

INTRODUCTION

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US - Introduction

The Corporate Office of Hercules® Sealing Products is located in Clearwater, Florida. Hercules® is an ISO 9001 registered distributor of hydraulic and pneumatic seals, seal kits, repair parts, and replacement cylinders for mobile and industrial applications. Hercules® provides seal products used in hydraulic cylinders to a variety of industries for equipment such as: construction, mining, aerial lift and crane, dump and refuse trucks, material handling, industrial plant applications, paving, agriculture, and logging equipment. Industry-leading technical catalogs provide application, dimensional, material specifications and product pricing.

Hercules® Sealing Products distribution center is located in Louisville, Kentucky. The 120,000 sq. ft facility is located ten minutes from the UPS World Port which allows Hercules to offer the latest cut-off times in the US Seal Industry. The facility features state of the art automation, inventory densification and design scalability.

A technical sales force with 8:00 a.m. to 8:00 p.m. ET hours of operation and an engineering department will provide you with unparalleled technical service. Additional value added services include reduced freight rates, special packaging, wide selection of aftermarket seal kits, largest in-stock inventory in the industry, and same day shipping on orders before 8:00 p.m. ET. Cylinder repair parts such as cylinders, power units, and cylinder rebuilding accessories are also available.

Hercules® Sealing Products offers products from the leading suppliers in the fluid power industry. These suppliers are continually rated and monitored based on the quality of their products. This process enables Hercules® to exceed our goal to deliver the highest quality products and services in the industry.



US HEADQUARTERS AND CALL CENTER
420 Park Place Blvd Suite 100
Clearwater, FL, 33759 U.S.A

Tel: 727.796.1300
Toll Free: 800.777.5617
Fax: 727.797.8849
Toll Free Fax: 800.759.6391
email: sales@HerculesUS.com
www.HerculesUS.com
Customer Service Hours:
8:00 AM to 8:00 PM EST
Monday to Friday



DISTRIBUTION CENTER
4400 Commerce Crossing Dr. Suite 102
Louisville, KY 40229 U.S.A.

Tel: 502.276.0829
Toll Free: 800.777.5617
Fax: 502.290.3296
Toll Free Fax: 800.759.6391
email: sales@HerculesUS.com
www.HerculesUS.com

Online Ordering - www.HerculesUs.com

Placing orders on the Hercules® website is a fast and easy alternative to calling or faxing in your orders. Simply place items in the shopping cart and register during the checkout process, or click the “register” button on the upper right-hand corner of the homepage to start the process prior to shopping. First-Time visitors need to fill out a short profile to view company specific discounts and inventory. To shop quickly, click the “Quick Order Entry” button on the left side menu and add items by part number directly into your shopping cart. For website assistance, e-mail our Help Desk at HelpDesk@HerculesUS.com, click the Live Chat, or call 727-796-1300.

Sign-up for the Hercules e-newsletter, found at the bottom of the homepage, to receive notice of web-only specials, new product announcements and industry specific articles.



Catalog Offerings

Seal Catalog - The Hercules® Seal Catalog contains over 800 pages of seals in the most popular styles and sizes. The easy-to-use format quickly locates u-seals, piston seals, scrapers, o-rings, piston rings, buffer seals, and much more. Each listing includes seal material, temperature and pressure specifications, and cross-sectional drawings to simplify selection.

Industrial Kit Catalog - The Hercules® Industrial Catalog contains priced listings of the wide range of hydraulic / pneumatic sealing and related products for in-plant industrial applications. This catalog includes OEM quality industrial cylinder repair kits for many popular brands of in-plant cylinders such as; Parker, Miller, Hydro-Line, and many more. Additional product offerings include cylinder repair kits for many popular makes of forklifts; including Toyota, Raymond, Caterpillar®-Towmotor and many more.

Mobile Kit Catalog - The Hercules® Kit Catalog contains hydraulic and kit information for mobile applications. Complete cylinder repair kits are listed from over 140 different brands of equipment for construction, mining, aerial lift and crane, logging, refuse, agriculture, paving, and material handling. In addition, a cylinder application reference guide is available to simplify your selection.

Cylinder and Repair Parts Catalog - The Hercules® Cylinder Catalog is packed with valuable for information cylinder replacement and repair parts. It also features our very own HTR, HSTR, HMW, HCW, HTC, and Bobcat cylinders as well as telescopic cylinders, power units, and cylinder repair parts.

Hercules Social Media

Get connected to Hercules® Sealing Products - Go to the Hercules website at www.HerculesUs.com to link directly to our Facebook, Twitter, LinkedIn, Instagram and Hercules YouTube Channel.



Freight Information

Low cost air and ground shipments available world wide. Guaranteed service available (restrictions apply to select zip codes.) One Call to Hercules® Sealing Products gets you top quality seal and repair products, cost saving freight rates, and a wide variety of delivery services to save you time and money! Hercules® pays the dimensional weight charges for air US shipments on boxes up to 13" cubed (additional accessorail charges may apply).



MOST ARRIVE WITHIN 2 DAYS!

United States Postal Service Priority Flat-Rate Options

If It Fits, It Ships for One Low Rate - Anywhere in the Continental United States!

The United States Postal Services is available as a delivery option for all domestic locations. Your flat-rate options are as follows: Small padded envelope, medium and large boxes. When placing your order online at www.HerculesUS.com the envelope or box that would best fit your shipment size will appear on the Shipping and Payment screen. Orders placed via phone or fax will be determined by your regional sales representative.

Shipments placed by 11am EST will ship the same day.

\$13.00*

Priority Flat-Rate Envelope
12-1/2 x 9-1/2 or
8-5/8 x 5-3/8 x 1-5/8



\$20.00*

Priority Flat-Rate
Medium Box
11" x 8 1/2" x 5 1/2"



\$25.00*

Priority Flat-Rate
Large Box
12" x 12" x 5 1/2"



* Includes a \$3.00 shipping and handling charge.

UPS and FedEx Special Discounted Rates

These discounted rates offer significant savings on shipments for zones 103 and up (additional accessorial charges may apply).
 *Rates may be subject to change at any time.



NEXT DAY AIR

(1-7 lbs.)

| Package Weight | Rate |
|----------------|---------|
| 1 LB. | \$39.50 |
| 2 LBS. | 39.50 |
| 3 LBS. | 41.80 |
| 4 LBS. | 46.45 |
| 5 LBS. | 51.20 |
| 6 LBS. | 56.15 |
| 7 LBS. | 63.25 |

8 LBS. AND UP - PUBLISHED UPS RATES.



NEXT DAY AIR

(1-7 lbs.)

| Package Weight | Rate |
|----------------|---------|
| 1 LB. | \$39.50 |
| 2 LBS. | 39.50 |
| 3 LBS. | 41.80 |
| 4 LBS. | 46.45 |
| 5 LBS. | 51.20 |
| 6 LBS. | 56.15 |
| 7 LBS. | 63.25 |

8 LBS. AND UP - PUBLISHED FEDEX RATES

UPS GROUND TRANSIT MAP

Call for Rates.



FEDEX GROUND TRANSIT MAP

Call for Rates.



Order Cut-Off Times

At Hercules, we understand the importance of getting your equipment fixed fast! Therefore, it is imperative that you receive your shipments on-time. Orders placed by the following cut-off times will ship the same day. All cut-off times are based on Eastern Time Zone.

| Order Cut-Off Times | Freight Carriers |
|---------------------|---------------------------------|
| 11:00 am EST | USPS Mail Services |
| 3:30 pm EST | UPS Ground |
| 8:00 pm EST | UPS Air Services |
| 3:30 pm EST | FedEx Ground Services |
| 5:30 pm EST | FedEx Air Services |
| 3:30 pm EST | LTL - All Freight |
| 3:30 pm EST | International Air FedEx and DHL |
| 5:00 pm EST | International Air UPS |

HERCULES® ORDERING INFORMATION

DOMESTIC CUSTOMER SERVICE

SATISFACTION

Total customer satisfaction is our goal. Please call with any questions or problems. Your input helps us to improve our service. We want to be your most reliable supplier.

HOW TO OPEN AN ACCOUNT WITH US - SAME DAY CREDIT APPROVAL

1. Copy and fill out the credit application found on page viii of this catalog.
2. Email or Fax completed and signed Credit Application and your sales tax exempt certificate (if applicable) for processing to 1-800-759-6391 or sales@herculesus.com.
3. We will fax or email an open account letter. — If you need additional information call our Accounting Department at 1-800-244-5617.

HOW TO ORDER FROM US

Hercules can process orders in a number of ways. Orders can be placed by phone 1-800-777-5617, by email sales@herculesus.com, by fax 1-800-759-6391, or by using our website at www.herculesus.com. Our technical sales staff is also available TOLL FREE from 8 a.m. to 8:00 p.m. EST to take your order, assist you in finding the correct part, or answer any questions you may have.

SHIPMENT / DELIVERY

Every order we receive is classified as a RUSH. You tell us how fast you need it. Shipping agreements with UPS and FedEx allow us to offer substantial freight discounts.

PRICE QUOTATIONS/NON-CATALOG ITEMS

Hercules® is constantly adding parts to inventory. If you need a part that is not listed in our catalog, call, email, fax, or send us a sample of the part you need, roughly how many pieces are required, and we will source, quote, order, and stock the parts for you. Call, email or fax us anytime for price and delivery on hard-to-find or non-catalog items. Formal quotations for product and freight costs are gladly furnished upon request.

CREDIT CARDS

Hercules® now accepts all major credit cards.

INTERNATIONAL CUSTOMER SERVICE

MAILING ADDRESS

HERCULES® SEALING PRODUCTS
420 Park Place Blvd. Suite 100
Clearwater, FL 33759 U.S.A.

PHONE / FAX NUMBERS

PHONE: (727) 796-1300
FAX: (727) 797-8849

E-MAIL/WEBSITE

hercules@herculesus.com
<http://www.herculesus.com>

PAYMENT

Payment for all products must be in U.S. dollars.

PLACING ORDERS FOR SHIPMENT

1. Fax, mail, email or telephone order to Hercules®, specifying method of shipment.
2. Hercules will fax or email order value to you. All prices are in U.S. dollars.
3. Wire Instructions: Contact Hercules® for wire transfer details



SHIPMENT / DELIVERY

Hercules® will gladly ship by the carrier of your choice. Please specify any special shipping requirements you may have. All shipments are Ex-Works Louisville, KY, USA, unless otherwise specified or prearranged. Additional charges may be incurred for inbound freight and/or special packaging.

PRICE QUOTATIONS/NON-CATALOG ITEMS

Call, fax, or email us anytime for price and delivery. Formal quotations are gladly furnished upon request.

QUALITY

Hercules® has achieved a worldwide reputation as an organization committed to providing products and services that continually meet or exceed the needs and expectations of our customers. Hercules® is an ISO 9001 registered company.

ANTI-DEFAMATION POLICY

All equipment manufacturer's names, part numbers, and descriptions are used for reference purposes only. We do not imply that any part shown is the product of these manufacturers. We also do not imply that the list price shown is exactly that of the manufacturer.

TERMS AND CONDITIONS

BACKORDERS

Backorders will ship as ordered and additional freight charges will apply. Cancellation of backorders must be requested at the time of order to prevent additional freight charges. All backorders less than \$5.00 will be automatically canceled unless specified otherwise by the customer at the time of order.

CREDIT TERMS

Our payment terms for all open accounts are NET 30 days. Accounts outstanding over 30 days are reviewed daily. At 45 days past due (75 days from invoice date) all orders and backorders will automatically be put on credit hold until full payment is received.

RETURNS

Before you return any item, please call our customer service desk to obtain a Return Material Authorization (RMA) Number. Returned shipments without a Returned Material Authorization (RMA) number will be rejected. Our Receiving Department cannot accept a return without an RMA Number. Parts must be returned within 30 days of receipt of goods. Returned items are subject to a 20% restocking charge. All returns are subject to inspection by our Quality Control Department and may be rejected if not in resalable condition. Special order items are non-returnable.

CLAIMS

It is the policy of HB Sealing Products that inquiries for pricing discrepancies, order discrepancies, freight claims and customer returns must be reported to Hercules Sealing Products Customer Service within 30 days of invoice. Claims/discrepancies reported after 30 days of invoice will not be honored.

ORDER CANCELLATIONS

Orders for Standard Cataloged Products will not be canceled once processed. All custom supplied, non-cataloged products cannot be canceled. Additional cancellation charges may apply.

EXCLUSION OF WARRANTIES; LIMITATIONS OF DAMAGES

EXCEPT AS PROVIDED IN THE NEXT SECTION (TITLED "HERCULES BRAND PRODUCTS CYLINDER WARRANTY") ANY WARRANTIES ON THE PRODUCTS SOLD BY HB SEALING PRODUCTS ARE THOSE MADE BY THE MANUFACTURER. EXCEPT AS PROVIDED IN THE "HERCULES BRAND PRODUCTS CYLINDER WARRANTY", HB SEALING PRODUCTS HEREBY EXPRESSLY DISCLAIMS ALL WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. HB SEALING PRODUCTS NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY LIABILITY IN CONNECTION WITH THE SALE OF ITS PRODUCTS.

IN NO EVENT SHALL HB SEALING PRODUCTS BE LIABLE TO BUYER FOR ANY INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES, INCLUDING (WITHOUT LIMITATION) LOST PROFITS, COSTS OF DELAY, PERSONAL INJURY, PROPERTY DAMAGE OR LIABILITIES TO BUYER OR THIRD PARTIES ARISING FROM ANY SOURCE. THIS LIMITATION ON DAMAGES SHALL APPLY TO ALL PRODUCTS SOLD BY HB SEALING PRODUCTS, INCLUDING HERCULES BRAND PRODUCTS CYLINDERS. IN THE EVENT, THAT, NOTWITHSTANDING THE TERMS OF THIS SECTION, HB SEALING PRODUCTS IS FOUND LIABLE FOR DAMAGES BASED ON ANY DEFECT OR NONCONFORMITY IN PRODUCTS SOLD BY IT, INCLUDING HERCULES BRAND PRODUCTS CYLINDERS, ITS TOTAL LIABILITY FOR EACH DEFECTIVE OR NONCONFORMING PRODUCT SHALL NOT EXCEED THE PRICE PAID BY BUYER FOR SUCH DEFECTIVE PRODUCT.

HERCULES® BRAND PRODUCTS CYLINDER WARRANTY

HB Sealing Products herein supplies a limited express warranty to its buyers who purchase standard or custom Hercules Brand Products Cylinders ("Cylinders"). HB Sealing Products warrants that such Cylinders are free from defects in material and workmanship for a period of 12 months from the date the Cylinders are shipped from HB Sealing Products' facility. HB Sealing Products will repair or replace, at its sole option, Cylinders that are found to be defective in material or workmanship upon inspection by HB Sealing Products personnel when the Cylinders have been used under conditions for which the Cylinders were designed to operate. No warranty will be in effect for any of the following reasons:

- Chemical attack, corrosion or erosion;
- Non-compatible or dirty hydraulic fluid;
- Seal degradation due to contamination (including hydraulic fluids), excessive heat or misapplication;
- Excessive side loading;
- Maintenance or disassembly of the cylinder if performed by anyone other than HB Sealing Products personnel without HB Sealing Products' permission, prior to the date of warranty expiration;
- Removal of the HB Sealing Products ID tag indicating bore, stroke, and other information concerning traceability; or Instances of improper installation or misapplication of the Cylinders.

Due to the variety of operating conditions and applications for the Cylinders and HB Sealing Products' related products, HB Sealing Products recommends that Buyer analyze all aspects of the application and carefully select the correct cylinder product to fit the buyer's application. Buyer is solely responsible for the cylinder product selection in assessing that all performance, safety and warning requirements of the application are met. IMPROPER CYLINDER PRODUCT SELECTION, MISAPPLIED ENGINEERING OR IMPROPER USE OF THE CYLINDERS AND RELATED PRODUCTS DESCRIBED HEREIN MAY CAUSE DEATH, PERSONAL INJURY AND /OR PROPERTY DAMAGE. HB Sealing Products does not imply or represent that the Cylinders will work properly in any customer application. No sales agent of HB Sealing Products shall have the right to determine warranty periods, terms or conditions for Cylinders if such statements by the sales agents are different from those included herein. Buyer understands that HB Sealing Products will not be held liable for any other costs or damages including any charges for removal, installation, assembly or any other charges in connection with the replacement or repair of the Cylinders. All returned products must have, before being returned to HB Sealing Products, an "RMA" (return material authorization) number assigned to it by HB Sealing Products' customer service department.

THE WARRANTY STATED IN THIS SECTION IS HB SEALING PRODUCTS' SOLE AND EXCLUSIVE WARRANTY PERTAINING TO THE CYLINDERS, AND HB SEALING PRODUCTS HEREBY DISCLAIMS ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE FOR THE CYLINDERS.

CREDIT APPLICATION



Hercules Sealing Products
420 Park Place Blvd, Suite 100
Clearwater, FL 33759 USA

CREDIT APPLICATION

Toll Free: 1-800-777-5617
International: (727)796-1300
Fax: (800)759-6391
Intl Fax: (727)797-8849
E-Mail: sales@herculesus.com

| |
|---|
| Please Indicate Type of Request: <input type="checkbox"/> Catalog <input type="checkbox"/> COD <input type="checkbox"/> Credit Card <input type="checkbox"/> Net 30 |
|---|

COMPANY INFORMATION

Company Name: _____
Billing Address: _____ City: _____ State: _____ Zip: _____
Shipping Address: _____ City: _____ State: _____ Zip: _____
Branch Office: _____ DBA: _____
Phone: _____ Fax: _____
Business Structure (Sole Ownership, Partnership, Corporation): _____
Type of Business: _____ Year Business Established: At current Address Since: _____
Federal ID#: _____ President/Owner SSN: _____
Owner/President: _____ Controller: _____
Accounts Payable Contact: _____ AP Email Address (Invoices will be emailed here): _____
Primary Contact Person: _____ Title: _____
Controller: _____ Annual Purchases: _____
Website: _____ E-Mail: _____

Primary Industry: Construction Mining Refuse/Waste Material Handling Aerial Lift/Crane Agriculture Oil and Gas
(Check One) Concrete/Paving Logging/Forestry Industrial Plant Automotive/Marine Rental Equipment

BANK REFERENCES

Bank Name and Address: _____
Account #: _____ Contact Name & Phone: _____

TRADE REFERENCES

Firm Name: _____ City, State: _____ Phone/Email/Fax: _____
1: _____
2: _____
3: _____

CREDIT AGREEMENT

I understand the following and will abide by your company regulations:

1. Notify Hercules Sealing Products of any changes in ownership of your company.
2. If granted credit, our company agrees to pay all invoices within 30 days of invoice date.
3. It is agreed that our company will pay 1.5% per month which is 18% yearly for all past due balances.
4. It is agreed that our account will become COD if we fail to pay invoices within the above stated terms.
5. Our company financial condition is satisfactory and we can meet all financial obligations.
6. There are no lawsuits or judgements against me at this present time. If our company defaults on payment of any outstanding valid invoices we agree to pay attorney and/or collection expenses.

Credit Amount Requested

AGREE TO PAY MY ACCOUNT WITHIN THE TERMS AND AUTHORIZE YOU TO OBTAIN SUCH INFORMATION YOU MAY REQUIRE CONCERNING THIS APPLICATION.

Date _____ Signed _____
X _____ Title _____
PERSONAL GUARANTEE

REFERRAL INFORMATION




How did you learn about Hercules Sealing Products? Please choose one and provide detailed information:

Trade Show: _____ Magazine: _____ Previous Employer: _____
Hercules Customer: _____ Website or Search: _____ Other: _____

Metal Working

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HEAVY DUTY JOBBER LENGTH HSS, 135 DEGREE SPLIT POINT



HCT-DRL-1/16-HD/JL-HSS

Features and Benefits:

- Jobber drills are the most common drill. They have the length and rigidity for a wide range of applications
- Black Oxide Drills provide less friction than bright drills
- 135 Degree Split Point drills are self-centering and reduce cutting forces

| Part Number | Type | Material | Drill Dia. | Overall Length | Flute Length | Finish | List Price |
|-------------------------|-------------------|------------------|------------|----------------|--------------|-------------|------------|
| HCT-DRL-1/16-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 1/16 | 1-7/8 | 7/8 | Black Oxide | \$1.90 |
| HCT-DRL-5/64-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 5/64 | 2 | 1 | Black Oxide | 1.91 |
| HCT-DRL-3/32-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 3/32 | 2-1/4 | 1-1/4 | Black Oxide | 1.97 |
| HCT-DRL-7/64-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 7/64 | 2-5/8 | 1-1/2 | Black Oxide | 1.97 |
| HCT-DRL-1/8-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 1/8 | 2-3/4 | 1-5/8 | Black Oxide | 2.05 |
| HCT-DRL-9/64-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 9/64 | 2-7/8 | 1-3/4 | Black Oxide | 2.11 |
| HCT-DRL-5/32-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 5/32 | 3-1/8 | 2 | Black Oxide | 2.26 |
| HCT-DRL-11/64-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 11/64 | 3-1/4 | 2-1/8 | Black Oxide | 2.35 |
| HCT-DRL-3/16-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 3/16 | 3-1/2 | 2-5/16 | Black Oxide | 2.61 |
| HCT-DRL-13/64-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 13/64 | 3-5/8 | 2-7/16 | Black Oxide | 2.84 |
| HCT-DRL-7/32-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 7/32 | 3-3/4 | 2-1/2 | Black Oxide | 3.21 |
| HCT-DRL-15/64-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 15/64 | 3-7/8 | 2-5/8 | Black Oxide | 3.47 |
| HCT-DRL-1/4-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 1/4 | 4 | 2-3/4 | Black Oxide | 3.55 |
| HCT-DRL-17/64-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 17/64 | 4-1/8 | 2-7/8 | Black Oxide | 4.26 |
| HCT-DRL-9/32-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 9/32 | 4-1/4 | 2-15/16 | Black Oxide | 4.41 |
| HCT-DRL-19/64-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 19/64 | 4-3/8 | 3-1/16 | Black Oxide | 5.27 |
| HCT-DRL-5/16-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 5/16 | 4-1/2 | 3-3/16 | Black Oxide | 5.48 |
| HCT-DRL-21/64-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 21/64 | 4-5/8 | 3-5/16 | Black Oxide | 6.31 |
| HCT-DRL-11/32-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 11/32 | 4-3/4 | 3-7/16 | Black Oxide | 6.90 |
| HCT-DRL-23/64-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 23/64 | 4-7/8 | 3-1/2 | Black Oxide | 7.40 |
| HCT-DRL-3/8-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 3/8 | 5 | 3-5/8 | Black Oxide | 7.72 |
| HCT-DRL-25/64-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 25/64 | 5-1/8 | 3-3/4 | Black Oxide | 8.76 |
| HCT-DRL-13/32-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 13/32 | 5-1/4 | 3-7/8 | Black Oxide | 9.54 |
| HCT-DRL-27/64-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 27/64 | 5-3/8 | 3-15/16 | Black Oxide | 10.22 |
| HCT-DRL-7/16-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 7/16 | 5-1/2 | 4-1/16 | Black Oxide | 10.92 |
| HCT-DRL-29/64-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 29/64 | 5-5/8 | 4-3/16 | Black Oxide | 12.47 |
| HCT-DRL-15/32-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 15/32 | 5-3/4 | 4-5/16 | Black Oxide | 13.06 |
| HCT-DRL-31/64-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 31/64 | 5-7/8 | 4-3/8 | Black Oxide | 13.37 |
| HCT-DRL-1/2-HD/JL-HSS | Heavy Duty/Jobber | High Speed Steel | 1/2 | 6 | 4-1/2 | Black Oxide | 13.85 |

HEAVY DUTY JOBBER LENGTH HSS-COBALT, 135 DEGREE SPLIT POINT, STRAW



HCT-DRL-1/64-HD/JL-COB

Features and Benefits:

- Jobber drills are the most common drill. They have the length and rigidity for a wide range of applications
- Cobalt Drills resist heat and wear better than HSS drills
Cobalt Drills are the preferred drills for stainless steel and high temp alloys
- 135 Degree Split Point drills are self-centering and reduce cutting forces

| Part Number | Type | Material | Drill Dia. | Overall Length | Flute Length | Finish | List Price |
|-------------------------|-------------------|----------|------------|----------------|--------------|--------|------------|
| HCT-DRL-1/64-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 1/64 | 3/4 | 3/16 | Bronze | \$4.82 |
| HCT-DRL-1/32-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 1/32 | 1-3/8 | 0.200 | Bronze | 2.95 |
| HCT-DRL-3/64-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 3/64 | 1-3/4 | 3/4 | Bronze | 2.59 |
| HCT-DRL-1/16-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 1/16 | 1-7/8 | 7/8 | Bronze | 2.15 |
| HCT-DRL-5/64-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 5/64 | 2 | 1 | Bronze | 2.08 |
| HCT-DRL-3/32-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 3/32 | 2-1/4 | 1-1/4 | Bronze | 2.22 |
| HCT-DRL-7/64-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 7/64 | 2-5/8 | 1-1/2 | Bronze | 2.43 |
| HCT-DRL-1/8-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 1/8 | 2-3/4 | 1-5/8 | Bronze | 2.81 |
| HCT-DRL-9/64-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 9/64 | 2-7/8 | 1-3/4 | Bronze | 2.95 |
| HCT-DRL-5/32-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 5/32 | 3-1/8 | 2 | Bronze | 3.18 |
| HCT-DRL-11/64-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 11/64 | 3-1/4 | 2-1/8 | Bronze | 3.44 |
| HCT-DRL-3/16-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 3/16 | 3-1/2 | 2-5/16 | Bronze | 3.70 |
| HCT-DRL-13/64-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 13/64 | 3-5/8 | 2-7/16 | Bronze | 4.30 |
| HCT-DRL-7/32-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 7/32 | 3-3/4 | 2-1/2 | Bronze | 4.59 |
| HCT-DRL-15/64-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 15/64 | 3-7/8 | 2-5/8 | Bronze | 5.01 |
| HCT-DRL-1/4-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 1/4 | 4 | 2-3/4 | Bronze | 5.34 |
| HCT-DRL-17/64-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 17/64 | 4-1/8 | 2-7/8 | Bronze | 6.24 |
| HCT-DRL-9/32-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 9/32 | 4-1/4 | 2-15/16 | Bronze | 7.01 |
| HCT-DRL-19/64-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 19/64 | 4-3/8 | 3-1/16 | Bronze | 7.70 |
| HCT-DRL-5/16-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 5/16 | 4-1/2 | 3-3/16 | Bronze | 8.39 |
| HCT-DRL-21/64-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 21/64 | 4-5/8 | 3-5/16 | Bronze | 9.56 |
| HCT-DRL-11/32-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 11/32 | 4-3/4 | 3-7/16 | Bronze | 10.39 |
| HCT-DRL-23/64-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 23/64 | 4-7/8 | 3-1/2 | Bronze | 11.27 |
| HCT-DRL-3/8-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 3/8 | 5 | 3-5/8 | Bronze | 12.26 |
| HCT-DRL-25/64-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 25/64 | 5-1/8 | 3-3/4 | Bronze | 13.51 |
| HCT-DRL-13/32-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 13/32 | 5-1/4 | 3-7/8 | Bronze | 14.68 |
| HCT-DRL-27/64-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 27/64 | 5-3/8 | 3-15/16 | Bronze | 15.69 |
| HCT-DRL-7/16-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 7/16 | 5-1/2 | 4-1/16 | Bronze | 16.67 |
| HCT-DRL-29/64-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 29/64 | 5-5/8 | 4-3/16 | Bronze | 18.13 |
| HCT-DRL-15/32-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 15/32 | 5-3/4 | 4-5/16 | Bronze | 19.02 |
| HCT-DRL-31/64-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 31/64 | 5-7/8 | 4-3/8 | Bronze | 20.23 |
| HCT-DRL-1/2-HD/JL-COB | Heavy Duty/Jobber | Cobalt | 1/2 | 6 | 4-1/2 | Bronze | 21.24 |

SILVER & DEMING - HSS, 118 DEGREE SPLIT POINT, FLATS, BLACK & GOLD, 1/2" REDUCED SHANK



HCT-DRL-1-SD-HSS

Features and Benefits:

- Silver & Deming 1/2" shank drills allow you to drill large holes. with machines that have small-capacity chucks
- These drills have 3 Flats on the shank to prevent the drill from slipping in the drill chuck
- Black & Gold drills provide less friction than bright drills.
- 118 Degree Split Point drills are self-centering and reduce cutting forces

| Part Number | Type | Material | Drill Dia. | Overall Length | Flute Length | Flats On Shank | Finish | List Price |
|-----------------------|---------------|------------------|------------|----------------|--------------|----------------|----------------|------------|
| HCT-DRL-33/64-SD-HSS | Silver Deming | High Speed Steel | 33/64 | 6" | 3-1/8" | 3 | Black and Gold | \$27.76 |
| HCT-DRL-17/32-SD-HSS | Silver Deming | High Speed Steel | 17/32 | 6" | 3-1/8" | 3 | Black and Gold | 27.76 |
| HCT-DRL-35/64-SD-HSS | Silver Deming | High Speed Steel | 35/64 | 6" | 3-1/8" | 3 | Black and Gold | 29.16 |
| HCT-DRL-9/16-SD-HSS | Silver Deming | High Speed Steel | 9/16 | 6" | 3-1/8" | 3 | Black and Gold | 29.21 |
| HCT-DRL-37/64-SD-HSS | Silver Deming | High Speed Steel | 37/64 | 6" | 3-1/8" | 3 | Black and Gold | 31.30 |
| HCT-DRL-19/32-SD-HSS | Silver Deming | High Speed Steel | 19/32 | 6" | 3-1/8" | 3 | Black and Gold | 31.36 |
| HCT-DRL-39/64-SD-HSS | Silver Deming | High Speed Steel | 39/64 | 6" | 3-1/8" | 3 | Black and Gold | 32.81 |
| HCT-DRL-5/8-SD-HSS | Silver Deming | High Speed Steel | 5/8 | 6" | 3-1/8" | 3 | Black and Gold | 32.84 |
| HCT-DRL-41/64-SD-HSS | Silver Deming | High Speed Steel | 41/64 | 6" | 3-1/8" | 3 | Black and Gold | 35.18 |
| HCT-DRL-21/32-SD-HSS | Silver Deming | High Speed Steel | 21/32 | 6" | 3-1/8" | 3 | Black and Gold | 35.16 |
| HCT-DRL-43/64-SD-HSS | Silver Deming | High Speed Steel | 43/64 | 6" | 3-1/8" | 3 | Black and Gold | 36.68 |
| HCT-DRL-11/16-SD-HSS | Silver Deming | High Speed Steel | 11/16 | 6" | 3-1/8" | 3 | Black and Gold | 36.72 |
| HCT-DRL-45/64-SD-HSS | Silver Deming | High Speed Steel | 45/64 | 6" | 3-1/8" | 3 | Black and Gold | 37.22 |
| HCT-DRL-23/32-SD-HSS | Silver Deming | High Speed Steel | 23/32 | 6" | 3-1/8" | 3 | Black and Gold | 37.88 |
| HCT-DRL-47/64-SD-HSS | Silver Deming | High Speed Steel | 47/64 | 6" | 3-1/8" | 3 | Black and Gold | 39.34 |
| HCT-DRL-3/4-SD-HSS | Silver Deming | High Speed Steel | 3/4 | 6" | 3-1/8" | 3 | Black and Gold | 39.81 |
| HCT-DRL-49/64-SD-HSS | Silver Deming | High Speed Steel | 49/64 | 6" | 3-1/8" | 3 | Black and Gold | 41.82 |
| HCT-DRL-25/32-SD-HSS | Silver Deming | High Speed Steel | 25/32 | 6" | 3-1/8" | 3 | Black and Gold | 42.80 |
| HCT-DRL-51/64-SD-HSS | Silver Deming | High Speed Steel | 51/64 | 6" | 3-1/8" | 3 | Black and Gold | 43.51 |
| HCT-DRL-13/16-SD-HSS | Silver Deming | High Speed Steel | 13/16 | 6" | 3-1/8" | 3 | Black and Gold | 45.82 |
| HCT-DRL-53/64-SD-HSS | Silver Deming | High Speed Steel | 53/64 | 6" | 3-1/8" | 3 | Black and Gold | 45.18 |
| HCT-DRL-27/32-SD-HSS | Silver Deming | High Speed Steel | 27/32 | 6" | 3-1/8" | 3 | Black and Gold | 47.53 |
| HCT-DRL-55/64-SD-HSS | Silver Deming | High Speed Steel | 55/64 | 6" | 3-1/8" | 3 | Black and Gold | 44.85 |
| HCT-DRL-7/8-SD-HSS | Silver Deming | High Speed Steel | 7/8 | 6" | 3-1/8" | 3 | Black and Gold | 49.12 |
| HCT-DRL-57/64-SD-HSS | Silver Deming | High Speed Steel | 57/64 | 6" | 3-1/8" | 3 | Black and Gold | 54.66 |
| HCT-DRL-29/32-SD-HSS | Silver Deming | High Speed Steel | 29/32 | 6" | 3-1/8" | 3 | Black and Gold | 52.71 |
| HCT-DRL-59/64-SD-HSS | Silver Deming | High Speed Steel | 59/64 | 6" | 3-1/8" | 3 | Black and Gold | 58.38 |
| HCT-DRL-15/16-SD-HSS | Silver Deming | High Speed Steel | 15/16 | 6" | 3-1/8" | 3 | Black and Gold | 55.56 |
| HCT-DRL-61/64-SD-HSS | Silver Deming | High Speed Steel | 61/64 | 6" | 3-1/8" | 3 | Black and Gold | 61.70 |
| HCT-DRL-31/32-SD-HSS | Silver Deming | High Speed Steel | 31/32 | 6" | 3-1/8" | 3 | Black and Gold | 57.23 |
| HCT-DRL-63/64-SD-HSS | Silver Deming | High Speed Steel | 63/64 | 6" | 3-1/8" | 3 | Black and Gold | 64.97 |
| HCT-DRL-1-SD-HSS | Silver Deming | High Speed Steel | 1 | 6" | 3-1/8" | 3 | Black and Gold | 66.47 |
| HCT-DRL-1-1/64-SD-HSS | Silver Deming | High Speed Steel | 1 1/64 | 6" | 3-1/8" | 3 | Black and Gold | 73.91 |
| HCT-DRL-1-1/32-SD-HSS | Silver Deming | High Speed Steel | 1 1/32 | 6" | 3-1/8" | 3 | Black and Gold | 77.21 |
| HCT-DRL-1-1/16-SD-HSS | Silver Deming | High Speed Steel | 1 1/16 | 6" | 3-1/8" | 3 | Black and Gold | 83.61 |
| HCT-DRL-1-3/32-SD-HSS | Silver Deming | High Speed Steel | 1 3/32 | 6" | 3-1/8" | 3 | Black and Gold | 83.49 |
| HCT-DRL-1-1/8-SD-HSS | Silver Deming | High Speed Steel | 1 1/8 | 6" | 3-1/8" | 3 | Black and Gold | 89.84 |
| HCT-DRL-1-5/32-SD-HSS | Silver Deming | High Speed Steel | 1 5/32 | 6" | 3-1/8" | 3 | Black and Gold | 90.23 |
| HCT-DRL-1-3/16-SD-HSS | Silver Deming | High Speed Steel | 1 3/16 | 6" | 3-1/8" | 3 | Black and Gold | 98.94 |
| HCT-DRL-1-7/32-SD-HSS | Silver Deming | High Speed Steel | 1 7/32 | 6" | 3-1/8" | 3 | Black and Gold | 106.82 |
| HCT-DRL-1-1/4-SD-HSS | Silver Deming | High Speed Steel | 1 1/4 | 6" | 3-1/8" | 3 | Black and Gold | 107.87 |
| HCT-DRL-1-5/16-SD-HSS | Silver Deming | High Speed Steel | 1 5/16 | 6" | 3-1/8" | 3 | Black and Gold | 147.99 |
| HCT-DRL-1-3/8-SD-HSS | Silver Deming | High Speed Steel | 1 3/8 | 6" | 3-1/8" | 3 | Black and Gold | 160.61 |
| HCT-DRL-1-7/16-SD-HSS | Silver Deming | High Speed Steel | 1 7/16 | 6" | 3-1/8" | 3 | Black and Gold | 180.48 |
| HCT-DRL-1-1/2-SD-HSS | Silver Deming | High Speed Steel | 1 1/2 | 6" | 3-1/8" | 3 | Black and Gold | 194.51 |

DRILL SETS

29 PIECE MECHANICS LENGTH 135 DEGREE SPLIT POINT SET

Part Number:

HCT-DRL-BG MECH SET 29

List Price: \$167.69

Description: This set consists of 29 drill bits ranging from 1/16"-1/2", with an increment of 1/64"



15 PIECE HEAVY DUTY JOBBER 135 DEGREE SPLIT POINT SET

Part Number:

HCT-DRL-BGHD SET 15

List Price: \$72.79

Description: This set contains 15 Right Hand Black & Gold Heavy Duty HSS drills and comes in a metal case. Sizes range between 1/16" to 1/2" with an increment of 1/32".



18 PIECE DRILL AND TAP SET HEAVY DUTY DRILL AND HAND TAPS

Part Number:

HCT-BRT DRL/TAPS SET 18

List Price: \$150.80

Description: This set contains 9 Drills & 9 Taps in bright HSS and comes in a metal case.

