

DODGE DISC COUPLING





DODGE

100

DODGE COUPLING INNOVATION

ENGINEERED FOR LONGER LIFE, IMPROVED RELIABILITY

The DODGE Disc coupling offers industry leading torque capacity and misalignment capability resulting in longer life and improved reliability.

Disc couplings have become the preferred design for pumping and compressor applications used in the oil and gas industry due to the high torque, speed, misalignment, and maintenance-free features. The advantages of the disc style coupling have also driven the API 610 specification, which can be met by all DODGE Disc couplings. In addition to the high torque and misalignment capabilities, the DODGE Disc coupling also provides features for customers to save money by downsizing

with a large hub option, and prevent unexpected downtime costs with strobe light inspection during operation. The DODGE Disc coupling can be specified into any API 610 pumping application due to its wide range of capabilities, as seen in Table 1. ABB drives, ABB motors, and Baldor•Reliance motors have become the standard

in the oil and gas industry due to their reliability and long life. Now oil and gas users can realize the same reliability and long life by packaging DODGE Disc Couplings, ABB or Baldor•Reliance motors, and ABB drives, into one complete pump driver system.

Table 1: Range of Disc Coupling Standard and Metric Ratings*

Style	Size Range	Max. Torque		Power per 100 RPM		Max. Speed	Max. Bore	
		in-lbs	N-m	HP/100	kW/100		Inch	mm
Disc (Standard)	94-310	177,000	20,000	280	209	9,100/22,700**	7.88	200
Disc (Made-to-Order)	333-702	2,292,000	259,000	3636	2712	1,360/3,400**	15.25	385

*Listed values represent the range of the entire product line. Ratings are dependent upon coupling size. See DODGE engineering catalog and appropriate selection methods during sizing or contact application engineering for assistance.

**Balanced



OIL & GAS INDUSTRY FOCUS

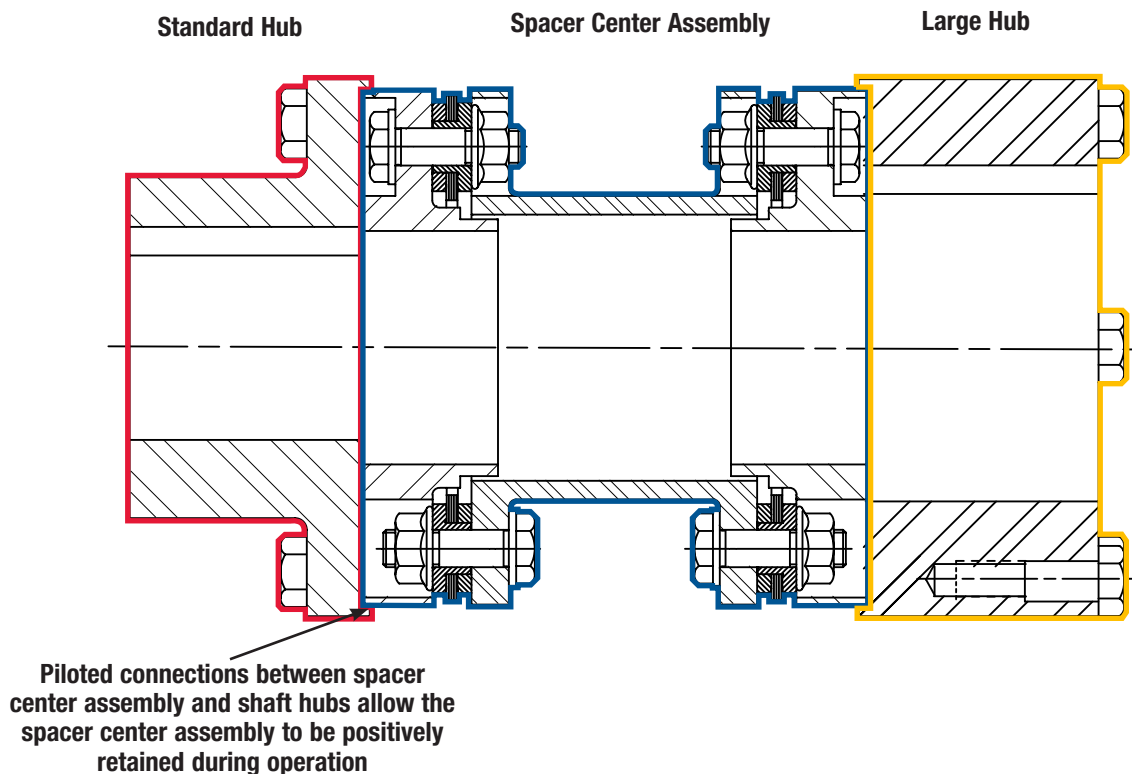
API 610 DESIGN

The Oil and Gas industry recognizes the importance of reliability and uptime by specifying products that reduce maintenance requirements, increase productivity, and prevent unexpected downtime. As a result, the American Petroleum Institute developed the API 610 specification as the standard for pumping applications across the industry.

All DODGE Disc Couplings can meet the API 610 specification, which includes:

- The spacer center assembly must be positively retained if the flexible element ruptures. As seen in Figure 1, the pilot machined in the disc coupling shaft hub positively retains the spacer center assembly, preventing the spacer center assembly from rotating free if a catastrophic bolt failure were to occur during operation.
- Coupling must be capable of rotating at 3800 rpm. All DODGE Disc Couplings are capable of operation at 3800 rpm.
- Flexible element should be made of corrosion resistant material. The DODGE Disc Coupling design utilizes flexible discs made of corrosion 301 stainless steel.
- Coupling hubs are made of 1045 steel.
- Coupling hubs are manufactured in accordance with AGMA 9000 Class 9 balance specifications.
- Spacer center assembly is removable without disturbing connected equipment.

