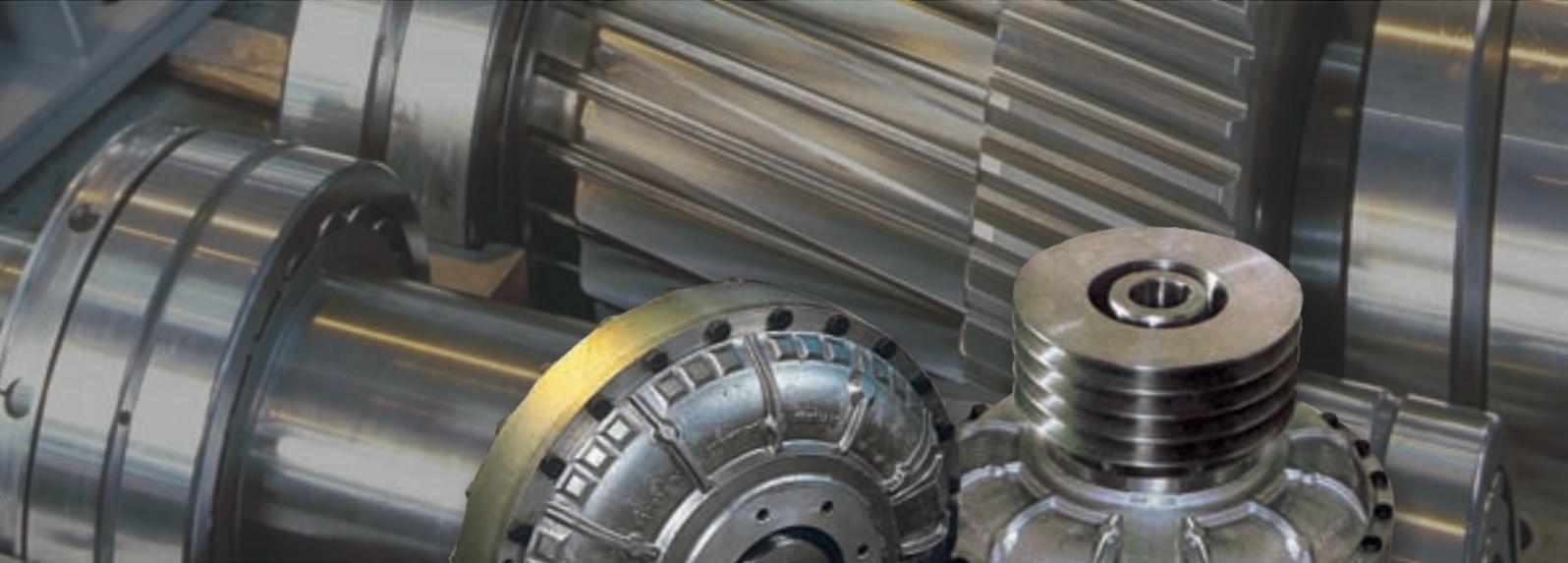
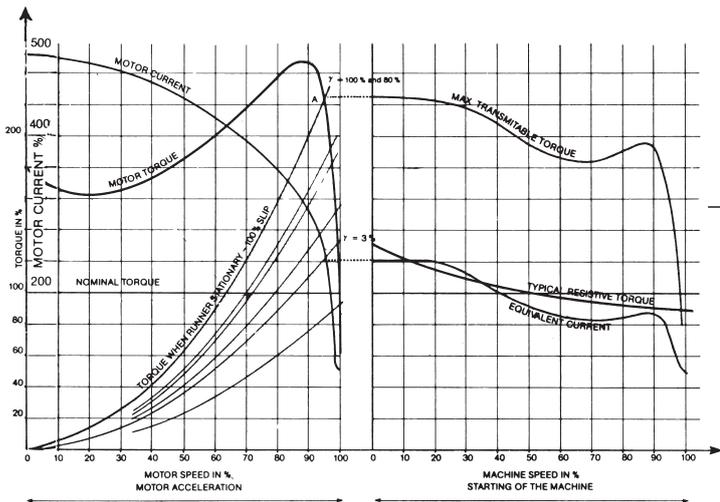
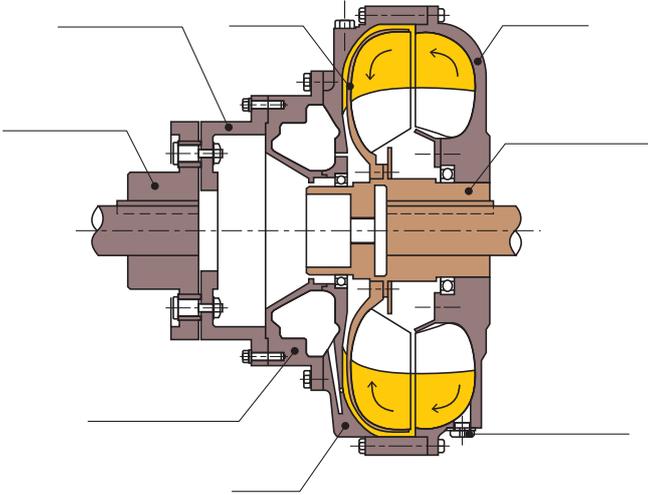


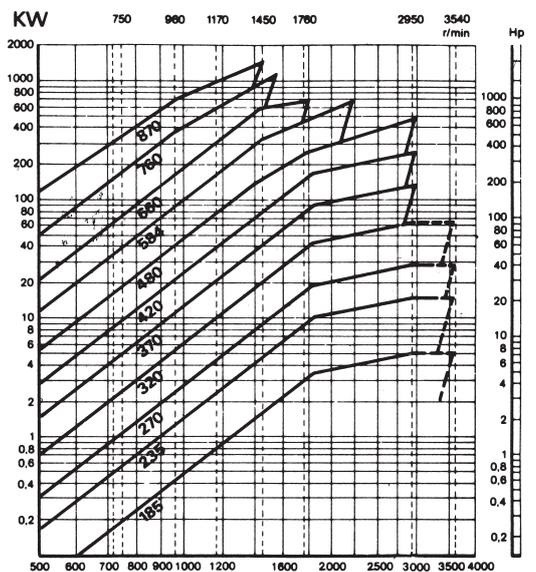
ELECON





OA

(/)	750	960	1170	1450	1760	2950
185	0.20	0.45	0.75	1.5	3	5
235	0.60	1.30	2.30	4.5	9	15
270	1.10	2.50	4.50	9	17	28
320	2.5	5.5	10	20	38	65
370	5	12	22	42	85	130
420	10	22	40	80	150	250
480	20	40	75	155	250	500
584	40	100	175	340	500	--
660	80	180	310	600	700	--
760	180	350	580	950	--	--





ELECON :

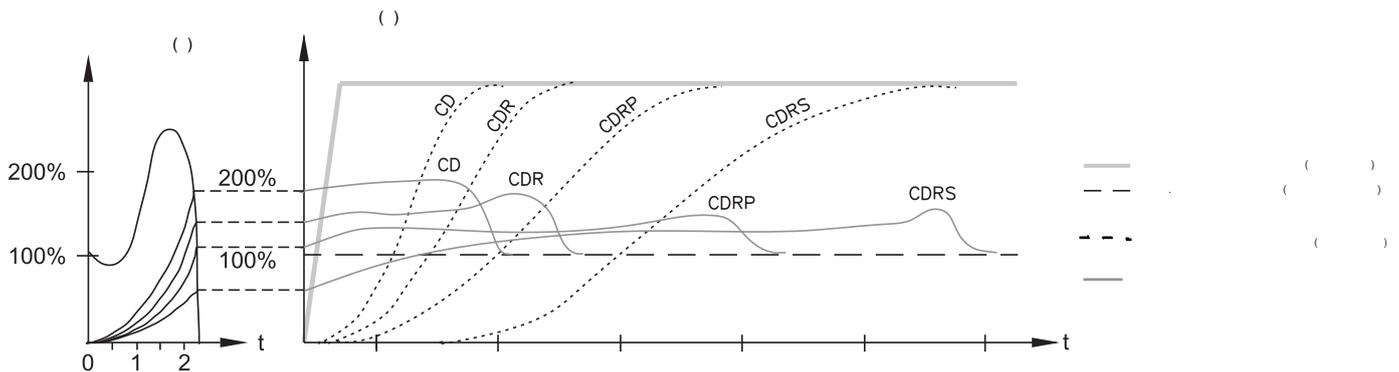
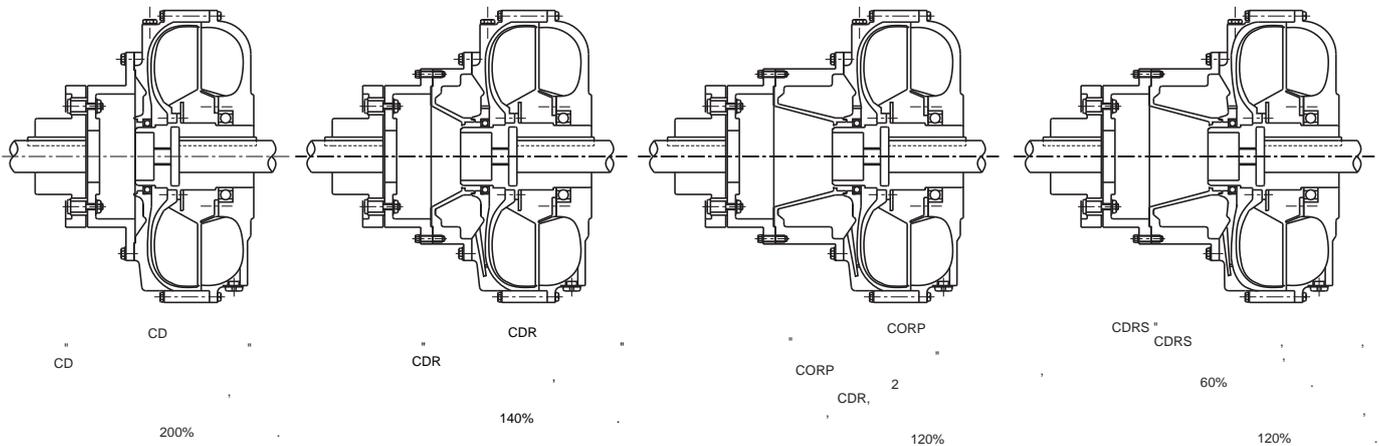
CD:
CDR:
CORP:
CDRS:

