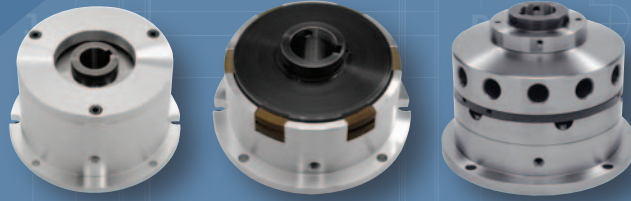


## GETTING STARTED

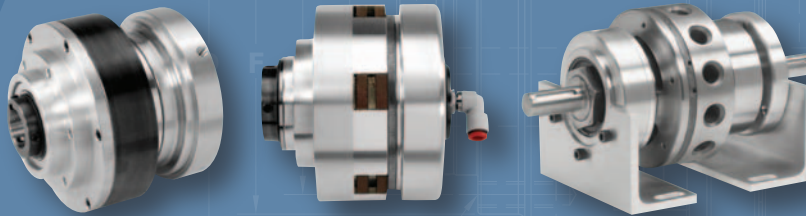
to SEARCH BY PRODUCT NUMBER or any other detail, click on the binoculars icon in the top menu.

to BROWSE BY PRODUCT TYPE click on the bookmarks tab to the left of your screen, or click on product types on this screen.



Mach III air set, spring set and SensiFlex® brakes provide simple solutions for stopping, holding and tension control applications.

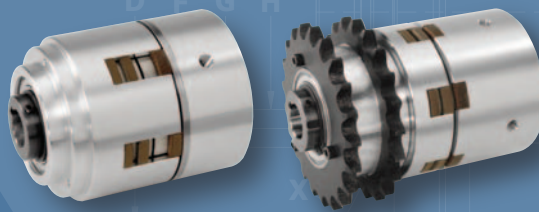
## clutches



Mach III air actuated, multiple disc friction clutches feature high torque in a compact, simple to install package. SensiFlex® clutches provide exceptionally smooth and responsive torque control for tensioning applications.

**MACH III** *Designed For Excellence*  
**CLUTCH INC.**

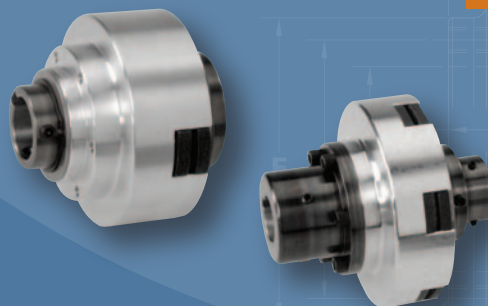
## clutch-brake combinations



Mach III clutch-brake combinations deliver both clutch and braking action in one compact, easy to install unit.

The clutch is engaged with the application of air pressure, the brake is spring engaged in the absence of air pressure. With separate models that stop and start either the pilot (sprocket) or the shaft, Mach III offers unrivaled design flexibility.

## torque limiters



Mach III adjustable torque limiters can be field or factory set to slip at specified torque levels for overload protection of motors, gearboxes and other costly components.

## Air Set Brakes



- Spring release
- Designed for flange or shaft mounting

## Spring Set Brakes



- Air release
- Designed for flange or shaft mounting

## NEMA C-Face Mount Spring Set Brakes



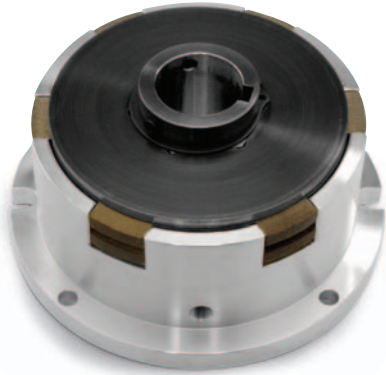
- Air release
- Mounts between motor and gear reducer
- Enclosed design in aluminum housing
- Optional corrosion resistant and food safe finishes available

## SensiFlex® tension control brakes

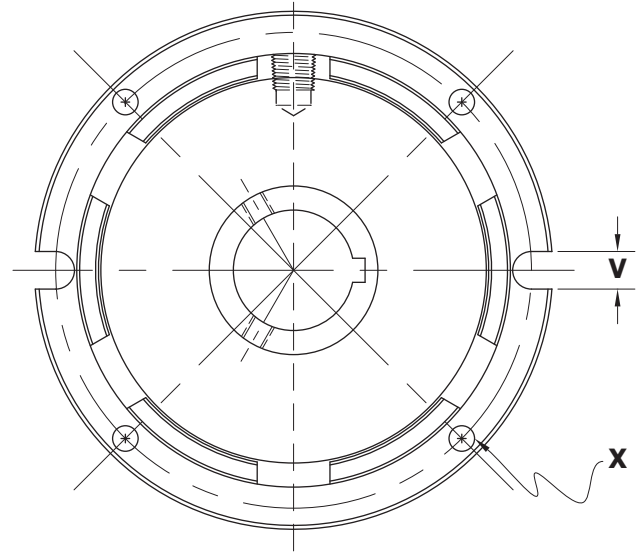
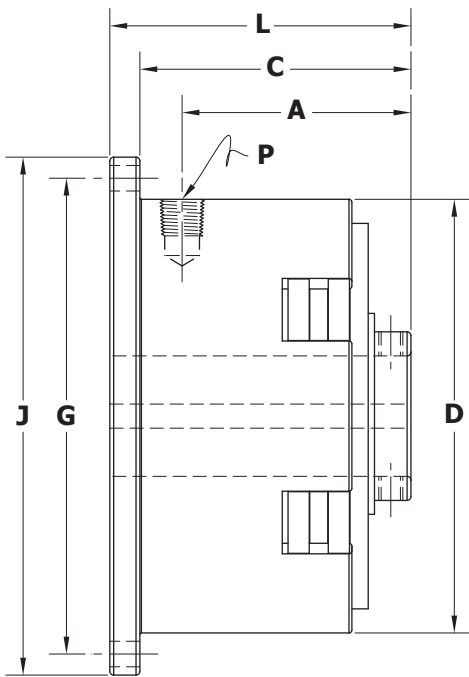


- Smooth performance for tension control applications
- Patented actuator provides highly responsive torque control
- Radial holes create air flow for maximal heat dissipation
- Easy, slide on the shaft installation
- Designed for a long, low maintenance life cycle

## Air Set Brakes



SPECIFICATIONS		
Product No.	Torque Rating (lb-in) @80 PSI	Max. Bore w/ Square Key (inches)
B3F2H-STH	267	1
B4F2H-STH	760	1-1/4
B5F2H-STH	1584	1-7/16
B6F2G-STH	3119	2
B8F2K-STH	4789	2-3/8
BAF2K-STH	9673	2-3/4



### Have Any Questions About our Products?

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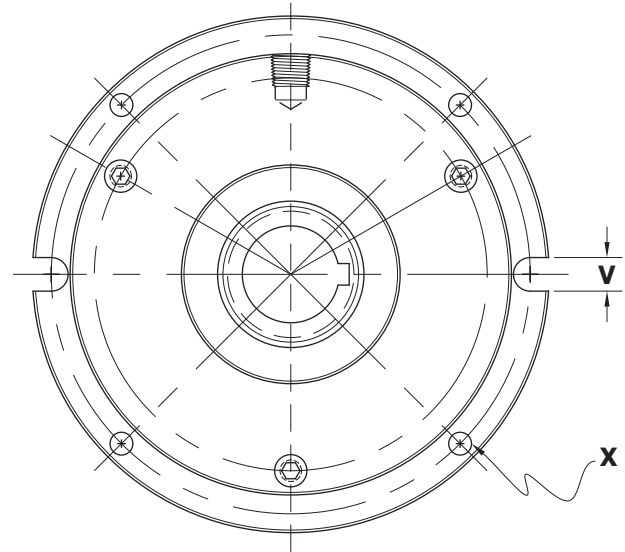
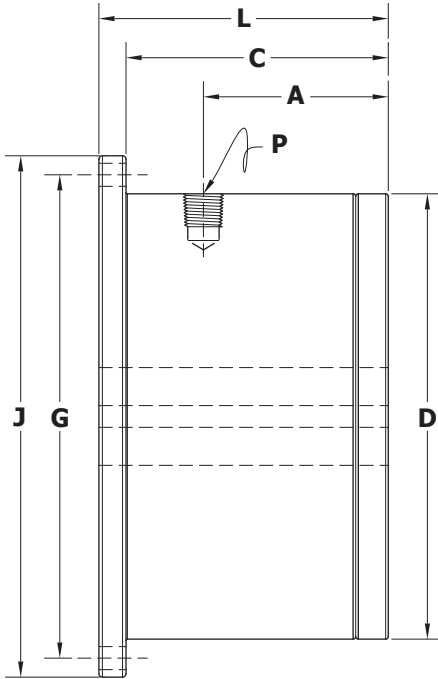
Product No.	DIMENSIONS — inches								
	A	C	D	G	J	L	P (NPT)	V	X
B3F2H-STH	1.88	2.33	3.50	3.875	4.25	2.60	1/16	0.33	(4) .20
B4F2H-STH	2.37	2.81	4.50	4.938	5.38	3.13	1/8	0.39	(4) .27
B5F2H-STH	2.50	2.91	5.69	6.250	6.75	3.34	1/8	0.50	(4) .33
B6F2G-STH	3.50	3.98	7.27	7.937	8.56	4.48	1/4	0.59	(4) .39
B8F2K-STH	3.71	4.08	10.00	10.687	11.31	4.71	1/4	0.59	(4) .39
BAF2K-STH	4.06	4.41	11.95	12.812	13.63	5.23	1/4	0.78	(4) .53

Metric Bore Sizes Available

## Spring Set Brakes



SPECIFICATIONS			
Product No.	Torque (lb-in)	Release Pressure (PSI)	Max. Bore w/ Square Key (inches)
D3F3H-STH	286	60-65	7/8
D4F3H-STH	615	60-65	1-1/8
D5F3H-STH	1201	60-65	1-7/16
D6F3G-STH	2600	60-65	2
D8F3K-STH	4668	60-65	2-3/8
DAF3K-STH	8902	60-65	2-3/4



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#### DIMENSIONS — inches

Product No.	A	C	D	G	J	L	P (NPT)	V	X
D3F3H-STH	1.80	2.56	4.00	4.375	4.75	2.81	1/16	0.33	(4) .20
D4F3H-STH	2.13	3.02	5.13	5.562	6.00	3.33	1/8	0.39	(4) .27
D5F3H-STH	2.50	3.43	6.28	6.844	7.44	3.87	1/8	0.50	(4) .33
D6F3G-STH	3.54	4.77	8.25	8.906	9.53	5.27	1/4	0.59	(4) .39
D8F3K-STH	4.31	5.75	10.00	10.875	11.75	6.50	1/4	0.78	(4) .53
DAF3K-STH	4.78	6.19	12.66	13.750	14.84	6.94	1/4	1.00	(4) .66

Metric Bore Sizes Available

### NEMA C-Face Mount Spring Set Brakes

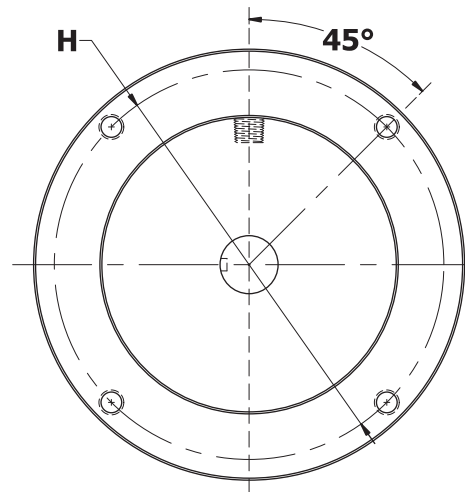
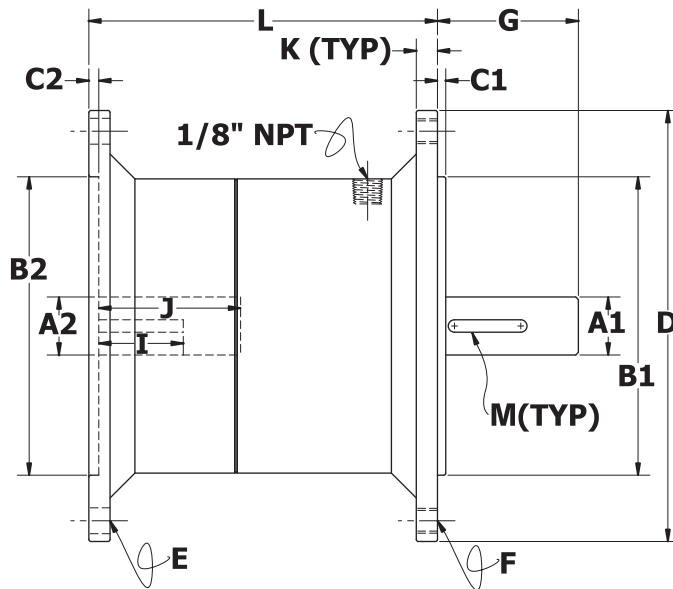


#### SPECIFICATIONS

Product No.	Torque (lb-in)	Release Pressure (PSI)	NEMA Frame Size
D3C3R-56H	286	60-65	56C
D3C3R-14H	286	60-65	143TC, 145TC
D5C3R-18H	575	60-65	182TC, 184TC
D5C3R-21H	575	60-65	213TC, 215TC

#### DESIGN FEATURES

- Mounts between motor and gear reducer
- Enclosed design in aluminum housing
- Optional corrosion resistant and food safe finishes available
- Not suitable for belt drive (pulley output) applications. Consult factory for options.



#### Have Any Questions About our Products?

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#### DIMENSIONS – inches

Product No.	A1	A2	B1	B2	C1	C2	D	E	F	G	H	I	J	K	L	M (KEYWAY)
D3C3R-56H	.624/.625	.625/.626	4.498/4.500	4.500/4.502	0.13	0.15	6.50	25/64	3/8-16	2 1/16	5.875	1.26	1.96	0.32	3.02	3/16
D3C3R-14H	.874/.875	.875/.876	4.498/4.500	4.500/4.502	0.13	0.15	6.50	25/64	3/8-16	2 1/8	5.875	1.26	1.96	0.32	3.02	3/16
D5C3R-18H	1.124/1.125	1.125/1.126	8.498/8.500	8.500/8.502	0.25	0.23	9.00	17/32	1/2-13	2 5/8	7.250	1.89	2.64	1.00	4.63	1/4
D5C3R-21H	1.374/1.375	1.375/1.376	8.498/8.500	8.500/8.502	0.25	0.23	9.00	17/32	1/2-13	3 3/8	7.250	2.25	3.25	1.00	4.63	5/16

Metric And Custom Frame Sizes Available

# SensiFlex<sup>®</sup>

## Tension Control Brakes

- DESIGN FEATURES
- TENSION CONTROL BRAKES

# MACH III CLUTCH INC.

## DESIGNED TO MEET THE NEEDS OF TODAY'S CONVERTING CUSTOMER

Tension control applications are unique. They require a brake that will operate smoothly throughout the entire converting process without the sticking, pulsing or cogging inherent in some brake designs. Heat caused by constant slip must be dissipated to prevent friction lining fade and premature brake failure. The brake must be capable of a broad range of torque output to supply the processing flexibility demanded from today's converting machinery. One pneumatic brake offers these features plus the added benefits of competitive price, simple installation and long, maintenance free service . . . SensiFlex® from Mach III Clutch, Inc.

### SensiFlex® DESIGN FEATURES

#### ***Sensitivity = Flexibility***

A newly developed, patented actuator provides maximum sensitivity to the slightest air pressure changes for the broadest possible range of torque output and infinite controllability.

#### ***Superior Heat Dissipation***

The unique, SensiFlex® brake design pulls cooler, ambient air into the brake then pushes it outward through radial holes to effectively dissipate the heat generated by constant slip.

Higher thermal horsepower capacity is achieved without the addition of fans or expensive water cooling equipment. Lower operating temperatures reduce the chance of lining fade and increase the wear life of the brake.

#### ***Smooth, Low Maintenance Performance***

Precision machining assures parallel alignment of the friction and drive surfaces for smooth operation and even wear. A single, specially molded, low coefficient friction disc provides smooth performance and exceptionally long life.

#### ***Simple Installation***

Compact, self-contained brakes provide easy, slide on the shaft installation with a single air line connection. Each unit is supplied standard with a customer selected bore size & keyway.



## EXCEPTIONAL APPLICATION ASSISTANCE & CUSTOMER SERVICE

Mach III's engineering, design and sales team provides support before, during and after the sale. Application analysis, selection assistance, reliable lead times and quick response to questions or field problems are components of every product manufactured by Mach III Clutch, Inc.

## GENERAL ENGINEERING INFORMATION

#### ***Safety/Service Factor***

When calculating required torque, always use a service factor of 1.5 to 2. It is not recommended to select a clutch or brake for use at its maximum rated torque for continuous duty.

