

API 11B Sucker Rod Coupling Selection Guide

Class T vs Class SM, Full Size vs Slim Hole



For rod string
connection selection



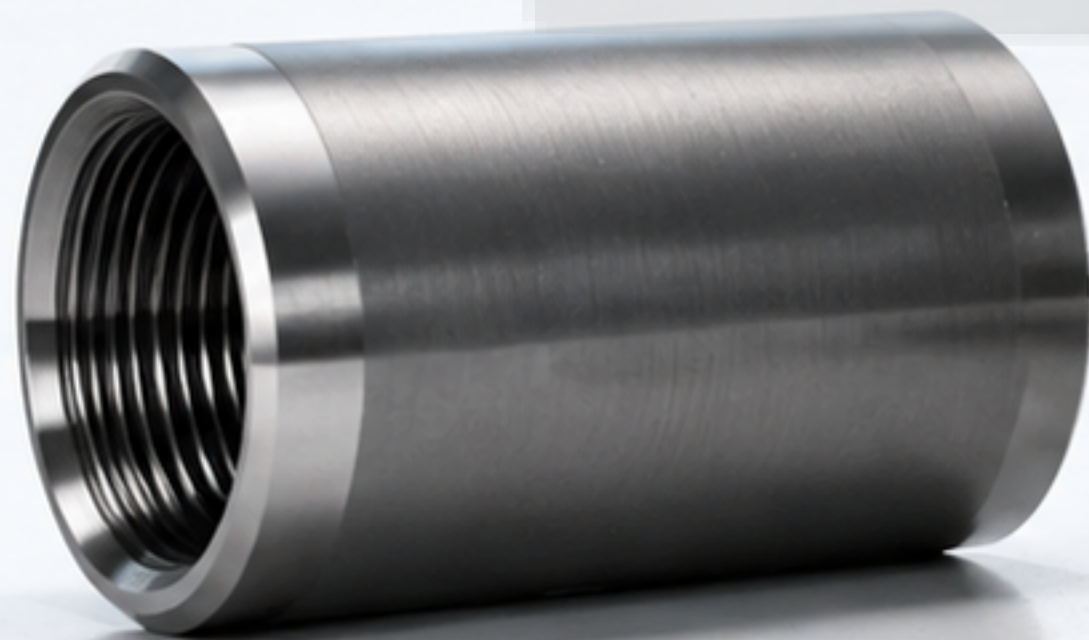