Figure 1: DODGE Disc Coupling Configuration

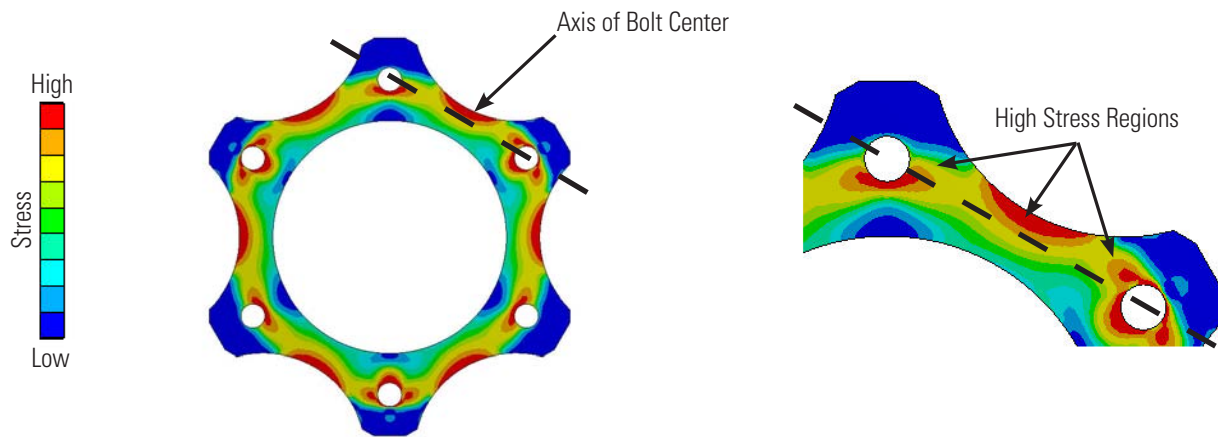


LONGER LIFE, IMPROVED RELIABILITY

COMPETITOR DISC GEOMETRY

Many disc coupling competitors utilize the disc geometry seen below which features a scalloped outside diameter and circular inside diameter. As seen in Figure 2, this single scalloped design unevenly distributes material along the “axis of bolt center”, which negatively impacts the torque ratings and the misalignment capability of the disc. Figure 2 shows large peak stress areas (shown in red) are created around the bolt holes and along the outside diameter of each leg between bolts, resulting in lower torque ratings. Additionally, the uneven distribution of material along the “axis of bolt center” drastically reduces misalignment capability during operation.

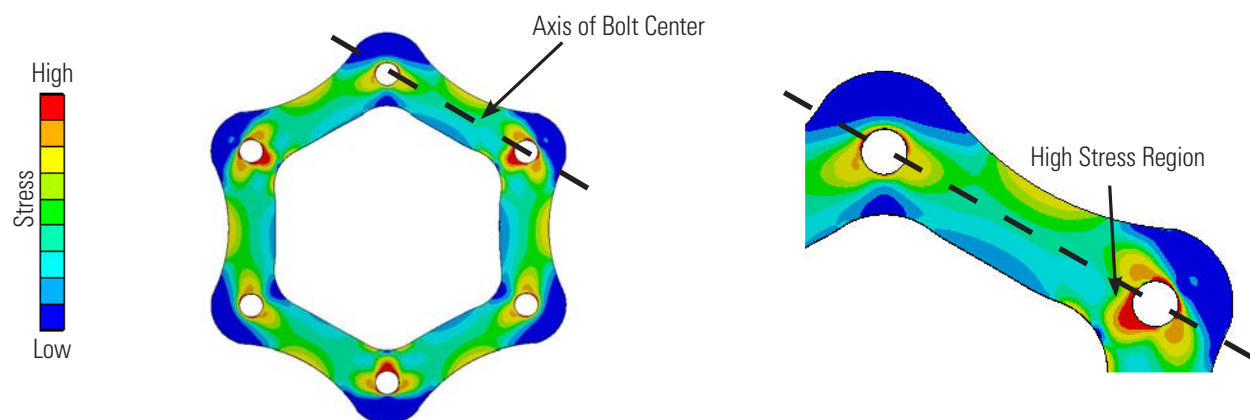
Figure 2: Competitor Disc Geometry - Single Scalloped Design



DODGE DISC GEOMETRY

The DODGE Disc coupling utilizes the newest generation of disc geometry, a dual scalloped design, which offers an even distribution of material along the “axis of bolt center”. Figure 3 shows a drastically reduced number of high stress areas within the disc limited to only a small area around the bolt hole. Also, the peak stress shown in the DODGE Disc geometry is 13% less than the competitor’s geometry, resulting in an average of double the torque capacity. Additionally, an even distribution of material along the “axis of bolt center” maximizes misalignment capability and offers up to three times the misalignment of the leading competitor. Industry leading torque ratings and misalignment capability will ultimately lead to longer coupling life, improved reliability, and reduced unexpected downtime.