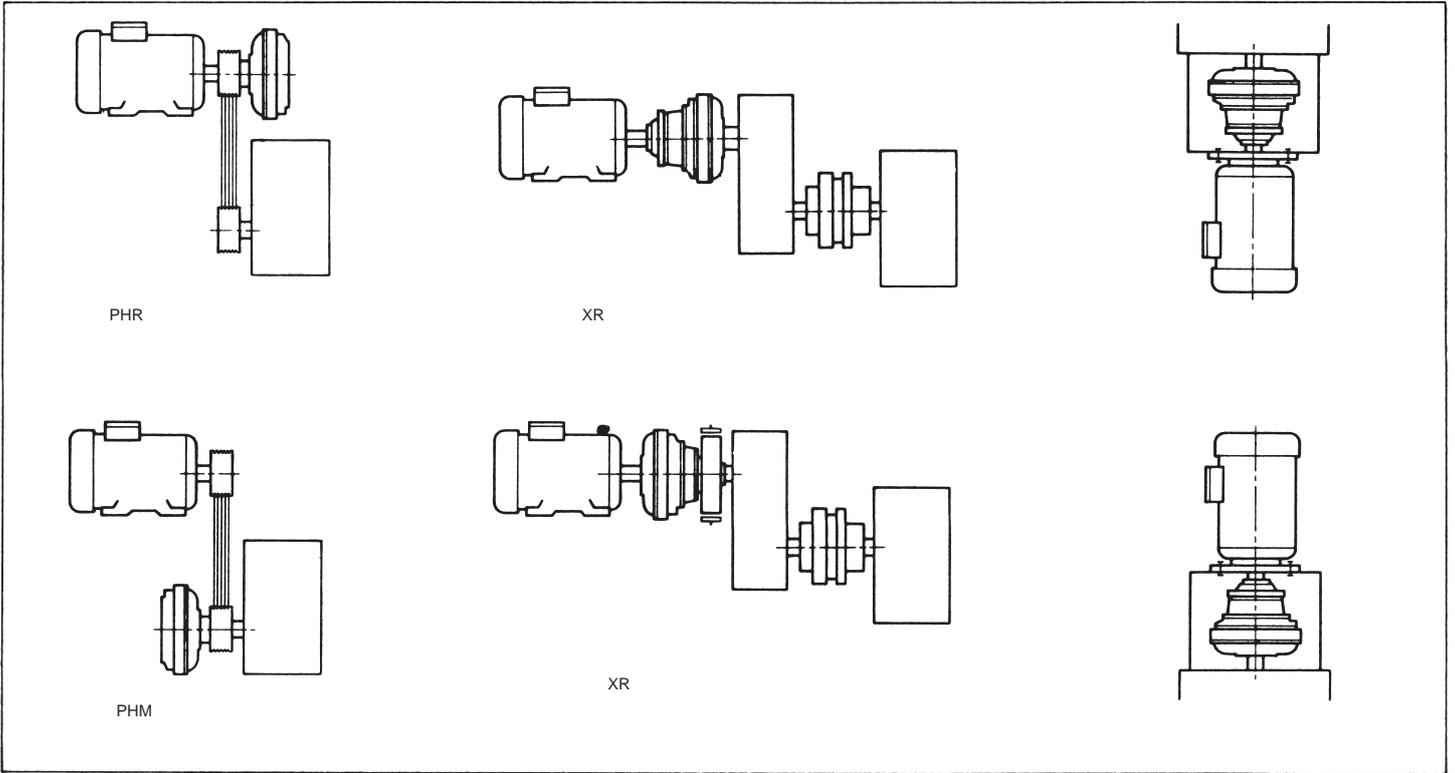
- CD () (")
- CDR () (") ,1,4
- CORP (1,2) ()
- CDRS (0,6) ()

1. CDR-XR ():
2. CDIR-XR ():
3. PH ():

PHR:
PHM:

4. CD/CDR- R:





ELECON

1.

ELECON



2.

200% ELECON

ELECON

3.

ELECON

4.

ELECON

5.

ELECON

6.

ELECON



ELECON,

Gandhinagar T.P.S.

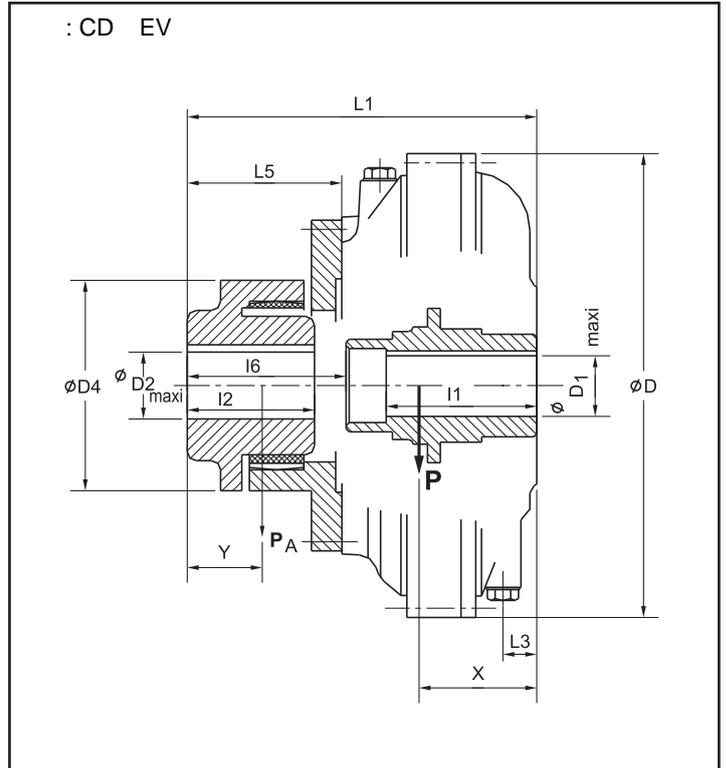
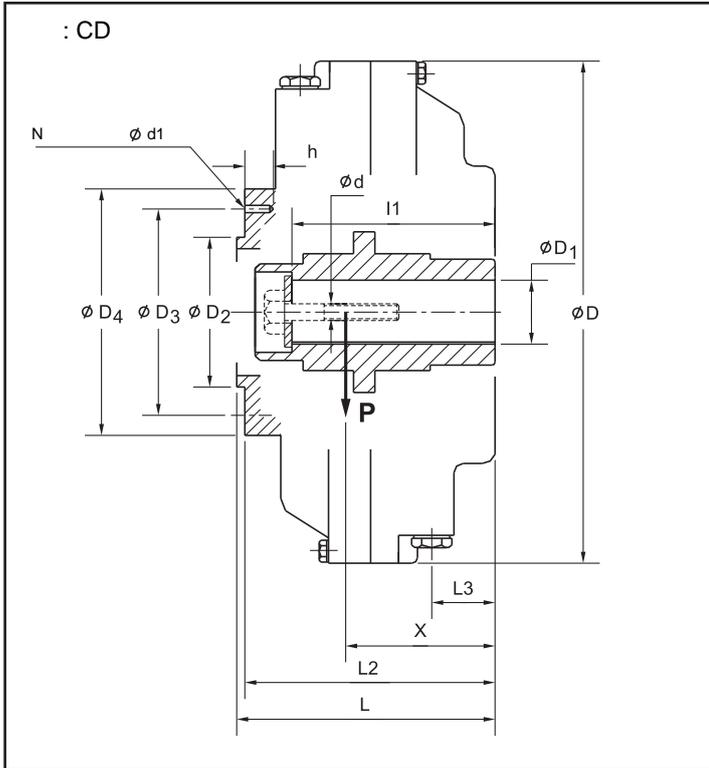


