

edelstaal®

CUTTING TOOL SYSTEM

A revolutionary concept in tooling for
small lathes and screw machines

- New tools hold preshaped inserts that resharpen in 10 seconds
- They save enough time to repay their low cost the first week
- They insure consistent performance

We think it's the greatest advance in machine tooling since throwaway inserts. Here's a completely new system of low-cost insert-type lathe tools holding economical preshaped resharpenable cutting inserts that can be reground in a matter of seconds.

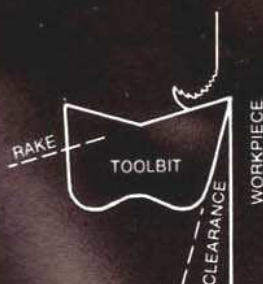
These special inserts, used in all turning tools and boring bars in the system, have a cross-section that forms a side cutting edge along the insert's full 2" length. Since the edge's side clearance, rake and chipbreaker groove are ready-shaped, the insert can be very quickly resharpened simply by lightly grinding the end. As very little metal need be removed per regrind, it can be resharpened up to 50 times.

The inexpensive tools holding these new quick-sharpening inserts are designed for use in any lathe to 14" swing. The system comprises right- and left-hand turning tools, boring bars, a cut-off tool, and even fly cutters, with other holders in development. The tools are made in U.S.A., patents pending.

Try this timesaving new system now in your own shop to appreciate how dramatically it can cut tooling costs. These quick-sharpening lathe tools not only insure efficient machine performance, but they will save enough regrinding time to pay for themselves the first week.

GIVE THIS REVOLUTIONARY NEW TOOL SYSTEM A ONE WEEK TRIAL

...the system's key feature New QUICK-SHARPENING INSERTS



- WITH PREFORMED SIDE CLEARANCE, RAKE AND CHIPBREAKER GROOVE

The insert's cross-section forms a side cutting edge along its full 2" length. The top V-groove gives the cutting edge 15° positive rake and breaks chips, with the bottom groove registering the insert in the holder and preventing lateral deflection under the pressure of heavy cuts.

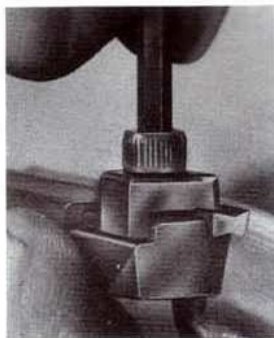
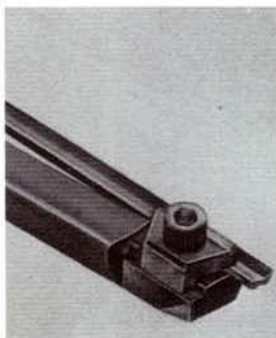
- RESHARPEN IN JUST 10 SECONDS

An Edelstaal insert can be resharpened very quickly without removing it from the holder simply by lightly grinding the projecting end off-hand on an ordinary bench grinder. Even inexperienced machine operators can regrind these inserts for perfect cutting performance every time without stopping to think about cutting edge geometry.

- ECONOMICAL—CAN BE RESHARPENED UP TO 50 TIMES

Each 2"-long insert can be reground repeatedly and used

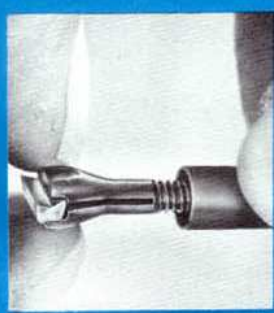
TURNING TOOLS



- MILLED BRIDGE CLAMPS GRIP INSERTS SECURELY
- AVAILABLE WITH 1/4", 5/16", 3/8" OR 5/8" SHANKS
- MADE OF HEAT-TREATED STEEL WITH RUSTPROOF OXIDE FINISH

The Edelstaal Cutting Tool System includes both right- and left-hand turning tools with 1/4", 5/16", 3/8" or 5/8" shanks, a range of shank sizes that suits the tools for use in any make of lathe. The two smaller-shanked sizes, which have solid square shanks, can be mounted in open-side tool blocks or held in conventional gooseneck toolholders. The two larger-shanked sizes, which have channel shanks, can be mounted directly in slotted tool posts. The turning tools have milled hardened bridge clamps tightened with Allen head screws that grip the quick-sharpening inserts with absolute rigidity yet permit quick adjustment of out-hang. These tools make either cylindrical or facing cuts.

