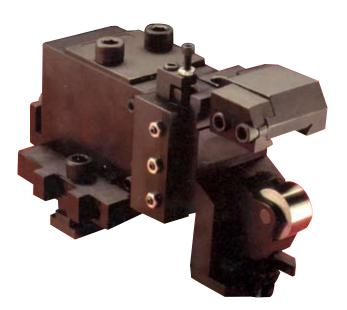
# Heavy Duty Shave Tool Holders







When it has to be right!

www.bmeattachments.com
Office 810.937.2974 / Fax 810.937.2975

# BME, Inc. Shave Holder Features



FASTER SET UP...All adjustments simple and convenient to operator.

QUICK ELIMINATION OF TAPER...Adjusting screws in head are located off-center and close to shave tool.

POSITIVE CHATTER CONTROL...Both gib and spring float adjustments are easily accessible.

ADJUSTABLE BASE...Base permits use on machines which do not have slide adjustment.

UNIVERSAL USAGE OF BASE...Simple reversing of head permits using same base for all normal shaving positions.

NO FLEXING OR LOSS OF ACCURACY... Heavyduty head is made of 6150 steel and heat treated to Rockwell 40-45C.

SIMPLE TO RECONDITION...Can be reconditioned by using only a surface grinder.

AVAILABLE IN EIGHT DIFFERENT SIZES . . . % "through 3 1/2" capacity.



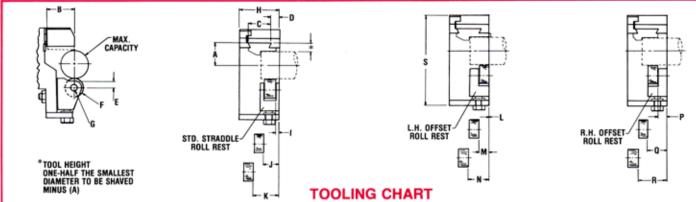
IMPORTANT-HOLDER NO. CODE

MACHINE SHAVE HEAD ROLL MOUNT BASE AS 29 1 41 68

If different roll rest is needed L.H., R.H., or Wide add the letter after the roll no.

Example: AS-29-1R.H.-41-68

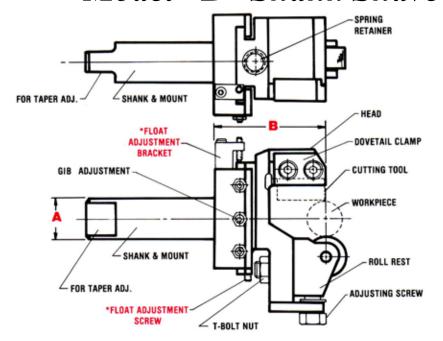
AS-29-1L.H.-41-68 AS-29-1W-41-68



HEAD CODE No.	29	36	51	48	49	75	47	40
MAX. CAPACITY	5/8''	1''	1¼''	15/8''	2''	2¼"	25/8''	31/2"
MIN. CAPACITY	-0-	-0-	-0-	3/8"	3,4''	1''	1¼''	15/8''
DOVETAIL SIZE	5/8"	1''	1"	1"	11/4''	11/4"	11/2''	11/2"
A	.81	1.00	1.12	1.31	1.50	1.62	1.81	2.25
В	1.31	1.68	1.75	1.75	1.81	1.81	1.88	1.94
С	.914	1.289	1.289	1.289	1.557	1.557	1.789	1.789
D	.36	.53	.53	.53	.53	.53	.41	.41
E	.25	.34	.34	.34	.42	.42	.42	.42
F	.75	1.25	1.25	1.25	1.25	1.25	1.25	1.25
G	.31	.37	.37	.37	.50	.50	.50	.50
Н	1.62	2.37	2.37	2.37	2.62	2.62	2.62	2.62
I	.12	.19	.19	.19	.25	.25	.25	.25
J	.56	.81	.81	.81	.91	.91	.91	.91
K	1.00	1.38	1.38	1.38	1.56	1.56	1.56	1.56
L	06	06	06	06	.01	.01	.01	.01
М	.37	.57	.57	.57	.66	.66	.66	.66
N	.81	1.19	1.19	1.19	1.32	1.32	1.32	1.32
Р	.43	1.18	1.18	1.18	1.30	1.30	1.30	1.30
Q	.88	1.81	1.81	1.81	1.96	1.96	1.96	1.96
R	1.31	2.43	2.43	2.43	2.62	2.62	2.62	2.62
S	3.38	4.43	5.06	5.25	5.68	5.93	6.44	7.37
ROLL REST CODE No.	No. 1	No. 3	No. 3	No. 3	No. 5	No. 5	No. 5	No. 5