: XR ()

:185-235

:CD CD

EV



		185	235
J (2) x ()	J	0.003	0.009
	(2)	0.025	0.060
	7	12	
	75	102	
D D1 D2 D3 D4 L L2 L1 N d1 L3 h	D	225	275
	D1	38	42
	D2	71	82
	D3	97	113
	D4	110	135
	L	116	140
	L2	114	136
	L1	85	112
	N	8	6
	d1	M5	M6
	L3	26	34
h	14	18	

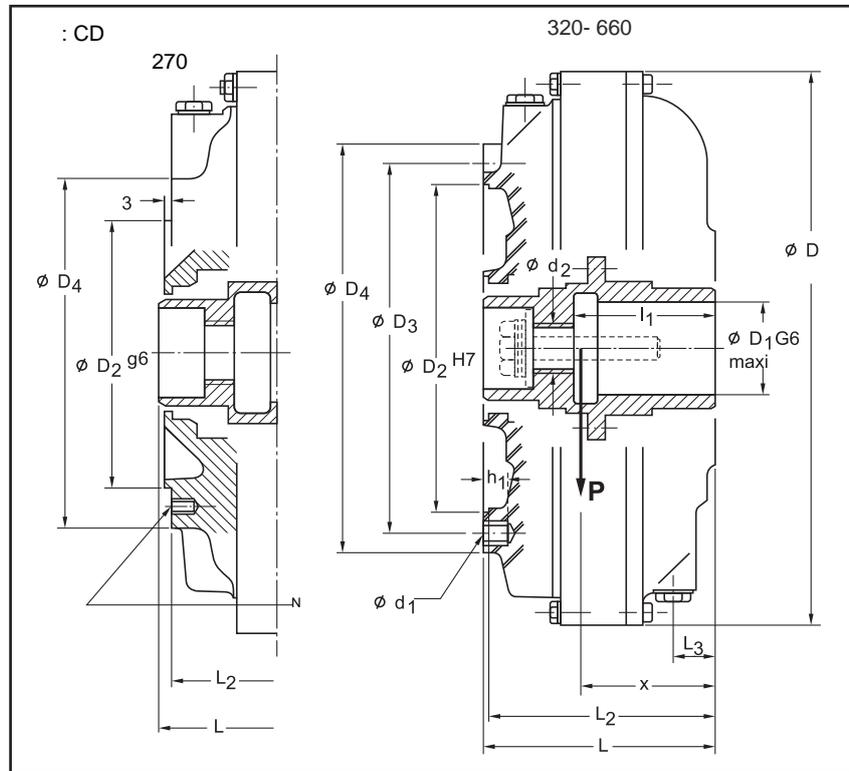
		185	235	
		EV-75	EV-85	
+	J (2)		0.030	0.065
			0.003	0.009
	() = P + PA	P	7	12
		X	75	102
		PA	2.5	3.0
	y	23	25	
D D1 D2 D4 L1 L5 l1 l2 L3 l6	D	225	275	
	D1	38	42	
	D2	30	38	
	D4	70	85	
	L1	165	192	
	L5	51	56	
	l1	85	112	
	l2	45	45	
L3	26	34		
l6	55	58		



: XR ()

:270-660

:CD



		270	320	370	420	480	584	660
CD	J	0.12	0.24	0.47	0.72	1.33	2.90	5.30
	(²)	0.02	0.04	0.08	0.16	0.36	0.83	1.45
	P ()	15	24	33	47	68	120	170
	x	75	90	95	103	115	136	155
	D2	150	215	245	280	320	385	445
	D3	172	250	280	320	366	432	500
	D4	194	274	306	348	392	468	540
	L	143	158	180	200	224	262	304
	L2	136	153	174	194	218	256	298
	N	6	12	12	12	12	12	12
	d1	M 8	M10	M12	M12	M12	M14	M14
	h1	12	18	18	18	18	21	21
	D	315	365	425	475	550	670	760
	D1	55	60	65	80	90	110	120
	L3	25	25	29	37	37	49	55
I1	100	110	110	120	155	170	200	
d2	1"BSP	1"BSP	1"BSP	1-1/4"BSP	1-1/4"BSP	1-1/4"BSP	1-1/4"BSP	

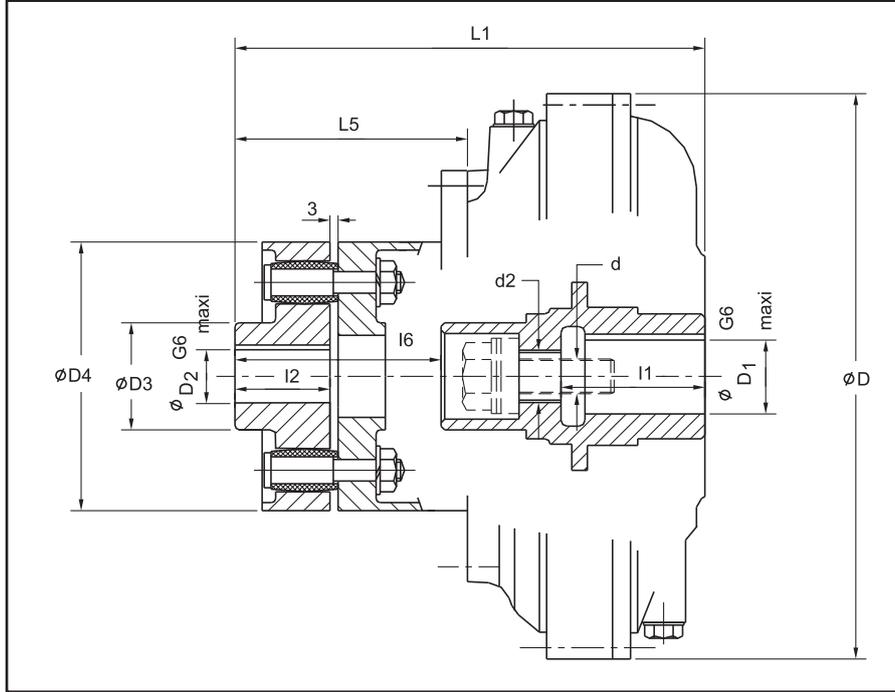


: XR ()

:270-660

:CD

CDF

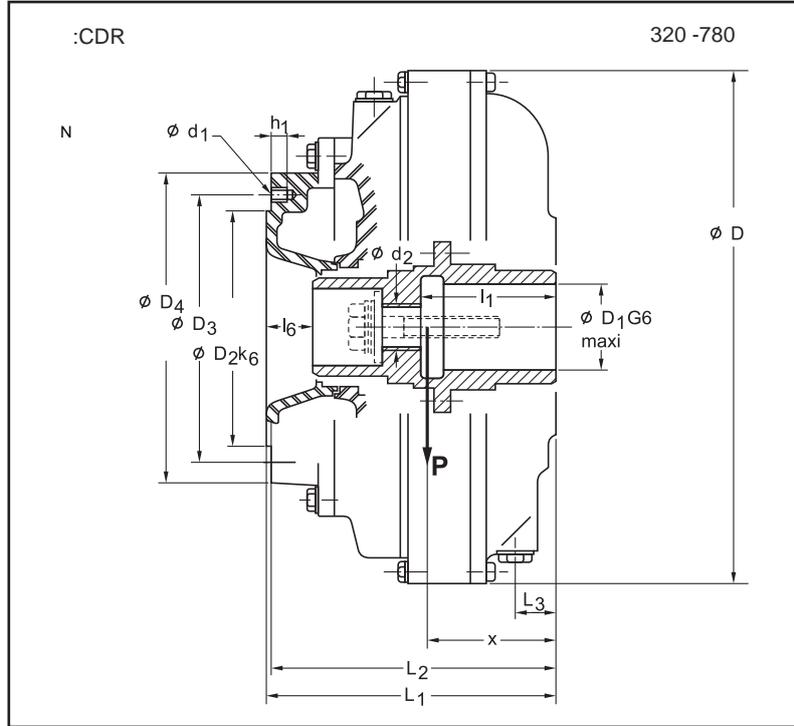


			270	320	370	420	480	584	660
			CDF5 $\frac{1}{2}$	CDF6	CDF7	CDF9	CDF10	CDF13	CDF14
+	J (2)		0.14	0.28	0.55	0.88	1.69	3.73	6.75
			0.02	0.04	0.08	0.16	0.36	0.83	1.45
	()		15	24	33	47	68	120	170
			9.5	17	24	37	47	88	135
		D	315	365	425	475	550	670	760
		D1	55	60	65	80	90	110	120
		D2	40	48	60	80	90	110	120
		D4	152.4	165.1	190.5	241.3	266.7	342.9	368.3
		L1	245	285	337	371	412	481	576.6
		L5	109	127	157	171	188	219	272
		l1	100	110	110	120	155	170	200
		l2	44.5	48	60	82.5	95	108	120
		l6	100	105	137	151	167	192	241
		D2	1"BSP	1"BSP	1"BSP	1 $\frac{1}{4}$ "BSP	1 $\frac{1}{4}$ "BSP	1 $\frac{1}{4}$ "BSP	1 $\frac{1}{4}$ "BSP
		D3	63.5	73	92	124	143	165	190
		d							



