

WP0057

## Dodge® D-Flex couplings: frequently asked questions

Dodge Customer/Order Engineering

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This Engineering White Paper addresses frequently asked questions regarding the Dodge D-Flex Coupling.

### What features separate Dodge from the sleeve coupling competition?

D-Flex has added value features that set us apart:

- Set screws at 65° – 10% greater holding force to the shaft versus 90°
- Coupling O.D. is concentric to the bore for ease in alignment
- Rounded element edges for improved fit and longer service life

### What type of applications commonly use D-Flex couplings?

Generally speaking, we market the D-Flex coupling to the pump industry. This does not rule out other applications. We recommend D-Flex couplings for applications under 50HP. They can be used in applications over 50HP, but are probably not the best choice based on price and functionality as compared to Para-Flex or Grid-Lign.

### What materials are available with D-Flex elements?

D-Flex couplings have three different types of material that is used to manufacture the elements. Each has their own benefits:

- **EPDM:** General Purpose Element and most common element.  
Temperature range of -30° to 275°F. 15° wind up
- **Neoprene:** Used in Chemically Hostile environments  
Temperature range of 0° to +200°F. 15° wind up
- **Hytrel:** 4X the torque capacity of EPDM and Neoprene, this allows customers to downsize  
Temperature range of -65° to 250°F. 7° wind up.  
*(Please Note: Hytrel elements can only be used with S and SC flanges due to the torque capacity of the element)*

### Dodge publishes the wind up in the catalog. What does wind up mean?

Coupling wind-up is the amount of rotation in degrees that occurs when torque is applied to the coupling. The amount of wind-up depends on the coupling's torsional stiffness and the magnitude of the applied torque

What does this mean in regard to D-Flex? The EPDM and Neoprene are torsionally softer compared to the Hytrel element.

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