# Model "B" Shank Shave Tool Holders



**BEFORE MOUNTING** shave holder to block, set spring retainer and gib pressure. This is done by adjusting gib adjustment set screws which pushes the gib against the side of the head creating a definite drag noticeable while floating head by hand.

The cutting tool is held by the dovetall clamp. Locating with a scale or straight edge on the face of the head, move the cutting tool forward to the highest point of the cutting edge. This will place the tool on the center line of the roll rest. Then lock dovetall clamp.

Three roll rest positions are available: Left, center and right. If a second roll rest is required it may be added (Left side then right side). With the roll rest in the correct position, break tension on T-bolt nut and adjust the adjusting screw to the approximate position in relation to the diameter to be shaved. This may be done with a gage block between the roll and cutting edge. Then secure by tightening T-bolt nut.

ORDERING HOLDER CODE NO.	HEAD SIZE & DOVETAIL	MINIMUM CAPACITY	А	В	REF NO.	NOTES
29-2	5/8" Capacity 5/8" D.T.	-0-	1.000	2.50	62-2	
36-62H	1" Capacity 5/8" D.T.	-0-	1.250	3.12	62-62H	
36-4H	1" Capacity 1" D.T.	-0-	1.250	3.12	62-4H	
51-5	1 1/4" Capacity 1" D.T.	-0-	1.250	3.50	62-5	
48-6	1 5/8" Capacity 1" D.T.	.37	1.500	3.50	62-6	
49-7	2" Capacity 1 1/4" D.T.	.75	1.500	3.50	62-7	
75-7	2 1/4" Capacity 1 1/4" D.T.	1.00	1.500	3.50	62-8	
47-9	2 5/8" Capacity 1 1/2" D.T.	1.25	1.500	3.75	62-9	
40-11	3 1/2" Capacity 1 1/2" D.T.	1.62	1.750	4.12	62-11	

MOUNT HOLDER to block on machine and secure holddown bolts on block after locating sideways to spindle.

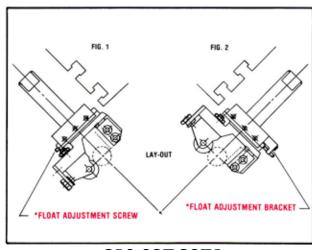
Square head to workpiece by taper adj. screw on block (opposing). Break tension on bolt clamp on block if necessary to permit swivel of head ass'y., then retighten.

To adjust holder endwise: move cross slide cam to the high point, with bolt clamp on block slightly tightened. Slide shank forward or backwards until the cutting tool reaches centerline of workplece. Be sure to adjust the float adjustment screw\* so that the roller touches the workplece first. This will pull the cutting tool into the workplece (approx. 1/16 float). Re-set spring retainer pressure. The cutting tool can pass the centerline of the workplece by only a few thousandths. This will help maintain size. More than a few thousandths will cause drag back of the tool and tends to break down the cutting edge prematurely.

After all adjustments have been made, be sure to tighten dovetall clamp, bolt clamp on block and holddown bolts. \*IMPORTANT - When float adjustment bracket\* interfers with cross slide as in FIG.-1, remove the bracket and use the float adjustment screw.\*

In positions where float adjustment screw cannot be reached, back-off float screw (approx. 3/8") and use float adjustment bracket as in FIG. 2.

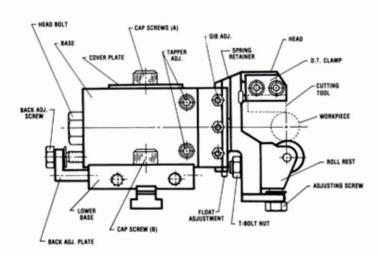
Only one float adjustment may be used.



