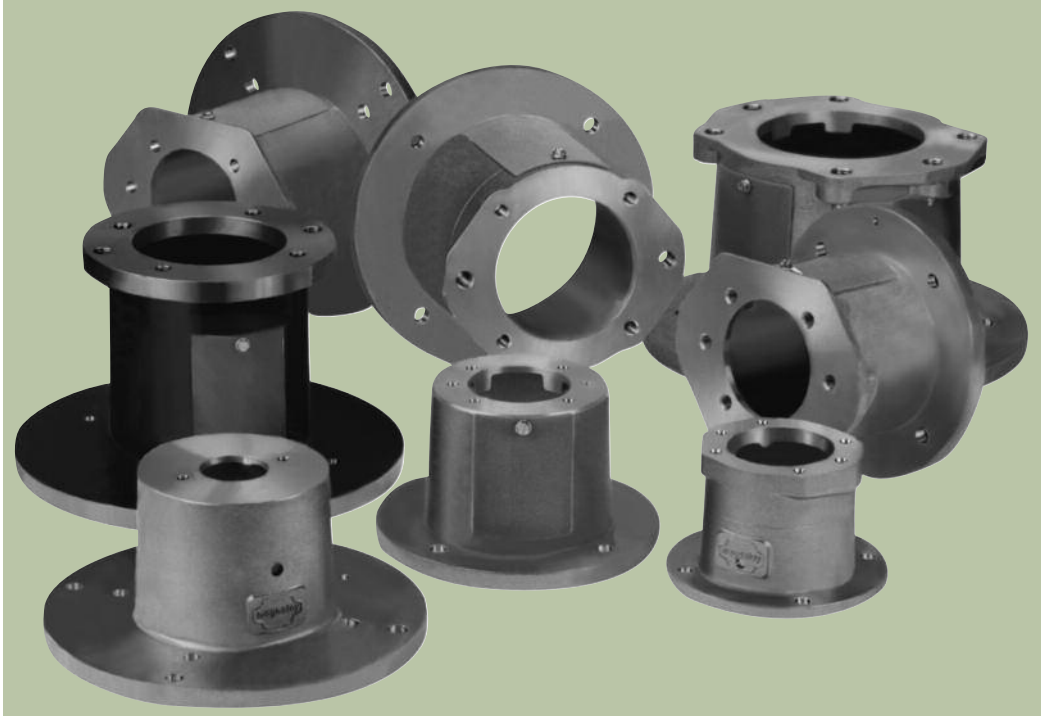
Pump/Motor Mounts

Leading the Industry in Quality, Service and Availability



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magnaloy coupling company *501 Commerce Drive Alpena, MI 49707* *989 356-2186*

A Division of Douville Johnston Corporation *Fax: 989 354-4190* *http://www.magnaloy.com*

Catalog No. PMM0205 ©2002 Magnaloy Coupling Co.

MPS 0205-5M

Power Unit design is greatly simplified by use of the Magnaloy Pump/Motor Mount. Direct mounting of flange mount pumps to NEMA C'Face motors or Pilot mount engines via a Magnaloy Mount assures accurate shaft alignment and eliminates the need for a coupling guard, foot brackets, shims, risers and mounting plate. The result is the easiest to install, most accurate and cost effective method available to mount a pump to a drive unit. **For over 30 years** Magnaloy has produced the highest quality flexible drive couplings in the industry. Magnaloy's long tradition of high quality and immediate delivery has become an industry goal for other manufacturers to attain. Every mount Magnaloy manufactures is guaranteed to be within .003 inch concentric from the motor pilot to the pump pilot. Further, the mounting faces are parallel to each other and perpendicular to the pilot centerline within .002 inch. These exacting tolerances mean accurate shaft alignment which helps prolong bearing, seal and coupling life in addition to reducing noise and vibration. Other mount manufacturers talk about quality, but Magnaloy puts it in writing with measurable standards (see Illustration A).

Magnaloy is the most complete, single source for Horizontal, Vertical and Engine requirements. A large selection of SAE and Metric pump mounting flanges to NEMA motors and I.C. Engines in a variety of lengths are available from stock for immediated shipment. OR special requirements can be met from our complete offering of Welded Steel Mounts. Whatever your mounting needs, you need look no further than Magnaloy.

Consult your Magnaloy Distributor for Magnaloy's Product CD ROM which includes the Magnaloy Pump/Motor Mount Selection Program.

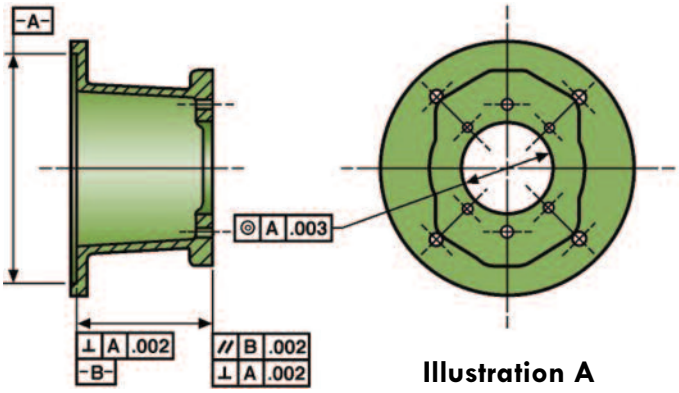
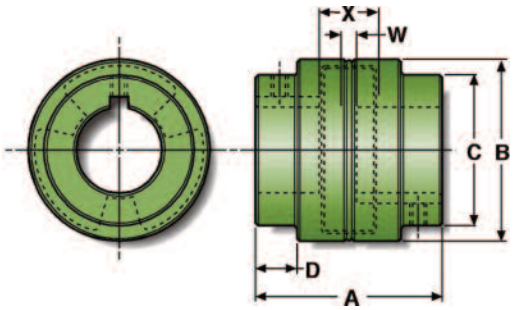


Illustration A

TABLE 1 - Magnaloy Flexible Drive Couplings

The following basic Rating & Dimensional data is provided for general selection assistance. Complete selection specifications for standard and semi-standard bores, spline bores, clamp and steel bushing options and installation instructions are included in the Magnaloy Coupling Catalog - available upon request or visit ***www.magnaloy.com***



Coupling Model	Maximum Bore (inches)	HP Rating per 100 RPM (STD insert)	HP Rating per 100 RPM (Urethane insert)	HP Rating per 100 RPM (Hytrel insert)	A	B	C	D	W(min)	X(max)
100	1 1/8	0.55	0.82	1.65	2.54	2.600	2.00	0.56	1/16	0.90
200	1 3/8	0.64	0.96	1.92	3.10	2.900	2.25	0.68	1/16	0.90
300	1 5/8	1.12	1.68	3.36	3.58	3.450	2.90	0.78	1/16	0.98
400	1 8/8	1.69	2.50	5.10	4.24	3.980	3.05	1.00	1/16	1.20
500	2 3/8	3.50	5.30	10.50	4.67	4.800	4.00	1.04	1/16	1.41
600	2 5/8	7.90	11.90	23.70	5.98	5.975	4.50	1.60	1/16	1.36
700	2 7/8	18.60	27.90	46.50	6.99	6.900	5.19	2.08	1/16	1.97

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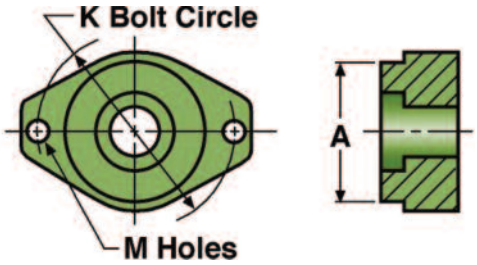
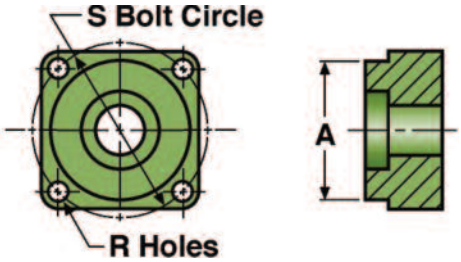
TABLE 2 - SAE - 2 Bolt Mount



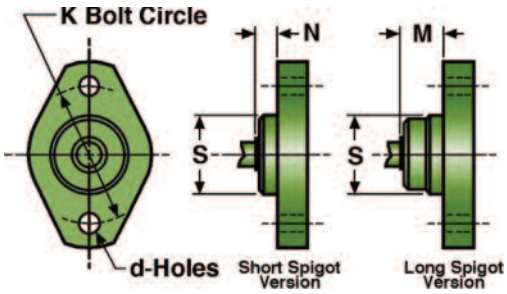
	A	K	M
SAE AA	2.000	3.250	0.406
SAE A	3.250	4.187	0.438
SAE B	4.000	5.750	0.562
SAE C	5.000	7.125	0.688
SAE D	6.000	9.000	0.812
SAE E	6.500	12.500	1.062
SAE F	7.000	13.781	1.062
Mounting Flange	Pilot Dia.	Flange Dimensions	

TABLE 3 - SAE - 4 Bolt Mount



	A	S	R
USA4F17	1.781	2.838	0.375
SAE A	3.250	4.125	0.438
SAE B	4.000	5.000	0.562
SAE C	5.000	6.375	0.562
SAE D	6.000	9.000	0.812
SAE E	6.500	12.500	0.812
SAE F	7.000	13.781	1.062
Mounting Flange	Pilot Dia.	Flange Dimensions	

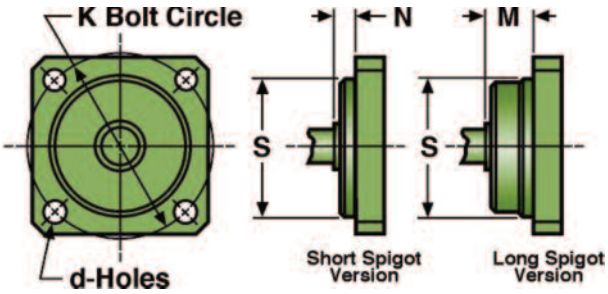
TABLE 4 - Metric Oval Mount (2 Bolt)



