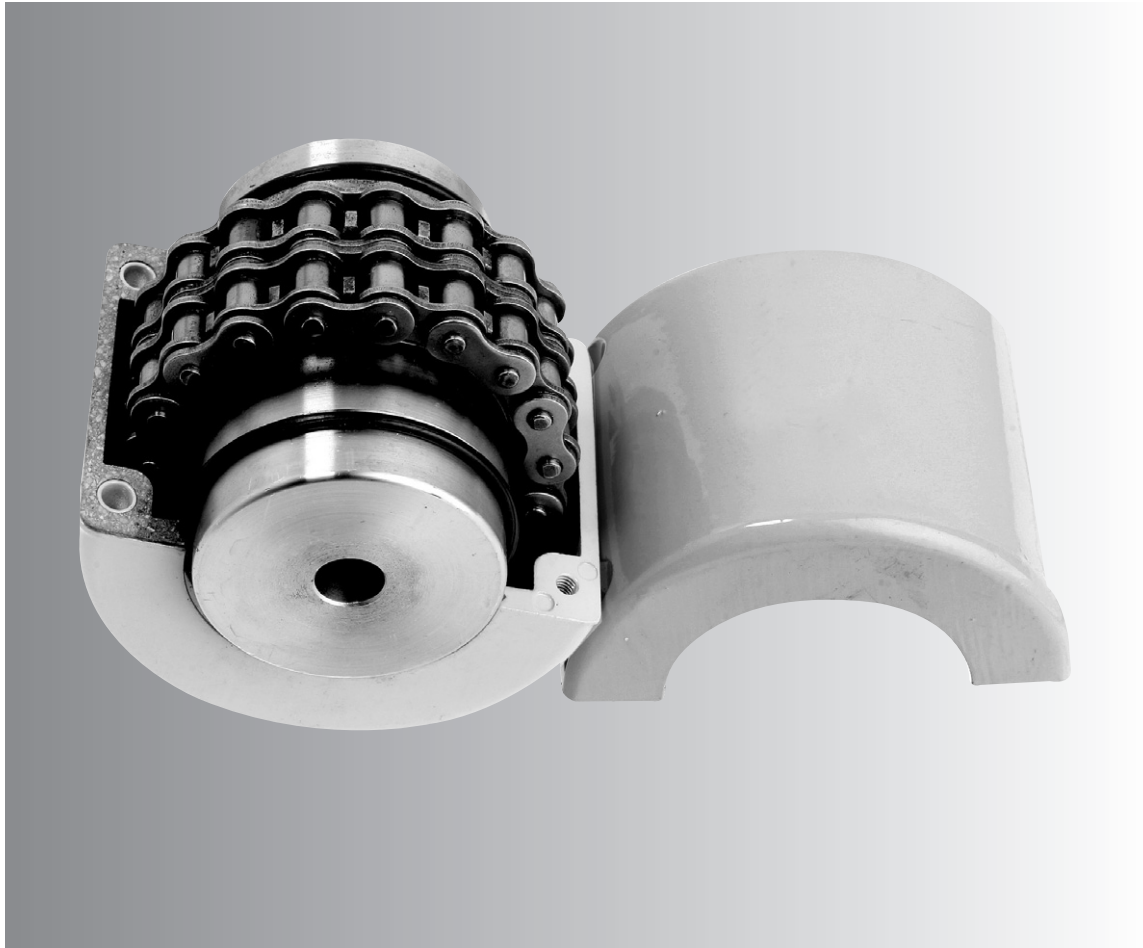


CHAIN COUPLING



CHAIN COUPLING

표준 Cover

Coupling의 수명연장과 Grease의 유출방지를 위하여 Cover와 O-Ring을 사용한다.

특히 다음과 같은 경우에는 반드시 부착 사용해야 한다.

- 1) 부식이 될 수 있거나 연마제등이 항상 분포되는 곳.
- 2) 표 1에서 표시부분 이상 고속회전으로 사용할 때.

