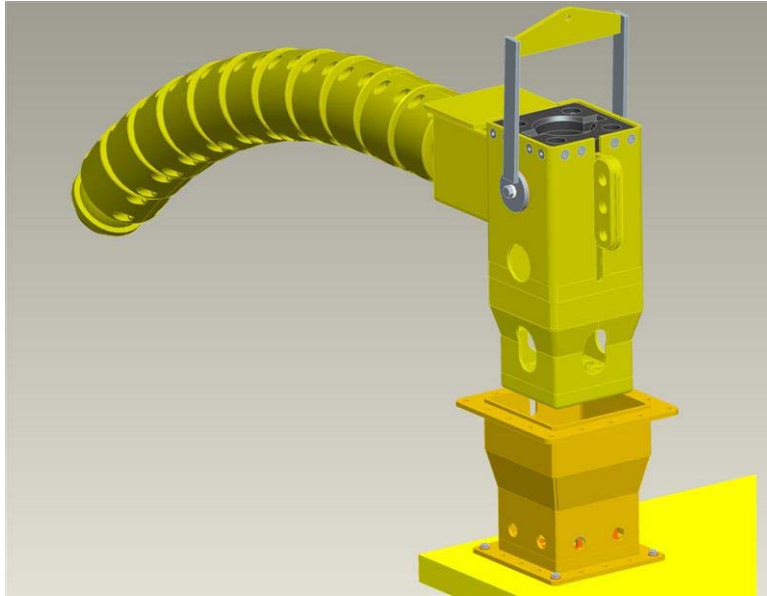
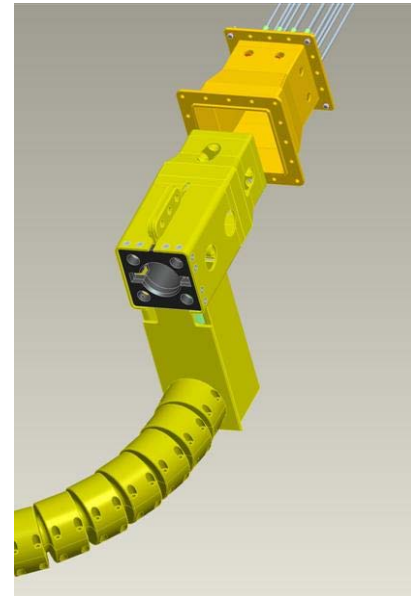


VIPER FLYING LEAD CONNECTOR



VERTICAL STAB



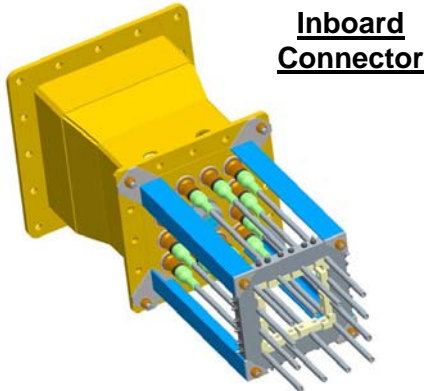
HORIZONTAL STAB

Overview:

The **Viper** Flying Lead Connection System has evolved from years of experience with existing Flying Lead connector designs. The **Viper** Flying Lead Connector allows for simple deployment and installation by ROV, and provides the best protection available for the hydraulic couplings and associated tubing. Both vertical and horizontal mating configurations are available, and the mating faces allow for a wide variety of hydraulic coupling configurations. Individual customer's preferences can therefore be accommodated within this standard design.

