

# GEAR COUPLINGS

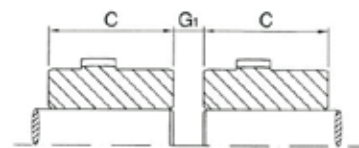
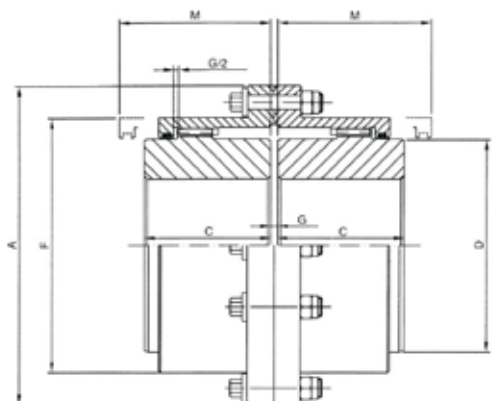




The gear couplings series proposed in this catalogue are the most reliable and economic type of shafts connection for medium and heavy industry drives. In fact deflection and thermal expansion of structural members and setting of foundation are factors that make practically impossible to achieve and maintain a perfect alignment of coupled rotating shafts. Gear couplings are suitable to compensate and minimize with an intangible loss of power the effects of this misalignment without inducing abnormal loads on bearings; axial movement of connected shafts is also accommodated. Crowned flanks assure larger contact area per tooth and put more teeth in contact for a given angle; this design provides an optimum load distribution and accommodate all types of misalignment with minimum backlash. Crowned tips balance the sleeve under various misalignment conditions. The gear couplings have been designed to allow a maximum static misalignment of  $1^\circ$  per gear mesh. It is very important to align properly the gear coupling in order to increase its lifetime and the endurance of machine connected to it. Proper alignment reduces bending moments and radial forces. The maximum recommended misalignment is limited to  $1/8^\circ$ . This assures a residual misalignment capability which permits gear coupling to compensate eventual variation caused by a wear of the bearings, by a thermal expansion and by foundation adjustment.

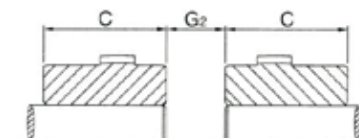


## GAD



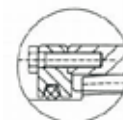
One Hub reversed

### GAD-R



Two Hubs Reversed

### GAD-RR



Seal flange. Size from 280 to 450

#### PRODUCT CODE KEY - EXAMPLE

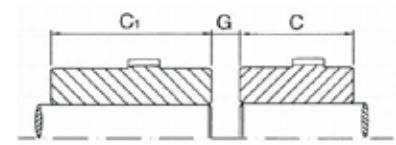
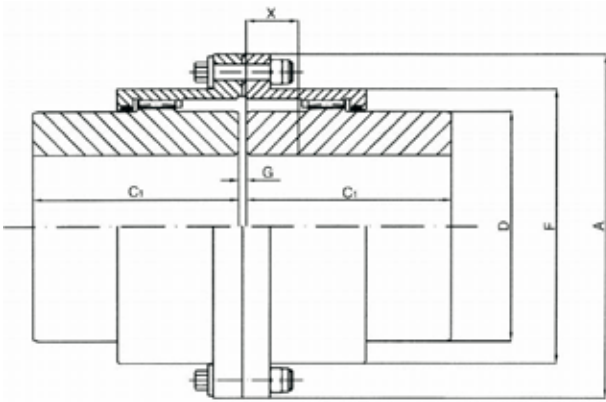
GAD	100	RR	80
Model			
Size			
Type			
Bore			