#### ***Listed Torque Ratings***

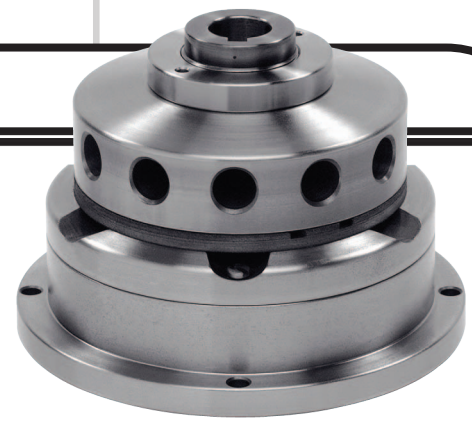
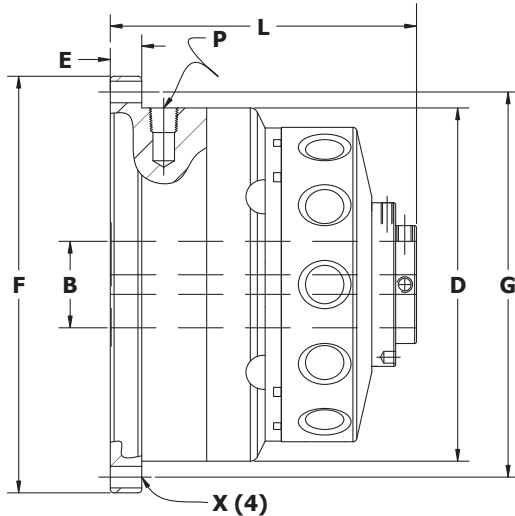
All torque ratings listed in this brochure are dynamic torque ratings. Brakes will reach their full rated design torque after a brief wear in period. The exact length of time for this to occur depends upon the application.

**Have Any Questions About Our Products?**

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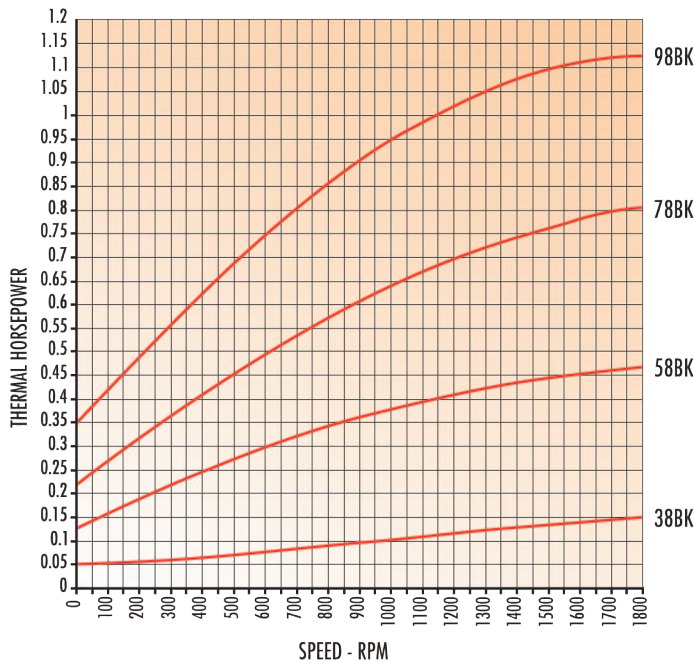
# SensiFlex®

# MACH III CLUTCH INC.



## Tension Control Brakes

### HEAT DISSIPATION



### SPECIFICATIONS

Product No.	Torque Rating @80 PSI	Heat Dissipation at 1800 RPM	Air Pressure To Engage Brake*	Weight-Lbs
38BK	148 lb-in	.14 tHP	4 – 5 PSI	7 lbs
58BK	409 lb-in	.47 tHP	5.5 – 6.5 PSI	20 lbs
78BK	994 lb-in	.81 tHP	3.5 – 4.5 PSI	41 lbs
98BK	1941 lb-in	1.13 tHP	3 – 4 PSI	74 lbs

\* Avoids possible inconsistent regulator output below 3 PSI

### REPLACEMENT PART KITS

Kit	Contents	Part Number
Facing Kit	Low Coefficient Friction Disc, Brass Mounting Screws	Add "FK" to the product number. (e.g. 58BK-FK)
Repair Kit	Low Coefficient Friction Disc, Brass Mounting Screws, Spring(s) and Diaphragm	Add "RK" to the product number. (e.g. 58BK-RK)

### DIMENSIONS — inches

PRODUCT No.	B Range	D	E	F	G	L	P NPT	X
38BK	5/8 to 7/8	3.97	.31	4.63	4.312	3.21	1/16	(4) 13/64 THRU
58BK	1 to 1-3/8	5.62	.50	6.63	6.125	4.87	1/8	(4) 11/32 THRU
78BK	1 to 1-7/8	7.00	.50	8.25	7.625	6.12	1/8	(4) 25/64 THRU
98BK	1 3/8 to 2-1/8	8.79	.56	10.25	9.500	7.26	1/4	(4) 29/64 THRU

SensiFlex® brakes include rotating components and should be guarded according to OSHA requirements and other federal, state and local regulations. It is the responsibility of the user to provide the necessary guarding.

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# SensiFlex®



## Thru Shaft Pilot Mount Clutches



- Stationary Air Housing design suitable for midshaft or end of shaft locations
- Pilot accepts sprocket, pulley or v-belt sheave

## End of Shaft Pilot Mount Clutches



- Rotary air fitting for end of shaft locations
- Pilot accepts sprocket, pulley or v-belt sheave

## Clutch Mechanisms with Adapters



- Stationary Air Housing design suitable for midshaft or end of shaft locations
- Supplied with Adapter Sleeve for customer mounting to bearing supported flywheel or other device

## Clutch Mechanisms with Couplings



- Stationary Air Housing design for through-shaft mounting
- Shaft to shaft applications with no angular or parallel misalignment

## Flexible Clutch Couplings



- Stationary Air Housing design for through-shaft mounting
- Shaft to shaft applications with slight angular or parallel misalignment

## NEMA C-Face Mount Air Clutches



- Mounts between motor and gear reducer
- Enclosed design in aluminum housing
- Optional corrosion resistant and food safe finishes available

## Sensiflex® tension control clutches



- Smooth performance for tension control applications
- Patented actuator provides highly responsive torque control
- Radial holes create air flow for maximal heat dissipation
- Easy, slide on the shaft installation
- Designed for a long, low maintenance life cycle
- Three mounting options: pilot input, shaft input and double-shaft foot mount

### Thru Shaft Pilot Mount Clutches Bronze Bushing Pilot



#### SPECIFICATIONS

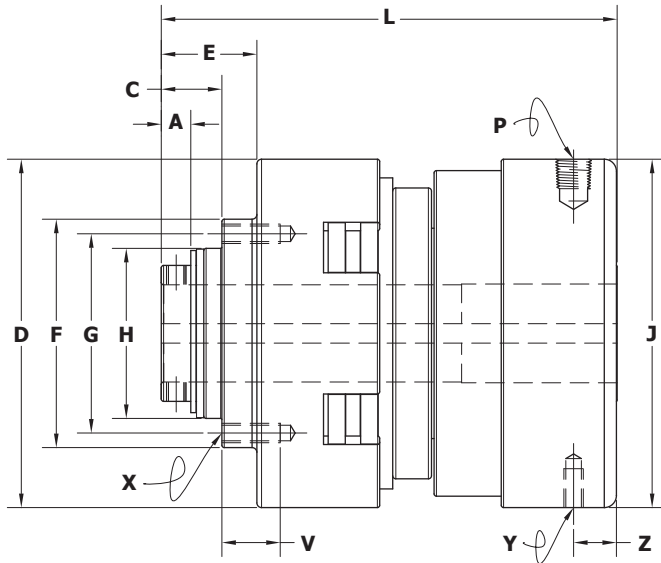
Product No.	Torque Rating (lb-in) @80 PSI	Max. Bore w/ Square Key (inches)
C3B2H-STH	555	1
C4B2H-STH	1317	1-1/4
C5B2H-STH	2587	1-7/16
C6B2G-STH	5397	2

#### DESIGN FEATURES

Torque ratings to 5,400 pound inches

Bore sizes to 2 inches

Low Speed Applications



See Engineering Section for minimum sprocket size information.

### Have Any Questions About our Products?

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#### DIMENSIONS — inches

Product No.	A	C	D	E	F	G	H	J	L	P(NPT)	V	X	Y	Z
C3B2H-STH	0.38	0.76	3.50	1.21	2.59	2.234	1.875	3.50	5.05	1/16	0.56	(6)10-32	(1)10-32	0.46
C4B2H-STH	0.38	0.78	4.50	1.23	3.03	2.609	2.187	4.50	5.86	1/8	0.75	(6)1/4-20	(1)1/4-20	0.56
C5B2H-STH	0.56	1.05	5.69	1.61	3.69	3.172	2.656	5.66	6.28	1/8	0.75	(6)5/16-18	(1)1/4-20	0.63
C6B2G-STH	0.53	1.12	7.34	1.79	5.03	4.422	3.812	7.63	7.38	1/4	1.25	(6)3/8-16	(1)1/4-20	0.42

Metric Bore Sizes Available

### Thru Shaft Pilot Mount Clutches Ball Bearing Pilot



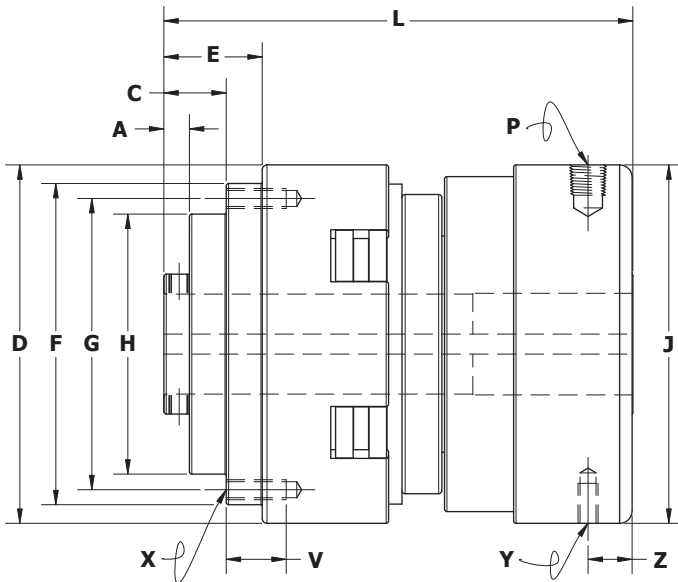
#### SPECIFICATIONS

Product No.	Torque Rating (lb-in) @80 PSI	Max. Bore w/ Square Key (inches)
C3A2H-STH	555	1
C4A2H-STH	1317	1-1/4
C5A2H-STH	2587	1-7/16
C6A2G-STH	5397	2

#### DESIGN FEATURES

Torque ratings to 5,400 pound inches

Bore sizes to 2 inches



See Engineering Section for minimum sprocket size information.

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#### DIMENSIONS — inches

Product No.	A	C	D	E	F	G	H	J	L	P(NPT)	V	X	Y	Z
C3A2H-STH	0.30	0.76	3.50	1.21	3.41	3.047	2.687	3.50	5.05	1/16	0.56	(6)10-32	(1)10-32	0.46
C4A2H-STH	0.32	0.78	4.50	1.23	4.09	3.672	3.250	4.50	5.86	1/8	0.75	(6)1/4-20	(1)1/4-20	0.56
C5A2H-STH	0.47	1.05	5.69	1.61	4.47	3.953	3.437	5.66	6.28	1/8	0.75	(6)5/16-18	(1)1/4-20	0.63
C6A2G-STH	0.48	1.12	7.34	1.79	5.97	5.359	4.750	7.63	7.38	1/4	1.25	(6)3/8-16	(1)1/4-20	0.42

Metric Bore Sizes Available

### Thru Shaft Pilot Mount Clutches Heavy Duty

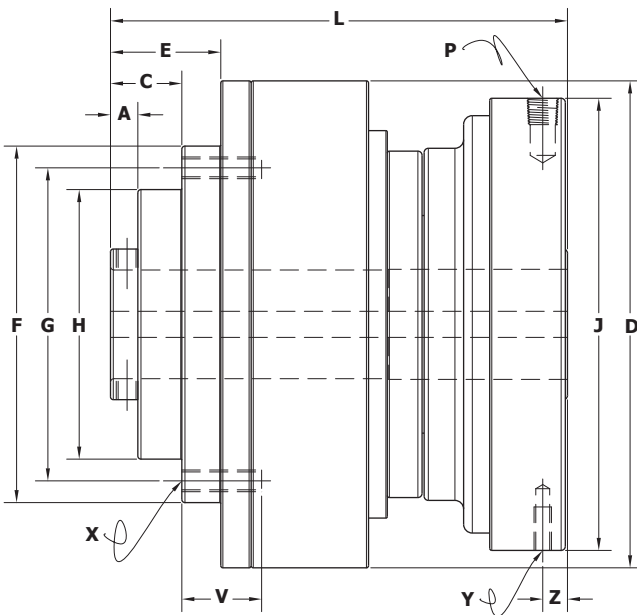


SPECIFICATIONS		
Product No.	Torque Rating (lb-in) @80 PSI	Max. Bore w/ Square Key (inches)
C5A2K-STH	3320	1-9/16
C6A2K-STH	5397	2
C8A2K-STH	9212	2-1/2
CAA2K-STH	14755	2-3/4
CBA2K-STH	21204	3-1/2

#### DESIGN FEATURES

Torque Ratings to 21,200 pound inches

Bore sizes to 3-1/2 inches



See Engineering Section for minimum sprocket size information.

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Product No.	DIMENSIONS — inches													
	A	C	D	E	F	G	H	J	L	P(NPT)	V	X	Y	Z
C5A2K-STH	0.39	1.03	7.00	1.59	4.91	4.391	3.875	6.50	6.56	1/8	1.00	(6)5/16-18	(1)1/4-20	0.35
C6A2K-STH	0.48	1.12	8.07	1.79	5.97	5.359	4.750	7.63	7.38	1/4	1.25	(6)3/8-16	(1)1/4-20	0.42
C8A2K-STH	0.57	1.50	10.00	2.28	7.41	6.703	6.000	8.97	9.00	1/4	1.50	(6)7/16-14	(1)1/4-20	0.51
CAA2K-STH	0.57	1.50	12.00	2.28	8.09	7.297	6.500	10.13	10.00	1/4	1.50	(8)1/2-13	(1)1/4-20	0.54
CBA2K-STH	0.64	1.57	13.88	2.35	9.41	8.516	7.625	11.53	10.73	1/4	1.50	(8)9/16-12	(1)1/4-20	0.56

Metric Bore Sizes Available

### End of Shaft Pilot Mount Clutches

#### Bronze Bushing Pilot

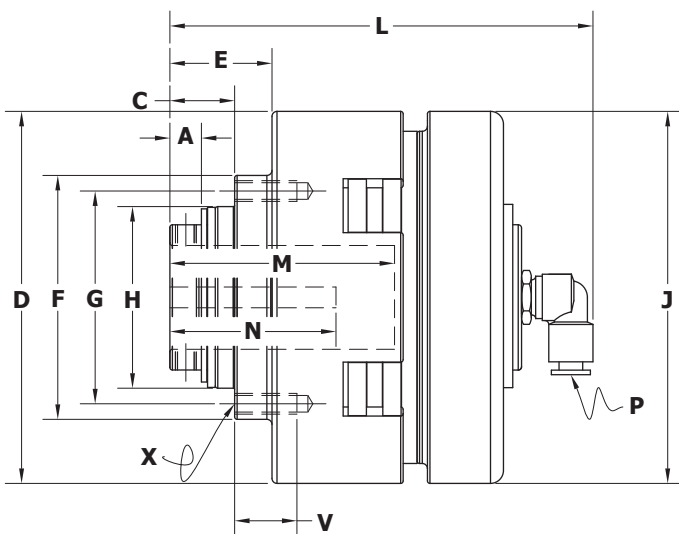


#### SPECIFICATIONS

Product No.	Torque Rating (lb-in) @80 PSI	Max. Bore w/ Square Key (inches)
C3E2H-STH	555	1
C4E2H-STH	1317	1-1/4
C5E2H-STH	2587	1-7/16
C6E2G-STH	5397	2

#### DESIGN FEATURES

Torque ratings to 5,400 pound inches
Bore sizes to 2 inches
Low Speed Applications



See Engineering Section for minimum sprocket size information.

### Have Any Questions About our Products?

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#### DIMENSIONS — inches

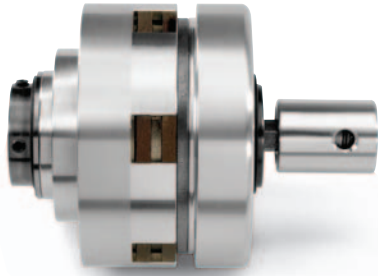
Product No.	A	C	D	E	F	G	H	J	L	M	N	P	V	X
C3E2H-STH	0.38	0.76	3.50	1.21	2.59	2.234	1.875	3.50	4.67	2.50	1.75	1/4 Tube	0.56	(6)10-32
C4E2H-STH	0.38	0.78	4.50	1.23	3.03	2.609	2.187	4.50	5.09	2.75	2.00	1/4 Tube	0.75	(6)1/4-20
C5E2H-STH	0.56	1.05	5.69	1.61	3.69	3.172	2.656	5.66	5.80	3.25	2.25	1/4 Tube	0.75	(6)5/16-18
C6E2G-STH	0.53	1.12	7.34	1.79	5.03	4.422	3.812	7.63	8.92	3.88	2.63	1/4 NPT*	1.25	(6)3/8-16

Metric Bore Sizes Available

\*Rotary air union differs from the one pictured above. See following page for accurate rendering.

