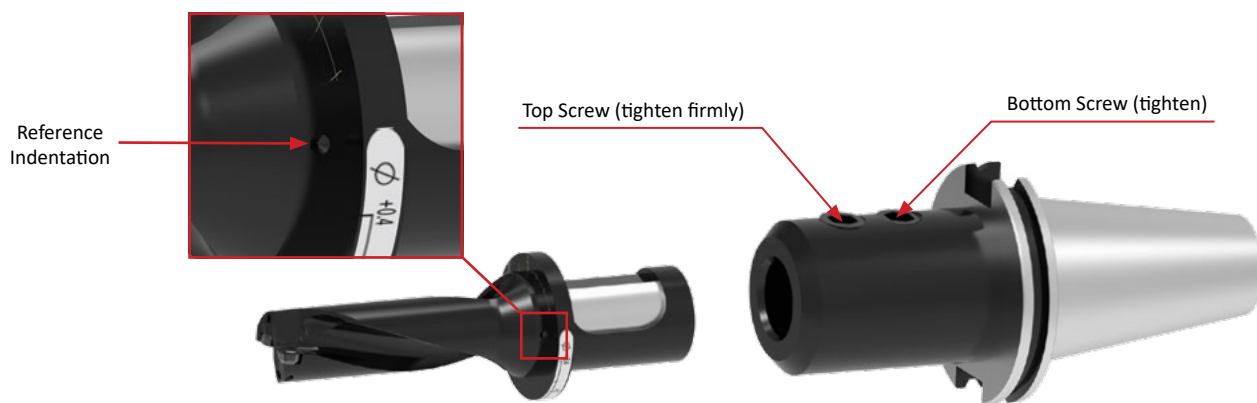


Adjustment Sleeves

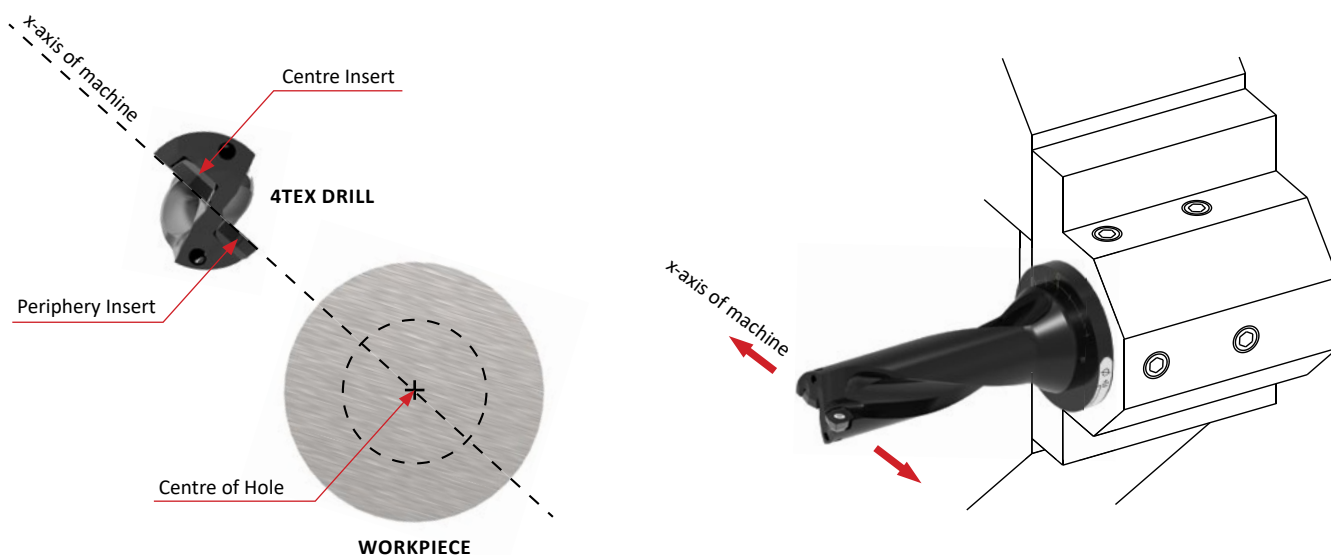
Diameter Adjustment



For Milling Applications

1. Assemble the 4TEX Drill, eccentric sleeve, and tool holder. Do not tighten the tool holder set screws.
2. Using the peripheral marks for milling machines, align the reference indentation on the holder with the 0 (zero) mark on the eccentric sleeve to have no offset.
3. Rotate the sleeve in the (+) or (-) direction to increase or decrease the nominal diameter.
4. Once the drill has arrived at the desired diameter, firmly tighten the top set screw first and then tighten the bottom set screw.

