

# REFERENCE GUIDE

PT Component  
Quick References

Couplings

Clutches and Brakes

FLEXIDVNE

Fluid Couplings

TORQUE-TAMER

Bushings

## PARA-FLEX Couplings

### Page PT1-2

- Torque transmitted through composite element system
- Finished-bore and TAPER-LOCK® flange designs
- Five-year limited warranty
- No lubrication and visual inspection reduces maintenance time
- Accommodates highest misalignment of any coupling in the industry
  - 4° angular
  - 1/8" parallel
  - 5/16" end float
- ATEX Approved



## D-FLEX Couplings

### Page PT1-29

- Low-cost Type J couplings offered in four sizes
- Type S couplings feature AGMA 9 balanced flanges off the shelf
- Type B couplings offered with standard QD bushing shaft attachment
- Type SC spacer couplings satisfy standard spacing requirements for pump
- Rounded EPDM and Neoprene elements for improved fit and longer
- AGMA 9 balance on S and SC flanges for reduced vibration
- ATEX Approved



### Applications

- Interchangeable components make installation quick, easy
- No lubrication assures trouble-free operation

## GRID-LIGN Couplings

### Page PT1-42

- Flexible tapered element isolates vibration and cushions shock loads
- High-torque capability
- Interchangeability with other tapered grid couplings
- Tapered grid design



## Gear Couplings

### Page PT1-60

- High-quality forged steel
- Largest tooth profile provides additional service factor
- Largest bore capacity in the industry, in most sizes
- Proven "O"-ring seal design
- Machined flanges for improved sealing
- High-grade fasteners
- High-torque rating allows for coupling downsizing
- Crowned tooth profile for longer life and improved performance
- Interchangeable with industry-standard gear couplings half for half



## Chain Couplings

### Page PT1-66

- Simple, widely accepted, inexpensive way to couple two shafts
- Interchangeable with industry-standard dimensions
- Can be provided with TAPER-LOCK bushed hubs, finished bore, or reboreable flanges
- Covers and assemblies available from stock
- Shaft attachment flexibility
- High-torque capability
- Compact design
- Low operating cost
- Broad product line



## Poly-Disc Coupling

### Page PT1-73

- Requires no lubrication
- Taper-Lock bushing allows for connection of two different shaft sizes
- Polyurethane element
- Pin design cushions shock loads
- Excellent for washdown applications
- Wide temperature range (-90 to 170 ° F)
- Misalignment = 2° Angular, 1/32 in. parallel



Please see [www.baldor.com](http://www.baldor.com) for Instruction Manuals on all Dodge products.

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## Taper-Lock Rigid Coupling

Page PT 1-74

- Metallic coupling
- Requires no lubrication
- Taper-Lock bushing allows for connection of two different shaft sizes
- 8 Flange sizes thru 6" bore



## Ribbed Rigid Coupling

Page PT1-75

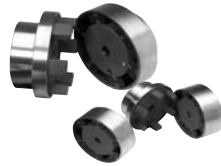
- Metallic coupling
- Requires no lubrication
- Clearance fit with full length key
- Same shaft size required on both sides
- 34 Sizes thru 7" bore



## POWERPLUS

Page PT1-76

- A power-dense, high torque elastomeric coupling
- Power density at high speeds
- Positive drive
- Shock load and vibration dampening
- Easy installation
- Low maintenance
- ATEX approved
- Minimal length thru bore
- Lightweight design



## D-Series Motor Brakes

Page PT2-6

- Exceptionally long-life friction material
- Internally rectified DC coil provides quieter operation
- Easy installation and external adjustment
- One moving part, reduces replacement parts
- Smooth stopping action
- Splined hub for superior load distribution
- Manual release
- Clutch/brake modules



## Clutch/Brake Modules

Page PT2-12

- Conforms to UL and CSA requirements
- One-piece, die-cast housing simplifies mounting; housing finned for maximum heat dissipation
- Pre-lubricated and sealed ball bearings have higher B10 life rating than competitive modules
- High-torque, non-asbestos friction material assures long life and environmental safety
- Armatures incorporate a high-impact, high-temperature molded spline for heavy-torque and high-cycle capabilities
- DYNA-GAP automatic air gap mechanism automatically compensates for friction surface wear
- Modules are factory assembled, adjusted, and burnished for easy installation and out-of-the-box operation
- Rotor incorporates ball bearing and Driv-Lok key for foolproof installation
- Standard NEMA C-face and base mounted, shaft-in/ shaft-out mounting configurations



