



Force Control Industries, Inc.
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MagnaShear Motor Brake Specifications

Brake Size	Mntg Bolt Circle FAK (ins.) (Inches)	Hub Bore FU Inches	Hub Depth Inches	Static Torque (Lb. Ft.) Lb. Ft.	Dynamic Torque Lb. Ft.	Max KE per Engmt Ft.Lbs.	Frame Size	Inertia Lb. Ft. ²	Oil Capacity Fl. Ozs	Input Voltage VAC	Inrush Current Amps	Inrush Time Seconds	Holding Current Amps
MSB2	5.876	.625 .875	1.00/2.19	6	5	7,975	56	.011	28	115	2.5	0.4	0.8
				8	7		143						
				12	10		145						
MSB4	5.875 7.250	.875 1.125	1.37/2.89	14	12	22,000	182		40	115	5.5	0.4	1.7
				21	18		184						
				33	28		213 215						
MSB6	7.250	.875 1.125 1.375 1.625	1.62/4.25	38	32	26,500	213	0.024	50	115	6	0.4	1.8
				62	53		215						
				86	73		254						
				100	85		256						

Brake Size	Pilot Dia. FAK (ins.)	Hub Bore FU Inches	Hub Depth Inches	Static Torque Lb. Ft.	Dynamic Torque Lb. Ft.	Max KE per Engmt Ft.Lbs.	Frame Size	Inertia Lb. Ft. ²	Oil Capacity Fl. Ozs	Input Voltage VAC	Inrush Current Amps	Inrush Time Seconds	Holding Current Amps
MSB7	8.5 10.5	1.375 1.625	3.00 4.38	95	83	26,500	254	CF	CF	115	6	0.4	1.8
				135	115		256						
				170	148		284 286						
MSB8	8.5 10.5	1.375 1.625 1.875	3.00 4.38	100	86	41,500	254	0.267	180	115	6	0.4	1.8
				150	129		256						
				200	172		284						
				250	215		286						
MSB9	10.5 12.5	1.625 1.875 2.000 2.125 2.250 2.375	2.75 4.62	250	215	48,000	284	0.962	192	115	6	1.4	1.8
				300	258		286						
				350	301		324						
				450	387		326 364 365 404 405						
MSB10	10.5 12.5	1.875 2.000 2.125 2.250 2.375	2.75 4.62	500	430	69,000		1.244	192	115	6	1.4	1.8
				600	516								
				650	559								
				750	645								
				900	774								
MSB12	16	1.875 2.125 2.375 2.625 2.875 3.125 3.375 3.500 3.625	3.00 5.12	625	538	158,000	444	2.068	384	115	8	1.4	2.5
				950	817		445						
							447						
				1250	1075		449						



MagnaShear Thermal Horsepower Rating

MSB2

% Duty Cycle	Cycle Rate <i>cpm</i>	Ambient Temperature	
		25° C	25° C
		25%	2
	5	0.45	0.17
	10	0.44	0.16
50%	2	0.37	0.16
	5	0.36	0.15
	10	0.35	0.14
75%	2	0.28	0.13
	5	0.27	0.13
	10	0.26	0.12

MSB4

% Duty Cycle	Cycle Rate <i>cpm</i>	Ambient Temperature			
		TEFC	TENV	TEFC	TENV
		25° C	25° C	25° C	25° C
25%	2	0.43	0.28	0.41	0.27
	5	0.41	0.27	0.4	0.26
	10	0.39	0.25	0.38	0.24
50%	2	0.18	NR	0.15	NR
	5	0.17	NR	0.14	NR
	10	0.15	NR	0.12	NR
75%	2	NR	NR	NR	NR
	5	NR	NR	NR	NR
	10	NR	NR	NR	NR

MSB6

% Duty Cycle	Cycle Rate <i>cpm</i>	Ambient Temperature			
		TEFC	TENV	TEFC	TENV
		25° C	25° C	25° C	25° C
25%	2	0.18	0.12	0.14	0.09
	5	0.16	0.11	0.13	0.08
	10	0.14	0.08	0.11	0.06
50%	2	0.12	0.06	0.05	NR
	5	0.11	0.12	0.14	0.09
	10	0.09	NR	0.12	NR
75%	2	0.07	NR	NR	NR
	5	0.06	NR	NR	NR
	10	NR	NR	NR	NR

