

Products - Positioners, Pylons, and Controllers

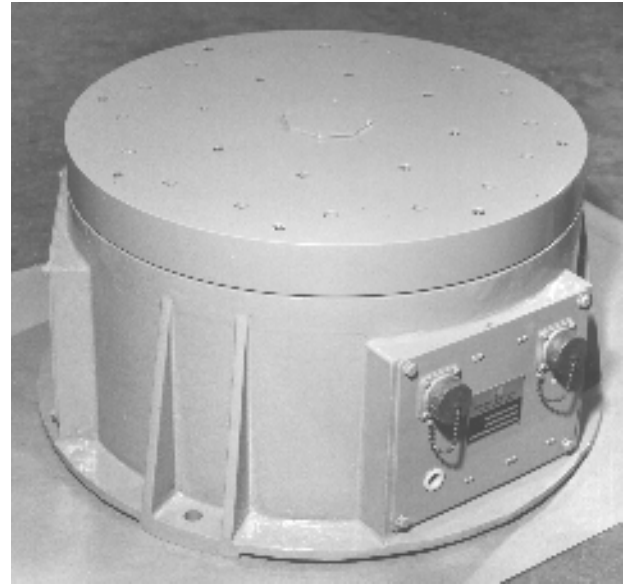
Series 51000 Azimuth Positioners

Features

- Wide load coverage from 100 to 400,000 pounds
- Rugged construction assures superior reliability and longevity

Description

The azimuth positioners listed in the chart fall into two principal categories, medium-duty and heavy-duty. The 6111 is lightweight, transportable, and suitable for supporting loads up to 1,000 pounds. The heavy-duty series, Models 51150 through 51850, provide precision mounting for test fixtures and antennas and will support loads up to 400,000 lbs.



7048

Specifications

Model Numbers	6111-SO-R3-L ¹	51050A	51051A	51150A	51152A	51230B	51300B	51430B	51450B	51850
Total Bending Moment (ft-lbs)	500	1,000	1,000	10,000	10,000	22,500	35,000	165,000	165,000	750,000
Total Vertical Load (lbs)	1000	2,000	2,000	10,000	10,000	20,000	30,000	50,000	50,000	400,000
Drive Motor (hp)	1/50	1/8	1/8	1/3	1/3	3/4	3/4	3/4	5	5
Tachometer Provided	No ²	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Delivered Torque (ft-lbs)	28	100	40	200	500	1,000	2,750	6,000	18,000	80,000
Withstand Torque (ft-lbs)	100	200	200	600	600	1,850	4,200	14,000	25,000	100,000
Maximum Full Load Operating Speed (rpm)	1.7	1.2	3.0	3.0	1.3	1.2	0.5	0.2	0.5	0.09
Position Accuracy (deg)	0.05	0.05	0.05	0.03	0.03	0.03	0.03	0.02	0.02	0.02
Total Max. Drive Gear Backlash (deg)	0.2	0.2	0.2	0.15	0.15	0.10	0.08	0.08	0.05	0.02
Total Limit-to-Limit Travel (deg)	800	400	400	400	400	400	400	400	400	400
Turntable Diameter (in.)	8	16	16	20	20	25	30.5	47.3	47.3	84 X 84 (sq.)
Center Access Hole Diameter (inches)	2.38	3.75	3.75	3	3	3	3	6	6	13
Base Outside Diameter (inches)	12.5 x 16.5	13.25 x 17.25		24	24	28.75	36	56	56	92
Total Height (inches)	8	13.25	13.25	19.75	19.75	14.75	16.9	38.8	38.8	53.63
Recommended Positioner Control(s)		4131/4181A-1/4139							4181A-2	
Net Weight (lbs)	53	110	110	280	280	350	485	4,000	4,300	15,000
Shipping Weight (lbs)	75	150	150	320	320	380	570	4,500	4,800	NA

¹ Consult factory for use with Model 4181A-1. This model replaces the 51010.

² Contact factory for installation of a tachometer.

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Series 51000 Azimuth Positioners - continued

Ordering Information

Each Series 51000 Azimuth Positioner is delivered as a single unit. Cables and positioner control units are ordered separately. Note that an installed RF path through each positioner is ordered as an option.

Options

- ()-12 Rotary Joint (DC-12.4 GHz) and RF Path installed
- ()-14 RF Switch Wiring and RF Path for Series 1770 or 1780 Receivers (Note: RF switch wiring and RF path for a Model 1795 Receiver available on special request) ()-15 Series 58700 Model Tower Wiring
- ()-15 Series 58700 Model Tower Wiring
- ()-16 Slipping, including 12.4 GHz RF Path, Rotary Joint, Model Tower Wiring, and RF Switch Wiring (for Series 51000 Positioners)
- ()-18 50 Hz Operation
- ()-20 Azimuth Axis Encoder



Photo No. _____

The Model 6111 Azimuth Positioner

Option Compatibility Table

51000 Azimuth Positioners	-12	-14	-15	-16	-18	-20
6111-S0-R3-L ¹ Positive height extended with rotary joint installation option ()-12.	Yes	No	No	No	Yes	No
51050A ¹	Yes	No	³	No	Yes	No
51051A ¹	Yes	No	³	No	Yes	No
51150A ²	⁴	Yes	³	Yes	Yes	³
51152A ²	⁴	Yes	³	Yes	Yes	³
51230B ²	⁴	Yes	Yes	Yes	Yes	Yes
51300B ²	⁴	Yes	Yes	Yes	Yes	Yes
51430B ²	⁴	Yes	³	Yes	Yes	Yes
51450B ²	⁴	Yes	³	⁵	Yes	Yes
51850 Consult factory, (non-standard product)	⁴	Yes	³	⁵	Yes	³

¹ Rotary Joint Option ()-12 is DC-12.4 GHz operation. See Note³ for other frequencies.

² Rotary Joint Option [()-12/()-16] is DC-12.4 GHz operation. See Note³ for other frequencies.

³ Available on special requests. Consult factory.

⁴ Requires option ()-16 if options ()-14 or ()-15 are ordered.

⁵ Requires special slipping. Consult factory.

Accessories:

Model 4139 Position Controller

Model 4131 Position Controller

Model 2012 Positioner Programmer

Model 4181 Position Controller

Mating Connector Kit for Model 51450 – P/N 221306

Mating Connector Kit for Model 51010 – P/N 221313

Mating Connector Kit for Models 5155X, 51230, 51300 or 51430 – P/N 221279