# HES –



**MICRO LATHE** 

This is the machine you don't have to "baby". The Micro Lathe is a rugged, precision instru-ment. Its machined, ground and stabi-lized steel bed has a lifetime ball bearing spindle, coupled with a 6-speed positive v-belt drive. Spindle speeds in geometric progression from 525 to 5200rpm provide the power to "HOG" 1/8-inch cuts in mild

steel or the speed and accuracy to dust a few tenths. Other big lathe features include large .001 graduations on the cross slide dial, an allangle tool post and a carriage depth stop. Adjustable gibs provide full compensation for carriage and cross slide wear. 2-yr. factory warranty. 15" bed. Comes factory assembled. The Unit pictured is a basic unit (P/N 12-00171) with an optional 3-Jaw Chuck, Boring bar(1097E), Tailstock (1150), Drill Chuck (1091), 1/4 HP 1725 RPM Motor (1021w), Motor Mount Bracket (1022), Mounting Board (1023), and Pulleys (1162 with 3M 500 belt). All accessories are sold separately and are not included in the base price. Note: Photo shows Lathe with all accessories which are not included (Available separately). P/N 12-00171 is basic lathe unit P/N 12-00171..... only

#### General Specifications:

- Overall working accuracy: 0.0005"
- Max. bearing run out: 0.0004' · Headstock normality to bed: .0004
- in max error Max. taper bed dovetail over pins:
- 0.0001' All machine dovetails: 45°
- Bed width: 2 5/16 '
- Cross slide dial graduation: 0.001 Cross slide screw: 1/4"-20
   adjustment for back-lash take-up
- provided (jam nut arrangement) Carriage travel: 0.600" 1 rev. of
- hand wheel Max. spindle speed recommend:
- 7000 rpm Motor requirement: 1/8 - 1/4 HP
- · Pulley type: Std. 5/8" bore, multistep V-belt
- Length of headstock on ways: 2.875
- Length of carriage on ways: 3.000" Width of cross slide on carriad

· Tool post: may be adjusted for angle cutting (chamfer, boring, etc.) Capacity:

2.000"

- Swing over bed: 4.5" (max. turning dia.) Swing over cross slide: 2 3/8"
- Overall length of bed: 15.5" · Overall length of lathe: 16.5
- Tool bit size: 1/4"
- Drill chuck capacity: 0 to 1/2"
- Distance between centers: 9.75"
   Carriage travel: 9"
   Cross slide travel: 1.75"
- Spindle Specifications:
- Sealed precision ball: 1.5748 O.D.
- 0.6692 I.D. Spindle nose: 3/4" – 16 (3/4" SAE)
- Spindle hole: 0.343 Spindle ID taper: 15° (30°
- included) Max. collet diameter: 9/32"
- Pulley size: 5/8" bore

Accessories	Part No.	Price
3-jaw chuck	12-01602	
Boring bar	12-01603	
Tailstock	12-01604	
Drill chuck	12-01605	
1/4 1725 RPM Motor	12-01606	
Motor mount bracket	12-01607	
Mounting board	12-01608	
Pulleys 20" L	12-01609	
Pullevs 12-1/2" L	12-01710	

#### **MICRO MILL**

The Micro Mill has effortless, chatterless table and mill head movement. This is due to the unique design of our oversized gibs, ground steel ways, massive carriage, steel bed and vertical mill head support which makes the Micro Mill ready for CNC upgrade if you desire. Our small mill is really a scaled down big mill with manual operation. Other big mill features include large 0.001 graduations on friction adjustable micrometer dials for X, Y, and Z controls. Adjustable gibs pro-vide full compensation for X, Y, and Z mill-ways wear. It all adds up to the best value in small mills. 15.5" table, power switch & cord included. Comes

·Z-axis: Steel box-ways

P/N 12-00170 ..... factory assembled. 2-yr. warranty. General Specifications:

	Manual	CNC
<ul> <li>Height:</li> </ul>	21-3/8"	26-3/8"
•Width:	17"	22"
·Depth:	16.75"	21"
•Weight:	65 lbs.	85 lbs.
•Max. bearing	g run out:	0.0004"
·Dovetails, X	-axis: 45°;	Y-axis: 90°
Capacity:		