For wear-risk
evaluation



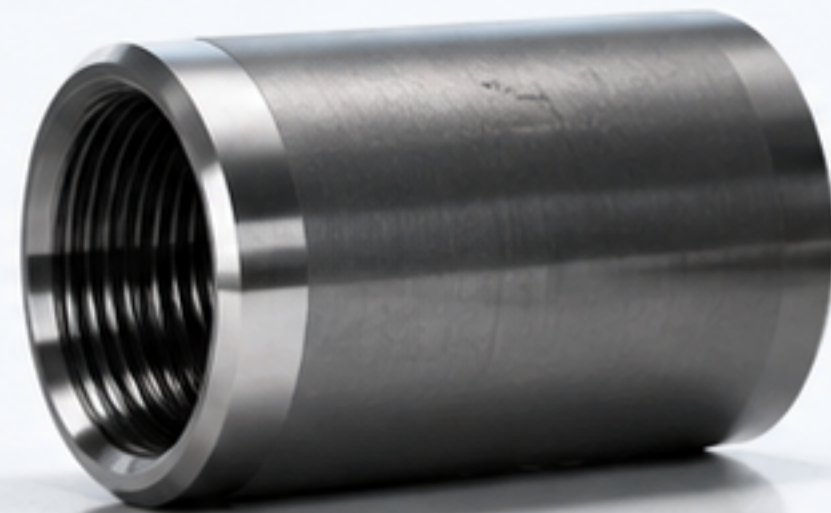
For tubing
clearance review



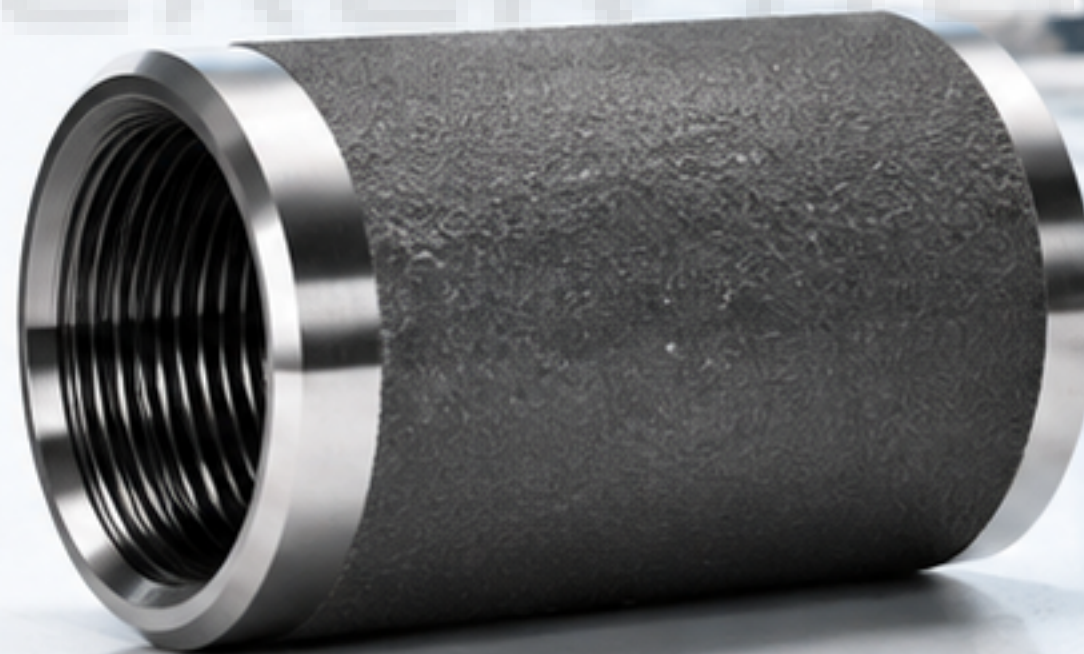
For API 11B coupling
procurement