특성

로울러체인커플링은 연결, 사용할 때 효율이 우수하다. 로울러체인커플링은 치면이 열처리 된 두 개의 스프로킷과 표준복열 로울러 체인으로 이루어져 있으며 다음과 같은 잇점이 있다.

- 설치 보수 용이
- 편심, 편각 발생시 적용가능
- 항시 재고를 확보하여 수요자의 주문시 즉시 공급할 수 있다.

커플링케이스

케이스는 무게가 가벼운 알루미늄 합금으로 제작되었으며 커플링의 수명연장과 윤활유(Grease)의 분산 방지를 위하여 케이스를 부착 사용하는 것이 좋다. 특히 다음과 같은 경우에는 틀림없이 케이스를 부착 사용해야 한다.

- 1) 주위에 연마제나 부식제가 있을 경우.
- 2) 표 1에서 표시부분 이상 고속회전으로 사용할 경우.

Coupling Cover

Covers are recommended for use with all couplings because the lubrication so provided materially extends the coupling life. Under the following condition covers are especially recommended for use with couplings.

- 1) Abrasive or corrosive atmosphere.
- 2) High revolution to the right of the dotted line shown on KW rating table.

Description

NARA flexible roller chain couplings give high efficiency in connecting directly two shafts for the transmission of power. As NARA roller chain couplings consist of three major parts two hardened teeth sprockets and one RS double standard roller chain, they offer the following characteristics.

- Easy installation against shaft maintenance
- Protection against shaft misalignment
- Long Service Life

You can obtain the most suitable chain coupling easily from wide varieties of stock standard chain couplings in stock.

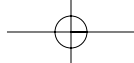
Coupling Casings

Revolving casings are made of strong aluminum alloy and are light in weight.

Casings are recommended for use with all couplings because they prevent lubricant from scattering and extend the service life.

Under the following conditions, casings are especially recommended for use with couplings.

- 1) Abrasive or corrosive atmosphere
- 2) High revolution to the right of the dotted line shown on rating power table(TAB. 2).



PT COUPLINGS

표 1 전동능력표 Basic Ratings(KW)

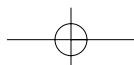
Coupling No.	Max Bore Dia (mm)	Rating Torque at less than 50rpm(kgf.m)	Revolution per minute																											
			1	5	10	25	50	100	200	300	400	500	600	800	1000	1200	1500	1800	2000	2500	3000	3600	4000	4800	5200	6000				
4012	22	22.2	0.02	0.11	0.22	0.58	1.15	1.73	2.63	3.46	4.15	4.96	5.67	7.01	8.53	9.68	11.6	13.7	14.8	17.9	20.7	24.1	26.3	30.8						
4016	32	39.4	0.04	0.21	0.41	1.03	2.06	3.09	4.69	6.17	7.41	8.85	10.1	12.5	15.3	17.3	21.0	24.4	26.3	31.9	37.0	43.0	36.9	54.9						
5016	40	75.0	0.08	0.39	0.78	1.95	3.91	5.86	8.92	11.7	14.1	16.8	19.2	23.8	28.9	32.9	39.9	46.4	50.0	60.6	70.4	81.6								
5018	45	95.0	0.10	0.50	0.99	2.48	4.95	7.43	11.3	14.9	17.8	21.3	24.4	30.1	36.6	41.6	50.5	58.8	63.4	76.8	89.2									
6018	56	179.0	0.18	0.93	1.87	4.67	9.30	14.0	21.3	28.0	33.6	40.1	45.9	56.8	69.1	78.4	95.2	111	120	145										
6022	71	242.0	0.25	1.25	2.51	6.31	12.5	18.8	28.6	37.7	45.3	54.1	61.9	76.5	93.1	105	128	149	161	195										
8018	80	396.0	0.41	2.07	4.14	10.3	20.7	31.0	47.2	62.1	74.5	89.0	101	112	153	174	211	246	265											
8022	100	570.0	0.59	2.96	5.93	14.8	29.6	44.5	67.2	89.0	106	127	146	180	219	249	302	352	379											
10020	110	896.0	0.93	4.66	9.33	23.3	46.6	70.0	106	140	168	200	229	283	345	392	476	554												
12018	125	1,350.0	1.40	7.02	14.0	35.1	70.2	105	160	210	252	302	345	426	519	590	716													
12022	140	1,750.0	1.81	9.07	18.1	45.3	90.7	136	206	272	326	390	446	551	671	762														
16018	160	2,920.0	3.03	15.1	30.3	75.8	151	227	345	455	546	652	746	922	1122															
16022	200	4,260.0	4.43	22.1	44.3	110	221	333	506	665	799	954	1090	1350	1640															
20018	205	5,820.0	6.06	30.3	60.6	151	303	454	691	909	1090	1300	1490	1840																
20022	260	7,340.0	7.63	38.2	76.3	191	382	572	871	1140	1370	1640	1880																	
Type of lubrication			I				II				III																			

