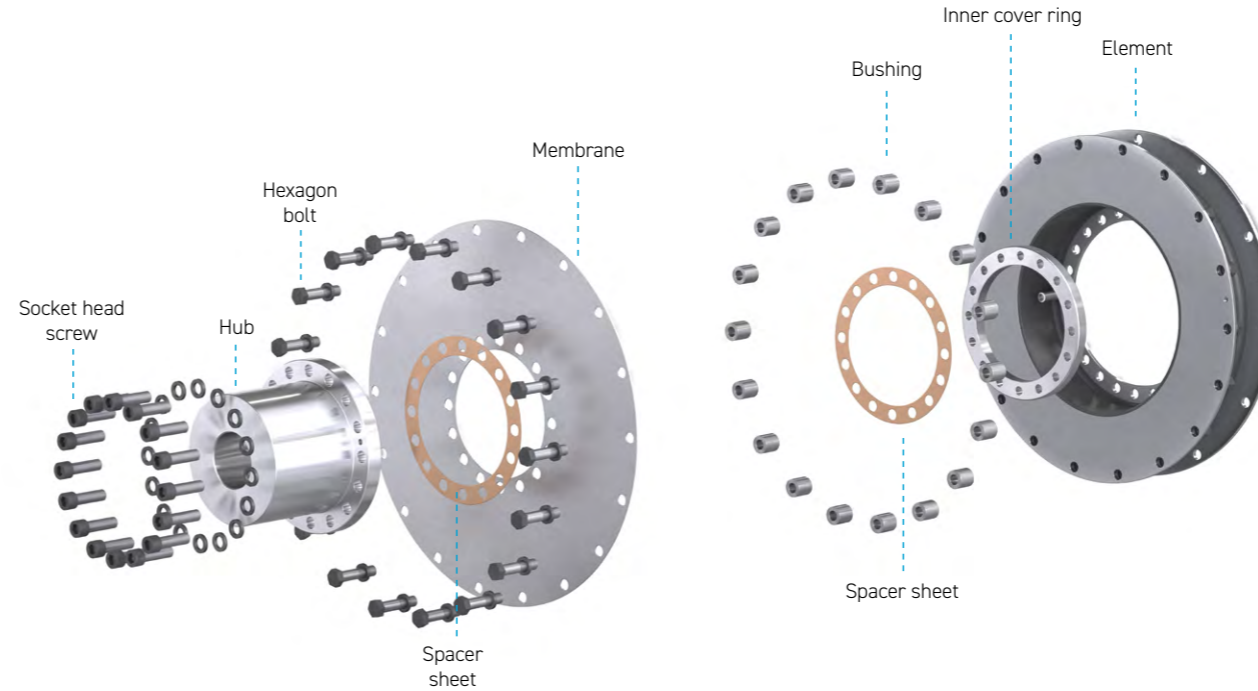


Marine Solutions

VULKARDAN F35 | F42

Compact Coupling for Flexibly Mounted Drive Systems

COMPACT COUPLING FOR FLEXIBLY MOUNTED DRIVE SYSTEMS



- ⊕ Compact and short design for the smallest possible space requirements and easy handling. Vulkardan F rubber and silicone couplings achieve effective vibration protection and high displacement capability, which guarantees the protection of connected machinery and therefore the highest system availability
- ⊕ Low weight for the protection of engine bearings and reduction of service costs
- ⊕ Optional tuning mass used for a subsequent fine-tuning and achievement of the highest possible comfort
- ⊕ Due to the high permanent power loss, Vulkardan F highly flexible couplings are suitable for all propulsion and generator applications
- ⊕ For high performing transmissions: Highest torsional flexibility for an efficient avoidance of gearbox rattling sounds especially for size F35, F42 and F50



