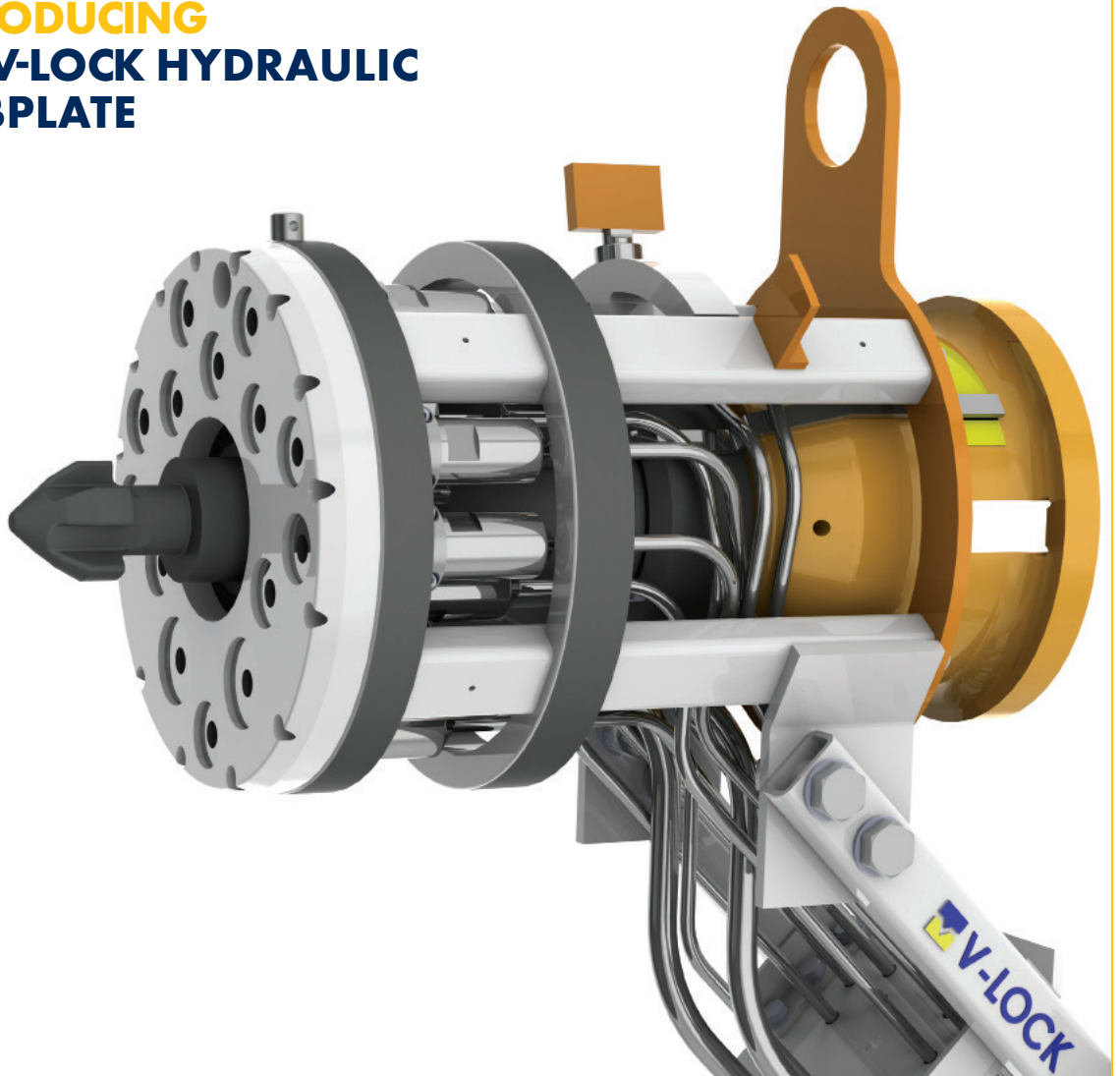


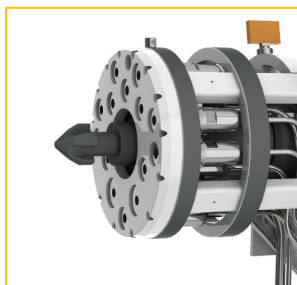
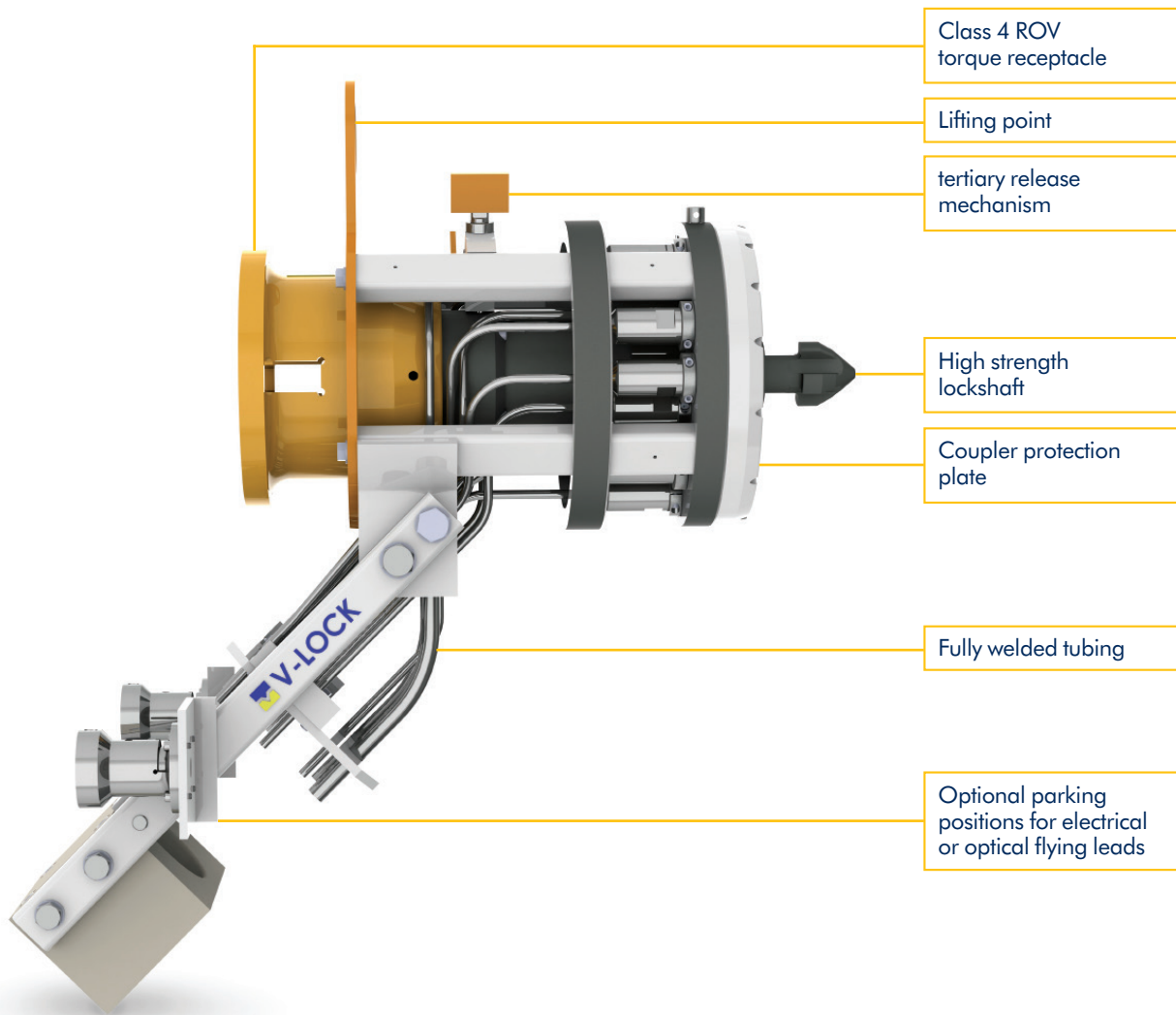
**CLASS LEADING PRODUCTS
PROVEN TO MEET THE MOST DEMANDING
INDUSTRY SPECIFICATIONS, DELIVERED
ON TIME, EVERY TIME.**



**INTRODUCING
THE V-LOCK HYDRAULIC
STABPLATE**



V-LOCK DESIGN FEATURES



THE V-LOCK HYDRAULIC STABPLATE HAS BEEN DESIGNED TO MEET THE NEEDS OF THE SUBSEA INDUSTRY FOR THE FORESEABLE FUTURE.