Figure 3: DODGE Disc Geometry - Dual Scalloped Design



LONGER LIFE, IMPROVED RELIABILITY

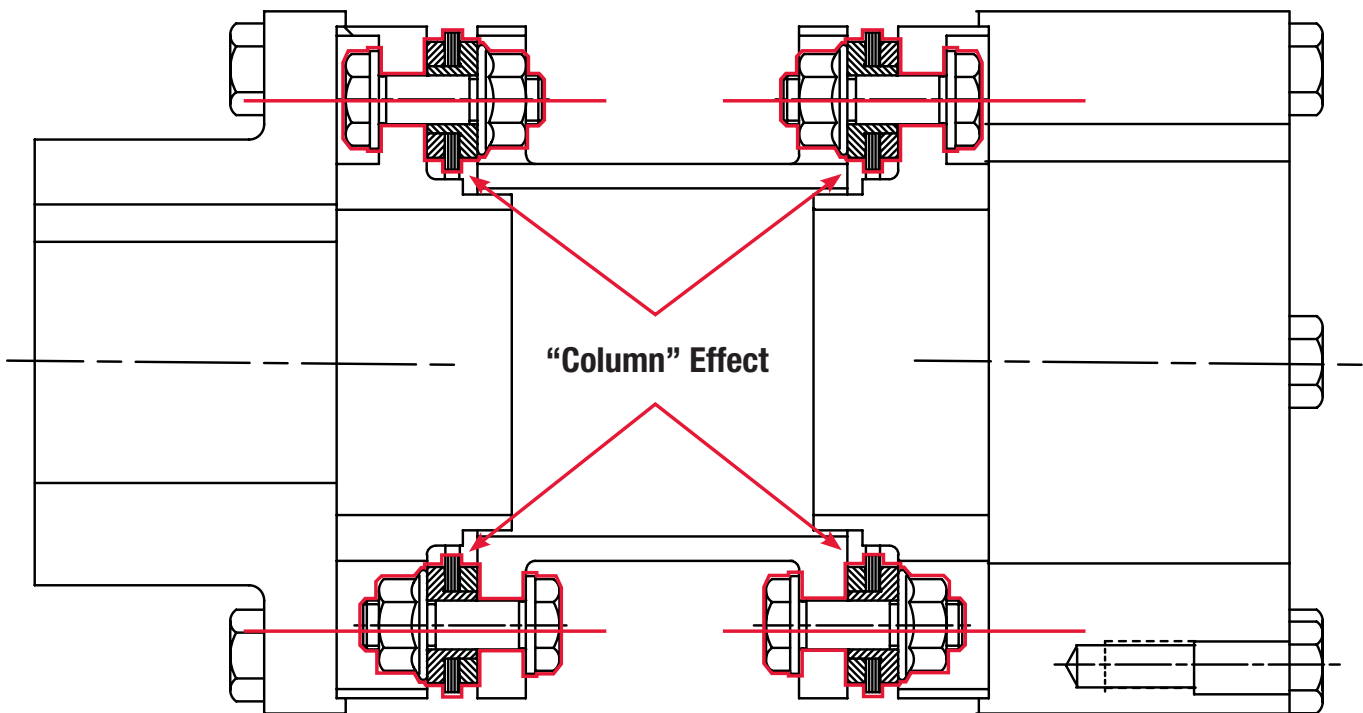
UNITIZED ASSEMBLY DESIGN

All DODGE Disc coupling spacer center assemblies are factory assembled and include a spacer, two disc packs, and two guard rings. Pre-assembling the spacer center assembly not only ensures that the system is assembled with the required tolerances, but also allows the customer to order a single part number and receive a single unit. Utilizing a custom, tight tolerance bushing and bolt

to connect the spacer, disc pack, and guard ring, results in torque being transmitted through the entire assembly. The unitized assembly or "column" effect, which can be seen in Figure 4 below, prevents any single component from transmitting the application torque alone. Competitive designs that offer loose discs for assembly risk improper installation which can

cause the bolt to quickly shear. The unitized assembly is just another reason why DODGE Disc couplings can offer users higher torque ratings, increased misalignment capability, and longer life.

Figure 4: Unitized Assembly Column Effect



INCREASED PRODUCTIVITY

MAINTENANCE FREE

The DODGE Disc coupling offers the power density, large bore capacity, and high speed capabilities of a metallic coupling while eliminating the need for maintenance. Traditional gear and grid style couplings require additional grease multiple times per year in order to lubricate gear teeth and looping segments. However, the DODGE Disc coupling does not have relative movement between mating parts which allows for increased maintenance productivity.

Additionally, by not having any moving components, the DODGE Disc coupling is torsionally rigid, prevents backlash, and is perfect for applications needing precise positioning such as paper machines.

When comparing a metallic coupling that requires maintenance with an elastomeric, maintenance free design, the customer must sacrifice space since the maintenance free option would be much larger than the

metallic design. However, Table 2 lists three common application examples driven by NEMA and IEC motors. Table 3 reveals that the DODGE Disc coupling selection has a smaller outside diameter than the grid and gear selection. Additionally, the DODGE Disc coupling selection has equal angular misalignment to the gear and more than the grid.

Table 3 shows that the maintenance-free DODGE Disc Coupling offers comparable size and angular misalignment capability as other metallic coupling designs requiring maintenance.

Table 2: Application Details for Metallic Coupling Comparison

	Application 1		Application 2		Application 3	
	NEMA	IEC	NEMA	IEC	NEMA	IEC
Motor Frame Size	256T	160	365T	250	445T	315
Motor Shaft Size	1 5/8"	42 mm	2 3/8"	65 mm	3 3/8"	80 mm
HP / kW	20 HP	15 kW	75 HP	55 kW	150 HP	110 kW
RPM	1750	1500	1750	1500	1750	1500
Service Factor	2.0	2.0	2.0	3.0	2.0	4.0
Torque	1,441 in-lbs	191 N-m	5,402 in-lbs	1,051 N-m	10,804 in-lbs	2,801 N-m

Table 3: Coupling Size Details for Metallic Coupling Comparison

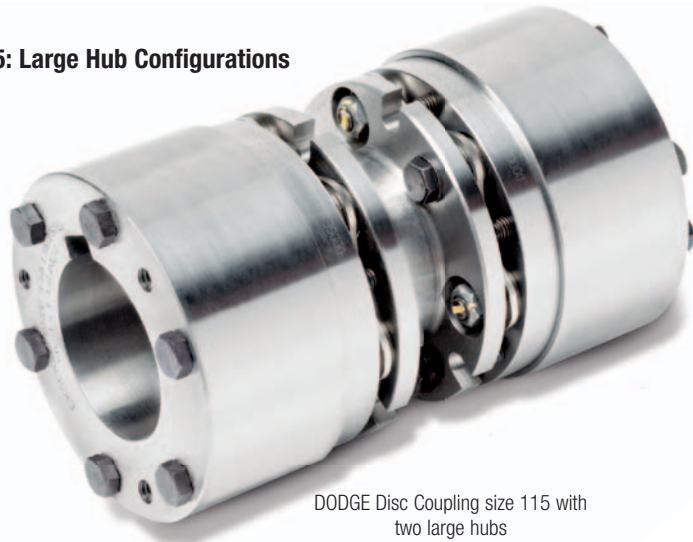
		Application 1			Application 2			Application 3		
		Outside Diameter (inch)	Outside Diameter (mm)	Angular Misalignment	Outside Diameter (inch)	Outside Diameter (mm)	Angular Misalignment	Outside Diameter (inch)	Outside Diameter (mm)	Angular Misalignment
Disc Coupling	NEMA Motor	3.70	94.00	1.5°	5.47	139.00	1.5°	7.59	193.00	1.5°
	IEC Motor	3.70	94.00	1.5°	5.47	139.00	1.5°	7.59	193.00	1.5°
Gear Coupling	NEMA Motor	4.56	115.82	1.5°	7.00	177.80	1.5°	9.44	239.78	1.5°
	IEC Motor	6.00	152.40	1.5°	7.00	177.80	1.5°	9.44	239.78	1.5°
Grid Coupling	NEMA Motor	4.22	107.19	0.5°	5.92	2336.80	0.5°	7.70	195.58	0.5°
	IEC Motor	5.09	129.29	0.5°	6.92	175.77	0.5°	7.70	195.58	0.5°

LOWER COSTS, REDUCE UNEXPECTED DOWNTIME

DOWNSIZING CAPABILITY

The DODGE Disc coupling not only offers a standard hub, but also a large hub to use in applications in which the coupling size is dictated by the bore size instead of torque. The large hub offers a larger max bore than the standard hub, which allows the customer to save money by downsizing the coupling in the application. The DODGE disc coupling can be ordered with either one or two large hubs as seen in Figure 5 below.