(All dimensions in mm)

	s	K	d	N	M
32 A2	32	56	6.6	8	16
40 A2	40	63	6.6	8	16
50 A2	50	80	9	8	20
63 A2	63	100	9	8	20
80 A2	80	109	11	8	20
100 A2	100	140	14	10	25
112 A2	112	160	14	10	25
125 A2	125	180	18	10	32
140 A2	140	200	18	10	32
160 A2	160	224	22	10	40
180 A2	180	250	22	10	40
200 A2	200	280	26	10	50
Mounting Flange	Pilot Dia.	Flange Dimensions			

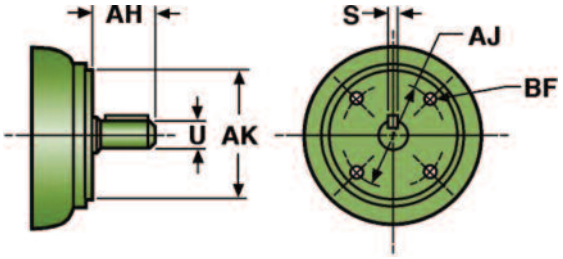
TABLE 5 - Metric Square Mount (4 Bolt)



(All dimensions in mm)

	s	K	d	N	M
63 B4	63	85	9	8	20
63 S4	63	80	M8	8	20
80 B4	80	103	9	8	20
80 S4	80	100	9	8	20
100 B4	100	125	11	10	25
112 B4	112	140	11	10	25
125 B4	125	160	14	10	32
140 B4	140	180	14	10	32
160 B4	160	200	18	10	40
180 B4	180	224	18	10	40
200 B4	200	250	22	10	50
224 B4	224	280	22	10	50
250 B4	250	315	26	10	50
Mounting Flange	Pilot Dia.	Flange Dimensions			

TABLE 6 - NEMA 'C' Face Motor Dimensions



U-Frame Dimensions

	182UC 184UC	213UC 215UC	254UC 256UC	284UC 286UC	324USC 326USC	324UC 326UC	364USC 365USC	364UC 365UC	404USC 405USC	404UC 405UC	444USC 445USC	444UC 445UC
AH	2.125	2.75	3.50	4.625	3.00	5.375	3.50	6.125	4.00	6.875	4.00	8.375
U	7/8	1 1/8	1 3/8	1 5/8	1 5/8	1 7/8	1 7/8	2 1/8	2 1/8	2 3/8	2 1/8	2 7/8
S	3/16	1/4	5/16	3/8	3/8	1/2	1/2	1/2	1/2	5/8	1/2	3/4
AK	4.50	8.50	8.50	10.50	12.50	12.50	12.50	12.50	12.50	12.50	16.00	16.00
AJ	5.875	7.25	7.25	9.00	11.00	11.00	11.00	11.00	11.00	11.00	14.00	14.00
BF	3/8-16	1/2-13	1/2-13	1/2-13	5/8-11	5/8-11	5/8-11	5/8-11	5/8-11	5/8-11	5/8-11	5/8-11
HP*	1 2	3 5	7.5 10	15 20	25 30	25 30	40 50	40 35	60 75	60 75	125 150	125 150

T-Frame Dimensions

	056C	143TC 145TC	182TC 184TC	213TC 215TC	254TC 256TC	284TSC 286TSC	284TC 286TC	324TSC 326TSC	324TC 326TC	364TSC 365TSC	364TC 365TC	404TSC 405TSC	404TC 405TC	444TSC 449TSC	444TC 449TC
AH	2.062	2.125	2.625	3.125	3.75	3.00	4.375	3.50	5.00	3.50	5.625	4.00	7.00	4.50	8.25
U	5/8	7/8	1 1/8	1 3/8	1 5/8	1 5/8	1 7/8	1 7/8	2 1/8	1 7/8	2 3/8	2 1/8	2 7/8	2 3/8	3 3/8
S	3/16	3/16	1/4	5/16	3/8	3/8	1/2	1/2	1/2	1/2	5/8	1/2	3/4	5/8	7/8
AK	4.50	4.50	8.50	8.50	8.50	10.50	10.50	12.50	12.50	12.50	12.50	12.50	12.50	16.00	16.00
AJ	5.875	5.875	7.25	7.25	7.25	9.00	9.00	11.00	11.00	11.00	11.00	11.00	11.00	14.00	14.00
BF	3/8-16	3/8-16	1/2-13	1/2-13	1/2-13	1/2-13	1/2-13	5/8-11	5/8-11	5/8-11	5/8-11	5/8-11	5/8-11	5/8-11	5/8-11
HP*	1/4 1/2	1 2	3 5	7.5 10	15 20	25 30	25 30	40 50	40 50	60 75	60 75	100 125	100 125	150 200	150 200

** Horse Power at 1750 RPM*

Magnaloy Cast Aluminum Mounts

MAGNALOY CAST ALUMINUM MOUNTS are permanent mold cast of lightweight, high strength aluminum alloy and incorporate many unique design features. Custom molded OSHA orange coupling access covers are included for mounts larger than motor group size 056. These covers are quickly and securely retained via a lip-tab on one end and a single self-tapping screw on the other. Magnaloy's horizontal mounts are supplied with a pre-cast drain hole for residual fluids. This unique feature assists in quick detection of leaky seals and other trouble areas.

Using Magnaloy's Pump/Motor Mounts ensure a lightweight, high strength, precision mount for efficient assembly, quiet operation, accurate shaft alignment and complete coupling concealment.

Magnaloy Horizontal Pump/Motor Mounts

MAGNALOY'S HORIZONTAL PUMP/MOTOR MOUNTS are available for mounting NEMA C'Face motors in frame sizes 56C through 449TSC to most SAE and Metric 2 and 4 bolt pump flanges.

A MOUNT KIT is included which contains all the bolts and washers required to attach the pump and motor to the mount.

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Horizontal Mount Selection Method

1. Check TABLES 2 thru 5 to determine pump flange size.
2. Measure the pump shaft length from the shaft end to the flange mounting face and ADD to the motor shaft length shown in TABLE 6. An additional 1/16 inch (minimum) is recommended for shaft end clearance.
3. Refer to the appropriate TABLE (7 thru 11) according to the NEMA motor frame size and locate the applicable pump flange selection form STEP 1, above.
4. Select the mount length option (dimension 'XM' or 'M' in tables) based on the minimum length determined in STEP 2, above.
5. Check for proper clearance between the mount inner surfaces and the coupling O.D. (dimension 'Z' and 'CL' in tables). Dimensional data for Magnaloy Couplings is shown in TABLE 1 for reference. A complete Magnaloy Coupling catalog is available upon request or visit *www.magnaloy.com*.

Consult your Magnaloy Distributor for Magnaloy's Product CD ROM which includes the Magnaloy Pump/Motor Mount Selection Program for easy, computerized mount selection.

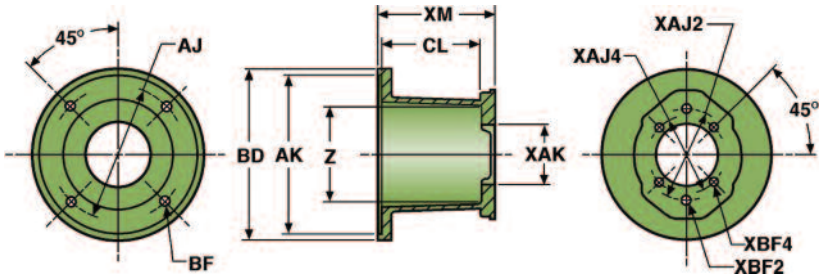

TABLE 7 - NEMA Frames 56C, 143TC/145TC, 182UC/184UC

Horizontal Mounting (or Vertical Mounting - Option A)

MOTOR END DATA

RADIAL CLEARANCE "Z" = 4.15

PUMP FLANGE		AJ 5.88	BF 7/16	BD 6.81	AK 4.501	XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM
USA4F17	4 Bolt					1.782			2.84	5/16-18	M056354F	2.81	3.50	M056424F	3.56	4.25	M056454F	3.81	4.50
SAE AA	2 Bolt					2.001	3.25	3/8-16			M056352AA	2.81	3.50	M056422AA	3.56	4.25	M056452AA	3.81	4.50
SAE A	2(4) Bolt					3.251	4.19	3/8-16	4.12	3/8-16	M056352A	2.81	3.50	M056422A	3.56	4.25	M056452A	3.81	4.50
80 2A/B4	2(4) Bolt					80.01mm	109mm	3/8-16	103mm	5/16-18	M0563580M	2.81	3.50	M0564280M	3.56	4.25	M0564580M	3.81	4.50
80 S4	4 Bolt					80.01mm			100mm	5/16-18	M0563580MS	2.81	3.50	M0564280MS	3.56	4.25	M0564580MS	3.81	4.50
		PUMP END DATA									3.50 LENGTH			4.25 LENGTH			4.50 LENGTH		

MOTOR END DATA

RADIAL CLEARANCE "Z" = 4.15

*** RADIAL CLEARANCE "Z" = 4.10**

PUMP FLANGE		AJ 5.88	BF 7/16	BD 6.81	AK 4.501	XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM
USA4F17	4 Bolt					1.782			2.84	5/16-18	M056504F	4.31	5.00	M056524F	4.56	5.25
SAE AA	2 Bolt					2.001	3.25	3/8-16			M056502AA	4.31	5.00	M056522AA	4.56	5.25
SAE A	2(4) Bolt					3.251	4.19	3/8-16	4.12	3/8-16	M056502A	4.31	5.00	M056522A	4.56	5.25
SAE B	2(4) Bolt					4.001	5.75	1/2-13	5.00	1/2-13	M056502B*	3.93	5.00	M056522B*	4.18	5.25
80 2A/B4	2(4) Bolt					80.01mm	109mm	3/8-16	103mm	5/16-18	M0565080M	4.31	5.00	M0565280M	4.56	5.25
80 S4	4 Bolt					80.01mm			100mm	5/16-18	M0565080MS	4.31	5.00	M0565280MS	4.56	5.25
80 S4	4 Bolt					80.01mm			100mm	5/16-18	M05650100M*	3.93	5.00	M05652100M*	4.18	5.25
		PUMP END DATA									5.00 LENGTH			5.25 LENGTH		