SIZE	Torque kNm		Max Speed (rpm)	Bore Min/Max (mm)	Dimensions (mm)								Mass ** (kg)	Grease (kg)	Inertia ** kgm2
	Nom. T <sub>n</sub>	Max T <sub>max</sub>			A	C	F	D	M	G	G1G1	G2G2			
40	1,7	4,1	5990	12/50	111	43	82.5	69	58	3	5	7	4	0,1	0,005
55	2,7	6,2	4610	18/60	142	50	104.5	85	68	3	8	13	8	0,1	0,012
70	5,5	12	4130	25/75	168	62	130.5	107	87	3	14	25	13	0,2	0,032
85	8,5	21	3980	40/95	200	76	158.5	133	95	5	12	19	26	0,3	0,084
100	13.5	34	3850	50/110	225	90	183.5	152	120	5	24	43	37	0,5	0,162
120	22	54	3700	60/130	265	105	211.5	178	130	6	27	48	59	0,7	0,375
140	34	83	3200	70/155	300	120	245.5	209	135	6	32	58	91	0,9	0,728
160	43	99	2900	85/170	330	135	275	234	155	8	37	66	123	1,5	1,225
180	68	156	2550	95/190	370	150	307	254	195	8	50	92	170	2,3	2,105
200	82	195	2320	110/210	406	175	335	279	220	8	53	98	234	3,2	3,401
220	150	348	2100	120/230	438	190	367	305	236	8	58	108	295	3,9	5,052
250	195	479	1800	130/280	505	220	423	355	273	10	72	134	455	6,1	10,32
280	275	550	1200	150/325	580	250	495	400	-	12	-	-	685	6,5	20,6
320	381	762	980	170/370	630	275	545	450	-	12	-	-	920	7,2	33,5
360	492	984	900	190/400	700	305	589	490	-	12	-	-	1210	8,5	53,3
400	658	1316	800	210/430	760	330	649	550	-	12	-	-	1590	11,4	83,50
450	835	1670	700	240/475	825	355	714	580	-	12	-	-	2060	12,5	128,4

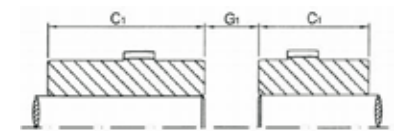
\* minimum clearance required for aligning

\*\* values are calculated for solid hubs

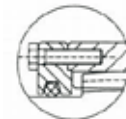
## GAD-UU



One longer hub-one standard hub  
**GAD-U**



One longer hub-one standard hub reversed  
**GAD-UR**



Seal flange. Size from 280 to 450

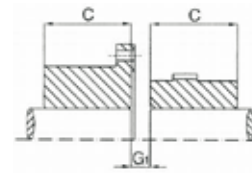
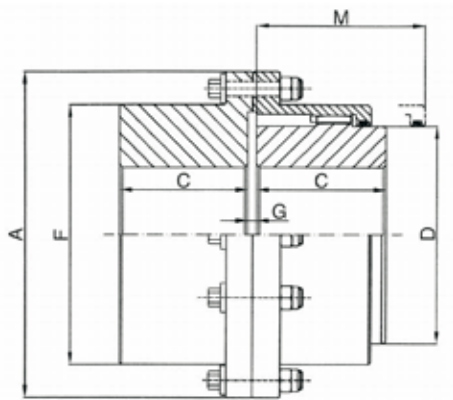
### PRODUCT CODE KEY - EXAMPLE