#### MODEL "B" SHAVE

# INSTRUCTIONS

#### FOR: NEW BRITAIN MACHINES



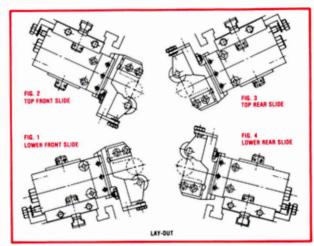


FIG. 1 & 3

Model "B" Shave Tool Holders are factory assembled as in lower front slide and top rear slide.

To use holder in top front slide and lower rear slide as in FIG. 2 & 4, remove cap screws (A) and cover plate, detach base from lower base. Now! detach back adj. plate from lower base, put back adj. plate on other side of lower base. Remove back adj. screw, and put in other tapped hole on base. Reassemble lower base with back adj. plate on top of base, replace cover plate and cap screws (A) from other side, as shown in FIG. 2 & 4.

BEFORE MOUNTING holder to cross slide! See if holder is set-up for that position (See lay-out).

Set spring retainer (not shown) and gib pressure. This is done by adjusting gib adj. set screws which pushes the gib against the side of the head creating a definite drag noticeable while floating head by hand.

The cutting tool is held by the D.T. clamp. Locating with a scale or straight edge on the face of the head, move the cutting tool forward to the highest point of the cutting edge. This will place the tool on the center line of the roll rest. Then lock D.T. clamp.

Three roll rest positions are available: left, center and right. If second roll rest is required it may be added (left side then right side). With the roll rest in the correct position, break tension on T-bolt nut and adjust the adjusting screw to the approx. position in relation to the diameter to be shaved. This may be done with a gage block between the roller and cutting edge. Then secure by tightening T-bolt nut.

MOUNT HOLDER to machine cross slide and secure lower base by tightening cap screw (B) after locating sideways to spindle.

Square the head to workpiece by taper adj. screw (opposing). Break tension on head bolt if necessary to permit swivel of head ass'y., then retighten. To adjust holder endwise: move the machine cross slide cam to the high point, with cap screws (A) slightly tightened. After starting the machine, adjust the back adj. screw forward or backwards until the cutting tool reaches centerline of workpiece. Be sure to adjust the float adjustment screw so that the roller touches the workpiece first. This will pull the cutting tool into the workpiece (approx. 1/16 float). Re-set spring retainer pressure. The cutting tool can pass the center line of the workpiece by only a few thousandths. This will help maintain size. More than a few thousandths will cause drag back of the tool and tends to break down the cutting edge prematurely. After all adjustments have been made, be sure to tighten D.T. clamp and hold down both (A) and (B).

MACHINE MODEL	POSITION TO BE USED	HEAD SIZE & DOVETAIL	ORDERING HOLDER CODE NO.	NOTES
51 & 52 60	1, 2, 3, 4, 5 1, 3, & 4	5/8 CAPACITY 5/8 D.T.	NS-29-1-41-51B	
51 & 52 60	3, 4, & 5 1§, & 4§	1" CAPACITY 1" D.T.	NS-36-3-53-71	
51 & 52 60	1,② 3, 4, 5 1§ & 4§	11/4 CAPACITY 1" D.T.	NS-51-3-53-71	
61	1, 3, & 4 1, 3, & 4	1 1/4" CAPACITY 1" D.T. 1 5/8 CAPACITY 1" D.T.	NS-51-3-33-49 NS-48-3-33-49	
	1, 3, & 4	2 1/4 CAPACITY 1 1/4 D.T.		
62	1, 2, 3, 4, 5 1, 2, 3, 4, 5 1 <b>§</b> , 3, 4, 5 1, 2, 3, 4, & 5	1 1/4 CAPACITY 1" D.T. 1 5/8 CAPACITY 1" D.T. 2" CAPACITY 1 1/4 D.T. 2 1/4 CAPACITY 1 1/4 D.T.	NS-51-3-33-49 NS-48-3-33-49 NS-49-5-33-49	
625, 627 635	1, 2, 3, 4, & 5 1, 2, 3, 4, & 5	2 5/8 CAPACITY 1 1/2 D.T. 3 1/2 CAPACITY 1 1/2 D.T.	NS-47-5-32-55B NS-40-5-32-55	
812, 816 817	1, 4, 5, & 6 1, 4, 5, & 6	1 1/4 CAPACITY 1" D.T. 1 5/8 CAPACITY 1" D.T.	NS-48-3-33-65	
816 & 817	1, 4, 5, & 6 1, 4, 5, & 6	2" CAPACITY 1 1/4 D.T. 2 1/4 CAPACITY 1 1/4 D.T.	NS-49-5-33-65	
82	4, 5, & 6 4, 5, & 6	2" CAPACITY 1 1/4 D.T. 2 1/4 CAPACITY 1 1/4 D.T.	NS-49-5-33-65	

