

SK Collet Chuck Features

LEAN, TOUGH AND EFFICIENT

Lean: narrow body design allows access to tight spots

Versatile: applicable for all milling, drilling, reaming and rigid tapping applications

Flexible: covers sizes from 0.028" to 1"

Accurate: two times more accurate than ER Collet Chucks, within 10 times better repeatability

Extremely Precise: 0.0002" or less concentricity guarantee with on-size collets

8° versus 16° collet taper: double the gripping power over ER Collet Chucks

Extremely Successful: over 1 million SK Collet Chucks and 15 million SK collets sold worldwide



SK Collet Range



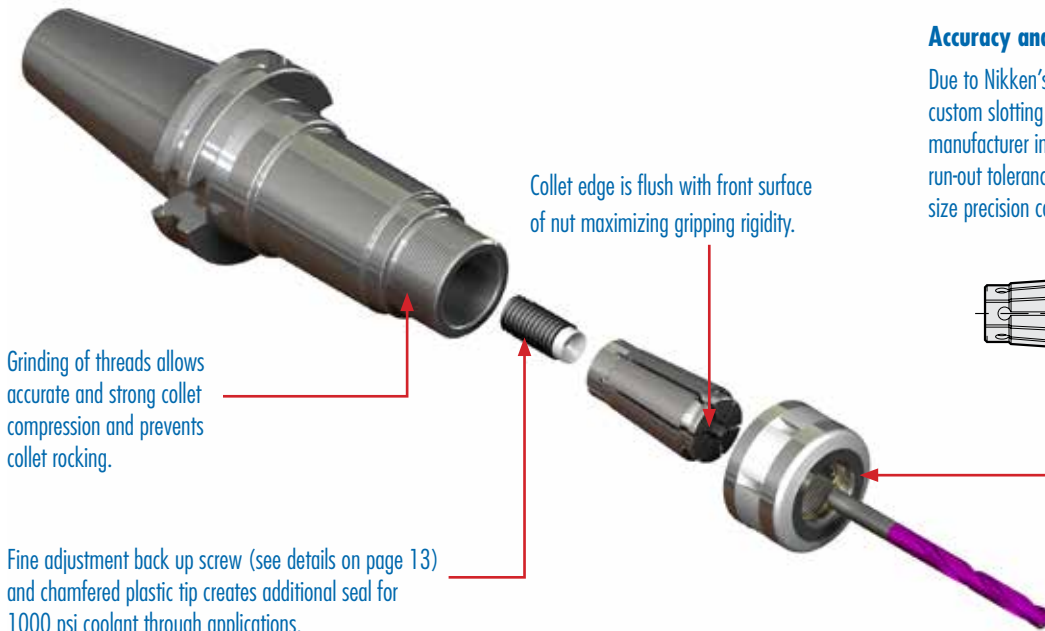
SK6
(0.7 - 6.0mm)
(0.028 - 0.236")

SK10
(1.75 - 10.0mm)
(0.069 - 0.394")

SK16
(2.75 - 16.0mm)
(0.108 - 0.630")

SK20
(3.5 - 20.0mm)
(0.138 - 0.787")

SK25
(16.0 - 25.4mm)
(0.630 - 1.000")



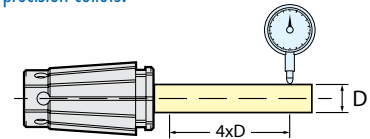
Collet edge is flush with front surface of nut maximizing gripping rigidity.

Grinding of threads allows accurate and strong collet compression and prevents collet rocking.

Fine adjustment back up screw (see details on page 13) and chamfered plastic tip creates additional seal for 1000 psi coolant through applications.

Accuracy and Flexibility

Due to Nikken's special heat treatment, grinding and custom slotting process, they are the only collet chuck manufacturer in the world that guarantees a 5 micron run-out tolerance for their "on size" fractional and metric size precision collets.



- Extremely hard and smooth surface of the TiN Bearing allows for more thrust load on the collet while preventing additional runout associated with collet twisting.
- Threads are protected to prevent chip packing or stringy birds nests below the collet chuck nut.

SK Collet Chuck Features

Increased Gripping Power

The smaller the taper angle is, the better concentricity is obtained.

Our steep 8° collet seats deeper in the body of the holder, providing double the clamping force and precision than traditional 16° ER collets.



GH Handle

Easy, safe and reliable handling with GH wrench (see page 36).



Titanium Nitrided Bearing Nut (HV2,200) (US Patent 6923451)

- More efficient than conventional ball bearing built-in nut!
- Good sliding effect due to surface hardness of HV2,200
- No damage, no friction
- No corrosion occurs internally
- Less micro vibration with collet flange contact
- Increase cutting performance and tool life durability
- More cutting rigidity

High pressure 1200 psi fine thread coolant back up screw.

AT3 or better taper - .0028 degree tolerance variation (80 millionths to 126 millionths taper size tolerance).

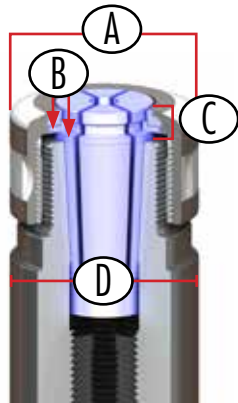
Ground surface for accurate perpendicular contact between pull stud and taper.