Figure 5: Large Hub Configurations



DODGE Disc Coupling size 115 with two large hubs

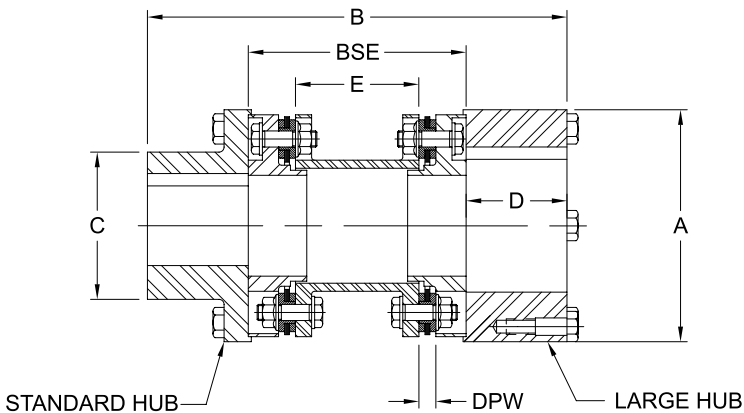


DODGE Disc Coupling size 115 with one large hub and one standard hub

REDUCE UNEXPECTED DOWNTIME WITH STROBE LIGHT INSPECTION

The DODGE Disc coupling has the ability to be inspected during operation. By observing the disc pack under a strobe light during operation, users can diagnose potential application issues before they experience costly, unexpected downtime. Cracks in the discs clearly communicate to the user that the driver and driven shafts are severely misaligned. Also, an “S” condition, the buckling of a disc leg between the driver and driven connecting bolts, tells the user the application is experiencing a torque overload situation. With this information, modifications can be made to the application to extend the life of the coupling or the spacer center assembly can be changed out, depending on the severity of the deformation. The ability to perform predictive maintenance during operation will greatly reduce plant costs by eliminating unexpected downtime associated with couplings.

SELECTION / RATINGS DATA



Dimensions (in)

Coupling Size	A	B	C	D	E	BSE	DPW
94	3.70	6.25	2.36	1.57	1.27	3.11	0.295
115	4.53	8.19	2.87	1.97	2.41	4.25	0.331
139	5.47	9.10	3.74	2.36	2.54	4.38	0.331
165	6.50	11.02	4.41	2.76	3.12	5.5	0.441
193	7.60	12.61	5.28	3.15	3.48	6.31	0.551
210	8.27	14.39	5.67	3.54	4.12	7.31	0.610
236	9.29	15.94	6.30	3.94	4.48	8.06	0.689
263	10.35	18.94	6.89	4.53	5.51	9.88	0.807
286	11.26	19.90	7.68	4.92	5.63	10.06	0.835
310	12.20	21.68	8.40	5.31	6.15	11.06	0.961

Dimensions (mm)

Coupling Size	A	B	C	D	E	BSE	DPW
94	93.98	159	59.94	39.88	2	79	7.49
115	115.06	208	72.90	49.97	61	108	8.41
139	138.94	231	95.00	59.88	64	111	8.41
165	165.10	280	112.01	70.04	79	140	11.20
193	193.00	320	134.00	80.00	88	160	14.00
210	210.06	36	144.02	89.90	105	186	15.49
236	235.97	405	160.02	100.06	114	205	17.50
263	262.89	481	175.01	115.05	140	251	20.50
286	286.00	505	195.07	124.96	143	256	21.21
310	309.88	551	213.36	134.87	156	281	24.21

NOTES:

- (1) Coupling operational speed must be equal to or less than the allowable speed that is limited by the weight and critical speed of the spacer.
- (2) Standard DODGE Disc couplings will meet the maximum speed listed in the "Standard" column. Speed capabilities listed in the "Balanced" column require special balancing by DODGE.
- (3) Weight of complete coupling at maximum bores.
- (4) Axial misalignment for two disc packs.
- (5) Angular misalignment for one disc pack.

Ratings (Imperial Units)

Coupling Size	Max Bore		Torque			Max RPM		Axial Misalignment (in) (4)	Angular Misalignment (5)	Weight (lbs) (3)
	Standard Hub (in)	Large Hub (in)	HP/100	Nominal (in.-lbs.)	Peak (in.-lbs.)	Standard (1)	Balanced (2)			
94	1.68	2.25	3.33	2100	4200	9100	22700	0.059	1.5°	8
115	2.06	2.94	8.09	5100	10200	7200	18000	0.083		12
139	2.69	3.56	15.39	9700	19500	5840	14600	0.102		22
165	3.13	4.13	28.08	17700	35400	4920	12300	0.122		40
193	3.75	4.94	46.33	29200	58400	4200	10500	0.146		62
210	4.06	5.38	64.58	40700	81400	3840	9600	0.150		84
236	4.50	5.94	98.37	62000	123900	3400	8500	0.165	121	
263	4.94	6.63	143.28	90,300	180600	3080	7700	0.185	159	
286	5.50	7.31	199.44	125700	251400	2800	7000	0.205	223	
310	6.13	7.88	280.84	177000	354000	2560	6400	0.224	293	

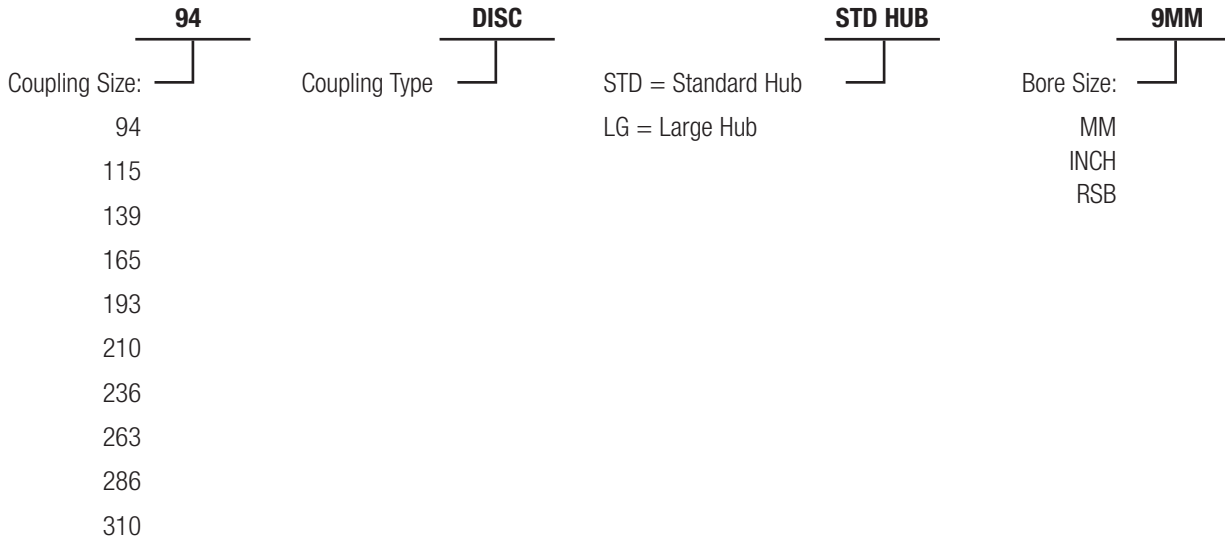
Ratings (Metric Units)

