INTRODUCTION

The following instructions apply to assembling scoop mounts to Mercury & Mars Planetgear™ 7000 speed reducers. These scoops are drilled for standard T-frame motors. Reference Table 2 (Page 4) for motor frame size capabilities and scoop mount part numbers.

NOTE: Consult Rexnord for any reducer/motor combinations that require non T-frame motors, fluid couplings or other devices that require a coupling gap larger than 1/4" (6 mm).

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ASSEMBLY OF SCOOP MOUNT

1. **MSCP1 & MSCP2** - Remove 5 bolts from input shaft side as shown in Figure 1.

   MSCP18, MSCP188 & MSCP28 - Remove 8 bolts from input shaft side as shown in Figure 2.

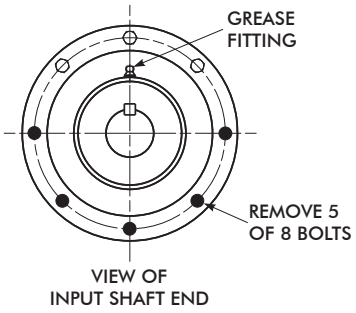


FIGURE 1

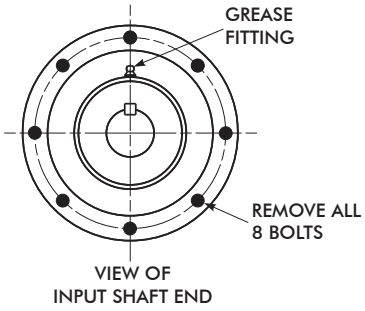


FIGURE 2

CAUTION: When removing all 8 bolts from the input shaft assembly, take care not Vto break the seal between input shaft housing and main case. If seal is broken, clean all mating surfaces, seal with Loctite® 515 or equivalent and tighten down to insure proper seal before proceeding any further.

2. Position input mounting plate to the input shaft side as shown in Figures 3A and 3B (next column), and attach with the recommended scoop bolt kit as listed in Table 1. Reference Table 2 (Page 4) for recommended bolt torque values.

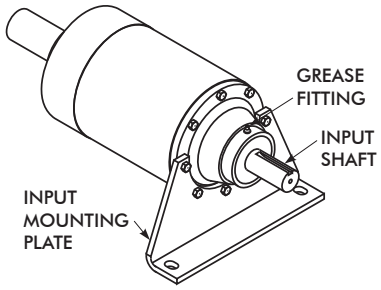


FIGURE 3A

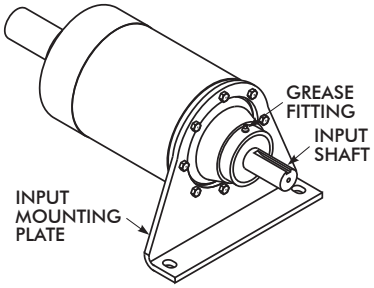


FIGURE 3B

3. Position and loosely attach the reducer/input mounting plate assembly to the scoop. Reference Table 1 for recommended bolt torque values.
4. Position and attach with the appropriate fasteners the pedestal (if required) to the motor as shown in Figure 4.
5. Loosely attach coupling to the motor shaft and the reducer input shaft.

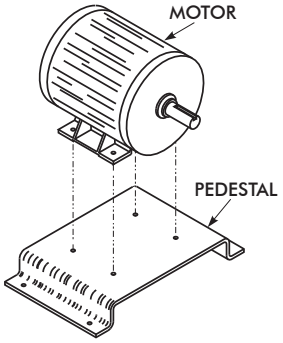


FIGURE 4

6. Position and attach the motor/pedestal assembly to the scoop with the recommended pedestal bolt kit as listed in Table 2. Reference Figure 5. Reference Table 1 for recommended bolt torque values.

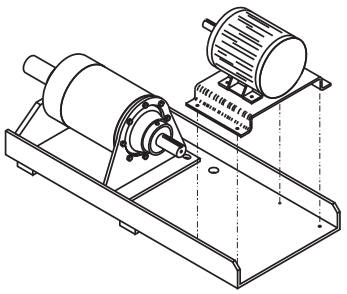


FIGURE 5

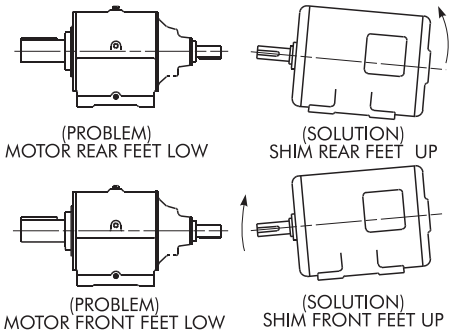
MOTOR ALIGNMENT

WARNING: When the Planetgear 7000 speed reducer is connected to a motor or driven equipment through the use of couplings, sprockets, gears or belt drives, all rotating parts must be properly guarded with guarding that conforms to OSHA requirements to prevent personal injury or property damage.