NOTICE: Eccentric sleeves are to be used with side-locking tool holders only. Damage may result with other styles of tool holders.



For Lathe Applications

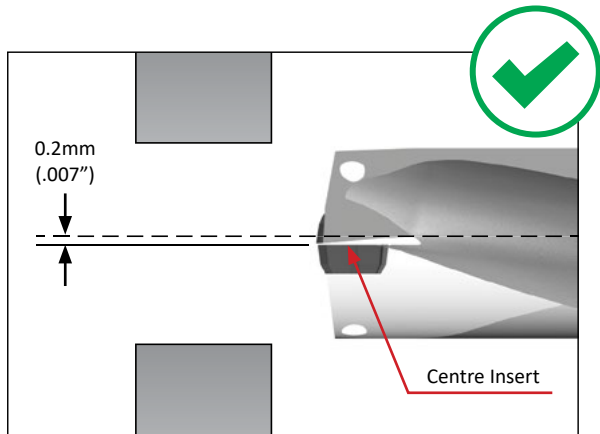
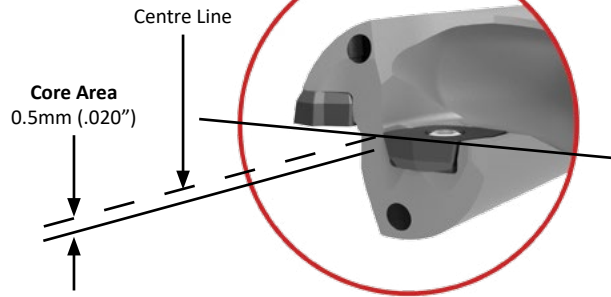
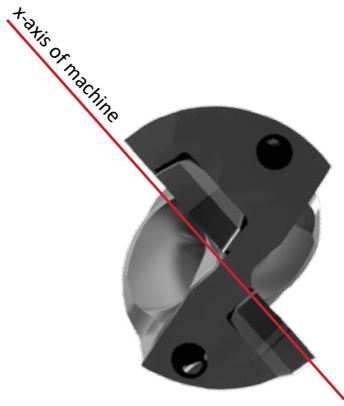
1. Assemble the 4TEX Drill into the lathe turret with the top face of the inserts parallel to the x-axis of the machine. This will allow for the diameter offsets to be made using the lathe's x-axis.
2. To increase the nominal diameter, offset the x-axis so the periphery insert moves away from the Centre of the hole.
3. To decrease the nominal diameter, offset the x-axis so the periphery insert moves toward the Centre of the hole.



Centre Height Alignment

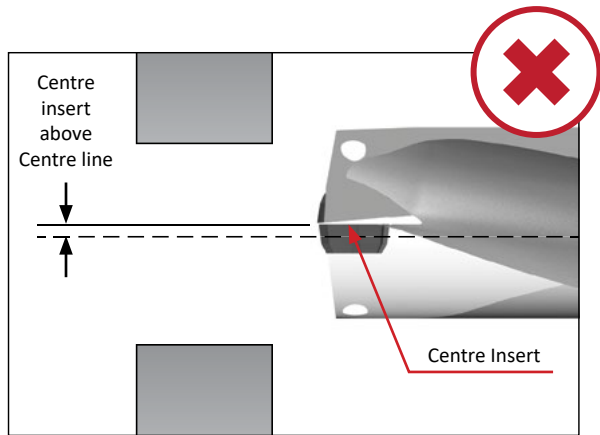
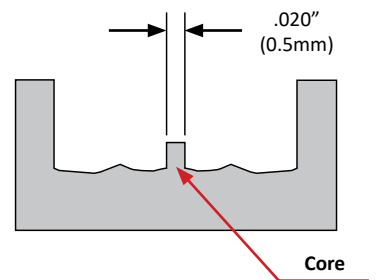
Proper Centre Line Position