SK Collet

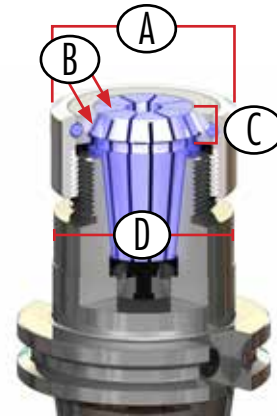
SK Collets can be used for all applications, from milling to reaming. Standard collets can be used in coolant thru applications (with coolant back-up screws).

SK Collet vs. ER Collet

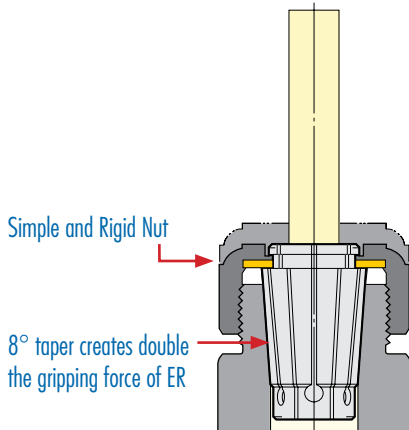
- A. Slim design allows for better clearance
- B. Force is parallel to centerline of toolholder
- C. Deeper seating creates greater accuracy
- D. Body and nut are flush for more rigidity



- A. Wide collet = wide nut = less clearance
- B. Force is angular to centerline of toolholder
- C. Shallow seating allows for collet rocking
- D. Body diameter is smaller than nut compromising rigidity

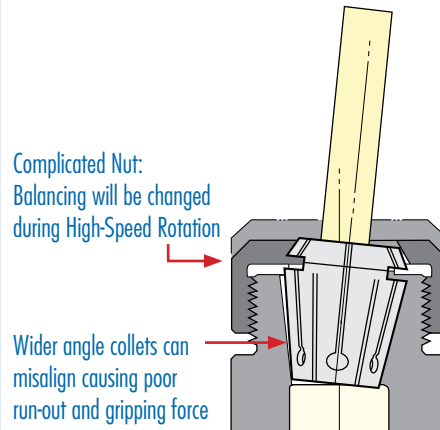


Lyndex-Nikken Slim Chuck - Flat shoulder pushing



- High Accuracy Due to Flat Shoulder Pushing

Others - Taper shoulder pushing

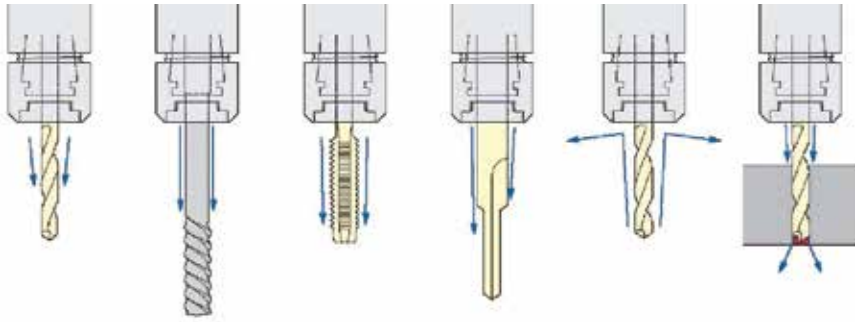


- Unstable Run-out Due to Taper Part Pushing
- Poor Gripping Torque of 12°, 16° taper

Superior SK Coolant System

Our Slim Chuck features a unique High-Pressure Coolant Collet System which allows for higher accuracy and gripping torque.

SK Coolant thru options:



SK Collet Chucks

Back-up Screw for SK Collet Chuck

SKG-12



- Solid steel black oxide coated back up screws
- Accessible and adjustable from both ends

SKG-12L



- Excellent for high feed drilling
- Allows cutter repeatability within .0002"

SKG16-12HGA



- Ultra High Pressure back up screw capable up to 1200 psi
- Solid steel black oxide coated back-up screws with plastic caps
- 80% thread engagement on fine thread to prevent coolant leakage
- External O-ring provides additional seal to prevent coolant build-up within the toolholder

SKG-18H



- Plastic cap is chamfered to accommodate for different sizes
- Excellent for high pressure coolant or oil drilling applications
- Allows cutter repeatability within .0002"



High Pressure Mechanically-Sealed Collets are available

Applications for SK J Type Nut:

- Tap or specially designed cutting tool
- Burnishing drill for formed hole
- Oil hole drill for through hole drilling
- Cutting tool with coolant grooves
- Mechanical seal prevents dust and swarf entering inside the collet slots

Slotted Disk:

When the Coolant Nut is paired with the Slotted Disk, coolant is directed to the cutting edge of the cutting tool, making this combination **ideal for non-coolant-thru tools**. The jet coolant pressure creates a tornado effect, ensuring **efficient swarf dispersal**.

Coolant-Thru Disk:

When the Coolant Nut is paired with the Coolant-Thru Disk, a perfect seal is formed around the cutting tool shank, making this combination ideal for Coolant-Thru tools.