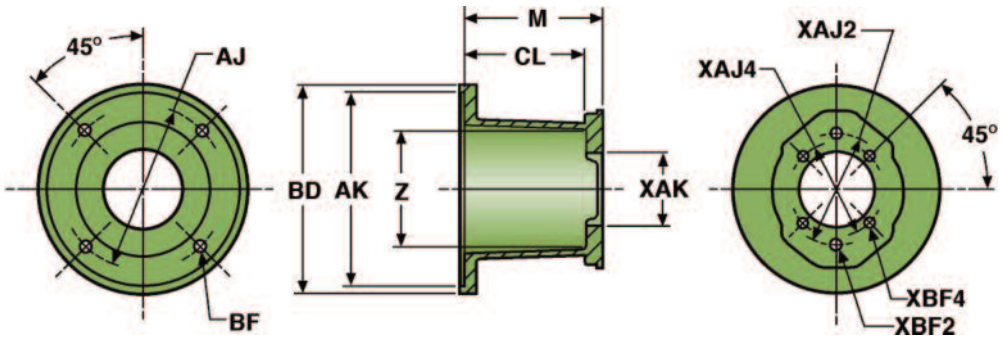

TABLE 8A - NEMA Frames 182TC - 256TC, 213UC - 256UC

Horizontal Mounting (or Vertical Mounting - Option A)

MOTOR END DATA

AJ 7.25 **BF** 17/32 **BD** 9.00 **AK** 8.501

RADIAL CLEARANCE "Z" = 5.00

182-A Casting

		XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	M	MOUNT NO.	CL	M	MOUNT NO.	CL	M
USA4F17	4 Bolt	1.782			2.84	5/16-18	M182474F	4.00	4.75	M182504F	4.31	5.00	M182524F	4.31	5.25
SAE AA	2 Bolt	2.001	3.25	3/8-16			M182472AA	4.00	4.75	M182502AA	4.31	5.00	M182522AA	4.31	5.25
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	M182472A	4.00	4.75	M182502A	4.31	5.00	M182522A	4.31	5.25
80 2A/B4	2(4) Bolt	80.01mm	109mm	3/8-16	103mm	5/16-18	M1824780M	4.00	4.75	M1825080M	4.31	5.00	M1825280M	4.31	5.25
80 S4	4 Bolt	80.01mm			100mm	5/16-18	M1824780MS	4.00	4.75	M1825080MS	4.31	5.00	M1825280MS	4.31	5.25
PUMP FLANGE			PUMP END DATA				4.75 LENGTH			5.0 LENGTH			5.25 LENGTH		

MOTOR END DATA

AJ 7.25 **BF** 17/32 **BD** 9.00 **AK** 8.501

RADIAL CLEARANCE "Z" = 5.00

		XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	M	MOUNT NO.	CL	M
USA4F17	4 Bolt	1.782			2.84	5/16-18	M182584F	5.06	5.81	M182684F	6.06	6.81
SAE AA	2 Bolt	2.001	3.25	3/8-16			M182582AA	5.06	5.81	M182682AA	6.06	6.81
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	M182582A	5.06	5.81	M182682A	6.06	6.81
80 2A/B4	2(4) Bolt	80.01mm	109mm	3/8-16	103mm	5/16-18	M1825880M	5.06	5.81	M1826880M	6.06	6.81
80 S4	4 Bolt	80.01mm			100mm	5/16-18	M1825880MS	5.06	5.81	M1826880MS	6.06	6.81
PUMP FLANGE			PUMP END DATA				5.81 LENGTH			6.81 LENGTH		

TABLE 8B - NEMA Frames 182TC - 256TC, 213UC - 256UC

Horizontal Mounting

MOTOR END DATA

AJ 7.25 **BF** 17/32 **BD** 9.00 **AK** 8.501

RADIAL CLEARANCE "Z" = 5.00

182-B Casting

		XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	M	MOUNT NO.	CL	M	MOUNT NO.	CL	M
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	M182522B	4.50	5.25	M182582B	5.06	5.81	M182602B	5.25	6.00
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	M182522C	4.50	5.25	M182582C	5.06	5.81	M182602C	5.25	6.00
100 A2/B4	2(4) Bolt	100.01mm	140mm	1/2-13	125mm	3/8-16	M18252100M	4.50	5.25	M18258100M	5.06	5.81	M18260100M	5.25	6.00
125 A2/B4	2(4) Bolt	125.01mm	180mm	5/8-11	160mm	1/2-13	M18252125M	4.50	5.25	M18258125M	5.06	5.81	M18260125M	5.25	6.00
PUMP FLANGE			PUMP END DATA				5.25 LENGTH			5.81 LENGTH			6.00 LENGTH		

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MOTOR END DATA

AJ	BF	BD	AK
7.25	17/32	9.00	8.501

RADIAL CLEARANCE "Z" = 5.00

		XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	M	MOUNT NO.	CL	M
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	M182682B	6.06	6.81	M182702B	6.25	7.00
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	M182682C	6.06	6.81	M182702C	6.25	7.00
100 A2/B4	2(4) Bolt	100.01mm	140mm	1/2-13	125mm	3/8-16	M18268100M	6.06	6.81	M18270100M	6.25	7.00
125 A2/B4	2(4) Bolt	125.01mm	180mm	5/8-11	160mm	1/2-13	M18268125M	6.06	6.81	M18270125M	6.25	7.00

PUMP FLANGE PUMP END DATA 6.81 LENGTH 7.00 LENGTH

TABLE 9 - NEMA Frames 284TC/TSC - 286TC/TSC, 284UC/286UC

MOTOR END DATA

AJ	BF	BD	AK
9.00	17/32	11.00	10.501

RADIAL CLEARANCE "Z" = 6.40

		XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	M	MOUNT NO.	CL	M	MOUNT NO.	CL	M
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-63	M284682A	6.00	6.88	M284752A	6.62	7.50	M284862A	7.81	8.69
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	M284682B	6.00	6.88	M284752B	6.62	7.50	M284862B	7.81	8.69
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	M284682C	6.00	6.88	M284752C	6.62	7.50	M284862C	7.81	8.69
80 A2/B4	2(4) Bolt	80.01mm	109mm	3/8-16	103mm	5/16-18	M2846880M	6.00	6.88	M2847580M	6.62	7.50	M2848680M	7.81	8.69
80 S4	4 Bolt	80.01mm			100mm	5/16-18	M2846880MS	6.00	6.88	M2847580MS	6.62	7.50	M2848680MS	7.81	8.69
100 A2/B4	2(4) Bolt	100.01mm	140mm	1/2-13	125mm	3/8-16	M28468100M	6.00	6.88	M28475100M	6.62	7.50	M28486100M	7.81	8.69
125 A2/B4	2(4) Bolt	125.01mm	180mm	5/8-11	160mm	1/2-13	M28468125M	6.00	6.88	M28475125M	6.62	7.50	M28486125M	7.81	8.69

PUMP FLANGE PUMP END DATA 6.88 LENGTH 7.50 LENGTH 8.69 LENGTH

TABLE 10 - NEMA Frames 324TC/TSC - 405TC/TSC, 324UC/USC - 405UC/USC

MOTOR END DATA

AJ	BF	BD	AK
11.00	21/32	14.00	12.501

RADIAL CLEARANCE "Z" = 7.74

		XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	M	MOUNT NO.	CL	M
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	M324762B	6.75	7.62	M324872B	7.88	8.75
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	M324762C	6.75	7.62	M324872C	7.88	8.75
SAE D	2(4) Bolt	6.001	9.00	3/4-10	9.00	3/4-10	M324762D	6.75	7.62	M324872D	7.88	8.75
100 A2/B4	2(4) Bolt	100.01mm	140mm	1/2-13	125mm	3/8-16	M32476100M	6.75	7.62	M32487100M	7.88	8.75
125 A2/B4	2(4) Bolt	125.01mm	180mm	5/8-11	160mm	1/2-13	M32476125M	6.75	7.62	M32487125M	7.88	8.75
160 A2/B4	2(4) Bolt	160.01mm	224mm	3/4-10	200mm	5/8-11	M32476160M	6.75	7.62	M32487160M	7.88	8.75
180 B4	4 Bolt	180.01mm			224mm	5/8-11	M32476180M	6.75	7.62	M32487180M	7.88	8.75

PUMP FLANGE PUMP END DATA 7.62 LENGTH 8.75 LENGTH

TABLE 11 - NEMA Frames 444TC/TSC - 449TC/TSC, 444UC/USC - 445UC/USC

MOTOR END DATA

AJ	BF	BD	AK
14.00	21/32	18.00	16.001

RADIAL CLEARANCE "Z" = 10.75

		XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	M
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	M444882C	7.12	8.88
SAE D	2(4) Bolt	6.001	9.00	3/4-10	9.00	3/4-10	M444882D	7.12	8.88
SAE E	2 Bolt	6.501	12.50	1-8			M444882E	7.12	8.88

PUMP FLANGE PUMP END DATA 8.88 LENGTH

MAGNALOY VERTICAL PUMP/MOTOR MOUNTS are designed to allow direct mounting through the reservoir top. The pump and mount assembly is enclosed inside the reservoir resulting in a safer, quieter, more compact installation. Vertical mounts are available in NEMA C'face motor frame sizes 56C through 256TC to most SAE and Metric 2 and 4 bolt pump flanges. Two mounting options are available to give added flexibility in vertical power unit design.