### End of Shaft Pilot Mount Clutches

#### Ball Bearing Pilot



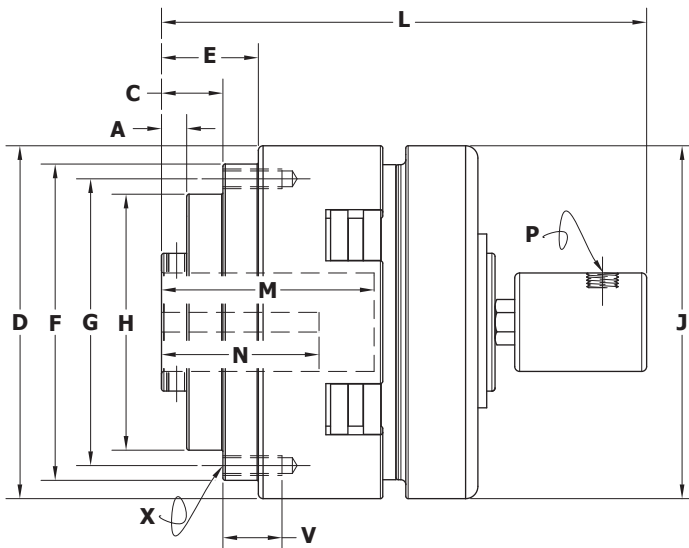
#### SPECIFICATIONS

Product No.	Torque Rating (lb-in) @80 PSI	Max. Bore w/ Square Key (inches)
C3D2H-STH	555	1
C4D2H-STH	1317	1-1/4
C5D2H-STH	2587	1-7/16
C6D2G-STH	5397	2

#### DESIGN FEATURES

Torque ratings to 5,400 pound inches

Bore sizes to 2 inches



See Engineering Section for minimum sprocket size information.

### Have Any Questions About our Products?

Call us toll free at 1-866-291-0849 or visit our Web site at [www.machiii.com](http://www.machiii.com)

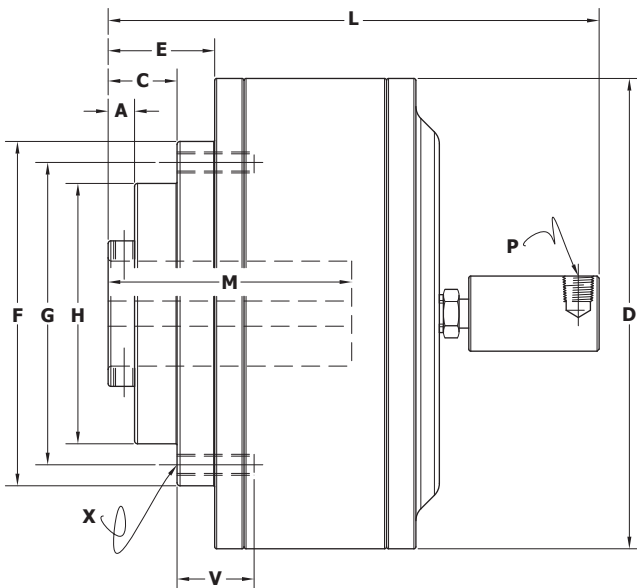
#### DIMENSIONS — inches

Product No.	A	C	D	E	F	G	H	J	L	M	N	P(NPT)	V	X
C3D2H-STH	0.30	0.76	3.50	1.21	3.41	3.047	2.687	3.50	5.73	2.50	1.75	1/8	0.56	(6)10-32
C4D2H-STH	0.32	0.78	4.50	1.23	4.09	3.672	3.250	4.50	6.15	2.75	2.00	1/8	0.75	(6)1/4-20
C5D2H-STH	0.47	1.05	5.69	1.61	4.47	3.953	3.437	5.66	6.86	3.25	2.25	1/8	0.75	(6)5/16-18
C6D2G-STH	0.48	1.12	7.34	1.79	5.97	5.359	4.750	7.63	8.92	3.88	2.63	1/4	1.25	(6)3/8-16

Metric Bore Sizes Available

### End of Shaft Pilot Mount Clutches

Heavy Duty - High Torque



#### SPECIFICATIONS

Product No.	Torque Rating (lb-in) @80 PSI	Max. Bore w/ Square Key (inches)
C5D3K-STH	4690	1-9/16
C6D3K-STH	7405	2
C8D3K-STH	14855	2-1/2
CAD3K-STH	30795	2-3/4
CBD3K-STH	41008	3-1/2

#### DESIGN FEATURES

Torque Ratings to 41,000 pound inches

Bore sizes to 3-1/2 inches

See Engineering Section for minimum sprocket size information.

### Have Any Questions About our Products?

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#### DIMENSIONS — inches

Product No.	A	C	D	E	F	G	H	L	M	P (NPT)	V	X
C5D3K-STH	0.39	1.03	7.00	1.59	4.91	4.391	3.875	7.31	3.63	1/8	1.00	(6) 5/16-18
C6D3K-STH	0.48	1.12	8.07	1.79	5.97	5.359	4.750	8.05	3.87	1/4	1.25	(6) 3/8-16
C8D3K-STH	0.57	1.50	10.00	2.28	7.41	6.703	6.000	9.35	4.88	1/4	1.50	(6) 7/16-14
CAD3K-STH	0.57	1.50	12.00	2.28	8.09	7.297	6.500	9.80	5.25	1/4	1.50	(8) 1/2-13
CBD3K-STH	0.64	1.57	13.88	2.35	9.41	8.516	7.625	10.34	5.63	1/4	1.50	(8) 9/16-12

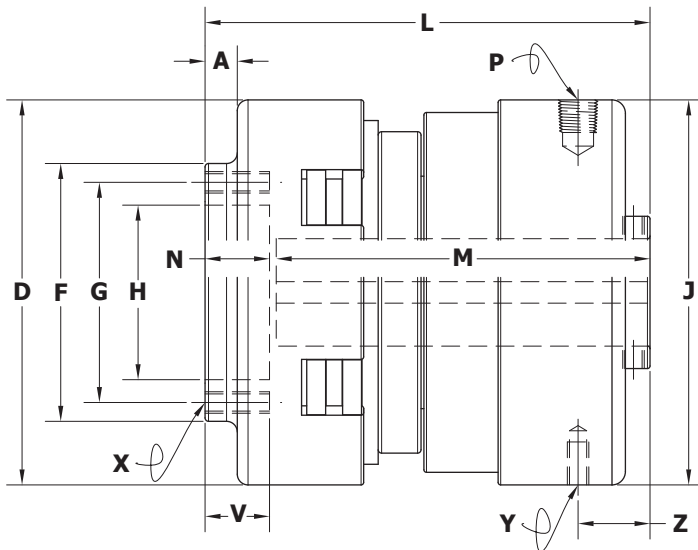
Metric Bore Sizes Available

### Clutch Mechanisms with Adapters Regular Duty



SPECIFICATIONS		
Product No.	Torque Rating (lb-in) @80 PSI	Max. Bore w/ Square Key (inches)
M3R2H-STH	555	1
M4R2H-STH	1317	1-1/4
M5R2H-STH	2587	1-7/16
M6R2G-STH	5397	2

DESIGN FEATURES
Torque ratings to 5,400 pound inches
Bore sizes to 2 inches



### Have Any Questions About our Products?

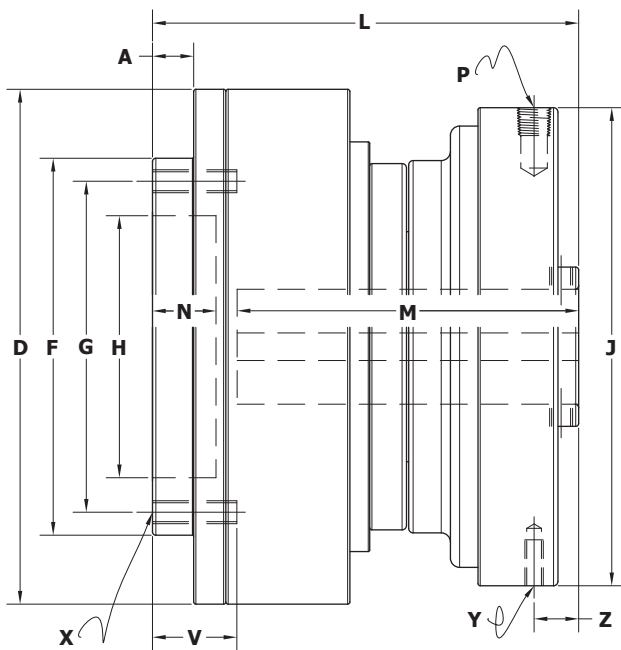
Call us toll free at 1-866-291-0849 or visit our Web site at [www.machiii.com](http://www.machiii.com)

Product No.	DIMENSIONS — inches													
	A	D	F	G	H	J	L	M	N	P(NPT)	V	X	Y	Z
M3R2H-STH	0.34	3.50	3.01	2.500	1.625	3.50	4.34	3.66	0.63	1/16	0.56	(6)10-32	(1)10-32	0.75
M4R2H-STH	0.38	4.50	3.00	2.562	2.031	4.50	5.18	4.35	0.75	1/8	0.75	(6)1/4-20	(1)1/4-20	0.84
M5R2H-STH	0.50	5.69	3.63	3.125	2.500	5.66	5.69	4.72	0.88	1/8	0.88	(6)5/16-18	(1)1/4-20	1.06
M6R2G-STH	0.66	7.34	6.00	5.375	4.375	7.63	6.54	5.39	1.16	1/4	1.00	(6)3/8-16	(1)1/4-20	0.71

Metric Bore Sizes Available



### Clutch Mechanisms with Adapters Heavy Duty



SPECIFICATIONS		
Product No.	Torque Rating (lb-in) @80 PSI	Max. Bore w/ Square Key (inches)
M5R2K-STH	3320	1-9/16
M6R2K-STH	5397	2
M8R2K-STH	9212	2-1/2
MAR2K-STH	14755	2-3/4
MBR2K-STH	21204	3-1/2

DESIGN FEATURES
Torque Ratings to 21,200 pound inches
Bore sizes to 3-1/2 inches

### Have Any Questions About our Products?

Call us toll free at 1-866-291-0849 or visit our Web site at [www.machiii.com](http://www.machiii.com)

Product No.	DIMENSIONS — inches														
	A	D	F	G	H	J	L	M	N	P(NPT)	V	X	Y	Z	
M5R2K-STH	0.56	7.00	5.13	4.500	3.562	6.50	5.79	4.83	0.97	1/8	1.00	(6)5/16-18	(1)1/4-20	0.61	
M6R2K-STH	0.66	8.07	6.00	5.375	4.375	7.63	6.54	5.39	1.16	1/4	1.25	(6)3/8-16	(1)1/4-20	0.71	
M8R2K-STH	0.78	10.00	7.50	6.750	5.531	8.97	7.95	6.56	1.38	1/4	1.50	(6)7/16-14	(1)1/4-20	0.96	
MAR2K-STH	0.78	12.00	8.13	7.375	5.937	10.13	8.85	7.38	1.48	1/4	1.50	(8)1/2-13	(1)1/4-20	0.90	
MBR2K-STH	0.78	13.88	9.41	8.562	7.125	11.53	9.73	8.09	1.63	1/4	1.50	(8)9/16-12	(1)1/4-20	1.13	

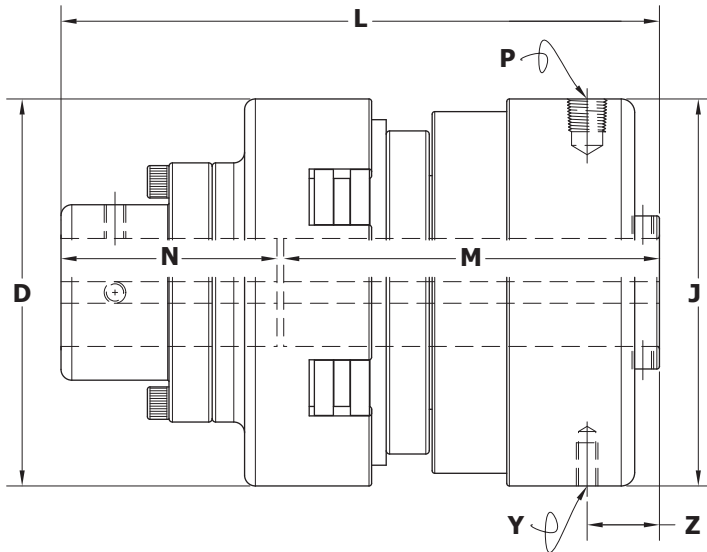
Metric Bore Sizes Available

### Clutch Mechanisms with Couplings Regular Duty



SPECIFICATIONS		
Product No.	Torque Rating (lb-in) @80 PSI	Max. Bore w/ Square Key (inches)
M3G2H-STH	555	1
M4G2H-STH	1317	1-1/4
M5G2H-STH	2587	1-7/16
M6G2G-STH	5397	2

DESIGN FEATURES
Torque ratings to 5,400 pound inches
Bore sizes to 2 inches



See Engineering Section for shaft to shaft mounting recommendations.

### Have Any Questions About our Products?

Call us toll free at 1-866-291-0849 or visit our Web site at [www.machiii.com](http://www.machiii.com)

Product No.	DIMENSIONS — inches							
	D	J	L	M	N	P(NPT)	Y	Z
M3G2H-STH	3.50	3.50	5.72	3.66	2.00	1/16	(1) 10-32	0.75
M4G2H-STH	4.50	4.50	6.93	4.35	2.50	1/8	(1) 1/4-20	0.84
M5G2H-STH	5.69	5.66	7.81	4.72	3.00	1/8	(1) 1/4-20	1.06
M6G2G-STH	7.34	7.63	9.54	5.39	4.00	1/4	(1) 1/4-20	0.71

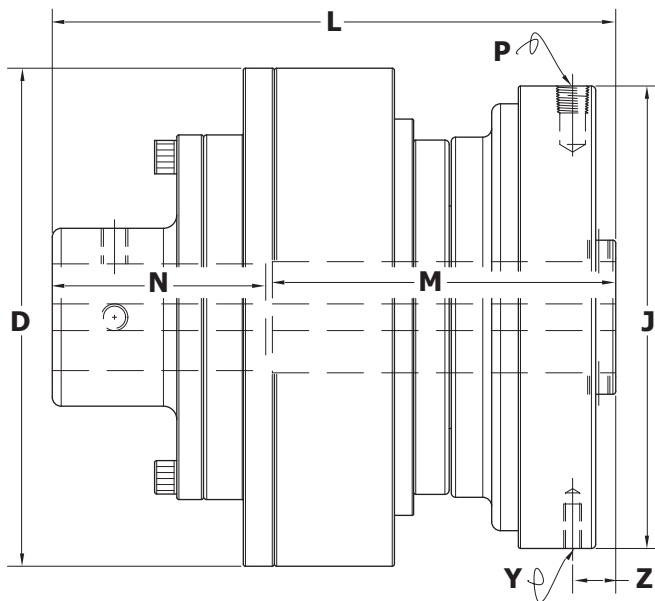
Metric Bore Sizes Available

### Clutch Mechanisms with Couplings Heavy Duty



SPECIFICATIONS		
Product No.	Torque Rating (lb-in) @80 PSI	Max. Bore w/ Square Key (inches)
M5G2K-STH	3320	1-9/16
M6G2K-STH	5397	2
M8G2K-STH	9212	2-1/2
MAG2K-STH	14755	2-3/4
MBG2K-STH	21204	3-1/2

DESIGN FEATURES
Torque Ratings to 21,200 pound inches
Bore sizes to 3-1/2 inches



See Engineering Section for shaft to shaft mounting recommendations.