: XR ()
:320-760

:CDR



		320	370	420	480	584	660	760
J (²)		0.25	0.48	0.74	1.35	2.95	5.40	9.5
		0.04	0.08	0.16	0.36	0.83	1.45	2.6
P () x		26	36	51	74	128	180	250
		110	116	135	155	172	200	222
	D2	170	195	220	265	315	360	420
	D3	195	228	265	310	360	420	480
	D4	220	252	290	330	392	468	530
	L1	206	228	260	300	336	389	449
	L2	203	225	257	297	333	385	445
	l6	26	28	40	55	47	54	54
	N	6	8	8	12	16	16	20
	d1	M12	M12	M12	M12	M12	M14	M16
	h1	18	18	18	18	18	21	36
	D	365	425	475	550	670	760	870
	D1	60	65	80	90	110	120	135
	L3	25	29	37	37	49	55	49
	l1	110	110	120	155	170	200	240
	d2	1"BSP	1"BSP	1-1/4"BSP	1-1/4"BSP	1-1/4"BSP	1-1/4"BSP	1-1/4"BSP



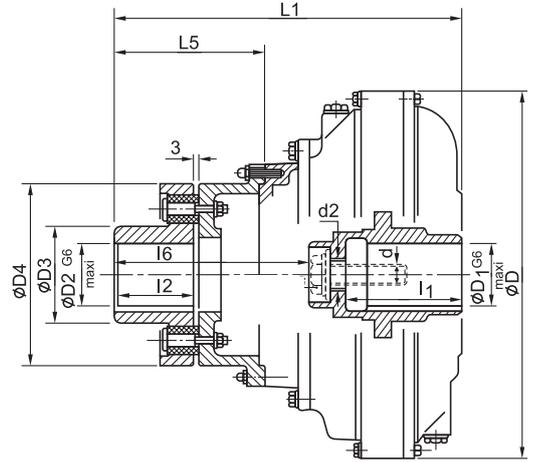
: XR ()

: 320-760

: CDR

FCF

		320	370	420	480	584	660	760
		FCF6	FCF7	FCF9	FCF10	FCF13	FCF14	FCF16
+	J (2)	0.28	0.55	0.88	1.70	3.75	6.50	12.10
	()	0.09	0.17	0.35	0.51	1.93	4.80	7.00
	()	28	38	53	78	135	192	262
	()	14	21	32	40	78	120	150
	D	365	425	475	550	670	760	870
	D1	60	65	80	90	110	120	135
	D2	48	60	80	90	110	120	135
	D4	165.1	190.5	241.3	266.7	342.9	368.3	419.1
	L1	330	382	428	485	552	656	718
	L5	127	157	171	188	219	272	273
	I1	110	110	120	155	170	200	240
	I2	48	60	82.5	95	108	120	146
	I6	150	182	208	240	263	321	344
	d2	1" BSP	1" BSP	1-1/4" BSP				
	D3	73	92	124	143	165	190	235
	d							

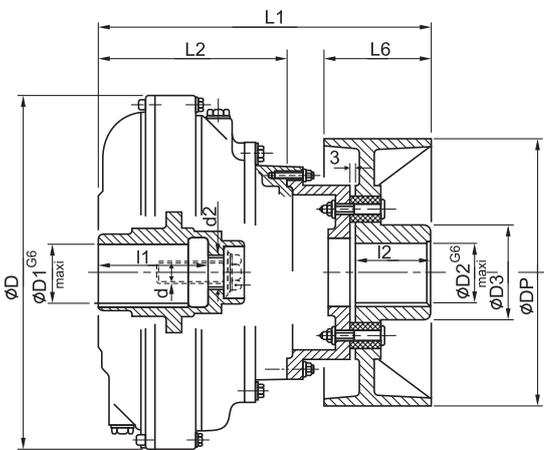


: XR (,)

: 320-760

: CDIR

FCFB



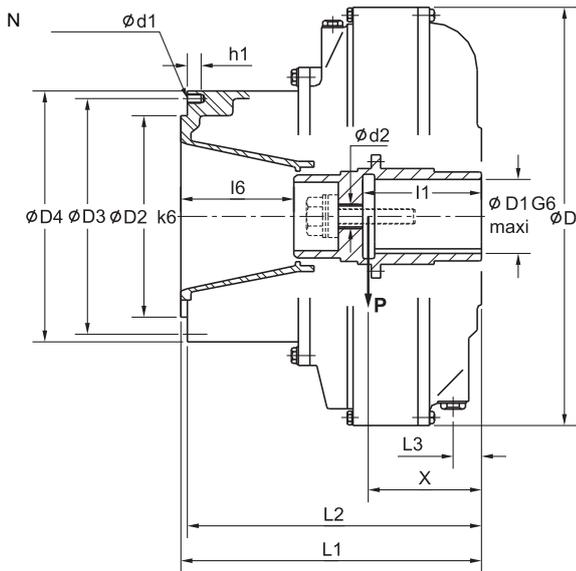
		320		370			420			480		584			660		760	
		250	315	250	315	400	315	400	500	400	500	400	500	630	500	630	630	710
		FCFB 6	FCFB 7	FCFB 9			FCFB 10		FCFB 13			FCFB 14		FCFB 16				
+	J (2)	0.39	0.84	0.47	0.94	1.80	1.10	2.50	5.90	3.50	6.20	4.56	10.00	23.00	11.80	25.40	29.20	44.00



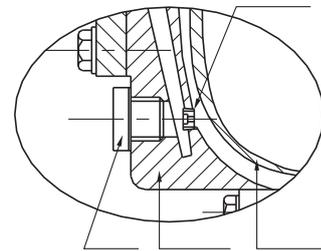
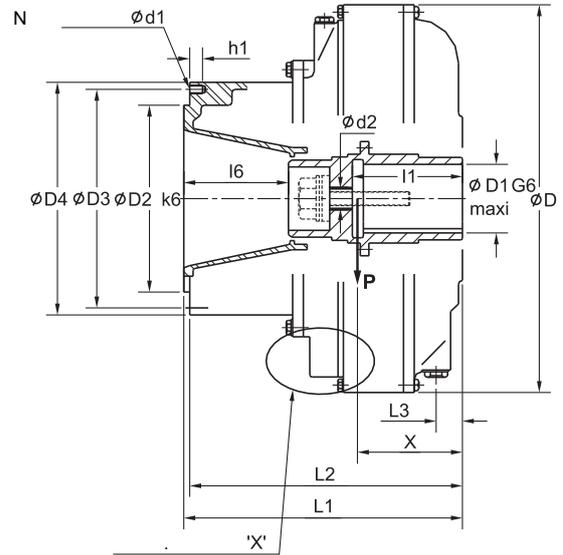
: XR ()

:CDRP - 370 - 760 CDRS - 420 - 760

:CORP - 370 - 760



: CDRS - 420 - 760



CDRS - " "

