

# Disc Pac

## Clutches & Brakes



Model MDP

# THE MAXITORQ® ADVANTAGES

- **Simplicity of design offers high versatility.**
- **Compact, self contained.**
- **Completely assembled, no special tools required for installation or maintenance.**
- **Disc design and finish ensure maximum wearability and smooth engagement.**
- **Can be run dry or in oil.**

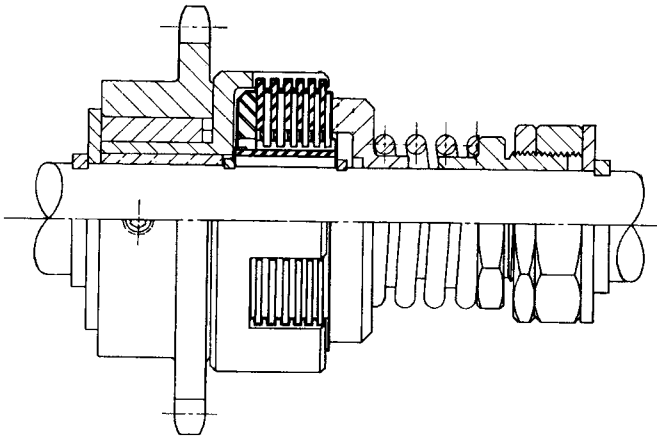
## BUILD CUSTOMIZED CLUTCHES OR BRAKES TO YOUR OWN ACTUATION AND POWER TRANSMISSION REQUIREMENTS

Whatever your actuation - air, hydraulic, electric or manually operated you can now assemble a brake or clutch to your own specifications using this reliable MAXITORQ® Disc Pac. This compact, self-contained unit with patented MAXITORQ® Separator Springs is the "stress tested heart" of the Carlyle Johnson MAXITORQ® Clutch. It prevents drag, abrasion, and the consequent heating in neutral associated with conventional clutches.

The MAXITORQ® Disc Pac keys to your shaft and is supplied in eight sizes from 2" to 8" in diameter, with static torque from 4 to 2000 lbs. ft. All assembly, disassembly and adjustments are manual, with no tools required. Standard MAXITORQ® driving cups and flange cups are available if desired.

The Disc Pac can be used as a multiple disc clutch or brake, an overload release clutch or a torque-limiting device.

### Typical Disc-Pac Application

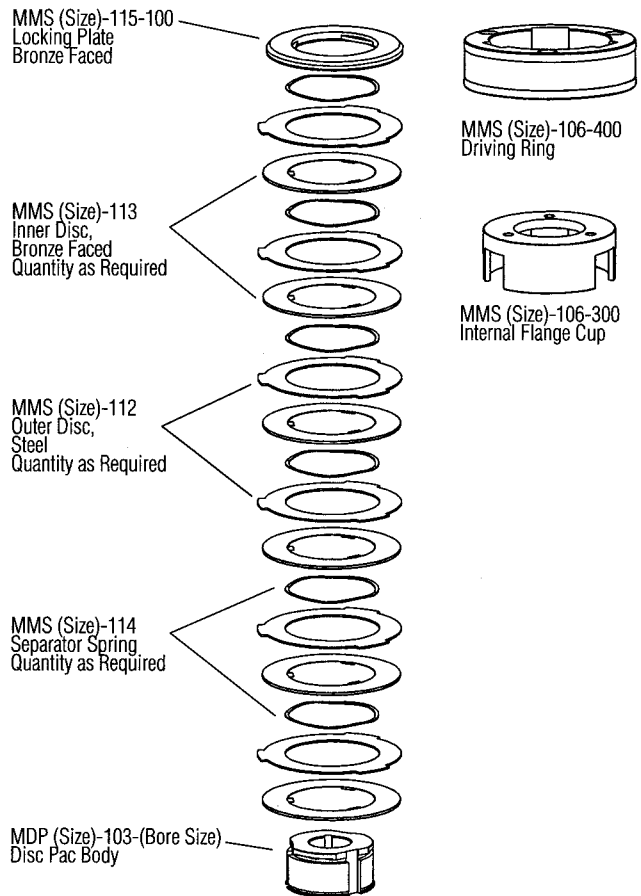


MAXITORQ® Disc-Pac applied as a spring loaded, adjustable, torque limiting device.