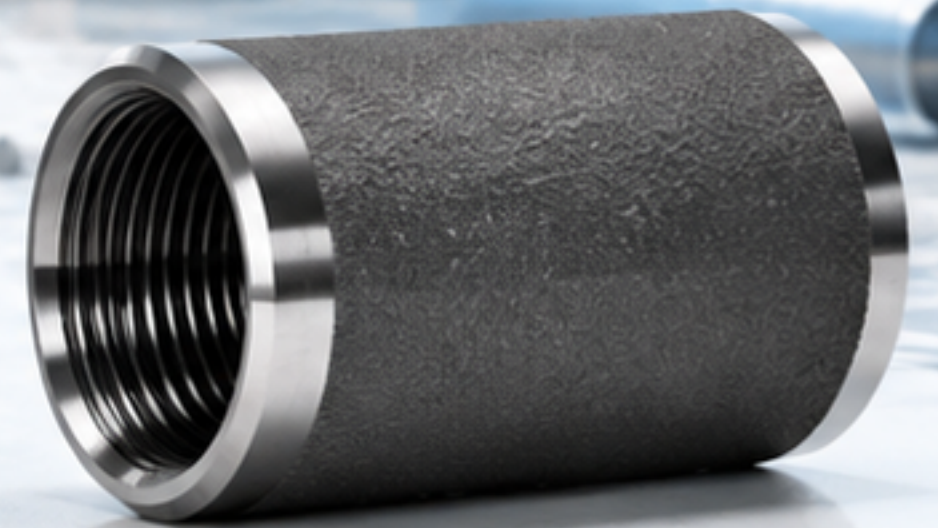
Class T
Full Size



Class T
Slim Hole



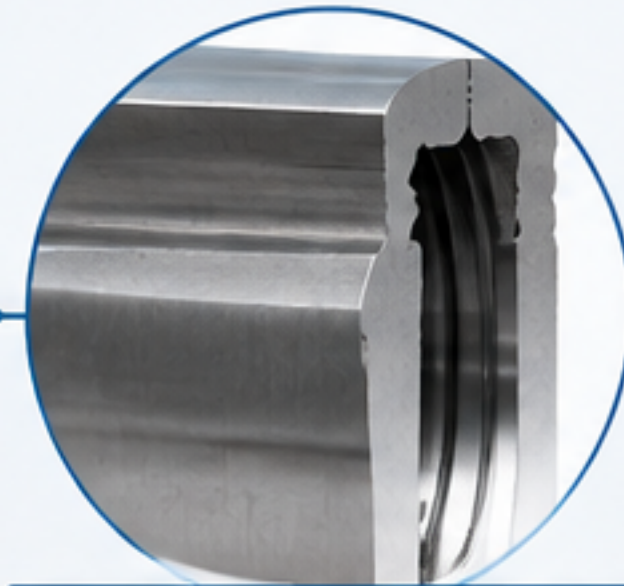
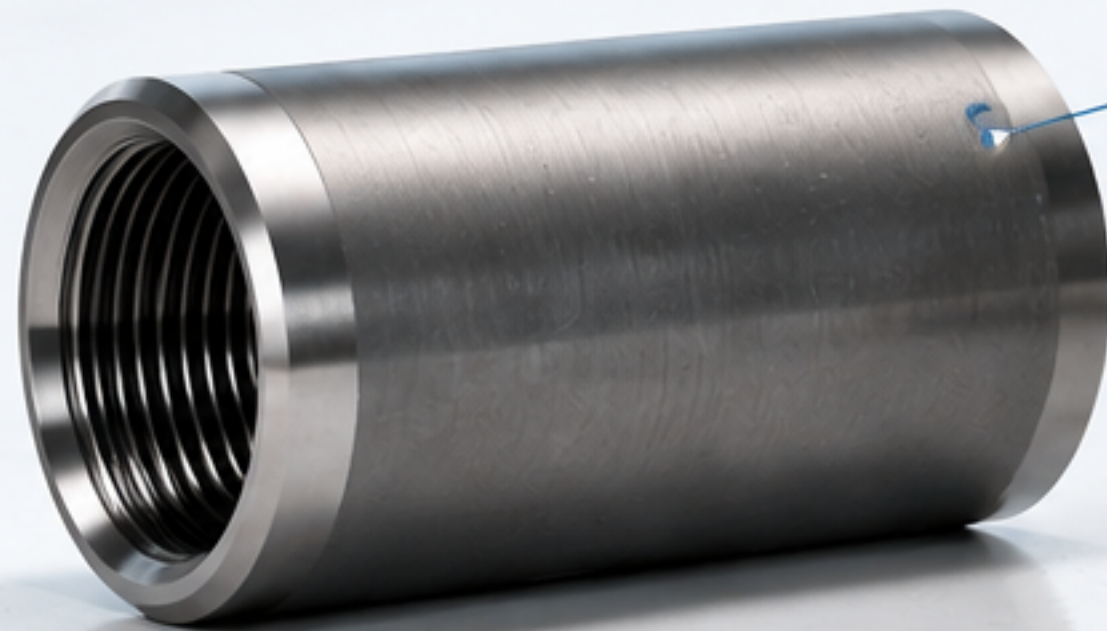
Class SM
Full Size



