



TORQUE-ARM Shaft Mount Speed Reducers

SELECTION GUIDE: TXT TORQUE-ARM SHAFT MOUNT REDUCERS

This Is A Reference Sheet For Quick Selection And Specification Of DODGE TXT TORQUE-ARM Shaft Mount Reducers. Use It To Identify Information Needed To Make An Accurate Selection With A Step-By-Step Selection Format For Choosing Reducer, Accessories And Belt Drive

Use This Page To Make Your Own Selections Or Send This Form, With Application Data, To DODGE For Assistance. **You May Make Copies For Future Use.**

Name _____ Company Name _____
 Phone No. _____ Fax. No. _____

Application Data:

Type of Driven Equipment _____
 Hours of Service per day _____ Class of Service _____
 Type of Load: Uniform _____ Moderate _____ Shock _____
 Motor Type: HP _____ RPM _____ Frame Size _____ Shaft Size _____
 RPM Of Driven Equipment _____ Driven Shaft Size _____
 Type of Reducer Mounting: Horizontal _____ Vertical: Input Up _____
 Input Down _____ Incline (Degree of) _____ Flange _____
 Unusual Ambient Temperature _____
 Other Pertinent Application Characteristics (i.e.-dusty Environment, Reversing Duty, Start/Stop Cycles, Etc.) _____

Reducer Drive Selection

Step 1 - Determine Class of Service _____
Step 2 - From Appropriate Service Class Table, Select Reducer Size And Ration That Meets Application HP and Driven RPM Requirements:
 Twin Taper Bushed _____ Straight Bore _____
Step 3 - Select Reducer Accessories Required For Application: Backstop _____
 Motor Mount: Standard _____ Long _____ Bottom _____
 Belt Guard: Standard _____ Long _____
 Cooling Fan _____ Auxiliary Seal Kit _____ Short Side _____
 Other _____

Belt Drive Specification:

Service Factor _____ Belt Drive Ratio Needed _____
 Belt Center Distance _____ Type Of Belt Desired _____
 Driver: Shaft Diameter _____ Driven: Shaft Diameter _____
 Sheave _____ Sheave _____
 Bushing _____ Bushing _____
 Belts: Size _____ Quantity _____

| | | | |
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SELECTION



TORQUE-ARM Shaft Mount Speed Reducers

TABLE1 - APPLICATION CLASSIFICATION AND CLASS

| Application | Class Numbers | |
|--|---------------------|---------------------|
| | 3 to 10 Hrs per Day | Over 10 Hrs per Day |
| AGITATORS (Mixers) | | |
| Pure Liquids | I | II |
| Liquids and Solids | II | II |
| Liquids-Variable Density | II | II |
| BLOWERS | | |
| Centrifugal | I | II |
| Lobe | II | II |
| Vane | II | II |
| BREWING AND DISTILLING | | |
| Bottling Machinery | I | II |
| Brew Kettles-Continuous Duty | II | II |
| Cookers-Continuous Duty | II | II |
| Mash Tubs-Continuous Duty | II | II |
| Scale Hopper-Frequent Starts | II | II |
| CAN FILLING MACHINES | I | II |
| CAR DUMPERS | III | III |
| CAR PULLERS | II | II |
| CLARIFIERS | I | II |
| CLASSIFIERS | II | II |
| CLAY WORKING MACHINERY | | |
| Brick Press | III | III |
| Briquette Machine | III | III |
| Pug Mill | II | II |
| COMPACTORS | ★ | ★ |
| COMPRESSORS | | |
| Centrifugal | I | II |
| Lobe | II | II |
| Reciprocating, Multi-Cylinder | II | III |
| Reciprocating, Single-Cylinder | III | III |
| CONVEYORS-GENERAL PURPOSE | | |
| Includes Apron, Assembly, belt, Bucket Chain, Flight, Oven and Screw | | |
| Uniformly Loaded or Fed | I | II |
| Heavy Duty-Not Uniformly Fed | II | II |
| Severe Duty-Reciprocating or Shaker | III | III |
| CRANES | ★ | ★ |
| CRUSHER | | |
| Stone or Ore | III | III |
| DREDGES | | |
| Cable Reels | II | II |
| Conveyors | II | II |
| Cutter Head Drives | III | III |
| Pumps | III | III |
| Screen Drives | III | III |
| Stackers | II | II |
| Winches | II | II |