Drill Sizes: #36, #29, #25, #21, #7, F, 5/16, U, 27/64

Tap Sizes: #6-32 NC, #8-32 NC, #10-24 NC, #10-32 NF, 1/4-20 NC, 5/16-18 NC, 3/8-16 NC, 7/16-14 NC, 1/2-13 NC



25 PIECE METRIC HEAVY DUTY JOBBER 135 DEGREE SPLIT POINT DRILL SET

Part Number:

HCT-DRL-GPBO SET 25

List Price: \$127.07

Description: This metric drill set contains 25 jobber length drill bits ranging between 1.0mm to 13.0mm with an increment of 0.5mm.



DRILL AND COUNTERSINK - HSS, BRIGHT, 60 DEGREES



Features and Benefits:

- Designed to drill and counter-sink a hole with one tool
- 60 degree angle is compatible with the profile of centers on a lathe

PLAIN TYPE COMBO DRILL & COUNTERSINKS

| Hercules Part Number | Trade Size | Type | Overall Length | Body Diameter | Drill Diameter | Drill Length | List Price |
|----------------------|------------|-------|----------------|---------------|----------------|--------------|------------|
| HCT-DCSK-PLN-5/64 | #2 | Plain | 1-7/8" | 3/16" | 5/64" | 0.078 | \$11.33 |
| HCT-DCSK-PLN-7/64 | #3 | Plain | 2" | 1/4" | 7/64" | 0.109 | 11.33 |
| HCT-DCSK-PLN-1/8 | #4 | Plain | 2-1/8" | 5/16" | 1/8" | 0.125 | 11.69 |
| HCT-DCSK-PLN-3/16 | #5 | Plain | 2-3/4" | 7/16" | 3/16" | 0.188 | 17.67 |
| HCT-DCSK-PLN-7/32 | #6 | Plain | 3" | 1/2" | 7/32" | 0.219 | 26.37 |
| HCT-DCSK-PLN-1/4 | #7 | Plain | 3-1/4" | 5/8" | 1/4" | 0.250 | 40.49 |
| HCT-DCSK-PLN-5/16 | #8 | Plain | 3-1/2" | 3/4" | 5/16" | 0.313 | 51.07 |



Features and Benefits:

- Designed to drill and counter-sink a hole with one tool
- 60 degree angle is compatible with the profile of centers on a lathe

BELL TYPE COMBO DRILL & COUNTERSINKS

| Hercules Part Number | Trade Size | Type | Overall Length | Body Diameter | Drill Diameter | Bell Diameter | Drill Length | List Price |
|----------------------|------------|------|----------------|---------------|----------------|---------------|--------------|------------|
| HCT-DCSK-BELL-1/16 | #12 | Bell | 1-7/8" | 3/16" | 1/16" | 0.150 | 0.063 | \$13.90 |
| HCT-DCSK-BELL-3/32 | #13 | Bell | 2" | 1/4" | 3/32" | 0.200 | 0.940 | 14.41 |
| HCT-DCSK-BELL-7/64 | #14 | Bell | 2-1/8" | 5/16" | 7/64" | 0.250 | 0.109 | 14.41 |
| HCT-DCSK-BELL-5/32 | #15 | Bell | 2-3/4" | 7/16" | 5/32" | 0.350 | 0.156 | 20.25 |
| HCT-DCSK-BELL-3/16 | #16 | Bell | 3" | 1/2" | 3/16" | 0.400 | 0.188 | 30.50 |
| HCT-DCSK-BELL-7/32 | #17 | Bell | 3-1/4" | 5/8" | 7/32" | 0.500 | 0.219 | 42.33 |
| HCT-DCSK-BELL-1/4 | #18 | Bell | 3-1/2" | 3/4" | 1/4" | 0.600 | 0.250 | 56.44 |

* All Countersinks are High Speed Steel (HSS)

HAND TAP INCH - HSS, TAPER PLUG & BOTTOM CHAMFER



HCT-TAP-001

Features and Benefits:

- Hand taps have a wide range of applications from maintenance to short production needs
- Hand taps can be used with tap wrenches, drill presses and milling machines
- Taper chamfer taps are used to start a hole using manual tapping methods
- Bottoming chamfer taps are used to tap close to the bottom of a blind hole
- Plug chamfer taps are used for most applications and produce a finished thread in one pass

| Part Number | TAP Size | Thread Form | No. Of Flutes | Tap Chamfer | Overall Length | Thread Length | List Price |
|-------------|----------|-------------|---------------|-------------|----------------|---------------|------------|
| HCT-TAP-001 | 1-72 | UNF | 2 | Bottoming | 1.688 | 0.375 | \$15.10 |
| HCT-TAP-002 | 1-72 | UNF | 2 | Plug | 1.688 | 0.375 | 16.08 |
| HCT-TAP-003 | 1-72 | UNF | 2 | Taper | 1.688 | 0.375 | 13.06 |
| HCT-TAP-004 | 2-56 | UNC | 3 | Bottoming | 1.750 | 0.375 | 13.09 |
| HCT-TAP-005 | 2-56 | UNC | 3 | Plug | 1.750 | 0.375 | 13.46 |
| HCT-TAP-006 | 2-56 | UNC | 3 | Taper | 1.750 | 0.375 | 14.51 |
| HCT-TAP-007 | 2-64 | UNF | 3 | Bottoming | 1.750 | 0.438 | 14.24 |
| HCT-TAP-008 | 2-64 | UNF | 3 | Plug | 1.750 | 0.438 | 13.46 |
| HCT-TAP-009 | 2-64 | UNF | 3 | Taper | 1.750 | 0.438 | 16.02 |
| HCT-TAP-010 | 3-48 | UNC | 3 | Bottoming | 1.813 | 0.500 | 11.00 |
| HCT-TAP-011 | 3-48 | UNF | 3 | Plug | 1.813 | 0.500 | 11.53 |
| HCT-TAP-012 | 3-48 | UNC | 3 | Taper | 1.813 | 0.500 | 11.19 |
| HCT-TAP-013 | 3-56 | UNF | 3 | Bottoming | 1.813 | 0.500 | 12.44 |
| HCT-TAP-014 | 3-56 | UNC | 3 | Plug | 1.813 | 0.500 | 12.92 |
| HCT-TAP-015 | 3-56 | UNF | 3 | Taper | 1.813 | 0.500 | 12.47 |
| HCT-TAP-016 | 4-40 | UNC | 3 | Bottoming | 1.875 | 0.563 | 8.00 |
| HCT-TAP-017 | 4-40 | UNC | 3 | Plug | 1.875 | 0.563 | 8.02 |
| HCT-TAP-018 | 4-40 | UNC | 3 | Taper | 1.875 | 0.563 | 9.15 |
| HCT-TAP-019 | 4-48 | UNF | 3 | Bottoming | 1.875 | 0.563 | 9.47 |
| HCT-TAP-020 | 4-48 | UNF | 3 | Plug | 1.875 | 0.563 | 10.31 |
| HCT-TAP-021 | 4-48 | UNF | 3 | Taper | 1.875 | 0.563 | 9.86 |
| HCT-TAP-022 | 5-40 | UNC | 3 | Bottoming | 1.938 | 0.625 | 9.09 |
| HCT-TAP-023 | 5-40 | UNC | 3 | Plug | 1.938 | 0.625 | 9.55 |
| HCT-TAP-024 | 5-40 | UNC | 3 | Taper | 1.938 | 0.625 | 9.15 |
| HCT-TAP-025 | 5-44 | UNF | 3 | Bottoming | 1.938 | 0.625 | 9.82 |
| HCT-TAP-026 | 5-44 | UNF | 3 | Plug | 1.938 | 0.625 | 10.31 |
| HCT-TAP-027 | 5-44 | UNF | 3 | Taper | 1.938 | 0.625 | 9.86 |
| HCT-TAP-028 | 6-32 | UNC | 3 | Bottoming | 2.000 | 0.688 | 8.98 |
| HCT-TAP-029 | 6-32 | UNC | 3 | Plug | 2.000 | 0.688 | 9.73 |
| HCT-TAP-030 | 6-32 | UNC | 3 | Taper | 2.000 | 0.688 | 6.87 |
| HCT-TAP-031 | 6-40 | UNF | 3 | Bottoming | 2.000 | 0.688 | 7.29 |
| HCT-TAP-032 | 6-40 | UNF | 3 | Plug | 2.000 | 0.688 | 11.14 |
| HCT-TAP-033 | 6-40 | UNF | 3 | Taper | 2.000 | 0.688 | 7.42 |
| HCT-TAP-034 | 8-32 | UNC | 4 | Bottoming | 2.125 | 0.750 | 6.29 |
| HCT-TAP-035 | 8-32 | UNC | 4 | Plug | 2.125 | 0.750 | 6.56 |
| HCT-TAP-036 | 8-32 | UNC | 4 | Taper | 2.125 | 0.750 | 6.87 |
| HCT-TAP-037 | 8-36 | UNF | 4 | Bottoming | 2.125 | 0.750 | 6.73 |
| HCT-TAP-038 | 8-36 | UNF | 4 | Plug | 2.125 | 0.750 | 7.74 |
| HCT-TAP-039 | 8-36 | UNF | 4 | Taper | 2.125 | 0.750 | 7.42 |
| HCT-TAP-040 | 10-24 | UNC | 4 | Bottoming | 2.375 | 0.875 | 6.29 |
| HCT-TAP-041 | 10-24 | UNC | 4 | Plug | 2.375 | 0.875 | 6.87 |
| HCT-TAP-042 | 10-24 | UNC | 4 | Taper | 2.375 | 0.875 | 7.44 |
| HCT-TAP-043 | 10-32 | UNF | 4 | Bottoming | 2.375 | 0.875 | 6.29 |
| HCT-TAP-044 | 10-32 | UNF | 4 | Plug | 2.375 | 0.875 | 6.67 |
| HCT-TAP-045 | 10-32 | UNF | 4 | Taper | 2.375 | 0.875 | 7.44 |
| HCT-TAP-046 | 12-24 | UNC | 4 | Bottoming | 2.375 | 0.938 | 7.54 |
| HCT-TAP-047 | 12-24 | UNC | 4 | Plug | 2.375 | 0.938 | 7.95 |
| HCT-TAP-048 | 12-24 | UNC | 4 | Taper | 2.375 | 0.938 | 7.80 |

* All Taps are High Speed Steel (HSS)

* Reference Pages 15-16 for Drill Size Recommendations and Page 14 for Thread Identification Chart

ADDITIONAL METAL WORKING PARTS NOT LISTED IN THE CATALOG CAN BE REQUESTED BY CONTACTING HERCULES SALES TEAM AT 1-800-777-5617 OR SALES@HERCULESUS.COM

HAND TAP INCH - HSS, TAPER PLUG & BOTTOM CHAMFER



HCT-TAP-049

Features and Benefits:

- Hand taps have a wide range of applications from maintenance to short production needs
- Hand taps can be used with tap wrenches, drill presses and milling machines
- Taper chamfer taps are used to start a hole using manual tapping methods
- Bottoming chamfer taps are used to tap close to the bottom of a blind hole
- Plug chamfer taps are used for most applications and produce a finished thread in one pass

* All Taps are High Speed Steel (HSS)

* Reference Pages 12-13 for Drill Size Recommendations

* Reference Page 19 for Thread Identification Chart

| Part Number | Tap Size | Thread Form | No. Of. Flutes | Tap Chamfer | Overall Length | Thread Length | List Price |
|-------------|----------|-------------|----------------|-------------|----------------|---------------|------------|
| HCT-TAP-049 | 12-28 | UNF | 4 | Bottoming | 2.375 | 0.938 | \$8.54 |
| HCT-TAP-050 | 12-28 | UNF | 4 | Plug | 2.375 | 0.938 | 8.95 |
| HCT-TAP-051 | 12-28 | UNF | 4 | Taper | 2.375 | 0.938 | 8.58 |
| HCT-TAP-052 | 1/4-20 | UNC | 4 | Bottoming | 2.500 | 1.000 | 6.87 |
| HCT-TAP-053 | 1/4-20 | UNC | 4 | Plug | 2.500 | 1.000 | 6.87 |
| HCT-TAP-054 | 1/4-20 | UNC | 4 | Taper | 2.500 | 1.000 | 8.02 |
| HCT-TAP-055 | 1/4-28 | UNF | 4 | Bottoming | 2.500 | 1.000 | 6.87 |
| HCT-TAP-056 | 1/4-28 | UNF | 4 | Plug | 2.500 | 1.000 | 6.87 |
| HCT-TAP-057 | 1/4-28 | UNF | 4 | Taper | 2.500 | 1.000 | 8.02 |
| HCT-TAP-058 | 5/16-18 | UNC | 4 | Bottoming | 2.719 | 1.125 | 8.59 |
| HCT-TAP-059 | 5/16-18 | UNC | 4 | Plug | 2.719 | 1.125 | 9.11 |
| HCT-TAP-060 | 5/16-18 | UNC | 4 | Taper | 2.719 | 1.125 | 9.86 |
| HCT-TAP-061 | 5/16-24 | UNF | 4 | Bottoming | 2.719 | 1.125 | 8.59 |
| HCT-TAP-062 | 5/16-24 | UNF | 4 | Plug | 2.719 | 1.125 | 8.59 |
| HCT-TAP-063 | 5/16-24 | UNF | 4 | Taper | 2.719 | 1.125 | 9.86 |
| HCT-TAP-064 | 3/8-16 | UNC | 4 | Bottoming | 2.938 | 1.250 | 9.73 |
| HCT-TAP-065 | 3/8-16 | UNC | 4 | Plug | 2.938 | 1.250 | 10.31 |
| HCT-TAP-066 | 3/8-16 | UNC | 4 | Taper | 2.938 | 1.250 | 11.13 |
| HCT-TAP-067 | 3/8-24 | UNF | 4 | Bottoming | 2.938 | 1.250 | 9.73 |
| HCT-TAP-068 | 3/8-24 | UNF | 4 | Plug | 2.938 | 1.250 | 9.73 |
| HCT-TAP-069 | 3/8-24 | UNF | 4 | Taper | 2.938 | 1.250 | 11.13 |
| HCT-TAP-070 | 7/16-14 | UNC | 4 | Bottoming | 3.156 | 1.438 | 19.04 |
| HCT-TAP-071 | 7/16-14 | UNC | 4 | Plug | 3.156 | 1.438 | 19.99 |
| HCT-TAP-072 | 7/16-14 | UNC | 4 | Taper | 3.156 | 1.438 | 19.02 |
| HCT-TAP-073 | 7/16-20 | UNF | 4 | Bottoming | 3.156 | 1.438 | 19.04 |
| HCT-TAP-074 | 7/16-20 | UNF | 4 | Plug | 3.156 | 1.438 | 19.04 |
| HCT-TAP-075 | 7/16-20 | UNF | 4 | Taper | 3.156 | 1.438 | 19.02 |
| HCT-TAP-076 | 1/2-13 | UNC | 4 | Bottoming | 3.375 | 1.656 | 18.15 |
| HCT-TAP-077 | 1/2-13 | UNC | 4 | Plug | 3.375 | 1.656 | 18.63 |
| HCT-TAP-078 | 1/2-13 | UNC | 4 | Taper | 3.375 | 1.656 | 19.23 |
| HCT-TAP-079 | 1/2-20 | UNF | 4 | Bottoming | 3.375 | 1.656 | 19.74 |
| HCT-TAP-080 | 1/2-20 | UNF | 4 | Plug | 3.375 | 1.656 | 19.74 |
| HCT-TAP-081 | 1/2-20 | UNF | 4 | Taper | 3.375 | 1.656 | 21.59 |
| HCT-TAP-082 | 9/16-12 | UNC | 4 | Bottoming | 3.594 | 1.656 | 33.04 |
| HCT-TAP-083 | 9/16-12 | UNC | 4 | Plug | 3.594 | 1.656 | 34.72 |
| HCT-TAP-084 | 9/16-12 | UNC | 4 | Taper | 3.594 | 1.656 | 35.81 |
| HCT-TAP-085 | 9/16-18 | UNF | 4 | Bottoming | 3.594 | 1.656 | 34.42 |
| HCT-TAP-086 | 9/16-18 | UNF | 4 | Plug | 3.594 | 1.656 | 34.42 |
| HCT-TAP-087 | 9/16-18 | UNF | 4 | Taper | 3.594 | 1.656 | 35.81 |
| HCT-TAP-088 | 5/8-11 | UNC | 4 | Bottoming | 3.813 | 1.813 | 39.63 |
| HCT-TAP-089 | 5/8-11 | UNC | 4 | Plug | 3.813 | 1.813 | 41.60 |
| HCT-TAP-090 | 5/8-11 | UNC | 4 | Taper | 3.813 | 1.813 | 42.90 |
| HCT-TAP-091 | 5/8-18 | UNF | 4 | Bottoming | 3.813 | 1.813 | 39.63 |
| HCT-TAP-092 | 5/8-18 | UNF | 4 | Plug | 3.813 | 1.813 | 41.60 |
| HCT-TAP-093 | 5/8-18 | UNF | 4 | Taper | 3.813 | 1.813 | 42.90 |
| HCT-TAP-094 | 11/16-11 | UNS | 4 | Bottoming | 4.031 | 1.813 | 49.08 |
| HCT-TAP-095 | 11/16-11 | UNS | 4 | Plug | 4.031 | 1.813 | 51.54 |
| HCT-TAP-096 | 11/16-11 | UNS | 4 | Taper | 4.031 | 1.813 | 54.41 |
| HCT-TAP-097 | 11/16-16 | UNS | 4 | Bottoming | 4.031 | 1.813 | 49.08 |
| HCT-TAP-098 | 11/16-16 | UNS | 4 | Plug | 4.031 | 1.813 | 51.54 |

HAND TAP INCH - HSS, TAPER PLUG & BOTTOM CHAMFER



HCT-TAP-105

Features and Benefits:

- Hand taps have a wide range of applications from maintenance to short production needs
- Hand taps can be used with tap wrenches, drill presses and milling machines
- Taper chamfer taps are used to start a hole using manual tapping methods
- Bottoming chamfer taps are used to tap close to the bottom of a blind hole
- Plug chamfer taps are used for most applications and produce a finished thread in one pass

| Part Number | TAP SIZE | Thread Form | No. Of Flutes | Tap Chamfer | Overall Length | Thread Length | List Price |
|-------------|----------|-------------|---------------|-------------|----------------|---------------|------------|
| HCT-TAP-099 | 11/16-16 | UNS | 4 | Taper | 4.031 | 1.813 | \$56.27 |
| HCT-TAP-100 | 3/4-10 | UNC | 4 | Bottoming | 4.250 | 2.000 | 55.45 |
| HCT-TAP-101 | 3/4-10 | UNC | 4 | Plug | 4.250 | 2.000 | 58.21 |
| HCT-TAP-102 | 3/4-10 | UNC | 4 | Taper | 4.250 | 2.000 | 60.12 |
| HCT-TAP-103 | 3/4-16 | UNF | 4 | Bottoming | 4.250 | 2.000 | 55.45 |
| HCT-TAP-104 | 3/4-16 | UNF | 4 | Plug | 4.250 | 2.000 | 55.45 |
| HCT-TAP-105 | 3/4-16 | UNF | 4 | Taper | 4.250 | 2.000 | 60.12 |
| HCT-TAP-106 | 7/8-9 | UNC | 4 | Bottoming | 4.688 | 2.219 | 77.29 |
| HCT-TAP-107 | 7/8-9 | UNC | 4 | Plug | 4.688 | 2.219 | 81.15 |
| HCT-TAP-108 | 7/8-9 | UNC | 4 | Taper | 4.688 | 2.219 | 83.79 |
| HCT-TAP-109 | 7/8-14 | UNF | 4 | Bottoming | 4.688 | 2.219 | 77.29 |
| HCT-TAP-110 | 7/8-14 | UNF | 4 | Plug | 4.688 | 2.219 | 77.29 |
| HCT-TAP-111 | 7/8-14 | UNF | 4 | Taper | 4.688 | 2.219 | 83.79 |
| HCT-TAP-112 | 1-8 | UNC | 4 | Bottoming | 5.125 | 2.500 | 101.62 |
| HCT-TAP-113 | 1-8 | UNC | 4 | Plug | 5.125 | 2.500 | 107.99 |
| HCT-TAP-114 | 1-8 | UNC | 4 | Taper | 5.125 | 2.500 | 111.59 |
| HCT-TAP-115 | 1-12 | UNF | 4 | Bottoming | 5.125 | 2.500 | 105.67 |
| HCT-TAP-116 | 1-12 | UNF | 4 | Plug | 5.125 | 2.500 | 110.40 |
| HCT-TAP-117 | 1-12 | UNF | 4 | Taper | 5.125 | 2.500 | 114.64 |
| HCT-TAP-118 | 1-14 | UNS | 4 | Bottoming | 5.125 | 2.500 | 102.85 |
| HCT-TAP-119 | 1-14 | UNS | 4 | Plug | 5.125 | 2.500 | 107.99 |
| HCT-TAP-120 | 1-14 | UNS | 4 | Taper | 5.125 | 2.500 | 114.64 |
| HCT-TAP-121 | 1-1/8-7 | UNC | 4 | Bottoming | 5.438 | 2.563 | 177.13 |
| HCT-TAP-122 | 1-1/8-7 | UNC | 4 | Plug | 5.438 | 2.563 | 174.94 |
| HCT-TAP-123 | 1-1/8-7 | UNC | 4 | Taper | 5.438 | 2.563 | 184.27 |
| HCT-TAP-124 | 1-1/8-12 | UNF | 4 | Bottoming | 5.438 | 2.563 | 175.12 |
| HCT-TAP-125 | 1-1/8-12 | UNF | 4 | Plug | 5.438 | 2.563 | 182.08 |
| HCT-TAP-126 | 1-1/8-12 | UNF | 4 | Taper | 5.438 | 2.563 | 177.92 |
| HCT-TAP-127 | 1-3/8-6 | UNC | 4 | Plug | 5.750 | 2.563 | 285.08 |
| HCT-TAP-129 | 1-1/4-7 | UNC | 4 | Bottoming | 5.750 | 2.563 | 219.40 |
| HCT-TAP-130 | 1-1/4-7 | UNC | 4 | Plug | 5.750 | 2.563 | 224.08 |
| HCT-TAP-131 | 1-1/4-7 | UNC | 4 | Taper | 5.750 | 2.563 | 212.46 |
| HCT-TAP-132 | 1-1/4-12 | UNF | 6 | Bottoming | 5.750 | 2.563 | 297.89 |
| HCT-TAP-133 | 1-1/4-12 | UNF | 6 | Plug | 5.750 | 2.563 | 297.89 |
| HCT-TAP-134 | 1-1/4-12 | UNF | 6 | Taper | 5.750 | 2.563 | 297.89 |
| HCT-TAP-135 | 1-3/8-12 | UNF | 6 | Bottoming | 5.750 | 2.563 | 272.21 |
| HCT-TAP-136 | 1-3/8-12 | UNF | 6 | Plug | 5.750 | 2.563 | 314.85 |
| HCT-TAP-138 | 1-1/2-6 | UNC | 4 | Bottoming | 6.375 | 3.000 | 321.64 |
| HCT-TAP-139 | 1-1/2-6 | UNC | 4 | Plug | 6.375 | 3.000 | 324.12 |
| HCT-TAP-140 | 1-1/2-6 | UNC | 4 | Taper | 6.375 | 3.000 | 317.24 |
| HCT-TAP-141 | 1-1/2-12 | UNF | 6 | Bottoming | 6.375 | 3.000 | 327.55 |
| HCT-TAP-142 | 1-1/2-12 | UNF | 6 | Plug | 6.375 | 3.000 | 344.96 |
| HCT-TAP-143 | 1-1/2-12 | UNF | 6 | Taper | 6.375 | 3.000 | 323.11 |

* All Taps are High Speed Steel (HSS)

* Reference Page 14 for Thread Identification Chart

* Reference Pages 15-16 for Drill Size Recommendations

HAND TAP METRIC - HSS, TAPER PLUG AND BOTTOM CHAMFER



HCT-MTAP-001

Features and Benefits:

- Hand taps have a wide range of applications from maintenance to short production needs
- Hand taps can be used with tap wrenches, drill presses and milling machines
- Taper chamfer taps are used to start a hole using manual tapping methods
- Bottoming chamfer taps are used to tap close to the bottom of a blind hole
- Plug chamfer taps are used for most applications and produce a finished thread in one pass

| Sales Part No | Tap Size | No. Of Flutes | Tap Chamfer | Overall Length | Thread Length | List Price |
|---------------|-------------|---------------|-------------|----------------|---------------|------------|
| HCT-MTAP-001 | M2.5 x 0.45 | 3 | Bottoming | 46.04 | 12.7 | \$14.09 |
| HCT-MTAP-004 | M2.5 x 0.45 | 3 | Taper | 46.04 | 12.7 | 16.61 |
| HCT-MTAP-005 | M3 x 0.5 | 3 | Bottoming | 49.21 | 15.88 | 10.82 |
| HCT-MTAP-006 | M3 x 0.5 | 3 | Plug | 49.21 | 15.88 | 11.62 |
| HCT-MTAP-007 | M3 x 0.5 | 3 | Taper | 49.21 | 15.88 | 13.27 |
| HCT-MTAP-008 | M4 x 0.7 | 4 | Bottoming | 53.98 | 19.05 | 8.14 |
| HCT-MTAP-009 | M4 x 0.7 | 4 | Plug | 53.98 | 19.05 | 8.98 |
| HCT-MTAP-010 | M4 x 0.7 | 4 | Taper | 53.98 | 19.05 | 10.05 |
| HCT-MTAP-011 | M4.5 x 0.75 | 4 | Bottoming | 60.33 | 22.23 | 10.82 |
| HCT-MTAP-012 | M5 x 0.8 | 4 | Bottoming | 60.33 | 22.23 | 10.61 |
| HCT-MTAP-013 | M5 x 0.8 | 4 | Plug | 60.33 | 22.23 | 10.61 |
| HCT-MTAP-014 | M5 x 0.8 | 4 | Taper | 60.33 | 22.23 | 10.57 |
| HCT-MTAP-015 | M6 x 1 | 4 | Bottoming | 63.5 | 25.4 | 10.18 |
| HCT-MTAP-016 | M6 x 1 | 4 | Plug | 63.5 | 25.4 | 9.77 |
| HCT-MTAP-017 | M6 x 1 | 4 | Taper | 63.5 | 25.4 | 10.82 |
| HCT-MTAP-018 | M7 x 1 | 4 | Bottoming | 69.06 | 28.58 | 11.77 |
| HCT-MTAP-019 | M7 x 1 | 4 | Plug | 69.06 | 28.58 | 11.72 |
| HCT-MTAP-020 | M7 x 1 | 4 | Taper | 69.06 | 28.58 | 12.66 |
| HCT-MTAP-021 | M8 x 1.25 | 4 | Bottoming | 69.06 | 28.58 | 11.16 |
| HCT-MTAP-022 | M8 x 1.25 | 4 | Plug | 69.06 | 28.58 | 11.16 |
| HCT-MTAP-024 | M8 x 1.25 | 4 | Taper | 69.06 | 28.58 | 12.25 |
| HCT-MTAP-025 | M10 x 1.25 | 4 | Bottoming | 74.61 | 31.75 | 22.16 |
| HCT-MTAP-026 | M10 x 1.25 | 4 | Plug | 74.61 | 31.75 | 22.70 |
| HCT-MTAP-027 | M10 x 1.25 | 4 | Taper | 74.61 | 31.75 | 25.05 |
| HCT-MTAP-028 | M10 x 1.5 | 4 | Bottoming | 74.61 | 31.75 | 19.44 |
| HCT-MTAP-029 | M10 x 1.5 | 4 | Plug | 74.61 | 31.75 | 18.09 |
| HCT-MTAP-030 | M10 x 1.5 | 4 | Taper | 74.61 | 31.75 | 15.15 |
| HCT-MTAP-031 | M12 x 1.75 | 4 | Bottoming | 85.73 | 42.07 | 22.97 |
| HCT-MTAP-032 | M12 x 1.75 | 4 | Plug | 85.73 | 42.07 | 22.97 |
| HCT-MTAP-033 | M12 x 1.75 | 4 | Taper | 85.73 | 42.07 | 27.07 |
| HCT-MTAP-034 | M14 x 1.5 | 4 | Bottoming | 91.28 | 42.07 | 38.71 |
| HCT-MTAP-035 | M14 x 1.5 | 4 | Plug | 91.28 | 42.07 | 39.89 |
| HCT-MTAP-036 | M14 x 1.5 | 4 | Taper | 91.28 | 42.07 | 43.07 |
| HCT-MTAP-037 | M14 x 2 | 4 | Bottoming | 91.28 | 42.07 | 39.72 |
| HCT-MTAP-038 | M14 x 2 | 4 | Plug | 91.28 | 42.07 | 38.47 |
| HCT-MTAP-039 | M14 x 2 | 4 | Taper | 91.28 | 42.07 | 40.45 |
| HCT-MTAP-040 | M16 x 1.5 | 4 | Bottoming | 96.84 | 46.04 | 47.30 |
| HCT-MTAP-041 | M16 x 1.5 | 4 | Plug | 96.84 | 46.04 | 48.87 |
| HCT-MTAP-042 | M16 x 1.5 | 4 | Taper | 96.84 | 46.04 | 56.10 |
| HCT-MTAP-043 | M16 x 2 | 4 | Bottoming | 96.84 | 46.04 | 47.61 |
| HCT-MTAP-045 | M16 x 2 | 4 | Plug | 96.84 | 46.04 | 46.64 |
| HCT-MTAP-046 | M16 x 2 | 4 | Taper | 96.84 | 46.04 | 47.38 |
| HCT-MTAP-047 | M18 x 1.5 | 4 | Bottoming | 102.39 | 46.04 | 46.94 |
| HCT-MTAP-048 | M18 x 1.5 | 4 | Plug | 102.39 | 46.04 | 65.21 |
| HCT-MTAP-049 | M18 x 1.5 | 4 | Taper | 102.39 | 46.04 | 73.92 |
| HCT-MTAP-050 | M18 x 2.5 | 4 | Bottoming | 102.39 | 46.04 | 67.10 |
| HCT-MTAP-051 | M18 x 2.5 | 4 | Taper | 102.39 | 46.04 | 68.10 |

* All Taps are High Speed Steel (HSS)

* Reference Page 14 for Thread Identification Chart

* Reference Pages 15-16 for Drill Size Recommendations

PIPE TAP - HSS, GENERAL PURPOSE, NPT, PLUG CHAMFER



HCT-TAP-NPT-1/16-27

Features and Benefits:

- Designed for production uses as well as handheld and maintenance applications
- 3-1/2 Thread Chamfer

| Part Number | Tap Size | No. Of. Flutes | Tap Chamfer | Overall Length | Thread Length | List Price |
|-----------------------|--------------|----------------|----------------|----------------|---------------|------------|
| HCT-TAP-NPT-1/16-27 | NPT 1/16-27 | 4 | Semi-Bottoming | 2.125 | 0.6875 | \$28.04 |
| HCT-TAP-NPT-1/8-27 SS | NPT 1/8-27 | 4 | Semi-Bottoming | 2.125 | 0.7500 | 28.04 |
| HCT-TAP-NPT-1/8-27 LS | NPT 1/8-27 | 4 | Semi-Bottoming | 2.125 | 0.7500 | 28.04 |
| HCT-TAP-NPT-1/4-18 | NPT 1/4-18 | 4 | Semi-Bottoming | 2.438 | 1.0625 | 30.96 |
| HCT-TAP-NPT-3/8-18 | NPT 3/8-18 | 4 | Semi-Bottoming | 2.563 | 1.0625 | 40.82 |
| HCT-TAP-NPT-1/2-14 | NPT 1/2-14 | 4 | Semi-Bottoming | 3.125 | 1.3750 | 65.20 |
| HCT-TAP-NPT-3/4-14 | NPT 3/4-14 | 5 | Semi-Bottoming | 3.250 | 1.3750 | 91.31 |
| HCT-TAP-NPT-1-11-1/2 | NPT 1-11-1/2 | 5 | Semi-Bottoming | 3.750 | 1.7500 | 138.62 |

TAPS - ORB



HCT-TAP-SAEORBP-2

Features and Benefits:

- Designed for production uses as well as handheld and maintenance applications
- 3-1/2 Thread Chamfer
- ORB stands for O Ring Boss

| Part Number | Tap Size | Thread Form | No. Of. Flutes | Tap Chamfer | Overall Length | Thread Length | List Price |
|--------------------|-----------|-------------|----------------|-------------|----------------|---------------|------------|
| HCT-TAP-SAEORBP-2 | 5/16-24 | UNF | 4 | Plug | 2.719 | 1.125 | \$8.59 |
| HCT-TAP-SAEORBP-3 | 3/8-24 | UNF | 4 | Plug | 2.938 | 1.250 | 9.73 |
| HCT-TAP-SAEORBP-4 | 7/16-20 | UNF | 4 | Plug | 3.156 | 1.438 | 19.04 |
| HCT-TAP-SAEORBP-5 | 1/2-20 | UNF | 4 | Plug | 3.375 | 1.656 | 19.74 |
| HCT-TAP-SAEORBP-6 | 9/16-18 | UNF | 4 | Plug | 3.594 | 1.656 | 34.42 |
| HCT-TAP-SAEORBP-8 | 3/4-16 | UNF | 4 | Plug | 4.250 | 2.000 | 55.45 |
| HCT-TAP-SAEORBP-10 | 7/8-14 | UNF | 4 | Plug | 4.688 | 2.219 | 77.29 |
| HCT-TAP-SAEORBP-20 | 1-5/8-12 | NS | 6 | Plug | 5.000 | 2.000 | 270.34 |
| HCT-TAP-SAEORBP-24 | 1-7/8-12 | NS | 6 | Plug | 5.000 | 2.000 | 322.38 |
| HCT-TAP-SAEORBP-12 | 1-1/16-12 | NS | 4 | Plug | 5.130 | 2.500 | 164.84 |
| HCT-TAP-SAEORBP-32 | 2-1/2-12 | NS | 6 | Plug | 5.250 | 2.000 | 609.42 |
| HCT-TAP-SAEORBP-14 | 1-3/16-12 | NS | 6 | Plug | 5.440 | 2.560 | 221.50 |
| HCT-TAP-SAEORBP-16 | 1-5/16-12 | NS | 6 | Plug | 5.750 | 2.563 | 224.62 |

* Reference Page 14 for Thread Identification Chart

* Reference Pages 15-16 for Drill Size Recommendations

TAP WRENCHES



STANDARD STRAIGHT

HCT-TAP-WS-01



LONG SHANK T-HANDLE

HCT-TAP-WLS-14



PLAIN T-HANDLE

SLIP T-HANDLE

HCT-TAP-WPT-08



COMBINATION RATCHET AND
SLIP T-HANDLE

HCT-TAP-WC-12

| Sales Part No | Type | Tap Range IN | Tap Range MM | Machine Screw | Pipe | Overall Length | Net Price |
|----------------|-----------------------------|---------------|--------------|---------------|-----------|----------------|-----------|
| HCT-TAP-WS-01 | STRAIGHT | 1/16in-1/4in | M1.5-M6.3 | #0 - #14 | - | 7 | \$60.31 |
| HCT-TAP-WS-02 | STRAIGHT | 1/16in-3/8in | M1.5-M10 | #0 - #14 | - | 9 | 62.39 |
| HCT-TAP-WS-03 | STRAIGHT | 5/32in-1/2in | M4-M12.5 | #8 - #14 | 1/8 | 11 | 83.50 |
| HCT-TAP-WS-04 | STRAIGHT | 5/32in-3/4in | M4-M19 | #8 - #14 | 1/8 - 1/4 | 15 | 86.62 |
| HCT-TAP-WS-05 | STRAIGHT | 1/4in-1-1/8in | M12-M28 | - | 1/8 - 3/4 | 19 | 115.38 |
| HCT-TAP-WS-06 | STRAIGHT | 3/4in-1-5/8in | M19-M40 | - | 3/8 - | 40 | 270.57 |
| HCT-TAP-WS-07 | STRAIGHT | 1in-2-1/2in | M25-M56 | - | 3/4 - 2 | 54 | 354.55 |
| HCT-TAP-WPT-08 | PLAIN T-HANDLE | 1/16in-1/4in | M1.5-M6.3 | #0 - #14 | - | 2-3/4 | 21.17 |
| HCT-TAP-WPT-09 | PLAIN T-HANDLE | 7/32in-1/2in | M5.5-M12.5 | #12 - #14 | - | 3-5/8 | 26.34 |
| HCT-TAP-WST-10 | SLIP T-HANDLE | 1/16in-1/4in | M1.5-M6.3 | #0 - #14 | - | 2-3/4 | 26.60 |
| HCT-TAP-WST-11 | SLIP T-HANDLE | 7/32in-1/2in | M5.5-M12.5 | #12 - #14 | - | 3-5/8 | 41.59 |
| HCT-TAP-WC-12 | COMBO RATCHET SLIP T-HANDLE | 1/16in-1/4in | M1.5-M6.3 | #0 - #14 | - | 3-3/4 | 62.39 |
| HCT-TAP-WC-13 | COMBO RATCHET SLIP T-HANDLE | 7/32in-1/2in | M5.5-M12.5 | #12 - #14 | - | 5 | 80.78 |
| HCT-TAP-WLS-14 | LONG SHANK T-HANDLE | 1/16in-1/4in | M1.5-M6.3 | #0 - #14 | - | 8-3/4 | 50.95 |
| HCT-TAP-WLS-15 | LONG SHANK T-HANDLE | 7/32in-1/2in | M5.5-M12.5 | #12 - #14 | - | 10-5/8 | 55.11 |

