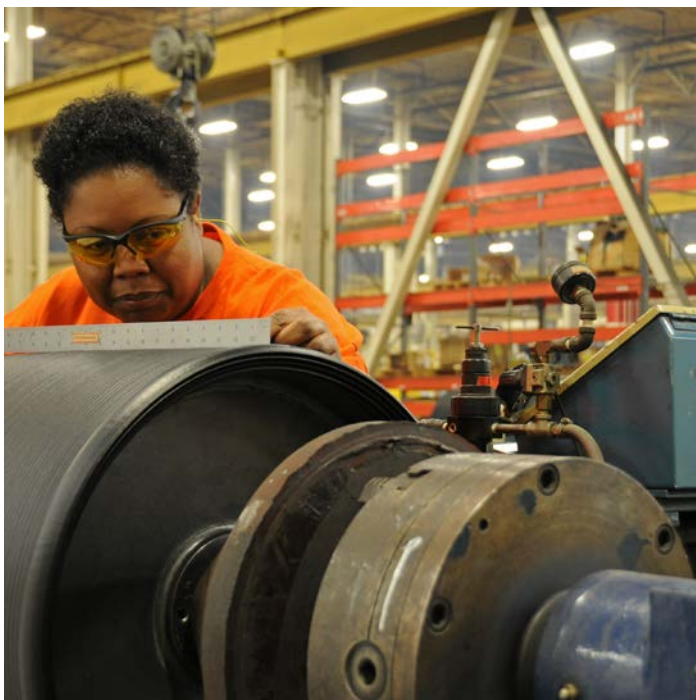




Brochure

Conveyor Pulleys

We provide motors, generators and mechanical power transmission products, services and expertise to improve customers' processes and optimize the total cost of ownership over the total life cycle of our products, and beyond.



Conveyor pulleys



Heavy duty drum pulleys

- Available from stock in over 150+ different sizes and lagging types
- HE, XT, QD or taper-lock hub styles available
- Vulcanized lagging up to 25mm thick in SBR, neoprene or D-LAG rubber
- Meets CEMA dimensions
- Exceeds CEMA application standards for use with conveyor belts rated up to 350 PjW (61kN/m)



Mine duty extra drum pulleys

- Available from stock in over 100+ different sizes and lagging types
- HE, XT integral hub designs
- Vulcanized lagging up to 25mm thick in SBR, neoprene or D-LAG rubber
- Vulcanized or cold bonded ceramic lagging 12mm, 16mm, 19mm or 25mm thickness
- Meets CEMA dimensions
- Designed for use with conveyor belts rated up to 750 PjW (131kN/m)



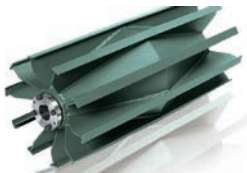
Engineered drum pulleys

- Custom designs based on conveyor loading for maximum life
- T-section end disc designs
- HE, XT or Bikon hub styles
- Vulcanized lagging up to 25mm thick in SBR, neoprene or d-lag rubber
- Vulcanized or cold bonded ceramic lagging 12mm, 16mm, 19mm or 25mm thickness
- Imperial or metric dimensions
- Designed for use with conveyor belts exceeding 8,000 PjW (1,400kN/m)



Spiral drum pulleys

- Available in heavy duty, mine duty extra, or custom constructions
- HE or XT hub styles available
- 25mm x 25mm spiral bars welded to rim
- Spirals wound on 75mm spacing
- Crowned or straight face
- Designed for mine service tail pulley applications requiring rugged durability with maximum belt cleaning



Heavy duty wing pulleys

- Available from stock in over 50+ different sizes
- 150mm - 1500mm diameter
- Face widths exceeding 2550mm
- Minimum 6mm x 38mm contact bars
- HE, XT, QD or taper-lock hub styles available
- Meets CEMA dimensions
- Slide-on urethane wing-lag available



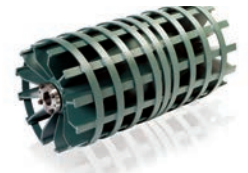
Mine duty wing pulleys

- Available from stock in over 20+ different sizes
- 200mm - 1500mm diameter
- Face widths exceeding 2550mm
- Minimum 16mm x 38mm contact bars for high durability
- HE, XT, QD or taper-lock hub styles available
- Meets CEMA dimensions
- 12mm SBR rubber vulcanized directly onto wings available