Coupling Size	Max Bore		Torque			Max RPM		Axial Misalignment (mm) (4)	Angular Misalignment (5)	Weight (kg) (3)
	Standard Hub (mm)	Large Hub (mm)	KW/100	Nominal (Nm)	Peak (Nm)	Standard (1)	Balanced (2)			
94	43	59	2.48	240	480	9100	22700	1.5	1.5°	4
115	52	75	6.03	575	1150	7200	18000	2.1		6
139	67	90	11.48	1100	2200	5840	14600	2.6		10
165	80	105	20.94	2000	4000	4920	12300	3.1		18
193	95	125	34.55	3300	6600	4200	10500	3.7		28
210	102	135	48.16	4600	9200	3840	9600	3.8		38
236	115	150	73.36	7000	14000	3400	8500	4.2	55	
263	125	170	106.80	10200	20400	3080	7700	4.7	72	
286	140	185	148.73	14200	28400	2800	7000	5.2	101	
310	155	200	209.42	20000	40000	2560	6400	5.7	133	

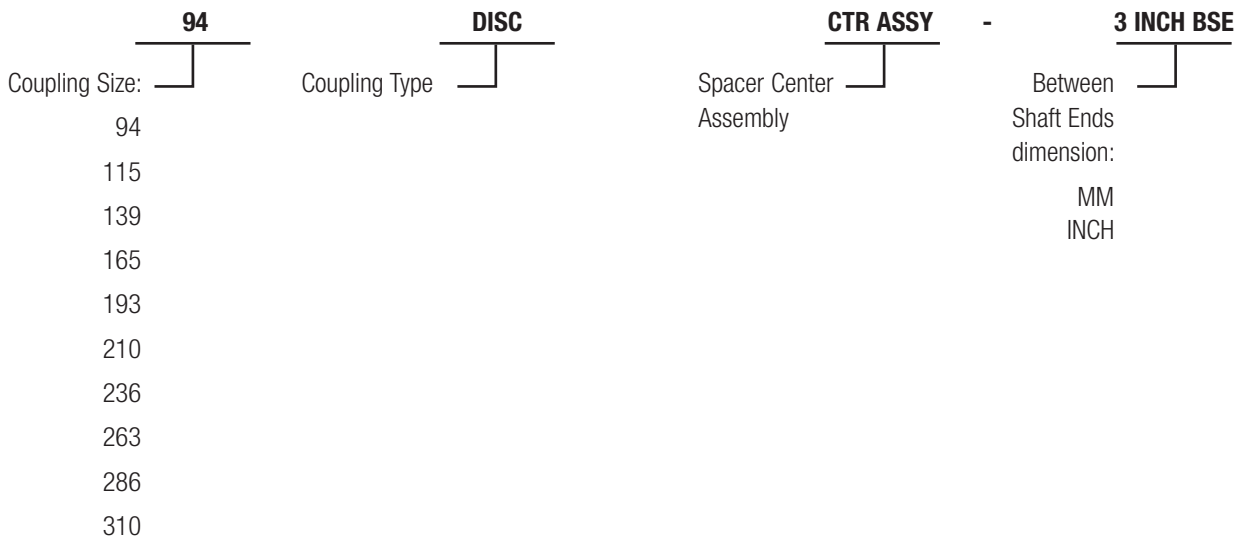
NOMENCLATURE

COMPLETE DODGE DISC COUPLING CONSISTS OF: QUANTITY TWO HUBS (STANDARD OR LARGE) AND QUANTITY ONE SPACER CENTER ASSEMBLY

DISC COUPLING HUB NOMENCLATURE



DISC COUPLING SPACER CENTER ASSEMBLY NOMENCLATURE



DODGE DISC COUPLING INCH AND METRIC SPACER CENTER ASSEMBLY PART NUMBERS

Complete DODGE Disc Coupling Consists of: Quantity two hubs (standard or large) and quantity one spacer center assembly

ANSI Spacers

Inch BSE (in)	Size 94	Size 115	Size 139	Size 165	Size 193	Size 210	Size 236	Size 263	Size 286	Size 310
3	138452									
3.1	138453	138458								
3.5	138454	138459	138463							
4.38	138455	138460	138464	138467						
5	138456	138461	138465	138468	138471					
7	138457	138462	138466	138469	138472	138475	138477			
9				138470	138473	138476	138478	138480	138481	138503

ISO & Din Spacers

Metric BSE (mm)	Size 94	Size 115	Size 139	Size 165	Size 193	Size 210	Size 236	Size 263	Size 286	Size 310
100mm	138482	138484	138487							
140mm	138483	138485	138488	138490	138493	138496				
180mm		138486	138489	138491	138494	138497				
250mm				138492	138495	138498	138499	138500	138501	138502

DODGE DISC COUPLING METRIC BORE HUB PART NUMBERS

Complete DODGE Disc Coupling Consists of: Quantity two hubs (standard or large) and quantity one spacer center assembly