A MOUNT KIT is included which contains all bolts and washers required to attach the pump and motor to the mount. The kit DOES NOT contain hardware for attaching the mount to the reservoir.

Vertical Mount Selection Method

1. Check TABLES 2 thru 5 to determine pump flange size.
2. Measure the pump shaft length from the shaft end to the flange mounting face and ADD to the motor shaft length shown in TABLE 6. An additional 1/16 inch (minimum) is recommended for shaft end clearance.
3. Determine mounting option desired as shown in Illustration B, C, D and E depending on the NEMA frame size.
4. Refer to the appropriate TABLE (7, 8A, 12 or 13) according to the NEMA motor frame size and locate the applicable pump flange selection form STEP 1, above. NOTE: Option A for vertical mounting NEMA 182TC through 256TC is applicable ONLY to SAE-A and smaller pump flanges.
5. Select the mount length option (dimension 'XM' or 'M' in tables) based on the minimum length determined in STEP 2, above.
6. Check for proper clearance between the mount inner surfaces and the coupling O.D. (dimension 'Z' and 'CL' in tables). Dimensional data for Magnaloy Couplings is shown in TABLE 1 for reference. A complete Magnaloy Coupling catalog is available upon request or visit ***www.magnaloy.com***.

Consult your Magnaloy Distributor for Magnaloy's Product CD ROM which includes the Magnaloy Pump/Motor Mount Selection Program for easy, computerized mount selection.

NEMA Frame 56C thru 145TC Vertical Mounting

OPTION A

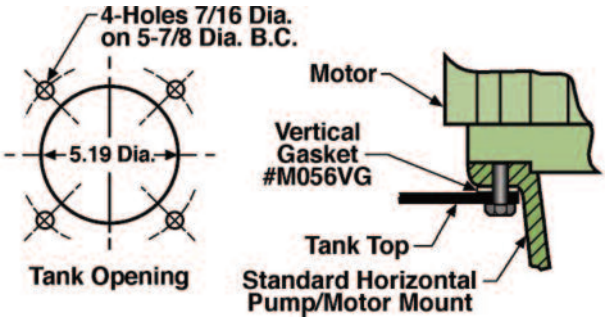

Illustration B

This economical vertical mounting option allows Tank Top Drop-thru mounting for ease of assembly and utilizes the standard horizontal mount and a sealing gasket.

To order OPTION A, specify the Horizontal Pump/Motor Mount number from TABLE 7 and Vertical Gasket number M056VG.

OPTION B

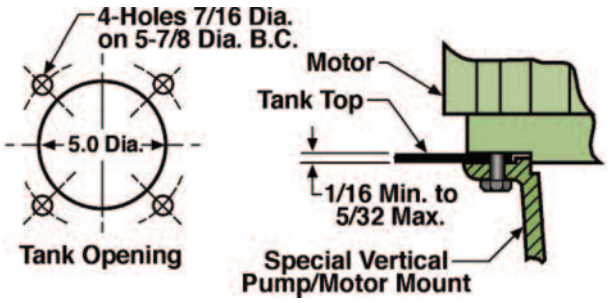

Illustration C

This mounting option requires inside tank access to position the mount/pump sub-assembly through the tank top opening.

To order OPTION B, specify the Vertical Pump/Motor Mount number from TABLE 12 followed with the letter 'V' as shown in TABLE 12. No gasket is required with this mounting option.

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TABLE 12 - NEMA Frame 56C, 143TC/145TC, 182UC/184UC

MOTOR END DATA

RADIAL CLEARANCE "Z" = 4.15

AJ 5.88	BF 7/16	BD 6.81	AK 4.501	XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM
USA4F17	4 Bolt	1.782					2.84	5/16-18	M056354FV	2.81	3.50	M056424FV	3.56	4.25	M056454FV	3.81	4.50
SAE AA	2 Bolt	2.001		3.25	3/8-16				M056352AAV	2.81	3.50	M056422AAV	3.56	4.25	M056452AAV	3.81	4.50
SAE A	2(4) Bolt	3.251		4.19	3/8-16		4.12	3/8-16	M056352AV	2.81	3.50	M056422AV	3.56	4.25	M056452AV	3.81	4.50
80 A2/B4	2(4) Bolt	80.01mm		109mm	3/8-16		103mm	5/16-18	M0563580MV	2.81	3.50	M0564280MV	3.56	4.25	M0564580MV	3.81	4.50
80 S4	4 Bolt	80.01mm					100mm	5/16-18	M0563580MSV	2.81	3.50	M0564280MSV	3.56	4.25	M0564580MSV	3.81	4.50
PUMP FLANGE				PUMP END DATA					3.50 LENGTH			4.25 LENGTH			4.50 LENGTH		

MOTOR END DATA

RADIAL CLEARANCE "Z" = 4.15
***RADIAL CLEARANCE "Z" = 4.10**

NOTE:
See drawing on top of page 10 for dimensional references

AJ 5.88	BF 7/16	BD 6.81	AK 4.501	XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM
USA4F17	4 Bolt	1.782					2.84	5/16-18	M056504FV	4.31	5.00	M056524FV	4.56	5.25
SAE AA	2 Bolt	2.001		3.25	3/8-16				M056502AAV	4.31	5.00	M056522AAV	4.56	5.25
SAE A	2(4) Bolt	3.251		4.19	3/8-16		4.12	3/8-16	M056502AV	4.31	5.00	M056522AV	4.56	5.25
SAE B	2(4) Bolt	4.001		5.75	1/2-13		5.00	1/2-13	M056502BV*	3.93	5.00	M056522BV*	4.18	5.25
80 A2/B4	2(4) Bolt	80.01mm		109mm	3/8-16		103mm	5/16-18	M0565080MV	4.31	5.00	M0565280MV	4.56	5.25
80 S4	4 Bolt	80.01mm					100mm	5/16-18	M0565080MSV	4.31	5.00	M0565280MSV	4.56	5.25
100 A2/B4	2(4) Bolt	100.01mm		140mm	1/2-13		125mm	3/8-16	M05650100MV*	3.93	5.00	M05652100MV*	4.18	5.25
PUMP FLANGE				PUMP END DATA					5.00 LENGTH			5.25 LENGTH		

NEMA Frame 182TC thru 256TC Vertical Mounting

OPTION A

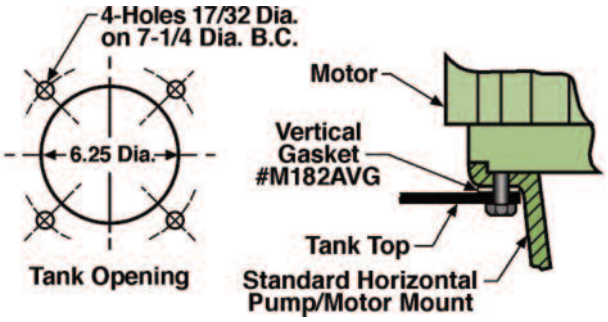

Illustration D

This mounting option offers an economical alternative to OPTION B, but is available with SAE-A pump flanges and smaller only. OPTION A utilizes the standard horizontal mount and a sealing gasket.

To order OPTION A, specify the Horizontal Pump/Motor Mount number from TABLE 8 and Vertical Gasket number M182AVG.

OPTION B

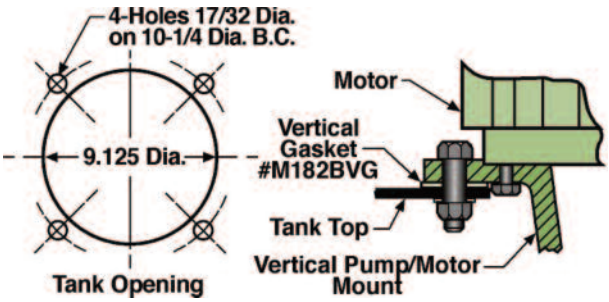

Illustration E

This option utilizes an oversize mounting flange on the motor end of the mount and requires a larger diameter tank top opening giving additional working clearances for assembly to reservoir. Mounting OPTION B is available in the pump/motor length combinations shown in TABLE 13.

To order OPTION B, specify the Vertical Pump/Motor Mount number from TABLE 13 followed with the letter 'V' as shown in TABLE 13. The required Vertical Gasket, number M182BVG is included.