## REPLACEMENT PARTS

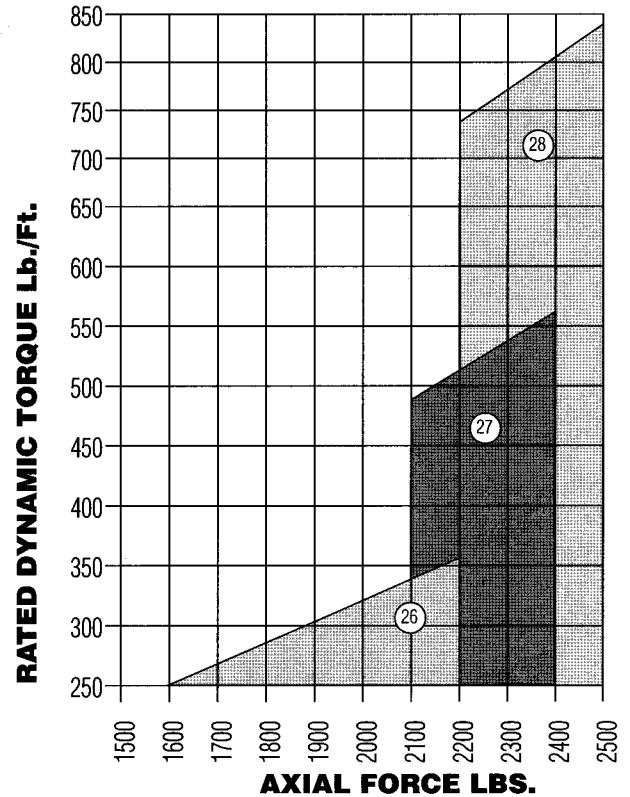
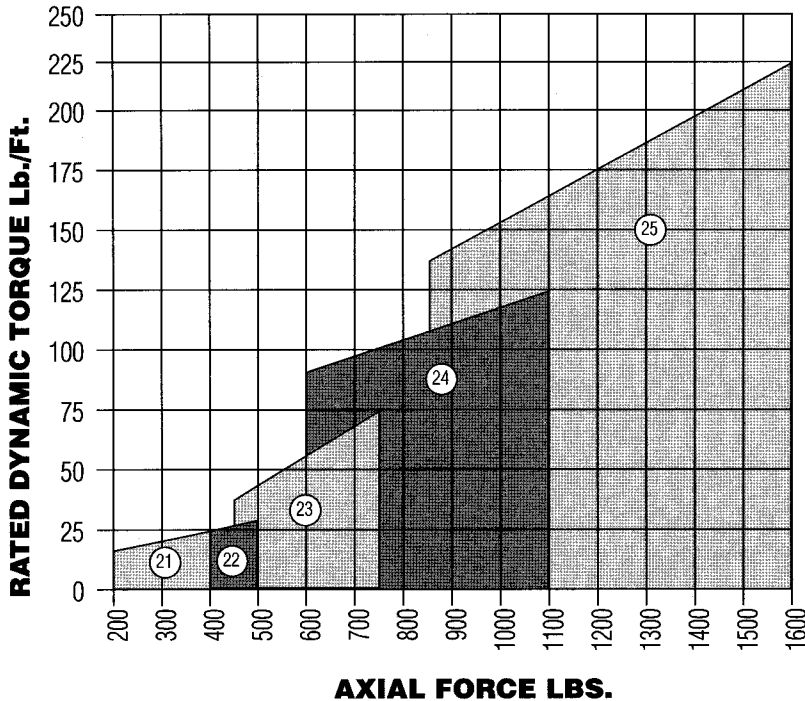
Inherent in the MAXITORQ® design is the ability to rebuild an assembly again and again as parts inevitably wear. When ordering, please specify part number, clutch size, and serial number.

### Mechanical Multiple Disc Replacement Parts



**NOTE:** MAXITORQ® Clutches and brakes as furnished can run dry or in oil. We specifically recommend Series A oils. If extreme pressure additives that would reduce clutch torque are utilized, please contact the factory for recommendations.