When direct coupling motors to the Planetgear 7000 reducer, follow the four step process shown below to achieve proper motor to reducer alignment. Refer to coupling manufacture specifications to determine required alignment accuracy.
NOTE: Steps 1 to 4 may have to be repeated several times to achieve manufacturers required accuracies.

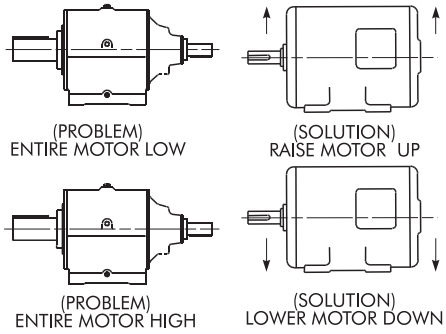
STEP #1 (Side View Plane)

Correct for ***angular*** misalignment in the ***side view plane***.



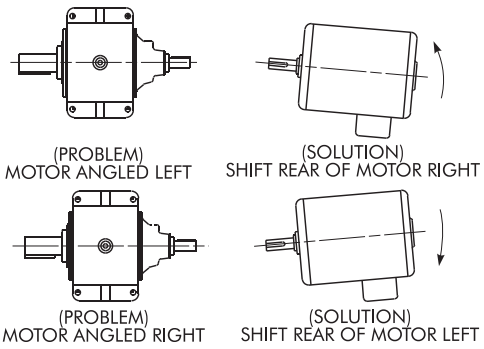
STEP #2 (Side View Plane)

Correct for ***parallel*** misalignment in the ***side view plane***.



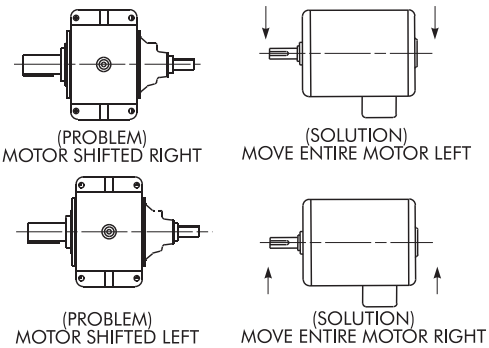
STEP #3 (Top View Plane)

Correct for ***angular*** misalignment in the ***top view plane***.



STEP #4 (Top View Plane)

Correct for ***parallel*** misalignment in the ***top view plane***.



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ATTACHING COUPLING AND COUPLING GUARD

Mount the reducer coupling hub on the input shaft and the motor coupling hub on the motor shaft as instructed in the manual shipped with the coupling. If the coupling is not a Rexnord Omega™, refer to the manufacturers literature for installation instructions. If Rexnord does not mount the motor, the couplings are mounted for shipment only. Coupling bolts and coupling instructions are packed inside the coupling elements. **NOTE**: Prior to the installation of the element, check both coupling hubs for the required parallel and angular alignment; Reference Figure 6.

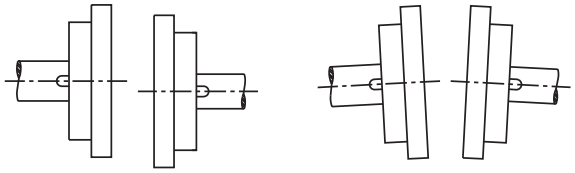

FIGURE 6

1. When the coupling is in place, position the coupling guard over the coupling so that the coupling is centered inside the guard and the opening of the guard centers on the shafts.
2. Mark the position where the mounting holes lie on the scoop mounting plate.
3. Drill the proper size holes in the mounting plate. Tap threads in mounting plate, 3/8" (M11) bolt size is recommended.
4. Attach coupling guard to mounting plate using the correct fasteners. Refer to Table 1 for recommended bolt torques.

WARNING: All rotating equipment must be properly guarded in accordance with OSHA standards. Failure to do so may result in personal injury or property damage.