S = ALTER CROSS SLIDE



# INSTRUCTION

### **ACME MACHINES**

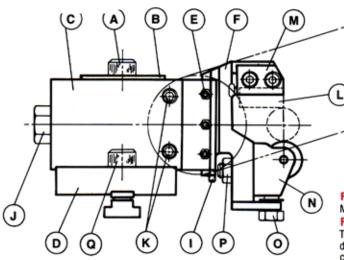


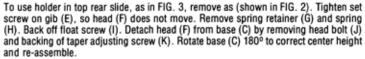
FIG. 1 Model "B" Shave Holders are factory assembled as in lower front slide. FIG. 2

To use holder in top front slide as in FIG. 2, remove hold-down bolts (A) and plate (B), detach base (C) from lower base (D). Put lower base (D) on top of base (C), replace cover plate (B) and hold-down bolts (A) from other side.

Н

FIG. 3

J

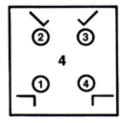


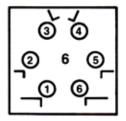
BEFORE MOUNTING — Holder to slide!! See if holder is set-up for that position. (See layout ), set gib pressure against head by adjusting set screws (E) to create a definite drag noticeable while floating head (F) by hand. Cutting tool (L) is held by clamp (M) and should be positioned with cutting edge flush with face of dovetail seat. With roll rest (N) in correct position then adjust adjusting screw (0) to approx, position to the diameter to be shaved and secure by tightening T-bolt nut (P).

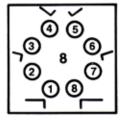
MOUNT HOLDER — To machine slide and secure lower base (D) by tightening screw (Q) after locating to spindle. Slide upper base (C) to locate tool to workpiece and secure by tightening two top screws (A). Square head (F) to workpiece by taper adjustment screw (K) opposing. Break tension on head bolt (J), if necessary to permit swivel of head, then retighten. Position the head carrying the tool and roller to center line of work piece by adjusting float screw (I). Move slide back from centerline of workpiece so that roller and head pulls approx. 1/16" float into the workpiece, set with float screw (I). Re-set spring retainer pressure (G).