# TORQUE/RANGE CHARTS FOR DISC PAC SIZE SELECTIONS

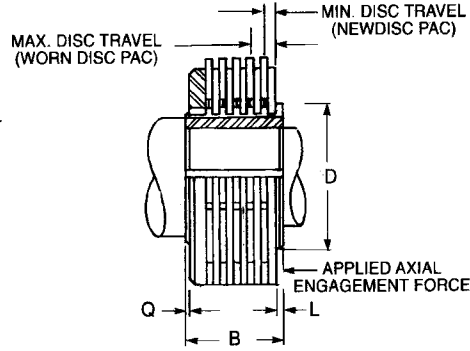
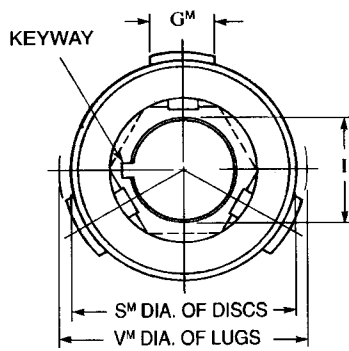


These charts can be used as an aid in determining the Disc Pac size for your clutch application. For precise application information, contact the Carlyle Johnson Engineering department.

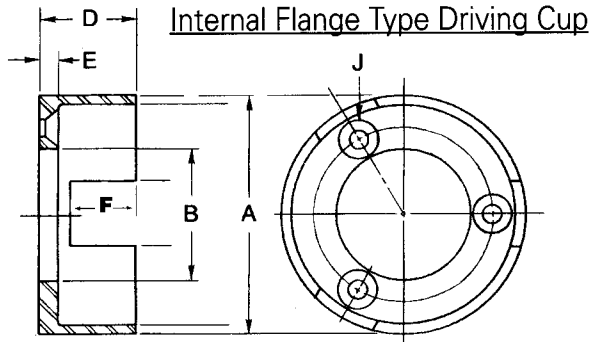
## MAXITORQ® DISC PAC ENSURES OPTIMUM CLUTCH PERFORMANCE

- MAXITORQ® disc separator springs assure a true "floating drag-free neutral" which prevents drag abrasion and consequent heating.
- "Free-floating" discs provide a positive neutral (1% of rated torque) with minimum of torque being transmitted and no ratcheting.
- Disc design and finish ensure maximum wearability and smooth engagement.
- Compact, self-contained, and keys to your shaft.
- All MAXITORQ® Disc Pacs are shipped pre-assembled. No special tools are required for installation or maintenance.
- Disc Pac is available in 8 disc diameters from 2" to 8"; 1/4 to 15 hp at 100 rpm.
- Lugs range from 3 to 12 depending upon torque rating (see chart).
- Economical MAXITORQ® standard Driving Cups and Flange Cups are available if desired.
- Disc Pac can be run dry or in oil. Operation with Series A transmission fluid is recommended.
- Custom designs are welcomed.

