



### 2017

### Tool Holders & Attachments











#### About BME..

BME is a Screw Machine Rebuilder and Custom tooling supplier located in southeast Michigan, founded on the principle that quality attachments and accessories for multi spindles can be manufactured and supported right here in our own country. We pride ourselves on our quality of work and exceeding our customer's expectations. We provide quality attachments for the screw machine industry through original and innovative design and engineering with proven results. Founded, in 2007, on the principal that quality attachments and accessories can be manufactured and supported right here in our own country, we've been maintaining steady growth ever since. Initially, BME provided attachments for Acme-Gridley's, mainly Flat Generators and Sync attachments, but over the years we've expanded our product line to include attachments for New Britains, Wickmans, Davenports, and any multi-spindles. Our growth over the years has also led to purchase and integration of Precision Form and Grind, and at the end of 2016, the Schlitter Tool/Genius Inc product line.

We attribute a majority of this growth to our ability to solve the screw machine industries' challenges, along with our commitment to our customers, meeting their deadlines. Our 15000 square foot facility also contains a variety of CNC manufacturing equipment, that allows us to manufacture a majority of components in house. Our staff includes personnel that have a combined 80 plus years of experience in diagnosing, designing, and debugging a variety of solutions to customer's challenges on screw machines.

Have you ever been told that "you can't do that on a screw machine"? Please give us a call before you respond no!

#### Why BME?

- Our engineering is unsurpassed, allowing years of experience working on machines and attachments to blend with years of experience in mechanical design.
- The most advanced software is used to create the systems that meet customer's requirements to perform the demanding needs of today's manufacturing.
- We communicate effectively with our customer, which reduces errors and delivers a better, innovative product faster.
- Our attachments save our customers money by allowing complete processing, a part that is manufactured completely in one step without a secondary operation allows an unmatched advantage, increasing profits and quality. The less a part is handled, the more cost effective the process!
- We stand by our product, we won't sell an attachment that we don't feel confident will solve the customer's problem.
- In most applications, we offer a 30 day trial (except custom components) before invoicing.
- Our products are designed and manufactured to have replaceable components, with minimal fitting spacers, for quick replacements.
- Our products are designed and manufactured to endure heavy loading and usage, hardened and ground components, and utilizing spline drives in place of keys.
- Our products are domestically manufactured and stocked on our floor, minimizing lead times for both new purchases and replacement parts.

The following catalogue is a list of common Tool Holders and Attachment, but if you don't see what you are looking for, please contact us! We have been providing more than just tooling to our customers for over 10 years. We provide solutions to the everyday challenges of the mutli-spindle user. This is just a fraction of the tooling we supply. Also, please review our website, we are constantly adding new product.







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#### **2017 Tool Holders and Attachments**

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#### **Universal Holders**



#### **Boring**

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Newly redesigned, this holder is now available in four shank sizes and three tool bores to give you the flexibility you need.

$\supset$				1000 Series	Low Profile	
IN USA	Tool Bore	3/4 shank		:	1 shank	1 1/4 shank
	1/2	BOR1075A		В	OR1100A	BOR1125A
<u>Щ</u>	5/8	BOR1075B		В	OR1100B	BOR1125B
0	3/4	BOR1075C		В	OR1100C	BOR1125C
MADE	1	BOR1075D		В	OR1100D	BOR1125D
2			2000 Series	High Capacity		
	Tool Bore	1½ shank	1:	3/4 shank	2 shank	2 ½ shank
_	1	BOR2150D	ВС	R2175D	BOR2200D	B0R2250D
USA	1 1/8	BOR2150E	ВС	R2175E	BOR2200E	B0R2250E
5	1 1/4	BOR2150F	ВС	)R2175F	BOR2200F	B0R2250F
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#### **2017 Tool Holders and Attachments**