GAD	100	UU	80
Model			
Size			
Type			
Bore			

SIZE	Torque kNm		Max Speed (rpm)	Bore Min/Max (mm)	Dimensions (mm)								Mass ** (kg)	Grease (kg)	Inertia ** kgm2
	Nom. Tn	Max Tmax			A	C1C1	C	F	D	G	G1G1	X			
40	1,7	4,1	5990	12/50	111	105	43	82.5	69	3	5	12	7,9	0,08	0,007
55	2,7	6,2	4610	18/60	142	115	50	104.5	85	3	8	16	12,7	0,09	0,018
70	5,5	12	4130	25/75	168	130	62	130.5	107	3	14	22	21	0,15	0,045
85	8,5	21	3980	40/95	200	150	76	158.5	133	5	12	26	38	0,25	0,118
100	13.5	34	3850	50/110	225	170	90	183.5	152	5	24	38	55	0,45	0,23
120	22	54	3700	60/130	265	185	105	211.5	178	6	27	45	84	0,7	0,505
140	34	83	3200	70/155	300	215	120	245.5	209	6	32	50	134	0,9	1,01
160	43	99	2900	85/170	330	245	135	275	234	8	37	58	180	1,54	1,735
180	68	156	2550	95/190	370	295	150	307	254	8	50	70	260	2,3	3,03
200	82	195	2320	110 /210	406	300	175	335	279	8	53	80	317	3,2	4,55
220	150	348	2100	120/230	438	305	190	367	305	8	58	86	382	3,9	6,15
250	195	479	1800	130/280	505	310	220	423	355	10	72	96	546	6,1	12,5
280	275	550	1200	150/325	580	as required	250	495	400	12	-	-	-	6,5	-
320	381	762	980	170/370	630		275	545	450	12	-	-	-	7,2	-
360	492	984	900	190/400	700		305	589	490	12	-	-	-	8,5	-
400	658	1316	800	210/430	760		330	649	550	12	-	-	-	11,4	-
450	835	1670	700	240/475	825		355	714	580	12	-	-	-	12,5	-

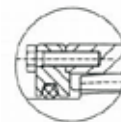
\*\* values are calculated for PLA-UU type with solid hubs

## GAD-FO



One longer hub-one standard hub

## GAD-FOR



Seal flange. Size from 280 to 450

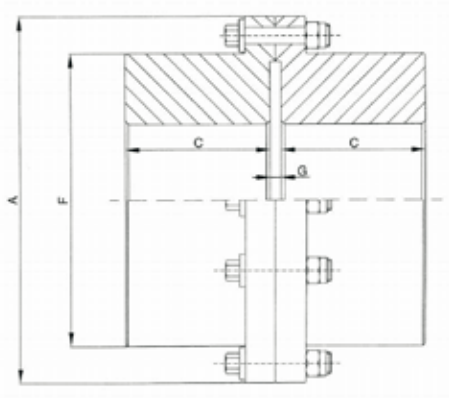
### PRODUCT CODE KEY - EXAMPLE

GAD	120	FOR	110
Model			
Size			
Type			
Bore			

SIZE	Torque kNm		Max Speed (rpm)	Bore Min/Max (mm)	Dimensions (mm)							Mass ** (kg)	Grease (kg)	Inertia ** kgm2
	Nom. T <sub>n</sub>	Max T <sub>max</sub>			A	C	F	D	M	G	G1			
40	1,7	4,1	5990	12/50					**			4,6	0,08	0,007
55	2,7	6,2	4610	18/60	142	50	104.5	85	68	3	8	8,5	0,09	0,018
70	5,5	12	4130	25/75	168	62	130.5	107	87	3	14	13,8	0,15	0,045
85	8,5	21	3980	40/95	200	76	158.5	133	95	5	12	27	0,25	0,118
100	13.5	34	3850	50/110	225	90	183.5	152	120	5	24	39,5	0,45	0,23
120	22	54	3700	60/130	265	105	211.5	178	130	6	27	62,5	0,7	0,505
140	34	83	3200	70/155	300	120	245.5	209	135	6	32	94.6	0,9	1,01
160	43	99	2900	85/170	330	135	275	234	155	8	37	130	1,54	1,735
180	68	156	2550	95/190	370	150	307	254	195	8	50	181	2,3	3,03
200	82	195	2320	110/210	406	175	335	279	220	8	53	250	3,2	4,55
220	150	348	2100	120/230	438	190	367	305	236	8	58	320	3,9	6,15
250	195	479	1800	130/280	505	220	423	355	273	10	72	490	6,1	12,5
280	275	550	1200	150/325	580	250	475	400	-	12	-	718	6,5	-
320	381	762	980	170/370	630	275	520	450	-	12	-	940	7,2	-
360	492	984	900	190/400	700	305	556	490	-	12	-	1220	8,5	-
400	658	1316	800	210/430	760	330	615	550	-	12	-	1700	11,4	-
450	835	1670	700	240/475	825	355	680	580	-	12	-	2100	12,5	-