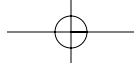
Note

- I . Lubrication interval : Once a month.
 - II . Lubrication interval : Once a week, it is recommended to use a casing.
 - III . It is imperative to use a casing.
- In the high speed zone to the right side of the bold line more accurate installation is necessary.

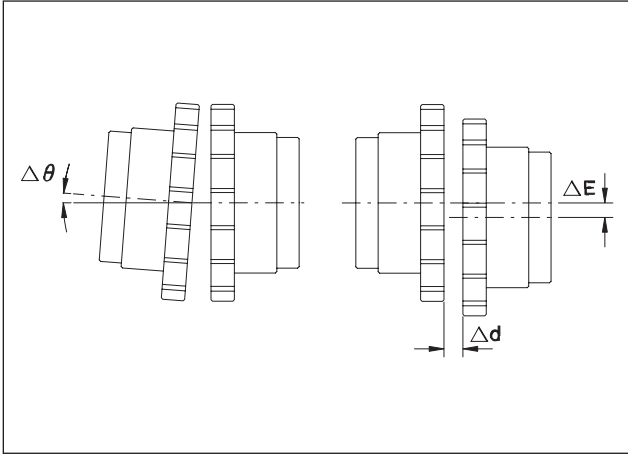
표 2 안전계수 Service Factors F

Driven Machine		Driven Machine		
		Electric Motor Steam Turbine	Piston Engines	
			4~6cyl.	1~3cyl.
Uniform Load	Turbo blowers, Centrifugal fans, Centrifugal pumps, Agitators(liquid), Wood working machines.	1	1.7	2.4
Medium shock Load	Rotary piston blowers, Mixers, Wood machines, Belt conveyors, Cranes, Machine tools, screw pumps, Chain conveyors, Trimming shears.	1.4	2.1	2.8
Heavy shock Load	Piston compressors, Generators, Mills(ball, pebble and rod), Rubber machines, Vibrators, Press, Hammers.	1.7	2.6	3.3





설치방법



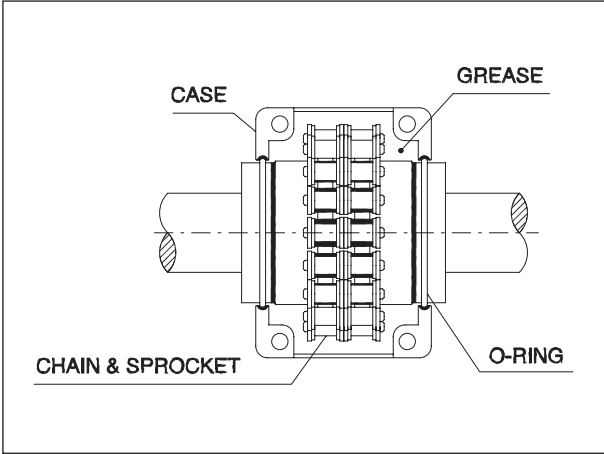
1. 중심선 상에서 각도 변위량 $\Delta\theta$ 는 1° 이내로 한다.
2. 평행범위는 ΔE 는 체인피치의 2% 이내로 한다.
3. 간격 Δd 는 아래표에 의거 조정한다.

