

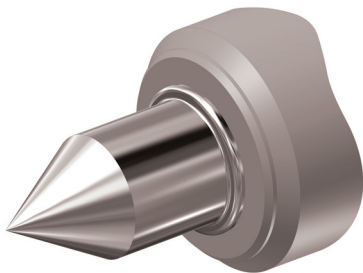


One Size Does Not Fit All – So We Turned Special Centers Into Standards!

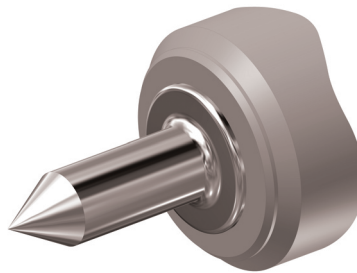
One of Royal's strengths as a leading live center manufacturer is our ability to design and build custom centers to address non-standard applications. However, there are two major **drawbacks that are almost always associated with custom-made centers: longer lead times and higher prices.**

As an ISO company dedicated to continuous improvement, we decided to see if it might be possible to categorize special centers according to their similarities, and then offer a few new standard models that could handle most jobs.

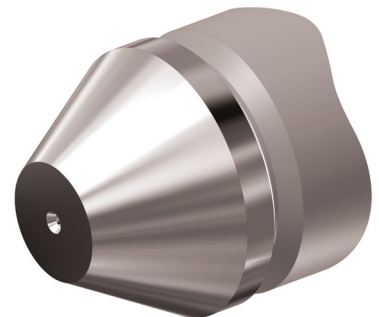
Our engineers analyzed the prints of hundreds of special centers that we had manufactured over several years, and the results were shocking – **over 90% of our customers' special needs could be covered with just five new point styles.** These are:



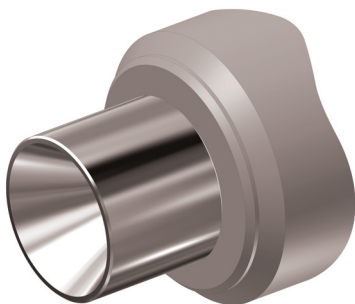
Full-diameter long point for shaft work and parts with large center holes.



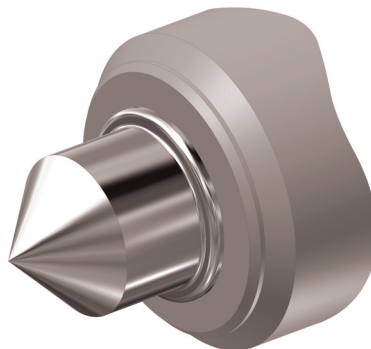
A reduced-diameter long point for use when greater clearance is needed.



A small bull-nose point for use with tubes or parts with large center holes.



A female point with a 90° included angle for locating on OD part chamfers.



A male point with a 90° included angle for locating on internal part chamfers.



**See pages 80-81 for
ordering information**

Royal maintains a full inventory of each model to ensure **same-day delivery, and because we manufacture them in quantity, they are **very aggressively-priced.****

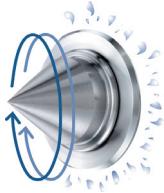
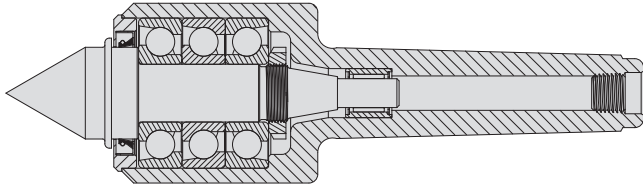


ROYAL OFF-THE-SHELF "SPECIALS"

Deciding which live center model to use as a platform for Royal's new off-the-shelf "special" program was easy. We chose the High-Precision Quad-Bearing model for the following reasons:

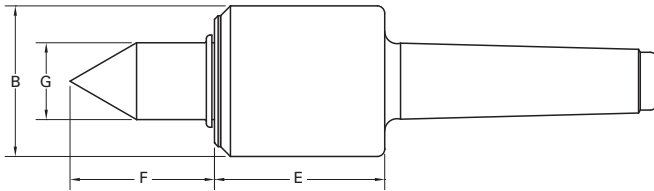
- 1- Very Rigid Bearing Arrangement
- 2- Exclusive Roto-Shield™ Technology
- 3- Low-Profile Head

All Models In Stock for Immediate Delivery



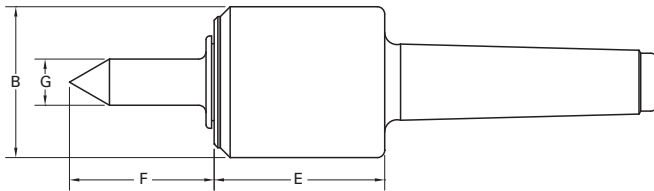
EXCLUSIVE ROYAL
ROTO-SHIELD™
TECHNOLOGY

**✓ High-Pressure
Coolant Approved**



Royal High-Precision Quad-Bearing Live Centers – Full Diameter Long Point

| TAPER | B | E | F | G | MAX. SUGGESTED RPM* | WEIGHT OF WORKPIECE (lbs.) | THRUST LOAD (lbs.) | PART NUMBER | PRICE |
|-------|------|------|------|------|---------------------|----------------------------|--------------------|-------------|--------------|
| 2 MT | 1.70 | 2.12 | 1.75 | 0.88 | 6,000 | 465 | 1,270 | 10478 | \$869 |
| 3 MT | 1.70 | 2.12 | 1.75 | 0.88 | 6,000 | 465 | 1,270 | 10479 | 869 |
| 4 MT | 2.45 | 2.78 | 2.35 | 1.25 | 5,000 | 1,230 | 2,150 | 10480 | 1,078 |
| 5 MT | 2.45 | 2.78 | 2.35 | 1.25 | 5,000 | 1,230 | 2,150 | 10481 | 1,131 |

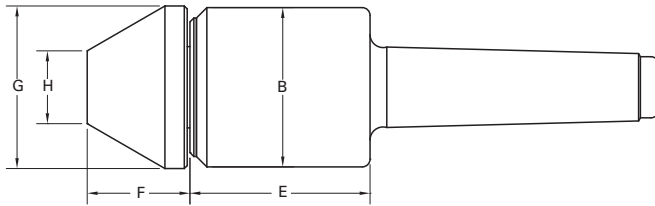


Royal High-Precision Quad-Bearing Live Centers – Small Diameter Long Point

| TAPER | B | E | F | G | MAX. SUGGESTED RPM* | WEIGHT OF WORKPIECE (lbs.) | THRUST LOAD (lbs.) | PART NUMBER | PRICE |
|-------|------|------|------|------|---------------------|----------------------------|--------------------|-------------|--------------|
| 2 MT | 1.70 | 2.12 | 1.75 | 0.50 | 6,000 | 350 | 1,270 | 10482 | \$869 |
| 3 MT | 1.70 | 2.12 | 1.75 | 0.50 | 6,000 | 350 | 1,270 | 10483 | 869 |
| 4 MT | 2.45 | 2.78 | 2.35 | 0.75 | 5,000 | 925 | 2,150 | 10484 | 1,078 |
| 5 MT | 2.45 | 2.78 | 2.35 | 0.75 | 5,000 | 925 | 2,150 | 10485 | 1,131 |

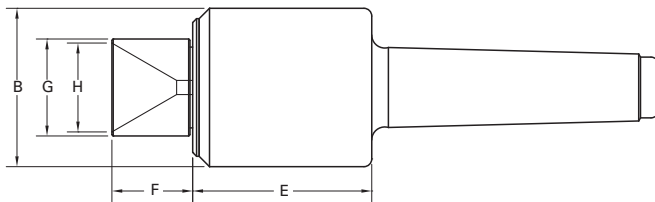
* Maximum recommended operating limit. Operating above this speed could result in heat build-up and accelerated bearing wear.