- \* Rigid Hub Max bore
- \*\* minimum clearance required for aligning
- \*\*\* values are calculated for solid hubs

# GAD-FOO



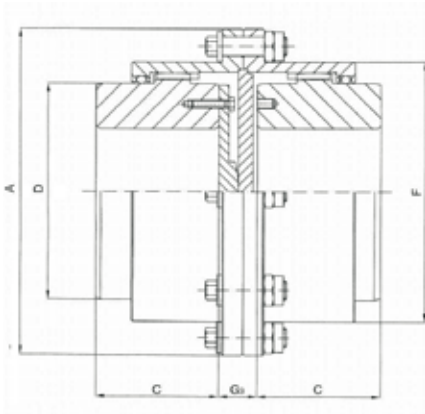
PRODUCT CODE KEY - EXAMPLE

GAD	140	FOO	130
Model			
Size			
Type			
Bore			

SIZE	Torque kNm		Max Speed (rpm)	Bore Min/Max (mm)	Dimensions (mm)				Mass ** (kg)	Inertia ** kgm2
	Nom. Tn	Max Tmax			A	C	F	G		
40	1,7	4,1	5990	12/50	111	43	82.5	3	5,2	0,005
55	2,7	6,2	4610	18/60	142	50	104.5	3	9	0.016
70	5,5	12	4130	25/75	168	62	130.5	3	14,6	0.038
85	8,5	21	3980	40/95	200	76	158.5	5	28	0.096
100	13.5	34	3850	50/110	225	90	183.5	5	42	0.198
120	22	54	3700	60/130	265	105	211.5	6	66	0,445
140	34	83	3200	70/155	300	120	245.5	6	98,2	0,832
160	43	99	2900	85/170	330	135	275	8	137	1,435
180	68	156	2550	95/190	370	150	307	8	192	2,455
200	82	195	2320	110 /210	406	175	335	8	266	4,059
220	150	348	2100	120/230	438	190	367	8	345	6,128
250	195	479	1800	130/280	505	220	423	10	525	10,78
280	275	550	1200	150/325	580	250	475	12	751	21,62
320	381	762	980	170/370	630	275	520	12	960	35,5
360	492	984	900	190/400	700	305	556	12	1230	56,9
400	658	1316	800	210/430	760	330	615	12	1810	91,54
450	835	1670	700	240/475	825	355	680	12	2140	134,6

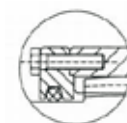
\*\*\* values are calculated for solid hubs

