



A BRAND AE-H

Advanced Performance Carbide End Mills for Hardened Steels

High Precision Machining of High Hardened Steels

PRIMARY TARGETS

- Die Mold Shops Machining Hard Materials that Need Long Tool Life
- Hard Steel Applications (*Over 55HRC*)

SOLUTIONS

- Offers High Precision and Long Reliable Tool Life
- Best Choice Ball End Mill for Hardened Material Applications

WHAT OUR CUSTOMERS SEE

- These Tools *Doubled My Tool Life in Hardened Steel!*
- Reduced My Bench Time Significantly!

HOW DOES IT WORK?

Durable Geometry

- Tools Have Special Geometry to Maximize Life

DUROREY Coating

- Extremely Hard and Wear Resistant Coating

Three Styles for Various Applications

- 4-Flute Regular Length
- 2-Flute Regular Length
- 2-Flute Long Neck



osgtool.com

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Advanced Performance Carbide End Mills for Hardened Steels

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Carbide ball end mills for high-precision finishing of high-hardness steel with emphasis on machined surface accuracy. The new DUOREY coating enables longer tool life in high-hardness steel and is high chipping resistant in work materials exceeding 60 HRC.

| | | | | | | | | | | | | |
|---------|--------|------------------------|------------------------|-----------------------|-------------------------|--------------------|---------|-----|-----|-----|-------------|---------------|
| CARBIDE | DUOREY | R ± 0.003 R≤0.25 | R ± 0.005 0.25<R | R ± 0.005 R≤1.5 | R ± 0.007 1.5<R≤3 | R ± 0.01 3<R | ± 0.005 | 25° | 30° | 40° | SHANK h4 | SHRINK FIT |
|---------|--------|------------------------|------------------------|-----------------------|-------------------------|--------------------|---------|-----|-----|-----|-------------|---------------|

Features & Benefits

- **OSG's DUOREY coating** enables superior heat resistance and high toughness optimized for high-hardness steel milling.
- **Thickening of the center core** to prevent deformation of the ball tip and improve control of chipping.
- **Superior ball R precision** +/- 0.005mm.
- **Superior shank accuracy** can support h4 tolerance (0/-0.004mm).

List Numbers

- 8410 - A Brand AE-BD-H (Inch)
- 8510 - A Brand AE-BD-H (Metric)
- 8590 - A Brand AE-LNBD-H (Metric)
- 8430 - A Brand AE-BM-H (Inch)
- 8530 - A Brand AE-BM-H (Metric)

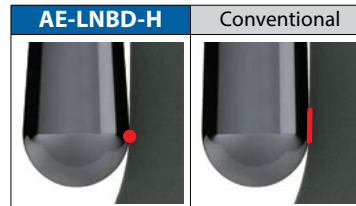
Size Range

- 1/32"-1/2"
- 0.2mm-12mm
- 0.1mm-6mm
- 1/8"-1/2"
- 1mm-12mm

Teardrop-Shaped Outer Periphery

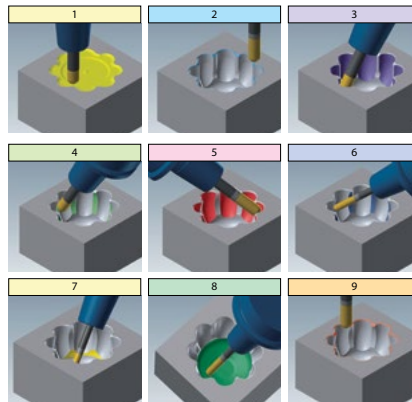
AE-LNBD-H

Strong back taper geometry enables milling by point, which prevents chattering and chirping, resulting in improvement of surface accuracy.



3 Styles for a Wide Range of Milling Applications

AE-H Features 3 Styles to Cover a Wide Range of Applications



| Process | Milling Part | Milling Method | Milling Process | Tool |
|---------|---------------|------------------------|--------------------------|-------------------|
| 1 | Overall | 3-axis contouring line | High-efficiency roughing | AE-BM-H R5 |
| 2 | Chamfer | 3-axis contouring line | Semi-roughing | |
| 3 | Groove | 5-axis profiling | Semi-roughing | |
| 4 | Ridge | 5-axis turn milling | Roughing/Semi-roughing | AE-BD-H R5x30 |
| 5 | Groove | 5-axis profiling | High-precision finishing | |
| 6 | Ridge | 5-axis profiling | High-precision finishing | AE-LNBD-H R3x40x6 |
| 7 | Middle bottom | 5-axis turn milling | High-precision finishing | |
| 8 | Bottom | 5-axis turn milling | High-precision finishing | |
| 9 | Chamfer | 3-axis contouring line | High-precision finishing | AE-BD-H R5x30 |

| | |
|---------------|-------------------------|
| Work Material | YXR3 (60HRC) |
| Machine | 5-Axis Machining Center |
| Main Spindle | HSK63 |
| Coolant | MQL |
| Max RPM | 25,000min ⁻¹ |
| Holder | Shrink Fit |



For more information use your phone to scan the QR code to the right and visit: osgtool.com/ae-h



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