BORING BARS



- IN 1/4", 3/8" AND 1/2"-DIAM. SIZES
- DOUBLE-ENDED, WITH INSERTS AT 90° AND 45°
- SMALL V-BLOCK MAKES SPECIAL HOLDERS UNNECESSARY

The system also includes boring bars in 1/4" x 6", 3/8" x 7", and 1/2" x 7"-diam. sizes. All sizes are double-ended, with the inserts clamped at 90° at one end for throughboring and at 45° at the other end for boring to shoulders. Since the inserts extend only 1/16" beyond the side of the bar, a bar nearly as large as the hole being bored can be used for maximum rigidity. On the largest bar the inserts are gripped in bridge clamps tightened with Allen head screws. The smaller bars have screw-in dovetail collets to grip the inserts. A small V-block simplifies mounting these bars in tool blocks or slotted tool posts without need for special holders. The bars are heat-treated and have a black oxide finish.

FLY CUTTERS



- FOR USE IN LATHES AND MILLS UP TO 2-HP
- WITH 1/2"-DIAM. SHANKS FITTING STANDARD HOLDERS
- INSERT HAS LEAD ANGLE FOR SMOOTH ENTRY

These two Edelstaal fly cutters, one cutting a 1"-diam. circle and the other a 1-1/2"-diam. circle, hold the same quick-sharpening inserts as the turning tools and boring bars. Hardened bridge clamps grip the inserts with a 25° lead angle for smooth entry into the work. The cutters have hardened 1/2"-diam. shanks that fit standard end mill holders, or they can simply be chucked. While these fly cutters may be used in lathe spindles, they are designed primarily for use in vertical mills. Use them in place of far more expensive end mills for roughing and finishing flats.

IN YOUR OWN SHOP-AND END YOUR CUTTING TOOL PROBLEMS.

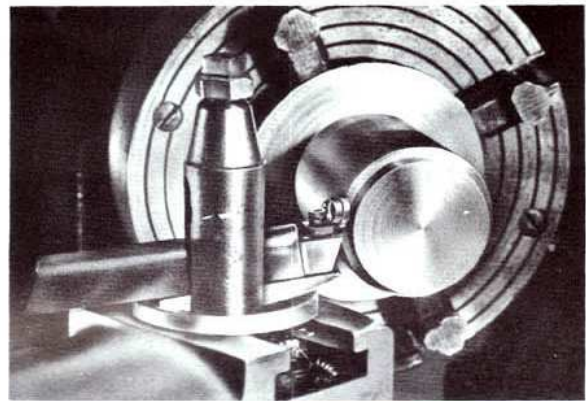
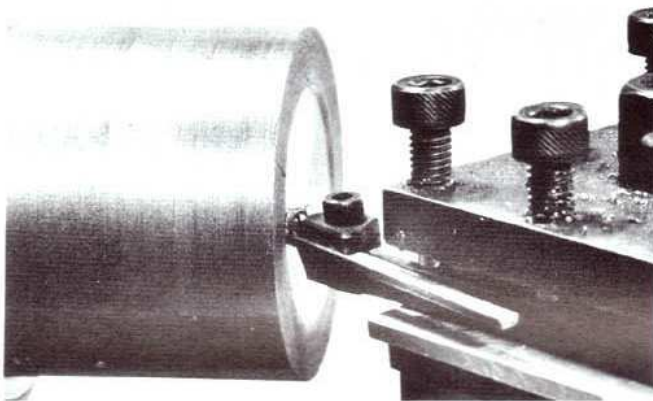
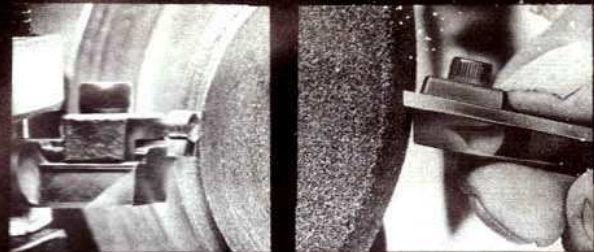
down to the last 1/4" of length, which gives very low cost per cutting edge. Inserts can be cut to any length needed (for use in boring bars) by notching on a grinding wheel and breaking in a vise.