Size	4012 ~ 4016	5014 ~ 5018	6018 ~ 6022	8018 ~ 8022	10020	12018 ~ 12022	16018 ~ 16022	20018 ~ 20022
Δd	7.4	9.7	11.5	15.2	18.8	22.7	30.1	37.5

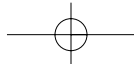
4. 양sprocket 사이에 그리이스를 넣은 다음 체인을 연결한다.
5. 체인 주위와 케이스에도 그리이스를 충분히 채우고 케이스를 조립한다.
6. 그리이스의 교환시기는 아래표에 준한다.

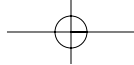
Operative condition	The interval of refilling	
	First refilling	Second & over refilling
More than half of maximum revolution	1,000 hours	2,000 hours
Less than half of maximum revolution	2,000 hours	4,000 hours

Mounting



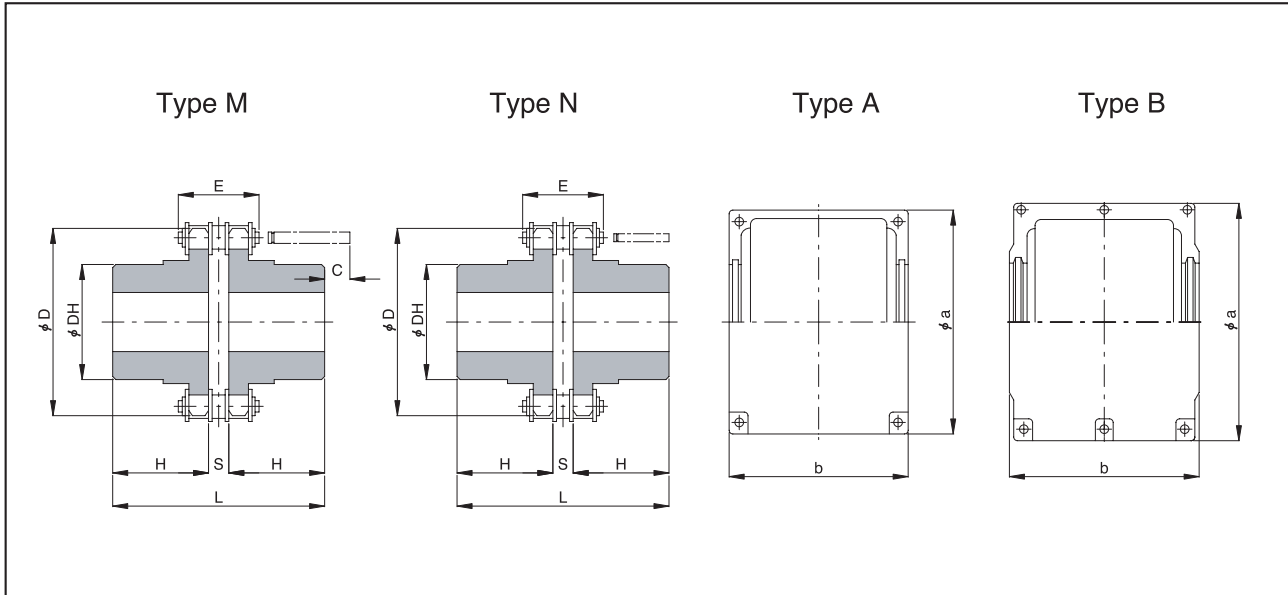
1. The permissible angular displacement ($\Delta\theta$) is within 1 degree.
2. The permissible off-set displacement (ΔE) is within 2 percent of the chain pitch.
3. After finishing the alignment of the shafts, move the sprockets to the position where the space between the both faces of the sprockets should be (Δd) dimension.
4. Fill the grease in the face between the both faces of coupling sprockets, and connect the chain.
5. Put sufficient grease in the casing and tighten it by the bolts.
6. Refill the grease according to the following table.