Class SM
Slim Hole

Class T vs Class SM Sucker Rod Couplings

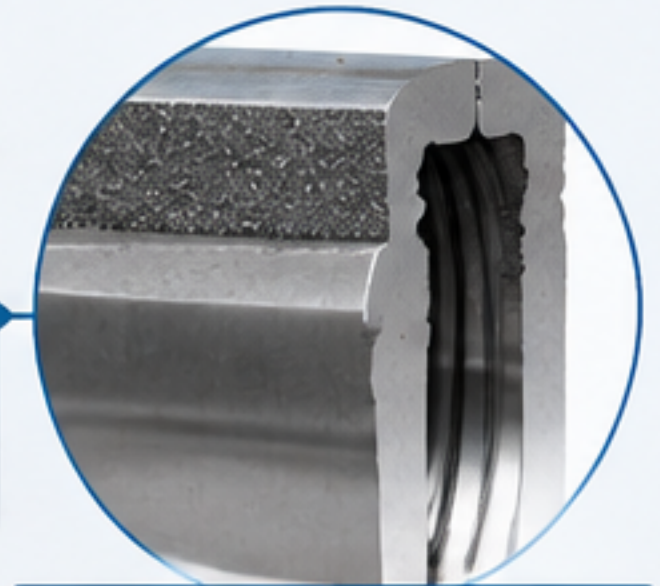
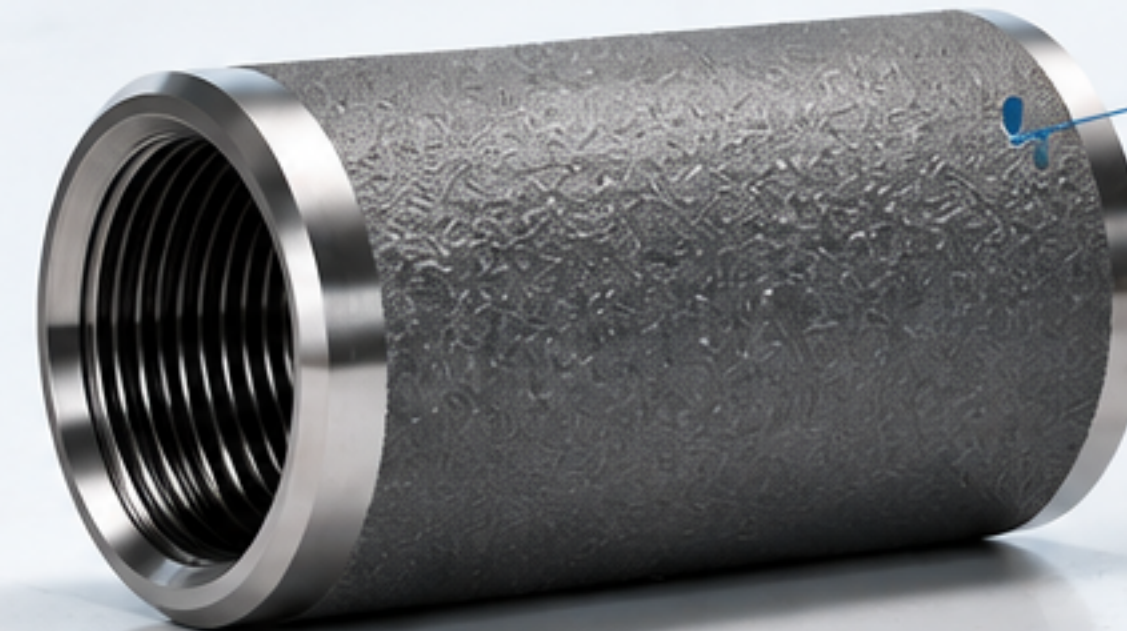
Class T Sucker Rod Coupling



