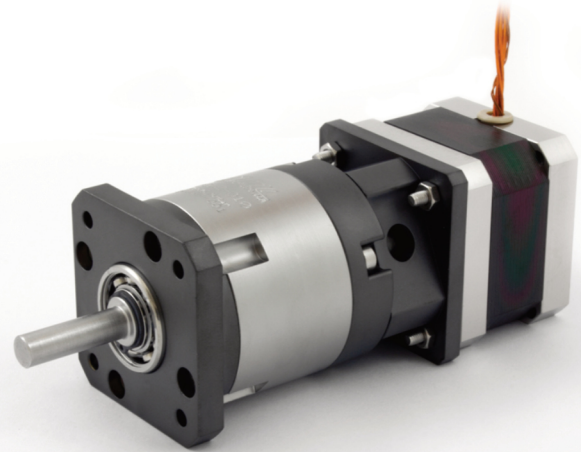


PG42 Planetary Gearhead

UHV Planetary Gearhead for use with D42 Series Stepper Motors

The PG42 series gearheads couple directly to AML D42 stepper motors and are suitable for use in UHV environments. Primarily used for increasing resolution, torque multiplication and inertia matching. They are designed for maximum torque capacity, high efficiency and low backlash.

- Suitable for use below 1×10^{-10} mBar
- Multiple ratio options, 4:1 through 100:1
- Low inertia
- High precision, low backlash
- Service life > 10,000 hours
- Bakeable to 200°C



SPECIFICATIONS

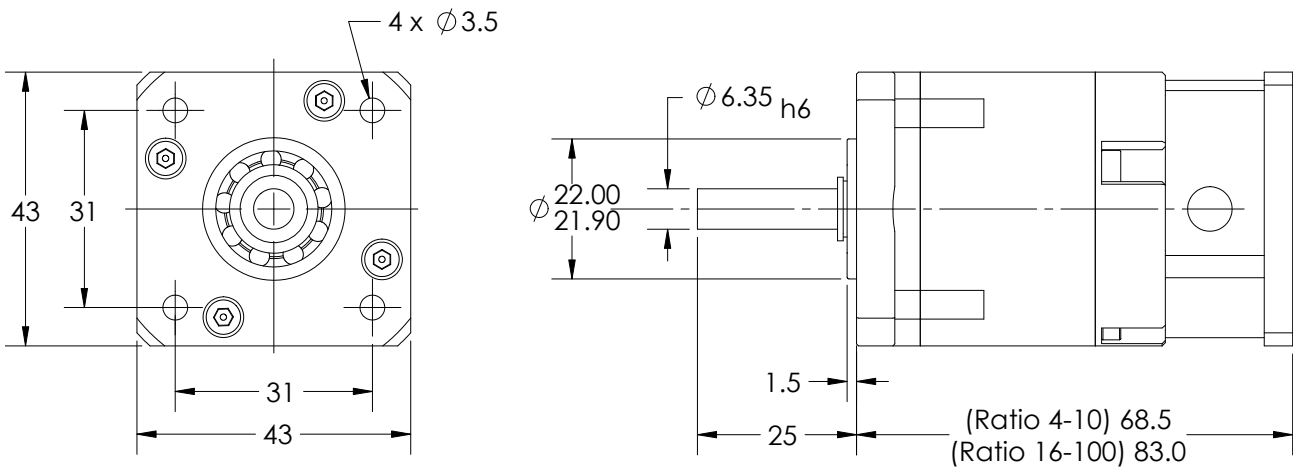
Reduction Ratio (:1)	Nominal Output Torque Nm	Maximum Acceleration Torque Nm	Gear Inertia kg-cm ²	Backlash ¹⁾ arc-min	Efficiency at nominal torque %	Radial Load ²⁾ N	Axial Load ²⁾ N	Maximum Mass kg	Lubrication
4	5.9	11.8	0.020	<15	96	200	196	0.60	Nyetorr 6300
5	6.2	11.8	0.018						
7	5.5	11.0	0.016						
10	3.5	7.0	0.016						
16	6.5	13.0	0.019	<18	94	200	196	0.90	
20	6.5	13.0	0.017						
25	6.7	13.0	0.017						
35	6.7	13.0	0.016						
40	6.5	13.0	0.016						
50	6.7	13.0	0.016						
70	5.5	11.0	0.016						
100	3.5	7.0	0.016						

Nominal input speed: 4500 rpm
 Maximum input speed: 8000 rpm
 Direction of rotation: Same as input
 Vacuum environment: $<1 \times 10^{-10}$
 Max. temperature: +200°C
 Min. temperature: -65°C

(1) Measured at 2% of rated torque

(2) @100rpm, radial load applied at centre of shaft

DIMENSIONS



ORDERING INFORMATION

Order Code	
PG42-XX	UHV Planetary Gearhead for AML Stepper Motors

Related Products	
D42.1	250 mNm UHV Stepper Motor
D42.2	500 mNm UHV Stepper Motor
D42.3	550 mNm UHV Stepper Motor



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AML pursues a policy of continuous improvement and reserves the right to make detail changes to specifications without consultation. E and OE.