* Reference Page 14 for Thread Identification Chart

HEXAGON DIE - CARBON STEEL, BRIGHT



HCT-HDIE-CS-001

Features and Benefits:

- These dies are hex shaped for use with manual wrenches
- Used to restore damaged and rusted threads

| HSP Sales Part No | Die Diameter - TPI | Series | Material | Decimal Equivalent | Length Across Flats | Thickness | List Price |
|-------------------|--------------------|--------|--------------|--------------------|---------------------|-----------|------------|
| HCT-HDIE-CS-001 | 1/4-20 | UNC | Carbon Steel | 0.25 | 19/32 | 1/4 | \$31.09 |
| HCT-HDIE-CS-002 | 1/4-28 | UNF | Carbon Steel | 0.25 | 19/32 | 1/4 | 31.09 |
| HCT-HDIE-CS-003 | 5/16-18 | UNC | Carbon Steel | 0.3125 | 11/16 | 5/16 | 27.06 |
| HCT-HDIE-CS-004 | 5/16-24 | UNF | Carbon Steel | 0.3125 | 11/16 | 5/16 | 27.06 |
| HCT-HDIE-CS-005 | 3/8-16 | UNC | Carbon Steel | 0.375 | 25/32 | 3/8 | 28.32 |
| HCT-HDIE-CS-006 | 3/8-24 | UNF | Carbon Steel | 0.375 | 25/32 | 3/8 | 28.26 |
| HCT-HDIE-CS-007 | 7/16-14 | UNC | Carbon Steel | 0.4375 | 7/8 | 7/16 | 30.98 |
| HCT-HDIE-CS-008 | 7/16-20 | UNF | Carbon Steel | 0.4375 | 7/8 | 7/16 | 30.98 |
| HCT-HDIE-CS-009 | 1/2-13 | UNC | Carbon Steel | 0.5 | 1-1/16 | 1/2 | 32.80 |
| HCT-HDIE-CS-010 | 1/2-20 | UNF | Carbon Steel | 0.5 | 1-1/16 | 1/2 | 32.80 |
| HCT-HDIE-CS-011 | 9/16-12 | UNC | Carbon Steel | 0.5625 | 1-1/16 | 1/2 | 32.93 |
| HCT-HDIE-CS-012 | 9/16-18 | UNF | Carbon Steel | 0.5625 | 1-1/16 | 1/2 | 32.93 |
| HCT-HDIE-CS-013 | 5/8-11 | UNC | Carbon Steel | 0.625 | 1-1/4 | 5/8 | 39.22 |
| HCT-HDIE-CS-014 | 5/8-18 | UNF | Carbon Steel | 0.625 | 1-1/4 | 5/8 | 39.22 |
| HCT-HDIE-CS-015 | 11/16-11 | UNS | Carbon Steel | 0.6875 | 1-7/16 | 3/4 | 58.08 |
| HCT-HDIE-CS-016 | 11/16-16 | UNS | Carbon Steel | 0.6875 | 1-7/16 | 3/4 | 58.08 |
| HCT-HDIE-CS-017 | 3/4-10 | UNC | Carbon Steel | 0.75 | 1-7/16 | 3/4 | 50.46 |
| HCT-HDIE-CS-018 | 3/4-16 | UNF | Carbon Steel | 0.75 | 1-7/16 | 3/4 | 50.45 |
| HCT-HDIE-CS-019 | 7/8-9 | UNC | Carbon Steel | 0.875 | 1-5/8 | 7/8 | 55.76 |
| HCT-HDIE-CS-020 | 7/8-14 | UNF | Carbon Steel | 0.875 | 1-5/8 | 7/8 | 58.75 |
| HCT-HDIE-CS-021 | 1-8 | UNC | Carbon Steel | 1 | 1-13/16 | 1 | 66.79 |
| HCT-HDIE-CS-022 | 1-12 | UNF | Carbon Steel | 1 | 1-13/16 | 1 | 66.78 |
| HCT-HDIE-CS-023 | 1-14 | UNS | Carbon Steel | 1 | 1-13/16 | 1 | 66.78 |
| HCT-HDIE-CS-024 | 1-1/8-7 | UNC | Carbon Steel | 1.125 | 2 | 1 | 69.75 |
| HCT-HDIE-CS-025 | 1-1/8-12 | UNF | Carbon Steel | 1.125 | 2 | 1 | 69.75 |
| HCT-HDIE-CS-026 | 1-1/4-7 | UNC | Carbon Steel | 1.25 | 2-3/16 | 1 | 72.73 |
| HCT-HDIE-CS-027 | 1-1/4-12 | UNF | Carbon Steel | 1.25 | 2-3/16 | 1 | 77.18 |
| HCT-HDIE-CS-028 | 1-3/8-6 | UNC | Carbon Steel | 1.375 | 2-3/8 | 1 | 89.07 |
| HCT-HDIE-CS-029 | 1-3/8-12 | UNF | Carbon Steel | 1.375 | 2-3/8 | 1 | 89.07 |
| HCT-HDIE-CS-030 | 1-1/2-6 | UNC | Carbon Steel | 1.5 | 2-9/16 | 1 | 96.50 |
| HCT-HDIE-CS-031 | 1-1/2-12 | UNF | Carbon Steel | 1.5 | 2-9/16 | 1 | 96.50 |
| HCT-HDIE-CS-038 | M5x0.8 | N/A | Carbon Steel | 0.1969 | 19/32 | 1/4 | 28.95 |
| HCT-HDIE-CS-039 | M6x1.0 | N/A | Carbon Steel | 0.2362 | 19/32 | 1/4 | 28.95 |
| HCT-HDIE-CS-040 | M8x1.25 | N/A | Carbon Steel | 0.315 | 11/16 | 5/16 | 31.03 |
| HCT-HDIE-CS-041 | M10x1.5 | N/A | Carbon Steel | 0.3937 | 7/8 | 7/16 | 34.01 |
| HCT-HDIE-CS-042 | M12x1.75 | N/A | Carbon Steel | 0.4724 | 1-1/16 | 1/2 | 37.81 |
| HCT-HDIE-CS-043 | M14x2.0 | N/A | Carbon Steel | 0.5512 | 1-1/16 | 1/2 | 41.43 |
| HCT-HDIE-CS-044 | M16x2.0 | N/A | Carbon Steel | 0.6299 | 1-1/4 | 5/8 | 44.41 |
| HCT-HDIE-CS-045 | M20x2.5 | N/A | Carbon Steel | 0.7874 | 1-5/8 | 7/8 | 51.83 |
| HCT-HDIE-CS-032 | 1/8-27 | NPT | Carbon Steel | 0.125 | 1-1/16 | 3/8 | 47.90 |
| HCT-HDIE-CS-033 | 1/4-18 | NPT | Carbon Steel | 0.25 | 1-1/4 | 5/8 | 57.63 |
| HCT-HDIE-CS-034 | 3/8-18 | NPT | Carbon Steel | 0.375 | 1-7/16 | 5/8 | 65.34 |
| HCT-HDIE-CS-035 | 1/2-14 | NPT | Carbon Steel | 0.5 | 1-5/8 | 3/4 | 74.26 |
| HCT-HDIE-CS-036 | 3/4-14 | NPT | Carbon Steel | 0.75 | 2 | 13/16 | 102.44 |
| HCT-HDIE-CS-037 | 1in-11-1/2 | NPT | Carbon Steel | 1 | 2-3/8 | 1 | 167.51 |

* Reference Page 14 for Thread Identification Chart

ROUND DIE STOCK / WRENCHES



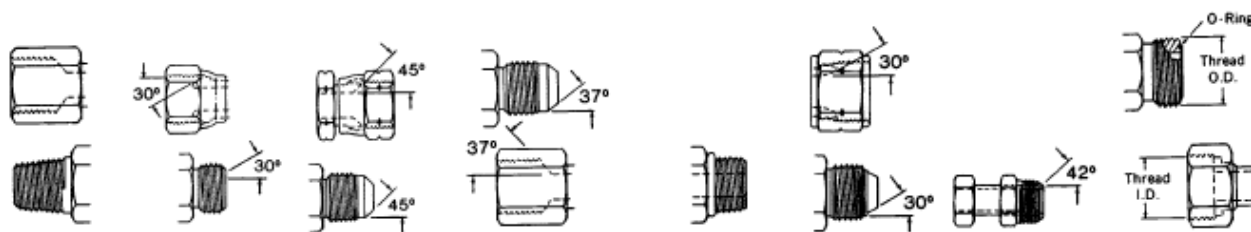
HCT-DIE-WRA-13/16

Features and Benefits:

- Used to hold round adjustable dies

| Part Numbers | Size Number | Die O.D. | Overall Length | Net Price |
|-------------------|-------------|----------|----------------|-----------|
| HCT-DIE-WRA-13/16 | #2 | 13/16" | 7" | \$30.83 |
| HCT-DIE-WRA-1 | #3 | 1" | 9-1/4" | 37.20 |
| HCT-DIE-WRA-1-1/2 | #5 | 1-1/2" | 13-1/4" | 53.48 |
| HCT-DIE-WRA-2 | #6 | 2" | 15-3/8" | 76.86 |
| HCT-DIE-WRA-2-1/2 | #7 | 2-1/2" | 19-1/2" | 97.76 |
| HCT-DIE-WRA-3 | #8 | 3" | 23" | 143.22 |

THREAD IDENTIFICATION CHART



| Dash size | N.P.T.F. | N.P.S.M. approx. dia. | SAE 45° auto. refriger. | SAE 37° (J.I.C.) hydraulic | SAE O-Ring boss | P.T.T. 30° automotive | SAE invert. flare | ORS |
|-----------|--------------|-----------------------|-------------------------|----------------------------|-----------------|-----------------------|-------------------|------------|
| -02 | 1/8-27 | 1/8-27 | 5/16-24 | 5/16-24 | 5/16-24 | | 5/16-24 | |
| -03 | | | 3/8-24 | 3/8-24 | 3/8-24 | | 3/8-24 | |
| -04 | 1/4-18 | 1/4-18 | 7/16-20 | 7/16-20 | 7/16-20 | | 7/16-24 | 9/16-18 |
| -05 | | | 1/2-20 | 1/2-20 | 1/2-20 | | 1/2-20 | |
| -06 | 3/8-18 | 3/8-18 | 5/8-18 | 3/16-18 | 3/16-18 | | 5/8-18 | 11/16-16 |
| -07 | | | 11/16-24 | | | | 11/16-18 | |
| -08 | 1/2-14 | 1/2-14 | 3/4-16 | 3/4-16 | 3/4-16 | | 3/4-18 | 13/16-16 |
| -10 | | | 7/8-14 | 7/8-14 | 7/8-14 | | 7/8-18 | 1-14 |
| -12 | 3/4-14 | 3/4-14 | 1 1/16-14 | 1 1/16-12 | 1 1/16-12 | | 1 1/16-16 | 1 3/16-12 |
| -14 | | | | 1 3/16-12 | 1 3/16-12 | | | |
| -16 | 1-11 1/2 | 1-11 1/2 | | 1 5/16-12 | 1 5/16-12 | 1 5/16-14 | | 1 7/16-12 |
| -20 | 1 1/4-11 1/2 | 1 1/4-11 1/2 | | 1 5/8-12 | 1 5/8-12 | 1 5/8-14 | | 1 11/16-12 |
| -24 | 1 1/2-11 1/2 | 1 1/2-11 1/2 | | 1 7/8-12 | 1 7/8-12 | 1 7/8-14 | | 2-12 |
| -32 | 2-11 1/2 | 2-11 1/2 | | 2 1/2-12 | 2 1/2-12 | 2 1/2-12 | | |
| -40 | 2 1/2-8 | 2 1/2-8 | | 3-12 | 3-12 | | | |
| -48 | 3-8 | 3-8 | | 3 1/2-12 | 3 1/2-12 | | | |

TAP/DRILL RECOMMENDATIONS

| Inch/Metric Tap Size & Pitch | Cutting Taps | | Forming Taps | | Inch/Metric Tap Size & Pitch | Cutting Taps | | Forming Taps | |
|------------------------------------|---------------|----------------|---------------|----------------|------------------------------------|---------------|----------------|---------------|----------------|
| | Drill Size | Dec. Equiv. | Drill Size | Dec. Equiv. | | Drill Size | Dec. Equiv. | Drill Size | Dec. Equiv. |
| 0-80 | 3/64 | .0469 | 54 | .0550 | M7 x 1,0 | 6,0 | .2362 | F | .2570 |
| M1,6 x 0,35 | 1,25 | .0492 | 1,45 | .0571 | 5/16-18 | F | .2570 | L | .2900 |
| M1,8 x 0,35 | 1,45 | .0571 | 1,65 | .0650 | 5/16-24 | I | .2720 | M | .2950 |
| 1-64 | 53 | .0595 | 51 | .0670 | M8 x 1,25 | 6,7 | .2638 | 7,4 | .2913 |
| 1-72 | 53 | .0595 | 51 | .0670 | M8 x 1,0 | 7,0 | .2756 | 19/64 | .2969 |
| M2 x 0,4 | 1,6 | .0630 | 1,8 | .0709 | 3/8-16 | 5/16 | .3125 | S | .3480 |
| 2-56 | 50 | .0700 | 5/64 | .0781 | 3/8-24 | Q | .3320 | T | .3580 |
| 2-64 | 50 | .0700 | 47 | .0785 | M10 x 1,5 | 8,5 | .3346 | U | .3680 |
| M2,2 x 0,45 | 1,75 | .0689 | 2,0 | .0787 | M10 x 1,25 | 8,7 | .3425 | 9,4 | .3701 |
| M2,5 x 0,45 | 2,05 | .0807 | 2,3 | .0906 | 7/16-14 | U | .3680 | Y | .4040 |
| 3-48 | 47 | .0785 | 43 | .0890 | 7/16-20 | 25/64 | .3906 | Z | .4130 |
| 3-56 | 46 | .0810 | 2,3 | .0905 | M12 x 1,75 | 10,2 | .4016 | 11,2 | .4409 |
| 4-40 | 43 | .0890 | 38 | .1015 | M12 x 1,25 | 10,8 | .4252 | 11,5 | .4528 |
| 4-48 | 42 | .0935 | 2,6 | .1024 | 1/2-13 | 27/64 | .4219 | 15/32 | .4688 |
| M3 x 0,5 | 2,5 | .0984 | 7/64 | .1094 | 1/2-20 | 29/64 | .4531 | 12,25 | .4823 |
| 5-40 | 38 | .1015 | 33 | .1130 | M14 x 2,0 | 12,0 | .4724 | 33/64 | .5156 |
| 5-44 | 37 | .1040 | 2,9 | .1142 | 9/16-12 | 31/64 | .4844 | 17/32 | .5312 |
| M3,5 x 0,6 | 2,9 | .1142 | 3,2 | .1260 | 9/16-18 | 33/64 | .5156 | 13,5 | .5315 |
| 6-32 | 36 | .1065 | 1/8 | .1250 | 5/8-11 | 17/32 | .5312 | 14,75 | .5807 |
| 6-40 | 33 | .1130 | 3,25 | .1280 | 5/8-18 | 37/64 | .5781 | 15,25 | .6004 |
| M4 x 0,7 | 3,3 | .1299 | 3,7 | .1457 | M16 x 2,0 | 14,0 | .5512 | 19/32 | .5938 |
| 8-32 | 29 | .1360 | 25 | .1495 | M16 x 1,5 | 14,5 | .5709 | 15,25 | .6004 |
| 8-36 | 29 | .1360 | 24 | .1520 | M18 x 2,5 | 15,5 | .6102 | 39/64 | .6094 |
| M4,5 x 0,75 | 3,7 | .1457 | 4,1 | .1614 | M18 x 1,5 | 16,5 | .6496 | 17,25 | .6791 |
| 10-24 | 26 | .1470 | 11/64 | .1719 | 3/4-10 | 21/32 | .6562 | 45/64 | .7031 |
| 10-32 | 21 | .1590 | 16 | .1770 | 3/4-16 | 11/16 | .6875 | 23/32 | .7188 |
| M5 x 0,8 | 4,2 | .1654 | 14 | .1820 | INCH - BLACK METRIC-BLUE | | | | |
| 12-24 | 16 | .1770 | 8 | .1990 | | | | | |
| 12-28 | 15 | .1800 | 7 | .2010 | | | | | |
| M6 x 1,0 | 5,0 | .1969 | 7/32 | .2188 | | | | | |
| 1/4-20 | 7 | .2010 | 1 | .2280 | | | | | |
| 1/4-28 | 3 | .2130 | 15/64 | .2344 | | | | | |

Note: Drill size recommendations are for approximately 70-75% thread height for cutting taps and 60-75% thread height for forming taps. Drills produce a hole slightly larger than their nominal size. Size obtained will depend on drill style, machine, drilling conditions, fixturing and coating selected.

TAP/DRILL RECOMMENDATIONS

Form taps not available in these sizes

| Inch/Metric Tap Size & Pitch | Cutting Taps | | Inch/Metric Tap Size & Pitch | Cutting Taps | |
|------------------------------------|---------------|----------------|------------------------------------|---------------|----------------|
| | Drill Size | Dec. Equiv. | | Drill Size | Dec. Equiv. |
| M20 x 2,5 | 17,5 | .6890 | M30 x 3,5 | 26,5 | 1.0433 |
| M20 x 1,5 | 18,5 | .7283 | M30 x 2,0 | 28,0 | 1.1024 |
| M22 x 2,5 | 19,5 | .7677 | 1-1/4-7 | 1-7/64 | 1.1094 |
| M22 x 1,5 | 20,5 | .8071 | 1-1/4-12 | 1-11/64 | 1.1719 |
| 7/8-9 | 49/64 | .7656 | M33 x 3,5 | 29,5 | 1.1614 |
| 7/8-14 | 13/16 | .8125 | M33 x 2,0 | 31,0 | 1.2205 |
| M24 x 3,0 | 21,0 | .8268 | 1-3/8-6 | 1-7/32 | 1.2188 |
| M24 x 2,0 | 22,0 | .8661 | 1-3/8-12 | 1-19/64 | 1.2969 |
| 1-8 | 7/8 | .8750 | M36 x 4,0 | 32,0 | 1.2598 |
| 1-12 | 59/64 | .9219 | M36 x 3,0 | 33,0 | 1.2992 |
| M27 x 3,0 | 24,0 | .9449 | 1-1/2-6 | 1-11/32 | 1.3438 |
| M27 x 2,0 | 25,0 | .9843 | 1-1/2-12 | 1-27/64 | 1.4219 |
| 1-1/8-7 | 63/64 | .9844 | M39 x 4,0 | 35,0 | 1.3780 |
| 1-1/8-12 | 1-3/64 | 1.0469 | M39 x 3,0 | 36,0 | 1.4173 |

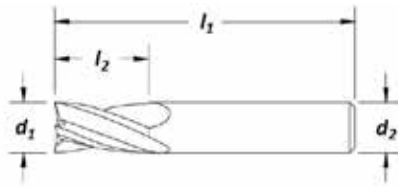
INCH - BLACK METRIC-BLUE

PIPE TAPS — NPT, NPTF, NPSM, NPSC, NPSF

| Nominal Pipe Tap Size | NPT & NPTF | | NPSM | NPSC | NPSF |
|--------------------------|------------|----------|-----------------|----------|----------|
| | W/O Reamer | W/Reamer | | | |
| 1/16-27 | C (.242) | A (.234) | — | .250 | D (.246) |
| 1/8-27 | Q (.332) | 21/64 | T (.358) | Q (.332) | R (.339) |
| 1/4-18 | 7/16 | 27/64 | 15/32 | 7/16 | 7/16 |
| 3/8-18 | 9/16 | 9/16 | .603 (special) | 37/64 | 37/64 |
| 1/2-14 | 45/64 | 11/16 | 19,0mm | 45/64 | 45/64 |
| 3/4-14 | 29/32 | 57/64 | 61/64 | 59/64 | 59/64 |
| 1-11-1/2 | 1-9/64 | 1-1/8 | 1-13/64 | 1-5/32 | 1-5/32 |
| 1-1/4-11-1/2 | 1-31/64 | 1-15/32 | 1.546 (special) | 1-1/2 | — |
| 1-1/2-11-1/2 | 1-23/32 | 1-45/64 | 1-25/32 | 1-47/64 | — |
| 2-11-1/2 | 2-3/16 | 2-11/64 | 2-1/4 | 2-13/64 | — |

Note: Drill size recommendations are for approximately 70-75% thread height for cutting taps. Drills produce a hole slightly larger than their nominal size. Size obtained will depend on drill style, machine, drilling conditions, fixturing and coating selected.

COBALT SINGLE END 2 FLUTE END MILL



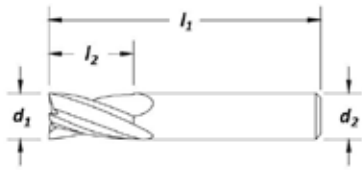
HCT-EM-S-062

Features and Benefits:

- 2 Flute - Center Cutting
- Good for plunging and slotting applications

| Part Number | Overall Length (l1) | Cutting Dia (d1) | Shank (d2) | Length of Cut (l2) | # of Flutes | Ends | Material | List Price |
|--------------|---------------------|------------------|------------|--------------------|-------------|--------|----------|------------|
| HCT-EM-S-062 | 2-5/16 | 1/8 | 3/8 | 3/8 | 2 | Single | Cobalt | \$17.33 |
| HCT-EM-S-065 | 2-3/8 | 5/32 | 3/8 | 7/16 | 2 | Single | Cobalt | 17.63 |
| HCT-EM-S-067 | 2-3/8 | 11/64 | 3/8 | 7/16 | 2 | Single | Cobalt | 17.77 |
| HCT-EM-S-072 | 2-3/8 | 3/16 | 3/8 | 7/16 | 2 | Single | Cobalt | 18.56 |
| HCT-EM-S-075 | 2-7/16 | 13/64 | 3/8 | 1/2 | 2 | Single | Cobalt | 21.91 |
| HCT-EM-S-077 | 2-7/16 | 7/32 | 3/8 | 1/2 | 2 | Single | Cobalt | 22.21 |
| HCT-EM-S-079 | 2-7/16 | 15/64 | 3/8 | 1/2 | 2 | Single | Cobalt | 23.40 |
| HCT-EM-S-084 | 2-7/16 | 1/4 | 3/8 | 1/2 | 2 | Single | Cobalt | 24.28 |
| HCT-EM-S-088 | 2-1/2 | 9/32 | 3/8 | 9/16 | 2 | Single | Cobalt | 25.48 |
| HCT-EM-S-093 | 2-1/2 | 5/16 | 3/8 | 9/16 | 2 | Single | Cobalt | 25.48 |
| HCT-EM-S-098 | 2-1/2 | 3/8 | 3/8 | 9/16 | 2 | Single | Cobalt | 26.36 |
| HCT-EM-S-106 | 2-11/16 | 13/32 | 3/8 | 13/16 | 2 | Single | Cobalt | 30.26 |
| HCT-EM-S-108 | 2-11/16 | 7/16 | 3/8 | 13/16 | 2 | Single | Cobalt | 36.17 |
| HCT-EM-S-112 | 3-1/4 | 15/32 | 1/2 | 1 | 2 | Single | Cobalt | 27.90 |
| HCT-EM-S-117 | 3-1/4 | 1/2 | 1/2 | 1 | 2 | Single | Cobalt | 34.14 |
| HCT-EM-S-119 | 3-1/2 | 1/2 | 1/2 | 1-1/2 | 2 | Single | Cobalt | 58.71 |
| HCT-EM-S-127 | 3-3/4 | 5/8 | 5/8 | 1-5/16 | 2 | Single | Cobalt | 48.27 |
| HCT-EM-S-131 | 3-7/8 | 3/4 | 3/4 | 1-5/16 | 2 | Single | Cobalt | 48.87 |
| HCT-EM-S-140 | 4-1/2 | 1 | 1 | 1-5/8 | 2 | Single | Cobalt | 71.24 |

COBALT SINGLE END 4 & 6 FLUTE END MILL



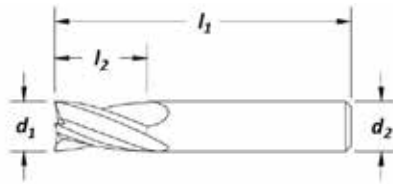
HCT-EM-S-063

Features and Benefits:

- 4 Flute - Center Cutting
- Good for plunging, slotting, and profiling applications
- Better finish than 2 flute end mills

| Part Number | Cutting Dia (d1) | Shank (d2) | Length of Cut (l2) | Overall Length (l1) | # of Flutes | Ends | Material | List Price |
|--------------|------------------|------------|--------------------|---------------------|-------------|--------|----------|------------|
| HCT-EM-S-063 | 1/8 | 3/8 | 3/8 | 2-5/16 | 4 | Single | Cobalt | \$20.24 |
| HCT-EM-S-066 | 5/32 | 3/8 | 1/2 | 2-3/8 | 4 | Single | Cobalt | 19.16 |
| HCT-EM-S-073 | 3/16 | 3/8 | 1/2 | 2-3/8 | 4 | Single | Cobalt | 20.44 |
| HCT-EM-S-078 | 7/32 | 3/8 | 5/8 | 2-7/16 | 4 | Single | Cobalt | 25.19 |
| HCT-EM-S-085 | 1/4 | 3/8 | 5/8 | 2-7/16 | 4 | Single | Cobalt | 26.54 |
| HCT-EM-S-086 | 1/4 | 3/8 | 1-1/4 | 1-1/4 | 4 | Single | Cobalt | 36.42 |
| HCT-EM-S-089 | 9/32 | 3/8 | 3/4 | 3/4 | 4 | Single | Cobalt | 34.04 |
| HCT-EM-S-090 | 19/64 | 3/8 | 3/4 | 3/4 | 4 | Single | Cobalt | 34.51 |
| HCT-EM-S-094 | 5/16 | 3/8 | 3/4 | 3/4 | 4 | Single | Cobalt | 27.76 |
| HCT-EM-S-095 | 5/16 | 3/8 | 1-3/8 | 1-3/8 | 4 | Single | Cobalt | 32.16 |
| HCT-EM-S-096 | 11/32 | 3/8 | 3/4 | 3/4 | 4 | Single | Cobalt | 29.35 |
| HCT-EM-S-097 | 11/32 | 3/8 | 1-1/2 | 1-1/2 | 4 | Single | Cobalt | 30.98 |
| HCT-EM-S-099 | 3/8 | 3/8 | 3/4 | 3/4 | 4 | Single | Cobalt | 21.73 |
| HCT-EM-S-104 | 3/8 | 3/8 | 1-1/2 | 1-1/2 | 4 | Single | Cobalt | 29.18 |
| HCT-EM-S-105 | 3/8 | 3/8 | 2-1/2 | 2-1/2 | 4 | Single | Cobalt | 37.67 |
| HCT-EM-S-107 | 13/32 | 3/8 | 1 | 2-11/16 | 4 | Single | Cobalt | 28.83 |
| HCT-EM-S-109 | 7/16 | 3/8 | 1 | 2-11/16 | 4 | Single | Cobalt | 29.35 |
| HCT-EM-S-110 | 7/16 | 3/8 | 1-3/4 | 3-1/4 | 4 | Single | Cobalt | 34.82 |
| HCT-EM-S-113 | 15/32 | 1/2 | 1-1/4 | 3-1/4 | 4 | Single | Cobalt | 40.86 |
| HCT-EM-S-114 | 31/64 | 1/2 | 1-1/4 | 3-1/4 | 4 | Single | Cobalt | 47.58 |
| HCT-EM-S-118 | 1/2 | 1/2 | 1-1/4 | 3-1/4 | 4 | Single | Cobalt | 29.69 |
| HCT-EM-S-122 | 1/2 | 1/2 | 2 | 4 | 4 | Single | Cobalt | 40.93 |
| HCT-EM-S-123 | 1/2 | 1/2 | 2 | 5 | 4 | Single | Cobalt | 47.24 |
| HCT-EM-S-128 | 5/8 | 5/8 | 1-5/8 | 3-3/4 | 4 | Single | Cobalt | 43.31 |
| HCT-EM-S-130 | 5/8 | 5/8 | 2-1/2 | 4-5/8 | 4 | Single | Cobalt | 56.00 |
| HCT-EM-S-134 | 3/4 | 3/4 | 1-5/8 | 3-7/8 | 4 | Single | Cobalt | 58.32 |
| HCT-EM-S-136 | 3/4 | 3/4 | 3 | 5-1/4 | 4 | Single | Cobalt | 77.94 |
| HCT-EM-S-137 | 3/4 | 3/4 | 4 | 6-1/4 | 4 | Single | Cobalt | 103.65 |
| HCT-EM-S-138 | 7/8 | 7/8 | 3-1/2 | 5-3/4 | 4 | Single | Cobalt | 125.04 |
| HCT-EM-S-141 | 1 | 1 | 2 | 4-1/2 | 4 | Single | Cobalt | 81.65 |
| HCT-EM-S-142 | 1 | 1 | 2 | 4-1/2 | 6 | Single | Cobalt | 80.16 |
| HCT-EM-S-129 | 5/8 | 5/8 | 1-5/8 | 3-3/4 | 6 | Single | Cobalt | 60.12 |
| HCT-EM-S-135 | 3/4 | 3/4 | 1-5/8 | 3-7/8 | 6 | Single | Cobalt | 62.04 |

CARBIDE SINGLE END 2 FLUTE END MILL



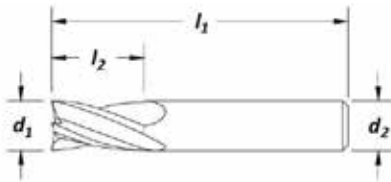
HCT-EM-S-056

Features and Benefits:

- 2 Flute - Center Cutting
- Good for plunging and slotting applications

| Part Number | Cutting Dia (d1) | Shank (d2) | Length of Cut (l2) | Overall Length (l1) | # of Flutes | Ends | Material | List Price |
|--------------|------------------|------------|--------------------|---------------------|-------------|--------|----------|------------|
| HCT-EM-S-056 | 1/16 | 1/8 | 3/8 | 1-1/2 | 2 | Single | Carbide | \$27.00 |
| HCT-EM-S-058 | 1/8 | 1/8 | 1/2 | 1-1/2 | 2 | Single | Carbide | 18.16 |
| HCT-EM-S-068 | 3/16 | 3/16 | 5/8 | 2 | 2 | Single | Carbide | 15.84 |
| HCT-EM-S-080 | 1/4 | 1/4 | 3/4 | 2-1/2 | 2 | Single | Carbide | 19.24 |
| HCT-EM-S-091 | 5/16 | 5/16 | 7/8 | 2-1/2 | 2 | Single | Carbide | 20.73 |
| HCT-EM-S-100 | 3/8 | 3/8 | 1 | 2-1/2 | 2 | Single | Carbide | 28.49 |
| HCT-EM-S-102 | 3/8 | 3/8 | 1-1/8 | 3 | 2 | Single | Carbide | 35.50 |
| HCT-EM-S-115 | 1/2 | 1/2 | 1 | 3 | 2 | Single | Carbide | 50.92 |
| HCT-EM-S-120 | 1/2 | 1/2 | 2 | 4 | 2 | Single | Carbide | 60.76 |
| HCT-EM-S-125 | 5/8 | 5/8 | 1-1/4 | 3-1/2 | 2 | Single | Carbide | 82.43 |
| HCT-EM-S-132 | 3/4 | 3/4 | 1-1/2 | 4 | 2 | Single | Carbide | 130.75 |
| HCT-EM-S-143 | 1 | 1 | 3 | 6 | 2 | Single | Carbide | 297.02 |

CARBIDE SINGLE END 4 FLUTE END MILL



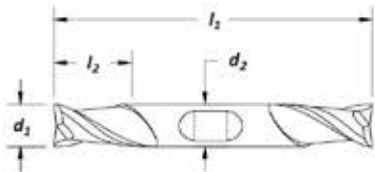
HCT-EM-S-055

Features and Benefits:

- 4 Flute - Center Cutting
- Good for plunging, slotting, and profiling applications
- Better finish than 2 flute end mills

| Part Number | Cutting Dia (d1) | Shank (d2) | Length of Cut (l2) | Overall Length (l1) | # of Flutes | Ends | Material | List Price |
|--------------|------------------|------------|--------------------|---------------------|-------------|--------|----------|------------|
| HCT-EM-S-055 | 1/16 | 1/8 | 3/16 | 1-1/2 | 4 | Single | Carbide | \$11.65 |
| HCT-EM-S-057 | 3/32 | 1/8 | 3/8 | 1-1/2 | 4 | Single | Carbide | 11.65 |
| HCT-EM-S-059 | 1/8 | 1/8 | 1/2 | 1-1/2 | 4 | Single | Carbide | 12.55 |
| HCT-EM-S-060 | 1/8 | 1/8 | 3/4 | 2-1/4 | 4 | Single | Carbide | 21.91 |
| HCT-EM-S-061 | 1/8 | 1/8 | 1 | 3 | 4 | Single | Carbide | 24.26 |
| HCT-EM-S-064 | 5/32 | 3/16 | 9/16 | 2 | 4 | Single | Carbide | 24.46 |
| HCT-EM-S-069 | 3/16 | 3/16 | 5/8 | 2 | 4 | Single | Carbide | 25.37 |
| HCT-EM-S-070 | 3/16 | 3/16 | 3/4 | 2-1/2 | 4 | Single | Carbide | 32.61 |
| HCT-EM-S-071 | 3/16 | 3/16 | 1-1/8 | 3 | 4 | Single | Carbide | 41.04 |
| HCT-EM-S-074 | 13/64 | 1/4 | 5/8 | 2-1/2 | 4 | Single | Carbide | 32.24 |
| HCT-EM-S-076 | 7/32 | 1/4 | 5/8 | 2-1/2 | 4 | Single | Carbide | 32.24 |
| HCT-EM-S-081 | 1/4 | 1/4 | 3/4 | 2-1/2 | 4 | Single | Carbide | 26.02 |
| HCT-EM-S-082 | 1/4 | 1/4 | 1-1/8 | 3 | 4 | Single | Carbide | 27.98 |
| HCT-EM-S-083 | 1/4 | 1/4 | 1-1/2 | 4 | 4 | Single | Carbide | 28.90 |
| HCT-EM-S-087 | 9/32 | 5/16 | 7/8 | 2-1/2 | 4 | Single | Carbide | 33.72 |
| HCT-EM-S-092 | 5/16 | 5/16 | 7/8 | 2-1/2 | 4 | Single | Carbide | 24.89 |
| HCT-EM-S-101 | 3/8 | 3/8 | 1 | 2-1/2 | 4 | Single | Carbide | 38.32 |
| HCT-EM-S-103 | 3/8 | 3/8 | 1-1/8 | 3 | 4 | Single | Carbide | 44.42 |
| HCT-EM-S-111 | 7/16 | 7/16 | 1 | 2-1/2 | 4 | Single | Carbide | 44.67 |
| HCT-EM-S-116 | 1/2 | 1/2 | 1 | 3 | 4 | Single | Carbide | 53.33 |
| HCT-EM-S-121 | 1/2 | 1/2 | 2 | 4 | 4 | Single | Carbide | 70.96 |
| HCT-EM-S-124 | 9/16 | 9/16 | 1-1/4 | 3-1/2 | 4 | Single | Carbide | 88.30 |
| HCT-EM-S-126 | 5/8 | 5/8 | 1-1/4 | 3-1/2 | 4 | Single | Carbide | 99.13 |
| HCT-EM-S-133 | 3/4 | 3/4 | 1-1/2 | 4 | 4 | Single | Carbide | 130.64 |
| HCT-EM-S-139 | 1 | 1 | 1-1/2 | 4 | 4 | Single | Carbide | 177.94 |

GENERAL PURPOSE COBALT 2 FLUTE, SQUARE END, DOUBLE END



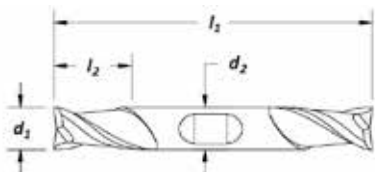
HCT-EM-D-001

Features and Benefits:

- Center Cutting
- Good for plunging, slotting, and profiling applications

| Part Number | Cutting Dia (d1) | Shank (d2) | Length of Cut (l2) | Overall Length (l1) | # of Flutes | Ends | Material | List Price |
|--------------|------------------|------------|--------------------|---------------------|-------------|--------|----------|------------|
| HCT-EM-D-004 | 1/8 | 3/8 | 3/8 | 3-1/16 | 2 | Double | Cobalt | \$24.62 |
| HCT-EM-D-007 | 5/32 | 3/8 | 7/16 | 3-1/8 | 2 | Double | Cobalt | 28.72 |
| HCT-EM-D-010 | 3/16 | 3/8 | 7/16 | 3-1/4 | 2 | Double | Cobalt | 36.62 |
| HCT-EM-D-013 | 7/32 | 3/8 | 1/2 | 3-1/4 | 2 | Double | Cobalt | 39.23 |
| HCT-EM-D-016 | 1/4 | 3/8 | 1/2 | 3-3/8 | 2 | Double | Cobalt | 36.62 |
| HCT-EM-D-019 | 9/32 | 3/8 | 9/16 | 3-3/8 | 2 | Double | Cobalt | 39.63 |
| HCT-EM-D-021 | 5/16 | 3/8 | 9/16 | 3-1/2 | 2 | Double | Cobalt | 37.30 |
| HCT-EM-D-025 | 11/32 | 3/8 | 9/16 | 3-1/2 | 2 | Double | Cobalt | 39.63 |
| HCT-EM-D-028 | 3/8 | 3/8 | 9/16 | 3-1/2 | 2 | Double | Cobalt | 43.19 |
| HCT-EM-D-031 | 13/32 | 1/2 | 13/16 | 4-1/8 | 2 | Double | Cobalt | 60.28 |
| HCT-EM-D-033 | 7/16 | 1/2 | 13/16 | 4-1/8 | 2 | Double | Cobalt | 57.32 |
| HCT-EM-D-037 | 15/32 | 1/2 | 13/16 | 4-1/8 | 2 | Double | Cobalt | 59.78 |
| HCT-EM-D-040 | 1/2 | 1/2 | 13/16 | 4-1/8 | 2 | Double | Cobalt | 56.15 |
| HCT-EM-D-043 | 9/16 | 5/8 | 1-1/8 | 5 | 2 | Double | Cobalt | 106.54 |
| HCT-EM-D-045 | 5/8 | 5/8 | 1-1/8 | 5 | 2 | Double | Cobalt | 104.70 |
| HCT-EM-D-047 | 11/16 | 3/4 | 1-5/16 | 5-5/8 | 2 | Double | Cobalt | 125.21 |
| HCT-EM-D-049 | 3/4 | 3/4 | 1-5/16 | 5-5/8 | 2 | Double | Cobalt | 135.84 |
| HCT-EM-D-051 | 7/8 | 7/8 | 1-9/16 | 6-1/8 | 2 | Double | Cobalt | 103.31 |
| HCT-EM-D-053 | 1 | 1 | 1-5/8 | 6-3/8 | 2 | Double | Cobalt | 122.60 |