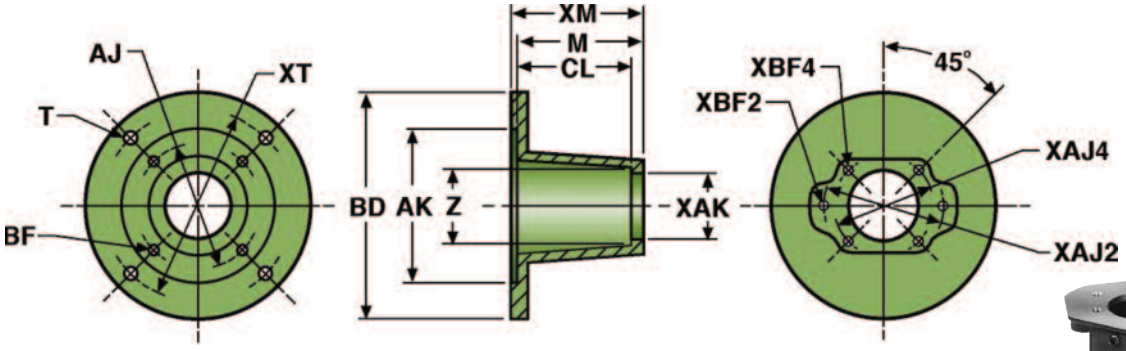

TABLE 13 - NEMA Frames 182TC - 256TC, 213UC/256UC

MOTOR END DATA

RADIAL CLEARANCE "Z" = 5.00
MOUNTING BOLT HOLE DIAMETER "T" = 17/32
MOUNTING HOLE BOLT CIRCLE "XT" = 10.25

AJ	BF	BD	AK
7.25	17/32	11.50	8.501

PUMP FLANGE		PUMP END DATA					5.00 LENGTH			5.25 LENGTH			5.81 LENGTH		
		XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	M	MOUNT NO.	CL	M	MOUNT NO.	CL	M
USA4F17	4 Bolt	1.782			2.84	5/16-18	M182504FV	4.31	5.00	M182524FV	4.31	5.25	M182584FV	5.06	5.81
SAE AA	2 Bolt	2.001	3.25	3/8-16			M182502AAV	4.31	5.00	M182522AAV	4.31	5.25	M182582AAV	5.06	5.81
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	M182502AV	4.31	5.00	M182522AV	4.31	5.25	M182582AV	5.06	5.81
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13				M182522BV	4.50	5.25	M182582BV	5.06	5.81
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13				M182522CV	4.50	5.25	M182582CV	5.06	5.81
80 A2/B4	2(4) Bolt	80.01mm	109mm	3/8-16	103mm	5/16-18	M1825080MV	4.31	5.00	M1825280MV	4.31	5.25	M1825880MV	5.06	5.81
80 S4	4 Bolt	80.01mm			100mm	5/16-18	M1825080MSV	4.31	5.00	M1825280MSV	4.31	5.25	M1825880MSV	5.06	5.81
100 A2/B4	2(4) Bolt	100.01mm	140mm	1/2-13	125mm	3/8-16				M18252100MV	4.50	5.25	M18258100MV	5.06	5.81
250 A2/B4	2(4) Bolt	125.01mm	180mm	5/8-11	160mm	1/2-13				M18252125MV	4.50	5.25	M18258125MV	5.06	5.81

MOTOR END DATA

RADIAL CLEARANCE "Z" = 5.00
MOUNTING BOLT HOLE DIAMETER "T" = 17/32
MOUNTING HOLE BOLT CIRCLE "XT" = 10.25

AJ	BF	BD	AK
7.25	17/32	11.50	8.501

PUMP FLANGE		PUMP END DATA					6.81 LENGTH			7.00 LENGTH		
		XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	M	MOUNT NO.	CL	M
USA4F17	4 Bolt	1.782			2.84	5/16-18	M182684FV	6.06	6.81			
SAE AA	2 Bolt	2.001	3.25	3/8-16			M182682AAV	6.06	6.81			
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	M182682AV	6.06	6.81			
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	M182682BV	6.06	6.81	M182702BV	6.25	7.00
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	M182682CV	6.06	6.81	M182702CV	6.25	7.00
80 A2/B4	2(4) Bolt	80.01mm	109mm	3/8-16	103mm	5/16-18	M1826880MV	6.06	6.81			
80 S4	4 Bolt	80.01mm			100mm	5/16-18	M1826880MSV	6.06	6.81			
100 A2/B4	2(4) Bolt	100.01mm	140mm	1/2-13	125mm	3/8-16	M18268100MV	6.06	6.81	M18270100MV	6.25	7.00
250 A2/B4	2(4) Bolt	125.01mm	180mm	5/8-11	160mm	1/2-13	M18268125MV	6.06	6.81	M18270125MV	6.25	7.00

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MAGNALOY'S PUMP/ENGINE MOUNTS are available for mounting SAE flange-mount pumps to gasoline and diesel engines with pilot mounting capabilities. Four basic engine pilot mounting configurations are available from inventory determined by the pilot diameter. Optional sizes are available upon request.

Engine Mount Selection Method

1. Check TABLES 2 thru 5 to determine pump flange size.
2. Determine the Engine Pilot Group from TABLE 14 (other sizes are available, consult factory)
3. Measure the pump shaft length from the shaft end to the flange mounting face and ADD to the engine shaft length measured from the shaft end to the pilot face. An additional 1/16 inch (minimum) is recommended for shaft end clearance.
4. Refer to the appropriate TABLE (15 thru 18) according to the Engine Pilot Group determined in STEP 2, above and locate the applicable pump flange selection form STEP 1, above.
5. Select the mount length option (dimension 'XM' in tables) based on the minimum length determined in STEP 3, above.
6. Check for proper clearance between the mount inner surfaces and the coupling O.D. (dimension 'Z' and 'CL' in tables). Dimensional data for Magnaloy Couplings is shown in TABLE 1 for reference. A complete Magnaloy Coupling catalog is available upon request or visit *www.magnaloy.com*.

Consult your Magnaloy Distributor for Magnaloy's Product CD ROM which includes the Magnaloy Pump/Motor Mount Selection Program for easy, computerized mount selection.

TABLE 14 - Engine Pilot Groups

Size	K	J
E575	5.75	6.50
E644	6.437	7.75
E700	7.00	7.75
E787	7.875	9.25
Pilot Group Size	Pilot Dia.	Bolt Circle Dia.

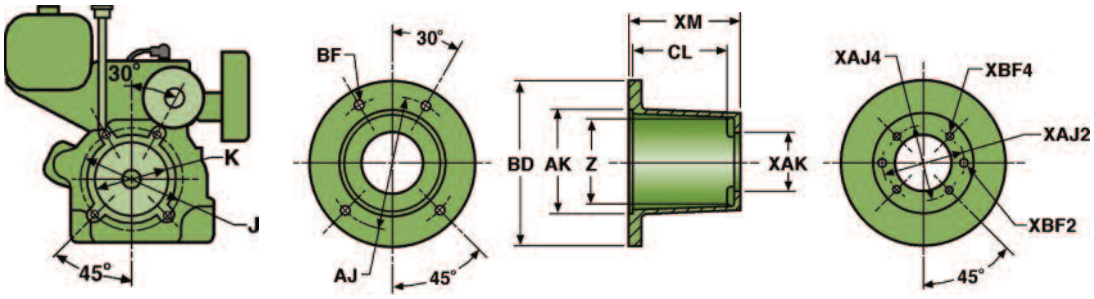

TABLE 15 - E575 Pilot Gasoline and Diesel Engines

ENGINE END DATA: AJ 6.50, BF 13/32, BD 7.50, AK 5.752

RADIAL CLEARANCE "Z" = 4.15 | "Z" = 4.15 | "Z" = 5.00
*RADIAL CLEARANCE "Z" = 4.10 | * "Z" = 4.10

PUMP FLANGE		PUMP END DATA					5.00 LENGTH			5.25 LENGTH			6.06 LENGTH **		
		XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM
USA4F17	4 Bolt	1.782			2.84	5/16-18	E575504F	4.31	5.00	E575524F	4.56	5.25	E575604F	5.14	6.06
SAE AA	2 Bolt	2.001	3.25	3/8-16			E575502AA	4.31	5.00	E575522AA	4.56	5.25	E575602AA	5.14	6.06
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	E575502A	4.31	5.00	E575522A	4.56	5.25	E575602A	5.14	6.06
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	E575502B*	3.93	5.00	E575522B*	4.18	5.25	E575602B	5.14	6.06
80 A2/B4	2(4) Bolt	80.01mm	109mm	3/8-16	103mm	5/16-18	E5755080M	4.31	5.00	E5755280M	4.56	5.25	E5756080M	5.14	6.06
80 S4	4 Bolt	80.01mm			100mm	5/16-18	E5755080MS	4.31	5.00	E5755280MS	4.56	5.25	E5756080MS	5.14	6.06
100 A2/B4	2(4) Bolt	100.01mm	140mm	1/2-13	125mm	3/8-16	E57550100M*	3.93	5.00	E57552100M*	4.18	5.25	E57560100M	5.14	6.06

** *SOCKET HEAD CAP SCREWS REQUIRED ON ENGINE END, THIS LENGTH ONLY. RADIAL CLEARANCE "Z" = 5.00, THIS LENGTH ONLY.*

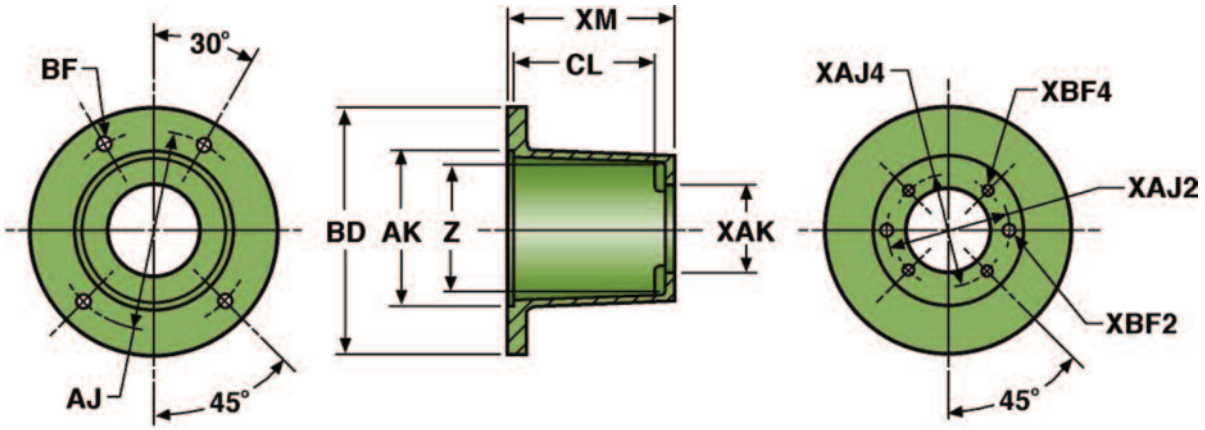

TABLE 16 - E644 Pilot Gasoline and Diesel Engines

ENGINE END DATA

RADIAL CLEARANCE "Z" = 5.00

AJ 7.75	BF 15/32	BD 9.00	AK 6.439	XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM
USA4F17	4 Bolt			1.782			2.84	5/16-18	E644504F	4.05	5.00	E644554F	4.36	5.50
SAE AA	2 Bolt			2.001	3.25	3/8-16			E644502AA	4.05	5.00	E644552AA	4.36	5.50
SAE A	2(4) Bolt			3.251	4.19	3/8-16	4.12	3/8-16	E644502A	4.05	5.00	E644552A	4.36	5.50
SAE B	2(4) Bolt			4.001	5.75	1/2-13	5.00	1/2-13				E644552B	4.36	5.50
80 A2/B4	2(4) Bolt			80.01mm	109mm	3/8-16	103mm	5/16-18	E6445080M	4.05	5.00	E6445580M	4.36	5.50
80 S4	4 Bolt			80.01mm			100mm	5/16-18	E6445080MS	4.05	5.00	E6445580MS	4.36	5.50
100 A2/B4	2(4) Bolt			100.01mm	140mm	1/2-13	125mm	3/8-16				E64455100M	4.36	5.50
PUMP FLANGE					PUMP END DATA				5.00 LENGTH			5.50 LENGTH		

