Handling / Lift Plugs

1. Handling plugs are essential to run/pull flush and semi flush type connections.

2. They are also used for Special Clearance (SC) and Special Bevel (SB) couplings.

3. Handling Plugs and Lifting Plugs (also called Lift plugs) are tubular accessories used on flush and semi flush integral connections. They are a pin threaded steel plug provided with holes in the upper flange. The upper flange is designed to allow the face of a side door elevator to abut the flange with enough overlap to allow the pipe or string to be lifted. The thread finish of the plugs is generally phosphate.

4. Although the physical appearance of both types of plugs are similar, they are designed for different purposes:

Handling Plugs

1. Are designed to withstand the weight of a single pipe or a stand of up to 3 pipe maximum.

2. Are used for handling the pipe and protecting the box end connection as the pipe is brought through the V-door and into the derrick.

3. The maximum load capacity should be stamped on the top of the flange. If no maximum load capacity is indicated the device should be used to lift no more than 1 joint.

Lifting Plugs

1. Are designed to withstand the weight of the whole tubular string.

2. The maximum load capacity should be stamped on the flange. If no rating is stamped or is illegible, it should be used to lift no more than 1 joint.

3. The maximum lift capacity stamped on the plug should never be exceeded.

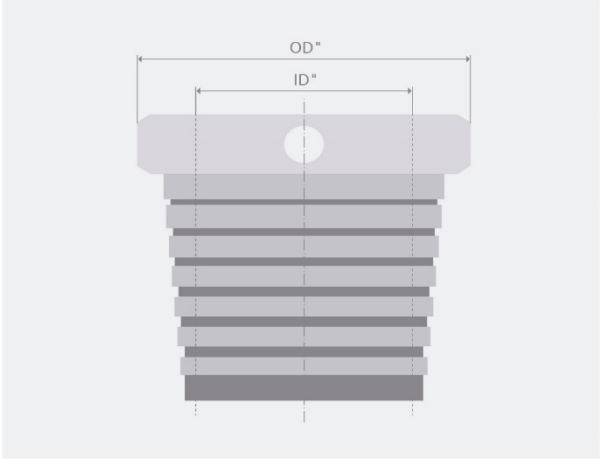
Load Rated Handling Plugs

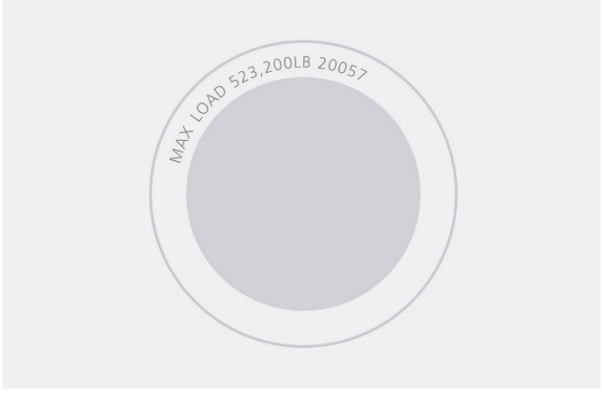
1. These are a ‘hybrid’ design which although not rated to the same lift capacity as the connection, can lift a load far in excess of a handling plug.

2. Tenaris generally manufactures load rated handling plugs.

3. Any genuine Tenaris designed and manufactured handling / lift plug will have a unique part number and maximum load rating hard stamped on the flange. If no load rating is indicated these should be used to lift no more than 1 joint.

4. The load rating stamped on any Tenaris plug should never be exceeded.





HANDLING PLUG
Completely remove all storage compounds prior to installation.

5. Plugs are designed with a low interference thread and with no metal seals. This allows them to be installed in the box end by hand and tightened with the aid of a steel bar inserted through the flange holes.

6. Prior to running, check the condition and fit of the plugs, ensure 3 or 4 are available. If a plug does not make up correctly to a connection check the plug and connection for thread damage, debris on the threads, mashed box or box ovality.