### Have Any Questions About our Products?

Call us toll free at 1-866-291-0849 or visit our Web site at [www.machiii.com](http://www.machiii.com)

Product No.	DIMENSIONS — inches							
	D	J	L	M	N	P(NPT)	Y	Z
M5G2K-STH	7.00	6.50	7.92	4.83	3.00	1/8	(1)1/4-20	0.61
M6G2K-STH	8.07	7.63	9.54	5.39	4.00	1/4	(1)1/4-20	0.71
M8G2K-STH	10.00	8.96	11.75	6.56	5.00	1/4	(1)1/4-20	0.96
MAG2K-STH	12.00	10.13	13.08	7.38	5.50	1/4	(1)1/4-20	0.90
MBG2K-STH	13.88	11.53	15.09	8.06	6.75	1/4	(1)1/4-20	1.13

Metric Bore Sizes Available

### Flexible Clutch Couplings Regular Duty



#### SPECIFICATIONS

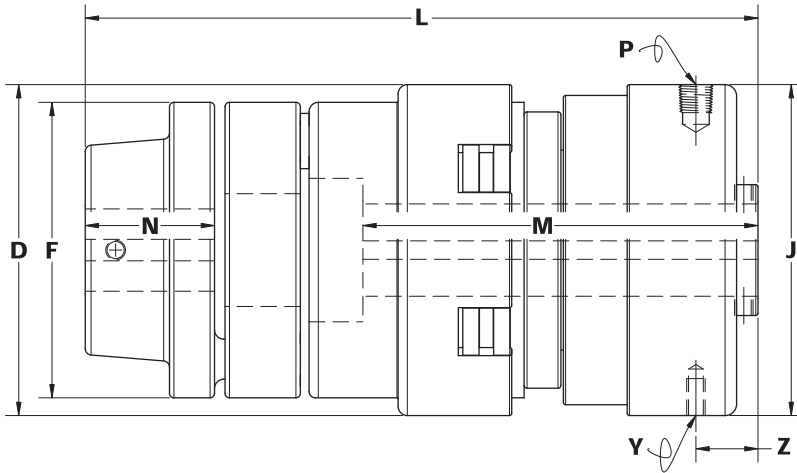
Product No.	Torque Rating (lb-in) @80 PSI	Max. Bore w/Square Key (inches)
C3H2R-STH	555	1
C4H2R-STH	1317	1-1/4
C5H2R-STH	2587	1-7/16
C6H2G-STH	5397	2

#### DESIGN FEATURES

Torque ratings to 5,400 pound inches

Bore sizes to 2 inches

Shaft to shaft coupling with slight angular or parallel misalignment



### Have Any Questions About our Products?

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#### DIMENSIONS – inches

Product No.	D	F	J	L	M	N	P(NPT)	Y	Z
C3H2R-STH	4.00	4.00	3.50	7.16	4.50	1.25	1/16	(1)10-32	0.75
C4H2R-STH	5.13	5.13	4.50	9.30	5.35	2.06	1/8	(1)1/4-20	0.84
C5H2R-STH	5.69	5.16	5.66	9.70	5.75	2.06	1/8	(1)1/4-20	1.06
C6H2G-STH	7.34	5.91	7.63	12.14	6.48	2.38	1/4	(1)1/4-20	0.71

Metric Bore Sizes Available

### Flexible Clutch Couplings Heavy Duty



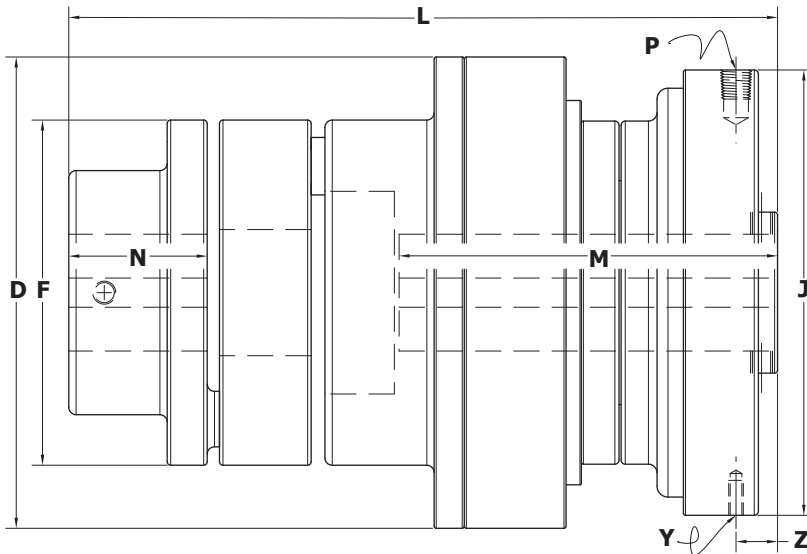
#### SPECIFICATIONS

Product No.	Torque Rating (lb-in) @80 PSI	Max. Bore w/ Square Key (inches)
C5H2K-STH	3320	1-7/16
C6H2K-STH	5397	2

#### DESIGN FEATURES

Torque ratings to 5,400 pound inches

Bore sizes to 2 inches



#### Have Any Questions About our Products?

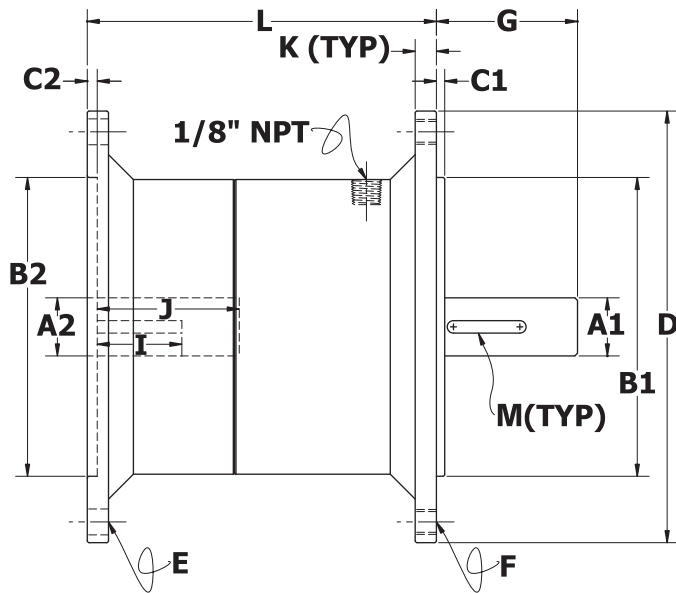
Call us toll free at 1-866-291-0849 or visit our Web site at [www.machiii.com](http://www.machiii.com)

#### DIMENSIONS — inches

Product No.	D	F	J	L	M	N	P(NPT)	Y	Z
C5H2K-STH	7.00	5.16	6.50	9.64	5.70	2.06	1/8	(1) 1/4-20	0.61
C6H2K-STH	8.07	5.91	7.63	12.14	6.48	2.38	1/4	(1) 1/4-20	0.71

Metric Bore Sizes Available

### NEMA C-Face Mount Air Clutches



#### SPECIFICATIONS

Product No.	Torque Rating (lb-in) @80 PSI	NEMA Frame Size
C3C2R-56H	573	56C
C3C2R-14H	573	143TC, 145TC
C5C2R-18H	2587	182TC, 184TC
C5C2R-21H	2587	213TC, 215TC

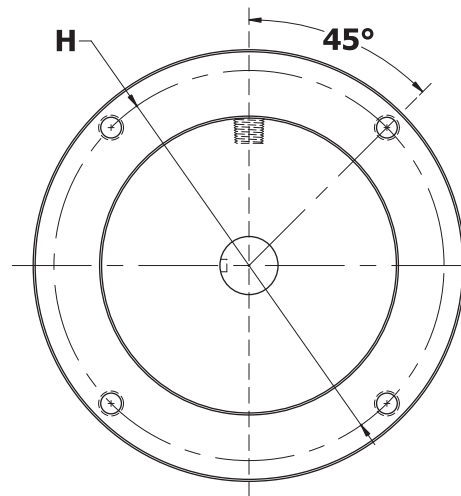
#### DESIGN FEATURES

Mounts between motor and gear reducer

Enclosed design in aluminum housing

Optional corrosion resistant and food safe finishes available

Not suitable for belt drive (pulley output) applications.  
Consult factory for options.



#### Have Any Questions About our Products?

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#### DIMENSIONS – inches

Product No.	A1	A2	B1	B2	C1	C2	D	E	F	G	H	I	J	K	L	M (KEYWAY)
C3C2R-56H	.624/.625	.625/.626	4.498/4.500	4.500/4.502	0.13	0.15	6.50	25/64	3/8-16	2 1/16	5.875	1.27	2.14	0.32	5.26	3/16
C3C2R-14H	.874/.875	.875/.876	4.498/4.500	4.500/4.502	0.13	0.15	6.50	25/64	3/8-16	2 1/8	5.875	1.27	2.14	0.32	5.26	3/16
C5C2R-18H	1.124/1.125	1.125/1.126	8.498/8.500	8.500/8.502	0.25	0.23	9.00	17/32	1/2-13	2 5/8	7.250	2.88	2.88	1.00	7.37	1/4
C5C2R-21H	1.374/1.375	1.375/1.376	8.498/8.500	8.500/8.502	0.25	0.23	9.00	17/32	1/2-13	3 3/8	7.250	2.88	3.53	1.00	7.37	5/16

Metric And Custom Frame Sizes Available

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Mach III products include rotating components and should be guarded according to OSHA requirements and other federal, state and local regulations. It is the responsibility of the user to provide the necessary guarding.

# SensiFlex<sup>®</sup>

## Tension Control Clutches

- DESIGN FEATURES
- DESIGN OPTIONS TO MAXIMIZE HEAT DISSIPATION
- PILOT INPUT
- SHAFT INPUT
- FOOT MOUNT
- SPROCKETS AND PULLEYS

# MACH III CLUTCH INC.

## DESIGNED TO MEET THE NEEDS OF TODAY'S CONVERTING CUSTOMER

Tension control applications are unique. They require a clutch that will operate smoothly throughout the entire converting process without the sticking, pulsing or cogging inherent in some clutch designs. Heat caused by constant slip must be dissipated to prevent friction lining fade and premature clutch failure. The clutch must be capable of a broad range of torque output to supply the processing flexibility demanded from today's converting machinery. One pneumatic clutch offers these features plus the added benefits of competitive price, simple installation and long, maintenance free service . . . SensiFlex® from Mach III Clutch, Inc.

## SensiFlex® DESIGN FEATURES

### **Sensitivity = Flexibility**

A newly developed, patent pending actuator provides maximum sensitivity to the slightest air pressure changes for the broadest possible range of torque output and infinite controllability.

### **Superior Heat Dissipation**

The unique, patent pending SensiFlex® clutch design pulls cooler, ambient air into the clutch (see photo) and then pushes it outward through radial holes to effectively dissipate the heat generated by constant slip.

Higher thermal horsepower capacity is achieved without the addition of fans or expensive water cooling equipment. Lower operating temperatures reduce the chance of lining fade and increase the wear life of the clutch.

### **Smooth, Low Maintenance Performance**

A dual bearing pilot assures parallel alignment of the friction and drive surfaces for smooth operation and even wear of the single, long-lasting, low coefficient friction lining. The dual bearing pilot also provides stability for a field or factory mounted sprocket or pulley, preventing deflection caused by belts or chains.

### **Simple Installation**

Compact, self-contained clutches provide easy, slide on the shaft installation with a single air line connection. Each unit is supplied standard with a customer selected bore size & keyway. SensiFlex® clutches are available with user specified sprockets or pulleys attached for true "out-of-the-box" installation. See page 5 for minimum sprocket and pulley specifications.

## EXCEPTIONAL APPLICATION ASSISTANCE & CUSTOMER SERVICE

Mach III's engineering, design and sales team provides support before, during and after the sale. Application analysis, selection assistance, reliable lead times and quick response to questions or field problems are components of every product manufactured by Mach III Clutch, Inc.



Have Any Questions About Our Products?

Call us toll free at 1-866-291-0849 or visit our Web site at [www.machiii.com](http://www.machiii.com)

# SensiFlex®

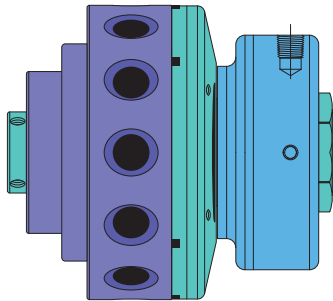


### DESIGN OPTIONS TO MAXIMIZE HEAT DISSIPATION

Mach III is the only manufacturer to offer separate models designed to maximize heat dissipation based on machine layout requirements. Pilot Input, Shaft Input and Double-Shaft Foot Mount configurations insure that the unique, patent pending cooling sleeve rotates at the speed of the drive input to maximize heat dissipation.

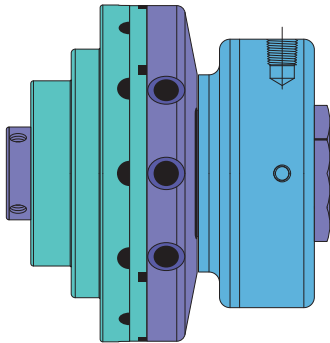
### Choose the Style Best Suited To Your Machine Design Requirements:

■ ALWAYS STATIONARY   
 ■ ROTATES AT SPEED OF DRIVE INPUT   
 ■ ROTATES WHEN CLUTCH IS ENGAGED



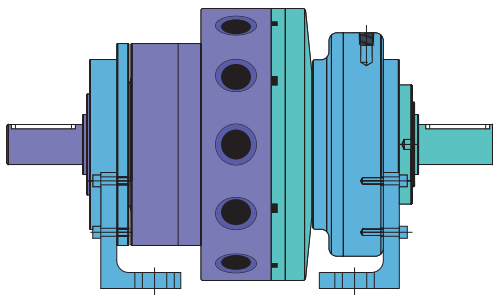
#### **SensiFlex® PI - Pilot Input Clutch**

For applications requiring the clutch to drive the shaft when engaged. Cooling sleeve rotates with the pilot mounted sprocket, pulley or coupling at the speed of the drive input.



#### **SensiFlex® SI - Shaft Input Clutch**

For applications requiring the clutch to drive a pilot mounted pulley, sprocket or coupling when engaged. Cooling sleeve rotates with the shaft at the speed of the drive input. Shaft input clutches can also be used as brakes by fixing the pilot to the machine frame or other stationary surface.



#### **SensiFlex® FM - Foot Mount Clutch**

For applications requiring input and output shaft connections. Clutch drives output shaft when engaged. Input shaft and cooling sleeve rotate at the speed of the drive input.

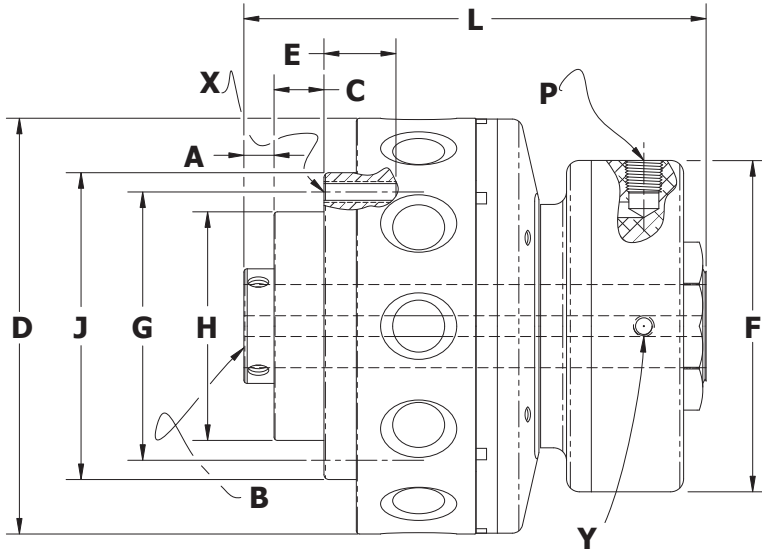
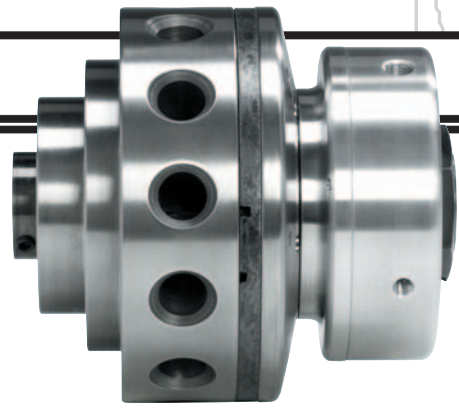
Specifications and dimensional information for the Pilot and Shaft Input Clutches are contained within this brochure. Please contact Mach III Clutch for details on foot mount models.

**Have Any Questions About Our Products?**

Call us toll free at 1-866-291-0849 or visit our Web site at [www.machiii.com](http://www.machiii.com)

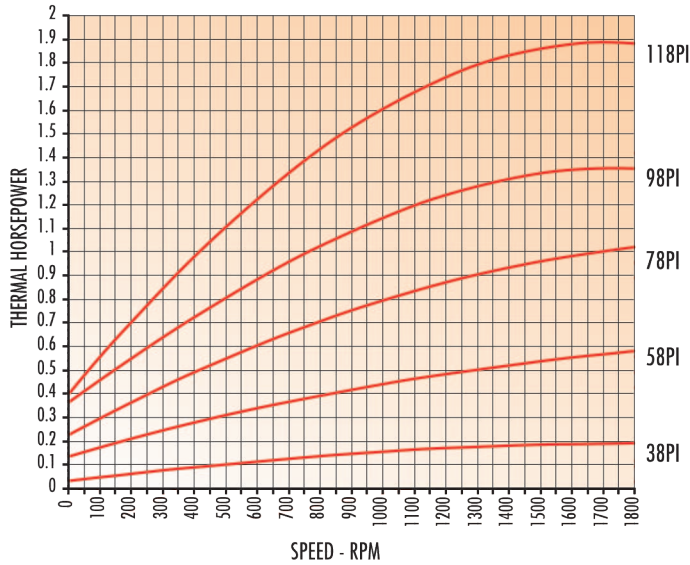
# SensiFlex®

# MACH III CLUTCH INC.



**Pilot Input**  
**Tension Control Clutch**  
*Clutch Drives Shaft When Engaged*

## HEAT DISSIPATION



## SPECIFICATIONS

Product No.	Torque Rating @ 80 PSI	Heat Dissipation at 1800 RPM	Air Pressure To Engage Clutch*	Weight-Lbs
38PI	66 lb-in	.19 tHP	5.5 – 6.5 PSI	3 lbs
58PI	222 lb-in	.57 tHP	3 – 4 PSI	11 lbs
78PI	593 lb-in	1.02 tHP	3.5 – 4.5 PSI	29 lbs
98PI	1214 lb-in	1.36 tHP	4 – 5 PSI	53 lbs
118PI	2356 lb-in	1.90 tHP	4.5 – 5 PSI	98 lbs

\*Avoids possible inconsistent regulator output below 3 PSI

## DIMENSIONS – inches

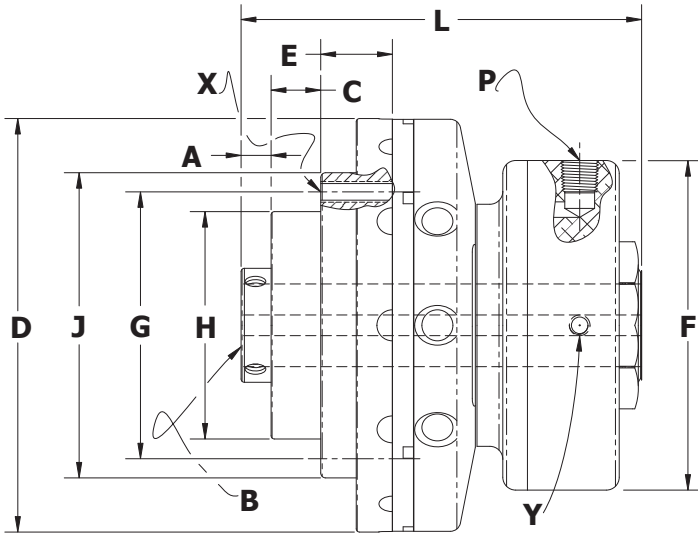
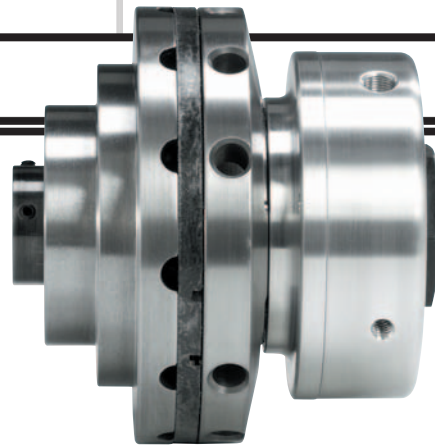
Product No.	A	B Range	C	D	E	F	G	H	J	L	P NPT	X Thread	Y Thread
38PI	.22	1/2 to 5/8	.40	3.38	.61	2.79	2.25	1.875	2.56	3.84	1/16	(3) 10 – 24	10 – 24
58PI	.32	5/8 to 1	.60	5.00	.87	3.99	3.25	2.750	3.69	5.56	1/8	(3) 1/4 – 20	1/4 – 20
78PI	.45	1 to 1-3/8	.81	7.00	1.20	5.48	4.50	3.875	5.00	7.39	1/8	(3) 5/16 – 18	1/4 – 20
98PI	.49	1-3/8 to 1-7/8	.87	8.50	1.25	6.98	5.63	5.000	6.22	8.88	1/8	(6) 3/8 – 16	1/4 – 20
118PI	.55	1-5/8 to 2-1/4	1.10	10.50	1.50	8.73	7.00	6.250	7.66	10.32	1/4	(6) 7/16 – 14	5/16 – 18

SensiFlex® clutches include rotating components and should be guarded according to OSHA requirements and other federal, state and local regulations. It is the responsibility of the user to provide the necessary guarding.