Size Metric Bore (mm)	94		115		139		165		193		210	
	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub
Reborable	138000	138020	138023	138046	138051	138076	138081	138103	138106	138129	138130	138154
9	138001		138024									
11	138002		138025									
12	138003		138026									
14	138004		138027		138052							
16	138005		138028		138053							
17	138006		138029		138054							
18	138007		138030		138055							
19	138008		138031		138056							
20	138009		138032		138057							
22	138010		138033		138058							
24	138011		138034		138059		138082					
25	138012		138035		138060		138083					
28	138013		138036		138061		138084		138107			
30	138014		138037		138062		138085		138108		138131	
32	138015		138038		138063		138086		138109		138132	
35	138016		138039		138064		138087		138110		138133	
38	138017		138040		138065		138088		138111		138134	
40	138018		138041		138066		138089		138112		138135	
42	138019	138021	138042		138067		138090		138113		138136	
45			138043		138068		138091		138114		138137	
48		138022	138044	138047	138069		138092		138115		138138	
50			138045		138070		138093		138116		138139	
55				138048	138071		138094		138117		138140	
56					138072		138095		138118		138141	
60				138049	138073	138077	138096		138119		138142	
63					138074		138097		138120		138143	
65				138050	138075	138078	138098		138121		138144	
70							138099		138122		138145	
71							138100		138123		138146	
75						138079	138101	138104	138124		138147	
80						138080	138102	138105	138125		138148	
85									138126		138149	
90									138127		138150	
95									138128		138151	
100											138152	
105											138153	
110												
120												
125												
130												

DODGE DISC COUPLING METRIC BORE HUB PART NUMBERS

Complete DODGE Disc Coupling Consists of: Quantity two hubs (standard or large) and quantity one spacer center assembly

Size Metric Bore (mm)	236		263		286		310	
	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub
Reborable	138155	138178	138179	138200	138201	138221	138223	138224
9								
11								
12								
14								
16								
17								
18								
19								
20								
22								
24								
25								
28								
30								
32								
35	138156							
38	138157							
40	138158							
42	138159							
45	138160		138180					
48	138161		138181					
50	138162		138182		138202			
55	138163		138183		138203			
56	138164		138184		138204			
60	138165		138185		138205			
63	138166		138186		138206			
65	138167		138187		138207			
70	138168		138188		138208			
71	138169		138189		138209			
75	138170		138190		138210			
80	138171		138191		138211			
85	138172		138192		138212			
90	138173		138193		138213			
95	138174		138194		138214			
100	138175		138195		138215			
105	138176		138196		138216			
110	138177		138197		138217			
120			138198		138218			
125			138199		138219			
130					138220			

DODGE DISC COUPLING INCH BORE HUB PART NUMBERS

Complete DODGE Disc Coupling Consists of: Quantity two hubs (standard or large) and quantity one spacer center assembly

Size Inch Bore (in)	94		115		139		165		193	
	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub
Reborable	138000	138020	138023	138046	138051	138076	138081	138103	138106	138129
1/2	138225									
5/8	138226									
3/4	138227									
7/8	138228		138240							
15/16	138229		138241							
1	138230		138242		138258		138284			
1 1/8	138231		138243		138259		138285			
1 3/16	138232		138244		138260		138286			
1 1/4	138233		138245		138261		138287		138313	
1 3/8	138234		138246		138262		138288		138314	
1 7/16	138235		138247		138263		138289		138315	
1 1/2	138236		138248		138264		138290		138316	
1 5/8	138237	138238	138249		138265		138291		138317	
1 11/16			138250		138266		138292		138318	
1 3/4			138251		138267		138293		138319	
1 7/8			138252		138268		138294		138320	
1 15/16			138253		138269		138295		138321	
2			138254		138270		138296		138322	
2 1/8		138239		138255	138271		138297		138323	
2 3/16					138272		138298		138324	
2 1/4					138273		138299		138325	
2 3/8				138256	138274	138279	138300		138326	
2 7/16					138275		138301		138327	
2 1/2					138276		138302		138328	
2 5/8					138277		138303		138329	
2 11/16					138278		138304		138330	
2 3/4							138305		138331	
2 7/8				138257		138280	138306		138332	
2 15/16						138281	138307	138310	138333	138342
3						138282	138308	138311	138334	138343
3 1/8							138309		138335	
3 1/4									138336	
3 3/8						138283		138312	138337	138344
3 7/16									138338	
3 1/2									138339	
3 5/8									138340	
3 3/4									138341	
3 7/8										
3 15/16										
4										
4 3/8										
4 3/4										

DODGE DISC COUPLING INCH BORE HUB PART NUMBERS

Complete DODGE Disc Coupling Consists of: Quantity two hubs (standard or large) and quantity one spacer center assembly

Size Inch Bore (in)	210		236		263		286		310	
	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub
Reborable	138130	138154	138155	138178	138179	138200	138201	138221	138223	138224
1/2										
5/8										
3/4										
7/8										
15/16										
1										
1 1/8										
1 3/16										
1 1/4	138345									
1 3/8	138346									
1 7/16	138347									
1 1/2	138348									
1 5/8	138349									
1 11/16	138350									
1 3/4	138351		138380		138409					
1 7/8	138352		138381		138410					
1 15/16	138353		138382		138411					
2	138354		138383		138412		138439			
2 1/8	138355		138384		138413		138440			
2 3/16	138356		138385		138414		138441			
2 1/4	138357		138386		138415		138442			
2 3/8	138358		138387		138416		138443			
2 7/16	138359		138388		138417		138444			
2 1/2	138360		138389		138418		138445			
2 5/8	138361		138390		138419		138446			
2 11/16	138362		138391		138420		138447			
2 3/4	138363		138392		138421		138448			
2 7/8	138364		138393		138422		138449			
2 15/16	138365	138377	138394	138407	138423	138437	138450			
3	138366	137378	138395	138408	138424	138438	138451			
3 1/8	138367		138396		138425					
3 1/4	138368		138397		138426					
3 3/8	138369	137379	138398		138427					
3 7/16	138370		138399		138428					
3 1/2	138371		138400		138429					
3 5/8	138372		138401		138430					
3 3/4	138373		138402		138431					
3 7/8	138374		138403		138432					
3 15/16	138375		138404		138433					
4	138376		138405		138434					
4 3/8			138406		138435					
4 3/4					138436					