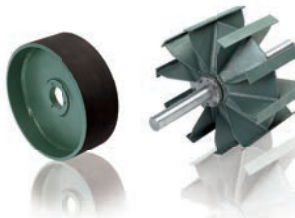
Mine duty extra wing pulleys

- Over 200+ part numbered sizes available
- 254mm - 1500mm diameter
- Face widths exceeding 2550mm
- Minimum 19mm x 50mm contact bars for ultimate durability
- AR400 contact bars available
- HE or XT hub styles available
- 127mm maximum wing height for protection from wing folding (up to 1050mm diameter)
- 12mm SBR rubber vulcanized directly onto wings available



Spiral wing pulleys

- Available in heavy duty, mine duty and mine duty extra constructions
- 150mm - 1500mm diameter
- Face widths exceeding 2550mm
- Minimum 6mm x 38mm spiral contact bars
- AR400 contact bars available
- HE, XT, QD or taper-lock hub styles available
- Smooth running for low impact on belt splices
- Excellent debris removal without interfering with belt scale operation



Elevator pulleys

- Single disc and double disc drum types
- XT, QD or HE hub styles available
- Vulcanized lagging up to 25mm thick in SBR or FOS (fire, oil & static resistant) rubber
- Holz and Holz SOF style 5 lagging
- Up to 1,825mm in diameter; face widths as narrow as 200mm
- Meets CEMA application standards up to 350 PjW (61kN/m)



Conveyor pulley bushings

- Dodge HE bushings with 14 degree taper angle featuring larger bolts and more bolts versus competitive designs (HE 45 and larger)
- Dodge XT bushings with 9.5 degree taper angle interchange with competitive products
- Dodge QD and QDS bushings offer a 4 degree taper angle and flange mounting
- Dodge taper-lock bushings with 8 degree taper angle and slim profile design



Shafting

- Engineering, design and manufacture of custom shafting
- 1045 & 4140 steel standard
- Stainless steel upon request
- Cold rolled, hot rolled and forged
- Ultrasonic and magnetic particle testing available
- Custom keyways, turndowns, drill & tape and tolerance requirements
- Certified prints provided for all custom shafting



Pulley assemblies

- Complete assembly of conveyor pulley, bushings, shaft, bearings and coupling
- Expert mounting and lubrication of large bore bearings
- All exposed metals covered with anti-rust coating
- Long-term storage preparation available
- Custom pallets for both flatbed and export shipments

Conveyor pulleys

Engineered pulley capabilities

High performance and intelligent design delivering reliability throughout the world for over 100 years.

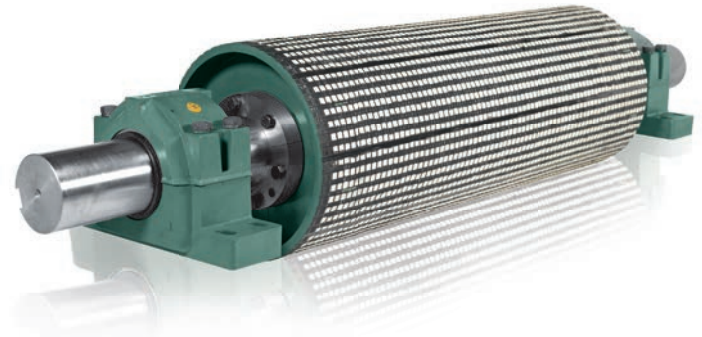
From underground mines to high in the mountains, Dodge customers expect outstanding performance from their conveyor pulleys.

For the ultimate in performance and economy, Dodge offers engineered conveyor pulleys. Dodge engineers utilize FEA models and state-of-the-art technologies to design conveyor pulleys assemblies of the highest quality.

With unmatched conveyor pulley engineering and manufacturing capabilities, Dodge has the knowledge and expertise to deliver reliability worldwide.