**Have Any Questions About Our Products?**  
Call us toll free at 1-866-291-0849 or visit our Web site at [www.machiii.com](http://www.machiii.com)

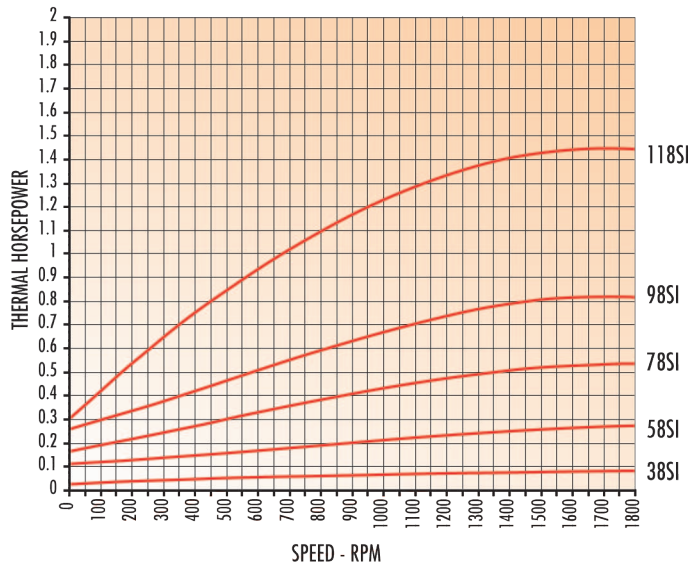
# SensiFlex®

# MACH III CLUTCH INC.



**Shaft Input  
Tension Control Clutch**  
*Clutch Drives Pilot Mounted Sprocket  
or Pulley When Engaged*

## HEAT DISSIPATION



## SPECIFICATIONS

Product No.	Torque Rating @ 80 PSI	Heat Dissipation at 1800 RPM	Air Pressure To Engage Clutch*	Weight-Lbs
38SI	66 lb-in	.08 tHP	5.5 – 6.5 PSI	3 lbs
58SI	222 lb-in	.27 tHP	3 – 4 PSI	8 lbs
78SI	593 lb-in	.54 tHP	3.5 – 4.5 PSI	23 lbs
98SI	1214 lb-in	.83 tHP	4 – 5 PSI	47 lbs
118SI	2356 lb-in	1.46 tHP	4.5 – 5 PSI	90 lbs

\*Avoids possible inconsistent regulator output below 3 PSI

## DIMENSIONS - inches

Product No.	A	B Range	C	D	E	F	G	H	J	L	P NPT	X Thread	Y Thread
38SI	.22	1/2 to 5/8	.40	3.38	.61	2.79	2.25	1.875	2.56	3.55	1/16	(3) 10 – 24	10 – 24
58SI	.36	5/8 to 1	.60	5.00	.87	3.99	3.25	2.750	3.69	4.84	1/8	(3) 1/4 – 20	1/4 – 20
78SI	.45	1 to 1-3/8	.81	7.00	1.20	5.48	4.50	3.875	5.00	6.52	1/8	(3) 5/16 – 18	1/4 – 20
98SI	.49	1-3/8 to 1-7/8	.87	8.50	1.25	6.98	5.63	5.000	6.22	8.15	1/8	(6) 3/8 – 16	1/4 – 20
118SI	.55	1-5/8 to 2-1/4	1.10	10.50	1.50	8.73	7.00	6.250	7.66	9.60	1/4	(6) 7/16 – 14	5/16 – 18

SensiFlex® clutches include rotating components and should be guarded according to OSHA requirements and other federal, state and local regulations. It is the responsibility of the user to provide the necessary guarding.

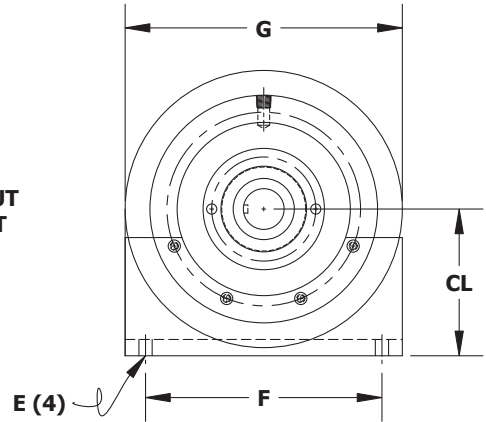
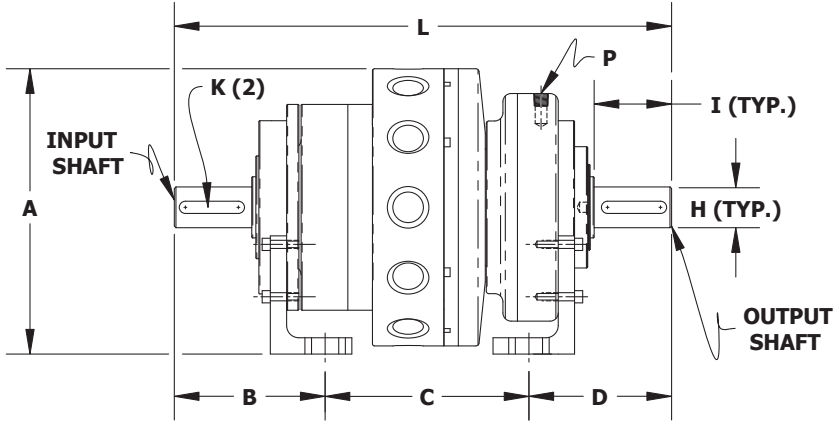
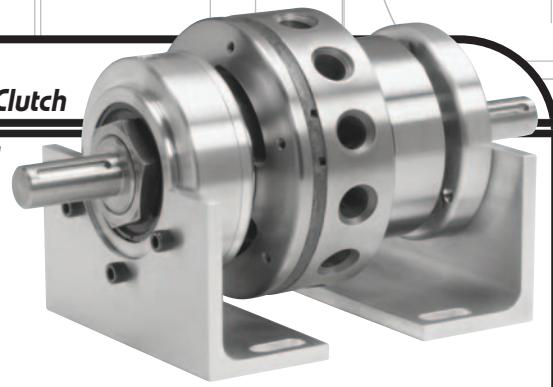
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# SensiFlex®

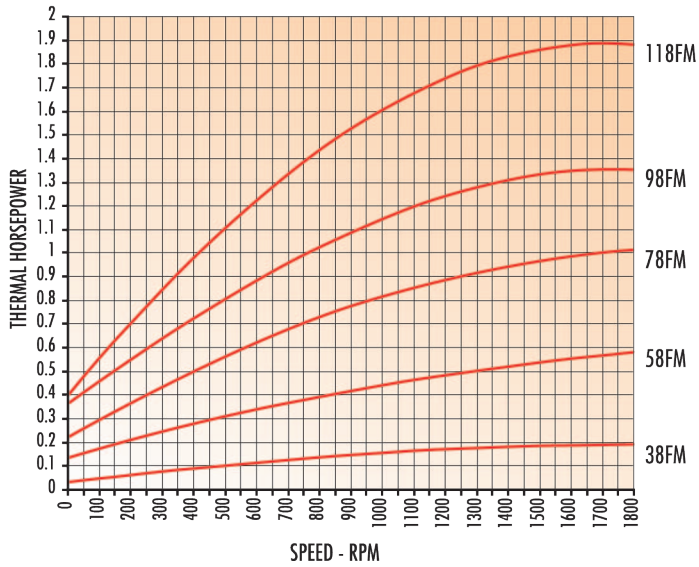
# MACH III CLUTCH INC.

## Foot Mount Tension Control Clutch

Clutch Drives Output Shaft When Engaged



### HEAT DISSIPATION



### SPECIFICATIONS

Product No.	Torque Rating @80 PSI	Heat Dissipation at 1800 RPM	Air Pressure To Engage Clutch*	Weight-Lbs
38FM	66 lb-in	.19 tHP	5.5 - 6.5 PSI	6 lbs
58FM	222 lb-in	.57 tHP	3 - 4 PSI	18 lbs
78FM	593 lb-in	.54 tHP	3.5 - 4.5 PSI	42 lbs
98FM	1214 lb-in	1.36 tHP	4 - 5 PSI	82 lbs
118FM	2356 lb-in	1.90 tHP	4.5 - 5 PSI	120 lbs

\* Avoids possible inconsistent regulator output below 3 PSI

### DIMENSIONS — inches

PRODUCT No.	A	B	C	CL	D	E	F	G	H	I	K	L	P (NPT)
38FM	4.12	2.31	3.63	2.44	2.31	11/32	3.50	4.25	.50	1.25	1/8	8.25	1/16
58FM	5.72	3.61	4.19	3.22	3.61	13/32	4.75	5.53	.75	1.80	3/16	11.41	1/8
78FM	7.34	3.73	5.12	3.84	3.73	13/32	6.25	7.00	0.75	1.80	3/16	12.59	1/8
98FM	8.75	4.48	6.25	4.50	4.52	13/32	7.25	8.50	1.25	2.37	1/4	15.25	1/8
118FM	10.75	4.73	7.38	5.5	5.39	9/16	9.00	10.50	1.625	2.63	3/8	17.50	1/4

SensiFlex® brakes include rotating components and should be guarded according to OSHA requirements and other federal, state and local regulations. It is the responsibility of the user to provide the necessary guarding.

**Have Any Questions About Our Products?**

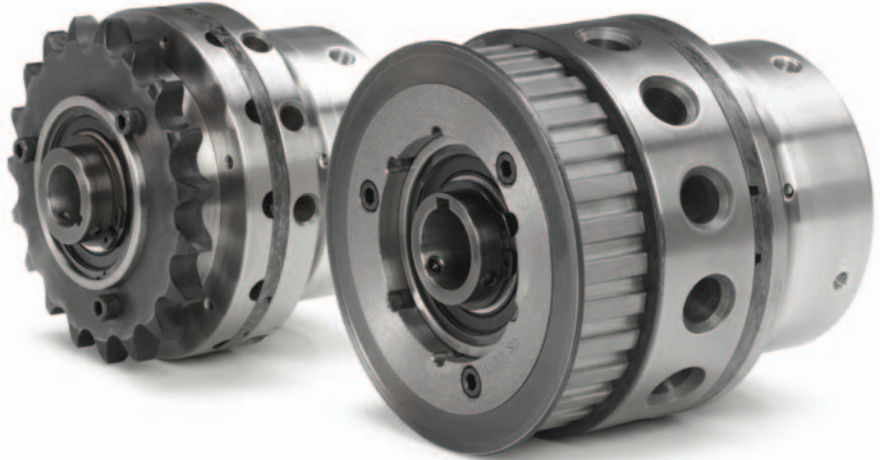
Call us toll free at 1-866-291-0849 or visit our Web site at [www.machiii.com](http://www.machiii.com)

# SensiFlex®

## SensiFlex® CLUTCH PILOT MOUNTED SPROCKETS AND PULLEYS

In addition to supplying every SensiFlex® clutch with the precise bore size required, all Shaft Input and Pilot Input SensiFlex® clutches are available from our factory with the sprocket or pulley you specify.

Pilot mounted coupling adapters are also available. Contact Mach III with your special requirements.



### SPROCKET AND PULLEY AVAILABILITY

Product No.	Minimum "A" Type Sprockets						Minimum Gearbelt Pulleys <i>Contact Mach III For Types Not Listed</i>
	35 Chain	40 Chain	50 Chain	60 Chain	80 Chain	100 Chain	
38PI - 38SI	25	20	17	15	-	-	26L050, 26L075
58PI - 58SI	35	27	22	19	-	-	27H100
78PI - 78SI	-	35	29	25	20	-	37H100
98PI - 98SI	-	43	35	30	23	-	45H100
118PI - 118SI	-	-	42	36	28	23	60H100

### GENERAL ENGINEERING INFORMATION

#### Safety/Service Factor

When calculating required torque, always use a service factor of 1.5 to 2. It is not recommended to select a clutch or brake for use at its maximum rated torque for continuous duty.

#### Listed Torque Ratings

All torque ratings listed in this catalog are dynamic torque ratings. Clutches will reach their full rated design torque after a brief wear in period. The exact length of time for this to occur depends upon the application.

### REPLACEMENT PART KITS

Kit	Contents	Part Number
Facing Kit	Low Coefficient Friction Disc, Brass Mounting Screws	Add "-FK" to the product number. (e.g. 58SI-FK)
Repair Kit	Low Coefficient Friction Disc, Brass Mounting Screws, Spring(s) and Diaphragm	Add "-RK" to the product number. (e.g. 58SI-RK)

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# SensiFlex®

### Stop & Start the Pilot (Sprocket) Clutch-Brakes



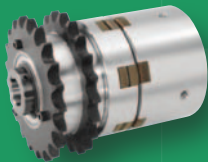
- Air set clutch, spring set brake
- Stationary air housing design suitable for midshaft or end of shaft locations
- Pilot accepts single sprocket, pulley or v-belt sheave

### Stop & Start the Shaft Clutch-Brakes



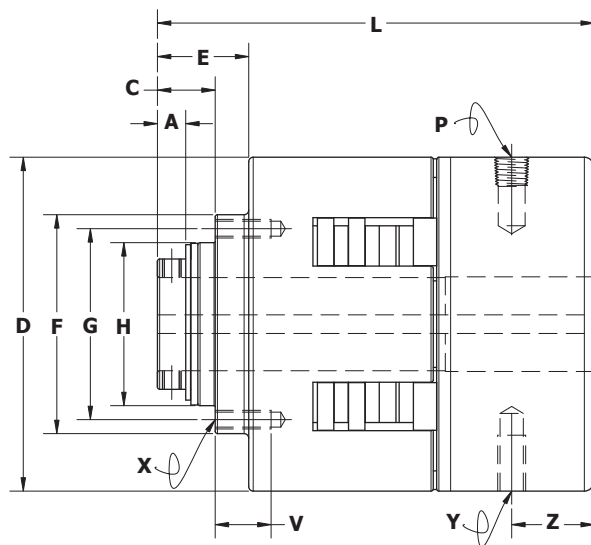
- Air set clutch, spring set brake
- Stationary air housing design suitable for midshaft or end of shaft locations
- Pilot accepts single sprocket, pulley or v-belt sheave

### Stop & Start The Shaft Clutch-Brakes with Integral Double-Single Sprocket



- Air set clutch, spring set brake
- Stationary air housing design suitable for midshaft or end of shaft locations

## Stop & Start the Pilot (sprocket) Clutch-Brakes Bronze Bushing Pilot



SPECIFICATIONS				
Product No.	Clutch Torque (lb-in) @ 80 PSI	Spring Set Brake Torque (lb-in)	Brake Release Pressure (PSI)	Maximum Bore w/ Square Key (inches)
W3B2H-STH	275	39	15-20	5/8
W4B2H-STH	712	128	20-25	1-1/4
W5B2H-STH	1482	337	20-25	1-7/16
W6B2G-STH	2706	525	20-25	2

DESIGN FEATURES
Air set clutch torque ratings to 2,700 pound inches
Spring set brake torque ratings to 525 pound inches
Bore sizes to 2 inches
Low speed applications

See Engineering Section for minimum sprocket size information.

