









TAPER GRID COUPLING



1. Characteristic & Merit

We can get more favorable convenience and cost down by using the WCC Taper Grid Steel Flexible Coupling.



1) PARALLEL

The movement of the grid in the lubricated grooves accommodates parallel misalignment and steel permits full functioning of the grid-groove action in damping out shock and vibration.

2) ANGULAR

Under angular misalignment, the grid groove design permits a rocking and sliding action of the lubricated grid and hubs without any loss of power through the resilient grid.

3) AXIAL

End Float for both driving and driven members is permitted because the grid slides freely in the lubricated grooves..

4) TORSIONAL FLEXIBILITY

Torsional flexibility is the advantage of WCC Taper Grid Coupling, Providing flexible accommodation to changing load conditions.



Light Load

The grid bears near the outer edges of the hub teeth. The long span between the points of contact remains free to flex under load.

Normal Load

As the load increases, the distance between the contact points on the hub teeth is shortened, but a free span still remains to cushion shock loads

Shock Load

The coupling is flexible within its rated power capacity. Under extreme overloads, the grid bears fully on the hub teeth and transmits full load directly.



WCC Taper Grid coupling demonstrate the excellent performance as shown below.

(Vibration absorption)

(Shock load absorption)



MERITS

- 1. When overload occur, grid breaks and prevents breaking of the shaft or machinery part connected.
- 2. When the parallel misalignment is too severe, the relating machine is protected by the virtue of shearing Grid or Tooth.
- 3. The life of parts (Mechanical Seal and Bearing, etc) can be extends to twice or more.
- 4. Quick installation and easy maintenance reduce labor cost and downtime costs.
- 5. WCC Grid coupling is interchangeable with international industry standard.
- 6. It always transmits the power full(100%) under low noise.
- 7. You can use it continually at cheaper replacement cost by changing damaged parts only.

2. Application

Pin-Bush Flange coupling and Chain couplings have usually used, but now using the WCC Taper Grid Coupling we will get many benefits.

- 1. When we need to reduce vibration and shock load.
- 2. When we need adequate power transmission underline misalignment.
- 3. When we need adequate power transmission angular misalignment.
- 4. When we need adequate power transmission under-end floating.
- 5. When we need to prevent breaking of the machinery parts under over load.
- When reverse revolution is required.
 When we need smooth starting.

3. Structure



4. Designation



Horizontal split cover Taper Grid Coupling Coupling Size Woo Chang Coupling TV. : Vertical split cover TFS: Full spacer type(Horizontal split cover) THS: Half spacer type(Horizontal split cover) TBW: Brake wheel type(Horizontal split cover)

5. Selection Method

1) Selection Process

1 By using the following formula, obtain Design Torque required.

$$T = 97,400 \frac{H'}{N} \times S \cdot F$$
 또는 $T = 71,620 \frac{H'}{N} \times S \cdot$

T = Design Torque (Kg · cm)

H = Power (HP) N = Working revolution (rpm) S \cdot F = Recommended service factor

H' = Power(kw)

- ③ Special requirements
 - a. on calculating the torque required, use the lowest operating speed(N) of the application.
 - b. If there are reverse motions repeatedly or frequent irregular load changes, make service factor twice.

2) Example

When you select a Coupling to connect a 30HP, 1,750rpm motor to rotary type pump. Motor shaft dia is 48mm and pump's 52mm.

- ④ service factor of pump is 1.8(Refer to page 58).
- (5) Normal transmitting power is 30HP

Torque(kg · cm) =
$$\frac{30 \times 71,620 \times 1.8}{1,750}$$
 =2,210

The coupling size 1040 accepts the calculated torque 2210kg \cdot cm. And then compare the application shaft size(52mm) to the maximum bore of the selected coupling size 1040(43mm).

You will select the coupling size 1060 accepting up to 55mm shaft diameter. The size also accept the application motor speed 1750rpm. Either TH or TV cover is available. Finally, the coupling size 1060 is selected.

6. Instruction for Installation

The performance and the life of the coupling depend on how you install and service them. This page helps you how to assemble the coupling for the best performance and for the trouble free operation.

TH Taper Grid Coupling is designed to be operate in either the horizontal or vertical position without modification.

Simple standard mechanical tools such as wrenches, a straight edge and feeler gauge or dial gauge are required to install the Taper Grid Coupling.



