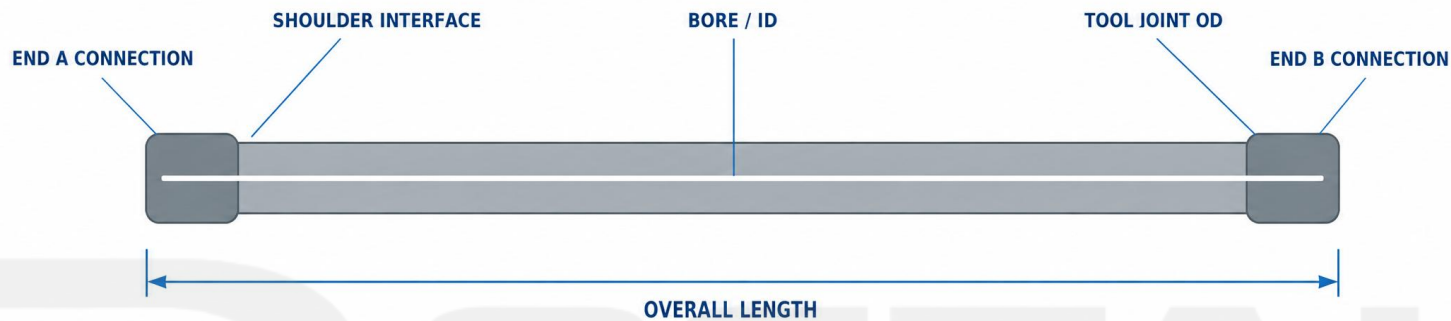


Drill Pipe Pup Joint Connection Compatibility and Length Selection Guide

PAGE 1 - SELECTION INPUTS

Start from the actual drill-string interface. A pup joint is not defined by length alone.

TYPICAL DRILL PIPE PUP JOINT - SCHEMATIC



Pin / Box orientation must match

Tool joint OD and bore are paired

Shoulder and thread interface must mate

1 Parent drill pipe

Define the exact pipe size, grade/system and tool-joint configuration already in the string.

2 Exact connection

Use the actual connection designation; generic wording such as "API connection" is not enough.

3 Dimensional interface

Match tool joint OD, bore/ID and shoulder interface to the adjoining drill pipe.

4 Required space-out

Set overall length from the required drill-string spacing or connection position.

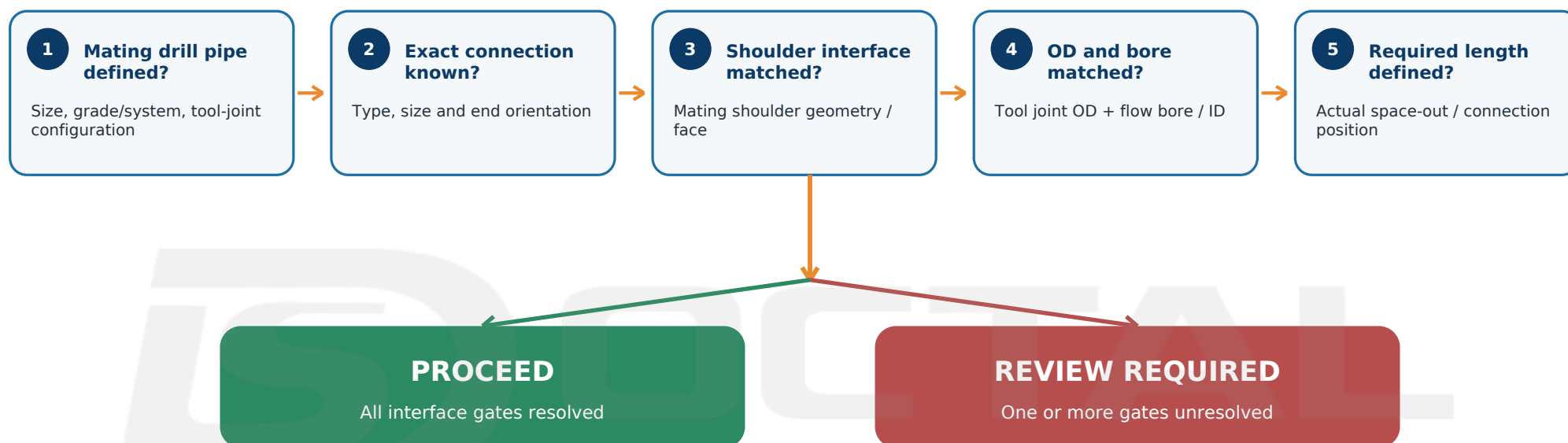
Core compatibility rule

Nominal drill-pipe size alone does not confirm compatibility. Connection designation, shoulder interface, tool joint OD and bore/ID must agree with the actual mating drill pipe.