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DIMENSIONS — inches													
Product No.	A	C	D	E	F	G	H	L	P(NPT)	V	X	Y	Z
W3B2H-STH	0.33	0.76	3.52	1.21	2.31	1.953	1.594	4.34	1/16	0.56	(3) 10-24	(2) 5/16-18	0.44
W4B2H-STH	0.38	0.78	4.50	1.23	3.03	2.609	2.187	5.86	1/8	0.75	(3) 1/4-20	(2) 3/8-16	1.11
W5B2H-STH	0.56	1.05	5.69	1.61	3.56	3.047	2.531	6.28	1/8	0.75	(3) 5/16-18	(2) 7/16-14	0.69
W6B2G-STH	0.58	1.18	7.34	1.84	5.03	4.422	3.812	7.76	1/4	1.25	(3) 3/8-16	(2) 1/2-13	0.83

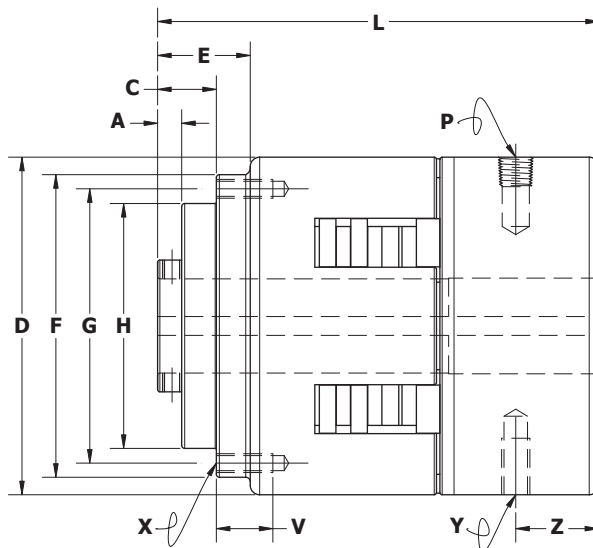
Metric Bore Sizes Available

## Stop & Start the Pilot (sprocket) Clutch-Brakes Ball Bearing Pilot



SPECIFICATIONS				
Product No.	Clutch Torque (lb-in) @ 80 PSI	Spring Set Brake Torque (lb-in)	Brake Release Pressure (PSI)	Maximum Bore w/ Square Key(inches)
W3A2H-STH	275	39	15-20	5/8
W4A2H-STH	712	128	20-25	1-1/4
W5A2H-STH	1482	337	20-25	1-7/16
W6A2G-STH	2706	525	20-25	2

DESIGN FEATURES
Air set clutch torque ratings to 2,700 pound inches
Spring set brake torque ratings to 525 pound inches
Bore sizes to 2 inches



See Engineering Section for minimum sprocket size information.

### Have Any Questions About our Products?

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DIMENSIONS — inches													
Product No.	A	C	D	E	F	G	H	L	P(NPT)	V	X	Y	Z
W3A2H-STH	0.30	0.76	3.52	1.21	3.09	2.734	2.375	4.34	1/16	0.63	(3) 10-24	(2) 5/16-18	0.44
W4A2H-STH	0.32	0.78	4.50	1.23	4.09	3.672	3.250	5.86	1/8	0.75	(3) 1/4-20	(2) 3/8-16	1.11
W5A2H-STH	0.47	1.05	5.69	1.61	4.47	3.953	3.437	6.28	1/8	0.75	(3) 5/16-18	(2) 7/16-14	0.69
W6A2G-STH	0.53	1.18	7.34	1.84	5.97	5.359	4.750	7.76	1/4	1.25	(3) 3/8-16	(2) 1/2-13	0.83

Metric Bore Sizes Available

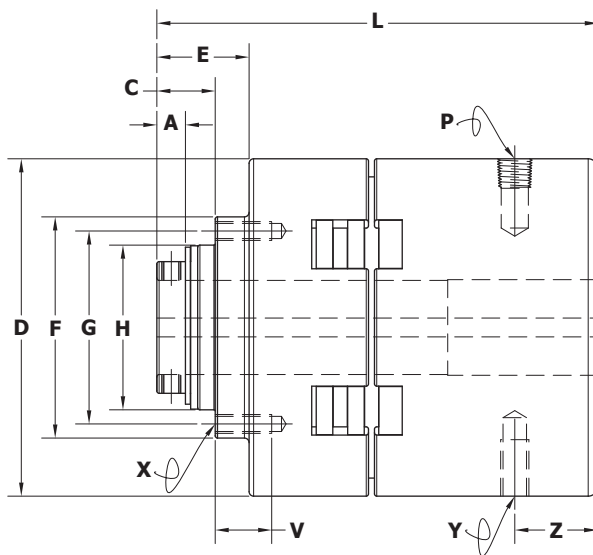


## Stop & Start the Shaft Clutch-Brakes Bronze Bushing Pilot



SPECIFICATIONS				
Product No.	Clutch Torque (lb-in) @ 80 PSI	Spring Set Brake Torque (lb-in)	Brake Release Pressure (PSI)	Maximum Bore w/ Square Key (inches)
X3B2H-STH	275	19	15-20	5/8
X4B2H-STH	712	62	20-25	1-1/4
X5B2H-STH	1482	163	20-25	1-7/16
X6B2G-STH	2706	256	20-25	2

DESIGN FEATURES
Air set clutch torque ratings to 2,700 pound inches
Spring set brake torque ratings to 260 pound inches
Bore sizes to 2 inches
Low speed applications



See Engineering Section for minimum sprocket size information.

### Have Any Questions About our Products?

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Product No.	DIMENSIONS — inches												
	A	C	D	E	F	G	H	L	P(NPT)	V	X	Y	Z
X3B2H-STH	0.33	0.76	3.52	1.21	2.31	1.953	1.594	4.34	1/16	0.56	(3)10-24	(2)5/16-18	0.44
X4B2H-STH	0.38	0.78	4.50	1.23	3.03	2.609	2.187	5.86	1/8	0.75	(6)1/4-20	(2)3/8-16	1.11
X5B2H-STH	0.56	1.05	5.69	1.61	3.69	3.172	2.656	6.28	1/8	0.75	(6)5/16-18	(2)7/16-14	0.69
X6B2G-STH	0.58	1.18	7.34	1.84	5.03	4.422	3.812	7.76	1/4	1.25	(6)3/8-16	(2)1/2-13	0.83

Metric Bore Sizes Available

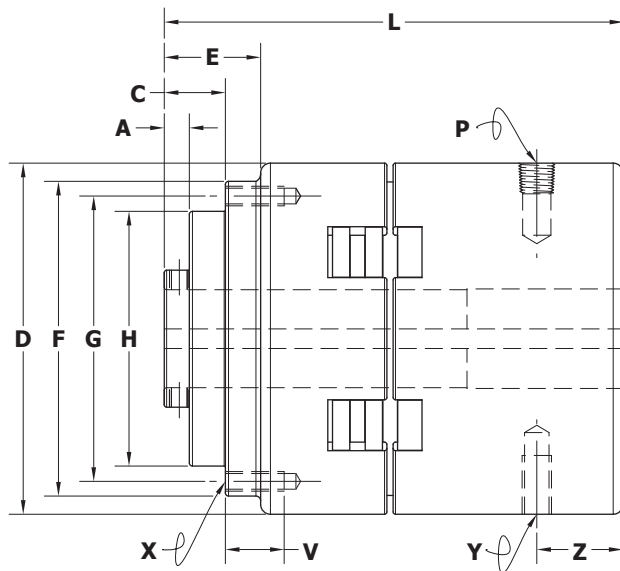
## Stop & Start the Shaft Clutch-Brakes

### Ball Bearing Pilot



SPECIFICATIONS				
Product No.	Clutch Torque (lb-in) @ 80 PSI	Spring Set Brake Torque (lb-in)	Brake Release Pressure (PSI)	Maximum Bore w/ Square Key (inches)
X3A2H-STH	275	19	15-20	5/8
X4A2H-STH	712	62	20-25	1-1/4
X5A2H-STH	1482	163	20-25	1-7/16
X6A2G-STH	2706	256	20-25	2

DESIGN FEATURES
Air set clutch torque ratings to 2,700 pound inches
Spring set brake torque ratings to 260 pound inches
Bore sizes to 2 inches



See Engineering Section for minimum sprocket size information.

### Have Any Questions About our Products?

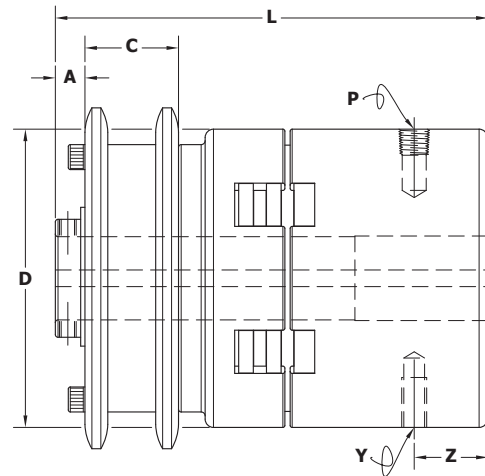
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#### DIMENSIONS — inches

Product No.	A	C	D	E	F	G	H	L	P(NPT)	V	X	Y	Z
X3A2H-STH	0.30	0.76	3.52	1.21	3.09	2.734	2.375	4.34	1/16	0.63	(3)10-24	(2)5/16-18	0.44
X4A2H-STH	0.32	0.78	4.50	1.23	4.09	3.672	3.250	5.86	1/8	0.75	(6)1/4-20	(2)3/8-16	1.11
X5A2H-STH	0.47	1.05	5.69	1.61	4.47	3.953	3.437	6.28	1/8	0.75	(6)5/16-18	(2)7/16-14	0.69
X6A2G-STH	0.53	1.18	7.34	1.84	5.97	5.359	4.750	7.76	1/4	1.25	(6)3/8-16	(2)1/2-13	0.83

Metric Bore Sizes Available

### Stop & Start the Shaft Clutch-Brakes Integral Double-Single Sprocket



#### DESIGN FEATURES

Air set clutch torque ratings to 2,700 pound inches

Spring set brake torque ratings to 260 pound inches

Bore sizes to 2 inches

#### SPECIFICATIONS

Chain Size	Product No.	Clutch Torque (lb-in) @ 80 PSI	Spring Set Brake Torque (lb-in)	Brake Release Pressure (PSI)	Maximum Bore with Square Key (inches)	Minimum Sprocket
35	X3D2H-STH	275	19	15-20	5/8	28 TOOTH
	X4D2H-STH	712	62	20-25	1-1/4	36 TOOTH
40	X3E2H-STH	275	19	15-20	5/8	22 TOOTH
	X4E2H-STH	712	62	20-25	1-1/4	28 TOOTH
50	X3F2H-STH	275	19	15-20	5/8	18 TOOTH
	X4F2H-STH	712	62	20-25	1-1/4	23 TOOTH
	X5F2H-STH	1482	163	20-25	1-7/16	25 TOOTH
60	X3G2H-STH	275	19	15-20	5/8	16 TOOTH
	X4G2H-STH	712	62	20-25	1-1/4	20 TOOTH
	X5G2H-STH	1482	163	20-25	1-7/16	21 TOOTH
	X6G2G-STH	2706	256	20-25	2	27 TOOTH
80	X5H2H-STH	1482	163	20-25	1-7/16	17 TOOTH
	X6H2G-STH	2706	256	20-25	2	21 TOOTH
100	X6J2G-STH	2706	256	20-25	2	18 TOOTH

#### DIMENSIONS — inches

Chain Size	Product No.	A	C	D	L	P (NPT)	Y	Z
35	X3D2H-STH	0.38	0.86	3.52	4.55	1/16	(2)5/16-18	0.44
	X4D2H-STH	0.56	0.86	4.48	6.21	1/8	(2)3/8-16	1.11
40	X3E2H-STH	0.38	1.16	3.52	4.72	1/16	(2)5/16-18	0.44
	X4E2H-STH	0.47	1.16	4.50	6.21	1/8	(2)3/8-16	1.11
50	X3F2H-STH	0.38	1.41	3.52	5.03	1/16	(2)5/16-18	0.44
	X4F2H-STH	0.44	1.41	4.50	6.50	1/8	(2)3/8-16	1.11
	X5F2H-STH	0.62	1.41	5.69	7.08	1/8	(2)7/16-14	0.69
60	X3G2H-STH	0.38	1.77	3.52	5.39	1/16	(2)5/16-18	0.44
	X4G2H-STH	0.44	1.77	4.50	6.92	1/8	(2)3/8-16	1.11
	X5G2H-STH	0.62	1.77	5.69	7.50	1/8	(2)7/16-14	0.69
	X6G2G-STH	0.68	1.77	7.34	8.78	1/4	(2)1/2-13	0.83
80	X5H2H-STH	0.51	2.32	5.69	8.05	1/8	(2)7/16-14	0.69
	X6H2G-STH	0.57	2.32	7.34	9.33	1/4	(2)1/2-13	0.83
100	X6J2G-STH	0.50	2.72	7.34	9.76	1/4	(2)1/2-13	0.83

Metric Bore Sizes Available

### Pilot Mount Torque Limiters



- Manually adjustable
- Pilot accepts single sprocket, pulley or v-belt sheave

### Torque Limiter Mechanisms with Adapters



- Manually adjustable
- Supplied with Adapter Sleeve for customer mounting to bearing supported pulley or other device

### Torque Limiter Mechanisms with Couplings



- Manually adjustable
- Shaft to shaft applications with no angular or parallel misalignment

### Flexible Mechanical Torque Limiter Couplings



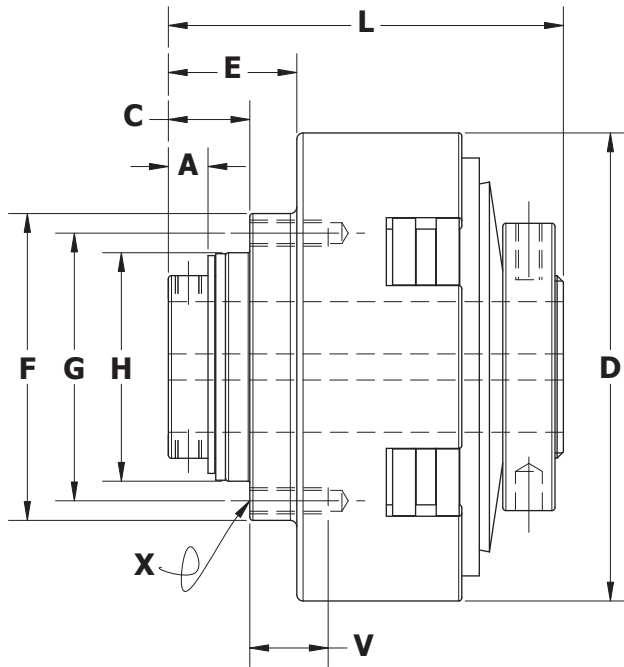
- Manually adjustable
- Shaft to shaft applications with slight angular or parallel misalignment

### NEMA C-Face Mount Friction Torque Limiters



- Mounts between motor and gear reducer
- Enclosed design in aluminum housing
- Optional corrosion resistant and food safe finishes available

### Pilot Mount Torque Limiters Bronze Bushing Pilot



SPECIFICATIONS		
Product No.	Torque (lb-in) with Spring @ 1/2 Height	Max. Bore w/ Square Key (inches)
T3B2H-STL	1159	1
T4B2H-STL	2029	1-1/4
T5B2H-STL	3095	1-7/16
T6B1G-STL	7761	2

DESIGN FEATURES
Torque ratings to 7,760 pound inches
Bore sizes to 2-1/2 inches
Low speed applications

See Engineering Section for minimum sprocket size information.

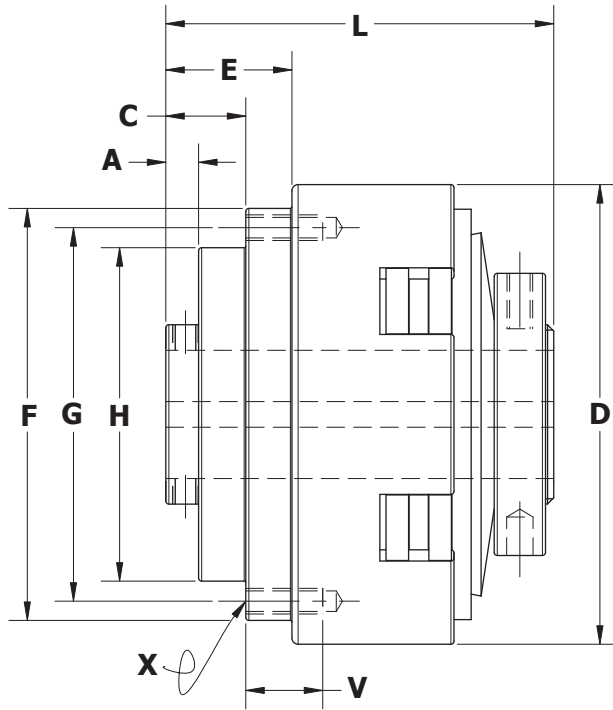
### Have Any Questions About our Products?

