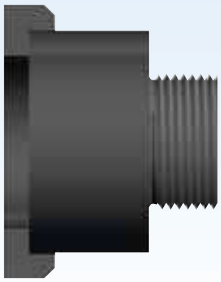
Required Information

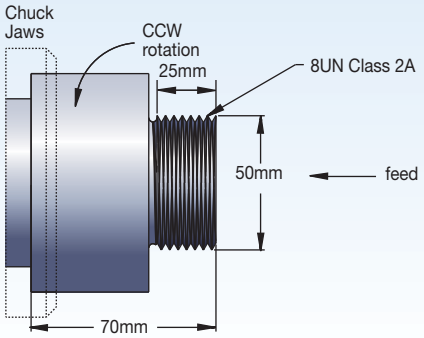
From Part Drawing:

material: 316SS, 200 HB
thread form: 8UN
tolerance: class 2A
operation: external threading
pitch diameter: 50mm x 25mm deep

From Machine Setup Data:

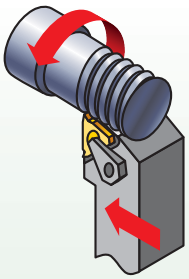
tooling: 20mm x 20mm
spindle rotation: anti-clockwise
feed: toward chuck





Steps for a Successful Threading Operation

Step 1 • Determine Threading Method



Need to Know:

- Operation (external).
- Spindle rotation (CCW). *Anti-clockwise rotation.*
- Feed direction (toward chuck).
- Right-hand toolholder.
- Right-hand insert (ER).
- Standard helix method.

Step 2 • Select Insert

Need to Know:

- Thread form (ISO R262 1mm pitch).
- Hand of insert (right hand — ER).

Choose the High-Performance Solution

catalogue number	insert size	TN6025
3ER10ISO	3	•

High-Performance Selection

NOTE: Use insert with largest insert size available.

insert: 3ER10ISO
grade: TN6025
speed: 150 m/min

Step 3 • Select the Grade and Speed

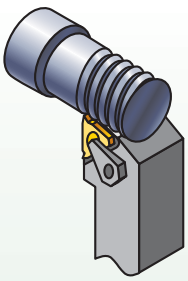
Need to Know:

- Workpiece material (316SS-200HB).
- Operation (external).

Options: Grade and Speed Selection Guidelines

threading operation	stainless steel
external	general purpose and high performance
	TN6025
	50–360 m/min

Step 4 • Select Toolholder



Need to Know:

- External or internal operation (external).
- Pitch diameter to determine minimum bore diameter (N/A).
- Type of tooling — toolholder, boring bar (toolholder).
- Hand of tool (right hand).
- Insert size (16).

Options:

catalogue number	insert size	shim
AL203R	3	SM-YE3

Step 5 • Select Shim

Need to Know:

- Thread form — TPI or pitch (8 TPI).
- Pitch diameter (50mm).
- Helix method (standard). See Laydown Threading (LT) shim selection chart.

Select SM-YE3 shim

NOTE: For this application, the standard shim supplied should be replaced with the recommended shim, SM-YE3.