Features:

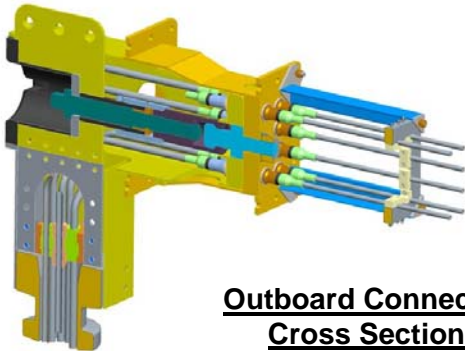
- Rugged Design Protects Couplings and Tubing
- Self Alignment Provided by Square Cone (15° in each plane)
- Bayonet Type Latching Mechanism with Torque Override Eliminates Engagement of Threads Subsea
- Integrated Umbilical Termination Allows Full Installation Tension to be Transferred Through a Single Lift Point
- Designed for use with Rear Mounted National Coupling RS Series Hydraulic Couplings (1/4", 1/2" & 1")
- All Welds and NDE can be Completed Prior to Completing Assembly of Connector



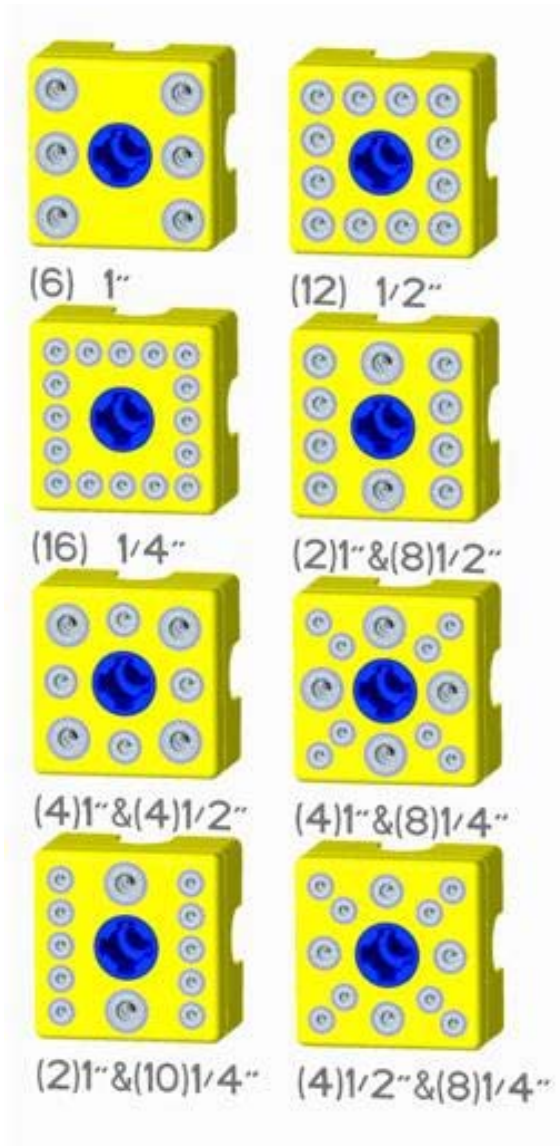
Inboard Connector

Specifications:

- Max. Separation Force = 62 kips (276 kN)
- Max Torque for Max Separation Force = 1200 ft lbs
- Outboard Weight = 230 lbs (in air)
- Outboard Dimensions (less bracket) = L 29" x W 12" x H 12"
- Inboard Dimensions = L 17" x W 17" x H 17"
- Utilizes National Coupling RS Series Hydraulic Couplings 1/4", 1/2" & 1"
- Class 4 ISO16328-8 Interface for ROV Torque Tool & FLOT
- Emergency Override Torque = 3,000 ft lbs
- Lift Point Capacity = 15 Tons



Outboard Connector Cross Section



Configurations (15 ksi)

HOUSTON, TEXAS, USA:
 OceanWorks International, Inc.
 11611 Tanner Rd. Suite A
 Houston TX 77041
 USA
 +1 281 598 3940 **Tel.**
 +1 281 598 3948 **Fax**



www.oceanworks.com

NORTH VANCOUVER, BC, CANADA:
 OceanWorks International Corp.
 #3-1225 E. Keith Road
 North Vancouver, BC, V7J 1J3
 Canada
 +1 604 986 5600 **Tel.**
 +1 604 986 7125 **Fax**