PT COUPLINGS

치수표(Dimensions)



SIZE	HPper 100 rpm	Max speed (rpm)	Rated torque (kg · cm)	Type	Bore Dia (mm)		Chain		D	DH	L	H	S	C	Cplg Wt(kg)	Cover			
					Min	Max.	Pitch	Width (Max.)E								Type	a	b	Wt (kg)
CR4012	2.35	4,800	1,685	M	12	22	12.70	33.1	61	35	79.4	36	7.4	10	0.8	A	75	75	0.38
CR4014	2.35	4,800	1,685	M	12	28	12.70	33.1	69	43	79.4	36	7.4	10	1.1	A	84	75	0.47
CR4016	4.20	4,800	3,010	M	16	32	12.70	33.1	77	50	87.4	40	7.4	6	1.6	A	92	75	0.56
CR5014	7.97	3,600	5,708	M	16	35	15.875	41.0	86	53	99.7	45	9.7	12	2.2	A	101	85	0.64
CR5016	7.97	3,600	5,708	M	18	40	15.875	41.0	96	60	99.7	45	9.7	12	2.8	A	111	85	0.76
CR5018	10	3,000	7,237	M	18	45	15.875	41.0	106	70	99.7	45	9.7	12	3.6	A	122	85	0.92
CR6018	19	2,500	13,636	M	22	56	19.05	51.1	128	85	123.5	56	11.5	15	6.5	A	142	106	1.4
CR6022	26	2,500	18,311	M	28	71	19.05	51.1	152	110	123.5	56	11.5	15	10.3	A	167	106	1.7
CR8018	42	2,000	30,194	M	32	80	25.40	65.3	170	115	141.2	63	15.2	30	13.8	A	186	130	2.3
CR8022	61	2,000	43,343	M	40	100	25.40	65.3	203	140	157.2	71	15.2	22	21.7	A	220	130	2.7
CR10020	95	1,800	68,180	M	45	110	31.75	80.3	233	160	178.8	80	18.8	30	32.6	A	250	148	4.0
CR12018	143	1,500	102,270	M	50	125	38.10	101.1	256	170	202.7	90	22.7	50	43.9	B	307	181	6.8
CR12022	185	1,200	132,464	M	56	140	38.10	101.1	304	210	222.7	100	22.7	40	69.0	B	357	181	8.4
CR16018	309	1,000	221,098	M	63	160	50.80	129.7	341	224	254.1	112	30.1	68	96.3	B	406	250	14.7
CR16022	453	1,000	324,342	M	80	200	50.80	129.7	405	280	310.1	140	30.1	40	166.8	B	472	250	17.2
CR20018	617	800	442,196	N	88	205	63.50	159.0	426	294	519.5	241	37.5	0	294.4	B	496	280	22.2
CR20022	778	600	557,128	N	98	260	63.50	159.0	507	374	519.5	241	37.5	0	461.6	B	578	280	26.6
CR24022	1,401	600	1,003,220	N	120	310	76.20	194.9	608	420	751.1	353	45.1						
CR24026	1,670	500	1,217,500	N	150	380	76.20	194.9	705	520	751.1	353	45.1						
CR32022	2,774	400	1,986,960	N	200	430	101.60	263	806	570	860.1	400	60.1						
CR40020	5,358	400	3,837,560	N	250	470	127.0	325	932	640	1099.6	512	75.6						
CR40024	6,528	300	4,675,200	N	300	590	127.0	325	1,093	800	1099.6	512	75.6						
CR40028	7,752	300	5,551,800	N	350	700	127.0	325	1,255	960	1099.6	512	75.6						