MSB8

% Duty Cycle	Cycle Rate <i>cpm</i>	Ambient Temperature			
		TEFC	TENV	TEFC	TENV
		25° C	25° C	25° C	25° C
25%	2	0.43	0.28	0.41	0.27
	5	0.41	0.27	0.4	0.26
	10	0.39	0.25	0.38	0.24
50%	2	0.18	NR	0.15	NR
	5	0.17	NR	0.14	NR
	10	0.15	NR	0.12	NR
75%	2	NR	NR	NR	NR
	5	NR	NR	NR	NR
	10	NR	NR	NR	NR

NOTES:

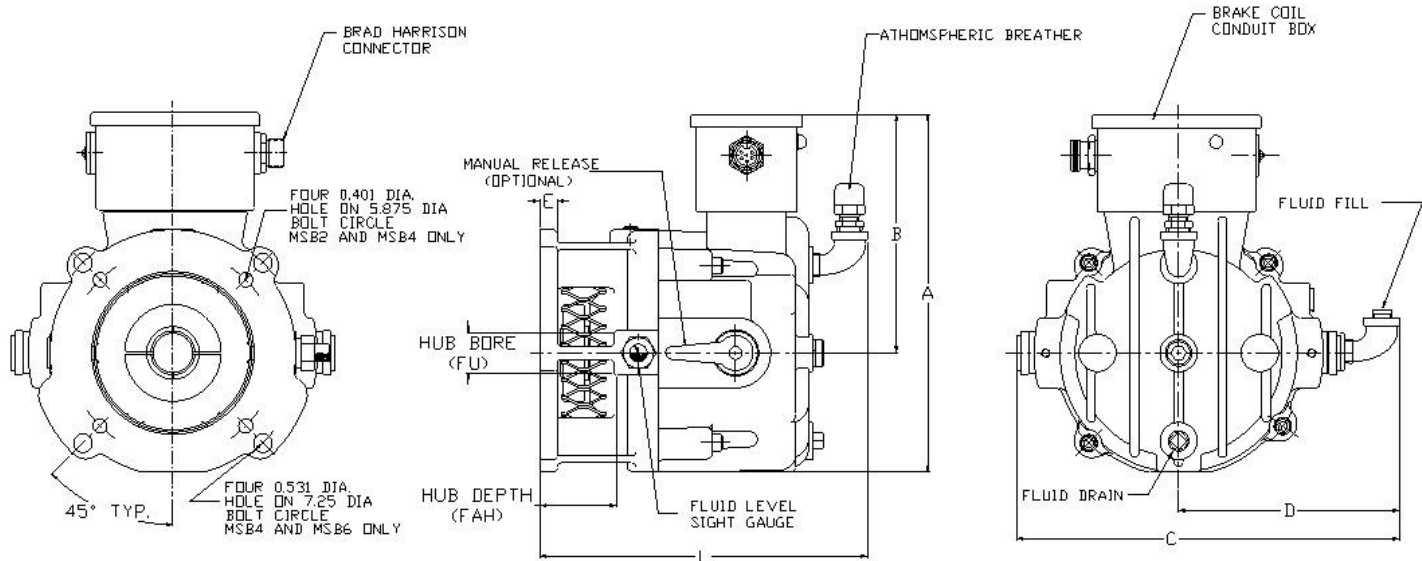
Above ratings are based on 96° C maximum oil temperature and 1800 RPM motor.

NR—Not Recommended.

% - Duty is a percentage of time the brake is released. (Coil is energized).