1) In case of TH Type

- Clean all metal parts using nonflammable solvent. Lightly coat seals with grease and place on shaft, before mounting hub Mounting hubs on the shafts.
- (2) Using a spacer bar, equal in thickness to the normal gap. The difference in maximum measurements must be not exceed the angular limit.
- ③ Align so that a straight edge rests squarely on both hubs as shown fig. And also at 90° interval. The clearance must not exceed the limit specified in table 3.
- 4 After greasing the tooth of groove hub, fix the Grid in the same direction.



(5) Grease fully upon the Grid. Place oil seals on the hubs, put gaskets and fasten the cover halves correctly by bolts.

** Coupling disassembly and Grid removal.

Whenever it is necessary to disconnect the coupling, remove the cover halves and grid. A round rod or screw driver can be a convenient tool to remove the grid.

Table 3 - misalignment capacity

					(Unit: mm)
	Recommer	nded installation	Op	perating	Normal
Size	Parallel Offset p	Angular(1/16°) X - Y	Parallel Offset p	Angular(1/4°) X - Y	Gap ±10%
102	0.15	0.06	0.3	0.24	3
103	0.15	0.07	0.3	0.29	3
104	0.15	0.08	0.3	0.32	3
105	0.20	0.10	0.4	0.39	3
106	0.20	0.11	0.4	0.45	3
107	0.20	0.12	0.4	0.50	3
108	0.20	0.15	0.4	0.61	3
109	0.20	0.17	0.4	0.70	3
110	0.25	0.20	0.5	0.82	4.5
111	0.25	0.22	0.5	0.90	4.5
112	0.28	0.25	0.56	1.01	6
113	0.28	0.30	0.56	1.19	6
114	0.28	0.33	0.56	1.34	6
115	0.30	0.39	0.6	1.56	6
116	0.30	0.44	0.6	1.77	6
117	0.30	0.50	0.6	2.00	6
118	0.38	0.56	0.76	2.26	6
119	0.38	0.61	0.76	2.44	6
120	0.38	0.68	0.76	2.72	6





Angular Misalignment



Normal Gap





1) In case of TV Type

- Clean all metal parts using nonflammable solvent. Lightly coat seals with grease and place on shaft, before mounting hub Mounting hubs on the shafts.
- ② Using a spacer bar, make the gap between the hubs equal to the value stated in the table #3
- ③ Align so that a straight edge rests squarely on both hubs as shown fig. And also at 90° interval. The clearance must not exceed the limit specified in page 12 table #3.

① After greasing the tooth of groove hub, fix the Grid in the same direction.

(5) (6) Grease fully upon the grid.
Place oil seals on the hubs, put gaskets and fasten the vertical halves, locating lube plug at 180 degree. (note : 90° from the size 1150)





1) In case of TFS THS Type

- Mount flange hubs on the shafts to be aligned correctly.
- ②Carefully position each half spacer on the concave-convex and fasten bolts
- ⑦ After assembly. Adequate lubrication is essential for a successful operating and ensure long life.
- (8) You can mount vertically or horizontally.As per the application.



 $(3) \sim (6)$ Refer to the instruction of installation of TH Grid Coupling as shown on Page 11.

1) Replacement of spacer

- Remove all bolts except two fasteners. Loosening the two bolts every 5mm, tap them with a mallet to disengage, Spacer apart from the shaft hubs.
- Insert spacer tightly between shaft hubs. Refer to
 of TFS type installation.





7. Selection of Puller Holes



CPLG	B.C.D.	Bolt	CPLG	B.C.D.	Bolt
Size	(mm)	Size	Size	(mm)	Size
1070	74	M8	1140	205	M16
1080	89.5	M8	1150	227.5	M20
1090	106	M10	1160	260	M20
1100	121.5	M10	1170	306	M24
1110	136.5	M10	1180	341	M30
1120	150.5	M12	1190	393	M30
1130	185	M16	1200	414	M30

8. Lubrication and handling

You should choose the high quality lubricant for a good performance and long life.

1) Grease Lubrication

Grease on the grid before assembling covers. Fill up grease through the lube plugs after assembled coupling.

2) Supplement and Replacement

Every three months or every $240 \sim 250$ hours operating, you should add grease, Every 3 months, or every 4,000 hours operating, you should replace all the deteriorated grease.

3) Selection

You can choose grease according to the ambient temperature range in table 5.