★ Consult DODGE for more information on class number

| Application | Class Numbers | |
|---------------------------------|---------------------|---------------------|
| | 3 to 10 Hrs per Day | Over 10 Hrs per Day |
| ELEVATORS | | |
| Bucket | II | II |
| Centrifugal Discharge | I | II |
| Escalators | I | II |
| Freight | II | II |
| Gravity Discharge | I | II |
| EXTRUDERS | | |
| General | II | II |
| Plastics | | |
| Variable Speed Drive | III | III |
| Fixed Speed Drive | III | III |
| Rubber | | |
| Continuous Screw Operation | III | III |
| Intermittent Screw Operation | III | III |
| FANS | | |
| Centrifugal | I | II |
| Forced Draft | II | II |
| Induced Draft | II | II |
| Industrial & Mine Class Numbers | II | II |
| FEEDERS | | |
| Apron | II | II |
| Belt | II | II |
| Disc | I | II |
| Reciprocating | III | III |
| Screw | II | II |
| FOOD INDUSTRY | | |
| Cereal Cooker | I | II |
| Dough Mixer | II | II |
| Meat Grinders | II | II |
| Slicers | II | II |
| GENERATORS AND EXCITERS | II | II |
| HAMMER MILLS | III | III |
| HOISTS | ★ | ★ |
| LAUNDRY TUMBLERS | II | II |
| LAUNDRY WASHERS | II | III |
| LUMBER INDUSTRY | | |
| Bakers | | |
| Spindle Feed | II | II |
| Main Drive | III | III |
| Conveyors | | |
| Burner | II | II |
| Main or Heavy Duty | II | II |
| Main Log | III | III |
| "Re-saw, Merry-Go-Round" | II | II |
| Slab | III | III |
| Transfer | II | II |
| Chains | | |
| Floor | II | II |
| Green | II | III |

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TABLE1 - APPLICATION CLASSIFICATION AND CLASS NUMBERS (continued)

| Application | Class Numbers | |
|---|---------------------|---------------------|
| | 3 to 10 Hrs per Day | Over 10 Hrs per Day |
| LUMBER INDUSTRY (continued) | | |
| Cut-Off Saws | | |
| Chain | II | III |
| Drag | II | III |
| Debarking Drums | III | III |
| Feeds | | |
| Edger | II | II |
| Gang | III | III |
| Trimmer | II | II |
| Log Deck | III | III |
| Log Hauls-Incline-Well Type | III | III |
| Log Tuning Devices | III | III |
| Planer Feed | II | II |
| Planer Tilting Hoists | II | II |
| Rolls-Live-off brg.-Roll Cases | III | III |
| Sorting Table | II | II |
| Triple Hoist | II | II |
| Transfers | | |
| Chain | II | III |
| Craneway | II | III |
| Tray Drives | II | II |
| Veneer Lathe Drives | II | II |
| METAL MILLS | | |
| Draw bench Carriage and Main Drive | II | II |
| Runout Table | | |
| Non-Reversing | | |
| Group Drives | II | II |
| Individual Drives | III | III |
| Reversing | III | III |
| Slab Pushers | II | II |
| Shears | III | III |
| Wire Drawing | II | II |
| Wire Winding Machine | II | II |
| METAL STRIP PROCESSING MACHINERY | | |
| Bridles | II | II |
| Coilers & Uncoliers | I | II |
| Edge Trimmers | II | II |
| Flatteners | II | II |
| Loopers (Accumulators) | I | I |
| Pinch Rolls | II | II |
| Scrap Choppers | II | II |
| Shears | III | III |
| Slitters | II | II |
| MILLS, ROTARY TYPE | | |
| Ball & Rod | | |
| Spur Ring Gear | III | III |
| Helical Ring Gear | II | II |
| Direct Connected | III | III |
| Cement Kilns | II | II |
| Dryers & Coolers | II | II |
| MIXERS, CEMENT | | |
| | II | II |