Available features

- Integral hub, profiled, turbine and T-section end disc designs
- Vulcanized lagging
 - Standard SBR, fire and oil resistant neoprene, or abrasion resistant d-lag
- High-traction ceramic (available cold bonded or vulcanized)
- HE, XT or bikon shaft locking devices
- Standard 1045 or high strength 4140 shaft material
- Static and dynamic balancing
- Available stainless steel construction for non-magnetic applications
- Serialized nameplates
- 2 year extended warranty

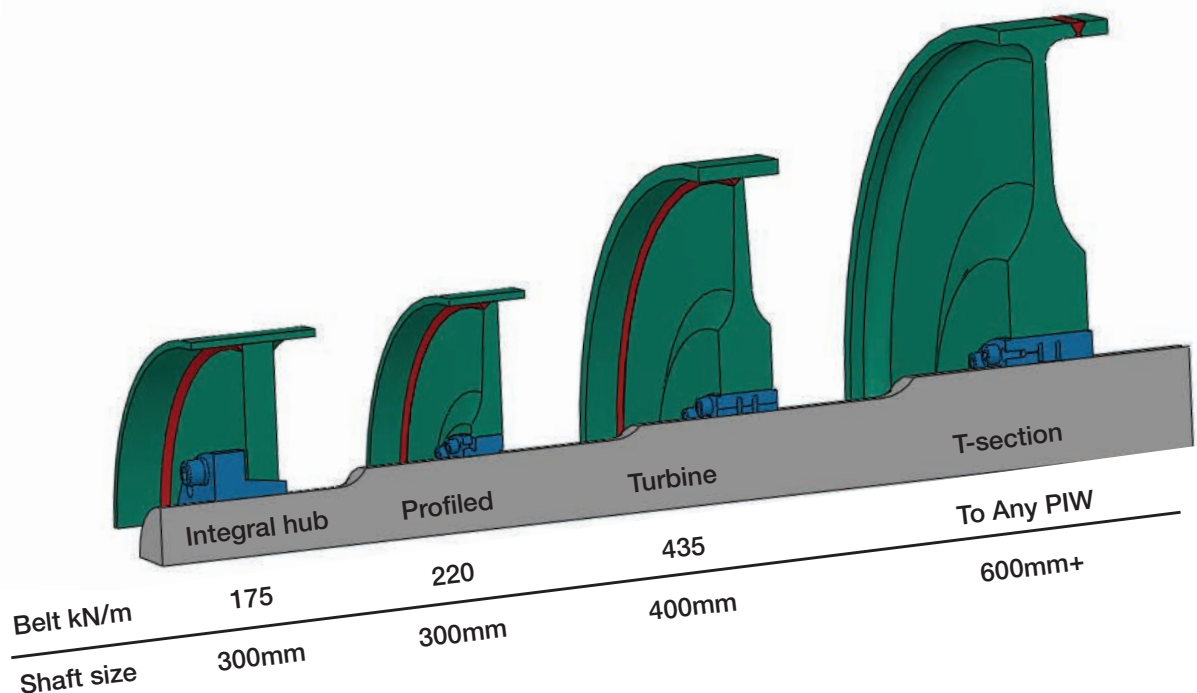


Manufacturing capabilities

- High-strength submerged arc welds
- Thermal stress relieving
- CNC machining of shaft and pulley
- Expert assembly of pulley, shaft, bearings, coupling and backstop

Quality certifications

- SO 9001:2008
- AWS and ASME certified welding procedures and welders
 - Submerged arc welding
 - Gas metal arc welding
 - Gas tungsten arc welding
- ASNT NDE certified inspection program
 - Ultrasonic, magnetic particle, dye penetrant testing and visual inspection
- Material certifications on all materials



Conveyor pulleys

Dodge lagging capabilities

Dodge conveyor pulleys have been operating in the world's most demanding material handling applications for over 100 years. Dodge has extensive engineering and manufacturing capabilities combined with years of experience that enable us to provide high performance conveyor pulley solutions for critical applications, worldwide.

Dodge conveyor pulleys can be provided with high quality lagging designed to ensure maximum belt and pulley life in tough applications. Dodge has the expertise to offer a full variety of lagging options including vulcanized, cold bond and weld-on lagging.

With over 100 years of conveyor pulley experience, Dodge can be trusted to keep your conveyors running.