A
DRILLING
B
BORING
C
REAMING
D
URNISHING
E
HREADING
X
PECIALS



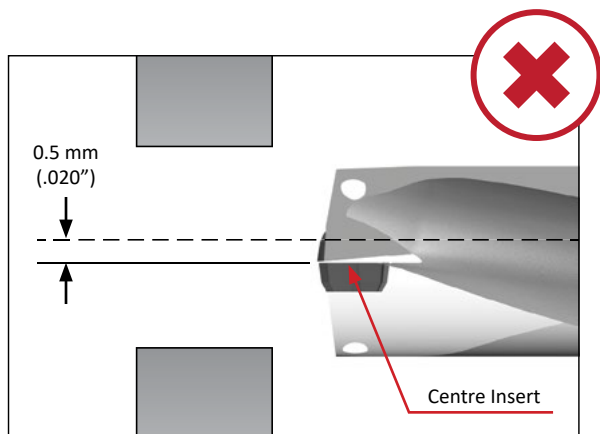
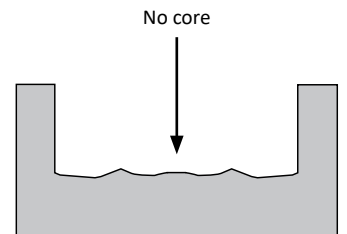
Proper Centre Height Alignment

- The correct Centre height alignment will position the Centre insert .007" (0.2mm) below the Centre line.



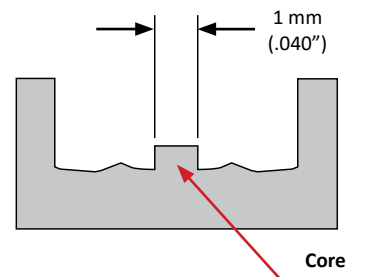
Centre Insert Above the Centre Line

- This will cause fracturing of the Centre insert
- Requires Centre height adjustment



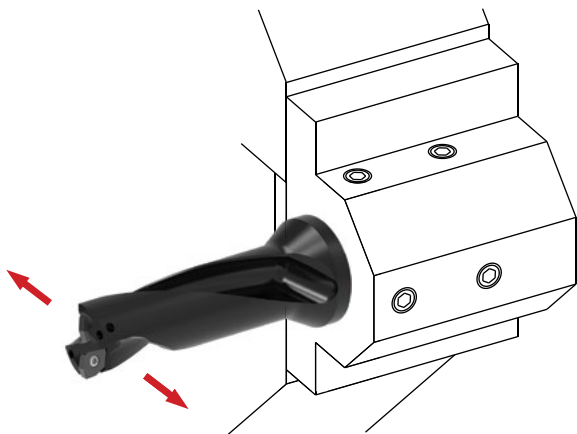
Centre Insert Too Far Below Centre Line

- This will cause the drill to interfere with the drilled hole
- This will impede chip evacuation on the periphery insert
- Requires Centre height adjustment



Centre Height Alignment

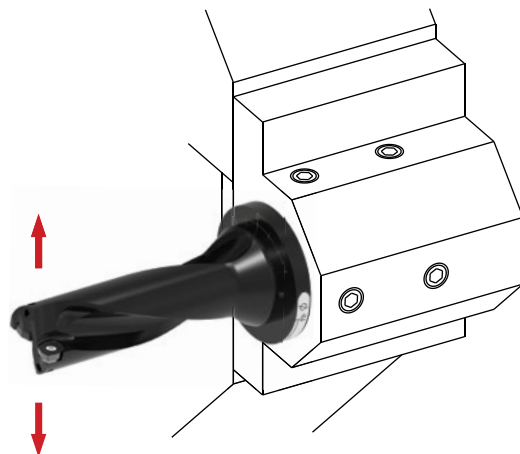
How to Correct Issues



Method 1: Adjustment with X-Axis

1. Rotate the drill body so the position of the Centre line of the inserts is perpendicular to the lathe's x-axis.
2. Use the x-axis to offset the position of the Centre line in a (+) or (-) direction to increase or decrease the Centre core diameter at the bottom of the hole.

NOTE: This method does not allow diameter adjustments using the x-axis.



Method 2: Adjustment with Eccentric Sleeve

1. Assemble the drill to the turret using the eccentric sleeve, positioning the Centre line of the inserts parallel to the x-axis.
2. Align the reference indentation on the drill to the "0" setting on the flange face.
2. Rotate the sleeve (+) or (-) to increase or decrease the Centre height of the inserts in order to increase or decrease the core diameter at the bottom of the hole.

NOTE: This method still allows diameter adjustments using the x-axis.

NOTE (applies to both methods): Adjusting the Centre line of the inserts may affect the hole diameter produced. Method 2 is preferred to make Centre height adjustments and compensate for hole diameter with the x-axis.

A

DRILLING

B

BORING

C

REAMING

D

BURNISHING

E

THREADING

X

SPECIALS