NEMA MOTOR SELECTION

DODGE Disc Coupling Driver Hub and Spacer Center Assembly Selection

NEMA Frame Size	Shaft Size (in)	HP	RPM	Torque (in-lbs)*	Hub Selection		Spacer Center Assembly at Various BSE Dimensions						
					Standard Hub	Large Hub	3"	3.1"	3.5"	4.38"	5"	7"	9"
56	0.625	1	1200	105	138226		138452	138453	138454	138455	138456	138457	
		1	1800	70	138226		138452	138453	138454	138455	138456	138457	
		1	3600	35	138226		138452	138453	138454	138455	138456	138457	
143	0.875	0.75	1200	79	138228		138452	138453	138454	138455	138456	138457	
		1	1800	70	138228		138452	138453	138454	138455	138456	138457	
		1.5	3600	53	138228		138452	138453	138454	138455	138456	138457	
145	0.875	1	1200	105	138228		138452	138453	138454	138455	138456	138457	
		2	1800	140	138228		138452	138453	138454	138455	138456	138457	
		2	3600	70	138228		138452	138453	138454	138455	138456	138457	
182	1.125	1.5	1200	158	138231		138452	138453	138454	138455	138456	138457	
		3	1800	210	138231		138452	138453	138454	138455	138456	138457	
		3	3600	105	138231		138452	138453	138454	138455	138456	138457	
184	1.125	2	1200	210	138231		138452	138453	138454	138455	138456	138457	
		5	1800	350	138231		138452	138453	138454	138455	138456	138457	
		5	3600	175	138231		138452	138453	138454	138455	138456	138457	
213	1.375	3	1200	315	138234		138452	138453	138454	138455	138456	138457	
		7.5	1800	525	138234		138452	138453	138454	138455	138456	138457	
		7.5	3600	263	138234		138452	138453	138454	138455	138456	138457	
215	1.375	5	1200	525	138234		138452	138453	138454	138455	138456	138457	
		10	1800	700	138234		138452	138453	138454	138455	138456	138457	
		10	3600	350	138234		138452	138453	138454	138455	138456	138457	
254	1.625	7.5	1200	788	138237		138452	138453	138454	138455	138456	138457	
		15	1800	1050	138237		138452	138453	138454	138455	138456	138457	
		15	3600	525	138237		138452	138453	138454	138455	138456	138457	
256	1.625	10	1200	1050	138237		138452	138453	138454	138455	138456	138457	
		20	1800	1401	138237		138452	138453	138454	138455	138456	138457	
		20	3600	700	138237		138452	138453	138454	138455	138456	138457	
284	1.875	15	1200	1576	138252			138458	138459	138460	138461	138462	
		25	1800	1751	138252			138458	138459	138460	138461	138462	
		25	3600	875	138252			138458	138459	138460	138461	138462	
286	1.875	20	1200	2101	138252			138458	138459	138460	138461	138462	
		30	1800	2101	138252			138458	138459	138460	138461	138462	
		30	3600	1050	138252			138458	138459	138460	138461	138462	
324 (std hub)	2.125	25	1200	2626	138271				138463	138464	138465	138466	
		40	1800	2801	138271				138463	138464	138465	138466	
		40	3600	1401	138271				138463	138464	138465	138466	
324 (large hub)	2.125	25	1200	2626		138255			138459	138460	138461	138462	
		40	1800	2801		138255			138459	138460	138461	138462	
		40	3600	1401		138255			138459	138460	138461	138462	
326 (std hub)	2.125	30	1200	3151	138271				138463	138464	138465	138466	
		50	1800	3501	138271				138463	138464	138465	138466	
		50	3600	1751	138271				138463	138464	138465	138466	
326 (large hub)	2.125	30	1200	3151		138255			138459	138460	138461	138462	
		50	1800	3501		138255			138459	138460	138461	138462	
		50	3600	1751		138255			138459	138460	138461	138462	
364 (std hub)	2.375	40	1200	4202	138274				138463	138464	138465	138466	
		60	1800	4202	138274				138463	138464	138465	138466	
		60	3600	2101	138274				138463	138464	138465	138466	

* Torque calculated at 2.0 Service Factor

NEMA MOTOR SELECTION

DODGE Disc Coupling Driver Hub and Spacer Center Assembly Selection

NEMA Frame Size	Shaft Size (in)	HP	RPM	Torque (in-lbs)*	Hub Selection		Spacer Center Assembly at Various BSE Dimensions						
					Standard Hub	Large Hub	3"	3.1"	3.5"	4.38"	5"	7"	9"
364 (large hub)	2.375	40	1200	4202		138256			138459	138460	138461	138462	
		60	1800	4202		138256			138459	138460	138461	138462	
		60	3600	2101		138256			138459	138460	138461	138462	
365 (std hub)	2.375	50	1200	5252	138274				138463	138464	138465	138466	
		75	1800	5252	138274				138463	138464	138465	138466	
		75	3600	2626	138274				138463	138464	138465	138466	
365 (large hub)	2.375	50	1200	5252		138256			138459	138460	138461	138462	
		75	1800	5252		138256			138459	138460	138461	138462	
		75	3600	2626		138256			138459	138460	138461	138462	
404 (std hub)	2.875	60	1200	6303	138306					138467	138468	138469	138470
		N/A	1800	N/A									
		N/A	3600	N/A									
404 (large hub)	2.875	60	1200	6303		138280			138463	138464	138465	138466	
		N/A	1800	N/A									
		N/A	3600	N/A									
405 (std hub)	2.875	75	1200	7878	138306					138467	138468	138469	138470
		100	1800	7003	138306					138467	138468	138469	138470
		100	3600	3501	138306					138467	138468	138469	138470
405 (large hub)	2.875	75	1200	7878		138280			138463	138464	138465	138466	
		100	1800	7003		138280			138463	138464	138465	138466	
		100	3600	3501		138280			138463	138464	138465	138466	
444 (std hub)	3.375	100	1200	10504	138337						138471	138472	138473
		125	1800	8753	138337						138471	138472	138473
		125	3600	4377	138337						138471	138472	138473
444 (large hub)	3.375	100	1200	10504		138312				138467	138468	138469	138470
		125	1800	8753		138312				138467	138468	138469	138470
		125	3600	4377		138312				138467	138468	138469	138470
445 (std hub)	3.375	150	1200	15756	138337						138471	138472	138473
		200	1800	14006	138337						138471	138472	138473
		150	3600	5252	138337						138471	138472	138473
445 (large hub)	3.375	150	1200	15756		138312				138467	138468	138469	138470
		200	1800	14006		138312				138467	138468	138469	138470
		150	3600	5252		138312				138467	138468	138469	138470
447 (std hub)	3.375	N/A	1200	N/A									
		250	1800	17507	138337						138471	138472	138473
		200	3600	7003	138337						138471	138472	138473
447 (large hub)	3.375	N/A	1200	N/A									
		250	1800	17507		138312				138467	138468	138469	138470
		200	3600	7003		138312				138467	138468	138469	138470
449	3.375	300	1200	31513	138369							138475	138476
		400	1800	28011	138337						138471	138472	138473
		400	3600	14006	138337						138471	138472	138473