Through-hardened body

Uniform hardness
and mechanical strength

Class SM Sucker Rod Coupling

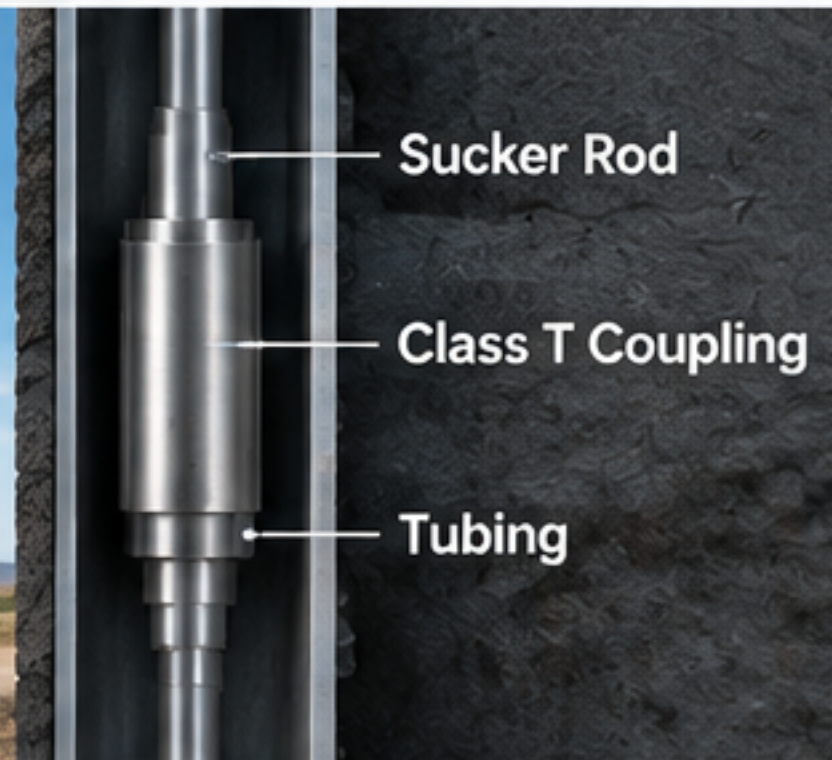


Sprayed metal surface layer

Improved external
wear resistance

Item	Class T Sucker Rod Coupling	Class SM Sucker Rod Coupling
Design concept	Through-hardened coupling body	Sprayed metal surface layer on outer diameter
Main performance focus	Mechanical strength and fatigue resistance	External wear resistance
Typical service condition	Standard rod pumping conditions	Deviated wells, tubing contact or abrasive conditions
Dominant field risk addressed	Connection strength and load transfer reliability	Coupling-to-tubing contact and external wear

Typical Application – Class T Standard Well Service



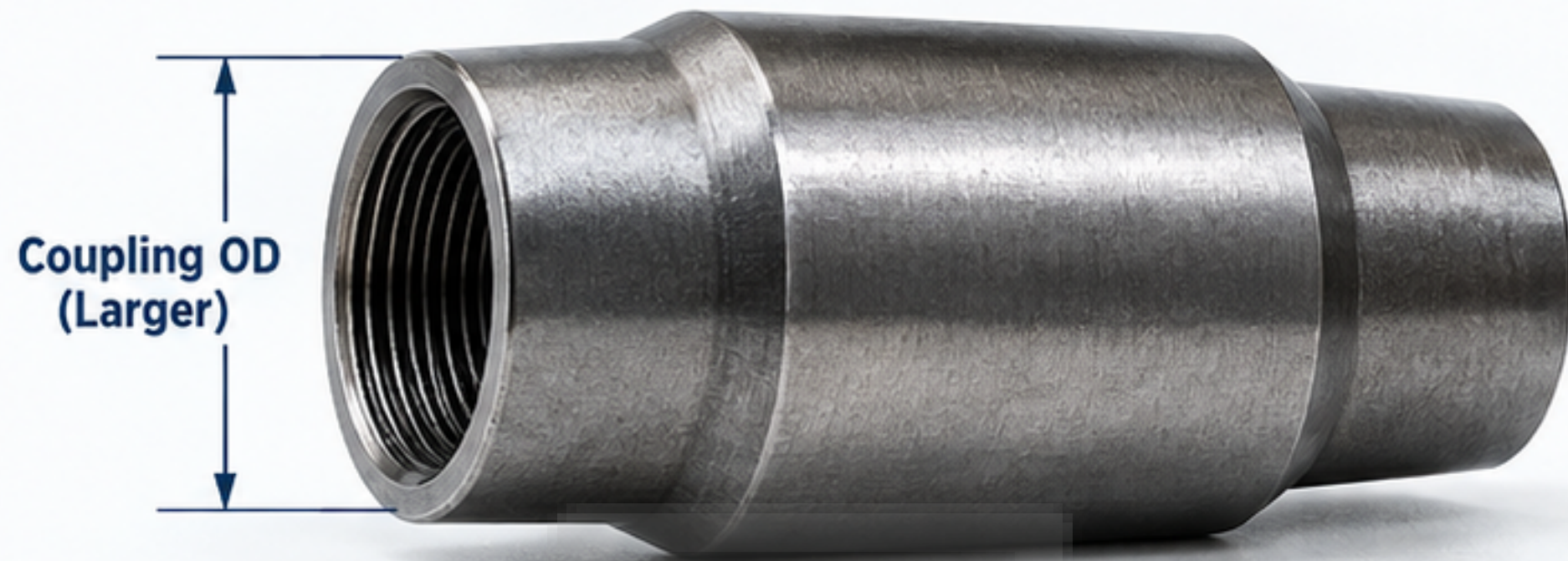
Typical Application – Class SM Deviated Well / Higher Wear Risk