## Shaft Mounted Clutches & Brakes

Page PT2-18

- Bore to size and taper lock bushings
- Voltage Input = 90, 24 and 6 VDC
- Static torque range: 22 lb-ft thru 175 lb-ft
- Factory assembled, adjusted, burnished
- Dyna-Gap self adjusting mechanism
- Heavy duty spline driven armature



## FLEXIDYNE Couplings

Page PT3-2

- Motor starts under no-load conditions
- Permits use of STD NEMA-B motor
- Coupling or drive styles available
- 100% efficient, no slippage
- Can provide overload protection by slipping at loads somewhat greater than pre-set starting torque



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## Fluid Couplings

### Page PT4-1

- Motor starts under no-load conditions
- Starting torque can be customized easily
- Permits use of standard NEMA design B motors
- Reduced voltage starters not needed
- Sizes 7 to 24 KSD with standard QD mounting sheave style
- KCP and CKCP mountings may require tapped motor shaft
- Available in standard and delay fill for increased control
- Optional fuse plug for overload protection
- Contact DODGE for non-standard sheaves



## TORQUE-TAMER

### Page PT5-2

- DODGE TORQUE-TAMER Clutches
- Low cost overload protection that's a cinch to adjust
- Quality features
  - Non-Asbestos friction discs
  - Long-Life bushing
- Exclusive "easy set" adjustment
- Automatic reset
- Higher torque ratings
- Application versatility
- Minimum maintenance



## Bushings

### Page PT6-2

- Full line of TAPER-LOCK and QD available
- Stock sizes available up to 12" shaft diameter
- Material: sintered steel, cast iron, ductile iron, and stainless steel
- Easy installation and demounting
- Inch and metric bores



## Weld-On Hubs

### Page PT6-12

- Full line of TAPER-LOCK and QD available
- Steel material with rugged, compact designs
- Hubs to accommodate most bushing sizes
- Made-to-order capabilities—special construction and materials



## V-Belt Sheaves

### Page PT7-27

- Full line of TAPER-LOCK and QD available
- Classical (A, B, and C) and D-V Wedge style (3V, 5V, and 8V) groove profiles
- Stock sizes from one to 12 grooves and 2.65" to 71" in diameter
- Manufactured to MPTA standards
- MTO capabilities—material, construction, BTS, etc.
- Computer drive selection available



## V-Belts

### Page PT7-28

- Full range of Classical (A, B, and C) and D-V Wedge (3V, 5V, and 8V) belts
- Manufactured to RMA standards
- Poly-band, Double-V (hex), and FHP belts available
- Lengths from 22" to 660"
- Drive capability from 1 HP to over 1000 HP



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## FHP Belt Drives

### Page PT8-10

- Full range of FHP belts available
- Finished-bore and “QT/L” bushed style sheaves available
- “QT/L” bushings available in metric bores
- Cast iron and manufactured to MPTA standards
- Sheave outside diameter range: 1-1/2” to 19-3/4”
- Variable pitch sheaves available
- Computer drive selection available



## HTR and HTRC Synchronous Belt Drives

### Page PT12-1 and PT13-1

#### Virtually maintenance free

- Requires no oil or grease to run efficiently
- No need to re-tension the belts
- Compact maintenance free design



#### Reinforced Parabolic Tooth Profile (RPP)

- Allows synchronous transmission of power eliminating slippage and speed variation on high torque application
- Low installation tension reducing loads on other power transmission components (i.e., bearings, gearing, motors, etc.)
- Delivers power up to speeds of 10,000 FPM (Standard hardware is rated for 6,500 FPM). Contact Dodge if speeds greater than 6500 FPM are required.
- Superior meshing characteristics with the sprocket
- Reduces sprocket wear due to friction
- Higher power ratings than comparable timing belts
- Quieter operation
- Wide speed range coverage