TABLE 1 — Torque Requirements ★

For Dry Fasteners (Inch)															
SAE	**Diameter**	**1/4**	**5/16**	**3/8**	**7/16**	**1/2**	**1/16**	**5/8**	**3/4**	**7/8**	**1**	**1-1/8**	**1-1/4**	**1-3/8**	**1-1/2**
General Purpose Grade 2	**Torque (ft lb)**	6	12	21	34	52	75	104	178	184	265	380	530	700	930
High Strength Grade 5	**Torque (ft lb)**	9	18	33	53	80	116	160	285	460	690	850	1200	1570	2080
Allow Steel Grade 8	**Torque (ft lb)**	13	26	47	74	114	164	225	400	650	970	1370	1940	2540	3370
For Dry Fasteners (Metric)															
Grade	**Nominal Diameter Standard Pitch**	**M5**	**M6**	**M7**	**M8**	**M10**	**M12**	**M14**	**M16**	**M18**	**M20**	**M22**	**M24**	**M27**	**M30**
8.8	**Torque (Nm)**	6.15	10.5	17.5	26	51	89	141	215	295	420	570	725	1070	1450
10.9	**Torque (Nm)**	8.65	15	25	36	72	125	198	305	420	590	800	1020	1510	2050
12.9	**Torque (Nm)**	10.4	18	29	43	87	150	240	365	500	710	960	1220	1810	2450

★ The torques shown produce a clamp load of 80% of proof load. They assume clean, dry threads with a torque coefficient of 0.2, and a coefficient of friction of 0.14.
Plated threads need only 3/4 torque shown.
Well lubricated threads need only 1/2 torque shown.
Source: Rexnord Engineering Specification: GES8-19, 04/10/79.

TABLE 2 — Scoop Information (Inch)

REDUCER SIZE	Scoop Kit P/N	Motor Frame Size	Pedestal P/N	Coupling Guard P/N (Max Coupling Size)	Scoop Plate P/N	Input Mounting Plate P/N	Bolt Kit (Scoop) P/N	Bolt Kit (Pedestal) P/N
Mercury Mars	MSCP1	143T/145T	1884000301	5884001401	5886002280	1884000701	M003	M004
		182T/184T	1884000401					
		213T/215T	. . .					
	MSCP18	143T/145T	1884000301		5886002280	18844001101	M013	M004
		182T/184T	1884000401					
		213T/215T	. . .					
	MSCP188	143T/145T	1884000301		5886006880	18844001101	M016	M004
		182T/184T	1884000401					
		213T/215T	. . .					
	MSCP2	254T/256T	1884000501	5884001402	5886002380	1884000801	M003	M005
		284T/286T	1884000601	5884001402 (E10) 5884001411 (E20)				
		324T	. . .					
	MSCP28	254T/256T	1884000501	5884001402	5886002380	1884001201	M013	M006
		284T/286T	1884000601	5884001402 (E10) 5884001411 (E20)				
		324T	. . .					
	MSCP288	254T/256T	1884000501	5884001402	5886006980	1884001101	M016	M006
		284T/286T	1884000601	5884001402 (E10) 5884001411 (E20)				
		324T	. . .					

Scoop Information (Metric)

REDUCER SIZE	Scoop Kit P/N	Motor Frame Size	Pedestal P/N	Coupling Guard P/N (Max Coupling Size	Scoop Plate P/N	Input Mounting Plate P/N	Bolt Kit (Scoop) P/N	Bolt Kit (Pedestal) P/N
Mercury Mars	MSCP1	90SN/90LN	1884000301	5884001401	5886002280	1884000701	M003	M004
		100L	1886008301					
		112M	1886008401					
		132S/132M	. . .					
	MSCP18	90SN/90LN	1884000301		5886002280	18844001101	M013	M004
		100L	1886008301					
		112M	1886008401					
		132S/132M	. . .					
	MSCP188	90SN/90LN	1884000301		5886006880	18844001101	M016	M004
		100L	1886008301					
		112M	1886008401					
		132S/132M	. . .					
	MSCP2	160L/160M	1884000501	5884001402	5886002380	1884000801	M003	M005
		180M/180L	1884008501	5884001402 (E10) 5884001411 (E20)				
		200L	. . .					
	MSCP28	160L/160M	1884000501	5884001402	5886002380	1884001201	M013	M006
		180M/180L	1884008501	5884001402 (E10) 5884001411 (E20)				
		200L	. . .					
	MSCP288	160L/160M	1884000501	5884001402	5886006980	1884001101	M016	M006
		180M/180L	1884008501	5884001402 (E10) 5884001411 (E20)				
		200L	. . .					

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