FIG. 2 TOP FRONT SLIDE	>
FIG. 1 LOWER FRONT SLIDE	YOUT

MACHINE: SIZE & MODEL POSITION TO BE USED		HEAD SIZE & DOVETAIL	ORDERING HOLDER CODE No.	NOTES
%" RA & 1" RA-4 %" RN-6 9/16", 1" RA & RAN-6 %" RA-8	2 & 3 2DD, 3 & 4 2DD, 3 & 4 2DD, 4 & 5	%" CAPACITY % D.T.	AS-29-1-41-68	
%" RA & 1" RA-4 %" RN-6 9/16", 1" RA & RAN-6 %" RA-8	2 & 3 2DD, 3 & 4 2DD, 3 & 4 2DD, 4 & 5	1" CAPACITY 1" D.T.	AS-36-3-25-30	
1¼" RA-6 1¼" RB-8	2DD, 3 & 4 2DD, 4 & 5	1¼" CAPACITY 1" D.T.	AS-51-3-33-42	
1%" AG-6	2DD, 3 & 4	1¼" CAPACITY 1" D.T.	AS-51-3-33-60	Q
1%", 2 RAS-4 1%" RBN-8	2 & 3 200, 4 & 5	1%" CAPACITY 1" D.T.	AS-48-3-33-42	
1%", 2" RB & RA-6 1%", 2" RB-8	2DD, 3 & 4 2DD, 4 & 5	1%" CAPACITY 1" D.T.	AS-48-3-33-39	
2" RAS-6	2DD, 3 & 4	2" CAPACITY 1¼" D.T.	AS-49-5-33-43	Q
2" RA-6	2DD, 3 & 4	2" CAPACITY 1¼" D.T.	AS-49-5-33-40	
2" RB-6 2" RB-8	2DD, 3 & 4 2DD, 4 & 5	2" CAPACITY 11/4" D.T.	AS-49-5-33-39	
2%" RB-4 2%" RB-6	2 & 3 2DD, 3 & 4	2%" CAPACITY 11/2" D.T.	AS-47-5-32A-50	
2%" RA-6	2DD, 3 & 4	2%" CAPACITY 11/2" D.T.	AS-47-5-32A-38A	
2%" RB-8	2DD, 4 & 5	2%" CAPACITY 11/2" D.T.	AS-47-5-37A-69	
3½" RB-4 3½" RA & RB-6 3½" RB-8	2 & 3 2DD, 3 & 4 2DD, 4 & 5	3½" CAPACITY 1½" D.T.	AS-40-5-32A-50	
4" RB-6	2DD, 3 & 4	4" CAPACITY 1%" D.T.	AS-90-5-32A-50	Q



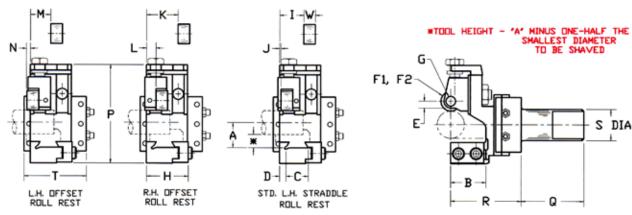




#### Model "B" Shank Shave Tool Holders

#### FOR: DAVENPORT MACHINES

ALSO: 7/16 ACME, B&S & OTHERS



MACHINE	7/16 ACME, B & S	DAVENPORT	DAVENPORT
HOLDER No.	121-79	111-87	95-87
REFERENCE No.	62-1H	62-72	62-77
MAXIMUM CAPACITY	1/2"	5/8"	7/8"
MINIMUM CAPACITY	-0-	-0-	-0-
NOMINAL DOVETAIL SIZE	1/2"	1/2"	1/2"
TOOLING CONSTANT "A"	0.62	0.68	0.81
В	1.12	1.12	1.12
С	0.72	0.72	0.72
D	0.20	0.20	0.20
E	0.22	0.22	0.22
STD. ROLL "F1"	0.62	0.62	0.62
OFF-SET ROLL "F2"	0.75	0.75	0.75
G	0.31	0.31	0.31
Н	1.31	1.31	1.31
	0.76	0.76	0.76
J	0.04	0.04	0.04
K	0.98	0.98	0.98
L	0.26	0.26	0.26
M	0.67	0.67	0.67
N	-0.05	-0.05	-0.05
P	2.77	2.90	3.15
Q	2.75	2.00	2.00
R	2.12	2.25	2.25
S	0.87	1.00	1.00
T	1.98	1.98	1.98
W	0.37	0.37	0.37
ROLL REST ASS'Y	No. 15	No. 15	No. 15

BEFORE MOUNTING shave holder to block, set spring retainer and gib pressure. This is done by adjusting gib adjustment set screws which pushes the gib against the side of the head creating a definite drag noticeable while floating head by hand.

The **cutting tool** is held by the **dovetail clamp**. Locating with a scale or straight edge on the face of the **head**, move the **cutting tool** forward to the highest point of the cutting edge. This will place the tool on the center line of the roll rest. Then lock **dovetail clamp**.

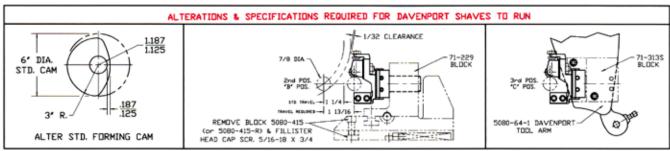
Two roll rest positions are available: Left and right. If a second roll rest is required it may be added. With the roll rest in the correct position, break tension on T-bolt nut and adjust the adjusting screw to the approximate position in relation to the diameter to be shaved. This may be done with a gage block between the roll and cutting edge. Then secure by tightening T-bolt nut.