## DYNA-SYNC Drives (Timing)

### Page PT10-2

The Original Timing Drive

- Synchronized No-Slip Transmission
- No Lubrication Required
- Efficiency: Approximately 98%
- Low Maintenance
- Virtually No Backlash
- Constant Linear Velocity
- Drive Ratios to 8.5:1
- Pitches: XL, L, H, and XH
- Dual-Sided Teeth Available for Serpentine Drives



## Mine Duty Extra Drum Pulley Assemblies

### Page PT13-49

- One-piece integral hubs eliminate welded hub heat-affected zones (HAZ)
- 14° taper bushings with the lowest installation stress of any taper bushing shaft mounting system for two hub pulley applications
- Continuous welding of internal center disc
- Up to 1” vulcanized 45, 60, and 70 durometer SBR and 45, 60, and 70 durometer Neoprene rubber lagged with plain and groove surfaces
- Vulcanized 60 durometer D-Lag with +73% more abrasion resistance than 60 durometer SBR
- Drums either center crowned or straight face



## HT Synchronous Belt Drives

### Page PT11-2

- Full line of TAPER-LOCK, QD, and minimum plain bore sprockets
- Higher capacity drives
- Available pitches: HT series, 5 mm, 8 mm, and 14 mm
- Made-to-order sprocket capabilities: construction, non-standard number of teeth, etc.
- HT200 belt profiles
- Computer drive selection available
- Modified curvilinear tooth profile



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## Engineered Drum Pulley Assemblies

### Page PT13-30

- Made to order based upon conveyor load, belt tension, belt wrap angles, and bearing centers
- Supplied for belt ratings up to and exceeding 8000 PIW or 1400 kN/m
- Welded, integral, and profiled end discs versions minimize the harmful effects of weld heat-affected zones (HAZ)
- 14° taper bushings with the lowest installation stress of any taper bushing shaft mounting system for two hub pulley applications up to 12" shaft diameter
- Keyless locking devices available for most shaft sizes



## Roller Chain Sprockets

### Page PT14-2

- Sprockets manufactured to ANSI standard
- TAPER-LOCK sprockets: #35 (3/8" pitch) to #160 (2" pitch)
- Double-strand and double-single sprockets also available
- Special machining and re-bore capabilities available as made-to-order product
- Accessories available: chain casings, idlers, tensioners, etc.
- Hardened teeth up to 25 teeth on #40 through #160 sprockets
- Chain tools available



## Heavy Duty Drum Pulley Assemblies

### Page PT15-10

- Standard, stock pulley assemblies fit CEMA dimensions and exceed the CEMA application standards for use with conveyor belts rated up to 750 PIW/(131 kN/m)
- 14° taper bushings with the lowest installation stress of any taper bushing shaft mounting system for two hub pulley applications
- Up to 1" vulcanized 45, 60, and 70 durometer SBR and 45, 60, and 70 durometer Neoprene rubber lagged with plain and groove surfaces
- Vulcanized 60 durometer D-Lag with +73% more abrasion resistance than 60 durometer SBR
- Drums either center crowned or straight face



## Heavy Duty Wing Pulley Assemblies

### Page PT15-22

- Standard, stock pulley assemblies fit CEMA dimensions and exceed the CEMA application standards for use with conveyor belts rated up to 350 PIW/61 kN/m
- 14° taper bushings with the lowest installation stress of any taper bushing shaft mounting system for two hub pulley applications
- Slide-on 92 durometer urethane wing lagging 1/2" thick or 45, 60, and 70 durometer SBR, vulcanized directly to contact bars. Also weld-on strips with 45 and 60 durometer with prebonded SBR rubber lagging



## Mine Duty Extra Wing Pulley Assemblies

### Page PT15-28

- Designed for use with DODGE Mine Duty EXTRA drum pulleys
- One-piece integral hubs
- 14° taper bushings with the lowest installation stress of any taper bushing shaft mounting system for two hub pulley applications
- Rugged construction incorporating 2" x 3/4" thick contact bars, 3/8" thick wings, and 3/8" thick spacers
- Up to 1/2" vulcanized 45, 60, and 70 durometer SBR and 45, 60, and 70 Neoprene rubber lagging on contact bars
- AR400 bar available