Lagging capabilities

- Rubber vulcanizing up to 1,825mm diameter x 2550mm face width
- Lagging thickness of 6mm, 9mm, 12mm, 19mm, 25mm and larger
- HOLZ Slide Lag® up to 1,825mm diameter and exceeding 1,825mm face width
- CNC machining for straight and crown faces
- Cold bonding for ceramic and rubber lagging
- Vulcanized ceramic lagging
- Lagging durometers of 45, 60, 70 and others upon request

A clean surface is required to achieve a quality bond, so every Dodge conveyor pulley is thoroughly shot blasted prior to lagging.



Conveyor pulleys

Lagging materials and styles

SBR – general purpose

- Vulcanized to pulley
- Abrasion resistant
- High traction in wet applications
- General purpose

D-lag – harsh environment

- Vulcanized to pulley
- 73% longer life than standard SBR
- High abrasion resistance
- Excellent traction in wet applications
- Mining, cement, and harsh duty aggregate applications

Neoprene – MSHA approved

- Vulcanized to pulley
- Flame and oil resistant
- General underground use

Wing Lag™ – replaceable

- Available on CEMA wing pulleys
- Resistant to chemicals, heat 100° C and abrasives
- Extends contact bar life
- Solves abrasion issues on wings

Ceramic – for ultimate life

- Cold bonded or vulcanized to pulley
- Problem solver for traction or abrasion related issues
- Water relief grooves standard
- Mining and cement applications

FOS – flame, oil & static resistant

- Vulcanized or replaceable
- Static conductive - less than 1×10^6 ohm
- Grain and fertilizer handling

HOLZ Slide Lag® – replaceable

- Rust-resistant retainers
- Vulcanized rubber on removable backing plates
- Double chevron grooves
- Replace lagging without removing the pulley from service

Specialty lagging

- Silicone – wide operating temperature range
-50° C to 200° C
- Urethane – high abrasion, tensile and elongation performance
- FDA – food grade applications

Dodge offers precision CNC turning on vulcanized rubber lagging.



Conveyor pulleys

Lagging patterns

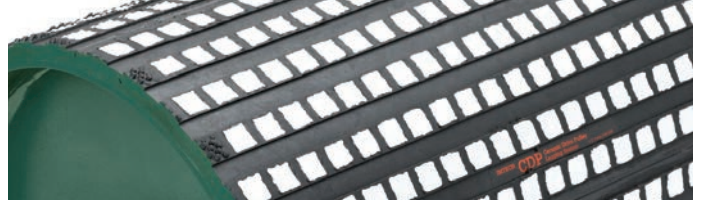
Herringbone

- Grooves in direction of rotation
- Sheds water from belt
- Used on drive pulleys



Ceramic

- Bi-directional pulley rotation
- Sheds water from belt
- Reversing drive pulley capable



Chevron

- Grooves meet at pulley center
- Used on drive pulleys
- Water escapes in either direction



Diamond

- Bi-directional pulley rotation
- Sheds water from belt
- Reversing drive pulley capable
- Reduce spare pulley inventory



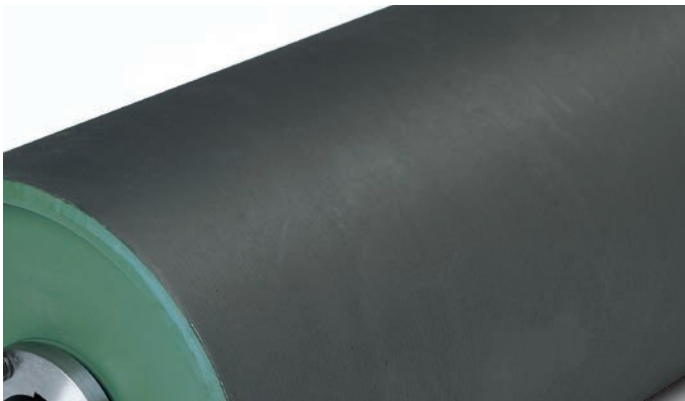
Circumferential

- Grooves around pulley circumference
- Used on non-drive pulleys
- Allows lag deflection for self-cleaning



Plain

- Smooth rubber lagging surface
- Protects non-drive pulleys on dirty side of belt



