

General Specifications for Dodge® Quantis Speed Reducers

The Quantis In-Line Helical (ILH) speed reducer is suitable for c-face, separate, or integral gearmotor construction in either foot or output flange mountings, and available in single, double, or triple ratios.

The Quantis Right Angle Helical Bevel (RHB) and Motorized Shaft Mount (MSM) speed reducers are suitable for c-face, separate, or integral gearmotor construction in either foot or output flange / shaft mountings, and available in double or triple ratios for MSM, and triple ratios for RHB.

C-face reducers are of the clamp collar design, or three-piece coupling design so as to eliminate or minimize fretting corrosion between the motor shaft and the reducer input shaft.

Efficiencies are based on running at the full catalog rating. MSM and ILH units are up to 98% efficient per stage. RHB units are up to 95% efficient.

Castings

Reducer housings are constructed of corrosion resistant class 30 gray iron with cast internal ribbing for added strength. All housings are cast, while some inspection covers are cast and others are steel. All housings are precision machined to assure accurate alignment for all gear sets.

Gearing

Quantis gearing is helical design and ground to provide an ellipsoid tooth form which eliminates tooth wearing and assures meshing in the strongest tooth area. In addition, RHB units also utilize spiral bevel gearing. The bevel gearing is cut and lapped. All helical gears are case carburized to ensure a high surface durability and resilient tooth core for greater impact resistance and longer service life. The input pinion has a shank pinion design that is assembled by being pressed into place.

Bearings

Reducer bearings can be the roller or ball type and provide a minimum 10,000 hour average life. Seals are of the spring loaded type, made of nitrile rubber, with an optional viton material to be used with synthetic lubricant.

Lubrication

Reducer gears and bearings are splash lubricated using an ISO 220 lubricant which provides protection against rust. The standard mineral oil lubricant allows an operating temperature range of 10°F to 104°F (-12°C to 40°C) ambient. Higher or lower ambient temperature conditions are addressed with optional synthetic oil.



QUANTIS ILH (In-Line Helical)



QUANTIS MSM (Motorized Shaft Mount)



QUANTIS RHB (Right Angle Helical Bevel)