Common Industrial Lubricants(NLGI Grade #2)

Table 5

Manufacturor	Ambient Tem	perature Range:
Manufacturer	0°F to 150°F(-18℃ to 66℃)	-30°F to 100°F(-34℃ to 38℃)
Amoco Oil Co.	Amolith Grease #2	Amolith Grease #2
Atlantic Richfield co.	Litholene HEP 2	Litholene HEP 2
Chevron U.S.A Inc.	Chevron Dura - Lith EP-2	Chevron Dura - Lith EP 2
Cities Service Co.	Citgo HEP-2	Citgo HEP 2
Conoco Inc.	EP Conolith #2	EP Conolith #2
Exxon Company, USA	Ronex MP	Ronex MP
Gulf Oil Corp.	Gulfcrown Grease #2	Gulfcrown Grease #2
E.F.Houghton & Co.	Cosmolube #2	Cosmolube #1
Ompenrial Oil Corp.	Esso MP Grease H	Lotemp EP
Keystone	#81 Light	#84 Light
Div.(Pennwalt)	Mobilux EP111	Mobilux #1
Mobil Oil Corp.	IB & RB Grease	Philube IB & RB Grease
Phillips Petroleum Co.	Alvania Grease #2	Alvania Grease #2
Shell Oil Co.	Factran #2	Factran #2
Standard Oil Co.(OH0	Prestige 42	Prestige 42
Sun Oil Company	Starplex HD2	Multifak EP2
Texaco Lubricants	Union Unoba #2	Union Unoba #2
Union Oil Co.(CA)	Val – Lith EP #2	Val – Lith EP #2
Valvoline Oil Co.		

** Note : Check with lube manufacture for approved lubricants to use in the food processing industry

9. Dimensions

Type TH (Horizontal Split Aluminum Cover)



	Max	Basic	Bore D	ia (mm)		Dir	nensions(n	nm)			Colg	Lubo
Size	Speed	Torque								Gap		
	(rpm)	(Nm)	Max	Min	Α	В	С	D	E		wi(kg)	vvt (Kg)
1020	4500	47	30	12.7	101.6	98	47.5	39.7	66.5	3	1.9	0.03
1030	4500	135	35	12.7	110	98	47.5	49.2	68.3	3	2.6	0.03
1040	4500	226	43	12.7	117.5	104.6	50.8	57.1	70	3	3.4	0.05
1050	4500	395	50	12.7	138	123.6	60.3	66.7	79.5	3	5.4	0.05
1060	4350	621	55	19	150.5	130	63.5	76.2	92	3	7.3	0.09
1070	4125	904	65	19	161.9	155.4	76.2	87.3	95	3	10	0.11
1080	3600	1,864	78	27	194	180.8	88.9	104.8	116	3	18	0.17
1090	3600	3,389	95	27	213	199.8	98.4	123.8	122	3	25	0.25
1100	2400	5,705	107	41	250	245.7	120.6	142	155.5	4.5	42	0.43
1110	2250	8,473	117	41	270	258.5	127	160.3	161.5	4.5	54	0.51
1120	2025	12,428	136	60	308	304.4	149.2	179.4	191.5	6	81	0.73
1130	1800	18,076	165	67	346	329.8	161.9	217.5	195	6	121	0.91
1140	1650	25,982	200	67	384	371.6	182.8	254	201	6	178	1.13
1150	1500	36,153	215	108	453.1	371.8	182.9	269.2	271.3	6	234	1.95
1160	1350	50,840	240	120	501.4	402.2	198.1	304.8	278.9	6	317	2.81
1170	1225	67,787	280	133	566.4	437.8	215.9	355.6	304.3	6	448	3.49
1180	1100	93,998	300	152	629.9	483.6	238.8	393.7	321.1	6	619	3.76
1190	1050	124,277	335	152	675.6	524.2	259.1	436.9	325.1	6	776	4.40
1200	900	169,469	360	177	756.9	564.8	279.4	497.8	355.6	6	1,058	5.62





3. Characteristic

WCC Gear Coupling follows the international standard AGMA and JIS, and so can easily replace most of industrial products. This flexible coupling compensate angular misalignment, parallel misalignment and end float. The fully crowned hub teeth provide minimum loading stress, and ensure longer life.

- 1) Hight torque, small size, long life and very little loss of transmitting power.
- 2) The concave-convex flange design help a easy assembly, and the high quality gasket prevent leakage of lubricant.
- 3) Gear Coupling permits parallel, angular and end floating misalignments by its crown gear tooth.

<Parallel Misalignment>

The driving and driven shafts are parallel to each other, but not on the same straight line.

<Anglular Misalignment>

The driving and driven shafts installed with at limited angle.

<End Floating>

The driving and driven shafts slide slightly along the gear teeth.

