

ATTENTION: PURCHASING and PROCESS ENGINEERS

SUPER DC CARBIDE REAMERS

11023

Our goal at USAY is simple: to make precision work easier for Mechanical and Machinery Engineers, Designers, and Managers.

THE WORLDS BEST

AT A LOWEST PRICE

These cool cutting reamers are money back satisfaction guaranteed and custom ground for:

****Ultra fine finishes****

****Ultra precision I.D. ****

****Fastest feed rates ****

****Available in two series****

DC Pro and DC Precision

Sizes from .090 to 1.030 inch
CUSTOM GROUND to +/- .000050 in



**WITH ANTI-GALL
AND ANTI-CHATTER**

**SPECIAL POINT DESIGN
SEE DETAIL LAYOUT**

11016

Over 60 years of combined machining background and technologies are built into our **DOUBLE CUT REAMER** design and **SPECIAL PRODUCTION EQUIPEMENT**. The basic designs are similar to standard fluted reamers, however, the initial 45 degree cut is configured to be followed by a **SHAVING ACTION** to produce a..... **COOL CUTTING, ACCURATE, SMOOTH FINISH**. Normally, this shaving action causes the reamer to chatter within the hole, which creates a out of round, rough finish, especially when the reamer margin is very narrow. The DC design contains an**ANTI-CHATTER CONFIGURATION** with a sharp (no margin)..... **ANTI-GALL** shaving edge which allow a highest cutting speed, faster feed rates and longer tool life than normal designs. The anti-chatter feature also allows the reamers to be ground with a **BACK TAPER** on the OD which allows a small collet eccentricity. **FEED RATES 3 TO 5 TIMES FASTER** than normal are possible with finishes up to 10 u-in Ra.

Our **DC PRO** series are processed on special grinders with ... an **ANTI CHATTER** point ... **POLISH / GROUND FLUTES** and **CENTERS** ... with **EXTRA THIN MARGINS** ... and a plus/minus **ONE MICRON OD (.000040 in)**. These reamers normally cut to +/- .0001 inch I.D. with a finish of about Ra 10 u-in. The polished flutes provide a substantial increase of the tool life and a good possibility for **MULTIPLE RE-SHARPENING**.

In summary, DC reamers will cut 2 to 3 times more accurate and produce a fine finish at 5x faster feed rate without chatter, at a low initial cost which is improved further with multiple re-sharpenings.