| Application | Class Numbers | |
|---|---------------------|---------------------|
| | 3 to 10 Hrs per Day | Over 10 Hrs per Day |
| PAPER MILLS | | |
| Agitator (Mixer) | II | II |
| Agitator for Pure Liquors | II | II |
| Barking Drums | III | III |
| Barkers-Mechanical | III | III |
| Beater | II | II |
| Breaker Stack | II | II |
| Chipper | III | III |
| Chip Feeder | II | II |
| Coating Rolls | II | II |
| Conveyors | | |
| Chip, Bark, Chemical | II | II |
| Log (including Slab) | III | III |
| Couch Rolls | II | II |
| Cutter | III | III |
| Cylinder Molds | II | II |
| Embosser | II | II |
| Extruder | II | II |
| Fourdrinier Rolls (includes Lump breaker, dandy roll, wire turning, and return rolls) | II | II |
| Jordan | II | II |
| Kiln Drive | II | II |
| Mt. Hope Roll | II | II |
| Paper Rolls | II | II |
| Platter | II | II |
| Presses-Felt & Suction | II | II |
| Pulper | III | III |
| Pumps-Vacuum | II | II |
| Reel (Surface Type) | II | II |
| Screens | | |
| Chip | II | II |
| Rotary | II | II |
| Vibrating | III | III |
| Size Press | II | II |
| Thickener (AC Motor) | II | II |
| (DC Motor) | II | II |
| Washer (AC Motor) | II | II |
| (DC Motor) | II | II |
| Wind and Unwind Stand | I | I |
| Winders (Surface Type) | II | II |
| PLASTICS INDUSTRY-SECONDARY PROCESSING | | |
| Blow Molders | II | II |
| Coating | II | II |
| Film | II | II |
| Pipe | II | II |
| Pre-Plasticizers | II | II |
| Rods | II | II |
| Sheet | II | II |
| Tubing | II | II |

| | | | |
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TABLE1 - APPLICATION CLASSIFICATION AND CLASS NUMBERS (continued)

| Application | Class Numbers | |
|--|---------------------|---------------------|
| | 3 to 10 Hrs per Day | Over 10 Hrs per Day |
| PULLERS-BARGE HAUL | II | II |
| PUMPS | | |
| Centrifugal | I | II |
| Proportioning | II | II |
| Reciprocating | | |
| Single Acting, 3 or more cylinders | II | II |
| Double Acting, 2 or more cylinders | II | II |
| Rotary | | |
| Gear Type | I | II |
| Lobe | I | II |
| Vane | I | II |
| RUBBER AND PLASTICS INDUSTRY | | |
| Intensive Internal Mixers | | |
| Batch Mixers | III | III |
| Continuous Mixers | II | II |
| Mixing Mill | | |
| 2 smooth rolls | II | II |
| or 2 corrugated rolls | III | III |
| Batch Drop Mill - 2 smooth rolls | II | II |
| Cracker Warmer - 2 roll, 1 corrugated roll | III | III |
| Cracker-2 corrugated rolls | III | III |
| Holding, Feed & Blend Mill-2 rolls | II | III |
| Refiner-2 rolls | II | II |
| Calenders | II | II |
| SAND MULLER | II | II |
| SEWAGE DISPOSAL EQUIPMENT | | |
| Bar Screens | II | II |
| Chemical Feeders | II | II |
| Dewatering Screens | II | II |
| Scum Breakers | II | II |
| Slow or Rapid Mixers | II | II |
| Sludge Collectors | II | II |
| Thickener | II | II |
| Vacuum Filters | II | II |

| Application | Class Numbers | |
|-------------------------|---------------------|---------------------|
| | 3 to 10 Hrs per Day | Over 10 Hrs per Day |
| SCREENS | | |
| Air Washing | I | II |
| Rotary-Stone or Gravel | II | II |
| Traveling Water Intake | I | I |
| SCREW CONVEYORS | | |
| Uniformly Loaded or Fed | I | II |
| Heavy Duty | II | II |
| SUGAR INDUSTRY | | |
| Beet Slicer | III | III |
| Cane knives | II | II |
| Crushers | II | II |
| Mills (low speed end) | III | III |
| TEXTILE INDUSTRY | | |
| Batchers | II | II |
| Calenders | II | II |
| Cards | II | II |
| Dry Cans | II | II |
| Dyeing Machinery | II | II |
| Looms | II | II |
| Mangles | II | II |
| Nappers | II | II |
| Pads | I | II |
| Stashers | II | II |
| Soapers | II | II |
| Spinners | II | II |
| Tenter Frames | II | II |
| Washers | II | II |
| Winders | II | II |

Reference: AGMA Standard 6021-G89 (11/89). The table of application class numbers has been developed from the experience of manufacturers and users of gear drives for use in common applications and has been found to be generally satisfactory for the listed industries when gears are rated using AGMA standards. It is recommended that class numbers for special applications be agreed upon by the user and the gear manufacturer when variations of the table may be required. Special conditions can be any special type of prime mover, starting or stopping conditions, system conditions, ambient conditions, lubrication, overloads, overspeeds, brake equipped applications, high inertia and reversing loads.