GENERAL PURPOSE COBALT 4 FLUTE, SQUARE END, DOUBLE END



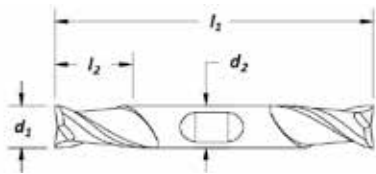
HCT-EM-D-002

Features and Benefits:

- Center Cutting
- Good for plunging, slotting, and profiling applications

| Part Number | Cutting Dia (d1) | Shank (d2) | Length of Cut (l2) | Overall Length (l1) | # of Flutes | Ends | Material | List Price |
|--------------|------------------|------------|--------------------|---------------------|-------------|--------|----------|------------|
| HCT-EM-D-005 | 1/8 | 3/8 | 3/8 | 3-1/16 | 4 | Double | Cobalt | \$30.39 |
| HCT-EM-D-008 | 5/32 | 3/8 | 7/16 | 3-1/8 | 4 | Double | Cobalt | 32.60 |
| HCT-EM-D-012 | 3/16 | 3/8 | 1/2 | 3-1/4 | 4 | Double | Cobalt | 33.42 |
| HCT-EM-D-014 | 7/32 | 3/8 | 9/16 | 3-1/4 | 4 | Double | Cobalt | 33.81 |
| HCT-EM-D-017 | 1/4 | 3/8 | 5/8 | 3-3/8 | 4 | Double | Cobalt | 34.80 |
| HCT-EM-D-020 | 9/32 | 3/8 | 11/16 | 3-3/8 | 4 | Double | Cobalt | 35.04 |
| HCT-EM-D-024 | 5/16 | 3/8 | 3/4 | 3-1/2 | 4 | Double | Cobalt | 35.50 |
| HCT-EM-D-026 | 11/32 | 3/8 | 3/4 | 3-1/2 | 4 | Double | Cobalt | 35.55 |
| HCT-EM-D-030 | 3/8 | 3/8 | 3/4 | 3-1/2 | 4 | Double | Cobalt | 32.68 |
| HCT-EM-D-032 | 13/32 | 1/2 | 1 | 4-1/2 | 4 | Double | Cobalt | 43.62 |
| HCT-EM-D-036 | 7/16 | 1/2 | 1 | 4-1/2 | 4 | Double | Cobalt | 47.17 |
| HCT-EM-D-038 | 15/32 | 1/2 | 1 | 4-1/2 | 4 | Double | Cobalt | 48.96 |
| HCT-EM-D-042 | 1/2 | 1/2 | 1 | 4-1/2 | 4 | Double | Cobalt | 45.99 |
| HCT-EM-D-044 | 9/16 | 5/8 | 1-3/8 | 5 | 4 | Double | Cobalt | 62.19 |
| HCT-EM-D-046 | 5/8 | 5/8 | 1-3/8 | 5 | 4 | Double | Cobalt | 67.98 |
| HCT-EM-D-048 | 11/16 | 3/4 | 1-5/8 | 5-5/8 | 4 | Double | Cobalt | 110.81 |
| HCT-EM-D-050 | 3/4 | 3/4 | 1-5/8 | 5-5/8 | 4 | Double | Cobalt | 88.78 |
| HCT-EM-D-052 | 7/8 | 7/8 | 1-7/8 | 6-1/8 | 4 | Double | Cobalt | 133.60 |
| HCT-EM-D-054 | 1 | 1 | 1-7/8 | 6-3/8 | 4 | Double | Cobalt | 147.86 |

GENERAL PURPOSE SOLID CARBIDE 2 FLUTE, SQUARE END, DOUBLE END



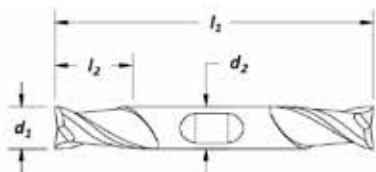
HCT-EM-D-001

Features and Benefits:

- Center Cutting
- Good for plunging, slotting, and profiling applications

| Part Number | Cutting Dia (d1) | Shank (d2) | Length of Cut (l2) | Overall Length (l1) | # of Flutes | Ends | Material | List Price |
|--------------|------------------|------------|--------------------|---------------------|-------------|--------|----------|------------|
| HCT-EM-D-001 | 1/16 | 1/8 | 1/8 | 1-1/2 | 2 | Double | Carbide | \$20.58 |
| HCT-EM-D-003 | 1/8 | 1/8 | 1/4 | 1-1/2 | 2 | Double | Carbide | 17.67 |
| HCT-EM-D-009 | 3/16 | 3/16 | 3/8 | 2 | 2 | Double | Carbide | 24.50 |
| HCT-EM-D-015 | 1/4 | 1/4 | 1/2 | 2-1/2 | 2 | Double | Carbide | 28.60 |
| HCT-EM-D-022 | 5/16 | 3/8 | 3/4 | 3-1/2 | 2 | Double | Carbide | 56.67 |
| HCT-EM-D-027 | 3/8 | 3/8 | 9/16 | 3 | 2 | Double | Carbide | 35.63 |
| HCT-EM-D-034 | 7/16 | 1/2 | 7/8 | 4 | 2 | Double | Carbide | 83.62 |
| HCT-EM-D-039 | 1/2 | 1/2 | 5/8 | 3 | 2 | Double | Carbide | 71.59 |

GENERAL PURPOSE SOLID CARBIDE 4 FLUTE, SQUARE END, DOUBLE END



HCT-EM-D-002

Features and Benefits:

- Center Cutting
- Good for plunging, slotting, and profiling applications

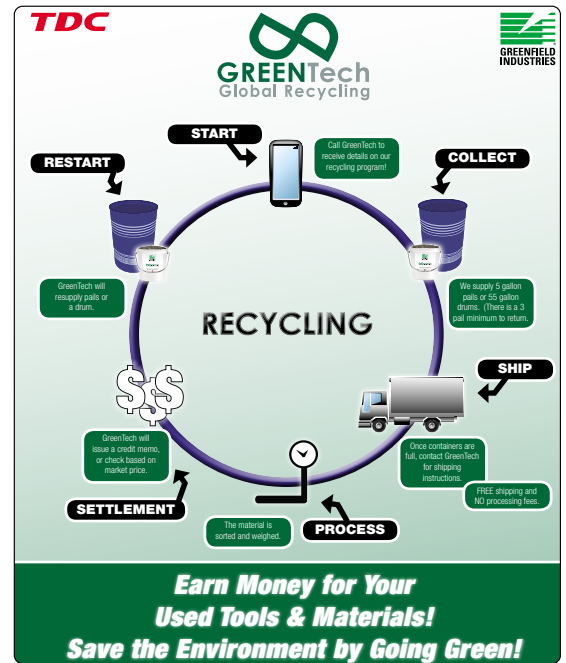
| Part Number | Cutting Dia (d1) | Shank (d2) | Length of Cut (l2) | Overall Length (l1) | # of Flutes | Ends | Material | List Price |
|--------------|------------------|------------|--------------------|---------------------|-------------|--------|----------|------------|
| HCT-EM-D-002 | 1/16 | 1/8 | 1/8 | 1-1/2 | 4 | Double | Carbide | 22.69 |
| HCT-EM-D-006 | 1/8 | 3/8 | 7/16 | 3 | 4 | Double | Carbide | 46.88 |
| HCT-EM-D-011 | 3/16 | 3/8 | 1/2 | 3 | 4 | Double | Carbide | 51.34 |
| HCT-EM-D-018 | 1/4 | 3/8 | 5/8 | 3-1/2 | 4 | Double | Carbide | 57.58 |
| HCT-EM-D-023 | 5/16 | 3/8 | 3/4 | 3-1/2 | 4 | Double | Carbide | 56.67 |
| HCT-EM-D-029 | 3/8 | 3/8 | 3/4 | 3-1/2 | 4 | Double | Carbide | 59.12 |
| HCT-EM-D-035 | 7/16 | 1/2 | 7/8 | 4 | 4 | Double | Carbide | 85.81 |
| HCT-EM-D-041 | 1/2 | 1/2 | 1 | 4 | 4 | Double | Carbide | 90.52 |

GREENTECH RECYCLING AND COST SAVING PROGRAM

Hercules Sealing Products is proud to partner with GreenTech Global Recycling in an effort to help the environment. This partnership also allows our customers to earn money by selling back (Hercules or competitors) used drills, end mills and taps in HSS, Cobalt, & carbide materials.

GreenTech is the only HSS company in the U.S. with a "Green" initiative to help stabilize TDC / Greenfield raw material pricing and complete the product's full circle loop. GreenTech Global Recycling reclaims used metal and scrap for the purpose of processing it into new metal. They buy back your used cutting tools, metal chips and sludge above market value and pays for all shipping costs. There are no processing fees.

While the typical \$/lb for Scrap <\$.05
GFII rate \$/lb = \$.25 TO \$.50



HOW TO GET STARTED

By contacting GreenTech or your aligned Hercules Regional Sales Manger directly you will be supplied with 5-gallon pails or 55-gallon drums for your material. Once full, you can contact GreenTech for shipping instructions.

Once they receive the material it is sorted by material grade and weighed. GreenTech then issues a check for the returned material within 2 weeks and resupply you with pails or a drum.

CONTACT AND RETURN SHIPPING INSTRUCTIONS

1. Acquire a minimum of 3 Pails (HSS and/or carbide).
2. Put Green Lid back if available on pail and secure pail for shipping.
3. Enduser/ Distributor makes packing slip.
4. Call or email GreenTech Recycling Dan Paradis with weight and grade if known:

Email: Dan.paradis@gfii.com

Tel.: 706-305-7371

5. GreenTech will arrange pick up.
6. Once received GreenTech will notify sender weight and grade and settlement.

Visit www.greentechglobalrecycling.com for more information

CLE-LINE BAND SAW BLADES - T1000



All-purpose band for moderate to difficult to cut material.



Bi-Metal M-42 (8%)
Rake 0° Straight tooth

CUTTING TOOLS

| Sale Part No. | Common Lengths | Length/Inches | Width | Thickness | TPI (teeth per inch) | Pitch | Net Price |
|----------------|-----------------|---------------|-------|-----------|----------------------|----------|-----------|
| HCT-BMBSAW-003 | 6 ft 8 in | 80 | 3/4 | 0.035 | 10/14 TPI | 0 Degree | \$33.06 |
| HCT-BMBSAW-007 | 7 ft 9 in | 93 | 3/4 | 0.035 | 10/14 TPI | 0 Degree | 38.75 |
| HCT-BMBSAW-020 | 10ft | 120 | 3/4 | 0.035 | 10/14 TPI | 0 Degree | 44.91 |
| HCT-BMBSAW-022 | 10 ft 5 in | 125 | 3/4 | 0.035 | 10/14 TPI | 0 Degree | 52.01 |
| HCT-BMBSAW-024 | 10 ft 10 1/2 in | 130.5 | 3/4 | 0.035 | 10/14 TPI | 0 Degree | 48.77 |
| HCT-BMBSAW-030 | 11 ft 6 in | 138 | 3/4 | 0.035 | 10/14 TPI | 0 Degree | 52.93 |
| HCT-BMBSAW-077 | 14 ft 6 in | 174 | 3/4 | 0.035 | 10/14 TPI | 0 Degree | 66.03 |
| HCT-BMBSAW-010 | 9 ft 7 1/2 in | 115.5 | 1 | 0.035 | 4/6 TPI | 0 Degree | 50.78 |
| HCT-BMBSAW-014 | 9 ft 11 1/2 in | 119.5 | 1 | 0.035 | 4/6 TPI | 0 Degree | 53.28 |
| HCT-BMBSAW-025 | 10 ft 10 1/2 in | 130.5 | 1 | 0.035 | 4/6 TPI | 0 Degree | 55.09 |
| HCT-BMBSAW-031 | 11 ft 6 in | 138 | 1 | 0.035 | 4/6 TPI | 0 Degree | 69.75 |
| HCT-BMBSAW-043 | 12 ft | 144 | 1 | 0.035 | 4/6 TPI | 0 Degree | 60.21 |
| HCT-BMBSAW-064 | 13 ft 6 in | 162 | 1 | 0.035 | 4/6 TPI | 0 Degree | 69.94 |
| HCT-BMBSAW-078 | 14 ft 6 in | 174 | 1 | 0.035 | 4/6 TPI | 0 Degree | 69.04 |
| HCT-BMBSAW-013 | 9 ft 7 1/2 in | 115.5 | 1 | 0.035 | 10/14 TPI | 0 Degree | 45.50 |
| HCT-BMBSAW-017 | 9 ft 11 1/2 in | 119.5 | 1 | 0.035 | 10/14 TPI | 0 Degree | 47.77 |
| HCT-BMBSAW-028 | 10 ft 10 1/2 in | 130.5 | 1 | 0.035 | 10/14 TPI | 0 Degree | 50.85 |
| HCT-BMBSAW-034 | 11 ft 6 in | 138 | 1 | 0.035 | 10/14 TPI | 0 Degree | 57.05 |
| HCT-BMBSAW-046 | 12 ft | 144 | 1 | 0.035 | 10/14 TPI | 0 Degree | 60.50 |
| HCT-BMBSAW-067 | 13 ft 6 in | 162 | 1 | 0.035 | 10/14 TPI | 0 Degree | 62.66 |
| HCT-BMBSAW-081 | 14 ft 6 in | 174 | 1 | 0.035 | 10/14 TPI | 0 Degree | 65.41 |
| HCT-BMBSAW-035 | 11 ft 6 in | 138 | 1-1/4 | 0.042 | 3/4 TPI | 0 Degree | 70.79 |
| HCT-BMBSAW-047 | 12 ft | 144 | 1-1/4 | 0.042 | 3/4 TPI | 0 Degree | 73.26 |
| HCT-BMBSAW-056 | 12 ft 6 in | 150 | 1-1/4 | 0.042 | 3/4 TPI | 0 Degree | 76.90 |
| HCT-BMBSAW-068 | 13 ft 6 in | 162 | 1-1/4 | 0.042 | 3/4 TPI | 0 Degree | 77.10 |
| HCT-BMBSAW-082 | 14 ft 6 in | 174 | 1-1/4 | 0.042 | 3/4 TPI | 0 Degree | 85.57 |
| HCT-BMBSAW-090 | 15 ft | 180 | 1-1/4 | .042 | 3/4 TPI | 0 Degree | 88.64 |
| HCT-BMBSAW-098 | 15 ft 6 in | 186 | 1-1/4 | 0.042 | 3/4 TPI | 0 Degree | 91.16 |
| HCT-BMBSAW-038 | 11 ft 6 in | 138 | 1-1/4 | 0.042 | 4/6 TPI | 0 Degree | 68.29 |
| HCT-BMBSAW-050 | 12 ft | 144 | 1-1/4 | 0.042 | 4/6 TPI | 0 Degree | 71.01 |
| HCT-BMBSAW-059 | 12 ft 6 in | 150 | 1-1/4 | 0.042 | 4/6 TPI | 0 Degree | 78.63 |
| HCT-BMBSAW-071 | 13 ft 6 in | 162 | 1-1/4 | 0.042 | 4/6 TPI | 0 Degree | 81.09 |
| HCT-BMBSAW-085 | 14 ft 6 in | 174 | 1-1/4 | 0.042 | 4/6 TPI | 0 Degree | 92.18 |
| HCT-BMBSAW-093 | 15 ft | 180 | 1-1/4 | .042 | 4/6 TPI | 0 Degree | 91.95 |
| HCT-BMBSAW-101 | 15 ft 6 in | 186 | 1-1/4 | 0.042 | 4/6 TPI | 0 Degree | 93.58 |
| HCT-BMBSAW-041 | 11 ft 6 in | 138 | 1-1/4 | 0.042 | 5/8 TPI | 0 Degree | 66.50 |
| HCT-BMBSAW-053 | 12 ft | 144 | 1-1/4 | 0.042 | 5/8 TPI | 0 Degree | 74.72 |
| HCT-BMBSAW-062 | 12 ft 6 in | 150 | 1-1/4 | 0.042 | 5/8 TPI | 0 Degree | 74.51 |
| HCT-BMBSAW-074 | 13 ft 6 in | 162 | 1-1/4 | 0.042 | 5/8 TPI | 0 Degree | 78.64 |
| HCT-BMBSAW-088 | 14 ft 6 in | 174 | 1-1/4 | 0.042 | 5/8 TPI | 0 Degree | 82.14 |
| HCT-BMBSAW-096 | 15 ft | 180 | 1-1/4 | .042 | 5/8 TPI | 0 Degree | 88.69 |
| HCT-BMBSAW-104 | 15 ft 6 in | 186 | 1-1/4 | 0.042 | 5/8 TPI | 0 Degree | 93.52 |

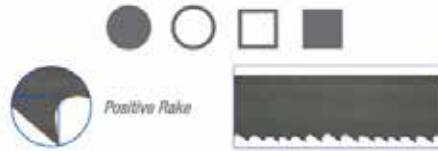
*3-5 days lead time

CLE-LINE BAND SAW BLADES - T2000



For both production or non-production cutting of solids and thick wall tubing of medium alloy. For work hardened materials such as stainless steel.

Bi-Metal Construction M-42 (8%)
Rake 5° Positive tooth



CUTTING TOOLS

| Sale Part No. | Common Lengths | Length/Inches | Width | Thickness | TPI (teeth per inch) | Pitch | Net Price |
|----------------|-----------------|---------------|-------|-----------|----------------------|----------|-----------|
| HCT-BMBSAW-002 | 6 ft 8 in | 80 | 3/4 | 0.035 | 5/7 TPI | 5 Degree | \$34.91 |
| HCT-BMBSAW-006 | 7 ft 9 in | 93 | 3/4 | 0.035 | 5/7 TPI | 5 Degree | 42.46 |
| HCT-BMBSAW-019 | 10ft | 120 | 3/4 | 0.035 | 5/7 TPI | 5 Degree | 45.07 |
| HCT-BMBSAW-021 | 10 ft 5 in | 125 | 3/4 | 0.035 | 5/7 TPI | 5 Degree | 52.01 |
| HCT-BMBSAW-023 | 10 ft 10 1/2 in | 130.5 | 3/4 | 0.035 | 5/7 TPI | 5 Degree | 50.43 |
| HCT-BMBSAW-029 | 11 ft 6 in | 138 | 3/4 | 0.035 | 5/7 TPI | 5 Degree | 53.82 |
| HCT-BMBSAW-076 | 14 ft 6 in | 174 | 3/4 | 0.035 | 5/7 TPI | 5 Degree | 65.41 |
| HCT-BMBSAW-011 | 9 ft 7 1/2 in | 115.5 | 1 | 0.035 | 4/6 TPI | 5 Degree | 49.22 |
| HCT-BMBSAW-015 | 9 ft 11 1/2 in | 119.5 | 1 | 0.035 | 4/6 TPI | 5 Degree | 53.73 |
| HCT-BMBSAW-026 | 10 ft 10 1/2 in | 130.5 | 1 | 0.035 | 4/6 TPI | 5 Degree | 56.08 |
| HCT-BMBSAW-032 | 11 ft 6 in | 138 | 1 | 0.035 | 4/6 TPI | 5 Degree | 55.93 |
| HCT-BMBSAW-044 | 12 ft | 144 | 1 | 0.035 | 4/6 TPI | 5 Degree | 61.29 |
| HCT-BMBSAW-065 | 13 ft 6 in | 162 | 1 | 0.035 | 4/6 TPI | 5 Degree | 65.97 |
| HCT-BMBSAW-079 | 14 ft 6 in | 174 | 1 | 0.035 | 4/6 TPI | 5 Degree | 71.62 |
| HCT-BMBSAW-036 | 11 ft 6 in | 138 | 1-1/4 | 0.042 | 3/4 TPI | 5 Degree | 72.75 |
| HCT-BMBSAW-048 | 12 ft | 144 | 1-1/4 | 0.042 | 3/4 TPI | 5 Degree | 75.31 |
| HCT-BMBSAW-057 | 12 ft 6 in | 150 | 1-1/4 | 0.042 | 3/4 TPI | 5 Degree | 77.88 |
| HCT-BMBSAW-069 | 13 ft 6 in | 162 | 1-1/4 | 0.042 | 3/4 TPI | 5 Degree | 83.02 |
| HCT-BMBSAW-083 | 14 ft 6 in | 174 | 1-1/4 | 0.042 | 3/4 TPI | 5 Degree | 88.15 |
| HCT-BMBSAW-091 | 15 ft | 180 | 1-1/4 | .042 | 3/4 TPI | 5 Degree | 90.72 |
| HCT-BMBSAW-099 | 15 ft 6 in | 186 | 1-1/4 | 0.042 | 3/4 TPI | 5 Degree | 93.28 |
| HCT-BMBSAW-039 | 11 ft 6 in | 138 | 1-1/4 | 0.042 | 4/6 TPI | 5 Degree | 72.75 |
| HCT-BMBSAW-051 | 12 ft | 144 | 1-1/4 | 0.042 | 4/6 TPI | 5 Degree | 75.31 |
| HCT-BMBSAW-060 | 12 ft 6 in | 150 | 1-1/4 | 0.042 | 4/6 TPI | 5 Degree | 77.88 |
| HCT-BMBSAW-072 | 13 ft 6 in | 162 | 1-1/4 | 0.042 | 4/6 TPI | 5 Degree | 83.02 |
| HCT-BMBSAW-086 | 14 ft 6 in | 174 | 1-1/4 | 0.042 | 4/6 TPI | 5 Degree | 88.15 |
| HCT-BMBSAW-094 | 15 ft | 180 | 1-1/4 | .042 | 4/6 TPI | 5 Degree | 90.72 |
| HCT-BMBSAW-102 | 15 ft 6 in | 186 | 1-1/4 | 0.042 | 4/6 TPI | 5 Degree | 93.28 |
| HCT-BMBSAW-042 | 11 ft 6 in | 138 | 1-1/4 | 0.042 | 5/7 TPI | 5 Degree | 72.75 |
| HCT-BMBSAW-054 | 12 ft | 144 | 1-1/4 | 0.042 | 5/7 TPI | 5 Degree | 75.31 |
| HCT-BMBSAW-063 | 12 ft 6 in | 150 | 1-1/4 | 0.042 | 5/7 TPI | 5 Degree | 77.88 |
| HCT-BMBSAW-075 | 13 ft 6 in | 162 | 1-1/4 | 0.042 | 5/7 TPI | 5 Degree | 83.02 |
| HCT-BMBSAW-089 | 14 ft 6 in | 174 | 1-1/4 | 0.042 | 5/7 TPI | 5 Degree | 88.15 |
| HCT-BMBSAW-097 | 15 ft | 180 | 1-1/4 | .042 | 5/7 TPI | 5 Degree | 90.72 |
| HCT-BMBSAW-105 | 15 ft 6 in | 186 | 1-1/4 | 0.042 | 5/7 TPI | 5 Degree | 93.28 |

*3-5 days lead time

CLE-LINE BAND SAW BLADES - T3000



Production sawing of exotic materials such as Inconels, Monels, Hastalloys, Hi-Temp Alloys, Titanium, Stainless and more.

Bi-Metal M-42 (8%)
Rake 10° DUPLEX tooth



| Sale Part No. | Common Lengths | Length/Inches | Width | Thickness | TPI (teeth per inch) | Pitch | Net Price |
|----------------|-----------------|---------------|-------|-----------|----------------------|-----------|-----------|
| HCT-BMBSAW-012 | 9 ft 7 1/2 in | 115.5 | 1 | 0.035 | 4/6 TPI | 10 Degree | \$51.70 |
| HCT-BMBSAW-016 | 9 ft 11 1/2 in | 119.5 | 1 | 0.035 | 4/6 TPI | 10 Degree | 53.01 |
| HCT-BMBSAW-027 | 10 ft 10 1/2 in | 130.5 | 1 | 0.035 | 4/6 TPI | 10 Degree | 56.64 |
| HCT-BMBSAW-033 | 11 ft 6 in | 138 | 1 | 0.035 | 4/6 TPI | 10 Degree | 59.11 |
| HCT-BMBSAW-045 | 12 ft | 144 | 1 | 0.035 | 4/6 TPI | 10 Degree | 61.08 |
| HCT-BMBSAW-066 | 13 ft 6 in | 162 | 1 | 0.035 | 4/6 TPI | 10 Degree | 67.02 |
| HCT-BMBSAW-080 | 14 ft 6 in | 174 | 1 | 0.035 | 4/6 TPI | 10 Degree | 70.97 |
| HCT-BMBSAW-037 | 11 ft 6 in | 138 | 1-1/4 | 0.042 | 3/4 TPI | 10 Degree | 72.75 |
| HCT-BMBSAW-049 | 12 ft | 144 | 1-1/4 | 0.042 | 3/4 TPI | 10 Degree | 75.31 |
| HCT-BMBSAW-058 | 12 ft 6 in | 150 | 1-1/4 | 0.042 | 3/4 TPI | 10 Degree | 77.88 |
| HCT-BMBSAW-070 | 13 ft 6 in | 162 | 1-1/4 | 0.042 | 3/4 TPI | 10 Degree | 83.02 |
| HCT-BMBSAW-084 | 14 ft 6 in | 174 | 1-1/4 | 0.042 | 3/4 TPI | 10 Degree | 88.15 |
| HCT-BMBSAW-092 | 15 ft | 180 | 1-1/4 | .042 | 3/4 TPI | 10 Degree | 90.72 |
| HCT-BMBSAW-100 | 15 ft 6 in | 186 | 1-1/4 | 0.042 | 3/4 TPI | 10 Degree | 93.28 |
| HCT-BMBSAW-040 | 11 ft 6 in | 138 | 1-1/4 | 0.042 | 4/6 TPI | 10 Degree | 72.75 |
| HCT-BMBSAW-052 | 12 ft | 144 | 1-1/4 | 0.042 | 4/6 TPI | 10 Degree | 75.31 |
| HCT-BMBSAW-061 | 12 ft 6 in | 150 | 1-1/4 | 0.042 | 4/6 TPI | 10 Degree | 77.88 |
| HCT-BMBSAW-073 | 13 ft 6 in | 162 | 1-1/4 | 0.042 | 4/6 TPI | 10 Degree | 83.02 |
| HCT-BMBSAW-087 | 14 ft 6 in | 174 | 1-1/4 | 0.042 | 4/6 TPI | 10 Degree | 88.15 |
| HCT-BMBSAW-095 | 15 ft | 180 | 1-1/4 | .042 | 4/6 TPI | 10 Degree | 90.72 |
| HCT-BMBSAW-103 | 15 ft 6 in | 186 | 1-1/4 | 0.042 | 4/6 TPI | 10 Degree | 93.28 |

*3-5 days lead time

CUTTING TOOLS

CLE-LINE BAND SAW BLADES T7000



Solid and thick wall tubing of medium to difficult material, such as stainless steel.

NARROW WIDTH

Bi-Metal M-42 (8%)



| Sale Part No. | Common Lengths | Length/Inches | Width | Thickness | TPI (teeth per inch) | Pitch | Net Price |
|----------------|----------------|---------------|-------|-----------|----------------------|----------|-----------|
| HCT-BMBSAW-001 | 5 ft 4 1/2 in | 64.5 | 1/2 | 0.025 | 10/14 TPI | 0 Degree | \$67.08 |
| HCT-BMBSAW-004 | 7 ft 5 in | 89 | 1/2 | 0.025 | 10/14 TPI | 0 Degree | 36.81 |
| HCT-BMBSAW-005 | 7 ft 9 in | 93 | 1/2 | 0.025 | 10/14 TPI | 0 Degree | 33.83 |
| HCT-BMBSAW-008 | 7 ft 9 1/2 in | 93.5 | 1/2 | 0.025 | 10/14 TPI | 0 Degree | 33.83 |
| HCT-BMBSAW-009 | 8 ft 5 in | 101 | 1/2 | 0.025 | 10/14 TPI | 0 Degree | 40.35 |
| HCT-BMBSAW-018 | 10 ft | 120 | 1/2 | 0.025 | 10/14 TPI | 0 Degree | 40.62 |
| HCT-BMBSAW-055 | 12 ft 6 in | 150 | 1/2 | 0.025 | 10/14 TPI | 0 Degree | 49.11 |

*3-5 days lead time

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BIMETAL BAND SAW BLADES

CUTTING MATERIAL M42



- The perfect product portfolio for standard and special applications
- The back of the blade is made of alloyed steel that offers excellent continuous operation properties
- Proven cutting material M42 with superior wear resistance in conventional applications
- Coated versions for maximum cutting performance and longer tool life

Sales units:

- Coils in fixed lengths and manufacturing coils of up to 400 feet, depending on the width
- Welded-to-length band saw blades

Band widths: 1/4 to 3-1/8 inches

Tooth shapes: S, P, K

Tooth pitches:

Variable: 12-16 to 0.7-1.0 teeth per inch (tpi)

Constant: 18 to 1.25 teeth per inch (tpi)

Types of tooth set: SD

Qualities: **M42:** 68-69 HRC, approx. 980 HV

Special designs:

- **PW** available for product families:
SKALAR® M42, SKALAR® PREMIUM M42,
SELEKTA® GS M42, SELEKTA® GS PREMIUM M42
- **PE** available for product families:
BIFLEX® M42, VARIO® M42, MARATHON® M42

Vario M42

The all-purpose band saw blade for small cross-sections and profiles

- Application:**
- Thin-walled profiles and small solid materials
 - Single, layer and bundle cutting
- Advantages:**
- Consistent high blade life
 - High running smoothness in spite of vibrations
- Features:**
- M42 tooth edge with 0° rake angle
 - Variable tooth pitch and standard set

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|------------------------------|----------|--------------|---------|----------------|--|------------------|
| (Vario) 1/4" x .035" or .025 | Bimetal | Vario M42 | 1/4" | .035" or .025" | 10 to 14 | \$1.26 |
| (Vario) 3/8" x .035" | Bimetal | Vario M42 | 3/8" | .035" | 10 to 14 | 1.26 |
| (Vario) 1/2" x .035" or .025 | Bimetal | Vario M42 | 1/2" | .035" or .025" | 10 to 14; 8 to 12; 6 to 10 | 1.26 |
| (Vario) 3/4 x .035" | Bimetal | Vario M42 | 3/4" | .035" | 10 to 14; 8 to 12; 6 to 10; 5 to 8; 4 to 6 | 1.28 |
| (Vario) 1-1/16" x .035" | Bimetal | Vario M42 | 1-1/16" | .035" | 10 to 14; 8 to 12; 6 to 10; 5 to 8; 4 to 6; 3 to 4 | 1.33 |
| (Vario) 1-3/8" x .042" | Bimetal | Vario M42 | 1-3/8" | .042" | 8 to 12; 6 to 10; 5 to 8; 4 to 6; 3 to 4 | 1.39 |
| (Vario) 1-5/8" x .050" | Bimetal | Vario M42 | 1-5/8" | .050" | 6 to 10; 5 to 8; 4 to 6; 3 to 4 | 1.68 |
| (Vario) 2-1/8" x .050" | Bimetal | Vario M42 | 2-1/8" | .050" | 6 to 10 | 1.78 |

*3-5 days lead time

*All Vario M42 have standard tooth shapes



Marathon M42

The all-purpose band saw blade for medium and large cross-sections

- Application:**
- Single, layer and bundle cutting
 - Fewer blade changes due to wide application range
- Advantages:**
- Consistent high blade life
 - Tighter tolerances through straighter cuts
- Features:**
- M42 tooth edge with positive rake angle
 - Variable tooth pitch and standard set

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|--------------------------------|----------|--------------|---------|-----------|--|------------------|
| (Marathon M42) 1-1/16" x .035" | Bimetal | Marathon M42 | 1-1/16" | .035" | 5 to 8; 4 to 6; 3 to 4; 2 to 3 | \$1.33 |
| (Marathon M42) 1-3/8" x .042" | Bimetal | Marathon M42 | 1-3/8" | .042" | 5 to 8; 4 to 6; 3 to 4; 2 to 3; 1.4 to 2 | 1.39 |
| (Marathon M42) 1-5/8" x .050" | Bimetal | Marathon M42 | 1-5/8" | .050" | 5 to 8; 4 to 6; 3 to 4; 2 to 3; 1.4 to 2 | 1.68 |
| (Marathon M42) 2-1/8" x .050" | Bimetal | Marathon M42 | 2-1/8" | .050" | 4 to 6; 3 to 4; 2 to 3; 1.4 to 2 | 1.78 |
| (Marathon M42) 2-1/8" x .063" | Bimetal | Marathon M42 | 2-1/8" | .063" | 4 to 6; 3 to 4; 2 to 3; 1.4 to 2; 1.0 to 1.4 | 1.85 |
| (Marathon M42) 2-5/8" x .063" | Bimetal | Marathon M42 | 2-5/8" | .063" | 4 to 6; 3 to 4; 2 to 3; 1.4 to 2; 1.0 to 1.4; 0.75 to 1.25 | 3.39 |
| (Marathon M42) 3-1/8" x .063" | Bimetal | Marathon M42 | 3-1/8" | .063" | 2 to 3; 1.4 to 2; 1.0 to 1.4; 0.75 to 1.25 | 3.67 |

*3-5 days lead time

*All Marathon M42 have hook tooth shapes

Marathon SW M42

Special design for cutting applications with residual stress materials

- Application:**
- Workpieces with residual stress
- Advantages:**
- No jamming in the cutting channel
 - Extra wide set and variable tooth pitch
- Features:**
- M42 tooth edge with positive rake angle

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|----------------------------------|----------|-----------------|--------|-----------|----------------------|------------------|
| (Marathon SW M42) 1-3/8" x .042" | Bimetal | Marathon SW M42 | 1-3/8" | .042" | NA | \$3.33 |
| (Marathon SW M42) 1-5/8" x .050" | Bimetal | Marathon SW M42 | 1-5/8" | .050" | 3 to 4; 2 to 3 | 1.68 |
| (Marathon SW M42) 2-1/8" x .063" | Bimetal | Marathon SW M42 | 2-1/8" | .063" | 3 to 4; 2 to 3 | 1.85 |
| (Marathon SW M42) 2-5/8" x .063" | Bimetal | Marathon SW M42 | 2-5/8" | .063" | 3 to 4; 2 to 3 | 3.39 |

*3-5 days lead time

*All Marathon SW M42 have hook tooth shapes



Proflex M42

Special design for profiles made of residual stress material

- Application:**
- Profiles and girders with residual stress
 - For steel construction and industrial profile cuts
- Advantages:**
- No jamming in the cutting channel
 - Extra wide step set and variable tooth pitch
- Features:**
- Extremely sturdy tooth contour
 - M42 tooth edge with positive rake angle

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|---------------------------|----------|--------------|---------|-----------|---|------------------|
| (Proflex) 3/4" x .035 | Bimetal | Proflex M42 | 3/4" | .035" | 12 to 16; 8 to 11; 5 to 7 | \$1.28 |
| (Proflex) 1-1/16" x .035" | Bimetal | Proflex M42 | 1-1/16" | .035" | 12 to 16; 8 to 11; 5 to 7; 4 to 6 | 1.33 |
| (Proflex) 1-3/8" x .042" | Bimetal | Proflex M42 | 1-3/8" | .042" | 8 to 11; 5 to 7; 4 to 6; 3 to 4; 2 to 3 | 1.39 |
| (Proflex) 1-5/8" x .050" | Bimetal | Proflex M42 | 1-5/8" | .050" | 8 to 11; 5 to 7; 4 to 6; 3 to 4; 2 to 3 | 1.68 |
| (Proflex) 2-1/8" x .050" | Bimetal | Proflex M42 | 2-1/8" | .050" | 4 to 6; 3 to 4; 2 to 3 | 1.78 |
| (Proflex) 2-1/8" x .063" | Bimetal | Proflex M42 | 2-1/8" | .063" | 4 to 6; 3 to 4; 2 to 3 | 1.85 |
| (Proflex) 2-5/8" x .063" | Bimetal | Proflex M42 | 2-5/8" | .063" | 3 to 4; 2 to 3 | 3.39 |