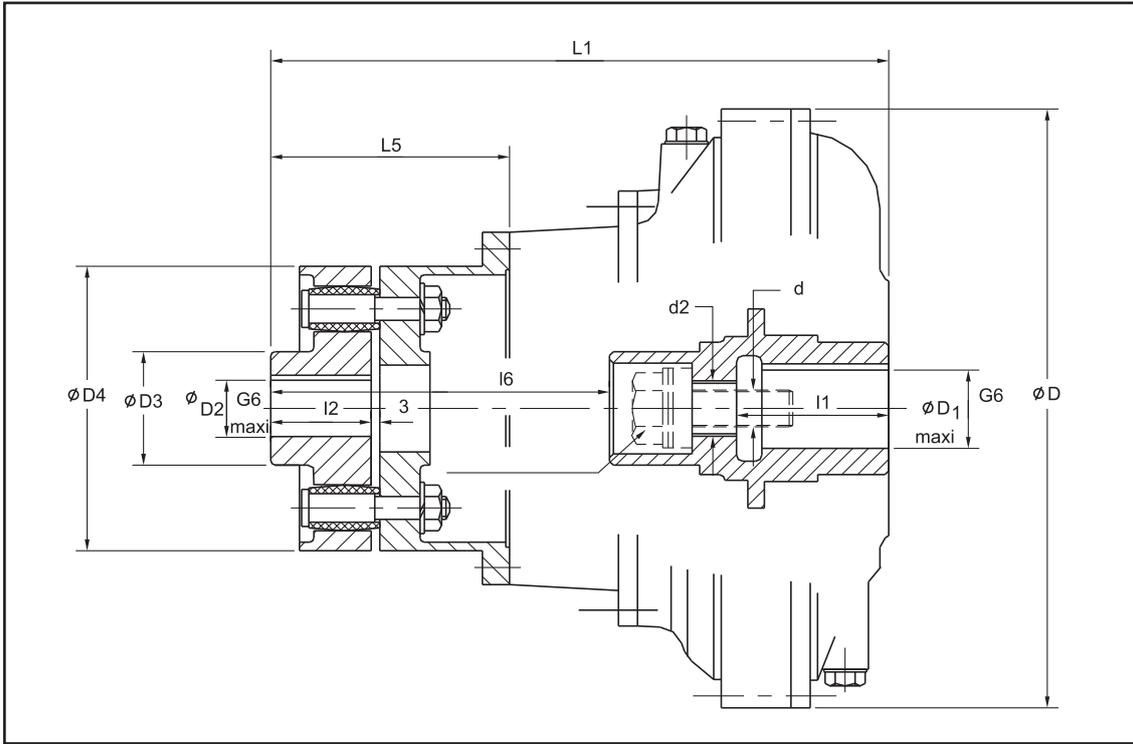
	370	420	480	584	660	760
J	0.51	0.8	1.46	3.2	5.85	10.3
(2)	0.08	0.16	0.36	0.83	1.45	2.6
P ()	38	54	78	135	190	265
x	120	142	165	180	210	235
D	425	475	550	670	760	870
D1	65	80	90	110	120	135
D2	195	220	265	315	360	420
D3	228	265	310	360	420	480
D4	252	290	330	392	468	530
L1	263	339	387	433	499	572
L2	260	336	384	430	495	568
L3	29	37	37	49	55	49
l1	110	120	155	170	200	240
l6	63	119	142	144	164	177
N	8	8	12	16	16	20
d1	M12	M12	M12	M12	M14	M16
h1	18	18	18	18	21	36
d2	1"BSP	1-1/4"BSP	1-1/4"BSP	1-1/4"BSP	1-1/4"BSP	1-1/4"BSP



: XR ()

:CDRP - 370 - 760
CDRS - 420 - 760

FCF
FCF



(CDRP / CDRS)		-	370	420	480	584	660	760
			FCF7	FCF9	FCF10	FCF13	FCF14	FCF16
+	J		0.59	0.96	1.82	4.03	7.3	12.9
	(²)		0.17	0.35	0.51	1.93	4.80	7.00
	()		38	53	78	135	192	262
			21	32	40	78	120	150
	D		425	475	550	670	760	870
	D1		65	80	90	110	120	135
	D2		60	80	90	110	120	135
	D4		190.5	241.3	266.7	342.9	368.3	419.1
	L1		417	507	572	649	766	841
	L5		157	171	188	219	272	273
	l1		110	120	155	170	200	240
	l2		60	82.5	95	108	120	146
	l6		217	287	327	360	431	446
	d2		1" BSP	1-1/4" BSP				
	D3		92	124	143	165	190	235
d								

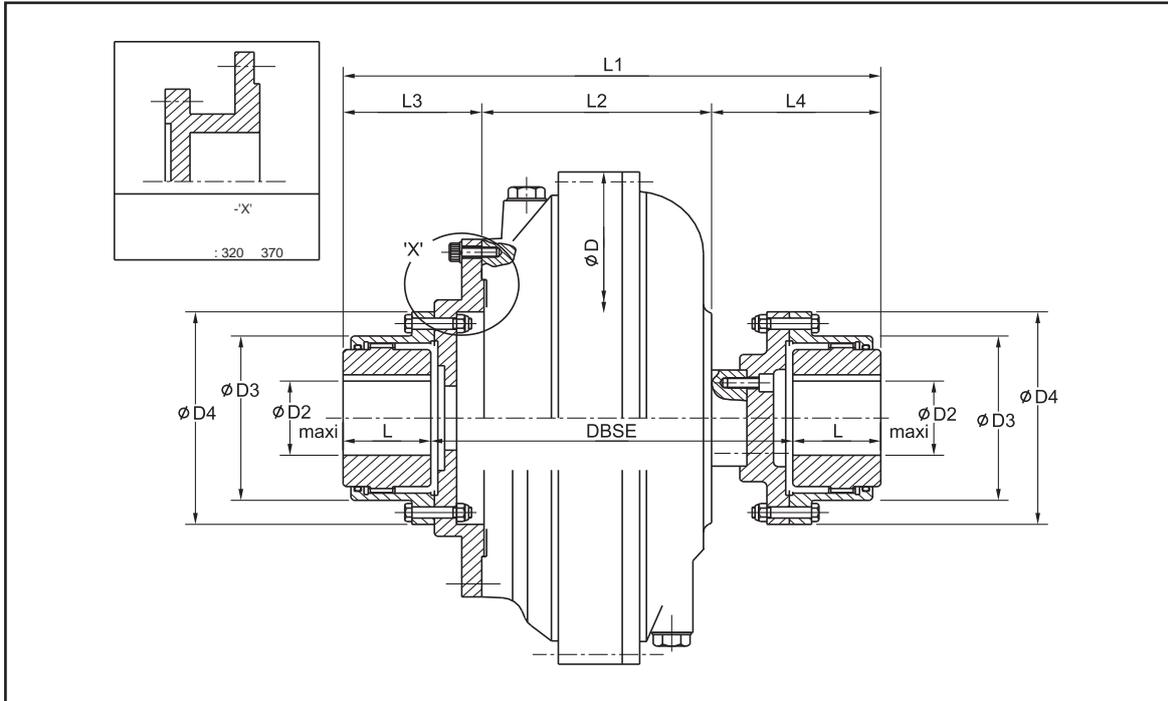


: R (-)

:320-660

:CD-R

ELIGN ED

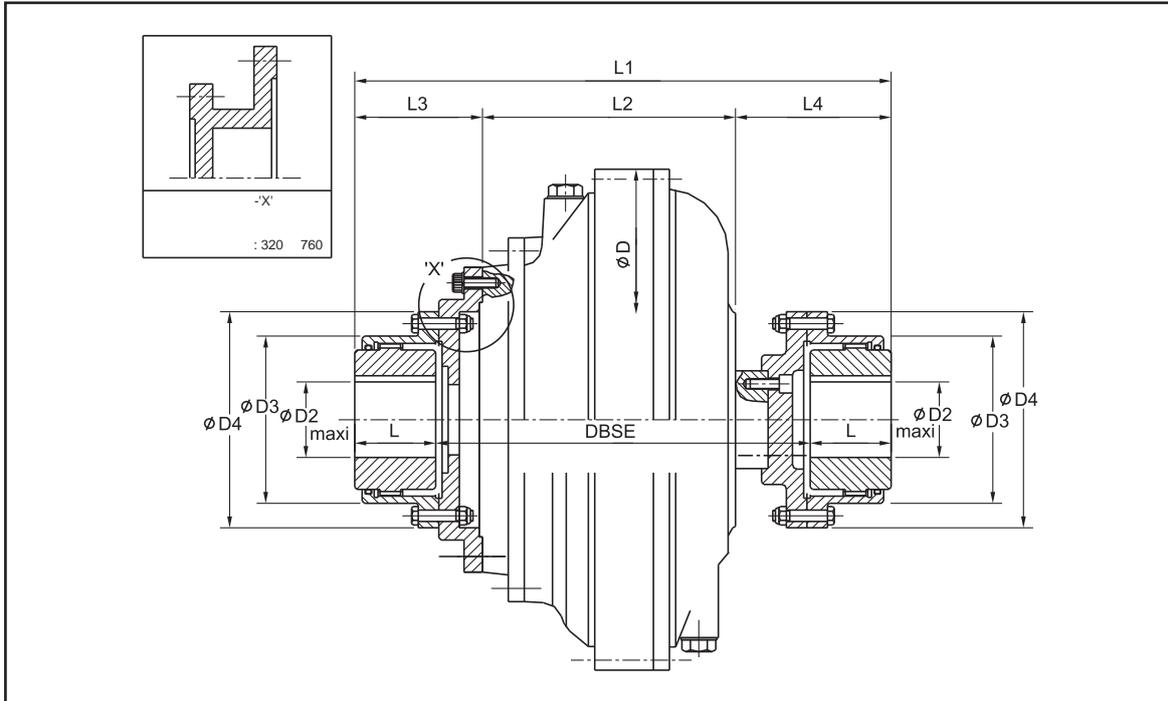


-			CD-R	320	370	420	480	584	660
	ELIGN		ED	500	1000	1000	1600	2200	3200
+	J (2)			0.3	0.6	0.96	1.85	4.1	7.43
				0.08	0.14	0.27	0.48	1.22	2.25
				0.02	0.09	0.09	0.16	0.36	0.66
	() ()			27	36	52	75	132	187
				14	25.2	27	37	65	90
				11	21	21	28	44	67
			D	365	425	475	550	670	760
			D2	75	95	95	110	130	155
			D3	129.5	156	156	181	209	247
			D4	171	210	210	234	274	312
			L	62	76	76	90	105	120
			DBSE	306	351	366	357	416	475
			L1	430	503	518	537	626	715
			L2	158	180	200	224	262	304
			L3	148	171	155	144	168	192
			L4	124	152	163	169	196	219



