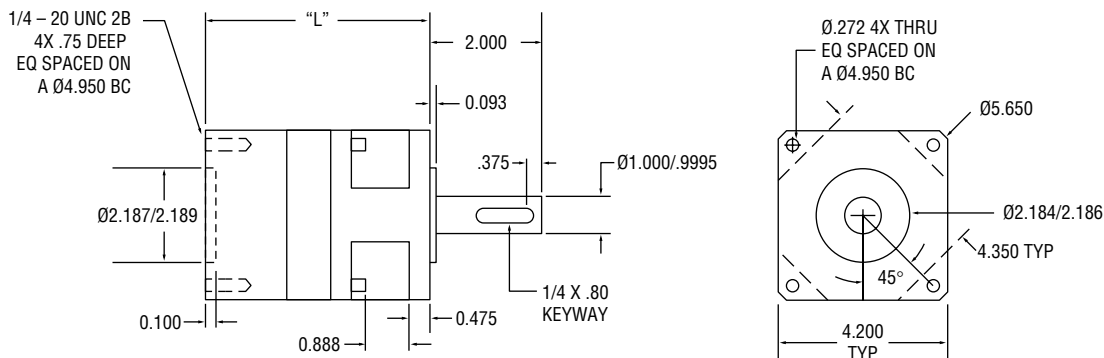


# SIZE 42

## "P" SERIES PLANETARY GEARHEAD

Single Stage "L" 4.624 ± .015  
Double Stage "L" 6.237 ± .015



PLANETARY  
GEARHEADS

	GEARHEAD P/N	GEAR RATIO	BACKLASH (MINUTES)	MAXIMUM RATED CONTINUOUS OUTPUT TORQUE 1500 rpm (LBS. IN.)	MAXIMUM RATED CONTINUOUS OUTPUT TORQUE 3500 rpm (LBS. IN.)	MAXIMUM RATED CONTINUOUS OUTPUT TORQUE 5000 rpm (LBS. IN.)	GEARHEAD INERTIA AT INPUT (LB-IN-SEC <sup>2</sup> )
SINGLE STAGE	P42003	3:1	6	2022	1175	894	2.27 X 10 <sup>-3</sup>
	P42004	4:1	6	1993	1256	983	1.02 X 10 <sup>-3</sup>
	P42005.5	5.5:1	6	1913	1312	1062	5.87 X 10 <sup>-4</sup>
	P42007	7:1	6	1826	1327	1101	4.56 X 10 <sup>-4</sup>
	P42010	10:1	6	1527	1196	1029	3.52 X 10 <sup>-4</sup>
DOUBLE STAGE	P42016	16:1	10	3346	2745	2419	1.05 X 10 <sup>-3</sup>
	P42022	22:1	10	3503	3003	2711	6.01 X 10 <sup>-4</sup>
	P42028	28:1	10	3599	3173	2913	4.65 X 10 <sup>-4</sup>
	P42040	40:1	10	3711	3383	3173	3.57 X 10 <sup>-4</sup>
	P42049	49:1	10	2710	2530	2411	4.56 X 10 <sup>-4</sup>
	P42055	55:1	10	3118	2923	2793	3.53 X 10 <sup>-4</sup>
	P42070	70:1	10	2754	2621	2530	3.52 X 10 <sup>-4</sup>
	P42100	100:1	10	2113	2043	1994	3.51 X 10 <sup>-4</sup>

### GENERAL SPECIFICATIONS

peak torque rating is 15% above continuous rated torque

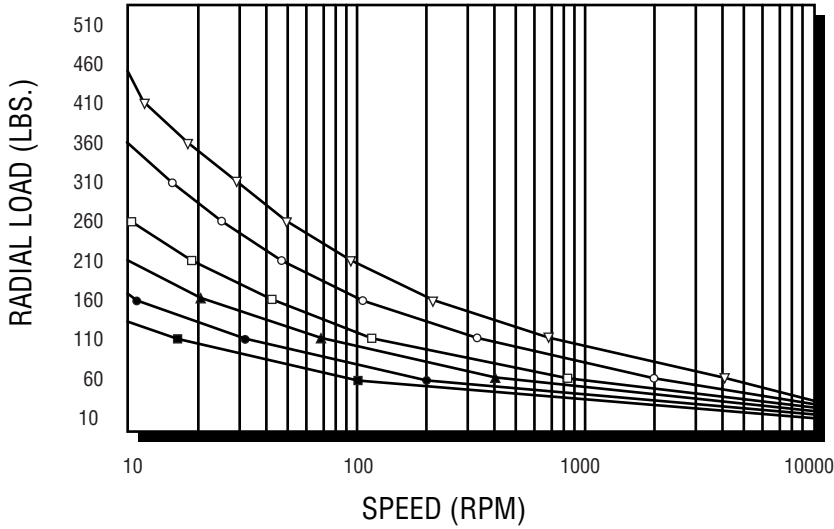
Construction Type	Ratio	Efficiency	Weight	Low Backlash Option	Maximum Input (rpm)
Planetary – Single Stage	3:1 to 10:1	90%	10.3 lbs.	3 arc minutes	5,000 rpm
Planetary – Double Stage	16:1 to 100:1	85%	16.8 lbs.	7 arc minutes	5,000 rpm