Slide Lag®

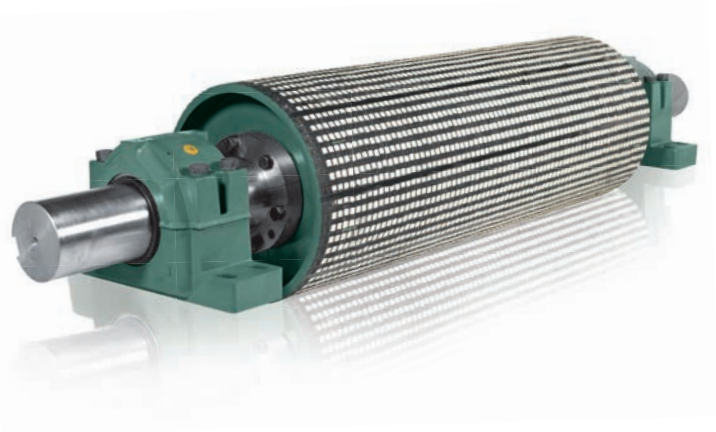
- Bi-directional pulley rotation
- Sheds water from belt
- Reversing drive pulley capable
- Field replaceable



Conveyor pulleys

Ceramic lagging

- Ceramic tiles pre-vulcanized into rubber sheets
- Provides a positive grip on the belt for extremely high traction and reduced slippage
 - Excellent performance in wet and/or dirty applications
- Abrasion resistance higher than AR 400 steel
- Cold bond or vulcanized to pulley
- Available in 12mm, 16mm, 19mm and 25mm thicknesses



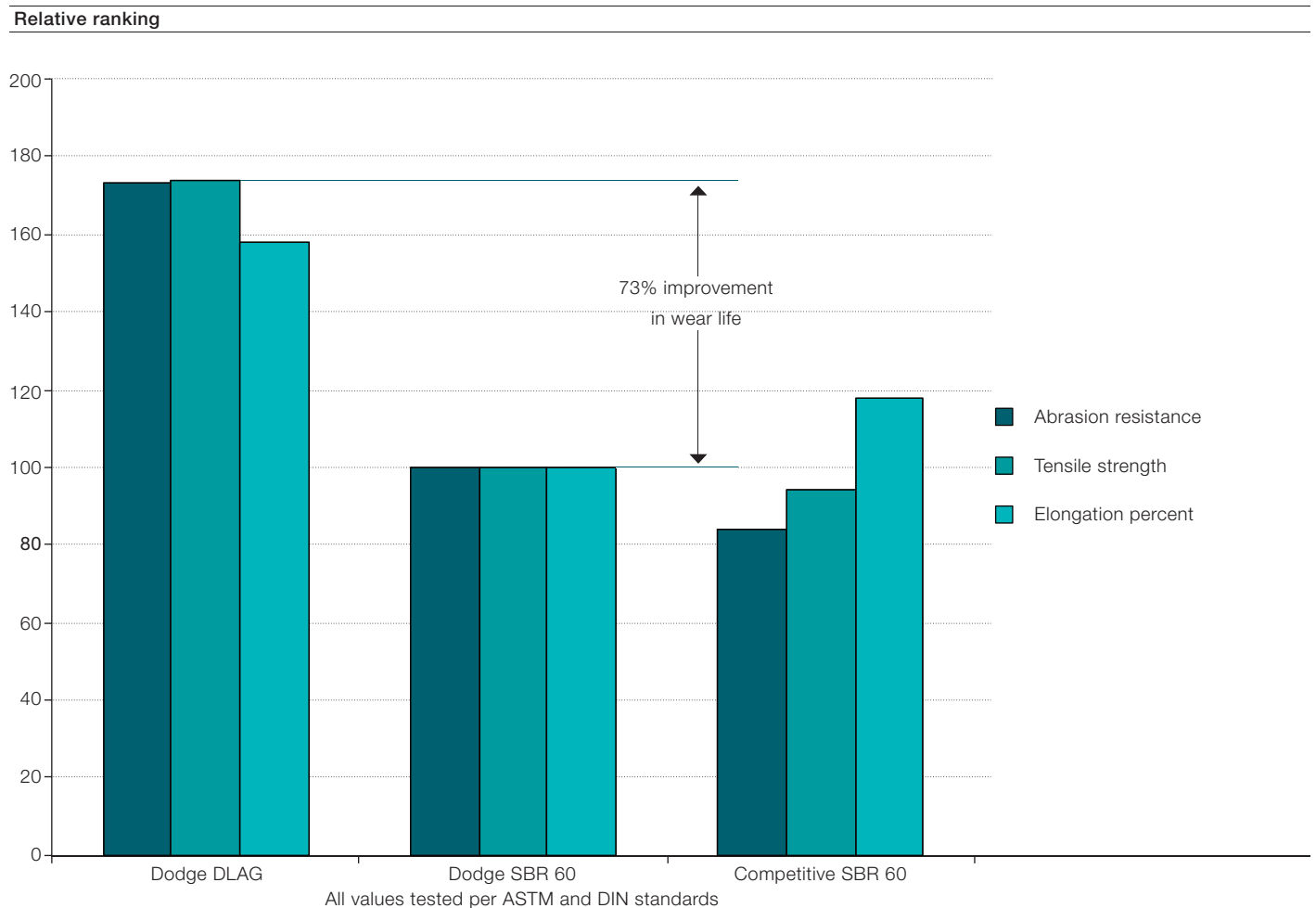
- **Vulcanized bonding versus cold bonding**
 - Vulcanized rubber-to-metal bonding is twice as strong as cold bonding
 - Vulcanized bonding reduces the chances of water intrusion, extending life in wet and freezing conditions
- **Application info**
 - 12mm thickness up to 100kN/m
 - 16mm thickness up to 300kN/m
 - 19mm and 25mm thickness over 300kN/m
- **Types offered**
 - IMTECH, Richwood, ASGCO
 - Others available upon request