*3-5 days lead time

*All Proflex M42 have profile tooth shapes

Proflex SW M42

Special design for profiles made of residual stress material

- Application:**
- Profiles and girders with residual stress
 - For steel construction and industrial profile cuts
- Advantages:**
- No jamming in the cutting channel
 - Extra wide step set and variable tooth pitch
- Features:**
- Extremely sturdy tooth contour
 - M42 tooth edge with positive rake angle

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|-----------------------------|----------|----------------|--------|-----------|----------------------|------------------|
| (Proflex SW) 1-3/8" x .042" | Bimetal | Proflex SW M42 | 1-3/8" | .042" | 3 to 4; | \$1.39 |
| (Proflex SW) 1-5/8" x .050" | Bimetal | Proflex SW M42 | 1-5/8" | .050" | 3 to 4 | 1.68 |
| (Proflex SW) 2-1/8" x .050" | Bimetal | Proflex SW M42 | 2-1/8" | .050" | 3 to 4; 2 to 3 | 1.78 |
| (Proflex SW) 2-1/8" x .063" | Bimetal | Proflex SW M42 | 2-1/8" | .063" | 3 to 4; 2 to 3 | 1.85 |
| (Proflex SW) 2-5/8" x .063" | Bimetal | Proflex SW M42 | 2-5/8" | .063" | 3 to 4; 2 to 3 | 3.39 |

*3-5 days lead time

*All Proflex SW M42 have profile tooth shapes



Primar M42

The versatile option in Level-1 for small medium-sized workpieces

- Application:**
- Small to medium-sized workpieces
 - Solids and profiles
 - Industrial applications and workshops
- Advantages:**
- Less frequent blade changes due to universal range of application
 - Good cutting surface due to precise tooth setting
- Features:**
- Very good price performance ratio in the Level-1 segment
 - M42 tooth edge with customized rake angle
 - Optimized variable tooth pitch and standard tooth setting

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|--------------------------|----------|--------------|---------|-----------|--|------------------|
| (Primar) 1-1/16" x .035" | Bimetal | Primar M42 | 1-1/16" | .035" | 8 to 12 S; 6 to 10 S; 5 to 8 S; 4 to 6 K; 3 to 4 K; 2 to 3 K | \$1.30 |
| (Primar) 1-3/8" x .042" | Bimetal | Primar M42 | 1-3/8" | .042" | 5 to 8 S; 4 to 6 K; 3 to 4 K; 2 to 3 K | 1.36 |
| (Primar) 1-5/8" x .050" | Bimetal | Primar M42 | 1-5/8" | .050" | 4 to 6 K; 3 to 4 K; 2 to 3 K; 1.4 to 2 K | 1.65 |
| (Primar) 2-1/8" x .050" | Bimetal | Primar M42 | 2-1/8" | .050" | 3 to 4 K; 2 to 3 K | 1.74 |
| (Primar) 2-1/8" x .063" | Bimetal | Primar M42 | 2-1/8" | .063" | 3 to 4 K; 2 to 3 K; 1.4 to 2 K | 1.81 |
| (Primar) 2-5/8" x .063" | Bimetal | Primar M42 | 2-5/8" | .063" | 1.4 to 2 K; 1 to 1.4 K | 3.32 |

*3-5 days lead time

*S = Standard tooth shapes

*K = Hook tooth shapes



Skalar M42

The high performing band saw blade

- Application:** • High cutting rate, also continuous operation in industrial production
- Advantages:** • Short cutting time, lower cutting forces and smoother running
 • Fewer blade changes due to increased blade life
- Features:** • Ground contour with specially matched tooth pitch
 • M42 cutting edge with extra positive rake angle
 • Special set for optimal chip division

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|------------------------------|----------|--------------|---------|-----------|--|------------------|
| (Skalar M42) 1-1/16" x .035" | Bimetal | Skalar M42 | 1-1/16" | .035" | 2.5 to 3.4 | \$1.37 |
| (Skalar M42) 1-3/8" x .042" | Bimetal | Skalar M42 | 1-3/8" | .042" | 2.5 to 3.4; 1.8 to 2.5 | 1.42 |
| (Skalar M42) 1-5/8" x .050" | Bimetal | Skalar M42 | 1-5/8" | .050" | 2.5 to 3.4; 1.8 to 2.5; 1.4 to 1.8 | 1.72 |
| (Skalar M42) 2-1/8" x .050" | Bimetal | Skalar M42 | 2-1/8" | .050" | 2.5 to 3.4; 1.8 to 2.5; 1.4 to 1.8 | 1.83 |
| (Skalar M42) 2-1/8" x .063" | Bimetal | Skalar M42 | 2-1/8" | .063" | 2.5 to 3.4; 1.8 to 2.5; 1.4 to 1.8; 1.2 to 1.6; 1.0 to 1.4 | 1.90 |
| (Skalar M42) 2-5/8" x .063" | Bimetal | Skalar M42 | 2-5/8" | .063" | 1.4 to 1.8; 1.2 to 1.6; 1.0 to 1.4 | 3.48 |
| (Skalar M42) 3-1/8" x .063" | Bimetal | Skalar M42 | 3-1/8" | .063" | 1.2 to 1.6; 1.0 to 1.4; 0.7 to 1.0 | 3.76 |

*3-5 days lead time

*All Skalar M42 have hook tooth shapes



Selekta GS M42

High performance with Superfinishing

- Application:** • High cutting rate with small and large solid material
- Advantages:** • Low finishing due to perfect surface quality
 • Low material waste through more precise run in
 • Short cutting time through high performance
- Features:** • Patented performance and surface teeth
 • M42 cutting edge with extra positive rake angle

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|----------------------------------|----------|----------------|---------|-----------|--------------------------|------------------|
| (Selekta GS M42) 1-1/16" x .035" | Bimetal | Selekta GS M42 | 1-1/16" | .035" | 4 to 6; 3 to 4; 2 to 3 | \$1.39 |
| (Selekta GS M42) 1-3/8" x .042" | Bimetal | Selekta GS M42 | 1-3/8" | .042" | 4 to 6; 3 to 4; 2 to 3 | 1.45 |
| (Selekta GS M42) 1-5/8" x .050" | Bimetal | Selekta GS M42 | 1-5/8" | .050" | 2 to 3 | 1.80 |
| (Selekta GS M42) 2-1/8" x .050" | Bimetal | Selekta GS M42 | 2-1/8" | .050" | 4 to 6; 3 to 4; 2 to 3 | 1.93 |
| (Selekta GS M42) 2-1/8" x .063" | Bimetal | Selekta GS M42 | 2-1/8" | .063" | 3 to 4; 2 to 3; 1.4 to 2 | 2.01 |
| (Selekta GS M42) 2-5/8" x .063" | Bimetal | Selekta GS M42 | 2-5/8" | .063" | 1.4 to 2; 1.0 to 1.4 | 3.63 |
| (Selekta GS M42) 3-1/8" x .063" | Bimetal | Selekta GS M42 | 3-1/8" | .063" | 1.4 to 2; 1.0 to 1.4 | 4.03 |

*3-5 days lead time

*All Selekta GS M42 have hook tooth shapes



Ecoflex M42

The economical band saw blade for numerous cutting tasks

- Application:**
- Profiles and solid material made of low alloy steel
 - Basic workshop applications
 - Easy to cut materials
- Advantages:**
- Low cost with 100% Wikus Quality
- Features:**
- Variable tooth pitch and standard set
 - M42 tooth edge with adapted rake angle

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|-------------------------------|----------|--------------|---------|-----------|--|------------------|
| (Ecoflex M42) 3/4" x .035" | Bimetal | Ecoflex M42 | 3/4" | .035" | 10 to 14 S; 8 to 12 S; 6 to 10 S; 5 to 8 S; 4 to 6 K | \$1.26 |
| (Ecoflex M42) 1-1/16" x .035" | Bimetal | Ecoflex M42 | 1-1/16" | .035" | 10 to 14 S; 8 to 12 S; 6 to 10 S; 5 to 8 S; 4 to 6 K; 3 to 4 K | 1.27 |
| (Ecoflex M42) 1-3/8" x .042" | Bimetal | Ecoflex M42 | 1-3/8" | .042" | 8 to 12 S; 5 to 8 S; 4 to 6 K; 3 to 4 K; 2 to 3 K | 1.32 |
| (Ecoflex M42) 1-5/8" x .050" | Bimetal | Ecoflex M42 | 1-5/8" | .050" | 4 to 6 K; 3 to 4 K; 2 to 3 K | 1.63 |
| (Ecoflex M42) 2-1/8" x .063" | Bimetal | Ecoflex M42 | 2-1/8" | .063" | 3 to 4 K; 2 to 3 K; 1.4 to 2 K | 1.78 |
| (Ecoflex M42) 2-5/8" x .063" | Bimetal | Ecoflex M42 | 2-5/8" | .063" | 2 to 3 K; 1.4 to 2 K; 1 to 1.4 K | 3.26 |

*3-5 days lead time

*S = Standard tooth shapes

*K = Hook tooth shapes

Ecoflex NE M42

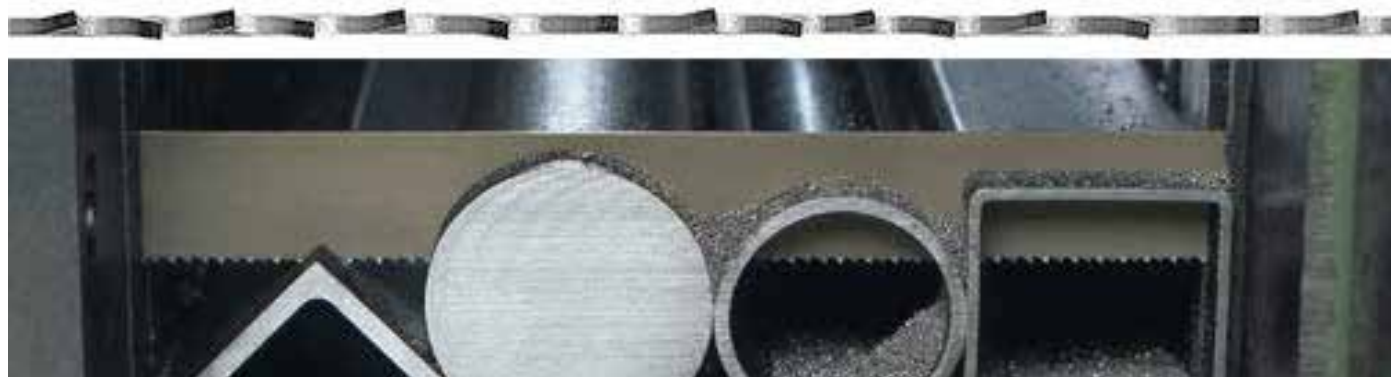
The economical band saw blade for non-ferrous metals

- Application:**
- Non-ferrous metals
 - Cutting applications with manual feed
 - Contour and radius cuts
- Advantages:**
- Low effort
 - No jamming in the cutting channel
- Features:**
- Low cost, easy to sharpen
 - M42 tooth edge with adapted rake angle
 - Constant tooth pitch and wide set

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|----------------------------------|----------|----------------|---------|-----------|----------------------|------------------|
| (Ecoflex NE M42) 3/4" x .035" | Bimetal | Ecoflex NE M42 | 3/4" | .035" | 3 | \$1.27 |
| (Ecoflex NE M42) 1-1/16" x .035" | Bimetal | Ecoflex NE M42 | 1-1/16" | .035" | 4; 3; 2 | 1.29 |
| (Ecoflex NE M42) 1-3/8" x .042" | Bimetal | Ecoflex NE M42 | 1-3/8" | .042" | 3 | 1.34 |

*3-5 days lead time

*All Ecoflex NE M42 have hook tooth shapes



BIMETAL BAND SAW BLADES CUTTING MATERIAL X3000®



- The perfect product portfolio for standard and special applications
- The back of the blade is made of alloyed steel that offers excellent results in continuous operations
- Modified cutting material X3000® (exclusive to WIKUS) with high hardness and excellent toughness
- High cutting edge stability
- For materials that are difficult to machine and special alloys

Sales units:

- Coils in fixed lengths and manufacturing coils of up to 400 feet, depending on the width
- Welded-to-length band saw blades

Band widths:

1-1/16 to 4 inches

Tooth shapes:

K

Tooth pitches:

Variable: 5-8 to 0.7-1.0 teeth per inch (tpi)

Types of tooth set:

SD

Qualities:

X3000®: approx. 70 HRC, approx. 1000 HV

Special designs:

PW available for product families:
SKALAR® X3000®, SELEKTA® GS X3000®

Marathon X3000

The special band saw blade for high-tensile materials

- Application:**
- High-alloy austenitic materials
 - Scaled forging ingots
- Advantages:**
- Longer blade life and less wear
 - Low material loss due to improved flatness
- Features:**
- Tooth edge made of the cutting material X3000 with positive rake angle
 - High cutting edge stability and high wear resistance
 - Variable tooth pitch and standard set

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|----------------------------------|----------|----------------|---------|-----------|----------------------------------|------------------|
| (Marathon X3000) 1-1/16" x .035" | Bimetal | Marathon X3000 | 1-1/16" | .035" | 5 to 8; 4 to 6; 3 to 4 | \$1.38 |
| (Marathon X3000) 1-3/8" x .042" | Bimetal | Marathon X3000 | 1-3/8" | .042" | 4 to 6; 3 to 4; 2 to 3 | 1.45 |
| (Marathon X3000) 1-5/8" x .050" | Bimetal | Marathon X3000 | 1-5/8" | .050" | 4 to 6; 3 to 4; 2 to 3 | 1.76 |
| (Marathon X3000) 2-1/8" x .063" | Bimetal | Marathon X3000 | 2-1/8" | .063" | 4 to 6; 3 to 4; 2 to 3; 1.4 to 2 | 1.96 |
| (Marathon X3000) 2-5/8" x .063" | Bimetal | Marathon X3000 | 2-5/8" | .063" | 3 to 4; 2 to 3; 1.4 to 2 | 3.55 |

*3-5 days lead time

*All Marathon X3000 have hook tooth shapes



Skalar X3000

The powerful band saw blade for high-tensile materials

- Application:**
- Outstanding cutting rate with high-alloy austenitic materials
 - Electroslag remelted material
- Advantages:**
- Continuous operation in large steel mills
 - High efficiency due to excellent cutting performance
 - Fewer blade changes due to increased blade life
 - Lower cutting forces and smoother running
- Features:**
- Ground contour with specially matched tooth pitch
 - Tooth edge made of the cutting material X3000® with positive rake angle
 - Special set for optimal chip division

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|--------------------------------|----------|--------------|---------|-----------|--|------------------|
| (Skalar X3000) 1-1/16" x .035" | Bimetal | Skalar X3000 | 1-1/16" | .035" | 2.5 to 3.4 | \$1.48 |
| (Skalar X3000) 1-3/8" x .042" | Bimetal | Skalar X3000 | 1-3/8" | .042" | 2.5 to 3.4; 1.8 to 2.5 | 1.55 |
| (Skalar X3000) 1-5/8" x .050" | Bimetal | Skalar X3000 | 1-5/8" | .050" | 2.5 to 3.6; 1.8 to 2.5; 1.4 to 1.8 | 1.86 |
| (Skalar X3000) 2-1/8" x .050" | Bimetal | Skalar X3000 | 2-1/8" | .050" | 1.8 to 2.5 | 2.06 |
| (Skalar X3000) 2-1/8" x .063" | Bimetal | Skalar X3000 | 2-1/8" | .063" | 2.5 to 3.6; 1.8 to 2.5; 1.4 to 1.8; 1.2 to 1.6; 1.0 to 1.4 | 2.16 |
| (Skalar X3000) 2-5/8" x .063" | Bimetal | Skalar X3000 | 2-5/8" | .063" | 1.8 to 2.5; 1.4 to 1.8; 1.2 to 1.6; 1.2 to 1.6; 1.0 to 1.4; 0.7 to 1.0 | 3.74 |
| (Skalar X3000) 3-1/8" x .063" | Bimetal | Skalar X3000 | 3-1/8" | .063" | 1.4 to 1.8; 1.2 to 1.6; 1.2 to 1.6; 1.0 to 1.4; 0.7 to 1.0 | 4.09 |
| (Skalar X3000) 4" x .063" | Bimetal | Skalar X3000 | 4" | .063" | 0.7 to 1 | 6.49 |

*3-5 days lead time

*All Skalar X3000 have hook tooth shapes



Selekta GS X3000

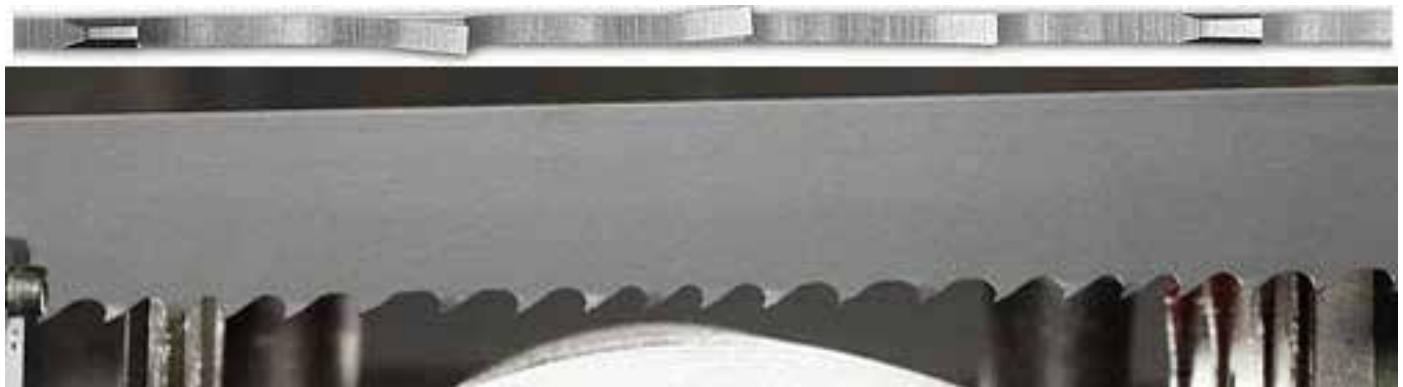
High performance with Superfinishing for difficult to cut materials

- Application:**
 - Rust and Acid-Resistant steels and alloys (austenitic)
 - Duplex and heat resistant steels
- Advantages:**
 - For outstanding demands in surface quality and precise run-in
 - Excellent productivity due to short cutting times
 - Fewer blade changes due to increased blade life
- Features:**
 - Perfect surfaces for low finishing
 - Tooth edge made of the cutting material X3000® with positive rake angle
 - High cutting edge stability and high wear resistance
 - Patented performance and surface teeth

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|------------------------------------|----------|------------------|---------|-----------|----------------------------------|------------------|
| (Selekta GS X3000) 1-1/16" x .035" | Bimetal | Selekta GS X3000 | 1-1/16" | .035" | 4 to 6; 3 to 4; 2 to 3 | \$1.46 |
| (Selekta GS X3000) 1-3/8" x .042" | Bimetal | Selekta GS X3000 | 1-3/8" | .042" | 4 to 6; 3 to 4; 2 to 3 | 1.53 |
| (Selekta GS X3000) 1-5/8" x .050" | Bimetal | Selekta GS X3000 | 1-5/8" | .050" | 4 to 6; 3 to 4; 2 to 3; 1.4 to 2 | 1.91 |
| (Selekta GS X3000) 2-1/8" x .050" | Bimetal | Selekta GS X3000 | 2-1/8" | .050" | 2 to 3; 1.4 to 2 | 2.06 |
| (Selekta GS X3000) 2-1/8" x .063" | Bimetal | Selekta GS X3000 | 2-1/8" | .063" | 3 to 4; 2 to 3; 1.4 to 2 | 2.15 |
| (Selekta GS X3000) 2-5/8" x .063" | Bimetal | Selekta GS X3000 | 2-5/8" | .063" | 2 to 3; 1.4 to 2; 1.0 to 1.4 | 3.81 |

*3-5 days lead time

*All Selekta GS X3000 have hook tooth shapes



CARBIDE TIPPED BAND SAW BLADES



- Available in specially ground and / or set tooth geometries
- Excellent results in every application through use of carbides with different degrees of hardness and compositions
- Very high cutting performance for increased machine productivity
- Coated premium blades for maximum cutting performance
- Long running times and extremely high performance from our high-tech products due to optimized backing material

Sales units:

- Coils of up to a max. of 164 feet
- Welded-to-length band saw blades

Band widths:

1/2 to 4 inches

Tooth shapes:

S, K, T, TSN
See page 49 for explanations

Tooth pitches:

Variable: 3-4 to 0.7-1.0 teeth per inch (tpi)
Constant: 4 to 1.25 teeth per inch (tpi)

Types of tooth set:

SD

Special designs:

PW available for product families:
DUROSET®, DUROSET® PREMIUM,
FUTURA®, FUTURA® PREMIUM,
FUTURA® VA, FUTURA® PREMIUM VA

APPLICATION RANGE FOR CARBIDE TIPPED BAND SAW BLADES

We classify our product range of carbide-tipped band saw blades into four groups to facilitate selection of the right band saw blade:

1. Structural, case-hardened, tempering and tool steels, also in mixed operation

All purpose band saw blades with the flexibility to be used for a wide application range.

2. Rust and acid resistant steels as well as special alloys

Special band saw blades for materials, which are difficult to cut, tough and tending to strain harden such as nickel-base and titanium alloys.

3. Non-ferrous metals

Band saw blades for a multitude of foundry applications including cutting of aluminum cast parts, aluminum ingots, plate cutting and all other non-ferrous metals.

4. Special applications

In addition to the above mentioned potential solutions we offer the optimal band saw blade for special applications, such as:

- high performance cutting
- induction hardened steels
- mineral building materials

With regard to further special requirements we invite you to get in touch with our Technical Support specialists for recommending the optimal band saw blade and suitable cutting parameter.

Duroset

The sturdy all-round band saw blade

- Application:**
- All steels, suitable for forged and scaled surfaces
 - Solid material and thick-walled tubes

- Advantages:**
- Increased productivity of the machinery
 - Sturdy design for increased wear resistance

- Features:**
- Set tooth geometry with positive rake angle, variable tooth pitch
 - Optimized chip division

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|--------------------------------------|----------|--------------|---------|-----------|----------------------|------------------|
| (Duroset) 1-1/16" x .035" x 3-4 K | Carbide | Duroset | 1-1/16" | .035" | 3-4 K | \$2.69 |
| (Duroset) 1-1/16" x .035" x 2-3 K | Carbide | Duroset | 1-1/16" | .035" | 2-3 K | 2.32 |
| (Duroset) 1-3/8" x .042" x 3-4 K | Carbide | Duroset | 1-3/8" | .042" | 3-4 K | 2.84 |
| (Duroset) 1-3/8" x .042" x 2-3 K | Carbide | Duroset | 1-3/8" | .042" | 2-3 K | 2.46 |
| (Duroset) 1-5/8" x .050" x 3-4 K | Carbide | Duroset | 1-5/8" | .050" | 3-4 K | 3.22 |
| (Duroset) 1-5/8" x .050" x 2-3 K | Carbide | Duroset | 1-5/8" | .050" | 2-3 K | 2.84 |
| (Duroset) 1-5/8" x .050" x 1.4-2 K | Carbide | Duroset | 1-5/8" | .050" | 1.4-2 K | 2.62 |
| (Duroset) 2-1/8" x .050" x 3-4 K | Carbide | Duroset | 2-1/8" | .050" | 3-4 K | 3.63 |
| (Duroset) 2-1/8" x .050" x 2-3 K | Carbide | Duroset | 2-1/8" | .050" | 2-3 K | 3.39 |
| (Duroset) 2-1/8" x .063" x 2-3 K | Carbide | Duroset | 2-1/8" | .063" | 2-3 K | 3.74 |
| (Duroset) 2-1/8" x .063" x 1.4-2 K | Carbide | Duroset | 2-1/8" | .063" | 1.4-2 K | 3.36 |
| (Duroset) 2-5/8" x .063" x 1.4-2 K | Carbide | Duroset | 2-5/8" | .063" | 1.4-2 K | 5.44 |
| (Duroset) 2-5/8" x .063" x 1.0-1.4 K | Carbide | Duroset | 2-5/8" | .063" | 1.0-1.4 K | 5.25 |
| (Duroset) 3-1/8" x .063" x 1.0-1.4 K | Carbide | Duroset | 3-1/8" | .063" | 1.0-1.4 K | 6.21 |
| (Duroset) 3-1/8" x .063" x 0.7-1.0 K | Carbide | Duroset | 3-1/8" | .063" | 0.7-1.0 K | 6.09 |

*3-5 days lead time

*All Duroset have hook tooth shapes

Duroset NE

The set special design for non-ferrous metals

- Application:**
- Contour and radius cuts on non-ferrous metals
 - Automatic and manual feed

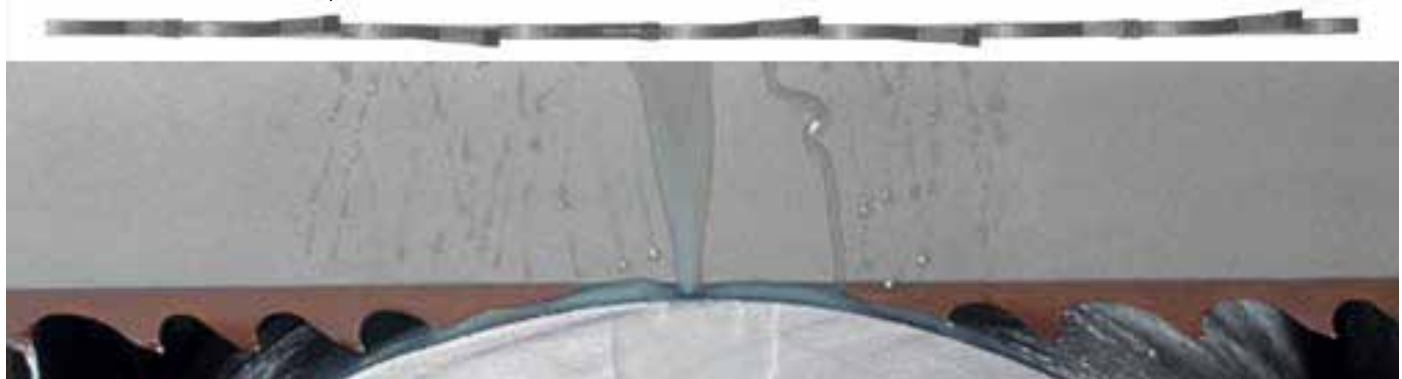
- Advantages:**
- High cutting performance increases productivity
 - High blade-life even in varying conditions

- Features:**
- Extra wide set
 - Ground trapezoid tooth with positive rake angle
 - Tooth edges made of specific carbide to prevent abrasion

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|------------------------------------|----------|--------------|---------|-----------|----------------------|------------------|
| (Duroset NE) 3/4" x .035" x 3 K | Carbide | Duroset NE | 3/4" | .035" | 3 K | \$2.89 |
| (Duroset NE) 1-1/16" x .035" x 3 K | Carbide | Duroset NE | 1-1/16" | .035" | 3 K | 2.98 |
| (Duroset NE) 1-3/8" x .042" x 3 K | Carbide | Duroset NE | 1-3/8" | .042" | 3 K | 3.12 |

*3-5 days lead time

*All Duroset NE have hook tooth shapes



Ecodur

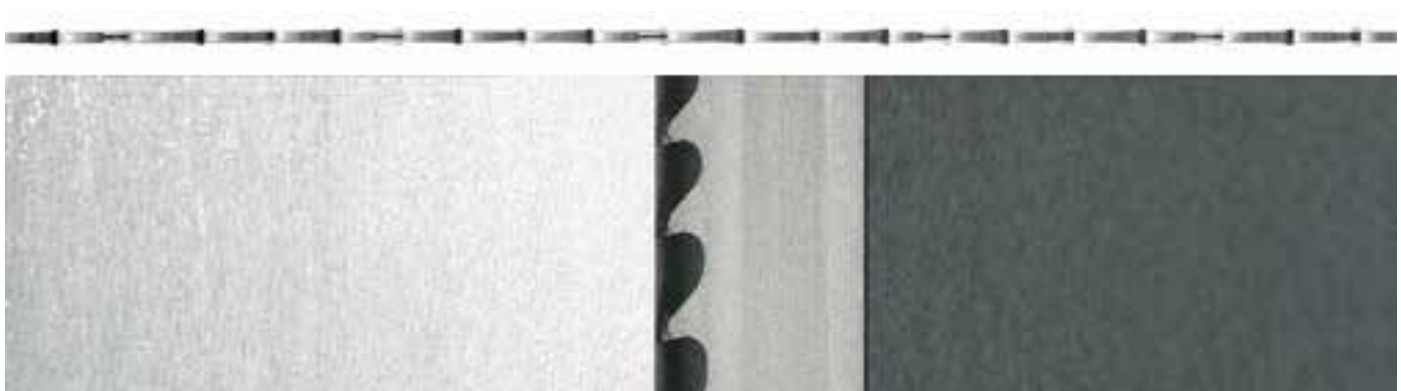
The low-cost band saw blade for non-ferrous foundries

- Application:**
- For cutting gates and risers on non-ferrous castings
 - Aluminum and aluminum alloys in solid material or profiles
 - Copper and copper alloys in solid material or profiles
- Advantages:**
- Productivity increase due to short cutting times
 - Low finishing due to perfect surface quality
- Features:**
- Tooth edges made of specific carbide to prevent abrasive wear
 - Ground trapezoid tooth with positive rake angle
 - Patented chip division for performance and cutting surface quality

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|--------------------------------------|----------|--------------|---------|-----------|----------------------|------------------|
| (Ecodur) 1/2" x .032" x 3-4 T | Carbide | Ecodur | 1/2" | .032" | 3-4 T | \$2.77 |
| (Ecodur) 3/4" x .032" x 3-4 T | Carbide | Ecodur | 3/4" | .032" | 3-4 T | 2.68 |
| (Ecodur) 1-1/16" x .035" x 3-4 T | Carbide | Ecodur | 1-1/16" | .035" | 3-4 T | 2.76 |
| (Ecodur) 1-1/16" x .035" x 2-3 T | Carbide | Ecodur | 1-1/16" | .035" | 2-3 T | 2.40 |
| (Ecodur) 1-3/8" x .042" x 3-4 T | Carbide | Ecodur | 1-3/8" | .042" | 3-4 T | 2.90 |
| (Ecodur) 1-3/8" x .042" x 2-3 T | Carbide | Ecodur | 1-3/8" | .042" | 2-3 T | 2.50 |
| (Ecodur) 1-3/8" x .042" x 1.4-2 T | Carbide | Ecodur | 1-3/8" | .042" | 1.4-2 T | 2.23 |
| (Ecodur) 1-5/8" x .050" x 3-4 K | Carbide | Ecodur | 1-5/8" | .050" | 3-4 K | 3.24 |
| (Ecodur) 1-5/8" x .050" x 2-3 T | Carbide | Ecodur | 1-5/8" | .050" | 2-3 T | 2.83 |
| (Ecodur) 1-5/8" x .050" x 1.4-2 T | Carbide | Ecodur | 1-5/8" | .050" | 1.4-2 T | 2.57 |
| (Ecodur) 2-1/8" x .050" x 2-3 T | Carbide | Ecodur | 2-1/8" | .050" | 2-3 T | 3.05 |
| (Ecodur) 2-1/8" x .050" x 1.4-2 T | Carbide | Ecodur | 2-1/8" | .050" | 1.4-2 T | 2.81 |
| (Ecodur) 2-1/8" x .063" x 2-3 T | Carbide | Ecodur | 2-1/8" | .063" | 2-3 T | 3.80 |
| (Ecodur) 2-1/8" x .063" x 1.4-2 T | Carbide | Ecodur | 2-1/8" | .063" | 1.4-2 T | 3.42 |
| (Ecodur) 2-1/8" x .063" x .85-1.15 T | Carbide | Ecodur | 2-1/8" | .063" | .85-1.15 T | 3.10 |
| (Ecodur) 2-5/8" x .063" x 3-4 T | Carbide | Ecodur | 2-5/8" | .063" | 3-4 T | 7.14 |
| (Ecodur) 2-5/8" x .063" x 2-3 T | Carbide | Ecodur | 2-5/8" | .063" | 2-3 T | 5.72 |
| (Ecodur) 2-5/8" x .063" x 1.4-2 T | Carbide | Ecodur | 2-5/8" | .063" | 1.4-2 T | 5.27 |
| (Ecodur) 2-5/8" x .063" x .85-1.1 T | Carbide | Ecodur | 2-5/8" | .063" | .85-1.1 T | 4.79 |

*3-5 days lead time

*All Ecodur have trapezoid tooth shapes (T)



Futura

The high-performance bestseller band saw blade

- Application:**
- Structural, case-hardened, tempered and tool steels
 - Serial sections

- Advantages:**
- Outstanding cutting performance for increased productivity
 - High blade life due to optimal chip division

- Features:**
- Ground trapezoid tooth with positive rake angle
 - Patented chip division

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|--------------------------------------|----------|--------------|---------|-----------|----------------------|------------------|
| (Futura) 1-1/16" x .035" x 3-4 T | Carbide | Futura | 1-1/16" | .035" | 3-4 T | \$3.10 |
| (Futura) 1-3/8" x .042" x 3-4 T | Carbide | Futura | 1-3/8" | .042" | 3-4 T | 3.33 |
| (Futura) 1-3/8" x .042" x 2-3 T | Carbide | Futura | 1-3/8" | .042" | 2-3 T | 2.80 |
| (Futura) 1-5/8" x .050" x 3-4 T | Carbide | Futura | 1-5/8" | .050" | 3-4 T | 3.76 |
| (Futura) 1-5/8" x .050" x 2-3 T | Carbide | Futura | 1-5/8" | .050" | 2-3 T | 3.20 |
| (Futura) 1-5/8" x .050" x 1.4-2 T | Carbide | Futura | 1-5/8" | .050" | 1.4-2 T | 2.99 |
| (Futura) 2-1/8" x .050" x 2-3 T | Carbide | Futura | 2-1/8" | .050" | 2-3 T | 3.50 |
| (Futura) 2-1/8" x .050" x 1.4-2 T | Carbide | Futura | 2-1/8" | .050" | 1.4-2 T | 3.21 |
| (Futura) 2-1/8" x .063" x 2-3 T | Carbide | Futura | 2-1/8" | .063" | 2-3 T | 4.10 |
| (Futura) 2-1/8" x .063" x 1.4-2 T | Carbide | Futura | 2-1/8" | .063" | 1.4-2 T | 3.62 |
| (Futura) 2-1/8" x .063" x 1.0-1.4 T | Carbide | Futura | 2-1/8" | .063" | 1.0-1.4 T | 3.49 |
| (Futura) 2-1/8" x .063" x .85-1.15 T | Carbide | Futura | 2-1/8" | .063" | .85-1.15 T | 3.28 |
| (Futura) 2-5/8" x .063" x 3-4 T | Carbide | Futura | 2-5/8" | .063" | 3-4 T | 7.28 |
| (Futura) 2-5/8" x .063" x 2-3 T | Carbide | Futura | 2-5/8" | .063" | 2-3 T | 5.82 |
| (Futura) 2-5/8" x .063" x 1.4-2 T | Carbide | Futura | 2-5/8" | .063" | 1.4-2 T | 5.50 |
| (Futura) 2-5/8" x .063" x 1.0-1.4 T | Carbide | Futura | 2-5/8" | .063" | 1.0-1.4 T | 5.32 |
| (Futura) 2-5/8" x .063" x .85-1.15 T | Carbide | Futura | 2-5/8" | .063" | .85-1.15 T | 5.03 |
| (Futura) 3-1/8" x .063" x 1.4-2 T | Carbide | Futura | 3-1/8" | .063" | 1.4-2 T | 6.14 |
| (Futura) 3-1/8" x .063" x 1.0-1.4 T | Carbide | Futura | 3-1/8" | .063" | 1.0-1.4 T | 6.07 |
| (Futura) 3-1/8" x .063" x .85-1.15 T | Carbide | Futura | 3-1/8" | .063" | .85-1.15 T | 5.86 |

*3-5 days lead time

*All Futura have trapezoid tooth shapes (T)



TCT

The band saw blade for mineral materials

- Application:**
- Aerated concrete, graphite
 - Insulation materials such as glass and rock wool
 - Glass and carbon fibre reinforced plastic
- Advantages:**
- Excellent stability against abrasive wear
 - Usable without cooling lubricant
- Features:**
- Carbide-tipped tooth edges with excellent wear resistance
 - Precisely set tooth geometry
 - Constant tooth pitch

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|----------------------------------|----------|--------------|---------|-----------|----------------------|------------------|
| (TCT) 1/2" x .032" x 4 S | Carbide | TCT | 1/2" | .032" | 4 S | \$2.74 |
| (TCT) 3/4" x .032" x 4 S | Carbide | TCT | 3/4" | .032" | 4 S | 2.60 |
| (TCT) 3/4" x .032" x 3 S | Carbide | TCT | 3/4" | .032" | 3 S | 2.27 |
| (TCT) 1-1/16" x .035" x 4 S | Carbide | TCT | 1-1/16" | .035" | 4 S | 2.68 |
| (TCT) 1-1/16" x .035" x 3 S or K | Carbide | TCT | 1-1/16" | .035" | 3 S or K | 2.33 |
| (TCT) 1-1/16" x .035" x 2 K | Carbide | TCT | 1-1/16" | .035" | 2 K | 2.05 |
| (TCT) 1-3/8" x .042" x 3 S or K | Carbide | TCT | 1-3/8" | .042" | 3 S or K | 2.50 |
| (TCT) 1-3/8" x .042" x 2 K | Carbide | TCT | 1-3/8" | .042" | 2 K | 2.23 |
| (TCT) 1-5/8" x .050" x 3 K | Carbide | TCT | 1-5/8" | .050" | 3 K | 3.01 |
| (TCT) 1-5/8" x .050" x 2 K | Carbide | TCT | 1-5/8" | .050" | 2 K | 2.71 |
| (TCT) 1-5/8" x .050" x 1.25 K | Carbide | TCT | 1-5/8" | .050" | 1.25 K | 2.39 |