ENGINE END DATA

RADIAL CLEARANCE "Z" = 5.00

AJ 7.75	BF 15/32	BD 9.00	AK 6.439	XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM
USA4F17	4 Bolt			1.782			2.84	5/16-18	E644604F	5.11	6.00	E644704F	6.11	7.00			
SAE AA	2 Bolt			2.001	3.25	3/8-16			E644602AA	5.11	6.00	E644702AA	6.11	7.00			
SAE A	2(4) Bolt			3.251	4.19	3/8-16	4.12	3/8-16	E644602A	5.11	6.00	E644702A	6.11	7.00			
SAE B	2(4) Bolt			4.001	5.75	1/2-13	5.00	1/2-13	E644602B	5.11	6.00	E644702B	6.11	7.00	E644722B	6.31	7.25
SAE C	2(4) Bolt			5.001	7.12	5/8-11	6.38	1/2-13	E644602C	5.11	6.00	E644702C	6.11	7.00	E644722C	6.31	7.25
80 A2/B4	2(4) Bolt			80.01mm	109mm	3/8-16	103mm	5/16-18	E6446080M	5.11	6.00	E6447080M	6.11	7.00			
80 S4	4 Bolt			80.01mm			100mm	5/16-18	E6446080MS	5.11	6.00	E6447080MS	6.11	7.00			
100 A2/B4	2(4) Bolt			100.01mm	140mm	1/2-13	125mm	3/8-16	E64460100M	5.11	6.00	E64470100M	6.11	7.00	E64472100M	6.31	7.25
125 A2/B4	2(4) Bolt			125.01mm	180mm	5/8-11	160mm	1/2-13	E64460125M	5.11	6.00	E64470125M	6.11	7.00	E64472125M	6.31	7.25
PUMP FLANGE					PUMP END DATA				6.00 LENGTH			7.00 LENGTH			7.25 LENGTH		

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TABLE 17 - E700 Pilot Gasoline and Diesel Engines

ENGINE END DATA

AJ 7.75 | BF 15/32 | BD 9.00 | AK 7.002

RADIAL CLEARANCE "Z" = 5.00

		XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM
USA4F17	4 Bolt	1.782			2.84	5/16-18	E700504F	4.05	5.00	E700554F	4.36	5.50
SAE AA	2 Bolt	2.001	3.25	3/8-16			E700502AA	4.05	5.00	E700552AA	4.36	5.50
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	E700502A	4.05	5.00	E700552A	4.36	5.50
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13				E700552B	4.36	5.50
80 A2/B4	2(4) Bolt	80.01mm	109mm	3/8-16	103mm	5/16-18	E7005080M	4.05	5.00	E7005580M	4.36	5.50
80 S4	4 Bolt	80.01mm			100mm	5/16-18	E7005080MS	4.05	5.00	E7005580MS	4.36	5.50
100 A2/B4	2(4) Bolt	100.01mm	140mm	1/2-13	125mm	3/8-16				E70055100M	4.36	5.50
PUMP FLANGE			PUMP END DATA				5.00 LENGTH			5.50 LENGTH		

ENGINE END DATA

AJ 7.75 | BF 15/32 | BD 9.00 | AK 7.002

RADIAL CLEARANCE "Z" = 5.00

		XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM
USA4F17	4 Bolt	1.782			2.84	5/16-18	E700604F	5.11	6.00	E700704F	6.11	7.00			
SAE AA	2 Bolt	2.001	3.25	3/8-16			E700602AA	5.11	6.00	E700702AA	6.11	7.00			
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	E700602A	5.11	6.00	E700702A	6.11	7.00			
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	E700602B	5.11	6.00	E700702B	6.11	7.00	E700722B	6.31	7.25
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	E700602C	5.11	6.00	E700702C	6.11	7.00	E700722C	6.31	7.25
80 A2/B4	2(4) Bolt	80.01mm	109mm	3/8-16	103mm	5/16-18	E7006080M	5.11	6.00	E7007080M	6.11	7.00			
80 S4	4 Bolt	80.01mm			100mm	5/16-18	E7006080MS	5.11	6.00	E7007080MS	6.11	7.00			
100 A2/B4	2(4) Bolt	100.01mm	140mm	1/2-13	125mm	3/8-16	E70060100M	5.11	6.00	E70070100M	6.11	7.00	E70072100M	6.31	7.25
125 A2/B4	2(4) Bolt	125.01mm	180mm	5/8-11	160mm	1/2-13	E70060125M	5.11	6.00	E70070125M	6.11	7.00	E70072125M	6.31	7.25
PUMP FLANGE			PUMP END DATA				6.00 LENGTH			7.00 LENGTH			7.25 LENGTH		

TABLE 18 - E787 Pilot Gasoline and Diesel Engines

ENGINE END DATA

AJ 9.25 | BF 21/32 | BD 11.00 | AK 7.877

RADIAL CLEARANCE "Z" = 6.40

		XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	E787682A	5.80	6.88	E787752A	6.42	7.50	E787862A	7.61	8.69
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	E787682B	5.80	6.88	E787752B	6.42	7.50	E787862B	7.61	8.69
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	E787682C	5.80	6.88	E787752C	6.42	7.50	E787862C	7.61	8.69
80 A2/B4	2(4) Bolt	80.01mm	109mm	3/8-16	103mm	5/16-18	E7876880M	5.80	6.88	E7877580M	6.42	7.50	E7878680M	7.61	8.69
80 S4	4 Bolt	80.01mm			100mm	5/16-18	E7876880MS	5.80	6.88	E7877580MS	6.42	7.50	E7878680MS	7.61	8.69
100 A2/B4	2(4) Bolt	100.01mm	140mm	1/2-13	125mm	3/8-16	E78768100M	5.80	6.88	E78775100M	6.42	7.50	E78786100M	7.61	8.69
125 A2/B4	2(4) Bolt	125.01mm	180mm	5/8-11	160mm	1/2-13	E78768125M	5.80	6.88	E78775125M	6.42	7.50	E78786125M	7.61	8.69
PUMP FLANGE			PUMP END DATA				6.88 LENGTH			7.50 LENGTH			8.69 LENGTH		

MAGNALOY'S WELDED STEEL MOUNTS are available for special mounting requirements where the standard aluminum mount is not available or where a steel mount is required. These mounts are manufactured with the same quality and precision of the standard aluminum mounts and are guaranteed to meet Magnaloy's minimum quality measurements shown in Illustration A, page 2. Magnaloy's Welded Steel Mounts are available for horizontal, vertical and engine applications in a nearly limitless choice of lengths in 1/4 inch increments.
MOUNTING KITS are included as with the cast aluminum mounts.

Magnaloy Horizontal Welded Steel Pump/Motor Mounts

MAGNALOY'S HORIZONTAL WELDED STEEL MOUNTS are available for metric motor and metric pump dimensions in addition to NEMA motors and SAE pumps listed, consult factory for special requirements. To select a welded steel horizontal mount follow the selection method detailed on page 5. The length determined will be the minimum length recommended, additional length can be added depending upon coupling selection, consult factory for further assistance.

TABLE 19 - NEMA 56C, 143TC/145TC, 182UC/184UC

MOTOR END DATA
AJ 5.88 **BF** 7/16 **BD** 6.81 **AK** 4.501

RADIAL CLEARANCE "Z" = 4.03

(METRIC SIZES ALSO AVAILABLE)

PUMP FLANGE		PUMP END DATA						
		XAK	XAJ2	XBF2	XAJ4	XBF4	XBD	MOUNT NO.
USA4F17	4 Bolt	1.782			2.84	5/16-18	5.25	S056 - - 4F
SAE AA	2 Bolt	2.001	3.25	3/8-16			5.25	S056 - - 2AA
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	5.25	S056 - - 2A
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	7.00	S056 - - 2B
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	8.25	S056 - - 2C

TABLE 20 - NEMA 182TC - 256TC, 254UC/256UC

MOTOR END DATA
AJ 7.25 **BF** 17/32 **BD** 9.00 **AK** 8.501

RADIAL CLEARANCE "Z" = 5.04

(METRIC SIZES ALSO ALSO AVAILABLE)

PUMP FLANGE		PUMP END DATA						
		XAK	XAJ2	XBF2	XAJ4	XBF4	XBD	MOUNT NO.
USA4F17	4 Bolt	1.782			2.84	5/16-18	5.25	S182 - - 4F
SAE AA	2 Bolt	2.001	3.25	3/8-16			5.25	S182 - - 2AA
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	5.25	S182 - - 2A
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	7.00	S182 - - 2B
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	8.25	S182 - - 2C
SAE D	2(4) Bolt	6.001	9.00	3/4-10	9.00	3/4-10	10.50	S182 - - 2D