<Composite Misalignment>

Most of cases, above 3 misalignments appear mixed in an application.

Allowable Misalignment

Size S	10G	15G	20G	25G	30G	35G	40G	45G	50G	55G	60G	70G	80G	90G	100G	110G	120G
ε(mm)	1.2	1.3	1.7	2.1	2.4	2.9	3.2	3.6	4.1	4.5	5.0	5.9	6.7	7.4	8.2	12.7	12.7
⊖°(α)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	2(1)	2(1)	2(1)	2(1)	2(1)	2(1)

** Data subject to double engagement.

- 4) The coupling made of S45C has a good endurance to high speed and peak load. Consult us for special materials
- 5) Can be supply with customer's design.







4. Structure



The crowned hub teeth provide larger contact area, lower the stress.

5. Application

- 1) Heavy load, but compact design coupling required
- 2) High speed up to 5,000rpm(Depending on size, refer to the data.)
- 3) Low speed but high starting torque required.
- 4) End float application
- 5) Spacer required due to longer distance between shaft ends
- 6) Low load and light weight application is not recommended.

4. Standard Material

Table 2

INTERNAL GEAR	CROWN GEAR	FLANGE	Bolt	O-Ring
	SM 45C - N	SM 45C - H	NBR	

• under the heavy load, high speed and corrosion environment, special materials will be required.

5. Selection Method

1) Selection

① Using the following formula, obtain Design Torque required.

T = 97,400 <u>H</u> ́ × S · F 또는	$T = 71,620 \frac{H'}{N}$	\times S ·
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- T = Design Torque (Kg \cdot cm) H' = Power(kw) H = Power(HP)
- N = Working revolution (rpm) S \cdot F = Recommended service factor
- ② Select the size with the same or with the greater value at the Basic Torque column. Refer to the maximum speed allowed to the size selected, and then compare the shaft diameters of the application with the max. Bore dia of the size selected. If the coupling bore size is not suitable, select the larger coupling size.

2) Special requirements

- ① At the application of the Sliding Gear Coupling (type GH) that end float movement occurs more than 5 t/h, add 0.5 to the listed value of service factor.
- ⁽²⁾ At the applications such as continuous reverse motions, intermittent operation, often peak load and high inertia requied system, multiply 1.5 to the Design Torque calculated.
- ③ In the types GFS-R and GFS-O, the thickness and length of intermediate shaft must be determined according to our company's material program. Consult with our Engineer. Selecting the size of types GDBW and GSBW, apply brake power if it exceeds the prime mover power.

3) Example

Select a Gear Coupling to connect a 450HP, 1,170rpm electric motor with a reducer. Motor shaft diameter is 80mm. Reducer shaft diameter is 90mm. Max.parallel alignment allowed is 1.5mm

- ① Select type GDE for a higher valued application of parallel misalignment..
- 2 Service factor is 2.0
- 3 Use the moral formula

$$HP/100rpm = \frac{450 \times 100 \times 20}{1,170} = 76.9$$

Size GDE25 is selected with a rating of 90 HP per 100rpm. To accept the larger shaft dia 90mm, finally GDE30 is selected.

6.Designation



O GDE : Double Engagement Coupling

⑧ GSE : Single Engagement Coupling

③ GSCD:Spacer Coupling Doupling Engagement

- (a) GeoDeputer coupling Doupling Engagement (a) GH20:Single Engagement Horizontal Sliding Coup
- ⑤ GDEL : Double Engagement Large type
- ⑥ SEL : Single Engagement Large type
- ⑦GH10: Double Engagement Horizontal Sliding Coupling

 $\frac{\text{WCC}}{1}$ $\frac{250}{1}$ SS

Mark of Type Size No. Woo Chang Coupling

SS : Gear Double Engagement Coupling SE : Gear Single Engagement Coupling CC : Gear Double Engagement Coupling Large type CE : Gear Single Engagement Coupling Large type

7. Instruction for Installation

1) Small Size (under to size 60)

Hub boring and keyway must be machined accurately. During the key-fit to the shaft and the hub, be careful the oil leakage.

- 6 Clean all parts. Grease the crowned gear teeth and O-Ring, Put O-Ring onto the shafts.
- ⑦ Place the flanged sleeves on the shafts, and mount the hubs.
- (8) Using a spacer bar, make a gab between the hubs equal to the moral gab specified in this book.
- ④ Align the shaft with a strait bar, checking every 90 degree, referring to the table 3. Make it sure with a dial gauge to not exceed the offset limit.
- Insert gasket between the flanged sleeves, and fasten the bolts, positioning the lube hole at 90°
- In Full up the grease until overflowing at the opened opposite hole.











