

XL Reducers and Gearmotors

SHIPPING WEIGHTS

RIGHT ANGLE GEARMOTORS

HP							
1/3	56WG12A 36	56CG12A 55	56WG16A 46	56CG16A 77	56CG21A 136	56CG16A 83	
1/2	56WG12A 42	56WG16A 51	56CG16A 81	56WG21A 80	56CG21A 131		
3/4	56WG16A 55	56CG16A 82	56WG21A 78	56CG21A 132	143CG21A 135	143CG28A 283	
1	56WG16A 156	56CG16A 87	56WG21A 86	56CG21A 132			
1	143WG16A 65	143CG16A 89	143WG21A 88	143CG21A 137	143CG28A 258	145CG28A 263	
1 1/2	145WG16A 61	145CG16A 89	145WG21A 90	145CG21A 153	145CG28A 273	182CG28A 315	184CG28A 330
2	145WG21A 296	145CG21A 143	145WG28A 141	145CG28A 269	184CG28A 360	182CG40A 660	
3	182WG21A 142	182CG21A 205	182WG28A 200	182CG28A 310	213CG28A 386	184CG40A 675	
5	184WG28A 218	184CG28A 330	184CG40A 683				
7 1/2	213WG28A 261	213CG28A 395	213WG40A 705	254CG40A 860	213CG40A 755		

WEIGHT ADDITIONS - TO BE ADDED TO ABOVE LISTINGS

GEARCASE	W12	W16	W21	W28	WG40	CG12	CG16	CG21	CG2B	CG40
Multi-Mount J Mount	5	10	20	40	80	6	10	50	60	55
Flange	6	10	18	35	52	6	10	45	50	35

BRAKES

BRAKE	3,6 ft./lb.	10 ft./lb.	15 ft./lb.
WEIGHT	15	15	16

XL Parallel Integral Gearworks

APPROXIMATE SHIPPING WEIGHTS FOR MASTER XL PARALLEL INTEGRAL GEARMOTORS

Weights shown on the chart below are for Three Phase motors. For single phase motors, add 5 lbs. Weights shown are for unit in standard mounting position (A1 or C1) and include the factory filled lubricant.

Unit Size	Motor HP									
	1/3	1/2	3/4	1	1-1/2	2	3	5	7-1/2	10
56SG16A	50	47	51	48	---	---	---	---	---	---
56DG16A	86	74	77	79	---	---	---	---	---	---
56TG16A	106	106	111	133	---	---	---	---	---	---
145SG21A	---	---	---	84	79	90	---	---	---	---
182SG21A	---	---	---	---	97	---	135	---	---	---
184SG21A	---	---	---	---	---	---	---	150	---	---
56DG21A	---	---	---	104	---	---	---	---	---	---
145DG21A	---	---	---	110	108	115	---	---	---	---
182DG21A	---	---	---	---	145	---	160	---	---	---
184DG21A	---	---	---	---	---	150	---	185	---	---
56TG21A	---	184	191	181	---	---	---	---	---	---
145TG21A	---	---	---	---	195	203	---	---	---	---
182TG21A	---	---	---	---	231	---	230	---	---	---
184TG21A	---	---	---	---	---	---	---	255	---	---
184SG28A	---	---	---	---	---	---	---	187	---	---
213SG28A	---	---	---	---	---	---	---	---	231	---
215SG28A	---	---	---	---	---	---	---	---	---	255
182DG28A	---	---	---	---	---	---	300	---	---	---
184DG28A	---	---	---	---	---	---	---	315	---	---
213DG28A	---	---	---	---	---	---	---	---	350	---
215DG28A	---	---	---	---	---	---	---	---	---	363
182TG28A	---	---	---	---	375	---	420	---	---	---
184TG28A	---	---	---	---	---	485	---	397	---	---
213TG28A	---	---	---	---	---	---	471	---	476	---
215TG28A	---	---	---	---	---	---	---	---	---	495

Weight Additions for Flanged Units

Add to above

Unit Size	Weight (lbs)
D16	8
D21	10
T16	10
T21	15

XL Parallel Reducers and Gearmotors

INSTALLATION:

Proper installation of MASTER XL parallel speed reducers and gearmotors will insure reliable service and maximum life. Key items to minimize possible failures include:

- **Gear Case Mounting** - To insure uniform pressure mount gear case on flat surface. Use uniform torque when mounting bolts are tightened.
- **Shaft Overhung Loads** - Excessive overhung loads due to over tightening of belts or chains can result in broken shafts and reduce bearing life or failure.
- **Couplings** - Improper coupling alignment can result in excessive stresses on gear unit shaft and bearings
- **Shock Loads** - Excessive shock loads can also result in damaging stresses on shafting and bearings.

LUBRICATION:

Proper lubrication of MASTER XL speed reducers is extremely important if long trouble-free operation is to be expected. Proper lubrication consists of:

- Use of proper type and grade of lubricant
- Maintenance of correct oil level
- Drain, flush and refill at the required intervals

MASTER XL speed reducers and gearmotors have been lubricated at the factory for only one mounting position. Before starting, check the mounting position diagrams to make sure that the oil level plug and oil level are in the correct location for which the unit is to be operated. This is extremely important, as insufficient lubricant will damage gears and bearings in a very short time. If any change is necessary, require relocation of the level plug and adding or draining lubricant to insure the proper amount of lubricant is required. The correct amount of oil is important to the performance of a speed reducer. Each **MASTER XL** speed reducer or gearmotor has a red oil level plug which indicates the proper oil mounting level for a given mounting position. Check the oil level plug location diagrams in the Installation and Instruction Manuals shipped with each reducer or gearmotor.

RECOMMENDED LUBRICANTS:

Use only the best grade of automotive engine lubricants, unless otherwise specified. Where gear units are used outdoors, seasonal changes may be necessary. It is impossible to select one gear lubricant of petroleum origin which is usable over a wide range of temperatures. Use lubricants of the proper group as required by the ambient temperature in which the reducer will operate. The proper grade of oil is listed as follows:

Ambient (Room) Temp.	SAE Grades of Oil For Output Shaft Speeds (in RPM) of:			
	13.5 - 500	501 - 1000	1001 - 3000	3000 +
110°F to 165°F	50 ❖	40	30	20W
60°F to 110°F	40	30	20W	10W
35°F to 70°F	30	20W	10W	10W
10°F to 40°F	20W	10W	10W	---
-10°F to 20°F	10W ☆	☆ ❖	---	---
-30°F to 10°F	☆ ❖	☆ ❖	---	---
-65°F to -20°F	☆ ❖	---	---	---

- ❖ Use SAE 50 heavy duty automotive oil with oxidation inhibitor
- ☆ Use Gulf Paramount Number 22 (A naphthenic base oil with a low pour point and viscosities of 109.8 SUS @ 100°F or 39.1 SUS @ 210°F.) Any other oil meeting these specifications would be a suitable substitute.
- ❖ Use Mobil Oil Co. Avrex number 903.
- ❖ Special oil seals are required for temperatures below 10°F.

MAINTENANCE:

Periodic changing of lubricant is important for maximum reducer or gearmotor performance. Lubricant should be drained and refilled after the first 250 hours of operation; then every 1500 hours or six months thereafter, whichever occurs first.

In addition to lubrication and installation, regular inspection to insure tightness of bolts and screws, correct alignment of shaft couplings, no major oil leaks, no excessive heating and no unusual vibration or noises will guarantee maximum performance and life of your **MASTER** product.

APG

Notes

MASTER XL

MOTO DRIVE

ULTIMA