MSB2, MSB4 & MSB6 MagnaShear Motor Brake Dimensions



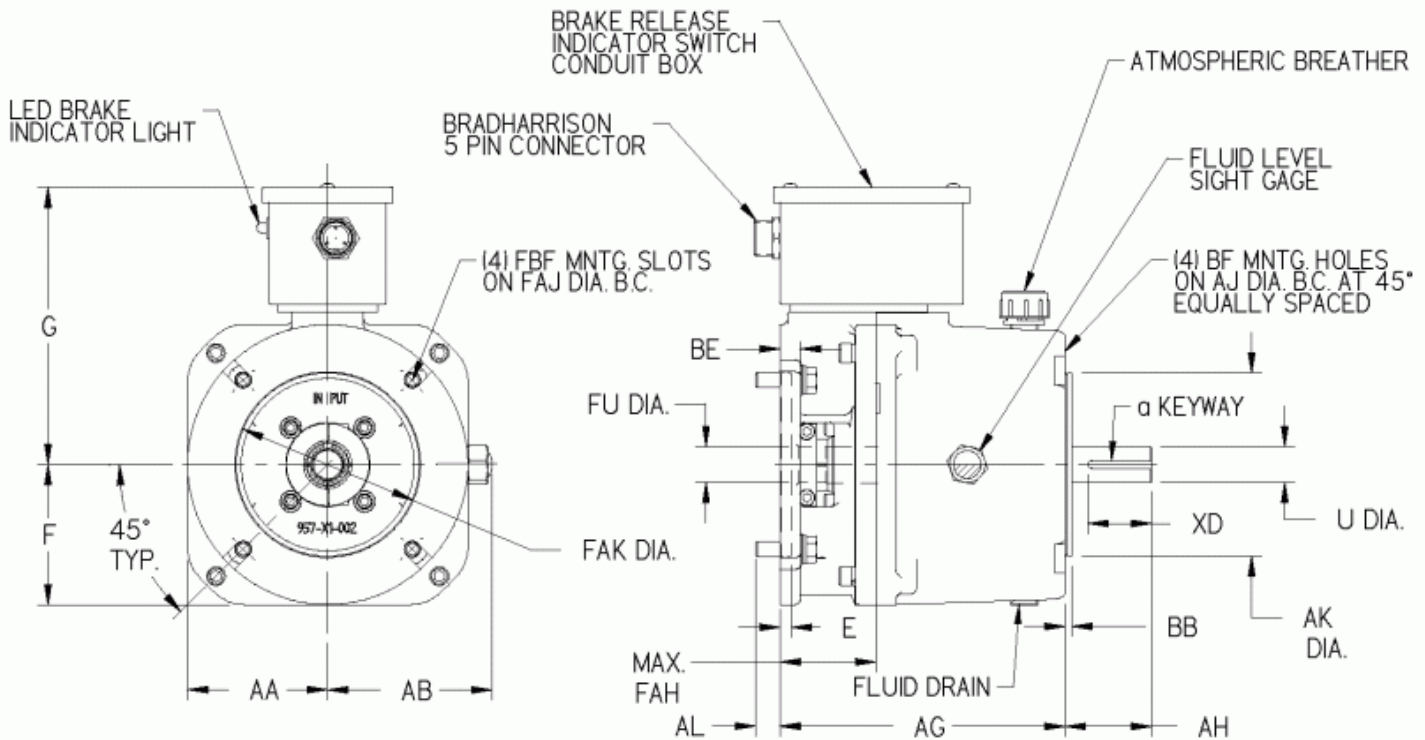
Brake Size	Mntg Bolt Circle FAK In.	Hub Bore FU In.	Hub Depth In.	Static Torque (Lb. Ft.) Lb. Ft.	Dynamic Torque Lb. Ft.	Max KE per Engmt Ft.Lbs.	Frame Size	Inertia Lb. Ft. ²	Oil Capacity Fl. Ozs	Input Voltage VAC	Inrush Current Amps	Inrush Time Seconds	Holding Current Amps
MSB2	5.876	.625 .875	1.00/2.19	6	5	7,975	56	.011	28	115	2.5	0.4	0.8
				8	7		143						
				12	10		145						
MSB4	5.875 7.250	.875 1.12 5	1.37/2.89	14	12	22,000	182		40	115	5.5	0.4	1.7
				21	18		213						
				33	28		215						
MSB6	7.250	.875 1.12 5 1.37 5 1.62	1.62/4.25	38	32	26,500	213	0.024	50	115	6	0.4	1.8
				62	53		215						
				86	73		254						
				100	85		256						

NOTES:

Maximum torque of 62 Lb. Ft. with 0.625" and 0.875" shaft.



