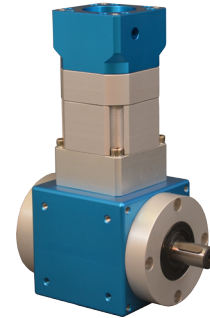


# GBPHR-090x-SP Series



## FEATURES

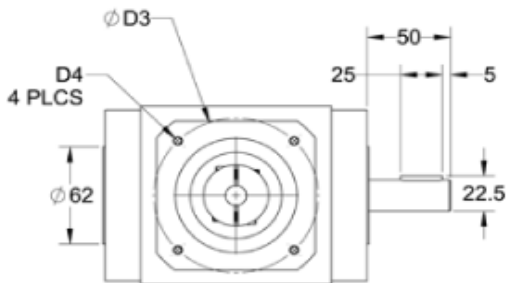
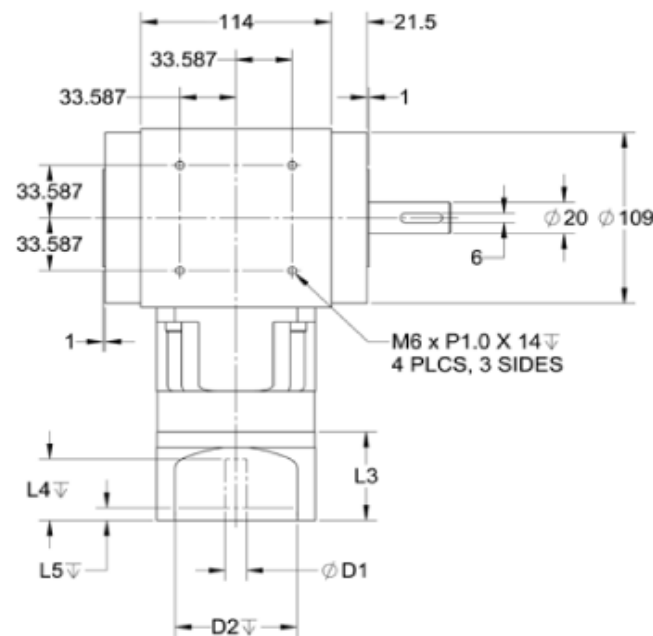
- Gear Ratios From 3 to 100
- Backlash Lower Than 22 arc-min
- Available in 1 and 2 Stage Models
- Lifetime Lubrication
- High Durability



## DESCRIPTION

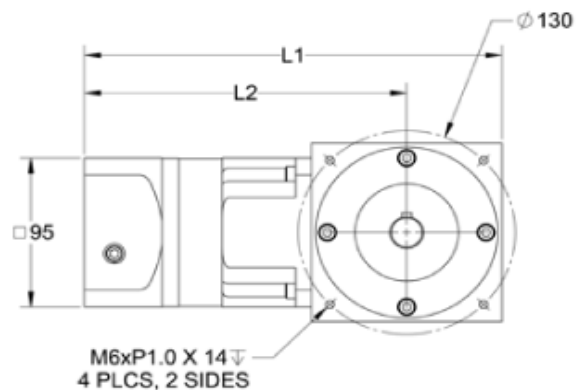
The GBPHR-090x-SP Series right angle planetary gearbox offers you the precision you need at the prices you want! This right angle planetary gearbox is designed with very low backlash for motion control, automation, and robotic applications requiring precise position requirements. This right angle planetary gearbox will match your servo or stepping motor. It comes in 18 different gear ratios. Built with the design goal of offering a cost effective product without sacrificing quality, you will find that this right angle planetary gearbox offers you an extraordinary value. Please verify all dimensions when matching a gearbox to a specific motor, as critical dimensions will vary among series and manufacturers.