- AVAILABLE IN CARBIDE, T-15 HSS OR M-2 HSS

Inserts are supplied in three cutting tool materials: solid carbide for production operations, premium-quality T-15 high speed steel, or low-cost M-2 high speed steel for general use. This selection of insert types gives the tools in the system ultimate versatility.

- FIT LOW-COST TURNING TOOLS, BORING BARS, FLY CUTTERS

These new inserts fit interchangeably in a complete system of cutting tools designed for lathes to 14" swing. The system includes right- and left-hand turning tools, boring bars, and even insert-type fly cutters for milling flats in lathes or vertical mills.

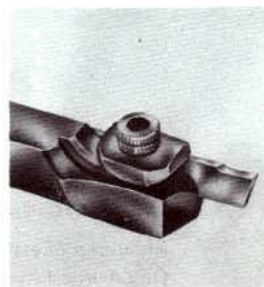


CUT-OFF TOOL

... another useful tool for small lathes

- SMALLEST PARTING TOOL AVAILABLE
- USES SPECIAL 1/16" X 1/4" HSS BLADE
- EXCELLENT FOR SMALL PRECISION WORK

The Edelstaal cut-off tool, which has a 5/16"-square shank and holds a special 1/16" x 1/4" T-15 high speed steel parting blade, comes in only one size. The smallest cut-off tool available, it was designed especially for cutting off small work in screw machines, and it is also widely used for parting small precision work in bench lathes. Replacement blades, which are 1-1/2" long, are available.



HIGH QUALITY INSERTS GIVE SUPERB CUTTING PERFORMANCE

For best economy, replacement inserts for Edelstaal cutting tools are supplied in all three of the most widely-used cutting tool materials—carbide, T-15 HSS and M-2 HSS. The three types of inserts are identical in size and shape and can be used interchangeably, which gives Edelstaal cutting tools unrivaled versatility. The carbide inserts offer the advantages of both indexable throwaway inserts and resharpenable slug-type inserts at far lower cost per cutting edge. The high speed steel inserts, made from the same AISI-standard tool steels used for conventional lathe bits, offer the advantage of faster, easier regrinding.

SOLID CARBIDE INSERTS

Edelstaal carbide inserts are made from general-purpose carbide suitable for machining steel and steel alloys at the highest practicable cutting speeds. These inserts hold sharpness many times longer than any HSS cutting tool, and since Edel-

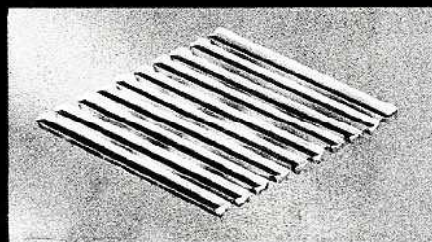
staal carbide inserts can be very quickly reground, they reduce the cost per edge to less than a tenth the cost of using throwaway inserts. Carbide inserts are recommended for all product operations.

TYPE T-15 HIGH SPEED STEEL INSERTS

These inserts are made from a premium grade of 5% cobalt tungsten steel that has high hot hardness and exceptional wear resistance. The higher hot hardness permits machining difficult-to-machine materials at cutting speeds up to 100% higher than recommended for ordinary HSS tools, yet the inserts have ample toughness to withstand interrupted cuts. Edelstaal T-15 inserts are particularly suitable for machining high-tensile-strength materials (such as heat-treated steels) and for resisting the abrasion encountered when machining cast iron, brass, aluminum and plastics at high cutting speeds. Use them to save machining time and to give longer tool life between regrinds.

TYPE M-2 HIGH SPEED STEEL INSERTS

These low-cost general-purpose inserts, made from a 2% vanadium tungsten-molybdenum steel with excellent strength and toughness, are suitable for roughing and finishing wrought and cast steels, cast iron, brass, bronze, copper and aluminum. Use M-2 inserts at the cutting speeds recommended for HSS tools.