Full Size vs Slim Hole Coupling Selection

OUTSIDE DIAMETER, TUBING CLEARANCE AND APPLICATION GUIDANCE

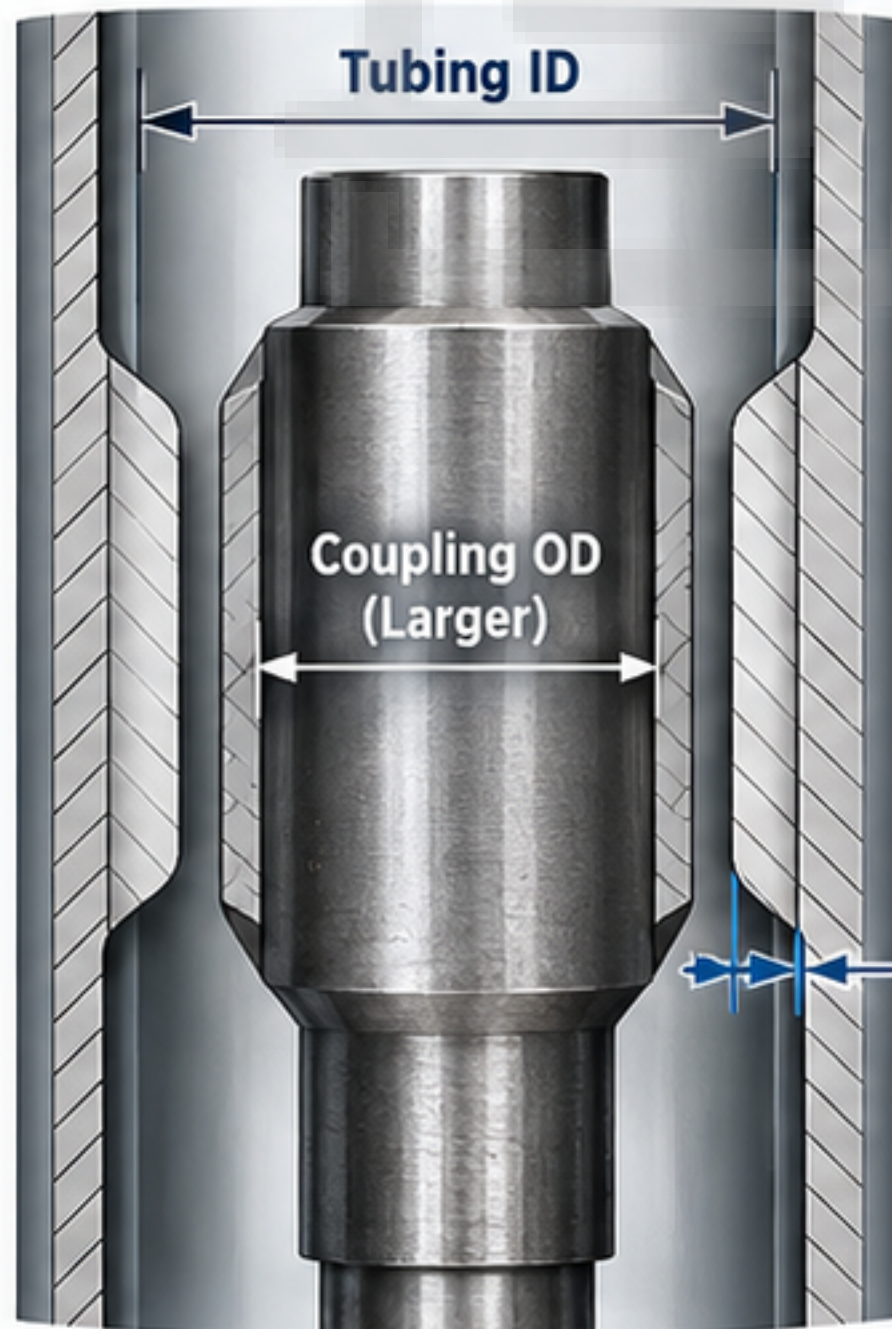
Full Size Coupling



Slim Hole Coupling

