

# Evaluation and Calculation Flens Clutch.

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- **Abstract:** Effectiveness in the use of a clutch that is commonly used in the industrial world because of the very many uses in the engine to connect and disconnect the engine speed to the transmission. this can affect the activities of making tools and materials needed, through the shape and type of coupling to be used. One of the couplings that are often used in industrial machines is a forged flange coupling where on the coupling at each end of the shaft there is a flange that is welded or forged and the two flanges are tied with odor-bolts. In this clutch the moment is transferred by means of a bolt shift or a shift between the two flanges. And this forged flange coupling is designed from cast iron which transmits 15kW of power at 900 rpm, from the electromotor to the compressor. The use factor is assumed to be 1.35 with the allowable stress for shear shear, and the peg is 40 MPa, the crushing stress for bolts and pegs is 80 MPa, the shear stress for cast iron is 8 Mpa. Which will produce the size is the outer diameter of the flange (140 mm), Pitch circle diameter (PCD), Max Torque (215 x 103 Nm), Hub inner diameter (35 mm), Hub outer diameter (70 mm), Hub length (52, 5 mm), Thickness of the Protective Circumference Flange (10 mm).
- **Keyword:** Effectiveness, industrial world, odor-bolts