Conveyor pulleys

Dodge DLAG: The best value in vulcanized lagging

DLAG is a proprietary vulcanized rubber compound that has proven to dramatically extend pulley life in the toughest applications. DLAG has superior resistance to gouges with high tensile strength, and offers excellent traction in wet environments with a high coefficient of friction. If you are searching for a solution to lagging problems, DLAG is the answer.



- Abrasion resistance is the ability of the lagging to resist wear from contact with abrasive materials
- Tensile strength is the amount of force the lagging withstands before breaking
- Elongation % is the relative length the lagging will stretch before tearing



Conveyor pulleys

Dodge lagging comparisons

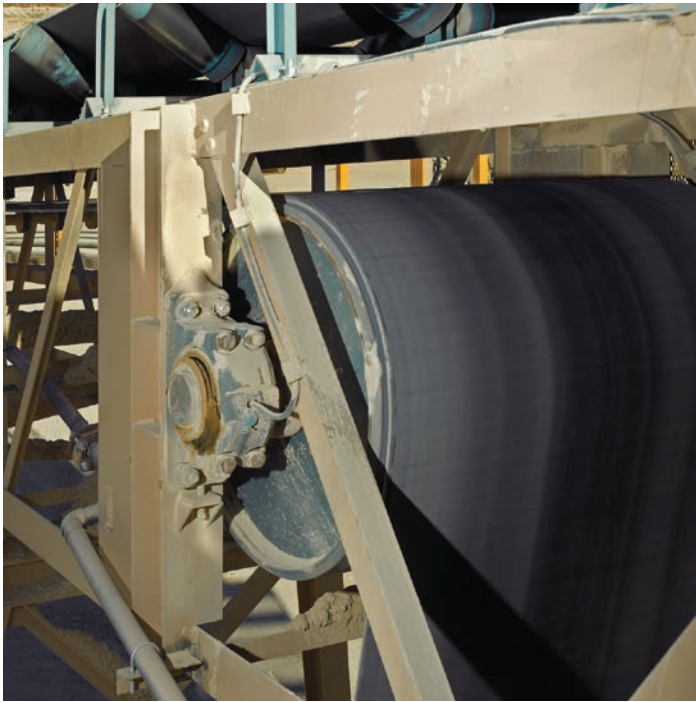
Selecting pulley lagging with the right properties for the application is important to get maximum pulley life. The following chart shows the characteristics of various lagging durometers and materials offered by ABB. Consult with your local ABB office for help with lagging selection.