: R (-)
:320-760

:CDR-R align ED



		CDR-R	320	370	420	480	584	660	760
		ED	500	1000	1000	1600	2200	3200	4500
+	J (2)		0.32	0.62	0.99	1.88	4.15	7.54	13.30
			0.05	0.13	0.19	0.34	0.70	1.52	2.53
			0.02	0.09	0.09	0.16	0.36	0.66	1.01
	() ()		29	40	56	81	141	198	275
			13	23	24	33	47	78	104
			11	21	21	28	44	67	86
D			365	425	475	550	670	760	870
D2			75	95	95	110	130	155	175
D3			129.5	156	156	181	209	247	273
D4			171	210	210	234	274	312	337
L			62	76	76	90	105	120	135
DBSE			351	396	423	430	487	555	635
L1			475	548	575	610	697	795	905
L2			203	225	257	297	333	384	445
L3			148	171	155	144	168	192	210
L4			124	152	163	169	196	219	250

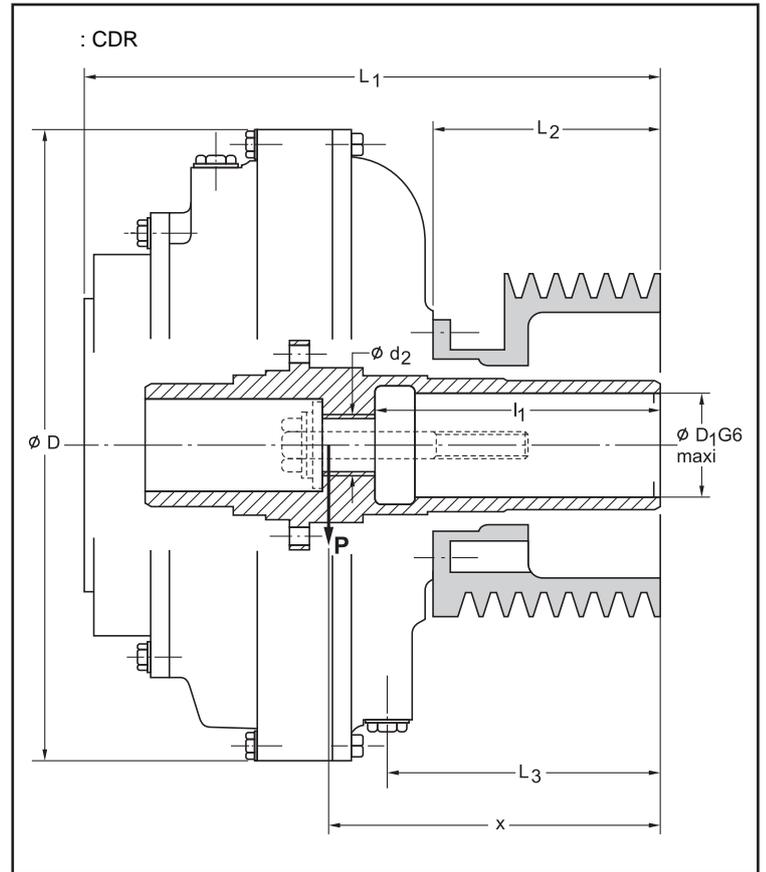
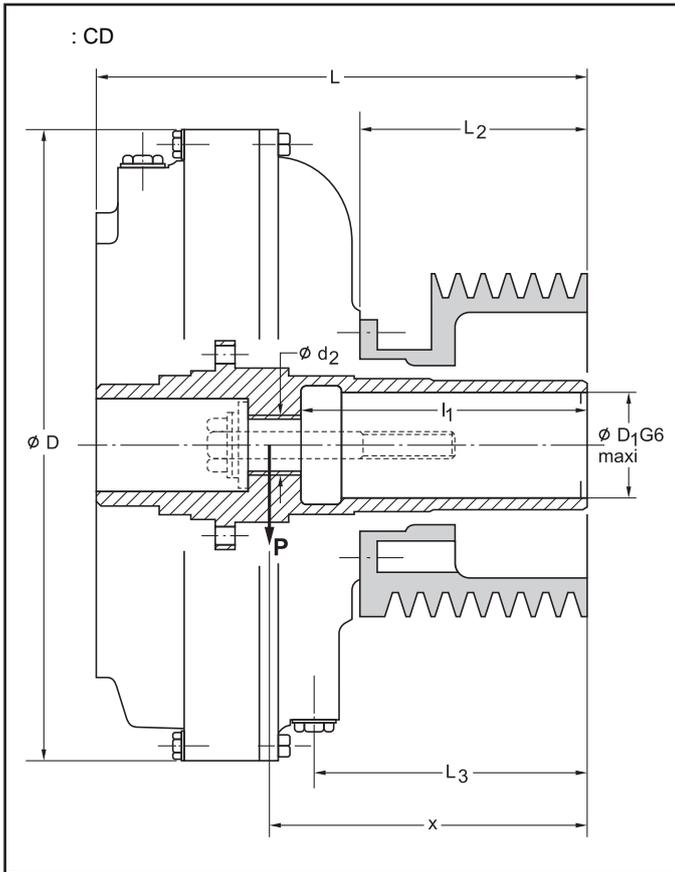


: PH ()

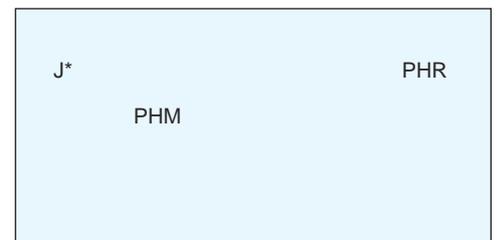
: 270 - 370

: CD CDR

- - (PHR)
- - (PHM)



		270	320	370
CD	J* (2)	0.02	0.04	0.07
	P ()	0.12	0.24	0.47
	x	17	26	36
	L	140	168	200
		251	273	322
CDR	J* (2)	-	0.04	0.07
	P ()	-	0.25	0.48
	x	-	29	40
	L1	-	180	210
		-	320	370
D		315	365	425
D1		50	55	60
L2		110	115	140
L3		135	142	167
l1		164	165	190
d2		1"BSP	1"BSP	1"BSP