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Product No.	DIMENSIONS — inches									
	A	C	D	E	F	G	H	L	V	X
T3B2H-STL	0.38	0.76	3.50	1.21	2.59	2.234	1.875	3.25	0.56	(6) 10-32
T4B2H-STL	0.38	0.78	4.50	1.23	3.03	2.609	2.187	3.78	0.75	(6) 1/4-20
T5B2H-STL	0.56	1.05	5.69	1.61	3.69	3.172	2.656	4.13	0.75	(6) 5/16-18
T6B1G-STL	0.53	1.12	7.34	1.79	5.03	4.422	3.812	4.75	1.25	(6) 3/8-16

Metric Bore Sizes Available

## Pilot Mount Torque Limiters Ball Bearing Pilot



SPECIFICATIONS		
Product No.	Torque (lb-in) with Spring @ 1/2 Height	Max. Bore w/ Square Key (inches)
T3A2H-STL	1159	1
T4A2H-STL	2029	1-1/4
T5A2H-STL	3095	1-7/16
T6A1G-STL	7761	2
T8A1K-STL	17257	2-1/2

### DESIGN FEATURES

Torque ratings to 17,260 pound inches

Bore sizes to 2-1/2 inches

See Engineering Section for minimum sprocket size information.

### Have Any Questions About our Products?

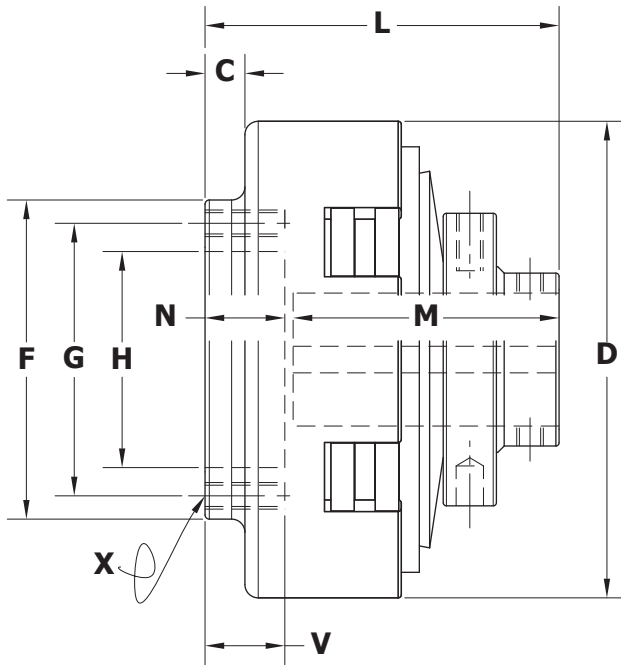
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#### DIMENSIONS — inches

Product No.	A	C	D	E	F	G	H	L	V	X
T3A2H-STL	0.30	0.76	3.50	1.21	3.41	3.047	2.687	3.25	0.56	(6) 10-32
T4A2H-STL	0.32	0.78	4.50	1.23	4.09	3.672	3.250	3.78	0.75	(6) 1/4-20
T5A2H-STL	0.47	1.05	5.69	1.61	4.47	3.953	3.437	4.13	0.75	(6) 5/16-18
T6A1G-STL	0.48	1.12	7.34	1.79	5.97	5.359	4.750	4.75	1.25	(6) 3/8-16
T8A1K-STL	0.57	1.50	10.00	2.28	7.41	6.703	6.000	5.92	1.50	(6) 7/16-14

Metric Bore Sizes Available

### Torque Limiter Mechanisms with Adapters



SPECIFICATIONS		
Product No.	Torque (lb-in) with Spring @ 1/2 Height	Max. Bore w/ Square Key (inches)
V3R2H-STL	1159	1
V4R2H-STL	2029	1-1/4
V5R2H-STL	3095	1-7/16
V6R1G-STL	7761	2
V8R1K-STL	17257	2-1/2

DESIGN FEATURES
Torque Ratings to 17,260 pound inches
Bore sizes to 2-1/2 inches

### Have Any Questions About our Products?

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Product No.	DIMENSIONS — inches									
	C	D	F	G	H	L	M	N	V	X
V3R2H-STL	0.34	3.50	2.88	2.500	1.625	2.69	2.00	0.63	0.56	(6) 10-32
V4R2H-STL	0.38	4.50	3.00	2.562	2.031	3.33	2.50	0.75	0.75	(6) 1/4-20
V5R2H-STL	0.50	5.69	3.63	3.125	2.500	3.97	3.00	0.88	0.88	(6) 5/16-18
V6R1G-STL	0.66	7.34	6.00	5.375	4.375	5.16	4.00	1.16	1.25	(6) 3/8-16
V8R1K-STL	0.78	10.00	7.50	6.750	5.531	6.38	5.00	1.38	1.50	(6) 7/16-14

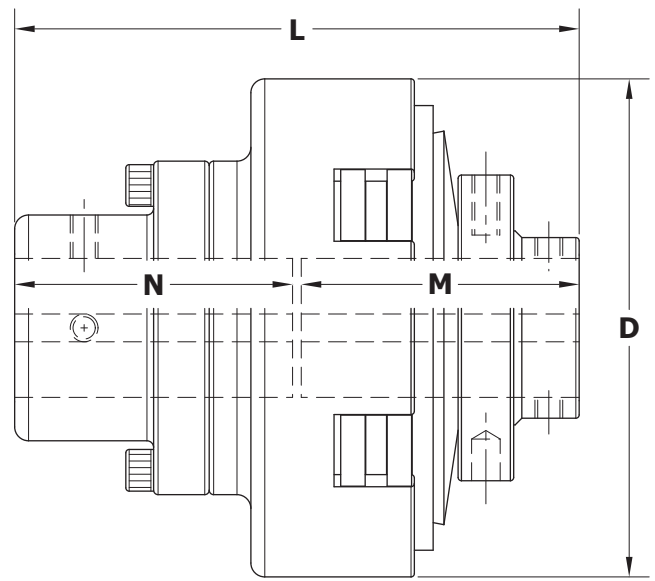
Metric Bore Sizes Available

## Torque Limiter Mechanisms with Couplings



SPECIFICATIONS		
Product No.	Torque (lb-in) with Spring @ 1/2 Height	Max. Bore w/ Square Key (inches)
V3G2H-STL	1159	1
V4G2H-STL	2029	1-1/4
V5G2H-STL	3095	1-7/16
V6G1G-STL	7761	2
V8G1K-STL	17257	2-1/2

DESIGN FEATURES
Torque ratings to 17,260 pound inches
Bore sizes to 2-1/2 inches



See Engineering Section for shaft-to-shaft mounting recommendations.

### Have Any Questions About our Products?

Call us toll free at 1-866-291-0849 or visit our Web site at [www.machiii.com](http://www.machiii.com)

Product No.	DIMENSIONS — inches			
	D	L	M	N
V3G2H-STL	3.50	4.06	2.00	2.00
V4G2H-STL	4.50	5.08	2.50	2.50
V5G2H-STL	5.69	6.09	3.00	3.00
V6G1G-STL	7.34	8.16	4.00	4.00
V8G1K-STL	10.00	10.19	5.00	5.00

Metric Bore Sizes Available



### Flexible Mechanical Torque Limiter Couplings



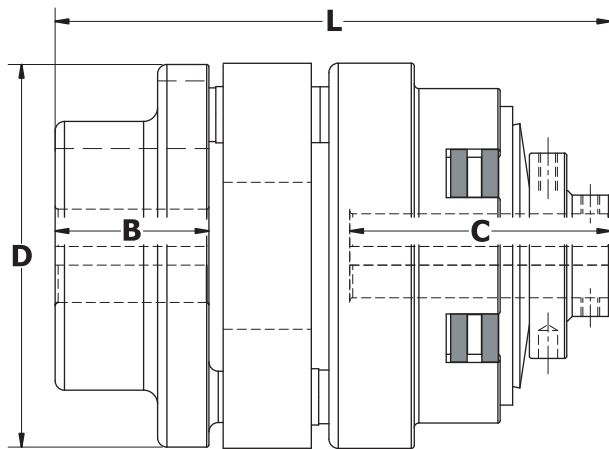
#### SPECIFICATIONS

Product No.	Torque (lb-in) with Spring @ 1/2 Height	Max. Bore w/Square Key (inches)
T3H2H-STL	1159	7/8
T4H2H-STL	2029	1-1/8
T5H2H-STL	3095	1-3/8
T6H1G-STL	7761	2

#### DESIGN FEATURES

Shaft to shaft coupling with slight angular or parallel misalignment

Manually adjustable torque setting



### Have Any Questions About our Products?

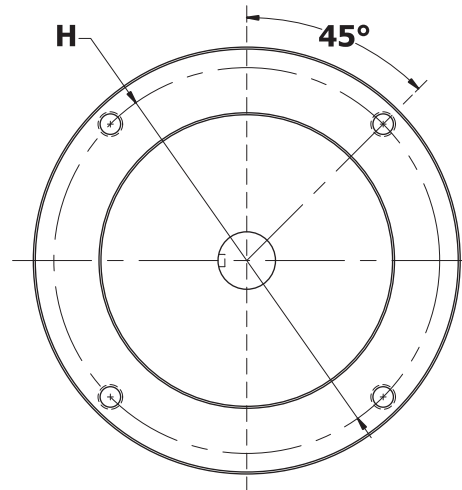
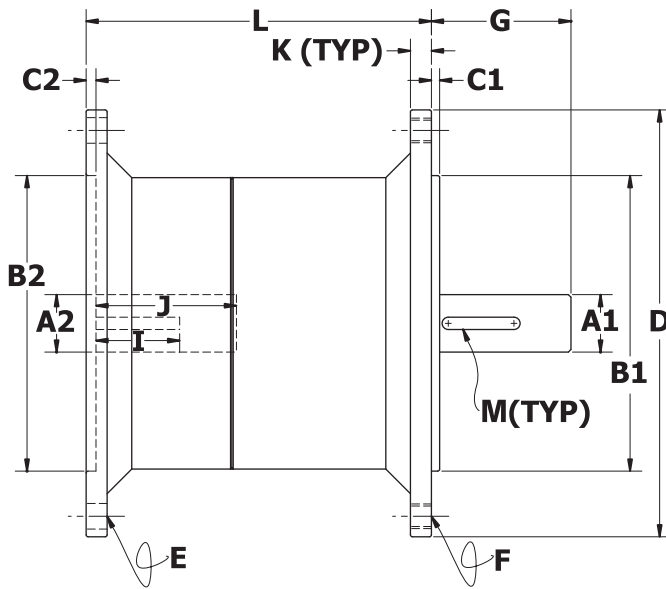
Call us toll free at 1-866-291-0849 or visit our Web site at [www.machiii.com](http://www.machiii.com)

#### DIMENSIONS – inches

Product No.	B	C	D	L	Minimum Shaft Insertion (B or C)
T3H2H-STL	1.75	2.79	4.00	6.27	1.75
T4H2H-STL	2.06	3.50	5.13	7.44	2.06
T5H2H-STL	2.06	3.75	5.69	7.70	2.06
T6H1G-STL	2.37	4.25	7.34	9.91	2.37

Metric Bore Sizes Available

### NEMA C-Face Mount Friction Torque Limiters



#### SPECIFICATIONS

Product No.	Torque (lb-in) with Spring @ 1/2 Height	NEMA Frame Size
T3C2H-56L	1159	56C
T3C2H-14L	1159	143TC, 145TC
T4C2H-18L	2029	182TC, 184TC
T4C2H-21L	2029	213TC, 215TC

#### DESIGN FEATURES

- Mounts between motor and gear reducer
- Manually adjustable torque setting with minor disassembly
- Enclosed design in aluminum housing
- Optional corrosion resistant and food safe finishes available
- Not suitable for belt drive (pulley output) applications. Consult factory for options.

#### Have Any Questions About our Products?

Call us toll free at 1-866-291-0849 or visit our Web site at [www.machiii.com](http://www.machiii.com)

#### DIMENSIONS – inches

Product No.	A1	A2	B1	B2	C1	C2	D	E	F	G	H	I	J	K	L	M (KEYWAY)
T3C2H-56L	.624/.625	.625/.626	4.498/4.500	4.500/4.502	0.13	0.15	6.50	25/64	3/8-16	2 1/16	5.875	1.27	2.14	0.32	3.94	3/16
T3C2H-14L	.874/.875	.875/.876	4.498/4.500	4.500/4.502	0.13	0.15	6.50	25/64	3/8-16	2 1/8	5.875	1.27	2.14	0.32	3.94	3/16
T4C2H-18L	1.124/1.125	1.125/1.126	8.498/8.500	8.500/8.502	0.25	0.23	9.00	17/32	1/2-13	2 5/8	7.250	2.75	2.75	1.00	6.14	1/4
T4C2H-21L	1.374/1.375	1.375/1.376	8.498/8.500	8.500/8.502	0.25	0.23	9.00	17/32	1/2-13	3 3/8	7.250	2.75	3.13	1.00	6.14	5/16

Metric And Custom Frame Sizes Available

## Product Application and Operation

- AIR SUPPLY
- BREAK-IN PERIOD
- FINISHED BORE AND KEYWAY SPECS
- INSTALLING SPROCKETS & PULLEYS
- MOUNTING
- OPERATING ENVIRONMENT
- PRODUCT IDENTIFICATION
- RPM
- THERMAL CAPACITY
- TORQUE
- TORQUE LIMITER CAUTIONS
- SAFETY CONSIDERATIONS
- SERVICE FACTOR
- WARRANTY

Pilot Diameter "H" Dimension	Minimum "A" Type Sprockets						
	35 Chain	40 Chain	50 Chain	60 Chain	80 Chain	100 Chain	120 Chain
1.594	23	19	16	14			
1.875	26	20	17	15			
2.187	29	23	19	17			
2.375	30	23	20	17			
2.531			22	19	15		
2.656			22	19	16		
2.687	33	25	21	18			
2.750	35	27	22	19			
3.250		30	25	21			
3.437			26	23	18		
3.812			29	25	20	17	
3.875		35	29	24	19		
4.750			34	29	23	19	
5.000		43	35	30	23		
6.000			41	35	27	22	19
6.250			42	36	28	23	
6.500				38	29	24	21
7.625				43	33	27	24



## Product Application & Operation

### GENERAL

Design torque ratings, dimensional data, application & operation information is listed for the purpose of familiarizing the new user with our catalog standard product line and to provide a reference resource for our customers. Mach III Clutch, Inc. strongly encourages contact with our applications staff for selection assistance or operating questions. They can be reached at 859-291-0849 (USA Toll Free: 866-291-0849) Monday – Friday between 8:00 AM and 5:00 PM EST.

#### AIR SUPPLY

- MAXIMUM RECOMMENDED AIR PRESSURE IS 80 PSI.
- Dry, filtered and regulated air is recommended. Air lubrication is NOT required.
- For best response, control valves should be located as close to clutch or brake as practical.
- Where faster exhaust times are necessary quick exhaust valves are available.

#### BREAK-IN PERIOD

- New clutches, brakes and torque limiters may require a brief period of use to burnish the wear surfaces before full design torques are achieved. The exact length of time varies by application.

#### FINISHED BORE AND KEYWAY SPECIFICATIONS

- Bore and Keyway sizes are available in either metric or US dimensions up to the maximum shown for each model.
- Maximum bore sizes listed for each product represent the maximum available with a standard, square keyway. In most cases, products can be bored 1/16" (.0625) larger than the published maximum with a rectangular keyway.
- Bore Tolerances = Class RC3

#### INSTALLING SPROCKETS & PULLEYS

- Mach III will provide and install the required sprocket, pulley or v-belt sheave on any clutch, clutch-brake or torque limiter for a nominal charge.
- Dimensional information is provided for customers wishing to field install a sprocket, pulley or v-belt sheave. To obtain dimensions for a non-catalog product, please contact Mach III.
- Pilot Tolerances = Class RC5

#### MOUNTING

##### Anti-Rotation Restraint

Some clutches and all combination clutch/brakes require installation of an anti-rotation arm. The user-applied restraint should not apply any axial force to the clutch. Visit our web site to download a PDF file showing proper anti-rotation arm installation examples (<http://www.machiii.com/pdfs/ReactionArmInstallation.pdf>)

##### Shaft-To-Shaft Applications

For shaft-to-shaft coupling applications flexible couplings are recommended. Where rigid couplings are used great care must be exercised to assure proper alignment to prevent premature clutch failure.

##### Vertical Mounting

All catalog standard products are designed for horizontal mounting. In most cases vertical mounting can be accommodated with little or no modification. Please consult the factory.

#### OPERATING ENVIRONMENT

- Special designs are available for applications where the clutch, brake or torque limiter will be exposed to any of the following:
  - Water
  - Corrosive chemicals
  - Extreme temperatures
  - Contaminants (Grease, Oil, Dust, Grit)
- Products with food-grade exteriors are available.

#### PRODUCT IDENTIFICATION

- Product identification numbers and the date of manufacture are stamped into the housing, generally on the end of the assembly containing the air inlet (clutches & brakes) or adjustment nut (torque limiters). To facilitate factory assistance it is helpful to have these numbers available.

#### RPM

- For all applications running excess of 1800 RPM please consult the factory.
- Bushing mounted pilot designs are intended for low speed applications only.
- Larger clutches may require balancing for high-speed applications. Please consult the factory.

#### THERMAL CAPACITY

##### Tensioning Applications

Brakes and clutches used in continuous slip applications must be selected based on their ability to dissipate heat as well as provide the required torque. The SensiFlex® series is designed specifically for slip applications. Please refer to the Thermal Horsepower vs. RPM curves shown for the selected SensiFlex® unit to confirm adequate capacity.

$$\text{Thermal HP} = \frac{\text{Required Torque (lb-in)} \times \text{Slip RPM}}{63000}$$

#### High Cycle Rates

Clutches and brakes generate heat during each engagement. Over heating can occur in cases where high cycle rates are combined with high engagement RPM, high inertia loads, and/or clutch and brake overlap.

#### Forced Air Cooling

For high heat applications forced air cooling can significantly enhance performance.