General data

Dodge lagging comparison

Description	Rubber compound	Duro	Abrasion ranking	Hardness (shore A)	Tensile (psi)	Elongation (%)
Dodge DLAG	Natural rubber	60	173	57	2895	600
Dodge std 60	SBR	60	100	60	1660	380
Ceramic	SBR/ceramic	60	Very high*	60	3600	600
Dodge std 70	SBR	70	146	66	2075	400
Dodge std 45	SBR	45	51	42	1753	650
Dodge NEO 60	Neoprene	60	125	55	1425	350
Dodge NEO 70	Neoprene	70	166	69	1528	275

*Ceramic is comparable to AR400 steel, rather than rubber, when looking at abrasion resistance



Conveyor pulleys

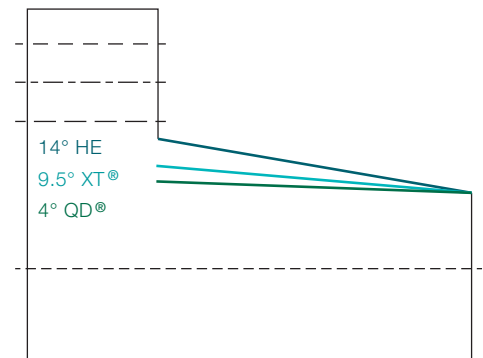
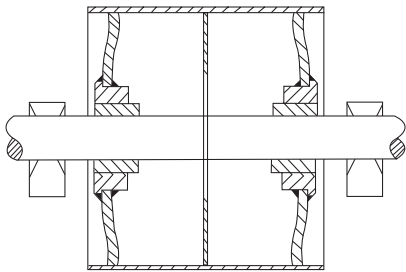
HE bushings

Dodge HE bushings were designed specifically for conveyor pulley applications. The HE bushing has unique features and a “high endurance” design that is available only from Dodge.

- 14° self-locking taper angle clamps to the shaft faster than any other keyed compression-type bushing
- Full-length split taper for increased shaft locking power
- Grade 8 bolts on HE60 and larger sizes for high performance in demanding applications
- Thicker mounting flanges for increased mounting force

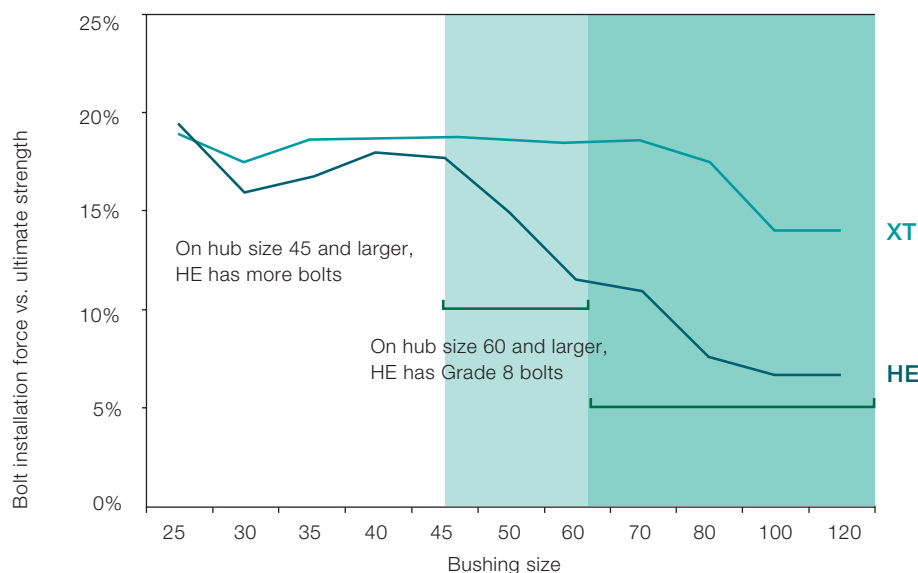
High strength with low installation stress

The Dodge HE bushing system’s 14 degree taper angle results in the lowest amount of end disc deflection of any tapered bushing system available. This prevents pre-loading stress in welds and significantly extends pulley weld life.



In addition, the HE bushing’s Grade 5 or Grade 8 mounting bolts, when properly installed, experience lower installation stress than competitive bushing bolts. This results in less bolt fractures under cyclical loading.

Relative bolt stress



HE40 bushing



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