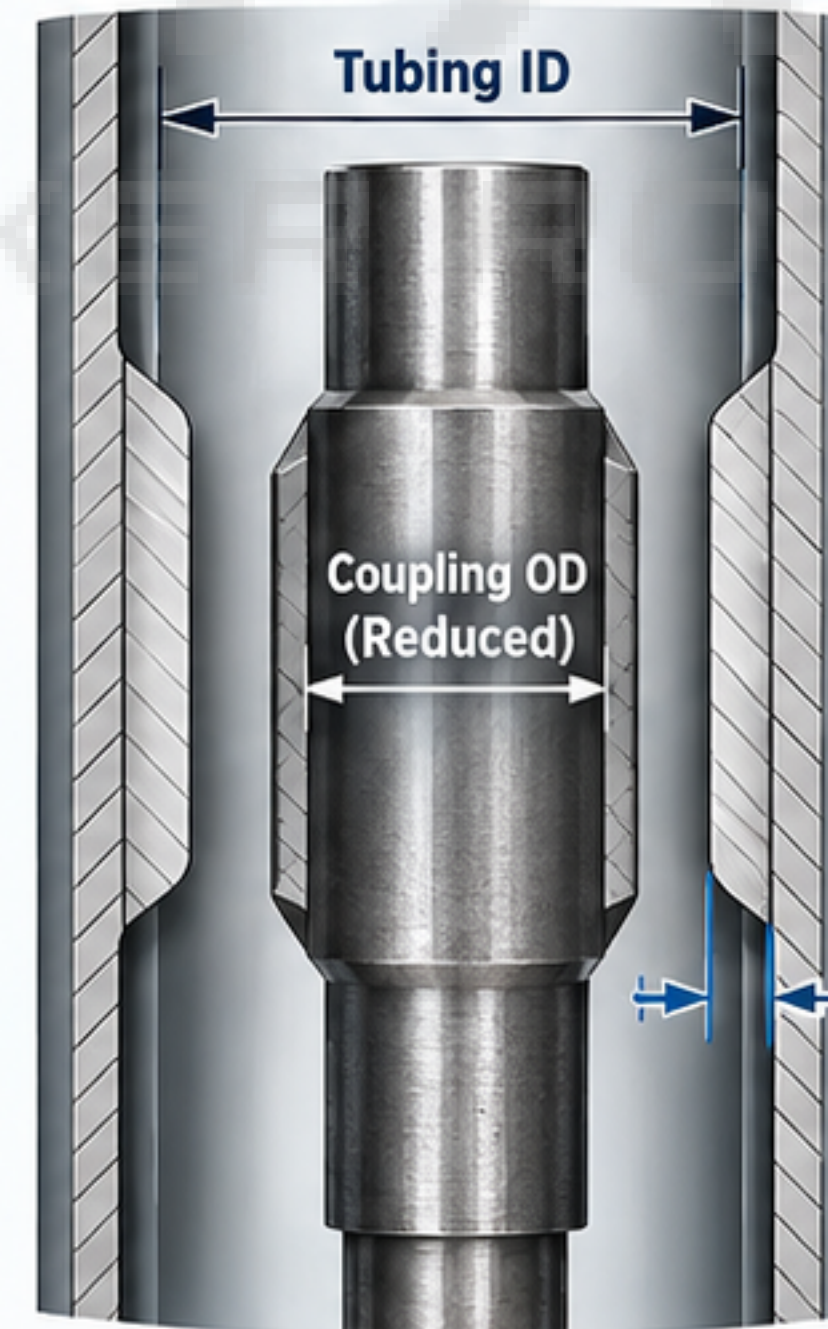


Full Size Coupling in Tubing (Cross Section)



- Used when tubing clearance is adequate
- OD design affects contact and wear
- Smaller annular clearance compared to slim hole design

