

FEATURES / BENEFITS

TIGEAR-2

- 10 Case Sizes
- 1.33" to 4.75" Center Distances
- 5:1 to 60:1 Reductions
- Quill Input
- Separate Input
- 3-Piece Coupled Input
- Solid Output
- **Hollow Output**

On average, TIGEAR-2 delivers more torque than competitive, same-sized models. This permits downsizing and helps reduce total cost of ownership.

TIGEAR-2 reducers share the same footprint and most critical mounting dimensions with current TIGEAR and many competitive models.

> New worm shaft machining process increases gear precision and accuracy by more than twice the "norm".

Seal journals are held to exacting tolerances for diameter and surface finish (8-17 Ra). Precise plunge grinding process eliminates invisible lead and assures coolrunning, long-life seals.

Unique internal design of input quill, along with a special factoryapplied anti-seize compound, helps to reduce chances for fretting corrosion with motor shaft.

State-of-the-art computer modeling and optimization of multiple gear geometry allow higher torque capacity, greater efficiency, and cooler operating temperatures. End result: long life and lower

parameters in new TIGEAR-2 gear operating costs for user.

Generous step between diameter of output bearing journal and diameter of seal journal prevents bearing from scuffing seal journal during assembly.

New bronze gear material has an extremely fine grain structure for maximum durability and minimum wear.

TIGEAR-2

CONFIGURATION OPTIONS

The advanced design concept of the TIGEAR-2 reducer product line provides extreme flexibility for applications that require from 100 to more than 6,800 lb.-in of torque. Whether the application requires the compactness of a quill-style input, the durability of a three-piece coupled input, or a separate keyed input shaft for belt-driven equipment, TIGEAR-2 is the answer. With four basic reducer configurations that are dimensionally interchangeable with most competitive brands and stock, and bolt-on accessories, the TIGEAR-2 reducer line is truly a complete line that is full of value.





Quill Input

Space-saving quill-style input reducers for NEMA C-face motors in both solid and hollow output designs





Separate Input

Separate style input reducers with solid or hollow output shafts are suitable for either belted or direct-coupled motor connections





Three-Piece Coupled Input

Attaching a stock, three-piece coupled motor adapter kit to a separate style reducer creates a durable drive package that facilitates easy motor removal and provides protection against shock loads and other unpredictable vibrations



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TIGEAR-2

New TIGEAR-2 Sealing System

The new totally enclosed, ventless sealing system operates effectively with no pressure vent, no compression chamber. TIGEAR-2 contains a new factory-filled synthetic lubricant that actually runs cooler, as well as eliminates the need for routine oil changes. All reducers are filled with the proper amount of lubricant for any approved mounting position. Simply install it, then forget it.

New Custom-Formulated HNBR Wave Seal

Hydrogenated Nitrile Butadiene Rubber (HNBR) material has been proven to be a better all-round choice for oil compatibly, wear, and temperature range. Overall, it provides up to 6 times greater wear resistance than industry standard nitrile seals.

Special Hydrodynamic Wave Seal Design

The special wave shape (molded into the seal lip) generates a better hydrodynamic film, which is required between the seal and the shaft for long life. This special wave design generates less drag, less heat, and virtually eliminates shaft grooving created by the single-point wear track, which is common with conventional trimmed lip seal designs, The sinusoidal lip of the wave seal effectively pushes external contaminants away and pumps lubricant back into the oil sump.

Special Lip Construction

Optimized lip-to-shaft contact pressures ensure maximum life, In addition, special sealing elements operate under pressure without detrimental effect on service life or sealing performance.

New Factory-Filled Synthetic Lubricant

The standard synthetic lubricant used in TIGEAR-2 meets H1 food grade requirements and accommodates a wide range of operating temperatures. In extensive laboratory test, it lowered operating temperatures by 20°F over other popular synthetics. No routine scheduled oil changes are required.

New GRIP TIGHT™ Tapered Adapter Bushing System Eliminates Hop and Wobble



Locking System

The TIGEAR-2 reducer's new GRIP TIGHT tapered bushing system uses concepts that have proven to be effective in the locking mechanism of the DODGE GRIP TIGHT bearing to simplify installation and removal and prevent fretting corrosion problems. There are no loose fasteners to misplace during installation, and the locking nut creates a positive means for easy removal.

Minimum Shaft Length

The system's tapered bushings allow for mounting in some of the tightest places on almost any size shaft. (Driven shafts need not protrude completely through the reducer bore.)

Bushing Options

When used in pairs, the new tapered bushings can be used without output keys. Corrosion resistant options will be offered for severe washdown applications.