7. Special attention should be paid to connections that are not interchangeable for the same OD and different weight, for example TenarisHydril Blue® Near Flush. For these cases the handling and lifting plugs are not interchangeable. Also be aware that some connections have a limited interchange capability which will also apply to the plugs.

8. Weight interchangeability can be verified in the product data sheet.

9. Visual inspection of plug threads and box end is strongly recommended before each make up.

10. Ensure the plug threads are completely clean and free of all contamination.

11. In the particular case of Wedge™ connections in chrome or CRA grades, it is recommended that handling / lifting plugs and all accessories (cement head, circulating swage, etc.) are peened and moly-coated prior to use.

12. Make up the plug by hand and then snug up tight with the assistance of a bar inserted into the holes of the flange.

13. It is not necessary to apply thread compound to TenarisHydril manufactured handling plugs.

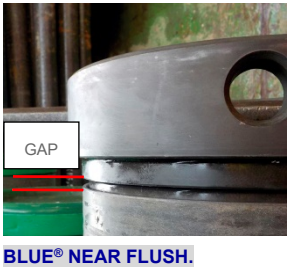
14. Correct plug installation for each connection is explained in the connection running guideline.

15. For Wedge™ Series connections, when handling plugs are correctly installed there should be no threads visible nor should the box face contact the flange.

16. The table below indicates maximum standoff of box face to plug flange for connections not belonging to Wedge™ Series.

CONNECTION	MAXIMUM GAP
Blue® Near Flush*	0.276" (7mm)
Blue® Near Flush**	0.039" (1mm)
MACII™	0.039" (1mm)
SLX®	0.118" (3mm)

THERE ARE TWO DIFFERENT PLUG DESIGNS FOR TENARISHYDRIL BLUE® NEAR FLUSH, WITH DIFFERENT GAPS. ONE OF THE DESIGNS (*) SHOWS A STAMP "TSH-AD-HP" ON THE FLANGE. THE OTHER DESIGN (**) DOES NOT HAVE THIS STAMP.



BLUE® NEAR FLUSH. PLUG VERSION WITH MAX. GAP 7 mm

BLUE® NEAR FLUSH. PLUG VERSION WITH MAX. GAP 1 mm

WEDGE™ SERIES WITH NO CONTACT BETWEEN BOX FACE AND FLANGE

MACII™ / SLX® GAP

HANDLING AND CARE OF PLUGS

1. Correct handling practices and sound judgment should be used at all times to maintain the rated lift capacity of any plug.

2. Damaged plugs should be inspected by a qualified Tenaris Field Service Representative prior to further use.

3. The ID of the plugs should not be bored out as this will reduce the lift capacity of the plugs.

4. The OD of the plugs should not be turned down as this will also reduce the lift capacity of the plugs.

5. For handling and installation of large/heavy handling plugs, it is common industry practice to use a bar through plug's holes for easier lifting by two people (one on each side), with locking pins to prevent movement. The bar is removed after plug's installation into the box. Another option is to install two shackles in plug's holes with a short sling and use an air tugger.

BAR FOR EASIER LIFTING

6. During lifting operations, if the plug is subjected to heavy impact loading, use of the plug should be suspended until a magnetic particle inspection is performed.

7. In case slip type elevators are not available, ensure side door elavators are not in contact with the handling plug whilst the pipe is being made up as this may back the plug out of the connection.

8. Treat handling/lift plugs with care to avoid damage and contamination. Treating them the same as protectors is bad practice.

9. When rotating the plugs from drill floor to pipe area care should be taken to ensure the plugs are not damaged, these are machined parts and as such should be treated like any pipe connection.

10. Additionally, care should be taken in preventing the plugs from becoming contaminated with grit or debris, if this occurs the plugs should be thoroughly cleaned prior to being made up to a connection.

11. Tenaris will neither endorse nor guarantee any handling or lift plug designed and manufactured by any other company. Although these accessories may have a genuine TenarisHydril connection machined upon them the design and lift capabilities of the item are unknown to Tenaris therefore these items are used at the user's own discretion. Any query regarding the lifting capability of such items should be directed to the original manufacturer.