*3-5 days lead time, S = Standard tooth shapes, K = Hook tooth shapes

Tctyre

The special band saw blade for tires and rubber / metal composites

- Application:**
- For quality analysis of tires of all kinds
 - Economic cutting of rubber composite materials
- Advantages:**
- Significantly reduced cutting force due to specific cutting edge
 - Good cutting surface for immediate analysis
 - Long blade life even with very large tires
- Features:**
- Carbide cutting edge with high wear resistance
 - Custom cutting geometry for rubber composite material

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|----------------------------------|----------|--------------|---------|-----------|----------------------|------------------|
| (TCTYRE) 1-1/16" x .035" x 3-4 T | Carbide | TCTYRE | 1-1/16" | .035" | 3-4 T | \$2.76 |
| (TCTYRE) 1-1/16" x .035" x 2-3 T | Carbide | TCTYRE | 1-1/16" | .035" | 2-3 T | 2.40 |
| (TCTYRE) 1-3/8" x .042" x 3-4 T | Carbide | TCTYRE | 1-3/8" | .042" | 3-4 T | 2.90 |
| (TCTYRE) 1-3/8" x .042" x 2-3 T | Carbide | TCTYRE | 1-3/8" | .042" | 2-3 T | 2.50 |
| (TCTYRE) 1-5/8" x .050" x 3-4 T | Carbide | TCTYRE | 1-5/8" | .050" | 3-4 T | 3.24 |
| (TCTYRE) 1-5/8" x .050" x 2-3 T | Carbide | TCTYRE | 1-5/8" | .050" | 2-3 T | 2.83 |
| (TCTYRE) 2-1/8" x .063" x 2-3 T | Carbide | TCTYRE | 2-1/8" | .063" | 2-3 T | 3.80 |

*3-5 days lead time, All Tctyre have trapezoid tooth shapes (T)



Taurus

The entry level, low-cost band saw blade with great features

- Application:** • All steels and non-ferrous metals, solid material
- Advantages:** • Low cost carbide-tipped band saw blade for universal use
• Suitable for machines without carbide package
- Features:** • Innovative tooth geometry
• Proven carbide cutting material

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|-------------------------------------|----------|--------------|---------|-----------|----------------------|------------------|
| (Taurus) 1-1/16" x .035" x 3-4 T | Carbide | Taurus | 1-1/16" | .035" | 3-4 T | \$2.63 |
| (Taurus) 1-3/8" x .042" x 3-4 T | Carbide | Taurus | 1-3/8" | .042" | 3-4 T | 2.75 |
| (Taurus) 1-3/8" x .042" x 2-3 T | Carbide | Taurus | 1-3/8" | .042" | 2-3 T | 2.40 |
| (Taurus) 1-5/8" x .050" x 3-4 T | Carbide | Taurus | 1-5/8" | .050" | 3-4 T | 3.11 |
| (Taurus) 1-5/8" x .050" x 2-3 T | Carbide | Taurus | 1-5/8" | .050" | 2-3 T | 2.77 |
| (Taurus) 1-5/8" x .050" x 1.4-2 T | Carbide | Taurus | 1-5/8" | .050" | 1.4-2 T | 2.53 |
| (Taurus) 2-1/8" x .063" x 3-4 T | Carbide | Taurus | 2-1/8" | .063" | 3-4 T | 4.47 |
| (Taurus) 2-1/8" x .063" x 2-3 T | Carbide | Taurus | 2-1/8" | .063" | 2-3 T | 3.60 |
| (Taurus) 2-1/8" x .063" x 1.4-2 T | Carbide | Taurus | 2-1/8" | .063" | 1.4-2 T | 3.18 |
| (Taurus) 2-5/8" x .063" x 1.4-2 T | Carbide | Taurus | 2-5/8" | .063" | 1.4-2 T | 5.01 |
| (Taurus) 2-5/8" x .063" x 1.0-1.4 T | Carbide | Taurus | 2-5/8" | .063" | 1.0-1.4 T | 4.73 |
| (Taurus) 3-1/8" x .063" x 1.0-1.4 T | Carbide | Taurus | 3-1/8" | .063" | 1.0-1.4 T | 5.39 |
| (Taurus) 3-1/8" x .063" x 0.7-1.0 T | Carbide | Taurus | 3-1/8" | .063" | 0.7-1.0 T | 5.27 |

*3-5 days lead time

*All Taurus have trapezoid tooth shapes (T)



Futura 718

The best band saw blade for nickel-base alloys

- Application:**
- Solid difficult to cut steels
 - Nickel-base alloys
 - Heat-resistant, high heat resisting and Duplex steels
- Advantages:**
- Outstanding cutting performance for extremely difficult to cut materials
 - Long blade life when cutting high abrasive materials
 - Low material loss due to excellent run-in
 - Excellent cutting surface quality reduces finishing
- Features:**
- Tooth edges made of optimal carbide for high-strength tough materials
 - Perfectly ground trapezoid teeth with optimal geometry
 - Backing material with special shape forming

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|---|----------|--------------|--------|-----------|----------------------|------------------|
| (Futura 718) 1-5/8" x .050" x 2-3 T | Carbide | Futura 718 | 1-5/8" | .050" | 2-3 T | \$3.50 |
| (Futura 718) 1-5/8" x .050" x 1.4-2 T | Carbide | Futura 718 | 1-5/8" | .050" | 1.4-2 T | 3.27 |
| (Futura 718) 2-1/8" x .050" x 2-3 T | Carbide | Futura 718 | 2-1/8" | .050" | 2-3 T | 3.85 |
| (Futura 718) 2-1/8" x .050" x 1.4-2 T | Carbide | Futura 718 | 2-1/8" | .050" | 1.4-2 T | 3.52 |
| (Futura 718) 2-1/8" x .063" x 2-3 K | Carbide | Futura 718 | 2-1/8" | .063" | 2-3 K | 4.54 |
| (Futura 718) 2-1/8" x .063" x 1.4-2 K | Carbide | Futura 718 | 2-1/8" | .063" | 1.4-2 K | 3.99 |
| (Futura 718) 2-5/8" x .063" x 2-3 T | Carbide | Futura 718 | 2-5/8" | .063" | 2-3 T | 6.34 |
| (Futura 718) 2-5/8" x .063" x 1.4-2 T | Carbide | Futura 718 | 2-5/8" | .063" | 1.4-2 T | 5.97 |
| (Futura 718) 2-5/8" x .063" x 1.0-1.4 T | Carbide | Futura 718 | 2-5/8" | .063" | 1.0-1.4 T | 5.76 |
| (Futura 718) 3-1/8" x .063" x 1.0-1.4 T | Carbide | Futura 718 | 3-1/8" | .063" | 1.0-1.4 T | 6.60 |

*3-5 days lead time, K = Hook tooth shapes, T = Trapezoid tooth shapes

Futura SN

The specialist for "hard shell and soft core"

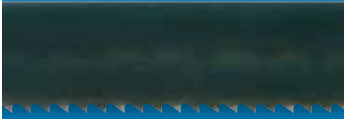
- Application:**
- Case hardened components and hard chrome plated workpieces
 - Hardened steels up to 65 HRC, Manganese high carbon steel
- Advantages:**
- Hardened materials machined by cutting
 - Good cutting rates and good surface quality
 - Increased efficiency due to high blade life
- Features:**
- Optimized special geometry with negative rake angle
 - Ground trapezoid tooth without set

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|---------------------------------------|----------|--------------|---------|-----------|----------------------|------------------|
| (Futura SN) 1-1/16" x .035" x 3-4 TSN | Carbide | Futura SN | 1-1/16" | .035" | 3-4 TSN | \$3.55 |
| (Futura SN) 1-3/8" x .042" x 3-4 TSN | Carbide | Futura SN | 1-3/8" | .042" | 3-4 TSN | 3.81 |
| (Futura SN) 1-3/8" x .042" x 2-3 TSN | Carbide | Futura SN | 1-3/8" | .042" | 2-3 TSN | 3.17 |
| (Futura SN) 1-5/8" x .050" x 3-4 TSN | Carbide | Futura SN | 1-5/8" | .050" | 3-4 TSN | 4.31 |
| (Futura SN) 1-5/8" x .050" x 2-3 TSN | Carbide | Futura SN | 1-5/8" | .050" | 2-3 TSN | 3.62 |
| (Futura SN) 2-1/8" x .063" x 2-3 TSN | Carbide | Futura SN | 2-1/8" | .063" | 2-3 TSN | 4.40 |
| (Futura SN) 2-5/8" x .063" x 2-3 TSN | Carbide | Futura SN | 2-5/8" | .063" | 2-3 TSN | 6.47 |

*3-5 days lead time, TSN = Tooth shape TSN



CARBON STEEL BAND SAW BLADES



- Well suited for tasks that include everything from basic workshop operations to machining of composite materials
- Hardened tooth tips and an extremely flexible blade body ensure high reliability

Sales units:

- Coils in fixed lengths and manufacturing coils of up to 400 feet, depending on the width
- Welded-to-length band saw blades

Band widths:

3/16 to 1 inch

Tooth shapes:

L, S, K

Tooth pitches:

Constant: 24 to 3 teeth per inch (tpi)

Types of tooth set:

SD, WS, GS

Diamant Hardback

The band saw blade with increased blade stability

- Application:**
- Solid material, tubes and profiles up to medium cross-section
 - Unalloyed steels with lower strength, wood, non-ferrous metals
 - Suitable for workshop use

- Advantages:**
- Superior straightness and surface quality
 - Economic band saw blade

- Features:**
- Easy to weld
 - Hardened tooth tips
 - Quenched and tempered backing material made of flexible carbon steel
 - Tooth shape: standard tooth (0°) and hook tooth (positive rake angle)

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|----------------------------------|----------|------------------|-------|-----------|--|------------------|
| (Diamant Hardback) 3/16" x .016" | Carbon | Diamant Hardback | 3/16" | .016" | 14 S; 24 S | \$1.09 |
| (Diamant Hardback) 3/16" x .025" | Carbon | Diamant Hardback | 3/16" | .025" | 10 S; 14 S; 24 S | 1.07 |
| (Diamant Hardback) 1/4" x .016" | Carbon | Diamant Hardback | 1/4" | .016" | 6 K | 1.09 |
| (Diamant Hardback) 1/4" x .025" | Carbon | Diamant Hardback | 1/4" | .025" | 4 K; 6 K or S; 8 S; 10 S; 14 S; 18 S; 24 S | 1.07 |
| (Diamant Hardback) 5/16" x .025" | Carbon | Diamant Hardback | 5/16" | .025" | 4 K; 6 K or S; 8 S; 10 S; 14 S; 18 S | 1.07 |
| (Diamant Hardback) 3/8" x .025" | Carbon | Diamant Hardback | 3/8" | .025" | 3 K; 4 K; 6 K or S; 8 S; 10 S; 14 S; 24 S | 1.07 |
| (Diamant Hardback) 1/2" x .025" | Carbon | Diamant Hardback | 1/2" | .025" | 3 K; 4 K or S; 6 K or S; 8 S; 10 S; 14 S; 24 S | 1.08 |
| (Diamant Hardback) 5/8" x .020" | Carbon | Diamant Hardback | 5/8" | .020" | 14 S | 1.14 |
| (Diamant Hardback) 5/8" x .025" | Carbon | Diamant Hardback | 5/8" | .025" | 3 K; 4 K; 6 K; 8 S; 14 S | 1.10 |
| (Diamant Hardback) 5/8" x .032" | Carbon | Diamant Hardback | 5/8" | .032" | 3 K; 4 K; 6 K; 14 S | 1.10 |
| (Diamant Hardback) 3/4" x .032" | Carbon | Diamant Hardback | 3/4" | .032" | 3 K; 4 K; 6 K; 8 S; 10 S; 14 S | 1.12 |
| (Diamant Hardback) 1" x .035" | Carbon | Diamant Hardback | 1" | .035" | 3 K; 4 K or S; 6 S; 10 S | 1.14 |

*3-5 days lead time

*S = Standard tooth shapes

*K = Hook tooth shapes



Extra Flexback

The domestic use band saw blade

- Application:**
- Solid material, tubes and profiles with small cross-section
 - Unalloyed steels with lower strength, wood, non-ferrous metals
 - Suitable for home handyman and small workshops
- Advantages:**
- Economic band saw blade
 - Easy to weld
 - Hardened tooth tips
- Features:**
- Backing material made of flexible carbon steel
 - Tooth shape: standard and skip tooth with rake angle 0°

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|--------------------------------|----------|----------------|-------|-----------|----------------------|------------------|
| (Extra Flexback) 5/16" x .025" | Carbon | Extra Flexback | 5/16" | .025" | 4 L | \$1.06 |
| (Extra Flexback) 3/8" x .025" | Carbon | Extra Flexback | 3/8" | .025" | 6 S; 4 L or S; 3 L | 1.06 |
| (Extra Flexback) 1/2" x .025" | Carbon | Extra Flexback | 1/2" | .025" | 6 S; 4L or 4 S; 3 L | 1.06 |
| (Extra Flexback) 5/8" x .032" | Carbon | Extra Flexback | 5/8" | .032" | 4 S; 3 L | 1.08 |
| (Extra Flexback) 3/4" x .032" | Carbon | Extra Flexback | 3/4" | .032" | 6 S; 4 S; 3 L | 1.10 |

*3-5 days lead time

*L = Skip tooth shapes

*S = Standard tooth shapes

Jet Friction

The special band saw blade for friction cutting

- Application:**
- Steels up to 1-3/16 inch thickness
 - Composite materials
 - Tyres
- Advantages:**
- Sturdy band saw blade for very high cutting speed
 - High thermal wear resistance
- Features:**
- Hardened tooth tips with high silicon content
 - Backing material made of flexible carbon steel
 - Tooth shape: standard tooth with 0° rake angle

| Description | Material | Product Line | Width | Thickness | TPI (teeth per inch) | Net Price / Inch |
|-----------------------------|----------|--------------|-------|-----------|----------------------|------------------|
| (Jet Friction) 3/8" x .025" | Carbon | Jet Friction | 3/8" | .025" | 10 S | \$1.10 |
| (Jet Friction) 5/8" x .032" | Carbon | Jet Friction | 5/8" | .032" | 10 S | 1.11 |
| (Jet Friction) 3/4" x .032" | Carbon | Jet Friction | 3/4" | .032" | 14 S | 1.14 |
| (Jet Friction) 1" x .035" | Carbon | Jet Friction | 1" | .035" | 8 S; 6 S; 4 S | 1.17 |

*3-5 days lead time

*S = Standard tooth shapes



BLADE SELECTION

1. Tooth pitch

The dimensions of the band will depend on what band saw machine you are using – you will find an interactive overview of the most popular band saw machines and appropriate dimensions of WIKUS band saw blades on our website: www.wikus.com

2. Band width

- The wider the band saw blade, the more stability it will have
- Horizontal machines: band width specified by the manufacturer
- Vertical band saw machines: higher variations in band width are possible, please see the manufacturer's information
- Contour cuts: the smallest radius to be cut is the limiting factor for the band width

3. Cutting edge material

WIKUS offers five main groups of cutting edge materials:

- **Bimetal (HSS)**
- **Carbide**
- **Diamond**
- **Cubic boron nitride (CBN)**
- **Carbon steel**

The machinability of the material to be cut determines what cutting material you should choose.

4. Tooth pitch

The length of engagement of the saw blade in the workpiece represents the most important parameter for choosing the tooth pitch.

The material to be sawed and the type of saw blade used also plays a role in selecting the right pitch.

You will find the different contact lengths listed with upper and lower limits in the tables on the individual products. We specify our recommended tooth pitch here.

The table to the right is used to determine the appropriate tooth pitch for carbon steel band saw blades when cutting solid material at a constant pitch.

When cutting pipes, the outside diameter and wall thickness are the defining parameters for choosing the right tooth pitch. Please refer to our recommendations in the table shown opposite.

| Constant tooth pitch tpi | Contact length (inch) | |
|-----------------------------|--------------------------|--------|
| | from | to |
| 24 | | 1/4 |
| 18 | | 3/8 |
| 14 | | 9/16 |
| 10 | 9/16 | 1-1/8 |
| 8 | 1-1/8 | 2 |
| 6 | 2 | 3-1/8 |
| 4 | 3-1/8 | 4-3/4 |
| 3 | 4-3/4 | 7-7/8 |
| 2 | 7-7/8 | 15-3/4 |

5. Tooth shape

The combination of our various tooth shapes, cutting-edge materials and band saw dimensions allows for the highest possible cutting performance.

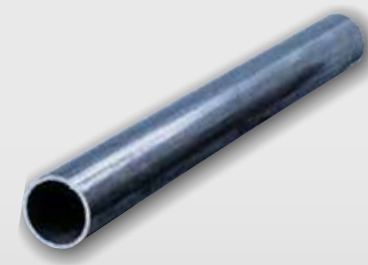
6. Types of tooth set

For a more detailed description, please refer to page 52.



| s | Cutting of tubes | | | | | | | | | | | | | | | | |
|--------|---|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|---------|---------|-----------|-----------|-----------|
| | Outer diameter of the tube (inch) / Tooth pitch Tz in tpi | | | | | | | | | | | | | | | | |
| | 3/4 | 1-5/8 | 2-3/8 | 3-1/8 | 4 | 4-3/4 | 5-7/8 | 7-7/8 | 11-3/4 | 15-3/4 | 19-5/8 | 23-5/8 | 27-9/16 | 31-1/2 | 35-3/8 | 39-3/8 | 59 |
| 1/16 | 14 | 14 | 14 | 14 | 14 | 14 | 10-14 | 10-14 | 8-12 | 8-12 | 6-10 | 6-10 | 5-8 | 5-8 | 5-8 | 5-8 | 5-8 |
| 1/8 | 14 | 14 | 10-14 | 10-14 | 10-14 | 10-14 | 8-12 | 8-12 | 6-10 | 6-10 | 5-8 | 5-8 | 5-8 | 4-6 | 4-6 | 4-6 | 4-6 |
| 5/32 | 14 | 14 | 10-14 | 10-14 | 8-12 | 8-12 | 8-12 | 8-12 | 5-8 | 5-8 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 3-4 |
| 3/16 | 14 | 10-14 | 10-14 | 10-14 | 8-12 | 8-12 | 8-12 | 6-10 | 5-8 | 5-8 | 4-6 | 4-6 | 4-6 | 4-6 | 3-4 | 3-4 | 3-4 |
| 1/4 | 14 | 10-14 | 10-14 | 8-12 | 8-12 | 8-12 | 8-12 | 5-8 | 5-8 | 4-6 | 4-6 | 4-6 | 3-4 | 3-4 | 3-4 | 3-4 | 3-4 |
| 5/16 | 14 | 10-14 | 8-12 | 8-12 | 8-12 | 6-10 | 6-10 | 5-8 | 4-6 | 4-6 | 4-6 | 3-4 | 3-4 | 3-4 | 3-4 | 2-3 | 2-3 |
| 3/8 | | 8-12 | 6-10 | 6-10 | 6-10 | 5-8 | 5-8 | 4-6 | 4-6 | 4-6 | 3-4 | 3-4 | 3-4 | 3-4 | 2-3 | 2-3 | 2-3 |
| 1/2 | | 8-12 | 6-10 | 6-10 | 5-8 | 5-8 | 4-6 | 4-6 | 4-6 | 3-4 | 3-4 | 3-4 | 2-3 | 2-3 | 2-3 | 2-3 | 2-3 |
| 9/16 | | 8-12 | 6-10 | 5-8 | 5-8 | 4-6 | 4-6 | 4-6 | 3-4 | 3-4 | 3-4 | 2-3 | 2-3 | 2-3 | 2-3 | 2-3 | 2-3 |
| 3/4 | | | 6-10 | 5-8 | 4-6 | 4-6 | 4-6 | 3-4 | 3-4 | 3-4 | 2-3 | 2-3 | 2-3 | 2-3 | 2-3 | 2-3 | 2-3 |
| 1-1/8 | | | | 4-6 | 4-6 | 4-6 | 3-4 | 3-4 | 3-4 | 2-3 | 2-3 | 2-3 | 2-3 | 2-3 | 2-3 | 2-3 | 1.4-2 |
| 2 | | | | | | 3-4 | 3-4 | 3-4 | 2-3 | 2-3 | 2-3 | 2-3 | 2-3 | 2-3 | 1.4-2 | 1.4-2 | 1.4-2 |
| 3 | | | | | | | | 2-3 | 2-3 | 2-3 | 2-3 | 2-3 | 1.4-2 | 1.4-2 | 1.4-2 | 1.4-2 | 1.4-2 |
| 4 | | | | | | | | | 2-3 | 2-3 | 1.4-2 | 1.4-2 | 1.4-2 | 1.4-2 | 1.4-2 | 1.4-2 | 1.4-2 |
| 5-7/8 | | | | | | | | | | 2-3 | 1.4-2 | 1.4-2 | 1.4-2 | 1.4-2 | 1.0-1.4 | 1.0-1.4 | 1.0-1.4 |
| 7-7/8 | | | | | | | | | | | 1.4-2 | 1.4-2 | 1.4-2 | 1.0-1.4 | 1.0-1.4 | 1.0-1.4 | 0.75-1.25 |
| 9-7/8 | | | | | | | | | | | | 1.4-2 | 1.0-1.4 | 1.0-1.4 | 1.0-1.4 | 0.75-1.25 | 0.75-1.25 |
| 11-3/4 | | | | | | | | | | | | | 1.0-1.4 | 1.0-1.4 | 0.75-1.25 | 0.75-1.25 | 0.75-1.25 |
| 13-3/4 | | | | | | | | | | | | | | 1.0-1.4 | 0.75-1.25 | 0.75-1.25 | 0.7-1.0 |
| 15-3/4 | | | | | | | | | | | | | | | 0.75-1.25 | 0.75-1.25 | 0.7-1.0 |
| 17-3/4 | | | | | | | | | | | | | | | | 0.7-1.0 | 0.7-1.0 |
| 19-5/8 | | | | | | | | | | | | | | | | | 0.7-1.0 |

s = Wall thickness
 If you need to cut two or more tubes that are lying side by side, please use this table that takes the double wall thickness into consideration (s).



TOOTH SHAPES

Skip tooth (L)



Rake angle: 0°, for:

- flexible materials (aluminum and wood)
- only available in carbon steel blades

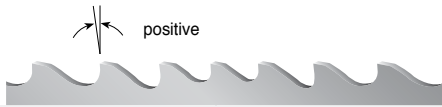
Standard tooth (S)



Rake angle: 0°, for:

- short-chipping materials
- steels with a high carbon content
- tool steel and cast iron
- materials with small cross-sections
- thin-walled profiles

Profile tooth (P)



Rake angle: positive, for:

- hollow and angle profiles
- steel beams
- bundle and layer cuts
- applications that are susceptible to vibrations

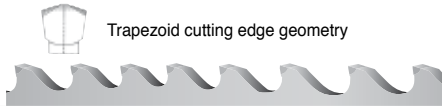
Hook tooth (K)



Rake angle: positive, for:

- universal use
- non-ferrous metals and steels
- profiles and solid materials

Trapezoid tooth (T)



Rake angle: positive, for:

- high cutting performance
- optimal surface finishes

Tooth shape TSN (Trapezoid tooth)



Rake angle: negative, especially for:

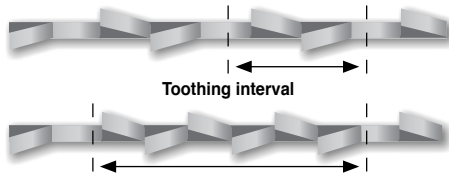
- surface-hardened shafts
- hardened steels up to 65 HRC, hard manganese steels, hard-chrome plated workpieces
- diameters of up to 7-7/8 inch





The number of teeth, angle of offset, and tooth pattern is referred to as “tooth set”. Tooth set affects the cutting performance and work piece finish.

Standard set (SD)



All-purpose set for cutting thicknesses of more than 0.2 inch with steels, castings and hard non-ferrous metals.
 Constant tooth pitch: set sequence is left/right/straight.
 Variable tooth pitch: one tooth in each toothing interval is unset, the remaining teeth in the interval are alternately set left/right or right/left.

Group set (GS)



For band saw blades in the tooth pitch range of 4-18 tpi, improved surface quality is obtained using the group set.

Wavy set (WS)



We recommend wavy set for material dimensions of up to 0.2 inch, like sheets, thin-walled tubes and profiles.

TOOTH PITCH (T_z)

Tooth pitch refers to the number of teeth per inch (tpi).

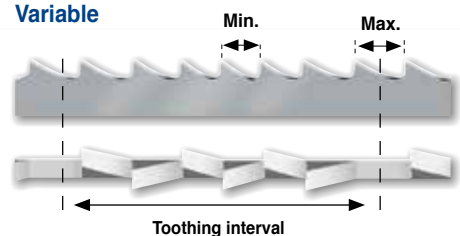
A distinction is made between constant tooth pitches with a uniform tooth distance, 2 tpi for example, and variable tooth pitches with different tooth distances within one toothing interval.

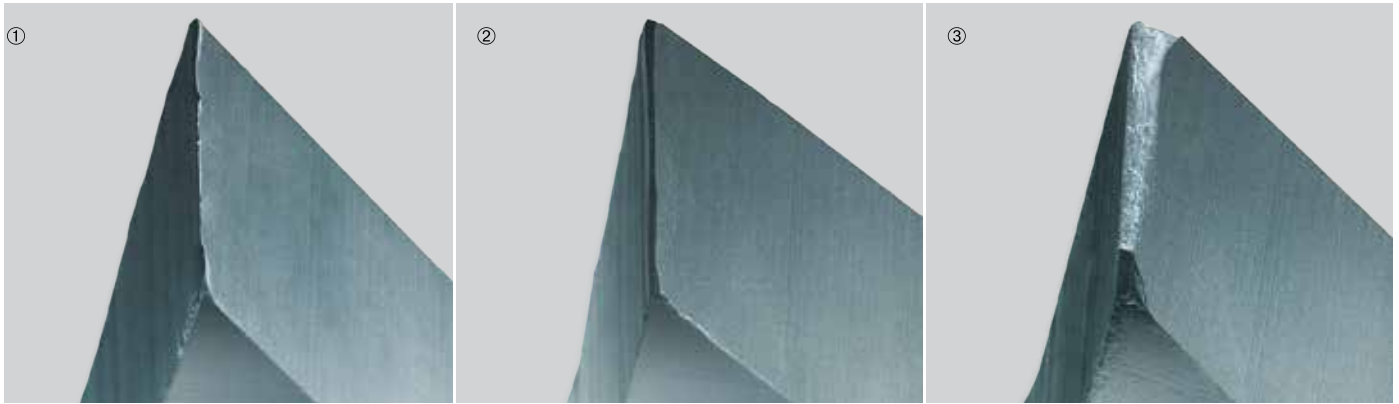
Variable tooth pitches, for instance 2-3 tpi, can be characterized by two measures: 2 tpi stands for the maximum tooth distance and 3 tpi stands for the minimum tooth distance in the toothing interval.

Constant



Variable





BREAKING IN YOUR BAND SAW BLADES

Sharp cutting edges that have extremely small edge radii are the ideal prerequisites for high cutting ability and a long service life. This is ensured by breaking in the blades properly. See pictures above:

1. New cutting edge with a very small edge radius
2. Proper breaking in of the band saw blade creates a stable cutting edge
3. Excessive strain due to improper breaking in leads to micro-breakages of the cutting edge

Before you use the blade for the first time:

- Band tension should be about 43,000 psi
- Check and adjust the oil content of the cooling lubricant by using a hand refractometer
- The recommended oil content of the cooling lubricant can be found in the cutting data slide rule or in ParaMaster® 4.0

BIMETAL BAND SAW BLADES

- Determine the right cutting speed and feed rate based on the material to be cut and its dimensions using ParaMaster® 4.0 .
- Important: Use approx. 75% of the cutting speed (ft/min) and approx. 50% of the feed rate (inch/min)

CARBIDE BAND SAW BLADES

- Determine the right cutting speed and feed rate based on the material to be cut and its dimensions using ParaMaster® 4.0.
- Important: Use approx. 75% of the cutting speed (ft/min) and approx. 50% of the feed rate (inch/min)
- Very important: band saw blades can be prone to vibration and vibration noise - Help: To resolve this issue, reduce the cutting speed (ft/min) once again.

- With small workpiece dimensions, approx. 46 sq inch of the material should be cut to break in the blade.
- With large workpiece dimensions, we recommend breaking in over a period of about 15 min.
- After breaking in, slowly increase the cutting speed (ft/min) and then gradually increase the feed rate (inch/min) until you reach the recommended settings from ParaMaster® 4.0*.



GR



VM



MP

| Part Number | Insert Code (ISO) | Insert Size | Chip Breaker | Carbide Grade | Minimum Quantity | Availability | List Price (ea.) |
|---------------------|-------------------|-------------|--------------|---------------|------------------|-------------------|------------------|
| HCT-KOR-1-02-040144 | CNMG | 431 | VM | PC5300 | 10 pcs | In Stock | \$18.25 |
| HCT-KOR-1-02-023800 | CNMG | 432 | GR | NC3030 | 10 pcs | In Stock | 16.62 |
| HCT-KOR-1-02-036484 | CNMG | 432 | VM | PC5300 | 10 pcs | In Stock | 18.25 |
| HCT-KOR-1-02-024713 | CNMG | 433 | GR | NC3030 | 10 pcs | In Stock | 16.62 |
| HCT-KOR-1-02-056238 | CNMG | 433 | MP | NC3215 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-056880 | CNMG | 433 | MP | NC3225 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-037657 | CNMG | 433 | VM | PC5300 | 10 pcs | In Stock | 18.25 |
| HCT-KOR-1-02-057144 | DNMG | 431 | MP | NC3215 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-057183 | DNMG | 431 | MP | NC3225 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-058376 | DNMG | 431 | MP | NC5330 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-040152 | DNMG | 431 | VM | PC5300 | 10 pcs | In Stock | 23.48 |
| HCT-KOR-1-02-024925 | DNMG | 432 | GR | NC3030 | 10 pcs | In Stock | 22.24 |
| HCT-KOR-1-02-056239 | DNMG | 432 | MP | NC3215 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-056881 | DNMG | 432 | MP | NC3225 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-055488 | DNMG | 432 | MP | NC5330 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-039830 | DNMG | 432 | VM | PC5300 | 10 pcs | In Stock | 23.48 |
| HCT-KOR-1-02-027336 | DNMG | 433 | GR | NC3030 | 10 pcs | In Stock | 22.24 |
| HCT-KOR-1-02-056240 | DNMG | 433 | MP | NC3215 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-056882 | DNMG | 433 | MP | NC3225 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-036310 | DNMG | 433 | VM | PC5300 | 10 pcs | In Stock | 19.56 |
| HCT-KOR-1-02-058429 | TNMG | 431 | MP | NC3225 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-058430 | TNMG | 431 | MP | NC5330 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-023238 | TNMG | 432 | GR | NC3030 | 10 pcs | In Stock | 20.12 |
| HCT-KOR-1-02-058433 | TNMG | 432 | MP | NC3215 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-058254 | TNMG | 432 | MP | NC3225 | 10 pcs | 2-4 Business Days | 19.29 |
| HCT-KOR-1-02-058435 | TNMG | 432 | MP | NC5330 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-040167 | TNMG | 432 | VM | PC5300 | 10 pcs | In Stock | 22.24 |
| HCT-KOR-1-02-023584 | TNMG | 433 | GR | NC3030 | 10 pcs | In Stock | 20.12 |
| HCT-KOR-1-02-058255 | TNMG | 433 | MP | NC3225 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-039230 | TNMG | 433 | VM | NC5330 | 10 pcs | In Stock | 17.78 |
| HCT-KOR-1-02-038601 | VNMG | 331 | VM | PC5300 | 10 pcs | In Stock | 26.68 |
| HCT-KOR-1-02-038950 | VNMG | 332 | VM | PC5300 | 10 pcs | In Stock | 26.58 |
| HCT-KOR-1-02-030619 | VNMG | 333 | VM | NC3120 | 10 pcs | In Stock | 26.58 |
| HCT-KOR-1-02-047225 | VNMG | 431 | VM | NC3030 | 10 pcs | In Stock | 26.34 |
| HCT-KOR-1-02-047226 | VNMG | 432 | VM | NC3030 | 10 pcs | In Stock | 29.59 |
| HCT-KOR-1-02-057147 | WNMG | 431 | MP | NC3215 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-057187 | WNMG | 431 | MP | NC3225 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-040182 | WNMG | 431 | VM | PC5300 | 10 pcs | In Stock | 20.02 |
| HCT-KOR-1-02-023585 | WNMG | 432 | GR | NC3030 | 10 pcs | In Stock | 18.25 |
| HCT-KOR-1-02-056888 | WNMG | 432 | MP | NC3215 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-056958 | WNMG | 432 | MP | NC3225 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-058458 | WNMG | 432 | MP | NC5330 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-038008 | WNMG | 432 | VM | PC5300 | 10 pcs | In Stock | 20.02 |
| HCT-KOR-1-02-023265 | WNMG | 433 | GR | NC3030 | 10 pcs | In Stock | 18.25 |
| HCT-KOR-1-02-056889 | WNMG | 433 | MP | NC3215 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-056960 | WNMG | 433 | MP | NC3225 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-058561 | WNMG | 433 | MP | NC6215 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-040186 | WNMG | 433 | VM | PC5300 | 10 pcs | In Stock | 16.01 |

* Reference Pages 68 and 69 for Technical Information



MP



VM

| Part Number | Insert Code (ISO) | Insert Size | Chip Breaker | Carbide Grade | Minimum Quantity | Availability | List Price (ea.) |
|---------------------|-------------------|-------------|--------------|---------------|------------------|-------------------|------------------|
| HCT-KOR-1-02-040144 | CNMG | 431 | VM | PC5300 | 10 pcs | In Stock | \$18.25 |
| HCT-KOR-1-02-036484 | CNMG | 432 | VM | PC5300 | 10 pcs | In Stock | 18.25 |
| HCT-KOR-1-02-037657 | CNMG | 433 | VM | PC5300 | 10 pcs | In Stock | 18.25 |
| HCT-KOR-1-02-058376 | DNMG | 431 | MP | NC5330 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-040152 | DNMG | 431 | VM | PC5300 | 10 pcs | In Stock | 23.48 |
| HCT-KOR-1-02-055488 | DNMG | 432 | MP | NC5330 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-039830 | DNMG | 432 | VM | PC5300 | 10 pcs | In Stock | 23.48 |
| HCT-KOR-1-02-036310 | DNMG | 433 | VM | PC5300 | 10 pcs | In Stock | 19.56 |
| HCT-KOR-1-02-058430 | TNMG | 431 | MP | NC5330 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-058435 | TNMG | 432 | MP | NC5330 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-040167 | TNMG | 432 | VM | PC5300 | 10 pcs | In Stock | 22.24 |
| HCT-KOR-1-02-039230 | TNMG | 433 | VM | PC5300 | 10 pcs | In Stock | 17.78 |
| HCT-KOR-1-02-038601 | VNMG | 331 | VM | PC5300 | 10 pcs | In Stock | 26.68 |
| HCT-KOR-1-02-038950 | VNMG | 332 | VM | PC5300 | 10 pcs | In Stock | 26.58 |
| HCT-KOR-1-02-040182 | WNMG | 431 | VM | PC5300 | 10 pcs | In Stock | 20.02 |
| HCT-KOR-1-02-058458 | WNMG | 432 | MP | NC5330 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-038008 | WNMG | 432 | VM | PC5300 | 10 pcs | In Stock | 20.02 |
| HCT-KOR-1-02-040186 | WNMG | 433 | VM | PC5300 | 10 pcs | In Stock | 16.01 |