## GAD-V



PRODUCT CODE KEY - EXAMPLE

GAD	120	V	110
Model			
Size			
Type			
Bore			



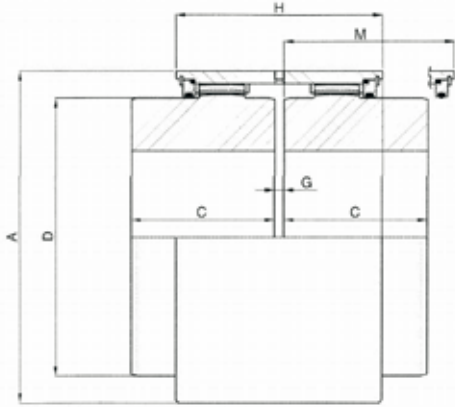
Seal flange. Size from 280 to 450

SIZE	Torque kNm		Max Speed (rpm)	Bore Min/Max (mm)	Dimensions (mm)					Mass ** (kg)	Grease (kg)	Inertia ** kgm2
	Nom. Tn	Max Tmax			A	C	F	D	G3			
40	1,7	4,1	5990	12/50	111	43	82.5	69	23	5	0,08	0,005
55	2,7	6,2	4610	18/60	142	50	104.5	85	23	9	0,09	0,012
70	5,5	12	4130	25/75	168	62	130.5	107	31	15	0,15	0,032
85	8,5	21	3980	40/95	200	76	158.5	133	31	28	0,25	0,084
100	13.5	34	3850	50/110	225	90	183.5	152	43	49	0,45	0,162
120	22	54	3700	60/130	265	105	211.5	178	48	62	0,7	0,375
140	34	83	3200	70/155	300	120	245.5	209	58	95	0,9	0,728
160	43	99	2900	85/170	330	135	275	234	66	129	1,54	1,225
180	68	156	2550	95/190	370	150	307	254	92	178	2,3	2,105
200	82	195	2320	110/210	406	175	335	279	98	244	3,2	3,401
220	150	348	2100	120/230	438	190	367	305	108	307	3,9	5,052
250	195	479	1800	130/280	505	220	423	355	134	470	6,1	10,32
280	275	550	1200	150/325	580	250	495	400	140	725	6,5	20,6
320	381	762	980	170/370	630	275	545	450	140	970	7,2	33,5
360	492	984	900	190/400	700	305	589	490	140	1260	8,5	53,3
400	658	1316	800	210/430	760	330	649	550	150	1650	11,4	83,50
450	835	1670	700	240/475	825	355	714	580	150	2130	12,5	128,4

\*\*\* values are calculated for solid hubs

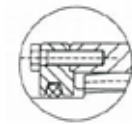


## GAD-M



### PRODUCT CODE KEY - EXAMPLE

GAD	120	M	110
Model			
Size			
Type			
Bore			



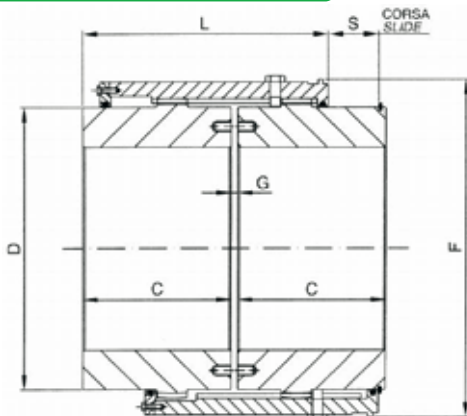
Seal flange. Size from 280 to 450

SIZE	Torque kNm		Max Speed (rpm)	Bore Min/Max (mm)	Dimensions (mm)						Mass ** (kg)	Grease (kg)	Inertia ** kgm <sup>2</sup>
	Nom. T <sub>n</sub>	Max T <sub>max</sub>			A	C	D	H	M	G			
40	1,7	4,1	5990	12/50	98	43	69	86	91	3	4	0,07	0,01
55	2,7	6,2	4610	18/60	115	50	85	97	102	3	8	0,08	0,01
70	5,5	12	4130	25/75	145	62	107	112	117	3	13	0,10	0,03
85	8,5	21	3980	40/95	176	76	133	141	146	5	25	0,20	0,08
100	13,5	34	3850	50/110	196	90	152	145	150	5	34	0,40	0,15
120	22	54	3700	60/130	225	105	178	164	169	6	58	0,60	0,33
140	34	83	3200	70/155	256	120	209	180	185	6	86	0,80	0,69
160	43	99	2900	85/170	286	135	234	198	203	8	118	1,50	1,13
180	68	156	2550	95/190	310	150	254	194	200	8	155	2,00	1,72
200	82	195	2320	110/210	345	175	279	220	225	8	225	3,00	2,80
220	150	348	2100	120/230	375	190	305	234	240	8	270	3,50	4,54
250	195	479	1800	130/280	430	220	355	264	270	10	404	4,00	8,42
280	275	550	1200	150/325	495	250	400	302	305	12	590	4,50	15,73
320	381	762	980	170/370	545	275	450	328	340	12	785	5,50	24,82
360	492	984	900	190/400	590	305	490	336	350	12	980	6,00	35,66
400	658	1316	800	210/430	650	330	550	348	360	12	1395	7,00	58,72
450	835	1670	700	240/475	715	355	580	356	370	12	1790	9,50	95,42