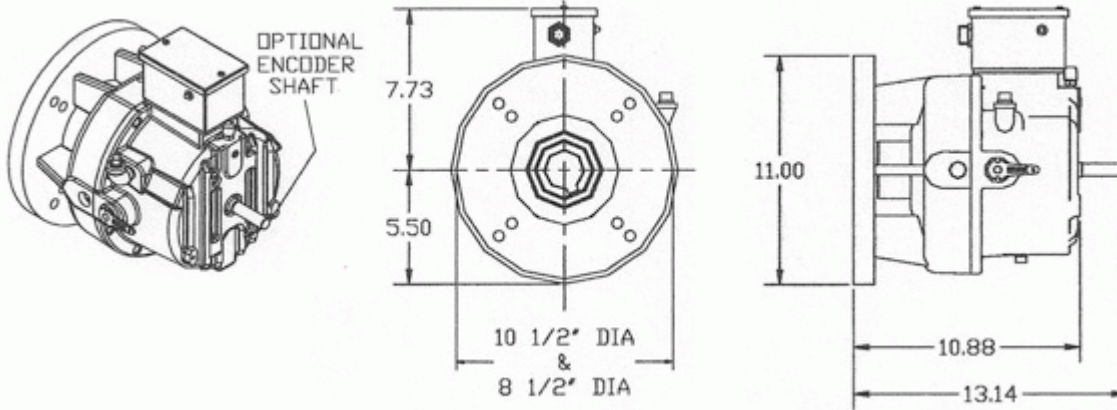
MSB2, MSB4 & MSB6 MagnaShear Coupler Brake Dimensions



Brake Size	Overall Dimensions						
	U/FU	AK/	AG	AA	AB	F	G
MSB2	.875	4.50	7.00	3.44	4.04	3.44	6.78
MSB4	---	---	---	---	---	---	---
MSB6	---	---	---	---	---	---	---

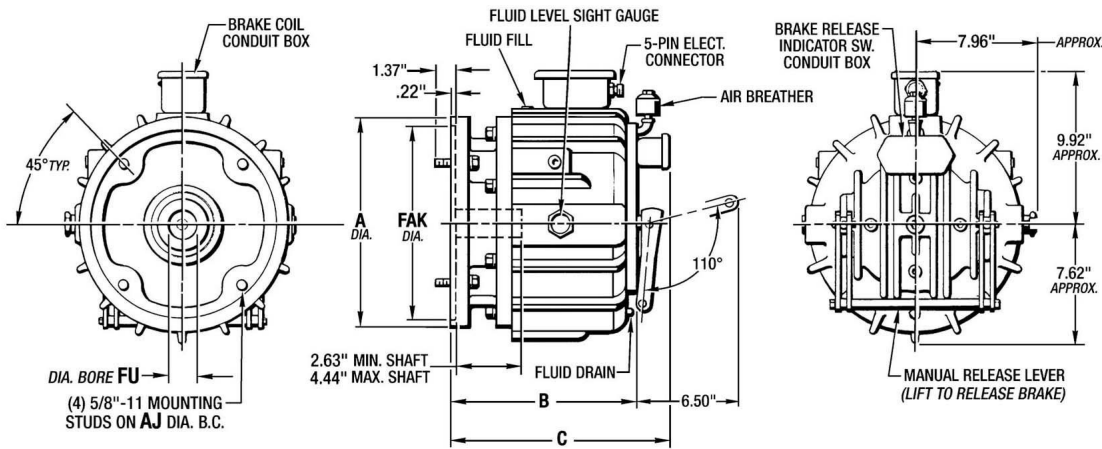


MSB7 MagnaShear Motor Brake Dimensions



Brake Size	Pilot Dia. FAK Ins.	Hub Bore FU Ins.	Hub Depth Ins.	Static Torque Lb. Ft.	Dynamic Torque Lb. Ft.	Max KE per Engmt Ft.Lbs.	Frame Size	Inertia Lb. Ft. ²	Oil Capacity Fl. Ozs	Input Voltage VAC	Inrush Current Amps	Inrush Time Seconds	Holding Current Amps
MSB7	8.5 10.5	1.37	3.00	95	83	26,500	254	CF	CF	115	6	0.4	1.8
		5		135	115		256						
		1.62		170	148		284						
		5											

