

Underwater – Install Pipe-End Connectors

1.0 Task Description

This task involves the installation of pipe-end connectors (e.g. mechanical gripping, cold forged) on underwater pipelines. This task begins with preparation of the carrier pipe and ends with an annulus test to confirm that the connector has been properly installed.

2.0 Knowledge Component

An individual performing this task must have knowledge of the following.

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Terms applicable to this task are as follows.

Pipe-End Connector

The pipe-end or flange-end connector is a slipover mechanical connector used for tie-ins and repairs of underwater pipelines and risers. The mechanical locking assembly is secured to the pipeline to provide a flanged or mechanical clamped connection without welding.

AOCs associated with the performance of this task include:

AOC Recognition	AOC Reaction
Anomaly or other defect on carrier pipe inside the area of application.	Notify the operator or appropriate individual.

3.0 Skill Component

To demonstrate proficiency of this task, an individual must perform the following steps:

Step	Action	Explanation
1	Prepare the pipeline surface according to manufacturer's specifications.	Proper preparation is required to ensure the connector forms a seal.
2	Confirm the pipeline has been prepared to the proper pipeline surface condition, has acceptable wall thickness, and bevel ends per manufacturer's specifications.	Visual or tactile inspection to confirm that the pipeline end is prepared.
3	Prepare the end connector according to manufacturer's specifications.	Confirm the type of end connector and ensure seals are free of debris.
4	Install end connector to the specified insertion depth and tighten bolts using the proper sequence and torque per manufacturer's specifications.	Ensures proper installation of the pipe end connector.
5	Confirm integrity of the seals.	Perform an annulus test to confirm adequate seal.
6	Document installation as required by operator's procedures.	Documentation is necessary to maintain record of installed pipe-end connector location.