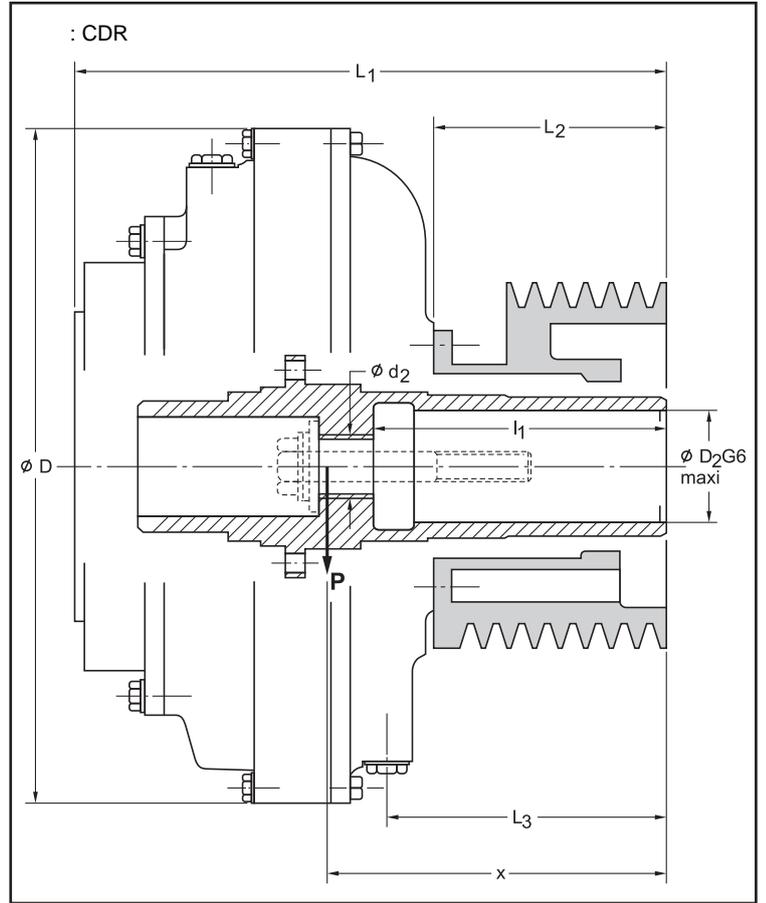
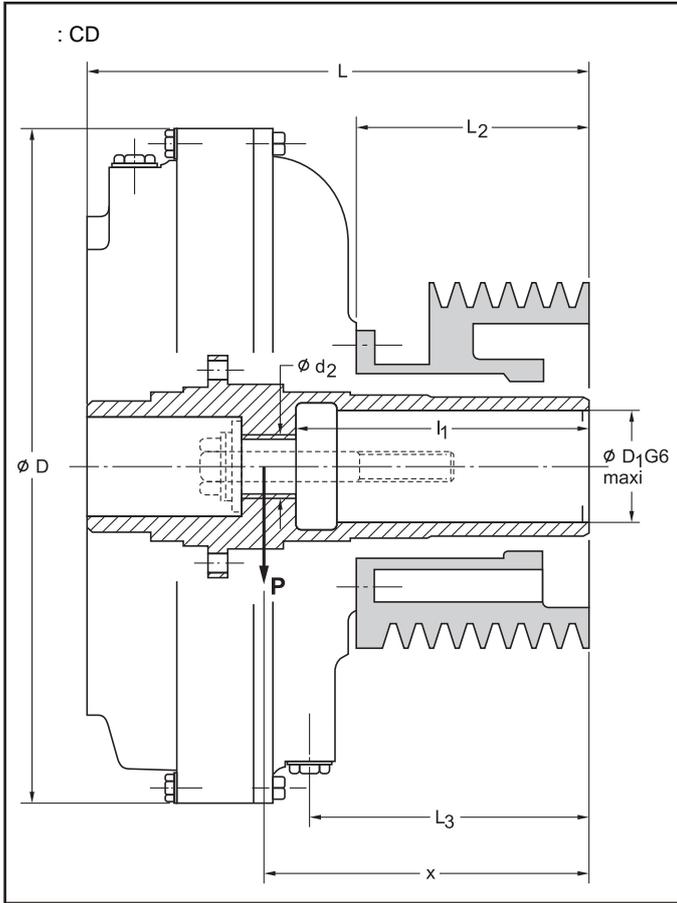


: PH ()

: 420 - 584

: CD CDR

• (PHR)
• (PHM)



		420	480	584
CD	J* (2)	0.16	0.36	0.83
	P ()	51	72	125
	x	236	280	290
	L	368	427	467
CDR	J* (2)	0.16	0.36	0.83
	P ()	56	75	134
	x	250	305	320
	L1	428	503	541
	D	475	550	670
	D1	75	80	100
	L2	170	205	205
	L3	205	240	254
	l1	215	252	290
	d2	1-1/4"BSP	1-1/4"BSP	1-1/4"BSP

J*	PHM	PHR
----	-----	-----

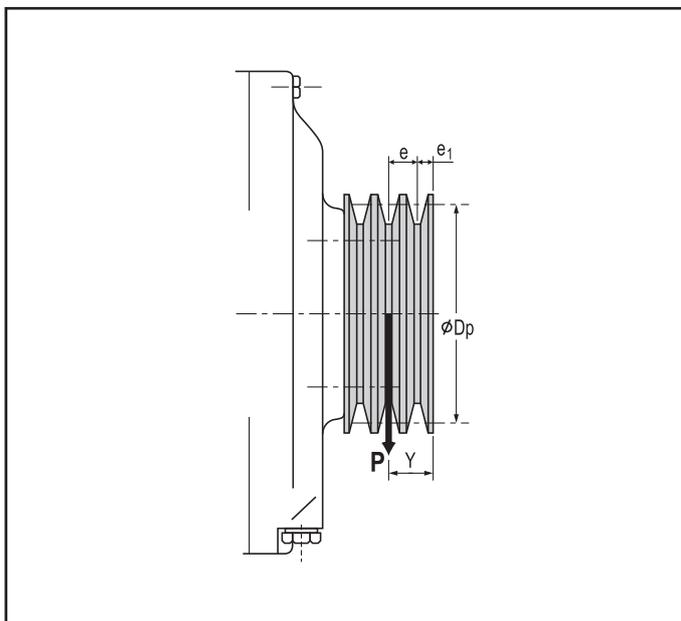


: PH

: 420 - 584

:SPB-SPC

Dp	Type	Pitch	Dp															
			200	212	224	236	250	265	280	300	315	335	355	400	450			
420	SPB	4	J P Y	0.15 21 70	0.19 25 70	0.25 30 70	0.31 35 70	0.40 41 70	0.59 54 90	0.74 62 90	0.99 74 90	1.20 83 90	1.55 97 90	1.95 112 90				
		5	J P Y	0.15 21 70	0.19 25 70	0.25 30 70	0.31 35 70	0.40 41 70	0.59 54 90	0.74 62 90	0.99 74 90	1.20 83 90	1.55 97 90	1.95 112 90				
		6	J P Y	0.15 21 70	0.19 25 70	0.25 30 70	0.31 35 70	0.40 41 70	0.59 54 90	0.74 62 90	0.99 74 90	1.20 83 90	1.55 97 90	1.95 112 90				
	SPC	3	J P Y	0.15 21 70	0.19 25 70	0.25 30 70	0.31 35 70	0.40 41 70	0.59 54 90	0.74 62 90	0.99 74 90	1.20 83 90	1.55 97 90	1.95 112 90				
		4	J P Y	0.15 21 70	0.19 25 70	0.25 30 70	0.31 35 70	0.40 41 70	0.59 54 90	0.74 62 90	0.99 74 90	1.20 83 90	1.55 97 90	1.95 112 90				
		5	J P Y	0.15 21 70	0.19 25 70	0.25 30 70	0.31 35 70	0.40 41 70	0.59 54 90	0.74 62 90	0.99 74 90	1.20 83 90	1.55 97 90	1.95 112 90				
		6	J P Y						0.47 45 90	0.59 54 90	0.74 62 90	0.99 74 90	1.20 83 90	1.55 97 90	1.95 112 90			
480	SPB	6	J P Y						0.47 46 82	0.60 53 82	0.76 53 105	1.07 68 105	1.34 79 105	1.36 62 110	1.88 80 110	3.40 122 110		
		8	J P Y						0.47 46 82	0.60 53 82	0.76 53 105	1.07 68 105	1.34 79 105	1.36 62 110	1.88 80 110	3.40 122 110		
		10	J P Y								0.76 53 105	1.07 68 105	1.34 79 105	1.36 62 110	1.88 80 110	3.40 122 110		
	SPC	5	J P Y						0.47 46 82	0.60 53 82	0.76 53 105	1.07 68 105	1.34 79 105	1.36 62 110	1.88 80 110	3.40 122 110		
		6	J P Y						0.47 46 82	0.60 53 82	0.76 53 105	1.07 68 105	1.34 79 105	1.36 62 110	1.88 80 110	3.40 122 110		
		8	J P Y								0.76 53 105	1.07 68 105	1.34 79 105	1.36 62 110	1.88 80 110	3.40 122 110		
		6	J P Y						0.51 52 110	0.63 55 110	0.76 52 110	1.07 65 110	1.34 70 110	1.36 60 110	1.88 75 110	3.40 120 110	5.20 175 110	
8	J P Y										1.34 70 110	1.36 60 110	1.88 75 110	3.40 120 110	5.20 175 110			