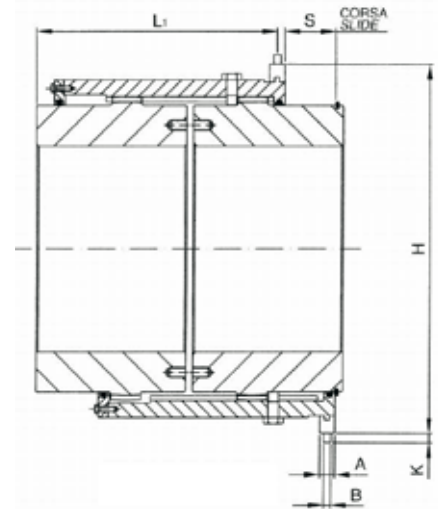
\* minimum clearance required for aligning

\*\* values are calculated for solid hubs

## GAD-DH



**DH...MN**



**DH...PM**

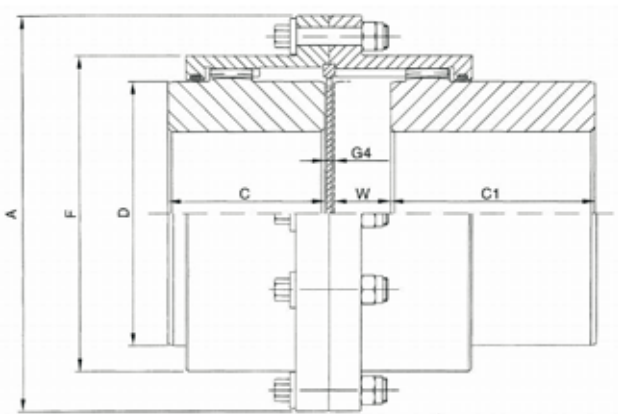
PRODUCT CODE KEY - EXAMPLE

GAD	100	DH	80	MN
Model				
Size				
Type				
Bore				
Version				

SIZE	Torque kNm		Max Speed (rpm)	Bore Min/Max (mm)	Dimensions (mm)											Grease (kg)
	Nom. T <sub>n</sub>	Max T <sub>max</sub>			F	C	D	L	L1	G	S	A	B	K	H	
40	1,7	4,1	5990	12/50	100	60	69	100	90	3	17	20	12	12	130	0,08
55	2,7	6,2	4610	18/60	120	70	85	110	100	3	18	20	12	12	150	0,09
70	5,5	12	4130	25/75	152	85	107	140	128	3	29	24	16	16	190	0,15
85	8,5	21	3980	40/95	175	95	133	155	143	5	32	24	16	16	210	0,25
100	13,5	34	3850	50/110	200	105	152	170	158	5	34	24	16	16	240	0,45
120	22	54	3700	60/130	230	120	178	195	179	6	39	32	20	20	270	0,7
140	34	83	3200	70/155	260	130	209	205	189	6	45	32	20	20	310	0,9
160	43	99	2900	85/170	290	150	234	240	224	8	50	32	20	20	330	1,54
180	68	156	2550	95/190	320	175	254	280	264	8	56	32	20	20	360	2,3
200	82	195	2320	110/210	350	190	279	300	280	8	62	40	24	22	400	3,2
220	150	348	2100	120/230	395	220	305	350	330	8	70	40	24	22	450	3,9
250	195	479	1800	130/280	450	250	355	400	375	10	77	50	28	24	510	6,1
280	275	550	1200	150/325	545	275	400	430	405	12	80	50	28	24	610	6,5
320	381	762	980	170/370	590	300	450	470	440	12	87	60	32	30	660	7,2
360	492	984	900	190/400	640	335	490	510	480	12	95	60	32	30	710	8,5
400	658	1316	800	210/430	715	360	550	560	520	12	100	80	44	40	810	11,4
450	835	1670	700	240/475	780	390	580	600	560	12	110	80	44	40	870	12,5