Table 3

Size	10	15	20	25	30	35	40	45	50	55	60	70	80	90	100
Angular	0.125	0.125	0.25	0.25	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
GAP	3	3	3	4.5	4.5	6	6	8	8	8	8	9.5	10	13	13
Flange Bolt Torque(kg.cm)	96	320	480	960	960	1650	1650	1650	2070	2070	2070	2980			

Operating Alignment Limits

* The life of coupling is reduced by excess of the OFFSET limit.

2) Large Size (over size 70)

Hub boring and Keyway must be machined accurately. During the Key-Fit work, be careful the oil leakage.

① Clean all parts. Pack sleeve teeth with grease and lightly coat seals with grease before assembly.

- ② Place the side cover with gaskets on the shafts before mounting the hubs. Mount hubs on their respectative shafts. Then mount flanged sleeves with side cover gaskets.
- ③ Use a spacer bar for equal to gap. The difference in minimum and maximum measurements should not exceed the angular limit specified in table 3.
- ④ Align with a straight edge rests squarely stevery 90° as shown in photo. Check with feelers. The tolerance should not exceed the offset limit specified in table 3.
- (5) Insert gasket between flanges. Position flanged sleeves with lube holes at about 90° and then fasten flanged sleeves.
- (6) Remove all lube plugs and put recommended grease into the coupling until excess flows through an opened lube hole and then plug



8. Selection of Puller Holes



표4		Table 4
Size	BCD(mm)	Bolt Size
20G	89	M8
25G	112	M10
30G	128	M10
35G	152	M12
40G	181	M16
45G	200	M16
50G	216	M20
55G	238	M20
60G	268	M20
70G	305	M24
80G	318	M24
90G	356	M30
100G	394	M30
110G	426	M30
120G	498	M30

9. Lubrication and Handling

We introduce the adequate lubricant for good performance and long life.



1) Grease Lubrication

① Grease the flanged sleeve and crown gear tooth, and fill enough after assembly.

② Lube weight, refer to "Dimensions" section.

③ Supplement and Replacement.

Add grease every month or every 240 \sim 250 hours operating. Replace all the deteriorated grease every 3 months or every 4,000 hours operating.

④ Selection

The temperature operating range of grease os from -17° to 70° . Refer to the table 6 that shown the coupling RPM allowed for the listed grease.

Table 5

Oil	Grease # 1	Grease # 0
Gulf Oil Corp.	Gulfcrown Grease EP #1	Gulfcrown Grease EP #0
Shell Oil Corp.	Alvania Grease EP #1	Alvania Grease EP-RO
Texaco Inc.	Multifak EP - 1	Multifak EP – O
Mobil Oil Corp.	Mobilux EP - 1	Mobilux EP – O

Lubricants listed in this manual are typical products, and should not be construed as exclusive recommendations..

														Table	e 6	
Coup	ling Size	10	15	20	25	30	35	40	45	50	55	60	70	80	90	100
	Max.	7000	6000	5000	4750	4400	3900	3600	3200	2900	2650	2450	2150	1750	1550	1450
ipm	Min.	1030	700	550	460	380	330	290	250	230	210	190	160	140	120	110

* Refer to #O of table 5 when is below Min. rpm.

2) Oil Lubricant

① Packing with oil holes on the internal gear with 2 holes horizontal level. Fill up oil until it overflows from the opposite oil hole.



Table 7

co conter	mpany nt	Shell	Mobil	미창 석유	범우화학	Gulf	Fujikosan Nipponkoju	Houghton	ð)일정유 출 광	Caltex
구 cst40 68	분 Cst40 315	omala68	Mobilgear 626	Pio Gear Ep68	Buhmwoo Gearlube BG-68	Gulf EP Lubricant R 68	Hirax ME GO 300	MP Gear Oil 68	Nico Gear SP 68	Daphne CE Compound 68S	Meropa Lubricant 68
100	465	Omala68		Pio Gear Ep68	Buhmwoo Gearlube BG-100	Gulf EP Lubricant HD 68	Hirax ME GO 500	MP Gear Oil 100	Nico Gear SP 100	Daphne CE Compound 100S	Meropa Lubricant 100
150	700	Omala150	Mobilgear 629	Pio Gear Ep150	Buhmwoo Gearlube BG-150	Gulf EP Lubricant R 150 HD 150	Hirax ME GO 700	MP Gear Oil 150	Nico Gear SP 150	Daphne CE Compound 150S	Meropa Lubricant 150 Synthetic Gear ube
150	700	Omala220	Mobilgear 630	Pio Gear Ep220	Buhmwoo Gearlube BG-220	Gulf EP Lubricant R 220 HD 220	Hirax ME GO 1000	MP Gear Oil 220	Nico Gear SP 220	Daphne CE Compound 220S	Meropa Lubricant 220
320	1500	Omala320	Mobilgear 632	Pio Gear Ep320	Buhmwoo Gearlube BG-320	Gulf EP Lubricant R 320 HD 320	Hirax ME GO 1500	MP Gear Oil 320	Nico Gear SP 320	Daphne CE Compound 320S	Meropa Lubricant 320