Drill Pipe Pup Joint Connection Compatibility and Length Selection Guide

PAGE 2 - COMPATIBILITY MAP

Use a gate-by-gate check. Any unresolved interface moves the selection to **REVIEW REQUIRED**.



Connection designation

The connection name, size and pin/box orientation must identify the actual mating interface. A generic family name or nominal pipe OD does not prove fit.

Shoulder + bore continuity

Correct make-up requires the intended shoulder interface, while the bore should maintain the required internal flow path without an unintended restriction.

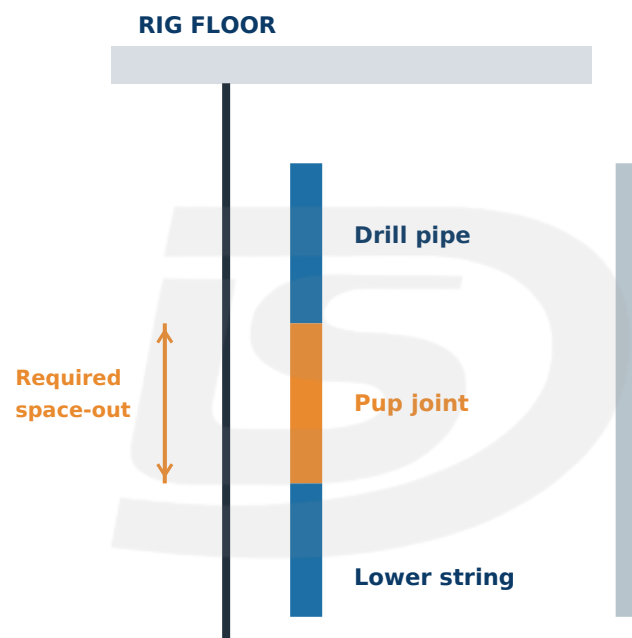
Technical basis

For applicable rotary shouldered connections, threading and gauging are governed by the relevant connection specification (e.g., API Spec 7-2 / ISO 10424-2). Exact mating connection and dimensions still have to be defined for the pup joint.

Drill Pipe Pup Joint Connection Compatibility and Length Selection Guide

PAGE 3 - LENGTH AND DRILL STRING SPACING

Length is selected from the required space-out in the drill string, not from a universal pup-joint length series.



Commonly encountered lengths

5 ft | 10 ft | 15 ft | 20 ft

Examples in industry use; not a universal standardized series.

Length selection questions

A

Where must the next connection land?

Define the required axial / vertical position in the actual string.

B

Are the adjoining connections already compatible?

If not, the issue is connection adaptation rather than space-out.

C

Will OD and bore continuity be maintained?

Confirm the tool-joint envelope and internal flow path with the mating drill pipe.

D

Does the selected length create the required position?

Use a common supplied length only when it produces the required string geometry.

Selection principle

Use a custom length whenever common supplied lengths do not place the connection or tool joint at the required drill-string or rig-floor position.

Drill Pipe Pup Joint Connection Compatibility and Length Selection Guide

PAGE 4 - FINAL SELECTION LOGIC

Separate length adjustment from connection adaptation before finalizing the component.

WHAT NEEDS TO CHANGE?

String length/position or connection system?

LENGTH / POSITION CHANGE

Connections already compatible

- 1 Set required space-out
- 2 Confirm exact connection
- 3 Match tool joint OD + bore
- 4 Choose integral or welded route
- 5 Finalize pup-joint configuration

Nominal pipe OD alone

does not confirm connection fit.

Length alone

does not define the product.

Material/grade alone

does not define the finished interface.

CONNECTION SYSTEM CHANGE

Mating connections incompatible

Do not force a pup-joint selection.

Review a crossover sub or another connection-adaptation solution.

Release checks

Connection

Exact designation + pin / box orientation

CONFIRM

Shoulder interface

Mating shoulder geometry / face

CONFIRM

Dimensional interface

Tool joint OD + bore / ID

CONFIRM

Length + construction

Required space-out + selected route

CONFIRM