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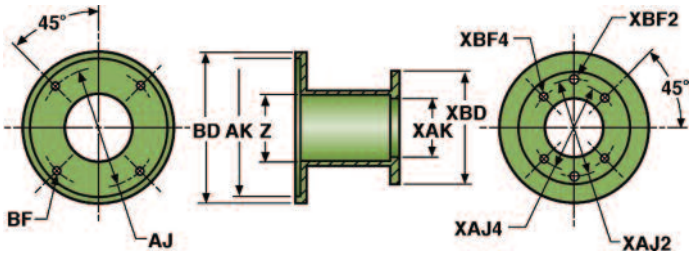

TABLE 21 - NEMA 284TC/TSC - 286TC/TSC, 284UC/286UC

MOTOR END DATA

AJ 9.00 | BF 17/32 | BD 11.00 | AK 10.501

RADIAL CLEARANCE "Z" = 6.06

(METRIC SIZES ALSO AVAILABLE)

PUMP FLANGE		PUMP END DATA						
		XAK	XAJ2	XBF2	XAJ4	XBF4	XBD	MOUNT NO.
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	7.00	S284 - - 2A
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	7.00	S284 - - 2B
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	8.25	S284 - - 2C
SAE D	2(4) Bolt	6.001	9.00	3/4-10	9.00	3/4-10	10.50	S284 - - 2D
SAE E	2(4) Bolt	6.501	12.50	1-8	12.50	3/4-10	15.00	S284 - - 2E
SAE F	2(4) Bolt	7.001	13.78	1-8	13.78	1-8	16.00	S284 - - 2F

TABLE 22 - NEMA 324TC/TSC - 405TC/TSC, 324UC/USC - 405UC/USC

MOTOR END DATA

AJ 11.00 | BF 21/32 | BD 14.00 | AK 12.501

RADIAL CLEARANCE "Z" (See Below)

(METRIC SIZES ALSO AVAILABLE)

PUMP FLANGE		PUMP END DATA							
		XAK	XAJ2	XBF2	XAJ4	XBF4	XBD	Z	MOUNT NO.
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	9.25	7.98	S324 - - 2A
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	9.25	7.98	S324 - - 2B
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	9.25	7.98	S324 - - 2C
SAE D	2(4) Bolt	6.001	9.00	3/4-10	9.00	3/4-10	10.50	7.98	S324 - - 2D
SAE E	2(4) Bolt	6.501	12.50	1-8	12.50	3/4-10	15.00	7.98	S324 - - 2E
SAE F	2(4) Bolt	7.001	13.78	1-8	13.78	1-8	16.00	9.00	S324 - - 2F

TABLE 23 - NEMA 444TC/TSC - 449TC/TSC, 444UC/TSC - 445UC/USC

MOTOR END DATA

AJ 14.00 | BF 21/32 | BD 17.00 | AK 16.001

RADIAL CLEARANCE "Z" = 10.02

(METRIC SIZES ALSO AVAILABLE)

PUMP FLANGE		PUMP END DATA						
		XAK	XAJ2	XBF2	XAJ4	XBF4	XBD	MOUNT NO.
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	11.25	S444 - - 2A
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	11.25	S444 - - 2B
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	11.25	S444 - - 2C
SAE D	2(4) Bolt	6.001	9.00	3/4-10	9.00	3/4-10	11.25	S444 - - 2D
SAE E	2(4) Bolt	6.501	12.50	1-8	12.50	3/4-10	15.00	S444 - - 2E
SAE F	2(4) Bolt	7.001	13.78	1-8	13.78	1-8	16.00	S444 - - 2F

MAGNALOY'S VERTICAL WELDED STEEL MOUNTS utilize an Oversize Motor Flange-Tank Top Mounting design. Tank top openings (TD) and mounting hole dimensions (XT & T) are shown on the following drawing and tables. These mounts are also available for metric size motors and pumps, consult factory for special requirements. To select a welded steel vertical mount follow the selection method detailed on page 8. The length determined will be the minimum length recommended, additional length can be added depending upon coupling selection, consult factory for further assistance.

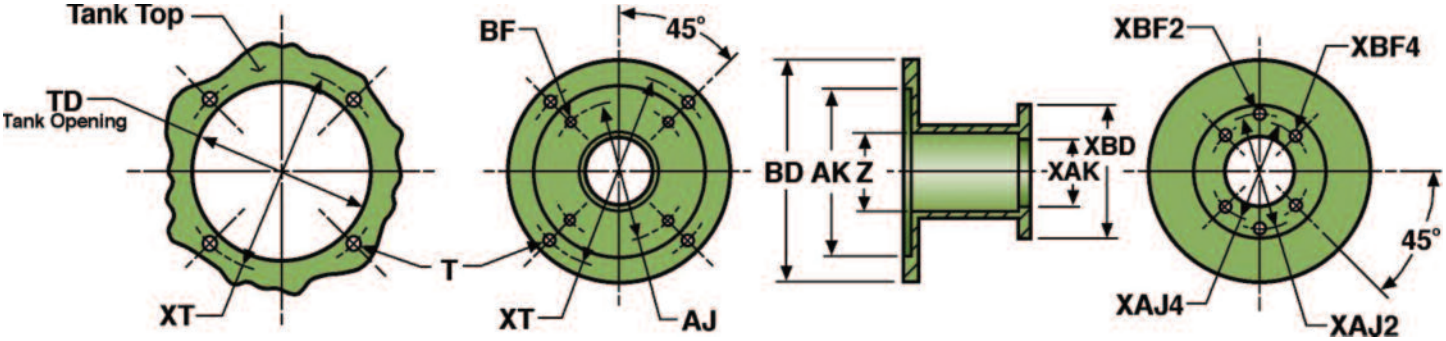

TABLE 24 - NEMA 56C, 143TC/145TC, 182UC/184UC

MOTOR END DATA
AJ 5.88 BF 7/16 AK 4.501

RADIAL CLEARANCE "Z" = 4.03
MOUNTING HOLE DIA. "T" = 17/32

		XAK	XAJ2	XBF2	XAJ4	XBF4	XBD	BD	XT	TD	MOUNT NO.
USA4F17	4 Bolt	1.782			2.84	5/16-18	5.25	11.38	10.25	9.125	S056 - - 4FV
SAE AA	2 Bolt	2.001	3.25	3/8-16			5.25	11.38	10.25	9.125	S056 - - 2AAV
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	5.25	11.38	10.25	9.125	056 - - 2AFV
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	7.00	11.38	10.25	9.125	S056 - - 2BV
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	8.25	11.38	10.25	9.125	S056 - - 2CV
PUMP FLANGE				PUMP END DATA				MOTOR END DATA			

(METRIC SIZES ALSO AVAILABLE)

TABLE 25 - NEMA 182TC - 256TC, 254UC/256UC

MOTOR END DATA
AJ 7.25 BF 17/32 AK 8.501

RADIAL CLEARANCE "Z" = 5.04
MOUNTING HOLE DIA. "T" = 17/32

		XAK	XAJ2	XBF2	XAJ4	XBF4	XBD	BD	XT	TD	MOUNT NO.
USA4F17	4 Bolt	1.782			2.84	5/16-18	6.00	11.38	10.25	9.125	S182 - - 4FV
SAE AA	2 Bolt	2.001	3.25	3/8-16			6.00	11.38	10.25	9.125	S182 - - 2AAV
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	6.00	11.38	10.25	9.125	S182 - - 2AV
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	7.00	11.38	10.25	9.125	S182 - - 2BV
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	8.25	11.38	10.25	9.125	S182 - - 2CV
SAE D	2(4) Bolt	6.001	9.00	3/4-10	9.00	3/4-10	10.50	12.62	11.50	11.00	S182 - - 2DV
PUMP FLANGE				PUMP END DATA				MOTOR END DATA			

(METRIC SIZES ALSO AVAILABLE)

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TABLE 26 - NEMA 284TC/TSC - 286TC/TSC, 284UC/286UC

MOTOR END DATA
AJ BF AK
9.00 17/32 10.501

RADIAL CLEARANCE "Z" = 6.06
MOUNTING HOLE DIA. "T" = 17/32

		XAK	XAJ2	XBF2	XAJ4	XBF4	XBD	BD	XT	TD	MOUNT NO.
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	7.00	13.50	12.25	10.75	S284 - - 2AV
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	7.00	13.50	12.25	10.75	S284 - - 2BV
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	8.25	13.50	12.25	10.75	S284 - - 2CV
SAE D	2(4) Bolt	6.001	9.00	3/4-10	9.00	3/4-10	10.50	13.50	12.25	10.75	S284 - - 2DV
SAE E	2(4) Bolt	6.501	12.50	1-8	12.50	3/4-10	15.00	18.00	16.50	15.25	S284 - - 2EV
SAE F	2(4) Bolt	7.001	13.78	1-8	13.78	1-8	16.00	19.50	18.00	16.50	S284 - - 2FV

PUMP FLANGE PUMP END DATA MOTOR END DATA

(METRIC SIZES ALSO AVAILABLE)

TABLE 27 - NEMA 324TC/TSC - 405TC/TSC, 324UC/USC - 405UC/USC

MOTOR END DATA
AJ BF AK
11.00 21/32 12.501

RADIAL CLEARANCE "Z" (See Below)
MOUNTING HOLE DIA. "T" = 21/32

		XAK	XAJ2	XBF2	XAJ4	XBF4	XBD	Z	BD	XT	TD	MOUNT NO.
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	9.25	7.98	18.00	16.50	15.25	S324 - - 2AV
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	9.25	7.98	18.00	16.50	15.25	S324 - - 2BV
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	9.25	7.98	18.00	16.50	15.25	S324 - - 2CV
SAE D	2(4) Bolt	6.001	9.00	3/4-10	9.00	3/4-10	10.50	7.98	18.00	16.50	15.25	S324 - - 2DV
SAE E	2(4) Bolt	6.501	12.50	1-8	12.50	3/4-10	15.00	7.98	18.00	16.50	15.25	S324 - - 2EV
SAE F	2(4) Bolt	7.001	13.78	1-8	13.78	1-8	16.00	16.00	19.50	18.00	16.50	S324 - - 2FV