## DIMENSIONS



| ITEM | DESCRIPTION               | MOTOR INTERFACE |
|------|---------------------------|-----------------|
|      |                           | AA341-500       |
| D1   | Input Shaft Diameter      | 12.7            |
| L4   | Max Shaft Length          | 47.5            |
| D3   | Mounting Bolt Hole Circle | 98.4            |
| D2   | Pilot Diameter            | 73              |
| L5   | Pilot Depth               | 6               |
| D4   | Bolt Hole Size            | M5x19           |
| L1   | Overall Length (1-Stage)  | 244             |
| L1   | Overall Length (2-Stage)  | 272             |
| L2   | Length (1-Stage)          | 187             |
| L2   | Length (2-Stage)          | 215             |

\*1-Stage Models: Gear Ratios 3-7,10  
 \*2-Stage Models: Gear Ratios 9,12-100



L011329

\*Note Dimensions are in mm.

| Model #                     | Gear Ratio | Nominal Rated Torque (in-lb) | Max Torque (in-lb) | Stages | Backlash Maximum (arcmin) | L1 Length (mm) | L2 Length (mm) | Weight (lbs) | Torsional Rigidity (Nm/arcmin) |
|-----------------------------|------------|------------------------------|--------------------|--------|---------------------------|----------------|----------------|--------------|--------------------------------|
| GBPHR-0901-SP-003-AA341-500 | 3          | 1469                         | 4407               | 1      | 12                        | 244            | 187            | 22.5         | 14                             |
| GBPHR-0901-SP-004-AA341-500 | 4          | 1469                         | 4407               | 1      | 12                        | 244            | 187            | 22.5         | 14                             |
| GBPHR-0901-SP-005-AA341-500 | 5          | 1469                         | 4407               | 1      | 12                        | 244            | 187            | 22.5         | 14                             |
| GBPHR-0901-SP-007-AA341-500 | 7          | 1469                         | 4407               | 1      | 12                        | 244            | 187            | 22.5         | 14                             |
| GBPHR-0902-SP-009-AA341-500 | 9          | 1469                         | 4407               | 2      | 16                        | 272            | 215            | 25.1         | 14                             |
| GBPHR-0901-SP-010-AA341-500 | 10         | 1469                         | 4407               | 1      | 12                        | 244            | 187            | 22.5         | 14                             |
| GBPHR-0902-SP-012-AA341-500 | 12         | 1469                         | 4407               | 2      | 16                        | 272            | 215            | 25.1         | 14                             |
| GBPHR-0902-SP-015-AA341-500 | 15         | 1469                         | 4407               | 2      | 16                        | 272            | 215            | 25.1         | 14                             |
| GBPHR-0902-SP-016-AA341-500 | 16         | 1469                         | 4407               | 2      | 16                        | 272            | 215            | 25.1         | 14                             |
| GBPHR-0902-SP-021-AA341-500 | 21         | 1469                         | 4407               | 2      | 16                        | 272            | 215            | 25.1         | 14                             |
| GBPHR-0902-SP-025-AA341-500 | 25         | 1469                         | 4407               | 2      | 16                        | 272            | 215            | 25.1         | 14                             |
| GBPHR-0902-SP-028-AA341-500 | 28         | 1469                         | 4407               | 2      | 16                        | 272            | 215            | 25.1         | 14                             |
| GBPHR-0902-SP-030-AA341-500 | 30         | 1469                         | 4407               | 2      | 16                        | 272            | 215            | 25.1         | 14                             |
| GBPHR-0902-SP-040-AA341-500 | 40         | 1469                         | 4407               | 2      | 16                        | 272            | 215            | 25.1         | 14                             |
| GBPHR-0902-SP-049-AA341-500 | 49         | 1469                         | 4407               | 2      | 16                        | 272            | 215            | 25.1         | 14                             |
| GBPHR-0902-SP-050-AA341-500 | 50         | 1469                         | 4407               | 2      | 16                        | 272            | 215            | 25.1         | 14                             |
| GBPHR-0902-SP-070-AA341-500 | 70         | 1469                         | 4407               | 2      | 16                        | 272            | 215            | 25.1         | 14                             |
| GBPHR-0902-SP-100-AA341-500 | 100        | 1469                         | 4407               | 2      | 16                        | 272            | 215            | 25.1         | 14                             |

|                        |                  |              |                  |
|------------------------|------------------|--------------|------------------|
| Operating Temperature: | -15° C - 90°C    | Noise Level: | 65 dB            |
| Efficiency             | 88% - 91%        | Design Life: | 20,000 hours     |
| Radial Load:           | 1394 lbs - Force | Axial Load:  | 1169 lbs - Force |
| Rated Input Speed:     | 2600 - 3600 RPM  | IP Rating:   | IP65             |