Viper Subsea has developed a family of hydraulic stabplates and associated products. The stabplate family has been given the trade name of V-LOCK® and with the technical specifications having been driven by our clients, the V-LOCK family has been designed to meet the needs of the subsea industry for the foreseeable future.

The stabplate is designed for operation by ROV and offers market leading technical performance in terms of ROV interfaces, pressure ratings, weight and secondary and tertiary release. The V-LOCK plate comes in two separate sizes, to accommodate up to 16 and 28 hydraulic couplings. Both ½ inch and 1 inch couplings can be accommodated, with a range of working pressures and seal types. As well as the basic 'fixed' and 'flying' plates, the normal range of parking positions, protective covers, test and flushing plates are offered.

The plate has a novel actuation mechanism which results in a highly reliable solution that is physically smaller and lighter than traditional stabplate designs. This coupled with our incredible make-up misalignment capability, ensures that the V-LOCK can be installed with reduced ROV intervention times.

V-LOCK also benefits from both a secondary and tertiary release that does not rely on any form of shearing mechanism.

Viper Subsea have partnered with 'best in class' manufacturing and jumper manufacturersto be able to offer not only stabplates, but complete Hydraulic Flying

Lead assemblies.

The V-LOCK stabplate has successfully undergone a rigorous qualification testing programme, during which exceptional performance and functionality was demonstrated.

Key Features

- Mate and de-mate at full design pressure
- Lock mechanism on flying plate has a permanently engaged thread
- All critical locking components and primary seals on retrievable flying stabplate
- Lightweight design – 16-way flying plate less than 88 Kg (194 lbs) weight in water
- Excellent misalignment capability
- Very low demand on CP system
- 50 Tonne (55 Ton) marine growth break-out capability

Key Benefits

- Reduced ROV intervention times due to compactness, lightweight design and outstanding make-up misalignment capability
- Reliable and robust secondary and tertiary release system that does not rely on any form of shearing mechanism significantly reduces risk of accidental damage due to over-torquing
- Complete hydraulic flying lead package supply available (stabplates and jumpers)
- Technical and project support package to complement the engineering design and product hardware

V-LOCK FULL PRODUCT SPECIFICATION

Working Pressure:
15,000 psi (1034 bar)*

Design Pressure:
16,520 psi (1139 bar)

Minimum Proof Test Pressure:
24,772 psi (1708 bar)

Hydraulic Coupler Configuration:
Up to 28 couplings at ½ inch and 1 inch

Weight:
16 way flying stabplate weight in seawater < 88 kg (194 lbs)

ROV Interface:
Class 4 Torque Bucket in accordance with ISO 13628-8

Mate / De-Mate Force:
> 33 Tonne / > 50Tonne (> 36 Ton / > 55 Ton)

Design Standards:
ISO 13628

*Higher working pressures can be accommodated. Total force limited by 33 Tonne (36 Ton) clamping.





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V-LOCK OPERATING CONDITIONS

Operating Temperature:

-5°C to +40°C (23°F to 104°F)

Storage Temperature:

-18°C to +50°C (-0.4°F to 122°F)

Design Water Depth:

4000 m (13123 ft)

Design Life:

30 years

EFAT / SIT / Installation:

Rain, Wind, Snow, Ice and Solar Radiation, Salt water spray

Humidity:

100%

Shock and Vibration:

Shock: Drop test per DNV 2.7-3 Section 3.7.2

Vibration: Road transport vibration test per MIL-STD-810F

