

## 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.



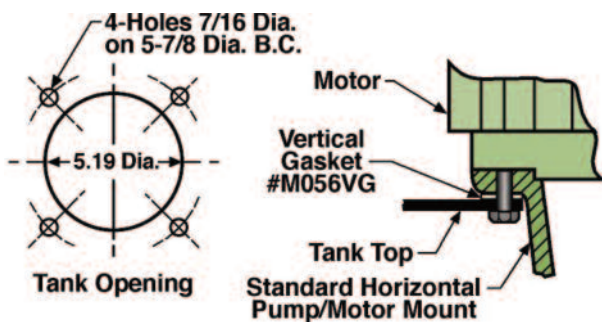
### Vertical Mount Selection Method

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](http://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

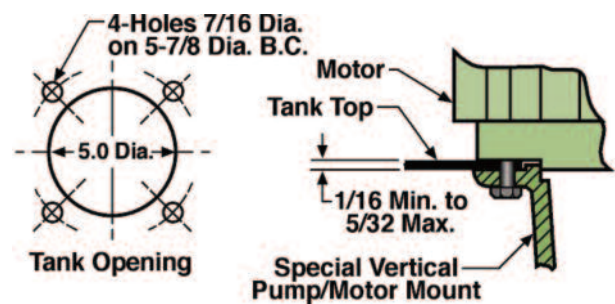


**Illustration B**

**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.

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



MOTOR END DATA		RADIAL CLEARANCE "Z" = 4.15															
AJ	BF	BD	AK	XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM
5.88	7/16	6.81	4.501														
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

2

MOTOR END DATA		RADIAL CLEARANCE "Z" = 4.15										*RADIAL CLEARANCE "Z" = 4.10									
AJ	BF	BD	AK	XAK	XAJ2	XBF2	XAJ4	XBF4	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM	MOUNT NO.	CL	XM				
5.88	7/16	6.81	4.501																		
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							

NOTE:  
See drawing on top of page 21 for dimensional references

## NEMA Frame 182TC thru 256TC Vertical Mounting

### OPTION A

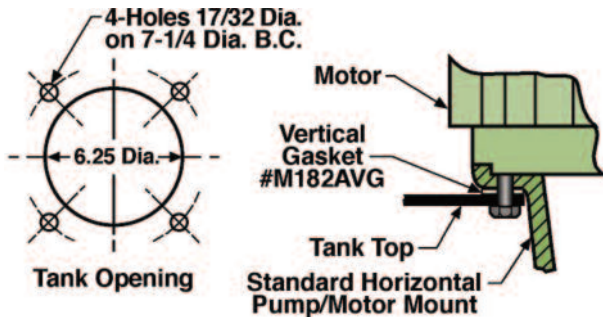


Illustration D

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

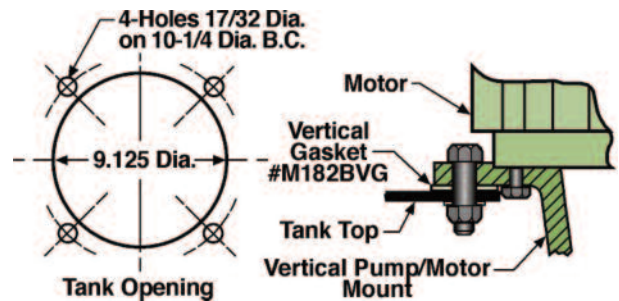


Illustration E

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.

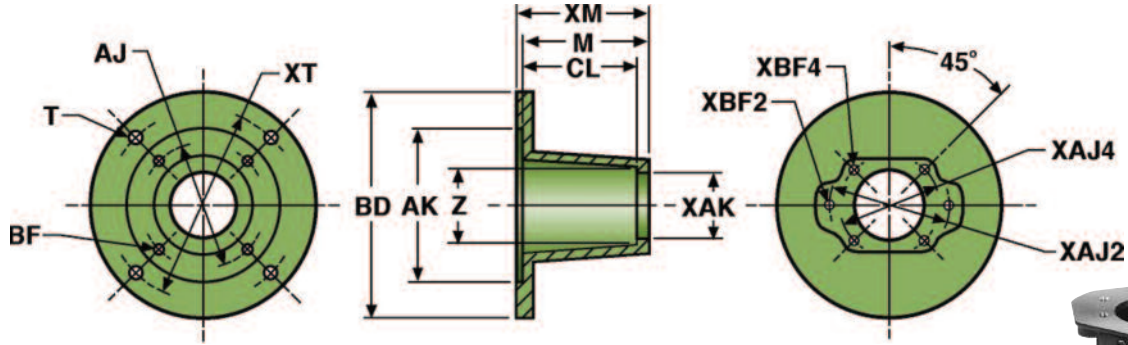


TABLE 13 - NEMA Frames 182TC - 256TC, 213UC/256UC

MOTOR END DATA  
AJ BF BD AK  
7.25 17/32 11.50 8.501

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

		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

PUMP FLANGE                      PUMP END DATA                      5.00 LENGTH                      5.25 LENGTH                      5.81 LENGTH

MOTOR END DATA  
AJ BF BD AK  
7.25 17/32 11.50 8.501

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

		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		

PUMP FLANGE                      PUMP END DATA                      6.81 LENGTH                      7.00 LENGTH