- •Working Axis Travel: X=9.5",
- Y=5.5", Z=6.0" •Maximum Z-Distance to Table: 9.0"
- •Z-Axis Swivel: 90°
- •Column Rotation: up to 180° Spindle Head Rotation: 90°
- 6 Spindle Speeds: 525 to 5200 RPM
- •Pulley type: Std. 5/8" bore, multistep V-belt ·Construction: steel, hard anodized aluminum on all moving components adjustable brass gibs and precision ground steel-ways Spindle Specifications: •Maximum Spindle Speed: 7000 RPM •Sealed Precision Ball Bearing: 0.D.=1.5748, I.D.=0.6692 • Spindle Nose: 3/4" -16 (3/4" SAE) • Spindle Hole: 0.343" Spindle ID taper: 15° (30° included) Max. Collet Diameter: 9/32"
- · Pulley size: 5/8" bore



AT429SXC MICRO MILLER The AT429SXC Micro Miller features a .75 horse-power 20,000 RPM Sioux Tools motor. Cutter capacity is 3/4" and the unit will cut steel, aluminum and stainless steel. Spindle size is 1/4-28 and inlet pipe tap is 1/4" NPT. Air requirements: 90 PSI.

Tease trigger allows slow start up & exhaust porting is through the bottom of the handle. P/N AT429SXC

Cutter Size	Cutter Dia.	Skirt Part No.	Skirt Price	Cutter Part No.	Cutter Price
-1	5/16	AT429A-1		AT429B-1	
-2	3/8	AT429A-2		AT429B-2	
-3	7/16	AT429A-3		AT429B-3	
-4	1/2	AT429A-4		AT429B-4	
-5	9/16	AT429A-5		AT429B-5	
-6	5/8	AT429A-6		AT429B-6	
-7	3/4	AT429A-7		AT429B-7	

# NICHOLSON HACKSAW BLADES

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Nicholson Bi-Metaloy hacksaw blades last twice as long as high-speed steel and 10 times longer than carbon steel. Can operate 20%-50% faster. Practically unbreakable.

#### **GENERAL RECOMMENDATIONS FOR BLADE SELECTION**

14 TOOTH - For cutting heavy cross section and for soft materials where maximum chip clearance is needed. P/N 12-19514 ..... 18 TOOTH - For general shop use, where blade is used on several P/N 12-19518 ..... iobs. 24 T00TH - For cross sections of 1/16" to 1/4", such as pipe, angles, small drill rod. P/N 12-19524 ..... small drill rod. 32 TOOTH - For cutting stock up to 1/16" thick, such as 4130 tubing, sheet metal, BX. P/N 12-19532 .....

## PLYWOOD PLANER-SCARFFER ATTACHMENT



The Plywood Planer-Scarffer attachment enables you to make consistent scarf cuts quickly and easily. Easy installation and removal allows your planer to be readily used for scarffing as well as a regular planer. The Planer-Scarffer attachment is eas-

ily installed on the Makitan 1900B, Makitan 1911B and the Porter Cable 9125 planers. The attachment is not limited to these particular models or makes. With the Planer-Scarffer attachment, you can purchase standard size sheets of plywood and then join them together. This saves the extra cost of larger sheets and the shipping charges that would be required. By scarffing 4x8 sheets together, save 60% or more in the price of the plywood and make the cost more bearable. The attachment is mounted on a power-planer and cuts an 8:1 bevel. 2 models are available. One fits a 4-3/8" planer for plywood up to 1/2". The other is designed for a 3-1/4" planer and can be used on plywood up to 3/8". Specify planer type when ordering. 3.25" attachment for Porter/Cable 9125 ... P/N 12-20110-1900......

3.25" attachment for Makita n1900B ..... P/N 12-20111-1911 ......

# **CRAFTSMAN WOOD TOOL CHEST PLANS**



Build this magnificent wood tool chest from our detailed professional plan. It's the kind of chest a craftsman dreams of. Features 10 drawers in the sturdy base, 12 more drawers plus a large top bin in the removable upper section. Overall size is 25"W x 10-5/16"L x 27"H. Ideal for the aircraft builder or aircraft mechanic. Plans only for Wood Tool Chest. P/N 12-18350 ...

### CRAFTSMAN WOOD TOOL CABINET PLANS



Machinist's and woodworkers show your skill. Impress potential customers when they come into your shop, and see such a nice cabinet like this. This cabinet has removable trays for easy access to all hand tools. This cabinet when built by my plans, will have room for all your hand tools. As a bonus it has wheels on it for easy mobility. Size of this unit when completed 32"W x 19"D x 68"H

P/N 12-00978 .....