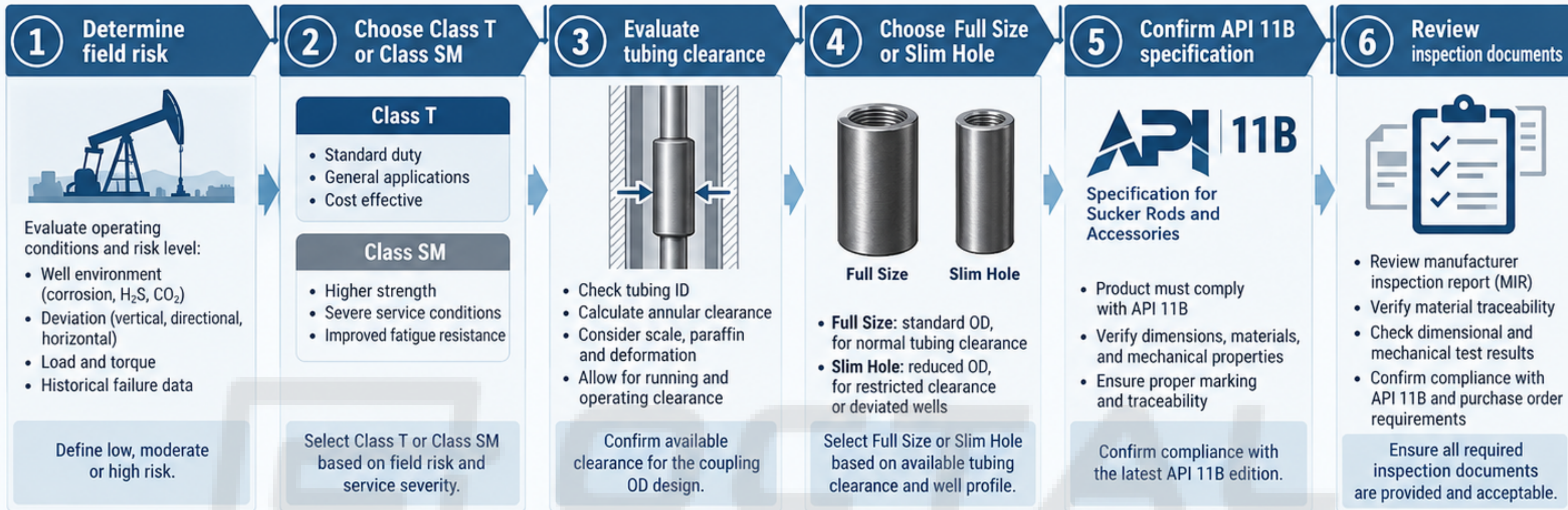
Slim Hole Coupling in Tubing (Cross Section)



- Used when restricted clearance or contact risk exists
- OD design affects contact and wear
- Larger annular clearance compared to full size design

How to Select the Right Sucker Rod Coupling

ENGINEERING SELECTION FLOW | API COMPLIANT | RELIABLE OPERATIONS



BUYER CHECKLIST KEY ITEMS TO CONFIRM BEFORE PROCUREMENT

ITEM	KEY CONSIDERATIONS	EXAMPLES / NOTES
☐ Rod size	Match coupling to sucker rod size (API nominal size).	5/8", 3/4", 7/8", 1", 1-1/8"
☐ Connection type	Must be compatible with rod pin and box connection.	API sucker rod connection (e.g., 5/8" API, 3/4" API, etc.)
☐ Coupling class	Select Class T or Class SM based on field risk and service severity.	Class T (standard) Class SM (high strength)
☐ OD design	Full Size or Slim Hole.	Full Size (standard OD) Slim Hole (reduced OD)
☐ Tubing clearance	Verify tubing ID and available clearance (including scale and deformation).	Check actual tubing ID and calculated annular clearance.
☐ Well deviation	Consider well profile and deviation angle when selecting OD design.	Vertical, directional, horizontal (e.g., > 30°).
☐ Inspection documents	Confirm required documents are provided and meet API 11B.	MIR, material traceability, dimensional and mechanical test results, API 11B compliance.

SUCKER ROD COUPLING PRODUCT FAMILY