#### TORQUE

- All listed catalog design torques are dynamic values rated at 80 PSI.
- To achieve full design torque new units must be cycled several times under load to burnish the wear surfaces. The exact length of time to achieve burnishing varies by application.
- All torque ratings are subject to variations caused by temperature, humidity, wear, and contamination.
- Where possible, selections should be made such that the desired operating torque falls well within the capacity of the chosen model to allow for unforeseen load conditions.
- For all air applied clutches and brakes the torque output is linear with respect to air pressure. To calculate required pressures use the following:

$$\text{Required PSI} = \frac{\text{Required Torque} \times 80}{\text{Design Torque}}$$

#### TORQUE LIMITER CAUTIONS

- Friction style torque limiters are designed to protect drive components against momentary overloads only.
- Machine failures that result in prolonged slip of the torque limiter will result in severe over heating if the fault condition goes uncorrected.

#### SAFETY CONSIDERATIONS

- Mach III products include rotating components and should be guarded according to OSHA requirements and other applicable federal, state & local regulations. It is the responsibility of the user to provide the necessary guarding.
- Mach III uses only non-asbestos friction linings.

#### SERVICE FACTOR

- When calculating required torque always use a service factor of 1.5 to 2. It is not recommended to select a clutch, brake or torque limiter for use at its maximum rated torque for continuous duty.
- Increased service factors are advised for systems including any of the following:
  - Gas or Diesel engine drives
  - High Inertia loads
  - Rough driven loads
  - High cycle rates

#### WARRANTY

Mach III Clutch, Inc. warrants its products to be free from defects in materials and workmanship for a period of one year from the date of shipment from our factory or from the location of one of our authorized distributors provided the product is properly installed, maintained and has been operated under normal conditions. This warranty shall not apply to products that have been subject to misuse, negligence or accident, or damaged by circumstances beyond the control of Mach III Clutch, Inc., or which has been used in a manner contrary to Mach III Clutch, Inc.'s instructions or recommendations. Products that have been altered after shipment or repaired without following proper repair procedures, as deemed by Mach III Clutch, Inc., are also expressly excluded from this warranty.

Warranty claims shall be made in writing and the product(s) shall, if requested by Mach III Clutch, Inc., be returned with transportation charges prepaid for evaluation. Upon our determination that a defect exists, Mach III Clutch, Inc., at its sole discretion, will either repair or replace the defective component(s) or product(s).

**THIS WARRANTY IS MADE EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE BUYER'S SOLE AND EXCLUSIVE REMEDY SHALL BE FOR THE REPAIR OR REPLACEMENT OF DEFECTIVE PRODUCTS AS PROVIDED HEREIN AND UNDER NO CIRCUMSTANCES WILL MACH III CLUTCH, INC.'S LIABILITY EXCEED THE PRICE OF THE DEFECTIVE UNITS. THE BUYER AGREES THAT NO OTHER REMEDY (INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS) SHALL BE AVAILABLE TO HIM.**

Mach III Clutch, Inc. neither assumes nor authorizes any person to assume for it any other liability in connection with the sale of its products.



# Accumulating Conveyor Application Information

Submit Via Fax: 859-655-8362  
or Online: [www.machiii.com](http://www.machiii.com)

Contact:		Date:	
Company:		Phone:	
Address 1:		Fax:	
Address 2:		Email:	
City/St/Zip:			

**Required information is marked with an arrow (▶). Please provide as much information as possible. Mach III's engineering department is available to assist you: toll free 866-291-0849 or 859-291-0849.**

1. Clutch is needed For:     New Machinery  
                                           Retrofit - to replace (Mfg., Model, Etc): \_\_\_\_\_
- ▶2. Clutch Mounting:
  - End of Shaft . . . . . Shaft Size \_\_\_\_\_ (in / mm) Keyway \_\_\_\_\_ (in / mm)
  - Thru Shaft . . . . . Shaft Size \_\_\_\_\_ (in / mm) Keyway \_\_\_\_\_ (in / mm)
  - Nema Frame (C-Face) . . . . . Frame Size \_\_\_\_\_
- ▶3. Which will clutch drive when engaged (output)?     Sprocket(s)     Shaft
- ▶4. Sprocket Requirements: (circle one) Single / Double , Chain Size \_\_\_\_\_ , # of Teeth \_\_\_\_\_
5. Motor Specs: HP \_\_\_\_\_ RPM \_\_\_\_\_ If not electric, please specify type here: \_\_\_\_\_
- ▶6. RPM at Clutch \_\_\_\_\_ RPM
- ▶7. Cycle Rate \_\_\_\_\_ X Per Minute
- ▶8. Weight Per Zone \_\_\_\_\_ ( lbs / kg )
- ▶9. Line Speed (Velocity) \_\_\_\_\_ ( feet per minute / meters per second)
- ▶10. Roller Diameter \_\_\_\_\_ ( in / mm )
- ▶11. Ratio Between Roller and Clutch \_\_\_\_\_ (If applicable)
12. Acceleration Time \_\_\_\_\_ seconds
13. Deceleration Time \_\_\_\_\_ seconds
14. Conveyor Coefficient Of Friction \_\_\_\_\_ (If unknown we will assume 10%)
15. Operating Air Pressure Restrictions (if any): Minimum \_\_\_\_\_ PSI Maximum \_\_\_\_\_ PSI
16. Envelope Restrictions: Maximum Length \_\_\_\_\_ (in / mm) Maximum OD \_\_\_\_\_ (in / mm)

Additional Information: Include special requirements, environmental conditions, etc. Provide a separate sketch of the drive system if possible or email drawings to: [info@machiii.com](mailto:info@machiii.com).



# Brake Application Information

Submit Via Fax: 859-655-8362  
or Online: www.machiii.com

Contact:		Date:	
Company:		Phone:	
Address 1:		Fax:	
Address 2:		Email:	
City/St/Zip:			

**Required information is marked with an arrow (▶). Please provide as much information as possible. Mach III's engineering department is available to assist you: toll free 866-291-0849 or 859-291-0849.**

1. Brake is needed For:     New Machinery  
                                          Retrofit - to replace (Mfg., Model, Etc): \_\_\_\_\_

▶2. Brake Mounting:  
 Flange Mount . . . . . Shaft Size \_\_\_\_\_ (in / mm) Keyway \_\_\_\_\_ (in / mm)  
 Thru Shaft . . . . . Shaft Size \_\_\_\_\_ (in / mm) Keyway \_\_\_\_\_ (in / mm)  
                                         (with reaction/torque arm)  
 Nema Frame (C-Face) . . . . Frame Size \_\_\_\_\_

▶3. Brake Actuation Required:     Air Set (Brake is engaged when air is applied)  
                                                                                          spring Set (Brake is engaged when air is exhausted)

▶4. Brake Function:  Stopping    Stop Time \_\_\_\_\_ Seconds, Inertia Stopped \_\_\_\_\_ (lb.ft<sup>2</sup> / kg.m<sup>2</sup>)  
                                          Holding    Required Torque \_\_\_\_\_ (lb.in / lb.ft / Nm)

5. Input Source: (circle one) Electric Motor / Gas Engine / Diesel Engine    HP \_\_\_\_\_    RPM \_\_\_\_\_

▶6. RPM at Brake \_\_\_\_\_ RPM

▶7. Cycle Rate \_\_\_\_\_ X Per Minute

8. Operating Air Pressure Restrictions (if any):    Minimum \_\_\_\_\_ PSI,    Maximum \_\_\_\_\_ PSI

9. Envelope Restrictions:    Maximum Length \_\_\_\_\_ (in / mm), Maximum OD \_\_\_\_\_ (in / mm)

Additional Information: Include special requirements, environmental conditions, etc. Provide a separate sketch of the drive system if possible or email drawings to: info@machiii.com.



# Clutch Application Information

Submit Via Fax: 859-655-8362  
or Online: [www.machiii.com](http://www.machiii.com)

Contact:		Date:	
Company:		Phone:	
Address 1:		Fax:	
Address 2:		Email:	
City/St/Zip:			

**Required information is marked with an arrow (▶). Please provide as much information as possible. Mach III's engineering department is available to assist you: toll free 866-291-0849 or 859-291-0849.**

1. Clutch is needed For:     New Machinery  
                                          Retrofit - to replace (Mfg., Model, Etc): \_\_\_\_\_

▶2. Clutch Mounting:

End of Shaft . . . . . Shaft Size \_\_\_\_\_ (in / mm) Keyway \_\_\_\_\_ (in / mm)

Thru Shaft . . . . . Shaft Size \_\_\_\_\_ (in / mm) Keyway \_\_\_\_\_ (in / mm)

Coupling Two Shafts

Drive Shaft Size \_\_\_\_\_ (in / mm) Keyway \_\_\_\_\_ (in / mm)

Driven Shaft Size \_\_\_\_\_ (in / mm) Keyway \_\_\_\_\_ (in / mm)

Nema Frame (C-Face) . . . . . Frame Size \_\_\_\_\_

▶3. Pulley or Sprocket Requirements:     Pulley . . . . .Type: \_\_\_\_\_

Sprocket . . .Circle Choice: Single or Double ?

Chain Size: \_\_\_\_\_ # of Teeth: \_\_\_\_\_

V Belt Sheave: # of Grooves \_\_\_\_\_ Belt Type \_\_\_\_\_

▶4. Input Source: (circle one) Electric Motor / Gas Engine / Diesel Engine HP \_\_\_\_\_ RPM \_\_\_\_\_

▶5. RPM at Clutch \_\_\_\_\_ RPM                      ▶6. Cycle Rate \_\_\_\_\_ X Per Minute

7. Inertia of the Load \_\_\_\_\_ (lb.ft<sup>2</sup> / kg.m<sup>2</sup>)                      ▶8. Required Torque \_\_\_\_\_ (lb.in / lb.ft / Nm)

9. Operating Air Pressure Restrictions (if any): Minimum \_\_\_\_\_ PSI Maximum \_\_\_\_\_ PSI

10. Envelope Restrictions: Maximum Length \_\_\_\_\_ (in / mm) Maximum OD \_\_\_\_\_ (in / mm)

Additional Information: Include special requirements, environmental conditions, etc. Provide a separate sketch of the drive system if possible or email drawings to: [info@machiii.com](mailto:info@machiii.com).



# Clutch/Brake Combination Application Information

Submit Via Fax: 859-655-8362  
or Online: [www.machiii.com](http://www.machiii.com)

Contact:		Date:	
Company:		Phone:	
Address 1:		Fax:	
Address 2:		Email:	
City/St/Zip:			

**Required information is marked with an arrow (▶). Please provide as much information as possible. Mach III's engineering department is available to assist you: toll free 866-291-0849 or 859-291-0849.**

1. Clutch/Brake is needed For:
  - New Machinery
  - Retrofit - to replace (Mfg., Model, Etc): \_\_\_\_\_
- ▶ 2. Clutch/Brake Mounting:
  - End of Shaft . . . . . Shaft Size \_\_\_\_\_ (in / mm) Keyway \_\_\_\_\_ (in / mm)
  - Thru Shaft . . . . . Shaft Size \_\_\_\_\_ (in / mm) Keyway \_\_\_\_\_ (in / mm)
  - Coupling Two Shafts
    - Drive Shaft Size \_\_\_\_\_ (in / mm) Keyway \_\_\_\_\_ (in / mm)
    - Driven Shaft Size \_\_\_\_\_ (in / mm) Keyway \_\_\_\_\_ (in / mm)
  - Nema Frame (C-Face) . . . . . Frame Size \_\_\_\_\_
- ▶ 3. Clutch/Brake Configuration: Clutch/Brake will . . .
  - Stop & Start the Shaft
  - Start and Stop the Sprocket(s)
- ▶ 4. Sprocket Requirements: (circle one) Single / Double Chain Size \_\_\_\_\_ # of Teeth \_\_\_\_\_
5. Input Source: (circle one) Electric Motor / Gas Engine / Diesel Engine HP \_\_\_\_\_ RPM \_\_\_\_\_
- ▶ 6. RPM at Clutch/Brake \_\_\_\_\_ RPM ▶ 7. Cycle Rate \_\_\_\_\_ X Per Minute
- ▶ 8. Required Torque: Clutch \_\_\_\_\_ (lb.in / lb.ft / Nm) Brake \_\_\_\_\_ (lb.in / lb.ft / Nm)
9. Inertia of the Load \_\_\_\_\_ (lb.ft<sup>2</sup> / kg.m<sup>2</sup>)
10. Operating Air Pressure Restrictions (if any): Minimum \_\_\_\_\_ PSI Maximum \_\_\_\_\_ PSI
11. Envelope Restrictions: Maximum Length \_\_\_\_\_ (in / mm) Maximum OD \_\_\_\_\_ (in / mm)

Additional Information: Include special requirements, environmental conditions, etc. Provide a separate sketch of the drive system if possible or email drawings to: [info@machiii.com](mailto:info@machiii.com).





# Rewind Tensioning Clutch Application Information

Submit Via Fax: 859-655-8362  
or Online: www.machiii.com

Contact:		Date:	
Company:		Phone:	
Address 1:		Fax:	
Address 2:		Email:	
City/St/Zip:			

**Required information is marked with an arrow (▶). Please provide as much information as possible. Mach III's engineering department is available to assist you: toll free 866-291-0849 or 859-291-0849.**

- Clutch is needed For:  New Machinery  
 Retrofit - to replace (Mfg., Model, Etc): \_\_\_\_\_
- ▶ Shaft Specifications: Shaft Size \_\_\_\_\_ (in / mm) Keyway \_\_\_\_\_ (in / mm)
- ▶ Pulley or Sprocket Requirements:  Pulley . . . . .Type:  
 Sprocket . . .Chain Size \_\_\_\_\_ # of Teeth
- ▶ Which will clutch drive when engaged (output) ?  Sprocket or Pulley  Shaft
- Operating Air Pressure Restrictions (if any): Minimum \_\_\_\_\_ PSI Maximum \_\_\_\_\_ PSI
- Envelope Restrictions: Maximum Length \_\_\_\_\_ (in / mm) Maximum OD \_\_\_\_\_ (in / mm)

**Process Specifications: If running more than one material, we suggest filling out the following section for each.**

- Web Material \_\_\_\_\_ 2. Thickness: \_\_\_\_\_ mil
- ▶ Web Width . . . . . Max: \_\_\_\_\_ (in / mm) Min: \_\_\_\_\_ (in / mm)
- ▶ Linear Speed . . . . . Max: \_\_\_\_\_ (FPM / meters/sec) Min: \_\_\_\_\_ (FPM / meters/sec)
- ▶ Roll Diameter . . . . . Core: \_\_\_\_\_ (in / mm) Full Roll: \_\_\_\_\_ (in / mm)
- ▶ Pounds Per Lineal Inch . . Max: \_\_\_\_\_ PLI Min: \_\_\_\_\_ PLI  
- OR -  
Total Tension . . . . .Max: \_\_\_\_\_ lbs Min: \_\_\_\_\_ lbs
- Full Roll Weight: \_\_\_\_\_ ( lbs / kg )
- ▶ Clutch Input RPM: \_\_\_\_\_ RPM. Is the Clutch RPM  Constant or  Decreasing ?
- Machine Acceleration Time: \_\_\_\_\_ seconds 10. Taper (if used): \_\_\_\_\_ %
11. Tension Control  Manual  Automatic, type: \_\_\_\_\_
12. Downtime between Processing (for roll change, set-up, etc.) \_\_\_\_\_

Additional Information: Include special requirements, environmental conditions, etc. Provide a separate sketch of the drive system if possible or email drawings to: info@machiii.com.



# Torque Limiter Application Information

Submit Via Fax: 859-655-8362  
or Online: www.machiii.com

Contact:		Date:	
Company:		Phone:	
Address 1:		Fax:	
Address 2:		Email:	
City/St/Zip:			

**Required information is marked with an arrow (▶). Please provide as much information as possible. Mach III's engineering department is available to assist you: toll free 866-291-0849 or 859-291-0849.**

1. Torque Limiter is needed For:     New Machinery  
 Retrofit - to replace (Mfg., Model, Etc): \_\_\_\_\_
- ▶2. Torque Limiter Mounting:
  - Thru Shaft . . . . . Shaft Size \_\_\_\_\_ (in / mm) Keyway \_\_\_\_\_ (in / mm)
  - Coupling Two Shafts
    - Drive Shaft Size \_\_\_\_\_ (in / mm) Keyway \_\_\_\_\_ (in / mm)
    - Driven Shaft Size \_\_\_\_\_ (in / mm) Keyway \_\_\_\_\_ (in / mm)
  - Nema Frame (C-Face) . . . . Frame Size \_\_\_\_\_
- ▶3. Pulley or Sprocket Requirements:     Pulley . . . . .Type: \_\_\_\_\_  
 Sprocket . . .Circle Choice: Single or Double ?  
Chain Size: \_\_\_\_\_ # of Teeth: \_\_\_\_\_  
 V Belt Sheave: # of Grooves \_\_\_\_\_ Belt Type \_\_\_\_\_
- ▶4. Required Torque Range: (min) \_\_\_\_\_ To (max) \_\_\_\_\_ (lb.in / lb.ft / Nm)
- ▶5. RPM at Torque Limiter \_\_\_\_\_ RPM
- ▶6. Input Source: (circle one) Electric Motor / Gas Engine / Diesel Engine HP \_\_\_\_\_ RPM
7. Envelope Restrictions:    Maximum Length \_\_\_\_\_ (in / mm) Maximum OD \_\_\_\_\_ (in / mm)

Additional Information: Include special requirements, environmental conditions, etc. Provide a separate sketch of the drive system if possible or email drawings to: info@machiii.com.