USAY inc
Advanced Engineering

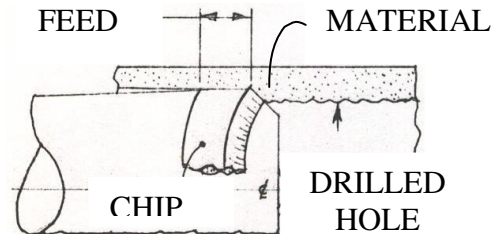
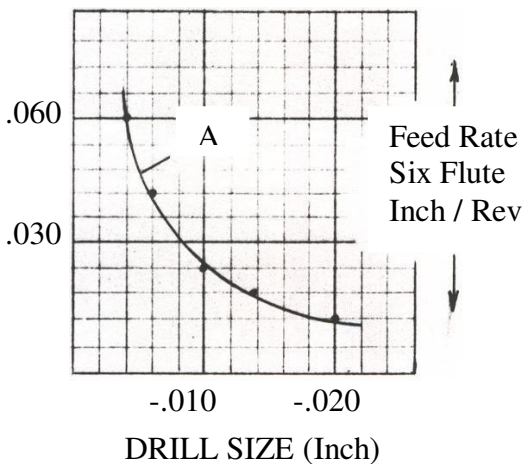
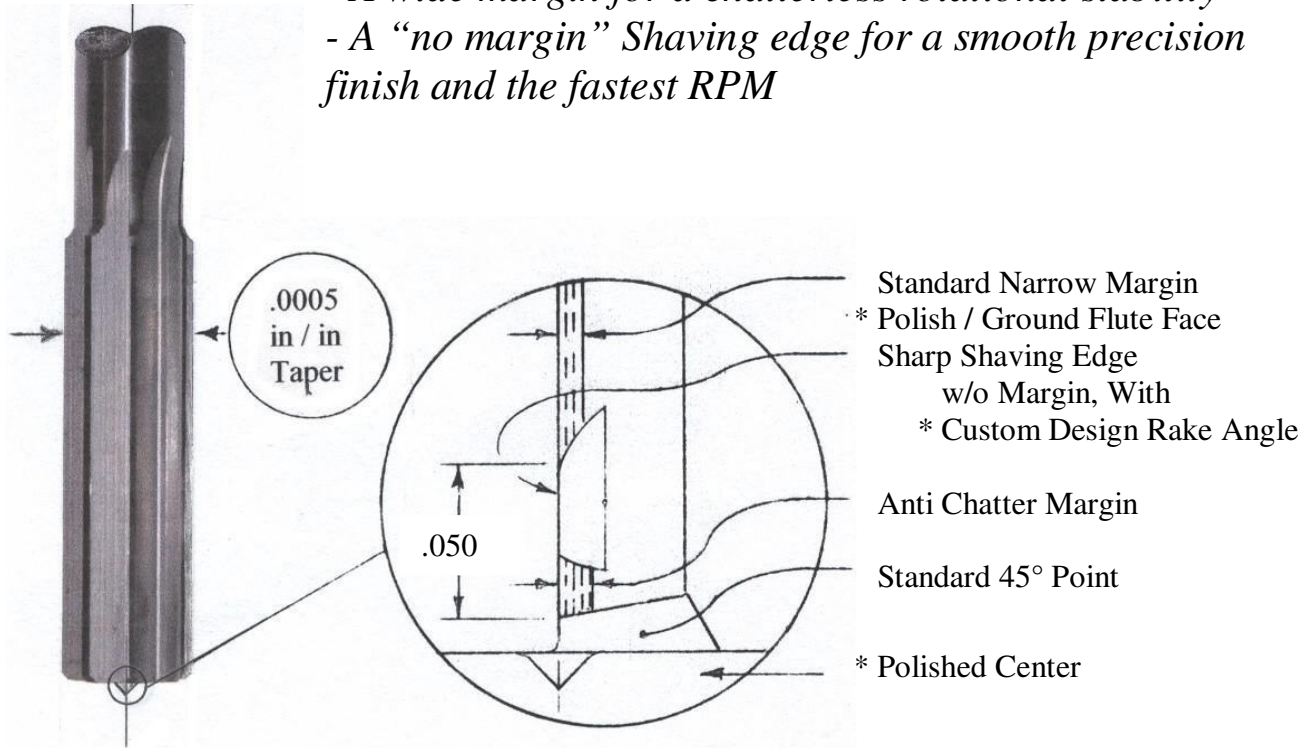
USAY, Inc.
1890 Big Bend Drive
Des Plaines, IL 60016
Phone: (847) 813-6592
Fax: (847) 813-6593
Fax: (847) 699-0744
Email: sales@usayinc.com

Detail Layout

The *Best of Both Worlds*

With our Patent Pending DC designs

- A wide margin for a chatterless rotational stability
- A “no margin” Shaving edge for a smooth precision finish and the fastest RPM



Curve A – 3/8 Reamer dia.....
 Material.....1018 CRS
 Lubrication...Water sol oil
 RPM.....1700
 Flute Face Angle...+4 degree

Type: DC Pro ;Hole Size +.0001/-.0000
 Finish ...12 Ra @ .018 in/rev
 ...21 Ra @ .060 in/rev

* May be omitted on DC Precision Series

Illustration of Finishes

Mechanical and Machinery Engineers, Designers and Managers

DC Pro Reamers will double cut your holes to ± 0.0001 inch in one pass with a normal drilled hole. These **low cost, custom ground** reamers are now available in all sizes from 0.180 to 1.010 inches diameter in increments of 0.0001 inch. DC reamers are ground with a tapered set of shaving edges, following the normal 45° point, which **shaves away the roughness** from the leading 45° cut and **sizes the accuracy**. The anti chatter point stabilize the reamer rotation to produce a perfectly round hole, and also spreads lubrication around the inside wall for a fast and cool cut with finishes better than 15 u-in Ra. Compared to standard reamers, these reamers cut:



3X Better accuracy
3X Better finishes
3X Faster feed rates
XXX No chatter even
 when dull
XXX Extra long tool
 life between sharpening
 due to the fast feed rates
 and shave action

Special set ups, holders or **guides** are not required. A back taper on the flute O.D. allows collet eccentricity up to 0.0005 inch (TIR) per inch of extended length. **Press fits, slip fits** and **compression fits** are - **no problems** - and you may now specify your designs to ± 0.0001 inch and also eliminate costly jig grinding and honing operations. These reamers are easy to setup and use on most metals.