# SIZE 42 "P" SERIES BEARING LIFE VS. SHAFT LOAD

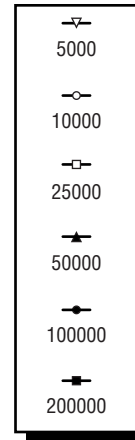


**PLANETARY  
 GEARHEADS**

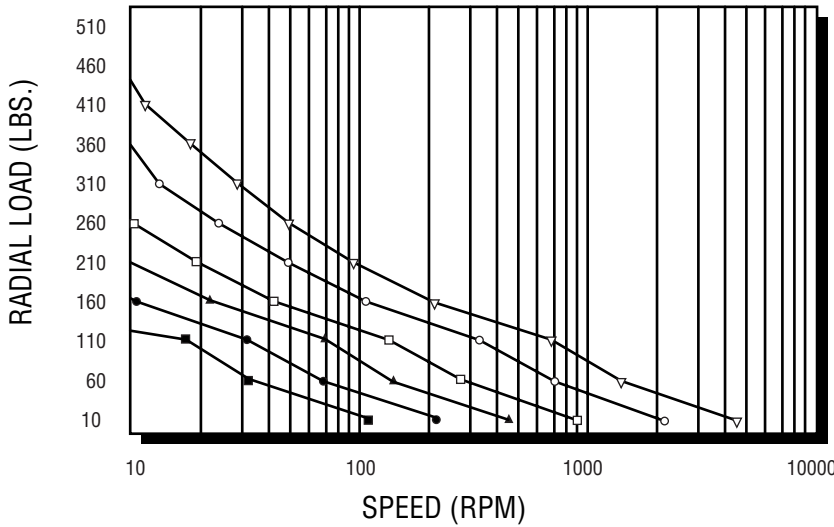
**AXIAL LOAD: 0 LBS.**



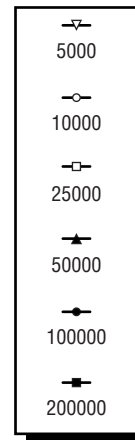
**LIFE (HRS)**



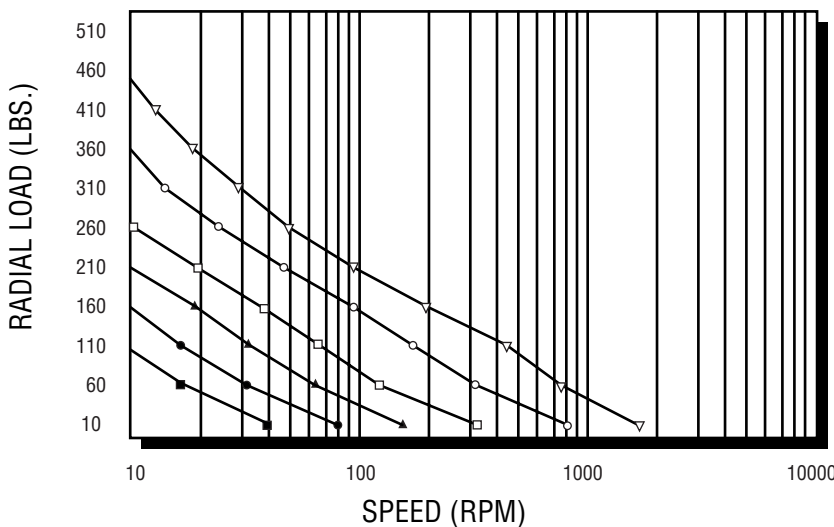
**AXIAL LOAD: 75 LBS.**



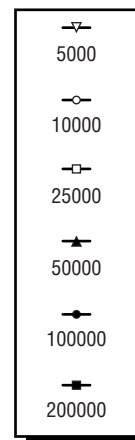
**LIFE (HRS)**



**AXIAL LOAD: 200 LBS.**



**LIFE (HRS)**



Speed (rpm) refers to the gearheads output shaft speed.

Life (hrs) = (# of lifetime revolutions) ÷ (60 x rpm).

$F_{radial}$  is calculated at one half the shaft length.