* Reference Pages 68 and 69 for Technical Information



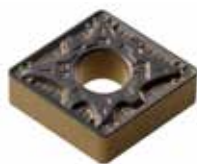
VM



MP

| Part Number | Insert Code (ISO) | Insert Size | Chip Breaker | Carbide Grade | Minimum Quantity | Availability | List Price (ea.) |
|---------------------|-------------------|-------------|--------------|---------------|------------------|-------------------|------------------|
| HCT-KOR-1-02-040144 | CNMG | 431 | VM | PC5300 | 10 pcs | In Stock | \$18.25 |
| HCT-KOR-1-02-061725 | CNMG | 432 | MP | NC9115 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-061726 | CNMG | 432 | MP | NC9125 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-061727 | CNMG | 432 | MP | NC9135 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-036484 | CNMG | 432 | VM | PC5300 | 10 pcs | In Stock | 18.25 |
| HCT-KOR-1-02-059691 | CNMG | 433 | MP | NC9115 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-061728 | CNMG | 433 | MP | NC9125 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-061729 | CNMG | 433 | MP | NC9135 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-037657 | CNMG | 433 | VM | PC5300 | 10 pcs | In Stock | 18.25 |
| HCT-KOR-1-02-061770 | DNMG | 431 | MP | NC9115 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-061771 | DNMG | 431 | MP | NC9125 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-061772 | DNMG | 431 | MP | NC9135 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-058376 | DNMG | 431 | MP | NC5330 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-040152 | DNMG | 431 | VM | PC5300 | 10 pcs | In Stock | 23.48 |
| HCT-KOR-1-02-061773 | DNMG | 432 | MP | NC9115 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-061774 | DNMG | 432 | MP | NC9125 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-061775 | DNMG | 432 | MP | NC9135 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-055488 | DNMG | 432 | MP | NC5330 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-039830 | DNMG | 432 | VM | PC5300 | 10 pcs | In Stock | 23.48 |
| HCT-KOR-1-02-061776 | DNMG | 433 | MP | NC9115 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-061777 | DNMG | 433 | MP | NC9125 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-061778 | DNMG | 433 | MP | NC9135 | 10 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-036310 | DNMG | 433 | VM | PC5300 | 10 pcs | In Stock | 19.56 |
| HCT-KOR-1-02-061850 | TNMG | 431 | MP | NC9115 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-061851 | TNMG | 431 | MP | NC9125 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-061852 | TNMG | 431 | MP | NC9135 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-058430 | TNMG | 431 | MP | NC5330 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-061853 | TNMG | 432 | MP | NC9115 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-061854 | TNMG | 432 | MP | NC9125 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-061855 | TNMG | 432 | MP | NC9135 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-058435 | TNMG | 432 | MP | NC5330 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-040167 | TNMG | 432 | VM | PC5300 | 10 pcs | In Stock | 22.24 |
| HCT-KOR-1-02-061856 | TNMG | 433 | MP | NC9115 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-061857 | TNMG | 433 | MP | NC9125 | 10 pcs | 2-4 Business Days | 20.17 |
| HCT-KOR-1-02-061858 | TNMG | 433 | MP | NC9135 | 10 pcs | 2-4 Business Days | 20.23 |
| HCT-KOR-1-02-039230 | TNMG | 433 | VM | PC5300 | 10 pcs | In Stock | 17.78 |
| HCT-KOR-1-02-038601 | VNMG | 331 | VM | PC5300 | 10 pcs | In Stock | 26.68 |
| HCT-KOR-1-02-038950 | VNMG | 332 | VM | PC5300 | 10 pcs | In Stock | 26.58 |
| HCT-KOR-1-02-061904 | WNMG | 431 | MP | NC9115 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-061905 | WNMG | 431 | MP | NC9125 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-061906 | WNMG | 431 | MP | NC9135 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-040182 | WNMG | 431 | VM | PC5300 | 10 pcs | In Stock | 20.02 |
| HCT-KOR-1-02-061463 | WNMG | 432 | MP | NC9115 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-061464 | WNMG | 432 | MP | NC9125 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-061907 | WNMG | 432 | MP | NC9135 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-058458 | WNMG | 432 | MP | NC5330 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-038008 | WNMG | 432 | VM | PC5300 | 10 pcs | In Stock | 20.02 |
| HCT-KOR-1-02-071303 | WNMG | 432 | MP | PC9030 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-061465 | WNMG | 433 | MP | NC9115 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-061466 | WNMG | 433 | MP | NC9125 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-061908 | WNMG | 433 | MP | NC9135 | 10 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-040186 | WNMG | 433 | VM | PC5300 | 10 pcs | In Stock | 16.01 |

* Reference Pages 68 and 69 for Technical Information



MP

| Part Number | Insert Code (ISO) | Insert Size | Chip Breaker | Carbide Grade | Minimum Quantity | Availability | List Price (ea.) |
|---------------------|-------------------|-------------|--------------|---------------|------------------|-------------------|------------------|
| HCT-KOR-1-02-059106 | CNMG | 432 | MP | PC8105 | 10 pcs | 2-4 Business Days | \$16.22 |
| HCT-KOR-1-02-059108 | CNMG | 433 | MP | PC8105 | 11 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-059128 | DNMG | 432 | MP | PC8105 | 12 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-059130 | DNMG | 433 | MP | PC8105 | 13 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-059191 | WNMG | 431 | MP | PC8105 | 14 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-059197 | WNMG | 433 | MP | PC8105 | 15 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-059201 | CNMG | 432 | MP | PC8110 | 16 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-059202 | CNMG | 433 | MP | PC8110 | 17 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-058563 | DNMG | 431 | MP | PC8110 | 18 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-058564 | DNMG | 432 | MP | PC8110 | 19 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-059206 | DNMG | 433 | MP | PC8110 | 20 pcs | 2-4 Business Days | 19.88 |
| HCT-KOR-1-02-058573 | WNMG | 432 | MP | PC8110 | 21 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-058574 | WNMG | 433 | MP | PC8110 | 22 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-059242 | CNMG | 432 | MP | PC8115 | 23 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-059311 | WNMG | 431 | MP | PC8115 | 24 pcs | 2-4 Business Days | 16.22 |
| HCT-KOR-1-02-059312 | WNMG | 432 | MP | PC8115 | 10 pcs | 2-4 Business Days | 16.22 |

* Reference Pages 68 and 69 for Technical Information



XNKT-ML



XNKT-MM

| Part Number | Insert Code (ISO) | Carbide Grade | Minimum Quantity | Availability | List Price (ea.) |
|---------------------|-------------------|---------------|------------------|--------------|------------------|
| HCT-KOR-1-02-052493 | XNKT080508PNER-ML | PC5300 | 10 pcs | In Stock | \$16.85 |
| HCT-KOR-1-02-057773 | XNKT080512PNSR-MM | PC5300 | 10 pcs | In Stock | 16.85 |
| HCT-KOR-1-02-061505 | XNKT080512PNER-ML | PC5300 | 10 pcs | In Stock | 16.85 |
| HCT-KOR-1-02-057774 | XNKT080516PNSR-MM | PC5300 | 10 pcs | In Stock | 16.85 |
| HCT-KOR-1-02-066220 | XNKT080516PNER-ML | PC5300 | 10 pcs | In Stock | 16.85 |
| HCT-KOR-1-02-057775 | XNKT080520PNSR-MM | PC5300 | 10 pcs | In Stock | 16.85 |

* Reference Pages 70 for Technical Information



MCLNR



MDJNR



MWLNR



MVJNR

| Part Number | Insert Code (ISO) | Carbide Grade | Minimum Quantity | Availability | List Price (ea.) |
|---------------------|-------------------|---------------|------------------|--------------|------------------|
| HCT-KOR-1-06-003924 | MCLNR12-4B | N/A | N/A | In Stock | \$186.62 |
| HCT-KOR-1-06-012957 | MCLNR16-4D | N/A | N/A | In Stock | 186.62 |
| HCT-KOR-1-06-012959 | MDJNR12-4B | N/A | N/A | In Stock | 185.05 |
| HCT-KOR-1-06-001563 | MDJNR16-4D | N/A | N/A | In Stock | 187.73 |
| HCT-KOR-1-06-016845 | MWLNR12-4B | N/A | N/A | In Stock | 178.30 |
| HCT-KOR-1-06-001154 | MWLNR16-4D | N/A | N/A | In Stock | 208.02 |
| HCT-KOR-1-06-003930 | MVJNR12-3B | N/A | N/A | In Stock | 207.84 |
| HCT-KOR-1-06-017181 | MVJNL16-3D | N/A | N/A | In Stock | 196.13 |

* Reference Pages 70 and 71 for Technical Information



RM3PSA

| Part Number | Insert Code (ISO) | Carbide Grade | Minimum Quantity | Availability | List Price (ea.) |
|---------------------|--------------------|---------------|------------------|--------------|------------------|
| HCT-KOR-1-06-052890 | RM3PSA4100HR-2L100 | N/A | N/A | In Stock | \$343.38 |
| HCT-KOR-1-06-052891 | RM3PSA4100HR-2S100 | N/A | N/A | In Stock | 301.46 |
| HCT-KOR-1-06-052894 | RM3PSA4125HR-4L125 | N/A | N/A | In Stock | 365.86 |
| HCT-KOR-1-06-052895 | RM3PSA4125HR-4S125 | N/A | N/A | In Stock | 321.22 |
| HCT-KOR-1-06-052896 | RM3PSA4150HR-4L125 | N/A | N/A | In Stock | 413.83 |
| HCT-KOR-1-06-052897 | RM3PSA4150HR-4S125 | N/A | N/A | In Stock | 363.33 |
| HCT-KOR-1-06-052898 | RM3PSA4200HR-4L125 | N/A | N/A | In Stock | 413.83 |
| HCT-KOR-1-06-052899 | RM3PSA4200HR-4S125 | N/A | N/A | In Stock | 418.02 |

* Reference Pages 70 and 71 for Technical Information

The Solution for High-Precision Grooving

- KORLOY clamping system offers high rigidity for high precision machining
- High-quality cutting edge ensuring long tool life and excellent machinability
- Provides various cutting edge widths for a wide range of selection



K-NOTCH GROOVING - INSERTS



KNG



KNGP



KNR



KNRP

K Notch inserts ensure high quality cutting edges with outstanding edge preparation. The mirror-like insert surface provides stronger resistance to welding and chipping for improved surface finish of workpieces.

| Part Number | Code | Carbide Grade | Minimum Quantity | Availability | List Price (ea.) |
|---------------------|------------|---------------|------------------|--------------|------------------|
| HCT-KOR-1-02-071260 | KNGP2062R | PC5300 | 10 pcs | In Stock | \$33.90 |
| HCT-KOR-1-02-071218 | KNG2125R | PC5300 | 10 pcs | In Stock | 25.38 |
| HCT-KOR-1-02-071283 | KNRP2031R | PC5300 | 10 pcs | In Stock | 42.02 |
| HCT-KOR-1-02-071262 | KNGP2125R | PC5300 | 10 pcs | In Stock | 33.90 |
| HCT-KOR-1-02-071268 | KNG P3088R | PC5300 | 10 pcs | In Stock | 40.93 |
| HCT-KOR-1-02-070477 | KNRP3031R | PC5300 | 10 pcs | In Stock | 50.41 |
| HCT-KOR-1-02-071233 | KNG3094R | PC5300 | 10 pcs | In Stock | 30.70 |
| HCT-KOR-1-02-070481 | KNRP3062R | PC5300 | 10 pcs | In Stock | 50.41 |
| HCT-KOR-1-02-071237 | KNG3110R | PC5300 | 10 pcs | In Stock | 30.70 |
| HCT-KOR-1-02-070479 | KNRP3047R | PC5300 | 10 pcs | In Stock | 50.41 |
| HCT-KOR-1-02-071270 | KNGP3189R | PC5300 | 10 pcs | In Stock | 40.93 |
| HCT-KOR-1-02-064839 | KNG3189R | PC5300 | 10 pcs | In Stock | 30.70 |
| HCT-KOR-1-02-069947 | KNG3M300R | PC5300 | 10 pcs | In Stock | 30.70 |
| HCT-KOR-1-02-071272 | KNGP4189R | PC5300 | 10 pcs | In Stock | 59.14 |
| HCT-KOR-1-02-071274 | KNGP4250R | PC5300 | 10 pcs | In Stock | 59.14 |
| HCT-KOR-1-02-071287 | KNRP4125R | PC5300 | 10 pcs | In Stock | 73.10 |
| HCT-KOR-1-02-071272 | KNGP4189R | PC5300 | 10 pcs | In Stock | 59.14 |
| HCT-KOR-1-02-071257 | KNGP2031R | PC8110 | 10 pcs | In Stock | 33.90 |
| HCT-KOR-1-02-071286 | KNRP2047R | PC8110 | 10 pcs | In Stock | 42.02 |
| HCT-KOR-1-02-070480 | KNRP3047R | PC8110 | 10 pcs | In Stock | 50.41 |
| HCT-KOR-1-02-070482 | KNRP3062R | PC8110 | 10 pcs | In Stock | 50.41 |
| HCT-KOR-1-02-070484 | KNRP3078R | PC8110 | 10 pcs | In Stock | 50.41 |
| HCT-KOR-1-02-070459 | KNGP3125R | PC8110 | 10 pcs | In Stock | 40.93 |
| HCT-KOR-1-02-070486 | KNRP3094R | PC8110 | 10 pcs | In Stock | 50.41 |
| HCT-KOR-1-02-070476 | KNR3094R | PC8110 | 10 pcs | In Stock | 43.68 |

CUTTING TOOLS

K-NOTCH THREADING - INSERTS



| Part Number | Insert Code (ISO) | Carbide Grade | Minimum Quantity | Availability | List Price (ea.) |
|---------------------|-------------------|---------------|------------------|--------------|------------------|
| HCT-KOR-1-02-072009 | KNT2R | PC5300 | 10 pcs | In Stock | \$31.48 |
| HCT-KOR-1-02-072011 | KNT3R | PC5300 | 10 pcs | In Stock | 34.76 |
| HCT-KOR-1-02-072013 | KNT4R | PC5300 | 10 pcs | In Stock | 53.66 |
| HCT-KOR-1-02-072010 | KNT3R | PC8110 | 10 pcs | In Stock | 38.25 |

*Reference Pages 65 and 67 for Technical Information



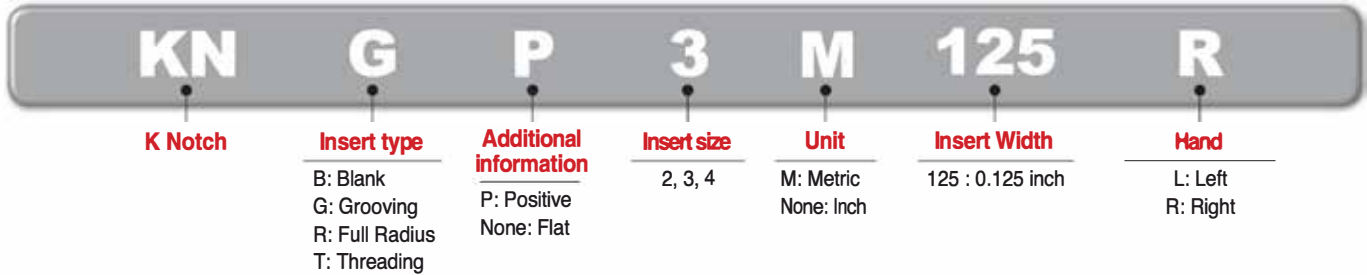
K Notch holders feature the 3-face clamping design for high rigidity. The clamping force increases with the tightening force for clamp screws. They can minimize chattering even under heavy cutting load, providing long and stable machining life.

| Part Number | Code | Holder Feature | Minimum Quantity | Availability | List Price (ea.) |
|---------------------|----------|----------------|------------------|--------------|------------------|
| HCT-KOR-1-06-056851 | KNSR062 | Right Hand | N/A | In Stock | \$147.57 |
| HCT-KOR-1-06-056852 | KNSR082B | Right Hand | N/A | In Stock | 147.57 |
| HCT-KOR-1-06-056853 | KNSR102B | Right Hand | N/A | In Stock | 147.57 |
| HCT-KOR-1-06-056854 | KNSR122B | Right Hand | N/A | In Stock | 147.57 |
| HCT-KOR-1-06-056856 | KNSR162C | Right Hand | N/A | In Stock | 150.98 |
| HCT-KOR-1-06-056855 | KNSR123B | Right Hand | N/A | In Stock | 147.57 |
| HCT-KOR-1-06-056410 | KNSR163D | Right Hand | N/A | In Stock | 160.54 |
| HCT-KOR-1-06-056857 | KNSR164D | Right Hand | N/A | In Stock | 160.54 |
| HCT-KOR-1-06-056411 | KNSR203D | Right Hand | N/A | In Stock | 183.77 |
| HCT-KOR-1-06-056858 | KNSR204D | Right Hand | N/A | In Stock | 183.77 |

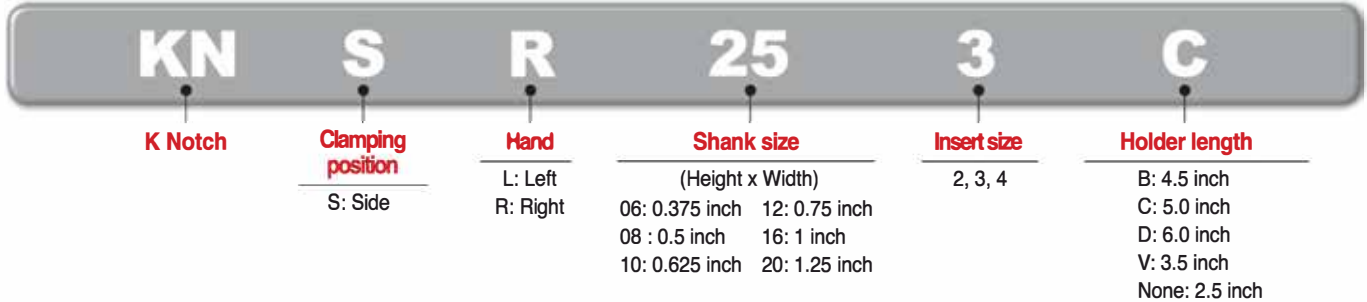
Insert (Threading)

| Type | Insert shape | Designation | | Coated | | Dimensions | | | | | | | Figure | |
|-----------------------|--------------|-------------|----|--------|--------|------------|------|-------|-------|-------|-----------|------------------|------------------------------|-----|
| | | | | PC5300 | PC8110 | mm | | | inch | | | Pitch (External) | | |
| | | | | | | s | w1 | r | s | w1 | r | mm | | tpi |
| Partial Profiling 60° | | KNT | 2R | | 5.56 | 3.81 | 0.10 | 0.219 | 0.150 | 0.004 | 0.70-3.00 | 8-36 | <p>Partial Profiling 60°</p> | |
| | | | 3R | | 8.74 | 4.95 | 0.17 | 0.344 | 0.195 | 0.007 | 1.25-4.00 | 6-20 | | |
| | | | 4R | | 11.51 | 6.48 | 0.17 | 0.453 | 0.255 | 0.007 | 1.25-6.25 | 4-20 | | |
| | | | | | | | | | | | | | | |

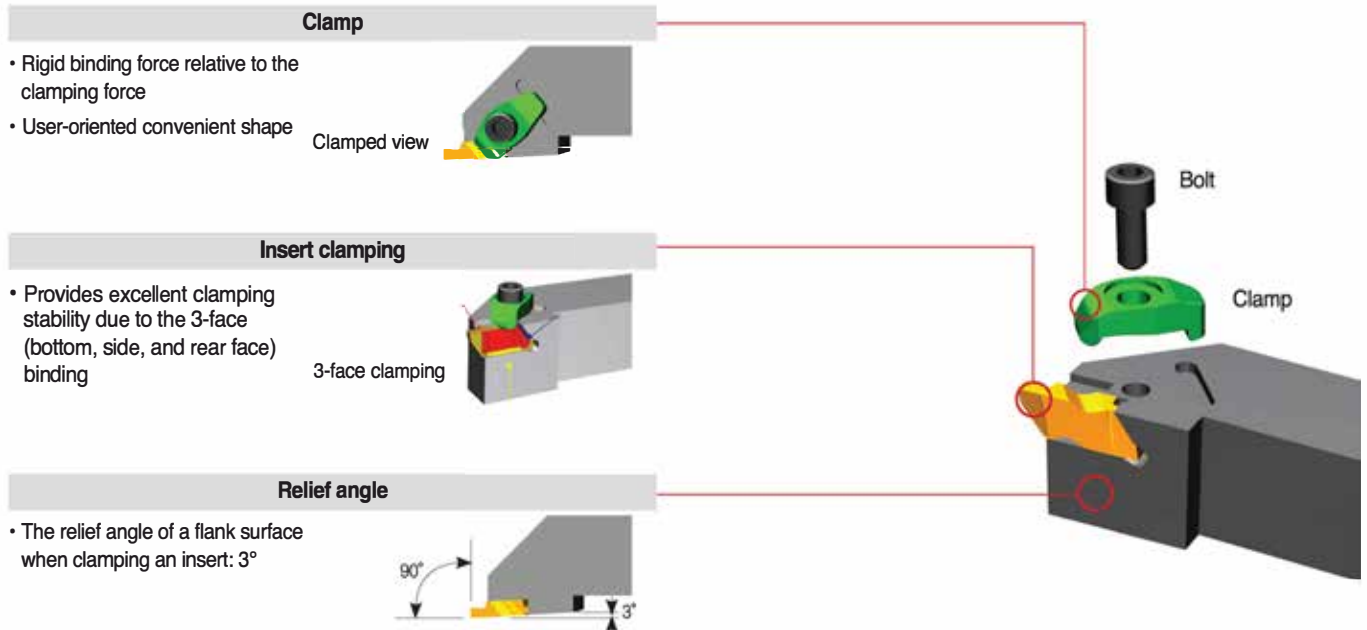
Insert code system



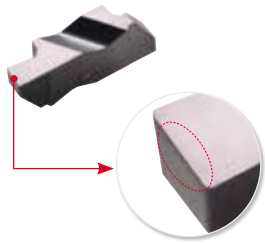
Holder code system



Features of holder



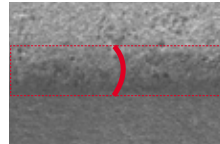
Features of insert



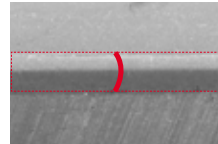
[Edge preparation]

High-quality edge preparation

- Cutting edges in uniform quality
- Long tool life



[Competitor]



[K Notch]

Mirror-like rake surface

- Improved resistance to welding and chipping
- Improved surface finish of workpieces



[K Notch]

Recommended feed per insert type

| Type | | KNG | KNGP | KNR | KNRP | KNB |
|----------------------------------|----------|------------------|------------------|-------------------|-------------------|-------|
| Insert shape | | | | | | |
| Cutting-edge | | | | | | |
| Application | | General grooving | General grooving | Turning profiling | Turning profiling | Blank |
| Recommended workpiece | 1st | P, K | M, N, S | P, K | M, N, S | - |
| | 2nd | M, N, S | P, K | M, N, S | P, K | - |
| Recommended feed, f_n (mm/rev) | P | 0.004 - 0.011 | 0.003 - 0.010 | 0.004 - 0.011 | 0.003 - 0.010 | - |
| | M | 0.004 - 0.010 | 0.003 - 0.010 | 0.004 - 0.010 | 0.003 - 0.010 | - |
| | K | 0.004 - 0.011 | 0.003 - 0.010 | 0.004 - 0.011 | 0.003 - 0.010 | - |
| | N | 0.001 - 0.012 | 0.001 - 0.012 | 0.001 - 0.012 | 0.001 - 0.012 | - |
| | S | 0.002 - 0.006 | 0.002 - 0.006 | 0.002 - 0.006 | 0.002 - 0.006 | - |

Recommended cutting speed per grade

| Workpiece | Grade | Recommended cutting speed, vc (sfm) | | | | |
|-------------------------------|-------------|---------------------------------------|-----|-----|-----|------|
| | | 164 | 328 | 656 | 984 | 1969 |
| P Steel | PC5300 | | 262 | 656 | | |
| | Alloy steel | | 197 | 525 | | |
| M Stainless steel | PC5300 | | 262 | 427 | | |
| | PC8110 | | 262 | 525 | | |
| K Cast iron | PC5300 | | 295 | 656 | | |
| N Non-ferrous metal | PC5300 | | | 525 | | 1969 |
| S Heat-resistant alloy | PC8110 | 114 | 213 | | | |

TURNING INSERT CODE SYSTEM (ISO)

C

N

M

G

3

1

2

3

4

5

Insert Shape

Relief Angle

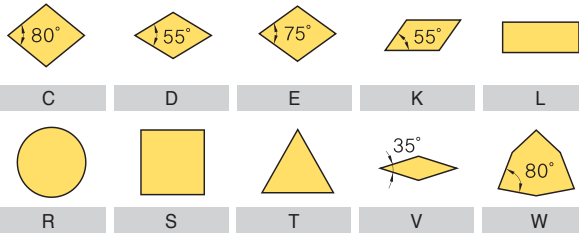
Tolerance

Cross Section Type

Cutting Edge Length,
Diameter of Inscribed Circle

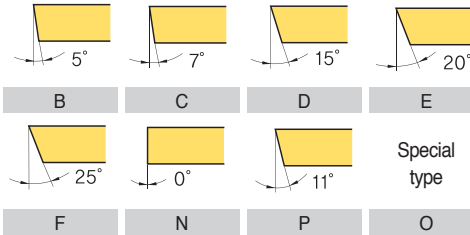
1 Insert Shape

C **N** **M** **G** 3 3 2 - MP



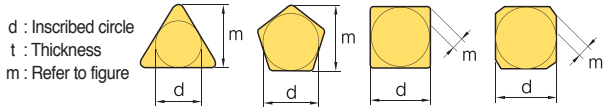
2 Relief Angle

C **N** **M** **G** 3 3 2 - MP



3 Tolerance

C **N** **M** **G** 3 3 2 - MP



| Class | d (inch) | m (inch) | t (inch) |
|-------|-----------------|-----------------|----------|
| A | ±0.0010 | ±0.0002 | ±0.0010 |
| C | ±0.0010 | ±0.0005 | ±0.0010 |
| H | ±0.0005 | ±0.0005 | ±0.0010 |
| E | ±0.0010 | ±0.0010 | ±0.0010 |
| G | ±0.0010 | ±0.0010 | ±0.0005 |
| J* | ±0.002 ~ ±0.006 | ±0.0002 | ±0.0010 |
| K* | ±0.002 ~ ±0.006 | ±0.0005 | ±0.0010 |
| L* | ±0.002 ~ ±0.006 | ±0.0010 | ±0.0010 |
| M* | ±0.002 ~ ±0.006 | ±0.003 ~ ±0.008 | ±0.0005 |
| N* | ±0.002 ~ ±0.006 | ±0.003 ~ ±0.007 | ±0.0010 |
| U* | ±0.003 ~ ±0.010 | ±0.005 ~ ±0.015 | ±0.0005 |

* Sides are based on unground insert

Tolerance on C,E,H,M,O,P,R,S,T,W Insert Shape (Exceptional case)

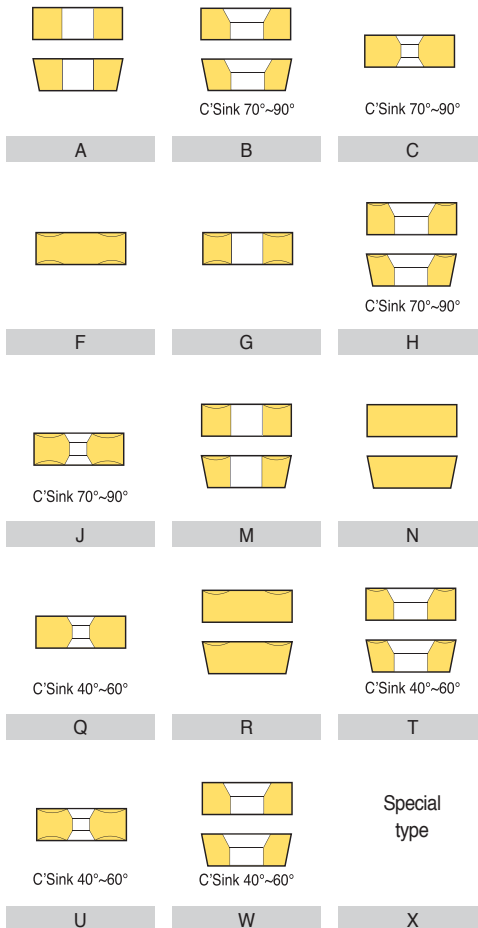
| d | Tolerance on d | | | Tolerance on m | |
|--------|----------------|--------|--------|----------------|--------|
| | J, K, L, M, N | U | M, N | U | U |
| 6.35 | ±0.002 | ±0.003 | ±0.003 | ±0.005 | ±0.005 |
| 9.525 | ±0.002 | ±0.003 | ±0.003 | ±0.005 | ±0.005 |
| 12.7 | ±0.003 | ±0.005 | ±0.005 | ±0.008 | ±0.008 |
| 15.875 | ±0.004 | ±0.007 | ±0.06 | ±0.011 | ±0.011 |
| 19.05 | ±0.004 | ±0.007 | ±0.06 | ±0.011 | ±0.011 |
| 25.4 | ±0.005 | ±0.01 | ±0.07 | ±0.015 | ±0.015 |

Tolerance on D Insert Shape (Exceptional case)

| d | Tolerance on d | Tolerance on m |
|--------|----------------|----------------|
| 6.35 | ±0.002 | ±0.0043 |
| 9.525 | ±0.002 | ±0.0043 |
| 12.7 | ±0.003 | ±0.006 |
| 15.875 | ±0.004 | ±0.007 |
| 19.05 | ±0.004 | ±0.007 |

4 Cross Section Type

C **N** **M** **G** 3 3 2 - MP



TURNING INSERT CODE SYSTEM (ISO)

3 - 2 - MP

6

7

8

Height of Cutting Edge

Nose Radius (Nose R)

Chip Breaker for Turning

5 Cutting Edge Length, Diameter of Incribed Circle

C N M G 3 3 2 - MP

| Symbol | | | | | | | | Inch | IC |
|--------|----|----|----|----|----|----|---------|----------|----|
| C | d | S | T | R | V | W | | | |
| Metric | | | | | | | | d (inch) | |
| 03 | 04 | 03 | 06 | 03 | - | 02 | 1.2 (5) | 5/32 | |
| 04 | 05 | 04 | 08 | 04 | 08 | S3 | 1.5 (6) | 3/16 | |
| 05 | 06 | 05 | 09 | 05 | 09 | 03 | 1.8 (7) | 7/32 | |
| - | - | - | - | 06 | - | - | - | 0.236 | |
| 06 | 07 | 06 | 11 | 06 | 11 | 04 | 2 | 1/4 | |
| 08 | 09 | 07 | 13 | 07 | 13 | 05 | 2.5 | 5/16 | |
| - | - | - | - | 08 | - | - | - | 0.315 | |
| 09 | 11 | 09 | 16 | 09 | 16 | 06 | 3 | 3/8 | |
| - | - | - | - | 10 | - | - | - | 0.394 | |
| 11 | 13 | 11 | 19 | 11 | 19 | 07 | 3.5 | 7/16 | |
| - | - | - | - | 12 | - | - | - | 0.472 | |
| 12 | 15 | 12 | 22 | 12 | 22 | 08 | 4 | 1/2 | |
| 14 | 17 | 14 | 24 | 14 | 24 | 09 | 4.5 | 9/16 | |
| 16 | 19 | 15 | 27 | 15 | 27 | 10 | 5 | 5/8 | |
| - | - | - | - | 16 | - | - | - | 0.630 | |
| 17 | 21 | 17 | 30 | 17 | 30 | 11 | 5.5 | 11/16 | |
| 19 | 23 | 19 | 33 | 19 | 33 | 13 | 6 | 3/4 | |
| - | - | - | - | 20 | - | - | - | 0.787 | |
| 22 | 27 | 22 | 38 | 22 | 38 | 15 | 7 | 7/8 | |
| - | - | - | - | 25 | - | - | - | 0.984 | |
| 25 | 31 | 25 | 44 | 25 | 44 | 17 | 8 | 1 | |
| 32 | 38 | 31 | 54 | 31 | 54 | 21 | 10 | 11/4 | |
| - | - | - | - | 32 | - | - | - | 1.260 | |

() Symbol for small size insert

7 Nose Radius (Nose R)

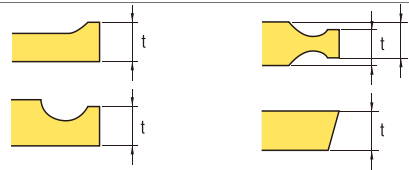
C N M G 3 3 2 - MP



| Symbol | | Corner Radius | |
|--------|------|-----------------------|-------|
| Metric | Inch | Metric | Inch |
| 01 | 0 | 0.1 | 0.004 |
| 02 | 0.5 | 0.2 | 0.008 |
| 04 | 1 | 0.4 | 1/64 |
| 08 | 2 | 0.8 | 1/32 |
| 12 | 3 | 1.2 | 3/64 |
| 16 | 4 | 1.6 | 1/16 |
| 20 | 5 | 2.0 | 5/64 |
| 24 | 6 | 2.4 | 3/32 |
| 28 | 7 | 2.8 | 7/64 |
| 32 | 8 | 3.2 | 1/8 |
| 00 | - | Round insert (Inch) | |
| M0 | - | Round insert (Metric) | |

6 Height of Cutting Edge

C N M G 3 2 3 - MP



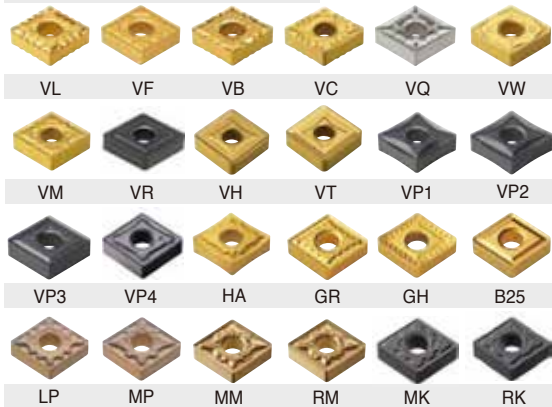
| Symbol | Height of Cutting Edge (t) | |
|--------|----------------------------|--------------|
| | Metric | Inch |
| 01 | 1(2) | 1.59 1/16 |
| T0 | 1.125 | 1.79 9/128 |
| T1 | 1.2 | 1.98 5/64 |
| 02 | 1.5(3) | 2.38 3/32 |
| T2 | 1.75 | 2.78 7/64 |
| 03 | 2 | 3.18 1/8 |
| T3 | 2.5 | 3.97 5/32 |
| 04 | 3 | 4.76 3/16 |
| 05 | 3.5 | 5.56 7/32 |
| 06 | 4 | 6.35 1/4 |
| 07 | 5 | 7.94 5/16 |
| 09 | 6 | 9.52 3/8 |
| 11 | 7 | 11.11 7/16 |
| 12 | 8 | 12.70 1/2 |

() Symbol for small size insert

8 Chip Breaker for Turning

C N M G 3 3 2 - MP

Negative Insert Chip Breaker



Positive Insert Chip Breaker



MILLING TOOL GUIDE

Shanks/Modulars

| Type | A.A | Designation | Shape | Cutter Diameter | Application | Features | | | | |
|------|-----|-----------------|---|---|---|---|---|--|---|--|
| RM3 | 90° | RM3PS3000 |  | Ø20~Ø40 | XNKT060405PNER-ML XNKT060405PNSR-MM |  | <ul style="list-style-type: none"> Economical 3 corners. Perfect perpendicular shouldering operation multi milling tool | | | |
| | | RM3PS4000 | | Ø32~Ø63 | XNKT080508PNER-ML XNKT080508PNSR-MM XNKT080512PNSR-MM | | | | | |
| | | RM3PM 3000/4000 | Ø20~Ø50 | XNKT060405PNER-ML XNKT060405PNSR-MM XNKT060408PNER-ML XNKT060408PNSR-MM XNCT080504PNFR-MA XNCT080508PNFR-MA XNCT080512PNFR-MA XNCT080520PNFR-MA XNKT080508PNER-ML XNKT080508PNSR-MM XNKT080512PNER-ML XNKT080516PNER-ML XNKT080516PNSR-MM XNKT080520PNER-ML XNKT080520PNSR-MM | | | | | | |
| RM4 | 90° | RM4PS3000 |  | Ø14~Ø50 | LNEX100605PNR-MF LNMX100605PNR-MF LNEX100605PNR-MM LNMX100605PNR-MM LNEX100608PNR-MF LNMX100608PNR-MF |  | <ul style="list-style-type: none"> Economical 4 corners. Screw on type for slotting, facing. | | | |
| | | RM4PS4000 | | Ø32~Ø63 | LNEX151004PNR-MF LNMX151004PNR-MF LNEX151004PNR-MM LNMX151004PNR-MM LNEX151008PNR-MF LNMX151008PNR-MF LNEX151008PNR-MM LNMX151008PNR-MM | | | | | |
| | | RM4ZS3000 | Ø25~Ø40 | LNEX100605PNL-MM LNMX100605PNL-MM |  | | | <ul style="list-style-type: none"> Economical 4 corners. Optimal insert application for vertical machining | | |
| | | RM4PM3000 | Ø14~Ø50 | LNEX100605PNR-MF LNMX100605PNR-MF LNEX100605PNR-MM LNMX100605PNR-MM LNEX100608PNR-MF LNMX100608PNR-MF | | | | |  | <ul style="list-style-type: none"> Economical 4 corners. Screw on type for slotting, facing. |
| | | RM4ZM3000 | Ø25~Ø40 | LNEX100605PNL-MM LNMX100605PNL-MM | | | | | | |
| RM6 | 90° | RM6PS-WN04 |  | Ø20~Ø32 | WNGX040304PNFR-MA WNGX040308PNFR-MA WNGX040312PNFR-MA WNGX040316PNFR-MA WNGX040304PNER-ML WNGX040308PNER-ML WNGX040312PNER-ML WNGX040316PNSR-MM WNGX040308PNSR-MM WNGX040312PNSR-MM WNGX040316PNSR-MM |  | <ul style="list-style-type: none"> Improved productivity and high-quality shouldering through high speed and high feed machining | | | |
| | | RM6PS-WN08 | | Ø32~Ø50 | WNGX080604PNFR-MA WNGX080608PNFR-MA WNGX080612PNFR-MA WNGX080616PNFR-MA WNGX080620PNFR-MA WNGX080604PNER-ML WNGX080608PNER-ML WNGX080612PNER-ML WNGX080616PNSR-MM WNGX080620PNSR-MM WNGX080616PNSR-MM WNGX080620PNSR-MM | | |  | | |