ROYAL OFF-THE-SHELF "SPECIALS"



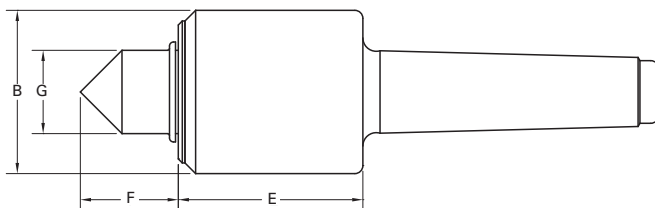
Royal High-Precision Quad-Bearing Live Centers – Bull Nose Point

| TAPER | B | E | F | G | H | MAX. SUGGESTED RPM* | WEIGHT OF WORKPIECE (lbs.) | THRUST LOAD (lbs.) | PART NUMBER | PRICE |
|-------|------|------|------|------|------|---------------------|----------------------------|--------------------|-------------|--------------|
| 2 MT | 1.70 | 2.12 | 1.25 | 1.75 | 0.75 | 6,000 | 750 | 1,270 | 10490 | \$888 |
| 3 MT | 1.70 | 2.12 | 1.25 | 1.75 | 0.75 | 6,000 | 750 | 1,270 | 10491 | 888 |
| 4 MT | 2.45 | 2.78 | 1.58 | 2.50 | 1.12 | 5,000 | 1,905 | 2,150 | 10492 | 1,131 |
| 5 MT | 2.45 | 2.78 | 1.58 | 2.50 | 1.12 | 5,000 | 1,905 | 2,150 | 10493 | 1,190 |



Royal High-Precision Quad-Bearing Live Centers – 90° Female Point

| TAPER | B | E | F | G | H | MAX. SUGGESTED RPM* | WEIGHT OF WORKPIECE (lbs.) | THRUST LOAD (lbs.) | PART NUMBER | PRICE |
|-------|------|------|------|------|-----------|---------------------|----------------------------|--------------------|-------------|--------------|
| 2 MT | 1.70 | 2.12 | 1.00 | 1.12 | 0.15–1.00 | 6,000 | 885 | 1,270 | 10494 | \$869 |
| 3 MT | 1.70 | 2.12 | 1.00 | 1.12 | 0.15–1.00 | 6,000 | 885 | 1,270 | 10495 | 869 |
| 4 MT | 2.45 | 2.78 | 1.25 | 1.50 | 0.21–1.38 | 5,000 | 2,240 | 2,150 | 10496 | 1,078 |
| 5 MT | 2.45 | 2.78 | 1.25 | 1.50 | 0.21–1.38 | 5,000 | 2,240 | 2,150 | 10497 | 1,131 |



Royal High-Precision Quad-Bearing Live Centers – 90° Male Point

| TAPER | B | E | F | G | MAX. SUGGESTED RPM* | WEIGHT OF WORKPIECE (lbs.) | THRUST LOAD (lbs.) | PART NUMBER | PRICE |
|-------|------|------|------|------|---------------------|----------------------------|--------------------|-------------|--------------|
| 2 MT | 1.70 | 2.12 | 1.07 | 0.88 | 6,000 | 885 | 1,270 | 10486 | \$860 |
| 3 MT | 1.70 | 2.12 | 1.07 | 0.88 | 6,000 | 885 | 1,270 | 10487 | 860 |
| 4 MT | 2.45 | 2.78 | 1.47 | 1.25 | 5,000 | 2,240 | 2,150 | 10488 | 1,067 |
| 5 MT | 2.45 | 2.78 | 1.47 | 1.25 | 5,000 | 2,240 | 2,150 | 10489 | 1,128 |

* Maximum recommended operating limit. Operating above this speed could result in heat build-up and accelerated bearing wear.