VULKARDAN F35 | F42

COMPACT COUPLING FOR FLEXIBLY MOUNTED DRIVE SYSTEMS

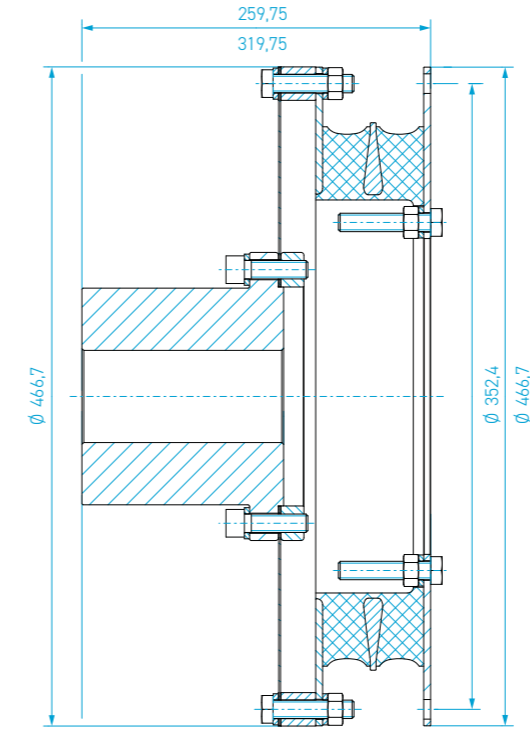
The **VULKARDAN F** is the successor of the well-established **VULKARDAN E** and complements the VULKAN highly flexible couplings product portfolio below the **RATO R** torque range. In comparison to similar couplings the **VULKARDAN F** is characterized by a very compact design, resulting in a weight reduction and a very short installed length. Furthermore, the optimized design of the element increases the heat dissipation considerably which results in high power loss. Accordingly, **VULKARDAN F** highly flexible couplings can also be installed in applications with high alternating torques, and temperature induced ageing processes are efficiently reduced. The **VULKARDAN F** is suitable for flexibly mounted drive systems and makes it possible to compensate radial, axial and angular offsets by using a very soft element in combination with a high-performance membrane.

The **VULKARDAN F** is available in four rubber qualities, as well as in silicone, enabling a perfect torsional tuning of the drive train. With its torsial highly flexible elements, the **VULKARDAN F** is specially designed to avoid gearbox rattling sound in small gearboxes. In addition, a modular tuning mass is available which can be attached after the installation of the coupling to achieve the highest comfort requirements.

DESCRIPTION AND DATA

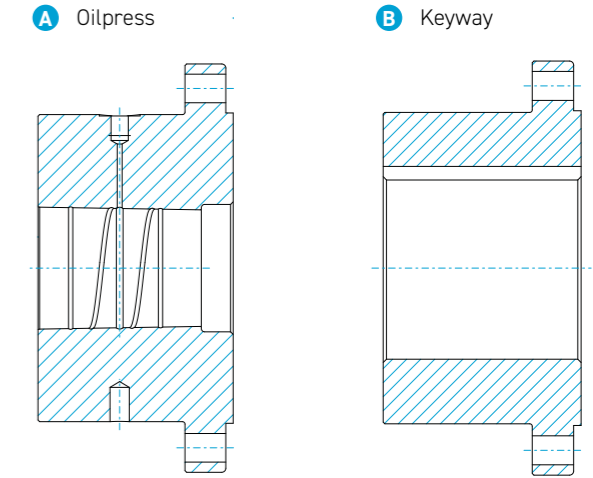
The **VULKARDAN F** range now extends from the high end, with the F62 offering 32.5 kNm, down to the low end, with the F35 providing 2.3 kNm of nominal torque. It is approved by classification societies worldwide (F35/42 pending).

The F35 is available with SAE 11.5" and 14" flywheel connections, while the F42 is available with SAE 14" flywheel connections.