MILLING TOOL GUIDE

RM3PS4000

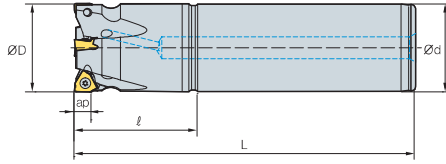


Fig. 1

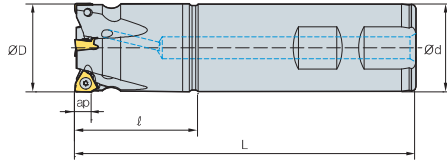


Fig. 2



AA
90°

• AR: -5°
• RR: -11°~-7°

(mm)

| Designation | | ØD | Ød | ℓ | L | ap | ρ_g | Fig. | |
|-------------|-------------|----|----|----|-----|-----|----------|------|---|
| RM3PS | 4032HR-3S32 | 3 | 32 | 32 | 42 | 125 | 8 | 0.67 | 2 |
| | 4032HR-3L32 | 3 | 32 | 32 | 42 | 200 | 8 | 1.11 | 1 |
| | 4033HR-3S32 | 3 | 33 | 32 | 42 | 125 | 8 | 0.68 | 2 |
| | 4033HR-3L32 | 3 | 33 | 32 | 42 | 200 | 8 | 1.13 | 1 |
| | 4040HR-3S32 | 3 | 40 | 32 | 42 | 130 | 8 | 0.8 | 2 |
| | 4040HR-3L32 | 3 | 40 | 32 | 42 | 200 | 8 | 1.21 | 1 |
| | 4040HR-4S32 | 4 | 40 | 32 | 42 | 130 | 8 | 0.81 | 2 |
| | 4040HR-4L32 | 4 | 40 | 32 | 42 | 200 | 8 | 1.22 | 1 |
| | 4050HR-4S32 | 4 | 50 | 32 | 42 | 135 | 8 | 0.99 | 2 |
| | 4050HR-4L32 | 4 | 50 | 32 | 42 | 200 | 8 | 1.38 | 1 |
| | 4050HR-4S40 | 4 | 50 | 40 | 42 | 135 | 8 | 1.32 | 2 |
| | 4050HR-4L40 | 4 | 50 | 40 | 42 | 200 | 8 | 1.94 | 1 |
| | 4050HR-5S32 | 5 | 50 | 32 | 42 | 135 | 8 | 1.02 | 2 |
| | 4050HR-5L32 | 5 | 50 | 32 | 42 | 200 | 8 | 1.4 | 1 |
| | 4050HR-5S40 | 5 | 50 | 40 | 42 | 135 | 8 | 1.35 | 2 |
| | 4050HR-5L40 | 5 | 50 | 40 | 42 | 200 | 8 | 1.96 | 1 |
| | 4063HR-5S32 | 5 | 63 | 32 | 42 | 135 | 8 | 1.31 | 2 |
| | 4063HR-5L32 | 5 | 63 | 32 | 42 | 200 | 8 | 1.7 | 1 |
| | 4063HR-5S40 | 5 | 63 | 40 | 42 | 135 | 8 | 1.64 | 2 |
| | 4063HR-5L40 | 5 | 63 | 40 | 42 | 200 | 8 | 2.25 | 1 |
| 4063HR-6S32 | 6 | 63 | 32 | 42 | 135 | 8 | 1.31 | 2 | |
| 4063HR-6L32 | 6 | 63 | 32 | 42 | 200 | 8 | 1.7 | 1 | |
| 4063HR-6S40 | 6 | 63 | 40 | 42 | 135 | 8 | 1.64 | 2 | |
| 4063HR-6L40 | 6 | 63 | 40 | 42 | 200 | 8 | 2.26 | 1 | |

Available inserts

XNCT-MA XNKT-ML XNKT-MM



| Designation | Cermet | | Coated | | | | | | | | | | Uncoated | | | page | | |
|-------------|---------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|-------|-----|------|-----|-----|
| | CN2000 | CN30 | NC5330 | NC5340 | NC5350 | PC2505 | PC2510 | PC3500 | PC3600 | PC9530 | PC6510 | PC5300 | PC5400 | ST30A | G10 | | H01 | |
| XNCT | 080504PNFR-MA | | | | | | | | | | | | | | | | ● | E29 |
| | 080508PNFR-MA | | | | | | | | | | | | | | | | ● | |
| | 080512PNFR-MA | | | | | | | | | | | | | | | | ● | |
| | 080520PNFR-MA | | | | | | | | | | | | | | | | ● | |
| XNKT | 080508PNER-ML | | | | | | ● | | ● | | ● | ● | ● | | | | | E30 |
| | 080508PNSR-MM | | | | | ● | ● | | ● | | ● | ● | ● | | | | | |
| | 080512PNER-ML | | | | | | ● | | ● | | ● | ● | ● | | | | | |
| | 080512PNSR-MM | | | | | ● | ● | | ● | | ● | ● | ● | | | | | |
| | 080516PNER-ML | | | | | | ● | | ● | | ● | ● | ● | | | | | |
| | 080516PNSR-MM | | | | | ● | ● | | ● | | ● | ● | ● | | | | | |
| | 080520PNER-ML | | | | | | ● | | ● | | ● | ● | ● | | | | | |
| | 080520PNSR-MM | | | | | ● | ● | | ● | | ● | ● | ● | | | | | |

Parts

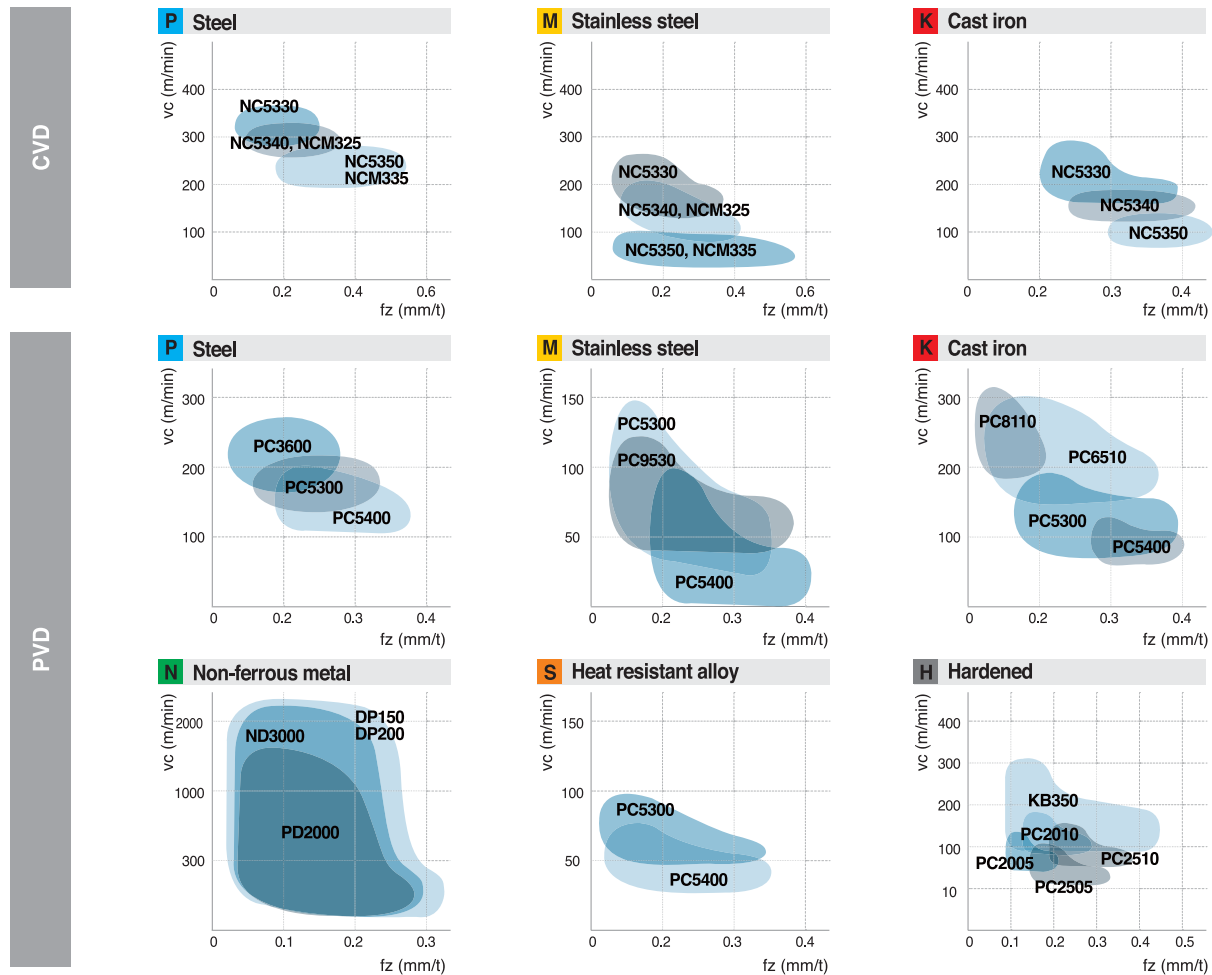
| Specification | | |
|---------------|----------|-------|
| Ø32-Ø63 | FTNA0408 | TW15S |

MILLING GRADE SELECTIONS























Selection system

| Workpiece | P Steel | | | | | M | Stainless steel | | | | K Cast iron | | | | N Nonferrous | | | S | HRSA | | | H Hardened | | | | |
|------------------|---------|-----|-------------------|--------|--------|-----|-----------------|-----|-------------------|--------|-------------|--------|-------------------|-----|--------------|-----|-------------------|-----|-------|-----|--------|------------|-----|-----|-------|-------------------|
| ISO | P01 | P10 | P20 | P30 | P40 | P50 | M10 | M20 | M30 | M40 | K01 | K10 | K20 | K20 | K40 | N01 | N10 | N20 | S10 | S20 | S30 | H01 | H10 | H20 | H30 | |
| Coated carbide | | | NC5330 | PC3500 | PC3600 | | | | NC5330 | PC5300 | | PC8110 | | | | | | | | | PC5300 | | | | | |
| | | | NC5340 <i>new</i> | NCM325 | PC5300 | | | | PC9530 | | | | PC6510 | | | | ND3000 <i>new</i> | | | | | | | | | PC5400 <i>new</i> |
| | | | NC5350 <i>new</i> | NCM335 | | | | | NC5340 <i>new</i> | | | | PC5300 | | | | PD2000 | | | | | | | | | PC2005 <i>new</i> |
| | | | PC5400 <i>new</i> | | | | | | NCM325 | | | | NC5340 <i>new</i> | | | | | | | | | | | | | PC2505 <i>new</i> |
| | | | | | | | | | NC5350 <i>new</i> | | | | PC5400 <i>new</i> | | | | | | | | | | | | | PC2010 <i>new</i> |
| | | | | | | | | | NCM335 | | | | | | | | | | | | | | | | | PC2510 <i>new</i> |
| | | | | | | | | | PC5400 <i>new</i> | | | | | | | | | | | | | | | | | PC2015 <i>new</i> |
| | | | | | | | | | | | | | | | | | | | | | | | | | | PC210F |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cermet | | | CN2000 | CN30 | | | | | | | | | | | | | | | | | | | | | |
| cBN / PCD | | | | | | | | | | | | | | | | | | | DP150 | | | | | | KB350 | |
| Uncoated carbide | | | ST20 | ST30A | | | | | U20 | | H01 | H05 | | | | | | | | | | | | | | |

Application range of milling grades



TURNING CHIP BREAKER GUIDE

| | Workpiece P Steel | |
|---------------------|---|--|
| Heavy |   |     |
| Roughing | |   |
| Medium | |     |
| Medium to finishing |   |     |
| Finishing | |     |

[Recommended]

HONING STONES

SUNNEN PORTABLE HONES - AN-815 AND ANR-275

Part Number: H-AN-815
Net Price: \$641.18



Additional sizes and accessories shown below.

Hand Feed - ID Range 64-533 mm (2.500" - 21.000")
 For occasional heavy-duty portable honing

Illustration shows standard AN-815 Portable Hone assembled with single length master holder set and stone set. Requires 16 mm (5/8") chuck capacity for 63.5-127 mm (2.5"-5") diameter. Requires 19mm (3/4") chuck capacity for 127-381 mm (5"-15") diameter. Requires 25.4 mm (1") chuck capacity for larger than 381 mm (15") diameter.

Weight 2.3 kg (5 lbs).

Part Number: H-ANR-275
Net Price: \$2,423.45



Additional sizes and accessories shown below.

Remote Feed - ID Range 64-533 mm (2.500" - 21.000")
 For production heavy-duty honing - to be used in a machine or honing rig.

Illustration shows the ANR-275 Portable Hone assembled with Stone Support, Single Length Master Holder Set, Stone Set and 76 mm (3") Drive Shank. (3/4") chuck capacity for 127-381 mm (5"-15") diameter. Requires 16 mm (5/8") chuck capacity for 63.5-127 mm (2.5"-5") diameter. Requires 19 mm (5/8") diameter. Requires 25.4 mm (1") chuck capacity for larger than 381 mm (15") diameter.

Weight 5.2 kg (11.5 lbs).

| FOR A COMPLETE PORTABLE HONE ORDER A + B + C + D + E | | | | A - BASIC HONE | B - MASTER HOLDER SETS | | | | C - STONE SUPPORT | | D - STONE SET | E - SHAFT EXTENSION |
|---|-----------|---------------------------------|-------------|--|------------------------|-----------|---------------|-----------|-------------------|-------------|---|--|
| Diameter Range | | | | | Single Length | | Double Length | | Part Number | Net Price | | |
| General Purpose Stone Sets | | Guideless and Keyway Stone Sets | | | Part Number | Net Price | Part Number | Net Price | | | | |
| mm | Inches | mm | Inches | Part Number | | | | | Net Price | Part Number | Net Price | Part Number |
| 64-140 | 2.5-5.5 | 64-142 | 2.5-5.6 | See Honed H-AN-815 and H-ANR-275 Above | None | - | None | - | None | - | See Table on the next page for portable hone stone sets | For long holes - see table below for Shaft Extensions. |
| 104-160 | 4.1-6.3 | 114-165 | 4.5-6.5 | | H-AN-345 | \$142.36 | None | - | None | - | | |
| 119-178 | 4.7-7.0 | 130-183 | 5.1-7.2 | | H-AN-355 | 142.36 | H-AN-855 | \$213.00 | None | - | | |
| 152-229 | 6.0-9.0 | 163-234 | 6.4-9.2 | | H-AN-365 | 142.36 | H-AN-865 | 213.00 | H-AN-260 | \$100.53 | | |
| 206-305 | 8.1-12.0 | 213-310** | 8.4-12.2** | | H-AN-375 | 147.80 | H-AN-875 | 222.78 | H-AN-280 | 118.46 | | |
| 279-381 | 11.0-15.0 | 284-386** | 11.2-15.2** | | H-AN-385 | 147.80 | H-AN-885 | 222.78 | H-AN-290 | 129.32 | | |
| 356-457 | 14.0-18.0 | 363-465** | 14.3-18.3** | See honed above | H-AN-395 | 153.23 | H-AN-895 | 230.39 | H-AN-340 | 142.36 | | |
| 432-533 | 17.0-21.0 | 437-538** | 17.2-21.2** | | H-AN-415 | 153.23 | H-AN-915 | 230.39 | H-AN-450 | 158.67 | | |

* For light work only in this diameter range.

** Do not use WW (Guideless) Stone Sets in this range due to lack of stability.

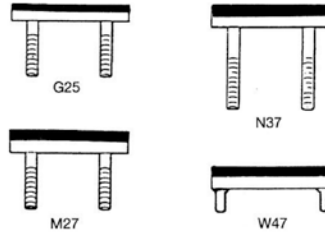
| Length | | Drive Shanks | | AN-815 Shaft Extensions | | AN-275 Shaft Extensions | | Master Holder Sets and Stone Supports | | | |
|--------|--------|--------------|-----------|-------------------------|-----------|-------------------------|-----------|--|--|--|--|
| mm | Inches | Part Number | Net Price | Part Number | Net Price | Part Number | Net Price | | | | |
| 76 | 3 | H-AN-608A** | \$31.95 | None | - | None | - | Master Holder Sets, listed in the table above, are used with Type W47, WW51 and WY51 Stone Sets. Double Length Master Holders require two stone sets - use when the bore is more than 457 mm (18") long or when it is necessary to bridge interruptions in the bore. Each Master Holder Set consists of two holders for stones and two holders for guides. Stone Supports are required to give rigidity to the hone assembly when honing bores larger than 178 mm (7") diameter. Stone length is 102 mm (4") or 203 mm (8") when two sets of stones are used with double length master holder set. | | | |
| 152 | 6 | H-AN-618A* | 47.28 | H-AN-840 | \$58.95 | None | - | | | | |
| 235 | 9.25 | None | - | None | - | H-ANR-741 | 431.44 | | | | |
| 305 | 12 | None | - | H-AN-841* | 65.21 | None | - | | | | |
| 483 | 19 | None | - | None | - | H-ANR-742 | 490.12 | | | | |
| 610 | 24 | None | - | H-AN-842 | 189.09 | None | - | | | | |
| 1086 | 42.75 | None | - | None | - | H-ANR-744 | 619.45 | | | | |
| 1220 | 48 | None | - | H-AN-844 | 289.08 | None | - | | | | |
| 1835 | 72.25 | None | - | None | - | H-ANR-746 | 777.03 | | | | |

The AN-815 is furnished with 152 mm (6") Drive Shank and 305 mm (12") Shaft Extension. The ANR-275 is furnished with 76 mm (3") Drive Shank. Other shanks or extensions may be selected from the table above to make up any practical length (either drive shank can be used with any combination of extensions).

HONING STONES

SUNNEN HONE STONE SETS FOR AN-815 AND ANR-275

Sunnens Stone Sets for 2.5" to 60"* diameter, portable tools (two stones and two guides per set). Stone length is 102 mm (4") or 203 mm (8") when two sets of stones are used with double length master holder set. For Industrial applications. From fast stock removal in deburred, bored, ground, or reamed holes to fine finishing in previously honed holes, these hone stone sets are in stock and ready for next day delivery.



| Stone Number | Diameter |
|--------------|-------------|
| G25 | 2.5 - 2.7 |
| M27 | 2.7 - 4.1 |
| N37 | 3.5 - 5.5 |
| W47 | 4.1 - 60.0* |

* Requires Master Holder Set - Limited to 21" with H-AN-815

ALUMINUM OXIDE STONES

| MODEL | | G25 | | M27 | | N37 | | W47 | |
|------------------|-------------|----------------------------|-----------|-----------------------------|-----------|------------------------------|-----------|---------------------------------|-----------|
| GRIT SIZE | | 64 TO 69 mm 2.5" - 2.7" | NET PRICE | 69 TO 104 mm 2.7" - 4.1" | NET PRICE | 89 TO 140 mm 3.5" - 5.5" | NET PRICE | 104 TO 1524 mm 4.1" - 60"*** | NET PRICE |
| 80 | HARD - SOFT | H-G25-A23 | \$24.48 | H-M27-A23 | \$24.48 | H-N37-A23 | \$24.48 | H-W47-A23 | \$24.48 |
| | | H-G25-A25 | 24.48 | H-M27-A25 | 24.48 | H-N37-A25 | 24.48 | H-W47-A25 | 24.48 |
| | | H-G25-R25X | 24.48 | H-M27-R25X | 24.48 | H-N37-R25X | 24.48 | H-W47-R25X | 24.48 |
| | | H-G25-A27 | 24.48 | H-M27-A27 | 24.48 | H-N37-A27 | 24.48 | H-W47-A27 | 24.48 |
| 150 | H - S | H-G25-A43 | \$24.48 | H-M27-A43 | \$24.48 | H-N37-A43 | \$24.48 | H-W47-A43 | \$24.48 |
| | | H-G25-A45 | 24.48 | H-M27-A45 | 24.48 | H-N37-A45 | 24.48 | H-W47-A45 | 24.48 |
| | | H-G25-A47 | 24.48 | H-M27-A47 | 24.48 | H-N37-A47 | 24.48 | H-W47-A47 | 24.48 |
| | | - | - | H-M27-A49 | 24.48 | H-N37-A49 | 24.48 | H-W47-A49 | 24.48 |
| 220 | HS | - | - | - | - | H-N37-A55 | \$24.48 | H-W47-A55 | \$24.48 |
| 280 | H - S | - | - | - | - | - | - | H-W47-A63 | \$24.48 |
| | | H-G25-A65 | \$24.48 | H-M27-A65 | \$24.48 | H-N37-A65 | \$24.48 | H-W47-A65 | 24.48 |
| - | - | - | - | H-M27-A67 | 24.48 | - | - | H-W47-A67 | 24.48 |
| MODEL | | GY25 | | MY33 | | NY40 | | WY51 | |
| MAX KEYWAY WIDTH | | 20.3 mm 0.8" | | 22.86 mm 0.9" | | 30.48 mm 1.2" | | 35.56 mm 1.4" | |
| GRIT SIZE | | 64 TO 84 mm 2.5" - 3.3" | | 84 TO 107 mm 3.3" - 4.2" | | 102 TO 142 mm 4.0" - 5.6" | | 114 TO 1524 mm 4.5" - 60"*** | |
| 150 | M | H-GY25-A47 | \$46.40 | H-MY33-A47 | \$46.40 | H-NY40-A47 | \$46.40 | H-WY51-A47 | \$46.40 |

SILICON CARBIDE STONES

| MODEL | | G25 | | M27 | | N37 | | W47 | |
|-----------|-------------|----------------------------|-----------|-----------------------------|-----------|-----------------------------|-----------|---------------------------------|-----------|
| GRIT SIZE | | 64 TO 69 mm 2.5" - 2.7" | NET PRICE | 69 TO 104 mm 2.7" - 4.1" | NET PRICE | 89 TO 140 mm 3.5" - 5.5" | NET PRICE | 104 TO 1524 mm 4.1" - 60"*** | NET PRICE |
| 70 | HARD - SOFT | - | - | - | - | H-N37-J11 | \$24.48 | H-W47-J11 | \$24.48 |
| | | - | - | - | - | H-N37-J13 | 24.48 | H-W47-J13 | 24.48 |
| | | H-G25-J15 | \$24.48 | - | - | - | - | H-W47-J15 | 24.48 |
| | | H-G25-J17 | 24.48 | H-M27-J17 | \$24.48 | H-N37-J17 | \$24.48 | H-W47-J17 | 24.48 |
| 150 | H - S | - | - | - | - | H-N37-J43 | \$24.48 | H-W47-J43 | \$24.48 |
| | | H-G25-J45 | \$24.48 | H-M27-J45 | \$24.48 | H-N37-J45 | 24.48 | H-W47-J45 | 24.48 |
| | | H-G25-J47 | 24.48 | H-M27-J47 | 24.48 | H-N37-J47 | 24.48 | H-W47-J47 | 24.48 |
| 220 | H - S | H-G25-J55 | \$24.48 | H-M27-J55 | \$24.48 | H-N37-J55 | \$24.48 | H-W47-J55 | \$24.48 |
| | | - | - | H-M27-J57 | 24.48 | H-N37-J57 | 24.48 | - | - |
| 280 | H - S | H-G25-J63 | \$24.48 | H-M27-J63 | \$24.48 | - | - | H-W47-J63 | \$24.48 |
| | | H-G25-J65 | 24.48 | H-M27-J65 | 24.48 | H-N37-J65 | \$24.48 | H-W47-J65 | 24.48 |
| | | H-G25-J67 | 24.48 | H-M27-J67 | 24.48 | H-N37-J67 | 24.48 | H-W47-J67 | 24.48 |
| 400 | H - S | H-G25-J85 | \$24.48 | H-M27-J85 | \$24.48 | H-N37-J85 | \$24.48 | H-W47-J85 | \$24.48 |
| | | H-G25-J87 | 24.48 | H-M27-J87 | 24.48 | H-N37-J87 | 24.48 | H-W47-J87 | 24.48 |

HONING STONES

SUNNEN PORTABLE HONES AND STONE SETS FOR H-SNJ-10 AND H-SN-75

Part Number: H-SNJ-10
Net Price: \$575.98



Additional sizes and accessories shown below.

Hand Feed - ID Range 31.8-45.0 mm (1.250" - 1.770")
 For occasional portable honing

Illustration shows the SNJ-10 Portable Hone assembled with Stone Set and AN-26A Drive Shank. Will hone bores up to 457 mm (18.0") long as shown; order additional Shaft Extensions for longer bores. Requires 13 mm (1/2") chuck capacity.

Weight .5 kg (1 lb).

Part Number: H-SN-75
Net Price: \$502.08



Additional sizes and accessories shown below.

Hand Feed - ID Range 44-51 mm (1.750" - 2.000")
 For occasional portable honing

Illustration shows the SN-75 Portable Hone assembled with Stone Set, Drive Shank, and 305 mm (12") Shaft Extension. 102 mm (4") stone length. Will hone bores up to 533 mm (21") long as shown; order additional Shaft Extensions for longer bores. Requires 13 mm (1/2") chuck capacity.

Weight 1.4 kg (3 lbs).

| To Order: SNJ-10 and SN-75 Basic Hone include 76 mm (3") Drive Shank, 305 mm (12") Extension, and one Universal Joint. Additional Shaft Extensions may be ordered from table above to make up any practical length (Drive Shank can be used with any combination of Extensions). * Supplied with hone | DRIVE SHANKS | | | | SHAFT EXTENSIONS | | | |
|--|--------------|--------|-------------|-----------|------------------|--------|-------------|-----------|
| | LENGTH | | PART NUMBER | NET PRICE | LENGTH | | PART NUMBER | NET PRICE |
| | MM | INCHES | | | MM | INCHES | | |
| | 76 | 3 | H-AN-26A* | \$21.25 | 305 | 12 | H-AN-241* | \$58.95 |
| | | | | | 610 | 24 | H-AN-242 | 189.09 |
| | | | | | 1220 | 48 | H-AN-244 | 266.25 |

| SUNNEN STONE SETS FOR H-SNJ-10 PORTABLE HONE | | | | | | | |
|--|-----------|--------------------------------------|-----------|--------------------------------------|-----------|--------------------------------------|-----------|
| MATERIAL | GRIT SIZE | 31.75 TO 36.50 mm 1.250" - 1.437" | NET PRICE | 36.02 TO 40.74 mm 1.418" - 1.604" | NET PRICE | 40.13 TO 45.00 mm 1.580" - 1.770" | NET PRICE |
| Aluminum Oxide | 150 (4) | H-SNJ1-A45 | \$27.47 | H-SNJ2-A45 | \$27.47 | H-SNJ3-A45 | \$27.47 |
| Silicon Carbide | 150 (4) | H-SNJ1-J45 | \$27.47 | - | - | - | - |
| | 280 (6) | H-SNJ1-J63 | 27.47 | H-SNJ2-J63 | \$27.47 | H-SNJ3-J63 | \$27.47 |
| | 400 (8) | H-SNJ1-J87 | 27.47 | H-SNJ2-J87 | 27.47 | H-SNJ3-J87 | 27.47 |

Consists of 3 stones.

| SUNNEN STONE SETS FOR H-SN-75 PORTABLE HONE | | | | |
|---|-----------|-------------|---------------------------|-----------|
| MATERIAL | GRIT SIZE | SOFT - HARD | 44 TO 51 1.75" - 2.00" | NET PRICE |
| Aluminum Oxide | 80 (2) | Hard | H-S18-A25 | \$23.92 |
| | 150 (4) | Medium | H-S18-A45 | 23.92 |
| Silicon Carbide | 150 (4) | Medium | H-S18-J45 | \$23.92 |
| | 400 (8) | Medium | H-S18-J85 | 23.92 |

Consists of 2 stones and 2 guides.

HONING STONES

SUNNEN PORTABLE HONES FOR H-JN-95

Part Number: H-JN-95

Net Price: \$502.08

Hand Feed - ID Range 51 - 66 mm (2.000" - 2.600")
 For occasional portable honing
 JN-95 Basic Portable Hone includes 76 mm (3") Drive Shank, 305 mm (12")
 Extension, and one Universal Joint. Requires 13 mm (1/2") chuck capacity.
 (Illustration shows Portable Hone assembled with Stone Set.)



SUNNEN HONE STONE SETS FOR H-JN-95 PORTABLE HONE

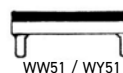
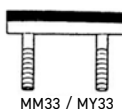
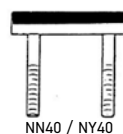
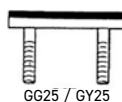
Stone sets for the H-JN-95 Portable Hone (two stones and two guides per set). The stone sets are for 2" to 2.4" diameters. The listed stone sets are in stock and ready for next day delivery.

| ALUMINUM OXIDE STONES | | | | | | | |
|------------------------|-----|--------------------------|--------------|----------------------------|--------------|----------------------------|--------------|
| MODEL | | T20 | | U22 | | V24 | |
| GRIT SIZE | | 51 TO 56 mm 2" - 2.2" | NET PRICE | 56 TO 61 mm 2.2" - 2.4" | NET PRICE | 61 TO 66 mm 2.2" - 2.4" | NET PRICE |
| 80 | H-S | H-T20-A25 | \$23.92 | H-U22-A25 | \$23.92 | H-V24-A25 | \$23.92 |
| 150 | H-S | H-T20-A45 | 23.92 | H-U22-A45 | 23.92 | H-V24-A45 | 23.92 |
| 280 | H-S | H-T20-A65 | 23.92 | H-U22-A65 | 23.92 | - | - |
| SILICON CARBIDE STONES | | | | | | | |
| MODEL | | T20 | | U22 | | V24 | |
| GRIT SIZE | | 51 TO 56 mm 2" - 2.2" | NET PRICE | 56 TO 61 mm 2.2" - 2.4" | NET PRICE | 56 TO 61 mm 2.2" - 2.4" | NET PRICE |
| 150 | H-S | H-T20-J45 | \$23.92 | - | - | - | - |
| 280 | H-S | - | - | - | - | H-V24-J65 | \$23.92 |
| 400 | H-S | H-T20-J85 | 23.92 | - | - | - | - |
| | | - | - | H-U22-J87 | \$23.92 | H-V24-J87 | 23.92 |

ADDITIONAL SUNNEN HONE STONE SETS AVAILABLE

SUNNEN HONE STONE SETS

Sunnen Stone Sets for 2.5" to 60"* diameter, portable tools (two stones and two guides per set). For Industrial applications. From fast stock removal in deburred, bored, ground, or reamed holes to fine finishing in previously honed holes, these hone stone sets are in stock and ready for next day delivery.



| Stone Number | Diameter |
|--------------|-----------|
| Gx25 | 2.5 - 3.3 |
| Mx33 | 3.3 - 4.2 |
| Nx40 | 4.0 - 5.6 |
| Wx51 | 4.5 - 60* |

* Requires the use of Master Holders

| PART NUMBER | BORE SIZE | MATERIAL | GRIT SIZE | HARDNESS | NET PRICE |
|-------------|----------------|-----------------|-----------|----------|-----------|
| H-GY25-J85 | 2.500 - 3.300 | Silicon Carbide | 400 | Medium | \$46.40 |
| H-H70-A45 | 2.900 - 11.500 | Aluminum Oxide | 150 | Medium | 27.02 |
| H-MM33-A45 | 3.300 - 4.200 | Aluminum Oxide | 150 | Medium | 36.88 |
| H-MM33-J85 | 3.300 - 4.200 | Silicom Carbide | 400 | Medium | 36.88 |
| H-MM33-J87 | 3.300 - 4.200 | Silicom Carbide | 400 | Hard | 37.30 |
| H-NN40-A45 | 4.000 - 5.600 | Aluminum Oxide | 150 | Medium | 36.88 |
| H-NN40-J85 | 4.000 - 5.600 | Silicon Carbide | 400 | Medium | 36.88 |
| H-T20-A45 | 2.000 - 2.200 | Aluminum Oxide | 150 | Medium | 23.92 |
| H-U22-A45 | 2.200 - 2.400 | Aluminum Oxide | 150 | Medium | 23.92 |
| H-V24-A45 | 2.400 - 2.600 | Aluminum Oxide | 150 | Medium | 23.92 |
| H-WY51-A43 | 4.500 - 60.000 | Aluminum Oxide | 150 | Medium | 46.40 |
| H-WY51-A45 | 4.500 - 60.000 | Aluminum Oxide | 150 | Medium | 46.40 |
| H-WY51-J85 | 4.500 - 60.000 | Silicon Carbide | 400 | Medium | 46.40 |

ROTARY THREAD® FILES

15 PIECE MASTER TOOL KIT

Part Number: HRTR-K2.1
Net Price: \$279.26



| Part Number | Qty | Part Number | Qty |
|-------------|-----|-------------|-----|
| HRTR-1 | 1 | HRTR-5B | 1 |
| HRTR-2 | 1 | HRTR-5S1 | 1 |
| HRTR-2L | 1 | HRTR-5S2 | 1 |
| HRTR-3S2 | 1 | HRTR-C1 | 1 |
| HRTR-4 | 1 | HRTR-M3 | 1 |
| HRTR-4S1 | 1 | HRTR-M5 | 2 |
| HRTR-5 | 1 | | |
| HRTR-5A | 1 | | |

4 PIECE GROOVE & GLAND RESTORE KIT

Part Number: HRTR-K1.2
Net Price: \$40.16



| Part Number | Quantity |
|-------------|----------|
| HRTR-3S1 | 3 |
| HRTR-M3 | 1 |

3 PIECE THREAD RESTORE STARTER KIT

Part Number: HRTR-K1.1
Net Price: \$32.64



| Part Number | Quantity |
|-------------|----------|
| HRTR-1 | 1 |
| HRTR-2 | 1 |
| HRTR-C1 | 1 |

STANDARD THREAD



| Part Number | Thread Types | Shank Size | Head Diameter | Overall Length | Minimum Working ID | Minimum Pitch | Thread Angle | RPM | Net Price |
|-------------|-----------------------------------|------------|---------------|----------------|--------------------|---------------------|--------------|---------------------------|-----------|
| HRTR-1 | Inch, Metric, Pipe, SAE, National | 1/8" | 3/8" | 2" | 7/16" | 28 TPI (0.8 Metric) | 60° | Up to 12,000 (Max 15,000) | \$13.01 |
| HRTR-2 | Inch, Metric, Pipe, SAE, National | 1/4" | 3/4" | 2" | 5/8" | 28 TPI (0.8 Metric) | 60° | Up to 12,000 (Max 15,000) | 18.89 |
| HRTR-2L | Inch, Metric, Pipe, SAE, National | 1/4" | 3/4" | 4" | 5/8" | 28 TPI (0.8 Metric) | 60° | Up to 12,000 (Max 15,000) | 26.30 |

ROTARY THREAD® FILES

STANDARD THREAD FOR USE WITH MANDREL



| Part Number | Thread Types | Shank Size | Head Diameter | Mandrel Used | Thickness | Minimum Working ID | Minimum Pitch | Thread Angle | RPM | Net Price |
|-------------|-----------------------------------|------------|---------------|--------------|-----------|--------------------|---------------------|--------------|---------------------------|-----------|
| HRTR-4 | Inch, Metric, Pipe, SAE, National | 1/4" | 1-5/8" | HRTR-M5 | 0.118" | 1-3/4" | 28 TPI (0.8 Metric) | 60° | Up to 12,000 (Max 15,000) | \$29.95 |
| HRTR-5 | Inch, Metric, Pipe, SAE, National | 1/4" | 2" | HRTR-M5 | 0.315" | 2-1/8" | 20 TPI (0.8 Metric) | 60° | Up to 12,000 (Max 15,000) | 31.11 |
| HRTR-5A | ACME | 1/4" | 2" | HRTR-M5 | 0.315" | 2-1/8" | 16 | 29° | Up to 12,000 (Max 15,000) | 31.11 |
| HRTR-5B | BUTTRESS | 1/4" | 2" | HRTR-M5 | 0.315" | 2-1/8" | NA | 7 x 45° | Up to 12,000 (Max 15,000) | 31.11 |

GROOVE & GLAND



| Part Number | Thread Types | Shank Size | Head Diameter | Mandrel Used | Thickness | Minimum Working ID | Minimum Pitch | RPM | Net Price |
|-------------|-----------------------------|------------|---------------|--------------|-----------|--------------------|---------------|---------------------------|-----------|
| HRTR-3S1 | Cylinder Glands & Grooves | 1/8" | 0.984" | HRTR-M3 | 0.040" | 1" | Square | Up to 12,000 (Max 15,000) | \$23.57 |
| HRTR-4S1 | Glands, Grooves, Snap Rings | 1/4" | 1-5/8" | HRTR-M5 | 0.040" | 1-3/4" | Square | Up to 12,000 (Max 15,000) | 29.95 |
| HRTR-5S1 | Glands, Grooves, Snap Rings | 1/4" | 2" | HRTR-M5 | 0.040" | 2-1/8" | Square | Up to 12,000 (Max 15,000) | 31.11 |
| HRTR-5S2 | Glands, Grooves, Snap Rings | 1/4" | 2" | HRTR-M5 | 0.080" | 2-1/8" | Square | Up to 12,000 (Max 15,000) | 31.11 |

ROTARY THREAD® FILES

MANDRELS



| Part Number | Body Diameter | Length | Arbor Diameter | Net Price |
|-------------|---------------|--------|----------------|-----------|
| HRTR-M3 | 0.236" | 2" | 1/8" | \$7.86 |
| HRTR-M5 | 0.472" | 2" | 1/4" | 10.01 |

COLLETS



| Part Number | Diameter | Length | Net Price |
|-------------|--------------|--------|-----------|
| HRTR-C1 | 1/8" to 1/4" | 5/8" | \$2.95 |