\* minimum clearance required for aligning  
 \*\* values are calculated for solid hubs

# GAD-FT

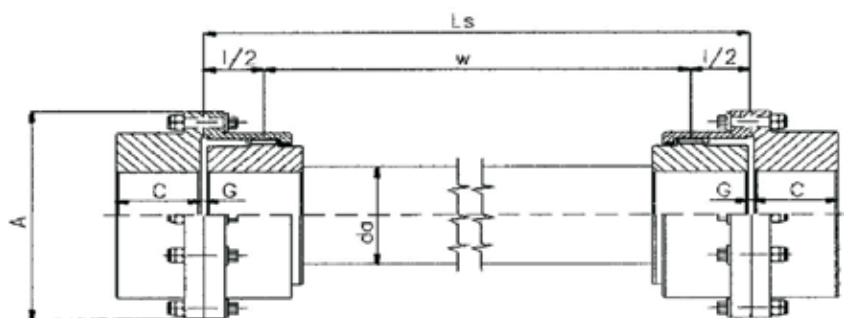


PRODUCT CODE KEY - EXAMPLE

GAD	55	FT	45
Model			
Size			
Type			
Bore			

SIZE	Torque kNm		Max Speed (rpm)	Bore Min/Max (mm)	Dimensions (mm)						
	Nom. Tn	Max Tmax			A	F	D	C	C1	G4	W
40	1,7	4,1	5990	12/50	111	82.5	69	43	100	7	62
55	2,7	6,2	4610	18/60	142	104.5	85	50	102	7	62
70	5,5	12	4130	25/75	168	130.5	107	62	110	7	64
85	8,5	21	3980	40/95	200	158.5	133	76	122	8	72
100	13.5	34	3850	50/110	225	183.5	152	90	130	8	72
120	22	54	3700	60/130	265	211.5	178	105	144	10	80
140	34	83	3200	70/155	300	245.5	209	120	156	10	88
160	43	99	2900	85/170	330	275	234	135	162	14	88
180	68	156	2550	95/190	370	307	254	150	180	14	102
200	82	195	2320	110 /210	406	335	279	175	220	14	130
220	150	348	2100	120/230	438	367	305	190	220	14	130
250	195	479	1800	130/280	505	423	355	220	210	16	110

## GAD - B



GAD-CUU



GAD-CRR

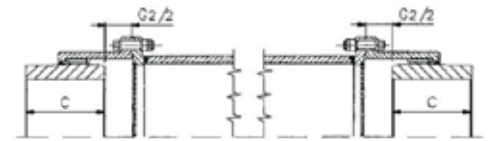
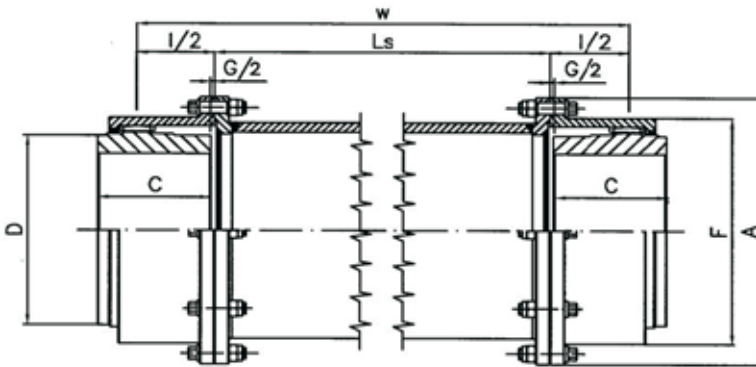
### PRODUCT CODE KEY - EXAMPLE