	SPB 17 x 11	SPC 22 x 14	
e	19	25	
e1	11	15	

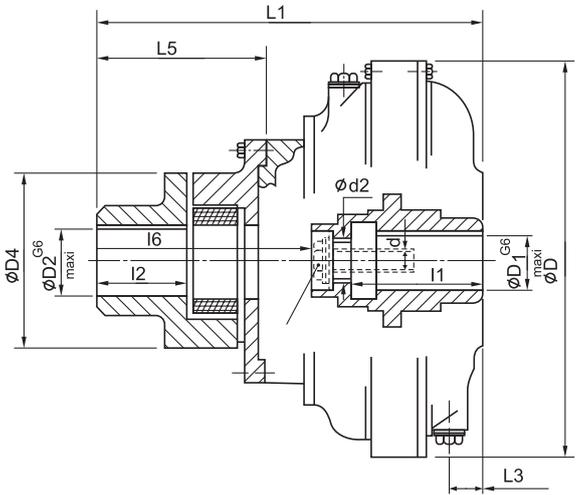
ELECON
*J = 2
P =
Y =



: XR ()
: 320 - 760

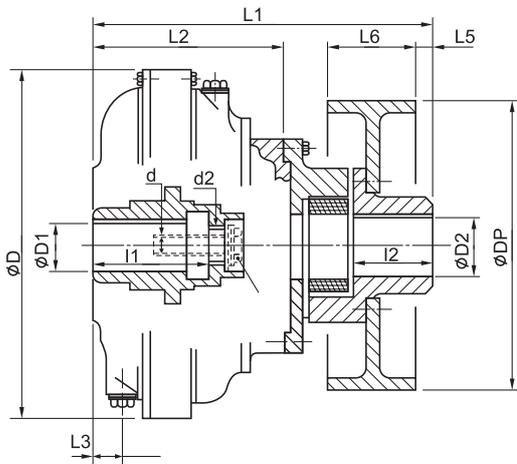
:CDR EX

		320	370	420	480	584	660	760
		EX65	EX75	EX95	EX110	EX125	EX140	EX140
+	J	0.28	0.55	0.88	1.70	3.75	6.50	12.1
	(2)	0.07	0.13	0.26	0.53	1.11	2.70	3.47
	()	28	38	53	78	135	192	262
	D	365	425	475	550	670	760	870
	D1	60	65	80	90	110	120	135
	D2	65	75	95	100	120	140	140
	D4	170	200	230	260	300	360	360
	L1	329.5	382	428	485	552	656	718
	L3	25	29	37	37	49	55	49
	L5	126.5	157	171	188	219	272	273
	I1	110	110	120	155	170	200	240
	I2	74.5	98.5	110	112.5	131.5	172	172
	I6	149.5	181	200	237	261	300	322
	d2	1" BSP	1" BSP	1-1/4" BSP				
	d							



: XR (-)
: 320 - 760

: CDIR EB



		320		370		420		480		584		660		760		
		250	315	250	315	400	315	400	500	400	500	630	500	630	630	710
		EB 65	EB 75	EB 95	EB 110	EB 125	EB 140									
+	J	0.28	0.55	0.88	1.7	3.75	6.50	12.1								
	(2)	0.20	0.44	0.26	0.53	1.40	0.60	1.58	4.20	2.00	4.45	2.26	4.86	11.4	6.45	12.9
	()	28	38	53	78	135	192	262								
	D	365	425	450	550	670	760	870								
	D1	60	65	80	90	110	120	135								
	L1	329.5	382	428	485	552	656	718								
	L2	203	225	257	297	333	384	445								
	L3	25	29	37	37	49	55	49								
	I1	110	119	120	155	170	200	240								
	I2	74.5	98.5	110	112.5	131.5	172	172								
	Dp	250	315	250	315	400	315	400	500	400	500	630	500	630	630	710
	D2	65	65	75	75	75	95	95	95	110	110	125	125	125	125	125
	L5	25	10	35	35	25	20	35	25	35	25	25	20	20	30	50
	L6	95	118	95	118	150	118	150	190	150	190	150	190	236	190	236
	I2	74.5	98.5	110	112.5	131.5	172	172								
	d2	1" BSP	1" BSP	1-1/4" BSP												
d																



, Kn,

CDR - 420 1450 / , 'X'
.01 = 29.

$$Kn = \frac{P}{X}$$

$$Kn = P/X = 75/29 = 2.59$$

P =

$$Km = Kn \times (Ts/Tn) = 2.59 \times 1.4 = 3.63$$

X =

80%

Kn

$$Km = 3.63/0.9 = 4.03$$

Km=4.03,

$$65 = 65$$

$$11.0$$

$$3%$$

- 3.a CD ()
- 3.b CDR ()
- 3.c CDRP/CDRS ()

$$P = 75 \quad 1450 /$$

$$Ts/Tn =$$

Kn

1

$$() = 1.4$$

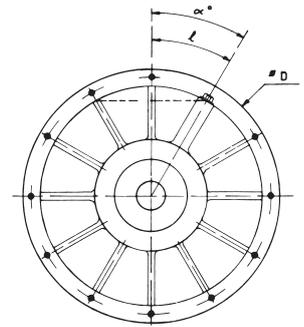
8000

X
CD,CDR, CORP,CDRS)

		185	235	270	320	370	420	480	584	660	760
	D	225	275	315	365	425	475	550	670	760	870
	750	0.06	0.20	0.38	0.9	1.90	3.57	6.85	18.7	34.4	70
	900	0.10	0.34	0.66	1.56	3.27	6.17	11.9	32.3	59.4	120
	1000	0.14	0.47	0.91	2.15	4.48	8.45	16.3	44.2	81.5	165
	1200	0.25	0.82	1.60	3.75	7.50	14.70	28.5	77.3	142	280
	1500	0.49	1.62	3.14	7.40	15.50	29	56.2	153	280	(565)
	1800	0.85	2.80	5.43	12.8	26.80	50.1	97.1	264	(484)	-
	3000	3.91	12.9	25.20	59.3	123	-	-	-	-	-

2

	2.		2.b		2.c	
	CD		CDR		CDRP/CDRS	
	Km	Kn	Km	Kn	Km	Kn
50	5.6	2.4	5.7	2.7	-	-
55	5.1	2.1	5.2	2.5	-	-
60	4.5	1.9	4.7	2.2	4.7	2.8
65	3.65	1.7	4.1	2.1	4.1	2.7
70	2.66	1.6	3.2	2	3.2	2.5
75	2	1.3	2.8	1.8	2.8	2.2
80	1.5	0.8	2.4	1.7	2.4	2.1
85	1.3	0.6	2.1	1.4	2.1	2
90	1	0.4	1.6	1.2	1.6	1.8
95	0.8	0.3	1.2	0.9	1.2	1.5
100	0.7	0.2	0.96	0.7	0.95	1.3



$$l = \frac{\pi \times D \times \alpha}{360^\circ}$$

3:

	3.a									
	CD ()									
	185	235	270	320	370	420	480	584	660	
50	1	1.90	2.60	4.20	7.10	10.05	15	26.55	44.50	
55	0.97	1.86	2.45	4	6.90	9.50	14.30	26.60	42.60	
60	0.93	1.80	2.30	3.80	6.50	8.90	13.60	24.60	40.60	
65	0.88	1.70	2.20	3.60	6	8.40	12.80	23	38.20	
70	0.82	1.58	2.00	3.30	5.70	7.80	12	21.40	35.80	
75	0.76	1.50	1.90	3.10	5.20	7.20	11.20	20	33.40	
80	0.70	1.39	1.80	2.90	4.80	6.70	10.20	18.40	31	
85	0.64	1.27	1.70	2.65	4.40	6.30	9.30	16.80	28.60	
90	0.57	1.14	1.55	2.40	4	5.70	8.50	15.30	26.30	
95	0.52	1.02	1.40	2.25	3.70	5	7.80	14	24	
100	0.46	0.90	1.30	2.10	3.40	4.60	7.20	13	22	

20° C

	3.b							
	CDR ()							
	320	370	420	480	584	660	760	
5.20	9	12.50	20	34.10	52	75		
5	8.60	12.10	18.90	32.70	50.20	71		
4.70	8.20	11.30	17.90	31.20	47.80	67		
4.40	7.60	11	16.60	29.20	45	62		
4	7	10	15.30	27.20	42	57		
3.70	6.50	9.40	14.30	25	39	53		
3.30	5.90	8.60	13.30	22.80	36	49		
3.10	5.60	8.10	12.10	20.90	33	46		
2.90	5	7.25	10.90	19	30.20	42		
2.70	4.80	6.50	9.60	17.50	27.60	38		
2.50	4.20	5.90	8.40	15.90	25.30	34		

	3.c							
	CDRP/CDRS ()							
	370	420	480	584	660	760		
10.90	15.20	22	36.50	59.50	90			
10.30	14.80	21.10	35.10	57.80	85			
10	14.20	20.20	33.60	55.10	80			
9.20	13.65	19.10	31.80	51.80	75			
8.30	13	18.10	30	48.20	68			
7.80	11.90	16.90	28.20	44.20	63			
7	10.80	15.70	26.20	41	58			
6.60	9.70	14.50	24.20	37.40	54			
6	8.60	13.20	22.20	34.10	49			
5.90	7.30	12	20	31.20	44			
6	6.50	10.70	17.80	28.60	40			