9. Dimensions

I Type GDE (Double Engagement Coupling), GDEL (Double Engagement Large Couping)



Size	Max Speed (rpm)	Basic Torque (Nm)	Bore Max	Dia(mm) Min	Dimensions(mm) A B C D E J					Gap	Cplg Wt(Kg)	Lube Wt (Kg)	
20GDE	5600	3,511	73	25	178	127	62	105	126	59	3	15.9	0.11
25GDE	5000	6,320	92	32	213	159	77	131	155	72	5	25.9	0.23
30GDE	4400	10,535	105	38	240	187	91	152	180	84	5	43.1	0.36
35GDE	3900	16,154	124	51	279	218	106	178	211	98	6	68.0	0.54
40GDE	3600	24,58	146	64	318	248	121	210	245	111	6	97.5	0.91
45GDE	3200	33,710	165	76	346	278	135	235	274	123	8	136.1	1.04
50GDE	2900	45,650	178	89	389	314	153	254	306	141	8	190.5	1.77
55GDE	2650	59,696	197	102	425	344	168	279	334	158	8	249.5	2.22
60GDE	2450	77,253	222	114	457	384	188	305	366	169	8	306.2	3.18

GDEL

Size	Max Speed (rpm)	Basic Torque (Nm)	Bore Dia(mm) Dimensions(mm)							Cole			
			Max	Min	A	в	с	D	J	к	Gap	Wt(Kg)	Lube Wt (Kg)
70GDEL	2150	112,369	254	89	527	451.5	221	343	196	517	9.5	485.4	4.35
80GDEL	1750	147,484	279	102	591	507.5	249	356	243	572	9.5	703.1	9.53
90GDEL	1550	200,157	305	114	660	565	276	394	265	641	13	984.3	12.25
100GDEL	1450	280,922	343	127	711	623	305	445	294	699	13	1302	14.97
110GDEL	1330	386,268	387	140	775	679	333	495	322	749	13	1678.3	17.69
120GDEL	1200	491,614	425	152	838	719	353	546	341	826	13	2113.8	20.87











Dimensions

Size	Basic Torque	Bore D	ia (mm)	Torsion angle		Dimensi	Gap	Cplg Wt(Kg)		
	(NIII)	Max	Min		D	Α	Т	В		
25	3.9	5	11		25	12	11	35	1	0.08
35	10	7	14	3.2°	35	18.5	13	50	1.5	0.3
48	24	11	19		48	24	17	65	1.5	0.5
58	33	14	24		58	27	18	72	1.5	0.9
68	117	19	28		68	35	20	90	1.5	1.3
78	314	19	38		78	35	22	92	1.5	2.5
98	637	28	45		98	38.5	25	102	2.5	4.4
118	882	38	60		118	47	26	120	3	7.8
135	1226	42	75		135	49	30	138	4	10
160	2873	65	100		160	69	30	177	5	19.5
200	7060	65	110		200	105	30	250	5	36





Operating Temperature -34° to 90°,

Short Duration Max. Temperature 120°

Poly-Urethane spider:

90+5A Shore hardness level, Standard red color.

Resistant to oil, grease and many solvents.

Good atmospheric and chemical resistance.

Excellent shock and vibration dampening properties.

Hub jaws have unique concave pocket,

That eliminates edge pressures and allows prolonged Wear resistance of elastomeric spider.

Size No	25	35	48	58	68	78	98	118	135	160	200
Angular misalignment(mm)	0.15	0.15 0.2 0.4 0.8		1.0		1.4					
Parallel misalignment(a°)						1.3					





Aut Medellin Km 2.5 Via Parcelas Parque Ind. LUTRANSA Bod 11



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