GAD	100	CUU	80
Model			
Size			
Type			
Bore			

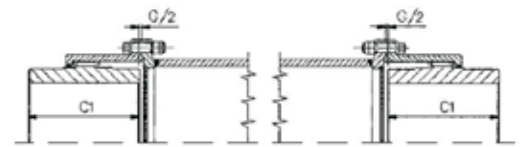
SIZE	Torque kNm		Bore Max (mm)	Bore Min/Max (mm) (°)	Dimensions (mm)								Speed param.	
	Nom. $T_n$	Max $T_{max}$			A	C	C1	F	da	I	G	G1	M	N
40			60	12/50	111	43	105	82.5	55	48	3	5	9,569	1,995
55	2,7	6,2	75	18/60	142	50	115	104.5	65	58	3	8	9,591	1,982
70	5,5	12	90	25/75	168	62	130	130.5	80	76	3	14	9,622	1,962
85	8,5	21	110	40/95	200	76	150	158.5	100	88	5	12	9,844	1,997
100	13.5	34	130	50/110	225	90	170	183.5	110	114	5	24	10,043	2,045
120	22	54	150	60/130	265	105	185	211.5	130	132	6	27	10,011	2,016
140	34	83	175	70/155	300	120	215	245.5	150	152	6	32	9,901	1,966
160	43	99	195	85/170	330	135	245	275	170	172	8	37	9,964	1,969
180	68	156	220	95/190	370	150	295	307	190	200	8	50	9,856	1,926
200	82	195	240	110/210	406	175	300	335	200	228	8	53	10,075	1,978
220	150	348	260	120/230	438	190	305	367	220	248	8	58	10,353	2,043
250	195	479	300	130/280	505	220	310	423	250	292	10	72	10,387	2,038
280	275	550	365	150/325	580	250	-	495	-	-	12	-	-	-
320	381	762	395	170/370	630	275	-	545	-	-	12	-	-	-
360	492	984	425	190/400	700	305	-	589	-	-	12	-	-	-
400	658	1316	470	210/430	760	330	-	649	-	-	12	-	-	-
450	835	1670	520	240/475	825	355	-	714	-	-	12	-	-	-

\* rigid hub max bore

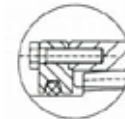
# GAD - D



GAD-DRR



GAD-DUU



Seal flange. Size from 280 to 450

PRODUCT CODE KEY - EXAMPLE

GAD	250	DRR	200
Model			
Size			
Type			
Bore			

SIZE	Torque kNm		Bore Min/Max (mm)	Dimensions (mm)								Speed param.		Grease (kg)
	Nom. Tn	Max Tmax		A	C	C1	F	da	l	G	G1	M	N	
40	1,7	4,1	12/50	111	43	105	82.5	48	3	7	80	9,899	2,018	0,08
55	2,7	6,2	18/60	142	50	115	104.5	58	3	13	90	10,184	2,066	0,09
70	5,5	12	25/75	168	62	130	130.5	76	3	25	90	9,881	1,961	0,15
85	8,5	21	40/95	200	76	150	158.5	88	5	19	100	10,069	1,985	0,25
100	13.5	34	50/110	225	90	170	183.5	114	5	43	100	10,295	2,027	0,45
120	22	54	60/130	265	105	185	211.5	132	6	48	110	10,295	2,027	0,7
140	34	83	70/155	300	120	215	245.5	152	6	58	110	10,186	1,964	0,9
160	43	99	85/170	330	135	245	275	172	8	66	130	10,406	1,998	1,54
180	68	156	95/190	370	150	295	307	200	8	92	150	10,406	1,998	2,3
200	82	195	110/210	406	175	300	335	228	8	98	160	10,676	2,048	3,2
220	150	348	120/230	438	190	305	367	248	8	108	170	10,676	2,023	3,9
250	195	479	130/280	505	220	310	423	292	10	134	180	10,682	2,024	6,1
280	275	550	150/325	580	250	-	495	-	12	-	-	-	-	6,5
320	381	762	170/370	630	275	-	545	-	12	-	-	-	-	7,2
360	492	984	190/400	700	305	-	589	-	12	-	-	-	-	8,5
400	658	1316	210/430	760	330	-	649	-	12	-	-	-	-	11,4
450	835	1670	240/475	825	355	-	714	-	12	-	-	-	-	12,5