MOUNT HOLDER to block on machine and secure holddown bolts on block after locating sideways to spindle.

Square head to workpiece by taper adj. screw on block (opposing). Break tension on bolt clamp on block if necessary to permit swivel of head ass'y., then retighten.

To adjust holder endwise: move cross slide cam to the high point, with bolt clamp on block slightly tightened. Slide shank forward or backwards until the cutting tool reaches centerline of workpiece. Be sure to adjust the float adjustment screw\* so that the roller touches the workpiece first. This will pull the cutting tool into the workpiece (approx. 1/16 float). Reset spring retainer pressure. The cutting tool can pass the centerline of the workpiece by only a few thousandths. This will help maintain size. More than a few thousandths will cause drag back of the tool and tends to break down the cutting edge prematurely.

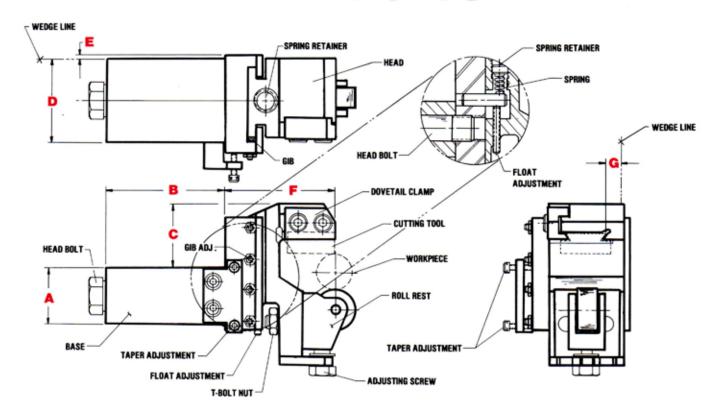
After all adjustments have been made, be sure to tighten dovetail clamp, bolt clamp on block and holddown bolts.



#### MODEL "B" SHAVE

# INSTRUCTIONS

#### FOR: CONE MACHINES



BEFORE MOUNTING shave holder to machine pocket slide, set spring retainer and gib pressure. This is done by adjusting gib adjustment set screws which pushes the gib against the side of the head creating a definite drag noticeable while floating head by hand.

The cutting tool is held by the dovetall clamp. Locating with a scale or straight edge on the face of the head, ,move the cutting tool forward to the highest point of the cutting edge. This will place the tool on the center line of the roll rest. Then lock dovetall clamp.

Three roll rest positions are available: Left, center as shown and right. If a second roll rest is required it may be added (left side then right side). With the roll rest in the correct position, break tension on T-bolt nut and adjust the adjusting screw to the approximate position in relation to the diameter to be shaved. This may be done with a gage block between the roller and cutting edge. Then secure by tightening T-bolt nut.

MOUNT HOLDER in machine pocket cross slide with spacers, to bring the shave tool holder into position sideways. Like other cross slide tooling, using wedge adjustments.

Square the head to workpiece by taper adjustment screw (Opposing). Break tension on head bolt if necessary to permit swivel of head assembly, then re-tighten.

To adjust holder endwise to bar: Move the machine cross slide cam to the high point, with strap slightly tightened across base of the holder. After starting the machine, adjust the end adjusting screw forward until the cutting tool reaches center line of work piece. Be sure to adjust the float adjusting screw so that the roller touches the workpiece first. This will pull the cutting tool into the workpiece (approx. 1/16 float). Re-set spring retainer pressure. The cutting tool can pass the center line of the workpiece by only a few-thousands. This will help maintain size. More than a few-thousands will cause drag back of the tool and tends to break down the cutting edge prematurely. After all adjustments have been made, be sure to tighten dovetail clamp and machine strap.

