

# ABRAND 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



# **A Brand AE-H**

### Advanced Performance Carbide End Mills for Hardened Steels



#### **A Brand AE-H**

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



#### **Features & Benefits**

- OSG's DUROREY 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

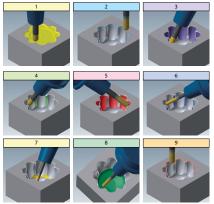
AE-LNBD-H

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	
2	Chamfer	3-axis contouring line	Semi-roughing	AE-BM-H
3	Groove	5-axis profiling	Semi-roughing	R5
4	Ridge	5-axis turn milling	Roughing/Semi- roughing	
5	Groove	5-axis profiling	High-precision finishing	AE-BD-H R5×30
6	Ridge	5-axis profiling	High-precision finishing	
7	Middle bottom	5-axis turn milling	High-precision finishing	AE-LNBD-H R3×40×6
8	Bottom	5-axis turn milling	High-precision finishing	
9	Chamfer	3-axis contouring line	High-precision finishing	AE-BD-H R5×30

Work Material	YXR3 (60HRC)	
Machine	5-Axis Machining Center	
Main Spindle	HSK63	
Coolant	MQL	
Max RPM	25,000min <sup>-1</sup>	
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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