

ER Collet Chuck Features

ER Collet Chucks

LYNDEX-NIKKEN

AT3 or better taper tolerance.

- All 40 taper tool angles are manufactured within +/- .0011 degrees angular tolerance
- Largest diameter of taper (where rigidity is established) is held within +/- 80 millionths (.00008")
- Precision ground taper ensures 80% or better taper contact

Drive key depth balanced for high speed rotation.

Body of Collet Chuck equal in diameter to the nut diameter. Thicker diameter and wall thickness results in stronger rigidity.

Reduced gap size to prevent bird nests and other stringy chips from packing in or wrapping about.

ER Nut

Smooth nut prevents coolant flare and provides better balance.

**Nickel Chrome
Molybdenum Alloy**



Lyndex-Nikken toolholders are heat treated in house to a hardness between 55 to 58 Rc under the highest quality standard, ensuring a homogeneous martensite (needle-shaped) crystalline structure. The additional heat treatment process allows for a better ground surface finish and stress stability of the toolholder.

OTHER

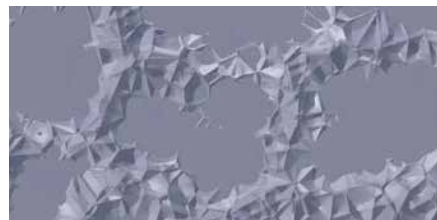
AT4 taper tolerance.

- All 40 taper tool angles are manufactured within +/- .0018 degrees angular tolerance
- Largest diameter of taper (where rigidity is established) varies within +/- 138 millionths (.00014")
- Varying aspects of taper angle and diameter can only ensure up to 60% taper contact

Recessed collet chuck body diameter weakens rigidity of holder.

Large Hex nut body design flares coolant away from toolholder.

High Carbon Steel



Other toolholders are commonly not heat treated thoroughly in order to reduce production costs, resulting in austenite deposits. Surface finish and material integrity are compromised commonly masked by chrome plating or polishing.

ER Collet Features

We offer the largest ER Collet product range in the industry.

Quality Standard

Made to DIN 6499 Specification

Material

High Tensile Chromium Molybdenum Alloy provides greater hardness and less material deformation compared to traditional spring steel collets

Accuracy

≤0.0001" at cavity bore (collet seating area)

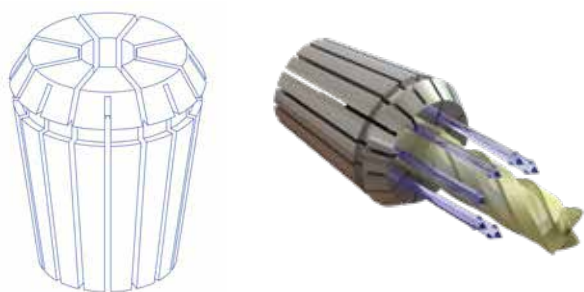
Inspection

100% collet inspection, checked 3 times for concentricity

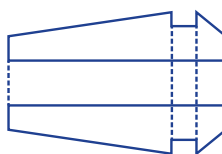


ER Collet Chucks

ER Collet



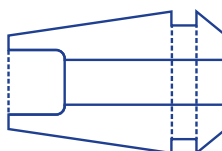
ER Standard Type Collet



Flexibility and Durability:

We offer the ultimate trifecta: wide clamping range, ultra precision, and super high pressure. Our 1300 psi capable collets have a wide 0.031" collapse range and the ability to maintain less than 0.0001" run out at the collet nose.

ER Counter-Bored Type Collet



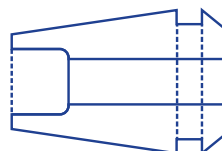
Ultra Precision for Micro Cutters:

Our high precision "On Size" collets have 25% longer collet bore lengths than competitors, resulting in stronger gripping power at higher RPMs. The high-pressure coolant collet's special design reduces cutter vibration due to high pressure.

ER Coolant Collet



High Precision ER Tap Collet

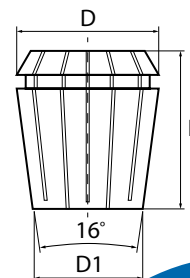


Extreme rigidity, high pressure performance:

Our Tap Collets are designed for all ANSI, DIN, ISO, and JIS Specification Taps. 1300 psi capable Coolant Tap Collets increase tool life by dissipating heat and preventing chip build-up.

ER Collet Dimensional Data

Style	D	D1	L	Collet Range	Coolant Collet Size Range
ER8	0.330"	0.216"	0.535"	0.019 - 0.196"	N/A
ER11	0.460"	0.307"	0.709"	0.019 - 0.275"	0.157 - 0.275"
ER16	0.677"	0.445"	1.063"	0.019 - 0.393"	0.157 - 0.393"
ER20	0.835"	0.571"	1.220"	0.039 - 0.511"	0.196 - 0.511"
ER25	1.031"	0.728"	1.378"	0.039 - 0.629"	0.236 - 0.629"
ER32	1.307"	0.960"	1.575"	0.078 - 0.787"	0.393 - 0.787"
ER40	1.622"	1.228"	1.811"	0.118 - 1.023"	0.393 - 1.023"



Nut Features

LYNDEX-NIKKEN NUT



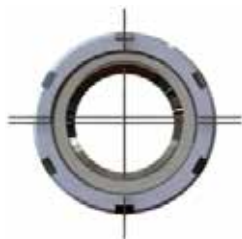
Bearing Nut



Bearing nuts come as a standard on all of our ER Collet Chucks:

- Reduce twisting of the collet and increase T.I.R. accuracy.
- Improve chucking consistency by 6 times compared to non bearing style nut!

Maximum Accuracy



We control all of our manufacturing processes, thereby maintaining the assembly accuracy tolerances between the nut, collet, and holder.

Our ground eccentric bearing race makes set up extremely easy, and ensures the accurate concentric placement of the collet.

Ground Eccentric Nut



Our ground eccentric bearing race increases clamping power by 100% compared to standard nuts!

It also prevents galling and twisting between the collet angle contact surface and the nut to minimize runout and greatly assist in alignment of the collet to the holder.

OTHER NUT



Standard Nut - No Bearing



Non bearing style nuts only provide the ability to retain the collet, and do not carry a functional advantage to improve the T.I.R. or chucking consistency.



Other manufacturers use a commercial snap ring as a retainer for the collet. This can contribute to minor misalignment between the nut, collet, and holder.

No Ground Surface



ER Collet without ground contact locations cannot ensure ultra precision due to surface abnormality.