SPECIFICATIONS

(Tools are available individually or in convenient money-saving sets)

INDIVIDUAL TOOLHOLDERS

1/4" Sq. x 3-1/2" (R/H)	No. 2700-R
1/4" Sq. x 3-1/2" (L/H)	2700-L
5/16" Sq. x 3-1/2" (R/H)	2701-R
5/16" Sq. x 3-1/2" (L/H)	2701-L
3/8" Sq. x 4" (R/H)	2702-R
3/8" Sq. x 4" (L/H)	2702-L
5/8" x 3/8" x 4" (R/H)	2703-R
5/8" x 3/8" x 4" (L/H)	2703-L

INDIVIDUAL DOUBLE-ENDED BORING BARS

1/4" x 6"	No. 2710
3/8" x 7"	2712
1/2" x 7"	2713

V-BLOCKS

Set of 2 V-Blocks,	
2" x 3/8" x 5/32"	No. 2719/2-S

CUT-OFF HOLDER & BLADE

5/16" Sq. x 3"	No. 2760
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FLY CUTTERS

1", Shank 1/2"	No. 2750
1-1/2", Shank 1/2"	2751

Replacement Inserts, (2" Long)

M-2, Set of 10	No. 2720/10-S
T-15 HSS, Set of 10	2722/10-S
Carbide, C-5, Set of 10 (1" long)	2725/10-S

Replacement Cut-off Blades, (Type T-15)

1/16" x 1/4" x 2-1/4",	
Set of 2	2761/2-S

TOOL & INSERT SETS

13-pc. 1/4" Lathe Tool Set

Consists of: 1 ea. R/H, L/H, 1/4" Toolholders; 1/4" Boring Bar; V-Block; 5/16" Cut-off Holder; Cut-off Blade; 2 ea. T-15 & M-2 HSS Inserts; 3 Wrenches; Instructions. No. 2790-S

15-Pc. 5/16" Lathe Tool Set

Consists of: 1 ea. R/H, L/H 5/16" Toolholders; 3 Boring Bars (1/4", 3/8", 1/2"); V-Block; 5/16" Cut-off Holder; Cut-off Blade; 2 ea. T-15 & M-2 HSS Inserts; 3 Wrenches; Instructions. No. 2791-S

15-pc. 3/8" Lathe Tool Set

Consists of: 1 ea. R/H, L/H 3/8" Toolholders; 3 Boring Bars (1/4", 3/8", 1/2"); V-Block; 5/16" Cut-off Holder; Cut-off Blade; 2 ea. T-15 & M-2 HSS Inserts; 3 Wrenches; Instructions. No. 2792-S

15-pc. 5/8" Lathe Tool Set

Consists of: 1 ea. R/H, L/H 5/8" Toolholders; 3 Boring Bars (1/4", 3/8", 1/2");

V-Block; 5/16" Cut-off Holder; Cut-off Blade; 2 ea. T-15 & M-2 HSS Inserts; 3 Wrenches; Instructions. No. 2793-S

Set of 3 Toolholders (with Blade & Inserts)

Consists of: R/H & L/H Toolholder (see sizes below); 5/16" Cut-off Holder; Cut-off Blade; 2 ea. Inserts, Type T-15 HSS, & M-2 HSS; 2 Wrenches; Instructions.

R/H & L/H Toolholder sizes, 1/4" No. 2705-S

R/H & L/H Toolholder sizes, 5/16" 2706-S

R/H & L/H Toolholder sizes, 3/8" 2707-S

R/H & L/H Toolholder sizes, 5/8" 2708-S

Set of 3 Boring Bars, V-Block & Inserts

Consists of 1/4", 3/8" & 1/2" Boring Bars; V-Block; 2 ea. Inserts, Type T-15 HSS, & M-2 HSS; 2 Wrenches; Instructions. No. 2715-S

Set of 2 Fly Cutters & Inserts

1" x 1-1/2" Fly Cutters, 2 ea. Inserts Type T-15 HSS, & M-2 HSS; Allen Wrench; Instructions. No. 2755-S

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