* Torque calculated at 2.0 Service Factor

IEC MOTOR SELECTION

DODGE Disc Coupling Driver Hub and Spacer Center Assembly Selection

IEC FRAME SIZE	SHAFT SIZE (mm)	KW	RPM	Torque (Nm)	Hub Selection		Spacer Center Assembly at Various BSE Dimensions			
					Standard Hub	Large Hub	100 mm	140 mm	180 mm	250 mm
56	9	0.06	1500	0.8	138001		138482	138483		
		0.09	3000	0.6	138001		138482	138483		
		0.12	1500	1.5	138001		138482	138483		
		0.12	3000	0.8	138001		138482	138483		
63	11	0.18	3000	1.2	138002		138482	138483		
		0.18	1500	2.3	138002		138482	138483		
		0.25	3000	1.6	138002		138482	138483		
71	14	0.18	1000	3.4	138004		138482	138483		
		0.25	1000	4.8	138004		138482	138483		
		0.25	1500	3.2	138004		138482	138483		
		0.37	3000	2.4	138004		138482	138483		
		0.37	1500	4.7	138004		138482	138483		
		0.55	3000	3.5	138004		138482	138483		
80	19	0.37	1000	7.1	138008		138482	138483		
		0.37	1500	4.7	138008		138482	138483		
		0.55	1000	10.5	138008		138482	138483		
		0.55	1500	7.0	138008		138482	138483		
		0.75	3000	4.8	138008		138482	138483		
		0.75	1500	9.6	138008		138482	138483		
90	24	0.75	1000	14.3	138011		138482	138483		
		1.1	1000	21.0	138011		138482	138483		
		1.1	3000	7.0	138011		138482	138483		
		1.1	1500	14.0	138011		138482	138483		
		1.5	3000	9.6	138011		138482	138483		
		1.5	1500	19.1	138011		138482	138483		
		2.2	3000	14.0	138011		138482	138483		
100	28	1.5	1000	28.6	138013		138482	138483		
		2.2	1500	28.0	138013		138482	138483		
		3	3000	19.1	138013		138482	138483		
		3	1500	38.2	138013		138482	138483		
112	28	2.2	1000	42.0	138013		138482	138483		
		4	3000	25.5	138013		138482	138483		
		4	1500	50.9	138013		138482	138483		
132	38	3	1000	57.3	138017		138482	138483		
		4	1000	76.4	138017		138482	138483		
		5.5	1000	105.0	138017		138482	138483		
		5.5	3000	35.0	138017		138482	138483		
		5.5	1500	70.0	138017		138482	138483		
		7.5	3000	47.7	138017		138482	138483		
		7.5	1500	95.5	138017		138482	138483		
160	42	7.5	1000	143.2	138019		138482	138483		
		11	1000	210.0	138019		138482	138483		
		11	3000	70.0	138019		138482	138483		
		11	1500	140.0	138019		138482	138483		
		15	3000	95.5	138019		138482	138483		
		15	1500	190.9	138019		138482	138483		
		18.5	3000	117.7	138019		138482	138483		

* Torque calculated at 2.0 Service Factor

IEC MOTOR SELECTION

DODGE Disc Coupling Driver Hub and Spacer Center Assembly Selection

IEC FRAME SIZE	SHAFT SIZE (mm)	KW	RPM	Torque (Nm)	Hub Selection		Spacer Center Assembly at Various BSE Dimensions			
					Standard Hub	Large Hub	100 mm	140 mm	180 mm	250 mm
180 (std hub)	48	15	1000	286.4	138044		138484	138485	138486	
		18.5	1500	235.5	138044		138484	138485	138486	
		22	3000	140.0	138044		138484	138485	138486	
		22	1500	280.0	138044		138484	138485	138486	
180 (large hub)	48	15	1000	286.4						
		18.5	1500	235.5		138022	138482	138483		
		22	3000	140.0		138022	138482	138483		
		22	1500	280.0						
200 (std hub)	55	18.5	1000	353.2	138071		138487	138488	138489	
		22	1000	420.0	138071		138487	138488	138489	
		30	3000	190.9	138071		138487	138488	138489	
		30	1500	381.9	138071		138487	138488	138489	
		37	3000	235.5	138071		138487	138488	138489	
200 (large hub)	55	18.5	1000	353.2		138048	138484	138485	138486	
		22	1000	420.0		138048	138484	138485	138486	
		30	3000	190.9		138048	138484	138485	138486	
		30	1500	381.9		138048	138484	138485	138486	
		37	3000	235.5		138048	138484	138485	138486	
225 (std hub)	60	30	1000	572.8	138073		138487	138488	138489	
		37	1500	471.0	138073		138487	138488	138489	
		45	3000	286.4	138073		138487	138488	138489	
		45	1500	572.8	138073		138487	138488	138489	
225 (large hub)	60	30	1000	572.8		138049	138484	138485	138486	
		37	1500	471.0		138049	138484	138485	138486	
		45	3000	286.4		138049	138484	138485	138486	
		45	1500	572.8		138049	138484	138485	138486	
250	65	37	1000	706.4	138075		138487	138488	138489	
		55	3000	350.0	138075		138487	138488	138489	
		55	1500	700.1	138075		138487	138488	138489	
		75	1500	954.6	138075		138487	138488	138489	
280 (std hub)	75	75	3000	477.3	138101			138490	138491	138492
		90	3000	572.8	138101			138490	138491	138492
		90	1500	1145.5	138101			138490	138491	138492
280 (large hub)	75	75	3000	477.3		138079	138487	138488	138489	
		90	3000	572.8		138079	138487	138488	138489	
		90	1500	1145.5						
315	80	110	3000	700.1	138102			138490	138491	138492
		110	1500	1400.1	138102			138490	138491	138492
		132	3000	840.1	138102			138490	138491	138492
		132	1500	1680.1	138102			138490	138491	138492
		160	3000	1018.3	138102			138490	138491	138492
		160	1500	2036.5	138102			138490	138491	138492
		200	3000	1272.8	138102			138490	138491	138492
200	1500	2545.7	138125			138493	138494	138495		

* Torque calculated at 2.0 Service Factor



P.O. Box 2400, Fort Smith, AR 72902-2400 U.S.A., Ph: (1) 479.646.4711, Fax (1) 479.648.5792, International Fax (1) 479.648.5895

Baldor - Dodge

6040 Ponders Court, Greenville, SC 29615-4617 U.S.A., Ph: (1) 864.297.4800, Fax: (1) 864.281.2433

www.baldor.com