# SPECIFICATIONS...MAXITORQ® DISC PAC CLUTCHES & BRAKES



DISC PAC NUMBER	H.P. @ 100 RPM	Dynamic Torque Lb. Ft.	Static Torque Lb. Ft.	Max. Required Axial Force Lbs.	Min. Disc Travel (New Disc-Pac)	Max. Disc Travel (Worn Disc-Pac)	I Std. Body Bores Disc. +.001 -.000	Keyway	Driving Lugs G <sup>M</sup> No. Width	Length B ±.003	D	L	Q	S <sup>M</sup>	O.D. V <sup>M</sup>
MDP 21	1/4	13	26	225	.084	.220	3/4 7/8	3/16 X 3/32	3 .615	.950	1 5/16	1/16	1/64	1-63/64	2-3/16
MDP 22	1/2	27	54	470	.088	.239	1 1/8	3/16 X 3/32	3 .740	1.072	1 5/8	1/16	1/64	2-31/64	2-3/4
MDP 23	1	53	106	550	.091	.243	1 1/4 1 3/8	1/4 X 1/8	3 .990	1.234	2 1/8	1/16	1/64	3-15/64	3-9/16
MDP 24	1 3/4	92	184	800	.091	.243	1 1/2 1 5/8	5/16 X 5/32	3 .990	1.234	2 13/32	1/16	1/64	3-47/64	4-1/16
MDP 25	3	158	316	1,150	.091	.273	1 3/4 1 7/8	3/8 X 3/16	8 .740	1.505	2 3/4	1/16	1/64	4-31/64	4-7/8
MDP 26	5	263	526	1,650	.104	.259	2 2 1/4	7/16 X 7/32	12 .615	1.651	3 5/16	1/16	1/64	5-31/64	5-7/8
MDP 27	10	525	1,050	2,260	.161	.485	2 1/2 2 3/4	9/16 X 9/32	12 .740	2.077	4 3/4	1/16	1/32	6-63/64	7-1/2
MDP 28	15	788	1,576	2,350	.127	.509	2 3/4 3	9/16 X 9/32	12 .740	2.297	5 11/16	1/16	1/32	7-63/64	8-1/2

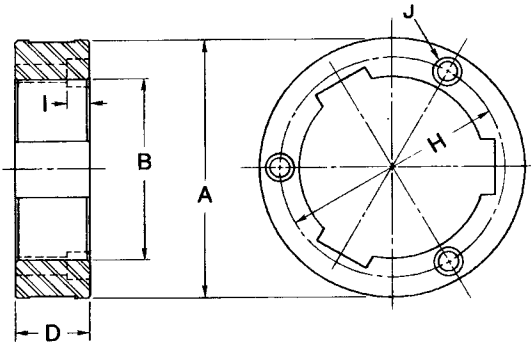


Internal Flange Driving Cups are lower in inertia and smaller in outside diameter than Ring Type Driving Cups.

DRIVE CUP #	A	B	D	E	F	J*	# of mtg holes	# of slots
MMS-0021-106-300	2 3/16	1.033 1.031	1 1/32	3/16	23/32	8/32	3	3
MMS-0022-106-300	2 3/4	1.439 1.438	1 5/32	3/16	13/16	10/32	3	3
MMS-0023-106-300	3 9/16	1.940 1.938	1 13/32	1/4	31/32	1/4-20	3	3
MMS-0024-106-300	4 1/16	2.065 2.063	1 7/16	9/32	31/32	5/16-18	3	3
MMS-0025-106-300	4 7/8	2.565 2.563	1 23/32	5/16	1 5/32	5/16-18	5	8
MMS-0026-106-300	5 7/8	3.627 3.625	1 29/32	5/16	1 3/8	5/16-18	5	12
MMS-0027-106-300	7 1/2	4.753 4.750	2 5/16	5/16	1 21/32	7/16-14	5	12
MMS-0028-106-300	8 1/2	5.753 5.750	2 1/2	5/16	1 7/8	7/16-14	6	12

\* Flathead screw size.

## Ring Type Driving Cup



DRIVE CUP #	A	B	D	H	I	J*	# of mtg holes	# of slots
MMS-0021-106-400	3.123 3.125	2.015 2.017	1 1/32	2 9/16	11/32	1/4-20	3	3
MMS-0022-106-400	3.623 3.625	2.515 2.517	1 5/32	3 1/16	11/32	1/4-20	3	3
MMS-0023-106-400	4.623 4.625	3.265 3.267	1 5/16	3 15/16	13/32	5/16-18	3	3
MMS-0024-106-400	5.123 5.125	3.765 3.767	1 5/16	4 7/16	13/32	5/16-18	3	3
MMS-0025-106-400	6.123 6.125	4.515 4.517	1 19/32	5 5/16	17/32	3/8-16	4	8
MMS-0026-106-400	7.120 7.125	5.515 5.517	1 25/32	6 1/4	17/32	3/8-16	6	12
MMS-0027-106-400	9.120 9.125	7.015 7.017	2 3/16	8 1/16	11/16	1/2-13	6	12
MMS-0028-106-400	10.102 10.125	8.015 8.017	2 7/16	9 1/16	11/16	1/2-13	6	12

\* Cap screw size.

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