ORDERING HOLDER CODE NO.	HEAD SIZE & DOVETAIL	POCKET SIZE A	В	С	D	E	F	G ±.010	
* CS - 46N - 1 - 31N - 37N	5/8" CAPACITY 5/8" D.T.	1.500	2.94	1.75	1.82	.21	2.56	.354	
* CS - 46 - 1 - 31 - 37	1" CAPACITY 1" D.T.	1.500	2.94	1.75	2.12	.21	2.56	.354	
CS - 36 - 3 - 61 - 35A	1" CAPACITY 1" D.T.	1.500	3.75	1.75	2.50	.15	3.25	.532	
CS - 36 - 3 - 61 - 29	1" CAPACITY 1" D.T.	1.750	3.75	1.75	2.50	.15	3.25	.532	
CS - 51 - 3 - 24 - 29	1 1/4" CAPACITY 1" D.T.	1.750	3.75	2.00	2.50	.15	3.37	.532	
CS - 51 - 3 - 24 - 35A	1 1/4" CAPACITY 1" D.T.	1.500	3.75	2.00	2.50	.15	3.37	.532	
CS - 48 - 3 - 24 - 29	1 5/8" CAPACITY 1" D.T.	1.750	3.75	2.19	2.50	.15	3.62	.532	
CS - 49 - 5 - 24 - 29	2" CAPACITY 1 1/4" D.T.	1.750	3.75	2.38	2.50	.15	3.62	.469	
* CS - 66 - 5 - 27A - 32A	2 1/4" CAPACITY 1 1/4" D.T.	2.500	5.00	2.55	2.75	.18	3.87	.554	
* CS - 66 - 5 - 27A - 59	2 1/4" CAPACITY 1 1/4" D.T.	3.000	5.00	2.55	2.75	.18	3.87	.554	
CS - 47 - 5 - 27A - 32A	2 5/8" CAPACITY 1 1/2" D.T.	2.500	5.00	2.81	2.75	.18	4.00	.438	
CS - 47 - 5 - 27A - 59	2 5/8" CAPACITY 1 1/2" D.T.	3.000	5.00	2.81	2.75	.18	4.00	.438	
* CS - 50 - 5 - 27A - 59	3 1/4" CAPACITY 1 1/2" D.T.	3.000	5.00	3.06	2.75	.18	4.25	.438	
* CS - 50 - 5 - 27A - 32A	3 1/4" CAPACITY 1 1/2" D.T.	2.500	5.00	3.06	2.75	.18	4.25	.438	
CS - 40 - 5 - 28 - 33	3 1/2" CAPACITY 1 1/2" D.T.	3.000	4.75	3.25	2.62	.31	4.34	.312	
* CS - 90 - 5 - 28 - 33	4" CAPACITY 1 5/8" D.T.	3.000	4.75	3.75	2.62	.31	4.29	.216	
* CS - 91 - 5 - 28 - 87	5" CAPACITY 1 5/8" D.T.	4.000	•	•	•	•	•	•	

\* NON-STD. QUOTE ON REQUEST

# Replacement Parts and Tool Holders:

Save money - Tune up your existing Empire shave, recess attachments and tool holders with genuine replacement parts.

- Shave Heads
- Dovetail Clamps
- Adjustable Plates
- T-Slot Bolts
- Spring Adjustable Screws
- Roller Brackets
- Roller Pins
- Adjustable Screw Rollers
- Adapter Plates
- Wide/Narrow Rails
- Gibs
- Adjustable Brackets
- Compression Springs
- Bases
- Lower Bases
- Keys
- T-Nuts

- Cover Plates
- Head Bolts
- Head Pins
- Adjustable Brackets
- Adjustable Screws
- Bushings
- Shanks
- Springs (all sizes)
- Slides
- Slide Plates
- Draw-bar Brackets
- Grease Seals
- Oil Rings
- Snap Rings
- Retainers
- Spacers
- Threaded Pins
- Stationary Brackets
- Sleeves

- U-Joints
- Splines
- Bearings
- Lock Nuts
- Lock Washers
- Grease Fittings
- Snap Rings
- Base Housings
- Couplings
- Pinion Gears
- Bevel Gears
- Gear Shafts
- Spur Gears
- Arbors
- Lock Screws
- Base Mounts
- Base Housings
- Head Shafts
- All Fasteners



When it has to be right!