PUMP FLANGE PUMP END DATA MOTOR END DATA

(METRIC SIZES ALSO AVAILABLE)

TABLE 28 - NEMA 444TC/TSC - 449TC/TSC, 444UC/USC - 449UC/USC

MOTOR END DATA
AJ BF AK
14.00 21/32 16.001

RADIAL CLEARANCE "Z" = 10.02
MOUNTING HOLE DIA. "T" = 21/32

		XAK	XAJ2	XBF2	XAJ4	XBF4	XBD	BD	XT	TD	MOUNT NO.
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	11.25	19.50	18.00	16.50	S444 - - 2AV
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	11.25	19.50	18.00	16.50	S444 - - 2BV
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	11.25	19.50	18.00	16.50	S444 - - 2CV
SAE D	2(4) Bolt	6.001	9.00	3/4-10	9.00	3/4-10	11.25	19.50	18.00	16.50	S444 - - 2DV
SAE E	2(4) Bolt	6.501	12.50	1-8	12.50	3/4-10	15.00	19.50	18.00	16.50	S444 - - 2EV
SAE F	2(4) Bolt	7.001	13.78	1-8	13.78	1-8	16.00	19.50	18.00	16.50	S444 - - 2FV

PUMP FLANGE PUMP END DATA MOTOR END DATA

(METRIC SIZES ALSO AVAILABLE)

MAGNALOY'S WELDED STEEL ENGINE MOUNTS are available for all engine pilot size configurations in addition to the 4 basic sizes listed. Metric pump flanges are also available, consult factor for special requirements. To select a welded steel pump/engine mount, follow the selection method detailed on page 11. The length determined will be the minimum length recommended, additional length can be added depending upon coupling selection, consult factory for further assistance.

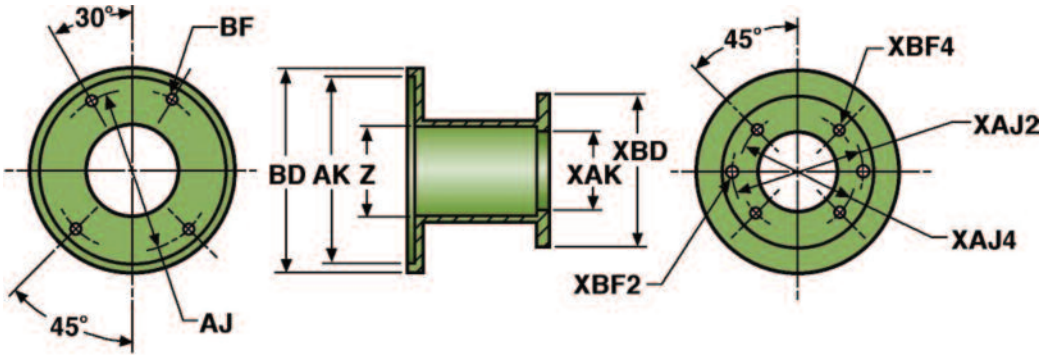

TABLE 29 - E575 Pilot Gasoline and Diesel Engines

ENGINE END DATA — **RADIAL CLEARANCE "Z" = 4.03**

AJ	BF	AK
6.00	13/32	7.50	5.752

PUMP FLANGE		PUMP END DATA						
		XAK	XAJ2	XBF2	XAJ4	XBF4	XBD	MOUNT NO.
USA4F17	4 Bolt	1.782			2.84	5/16-18	5.25	SE575 - - 4F
SAE AA	2 Bolt	2.001	3.25	3/8-16			5.25	SE575 - - 2AA
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	5.25	SE575 - - 2A
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	7.00	SE575 - - 2B

(METRIC SIZES ALSO AVAILABLE)

TABLE 30 - E644 Pilot Gasoline and Diesel Engines

ENGINE END DATA — **RADIAL CLEARANCE "Z" = 5.04**

AJ	BF	AK
7.75	15/32	9.00	6.440

PUMP FLANGE		PUMP END DATA						
		XAK	XAJ2	XBF2	XAJ4	XBF4	XBD	MOUNT NO.
USA4F17	4 Bolt	1.782			2.84	5/16-18	5.25	SE644 - - 4F
SAE AA	2 Bolt	2.001	3.25	3/8-16			5.25	SE644 - - 2AA
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	5.25	SE644 - - 2A
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	7.00	SE644 - - 2B
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	8.25	SE644 - - 2C
SAE D	2(4) Bolt	6.001	9.00	3/4-10	9.00	3/4-10	10.50	SE644 - - 2D

(METRIC SIZES ALSO AVAILABLE)

magnaloy coupling company *501 Commerce Drive Alpena, MI 49707* ***989 356-2186***
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TABLE 31 - E700 Pilot Gasoline and Diesel Engines

ENGINE END DATA

AJ 7.75 | BF 15/32 | AK 9.00 | 7.002

RADIAL CLEARANCE "Z" = 5.04

(METRIC SIZES ALSO AVAILABLE)

PUMP FLANGE		PUMP END DATA						
		XAK	XAJ2	XBF2	XAJ4	XBF4	XBD	MOUNT NO.
USA4F17	4 Bolt	1.782			2.84	5/16-18	5.25	SE700 - - 4F
SAE AA	2 Bolt	2.001	3.25	3/8-16			5.25	SE700 - - 2AA
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	5.25	SE700 - - 2A
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	7.00	SE700 - - 2B
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	8.25	SE700 - - 2C
SAE D	2(4) Bolt	6.001	9.00	3/4-10	9.00	3/4-10	10.50	SE700 - - 2D

TABLE 32 - E787 Pilot Gasoline and Diesel Engines

ENGINE END DATA

AJ 9.25 | BF 21/32 | AK 11.00 | 7.877

RADIAL CLEARANCE "Z" = 6.06

(METRIC SIZES ALSO AVAILABLE)

PUMP FLANGE		PUMP END DATA						
		XAK	XAJ2	XBF2	XAJ4	XBF4	XBD	MOUNT NO.
USA4F17	4 Bolt	1.782			2.84	5/16-18	5.25	SE787 - - 4F
SAE AA	2 Bolt	2.001	3.25	3/8-16			5.25	SE787 - - 2AA
SAE A	2(4) Bolt	3.251	4.19	3/8-16	4.12	3/8-16	5.25	SE787 - - 2A
SAE B	2(4) Bolt	4.001	5.75	1/2-13	5.00	1/2-13	7.00	SE787 - - 2B
SAE C	2(4) Bolt	5.001	7.12	5/8-11	6.38	1/2-13	8.25	SE787 - - 2C
SAE D	2(4) Bolt	6.001	9.00	3/4-10	9.00	3/4-10	10.50	SE787 - - 2D

Magnaloy's Product Selection Program: ***This unique computer program allows the user to input the pump manufacturer and model number and motor size. The correct Magnaloy Coupling and Horizontal or Vertical Pump/Motor Mount size is determined. If Magnaloy does not offer an Aluminum mount to fit the input parameters, a steel mount is selected showing the minimum and maximum face-to-face length required. Motor selection includes NEMA motor frames, IEC motor frames and IC Engines. IC Engine are selected by manufacturer and model number.***

Consult your Magnaloy Distributor for Magnaloy's Product CD ROM which includes the Magnaloy Pump/Motor Mount Selection Program.....for easy, fast and accurate computerized pump mount selection.

Make the Connection with magnaloy.....

Whatever your Fluid Power Unit needs, magnaloy has the products to keep you connected.

Flexible Drive Couplings

Top-of-the-line magnesium couplings are lighter,yet stronger than either cast iron or aluminum. They also offer better corrosion resistance and easier handling.

Pump/Motor Mounts

Precision machined aluminum & custom steel pump/motor mounts directly connect the motor and pump while ensuring accurate shaft alignment and enclosing the coupling. Vertical and horizontal models readily available from stock.

PM 90 Couplings

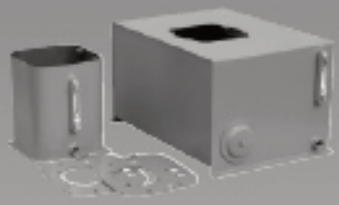
Economical PM-90 Iron Powder Couplings have long lasting nitrile, hytrel or urethane inserts. Double set screws give excellent gripping power.

Magnaloy Hydraulic Bar Manifolds & Accessories

Complete line of Inline Bar Manifolds, Subplates, Cover Plates, Valve Adaptors, Integrated Circuit Manifolds, and Accessories to make the design and fabrication of Hydraulic Circuitry simple and easy. Wide range of sizes include: D03, D05, D05H & D08 in aluminum and steel with ports available in SAE, NPTF, BSPP, and BSPT styles. Custom design and fabrication also available, consult factory.

Rod End Couplers

Two models of accurately machined high tensile cylinder rod end alignment couplers offer 7° or 10° spherical and 1/8" parallel misalignment capabilities.



Magnaloy Reservoirs & Reservoir Accessories

Magnaloy offers a complete line of standard reservoirs and reservoir accessories. In addition, we offer custom reservoir fabrication to meet our customer specific needs. Reservoirs accessories such as Clean Out Covers and SAE Couplings are available for the "do-it-yourself" reservoir manufacturer.

Magnaloy Pressure Switch

Pressure Sensing switch capable of sensing up to three (3) separate pressures. Each sensor is externally independently adjustable from 200 to 4000 psi. Viton seals provide wide fluid compatibility range.

Accessories

Filler Breather Adaptors, Filler Breathers, Reservoir Flanges, Suction Strainers, Gauge Isolators, Liquid Level Gauges, Modular O-Ring Kits.

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