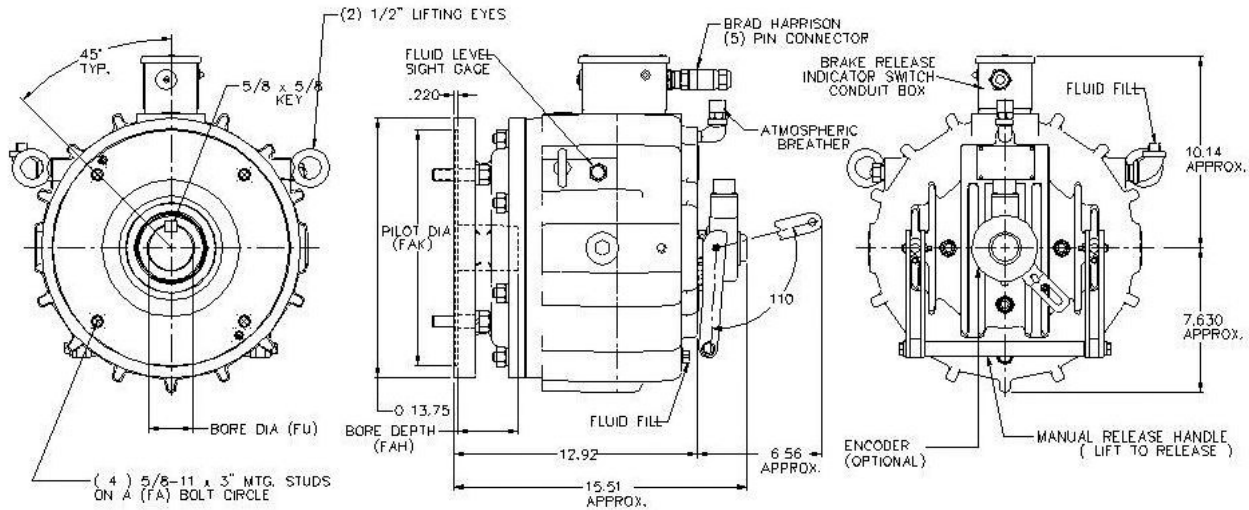
MSB8 MagnaShear Motor Brake Dimensions



Brake Size	Pilot Dia. FAK Ins.	Hub Bore FU Ins.	Hub Depth Ins.	Static Torque Lb. Ft.	Dynamic Torque Lb. Ft.	Max KE per Engmt Ft.Lbs.	Frame Size	Inertia Lb. Ft. ²	Oil Capacity Fl. Ozs	Input Voltage VAC	Inrush Current Amps	Inrush Time Seconds	Holding Current Amps
MSB 8	8.5 10.5	1.375	3.00	100	86	41,500	254	0.267	180	115	6	0.4	1.8
		1.625		150	129		256						
		1.875		200	172		284						
				250	215		286						



MSB9 & MSB10 MagnaShear Motor Brake Dimensions



Brake Size	Pilot Dia. FAK Inches	Hub Bore FU Inches	Hub Depth Inches	Static Torque Lb. Ft.	Dynamic Torque Lb. Ft.	Max KE per Engmt Ft.Lbs.	Frame Size	Inertia Lb. Ft. ²	Oil Capacity Fl. Ozs	Input Voltage VAC	Inrush Current Amps	Inrush Time Seconds	Holding Current Amps
MSB9	10.5 12.5	1.625	2.75 4.62	250	215	48,000	284 286 324 326 364 365 404 405	0.962	192	115	6	1.4	1.8
		1.875		300	258								
		2.000		350	301								
		2.250		450	387								
		2.375		500	430								
MSB10	10.5 12.5	1.875	2.75 4.62	500	430	69,000	1.244	192	115	6	1.4	1.8	
		2.000		600	516								
		2.125		650	559								
		2.250		750	645								
		2.375		900	774								

NOTES:

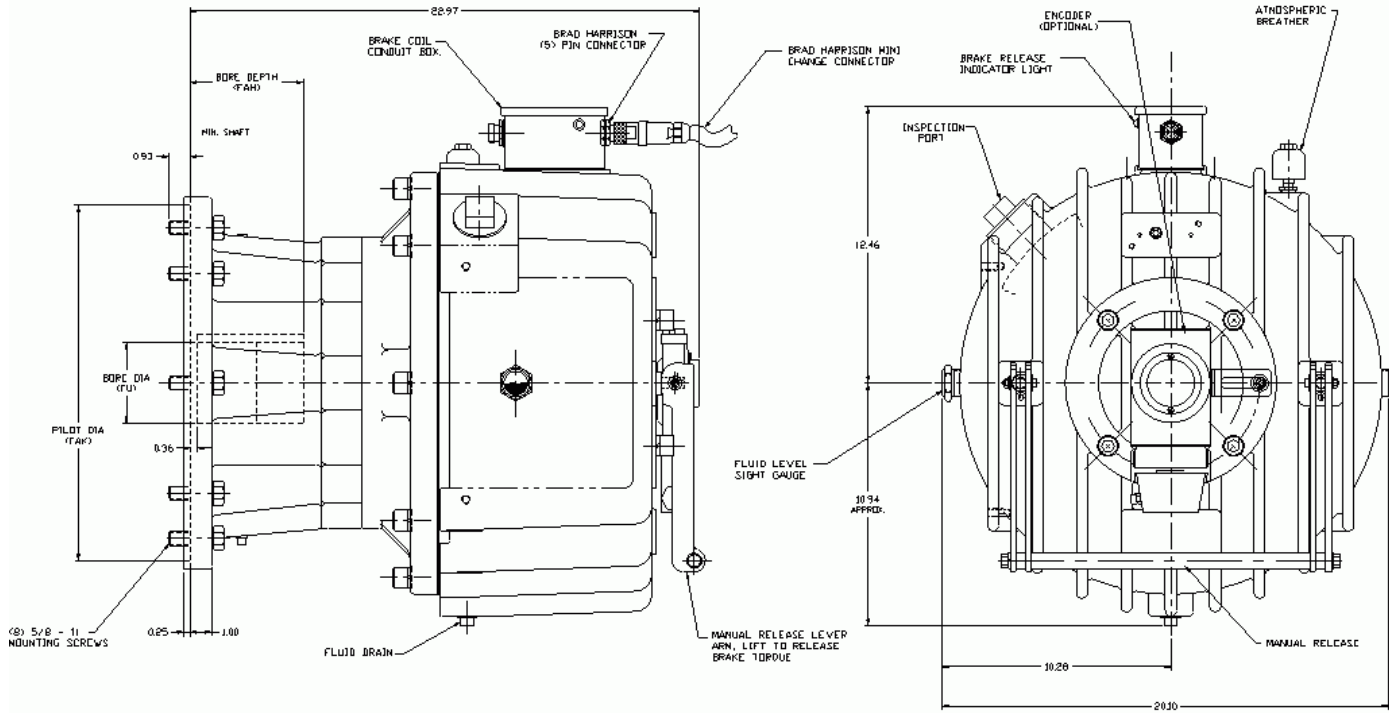
Maximum torque of 350 Lb. Ft. with 1.625" shaft

Maximum torque of 750 Lb. Ft. with 1.875" shaft

"Other" requires step down transformer.



MSB12 MagnaShear Motor Brake Dimensions



Brake Size	Pilot Dia. FAK (Ins.) Inches	Hub Bore FU Inches	Hub Depth Inches	Static Torque Lb. Ft.	Dynamic Torque Lb. Ft.	Max KE per Engmt Ft.Lbs.	Frame Size	Inertia Lb. Ft. ²	Oil Capacity Fl. Ozs	Input Voltage VAC	Inrush Current Amps	Inrush Time Seconds	Holding Current Amps								
MSB12	16	1.875	3.00	625	538	158,000	444 445 447 449	2.068	384	115	8	1.4	2.5								
		2.125		950	817																
		2.375		5.12	1250									1075							
		2.625																			
		2.875																			
		3.125																			
		3.375																			
		3.500																			
3.625																					

NOTES:
 Maximum torque of 950 Lb. Ft. with 1.625" shaft
 Maximum torque of 625 Lb. Ft. with 2.125" & 2.375" shaft



How To Order a MagnaShear Motor Brake