Schematic illustration

STANDARD HUB



| Type of Coupling | | Permissible Values | | | | | | | | | | | | | | | | |
|------------------|-----------------|--------------------|------------------|------------------|------------------|---------------------------------|---------------------------------|----------------------------------|------------------|---------------------------------|-------------------|-----------------------------|------------------------------|-------------------------------|-----------------------|-----------------------------------|---------------------------------|-------------------------------|
| Size | BR | T _{KN-L} | SL ³⁾ | SM ³⁾ | SC ³⁾ | T _{Kmax} ¹⁾ | T _{Kmax} ²⁾ | ΔT _{Kmax} ¹⁾ | T _{KW} | P _{KV30} ¹⁾ | N _{Kmax} | ΔKA | ΔKR ¹⁾⁴⁾ | ΔKW | C _{AX1.0} | C _{Rdyn} ²⁾⁴⁾ | C _{Tdyn} ²⁾ | P _{SI} ²⁾ |
| | Dimension Group | Nominal Torque | Light Duty | Medium Duty | Continuous Duty | Max. Torque ¹⁾ | Max. Torque ²⁾ | Max. Torque Range | Vibratory Torque | Power Loss | Rotational Speed | Axial Coupling Displacement | Radial Coupling Displacement | Angular Coupling Displacement | Axial stiffness 1.0mm | Dyn. radial stiffness | Dyn. torsional Stiffness | Relative Damping |
| | | [kNm] | [-] | [-] | [-] | [kNm] | [kNm] | [kNm] | [kNm] | [kW] | [1/min] | [mm] | [mm] | [deg] | [kN/mm] | [kN/mm] | [kNm/rad] | [-] |
| F 3514 | F3510 | 2,30 | 1,00 | 0,89 | 0,77 | 2,70 | 8,10 | 3,60 | 0,70 | 0,377 | 3500 | 4,80 | 16,70 | 0,50 | 0,20 | 0,26 | 3,40 | 0,55 |
| F 3511 | F3510 | 2,60 | 1,00 | 0,89 | 0,77 | 3,00 | 9,00 | 4,00 | 0,80 | 0,377 | 3500 | 4,80 | 13,60 | 0,50 | 0,20 | 0,31 | 4,00 | 0,70 |
| F 3515 | F3510 | 3,10 | 1,00 | 0,89 | 0,77 | 3,60 | 10,80 | 4,80 | 1,00 | 0,377 | 3500 | 4,80 | 7,40 | 0,50 | 0,20 | 0,61 | 8,00 | 1,20 |
| F 3512 | F3510 | 3,40 | 1,00 | 0,89 | 0,77 | 3,90 | 11,70 | 5,20 | 1,00 | 0,377 | 3500 | 4,80 | 5,80 | 0,50 | 0,20 | 0,84 | 11,00 | 1,40 |
| F 4214 | F4210 | 3,00 | 1,00 | 0,89 | 0,77 | 3,50 | 10,40 | 4,60 | 0,90 | 0,400 | 3000 | 4,80 | 16,10 | 0,50 | 0,20 | 0,35 | 5,00 | 0,55 |
| F 4211 | F4210 | 3,50 | 1,00 | 0,89 | 0,77 | 4,10 | 12,20 | 5,40 | 1,10 | 0,400 | 3000 | 4,80 | 13,00 | 0,50 | 0,20 | 0,42 | 6,00 | 0,70 |
| F 4215 | F4210 | 4,20 | 1,00 | 0,89 | 0,77 | 4,80 | 14,40 | 6,40 | 1,30 | 0,400 | 3000 | 4,80 | 6,80 | 0,50 | 0,20 | 0,89 | 12,80 | 1,20 |
| F 4212 | F4210 | 4,40 | 1,00 | 0,89 | 0,77 | 5,10 | 15,30 | 6,80 | 1,40 | 0,400 | 3000 | 4,80 | 4,70 | 0,50 | 0,20 | 1,50 | 21,60 | 1,50 |

APPLICATIONS

- ⊕ Pleasure boats
- ⊕ Work boats
- ⊕ Auxiliary drives
- ⊕ Generator sets

BENEFITS

- ⊕ Compact design
- ⊕ Machinery protection
- ⊕ Low weight
- ⊕ Low service costs
- ⊕ High power loss
- ⊕ Low stiffness prevents gearbox rattling
- ⊕ Maximum comfort