#### **Universal Holders**

#### **Broaching**

Our Broaching attachment is engineered to outperform every other holder made. From the heavy-duty bearings to the tool knock-out hole, our holder is designed to keep your machine operating at peak efficiency. You'll be surprised how easy it is to create ID shapes right on your screw machine. Order yours today! Looking for Driven Broaching Attachments, please contact us today! HexMaster<sup>TM</sup> saves time and money by machining a high-quality hex or other shape into your brass, steel or aluminum part in just seconds! HexMaster<sup>TM</sup> eliminates secondary operations and frees machines and people for other tasks. HexMaster<sup>TM</sup> is ideal for screw machines, CNC's, or manual machines. Works equally well on turning and milling machines. HexMaster<sup>TM</sup> works like a high speed chisel, cutting a precision shape into the ID or OD of your workpiec e. Setup is as easy as centering the tool on the work. Quick change design makes tool change quick and reliable. HexMaster<sup>TM</sup>'s unique tool knock-out hole makes ejecting a broken tool quick and easy. Even our standard holder is heavy-duty. HexMaster<sup>TM</sup> has been engineered to outlast and outperform all of its competition. Bearings have been carefully selected which provide 150% the capacity of its closest competitor. All wear surfaces are hardened and ground. The ID holder is available in heavy duty and ultra heavy duty models with six shank sizes and three tool bores. Tools can be purchased direct from Schlitter Tool or from third party sources. HexMaster<sup>TM</sup>'s design has been proven in the most grueling production environment available: the production screw machine industry. This product works so well that we use it in our own fabrication processes. Our holders function through three shifts a day, seven days a week and perform with gusto! Advanced computer design and state-of-the-art manufacturing allow us to offer you this unique attachment at very economical prices. Our efficiency is your savings. Don't get gouged by the competition, order a HexMaster<sup>TM</sup> today!

- Create a high quality hex in seconds
- Eliminate secondary work and handling
- Expand your shop's capabilities
- Use on CNC lathes, screw machines, manual lathes and machining centers
- High performance bearings outperform the competition's



#### HexMaster™ ID Holders

Shank Diameter	Diameter of	Tool Shank	Diamete	r of Tool Shank	
Shalik Diameter	.315	.500	.500	.750	
5/8	HM1062A	HM1062B	n/a	n/a	
3/4	HM1075A	HM1075B	n/a	n/a	
1	HM1100A	HM1100B	n/a	n/a	
1 1/4	HM1125A	HM1125B	HM2125B	HM2125C	
1 1/2	n/a	n/a	HM2150B	HM2150C	
1 3/4	n/a	n/a	HM2175B	HM2175C	
2	n/a	n/a	HM2200B	HM2200C	

#### HexMaster™ OD Holders



Shank Diameter	1.5748" dia. tool blank	.9448" dia. tool blank	
16mm	n/a	HM4016E	
5/8	n/a	HM4625E	
3/4	HM3075E	HM4075E	
1	HM3100E	n/a	
1 1/4	HM3125E	n/a	
1 1/2	HM3150E	n/a	
2	HM3200E	n/a	

If you need a size not listed above, call us and we can make you a special holder to exactly suit your needs.

The best known, most innovative companies in the world rely on BME Inc. for their tooling needs. When you need tooling, give us a call at 1.810.937.2974 or check us out online at www.bmeattachments.com.





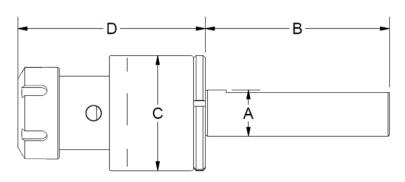
#### **2017 Tool Holders and Attachments**

#### **Universal Holders**

#### **Precision Form & Grind Floating Reamer Holder**

Here is indeed an outstanding floating tool holder! Its simplicity of design (a coordination of only five parts) bespeaks its high efficiency. It will compensate for both angular and parallel misalignment, permits the float to be adjusted in all directions. The moving parts ride on rollers and thus contribute immeasurably to making the members antifriction-producing smoother running with more perfect alignment. Composed of only 5 parts, the Precision Floating Tool Holder requires a minimum of maintenance-nothing to get out of order. Nor is there anything to fall out or get lost when holder is taken apart. It will enable you to ream holes with close tolerances with the very first hole reamed to size. You will definitely have no more "bell mouthed holes" if you use the Precision Floating Tool Holder.





#### All Holders come with Port for Coolant thru

#### **Specials Available upon Request!**

	Floating Reamer Holders with ER Collet Seat										
Model No	<b>ER Collet Size</b>	A - Shank Size	B - Shank Length	C - Dia	D - Length	Part #					
		3/4"				200-075					
200	ED OF	1"	4.11	2.00"	3.06"	200-100					
200	ER 25	1 1/4"	4"			200-125					
		1 1/2"				200-150					
		1"	4"	2.47"	4.02"	250-100					
250	ER 32	1 1/2"				250-150					
		2"				250-200					
		1"				300-100					
300	ER 40	1 1/2"	4"	2.97"	4 5 5 11	300-150					
300	ER 40	2"	4*	2.91	4.55"	300-200					
		2 1/4"				300-250					





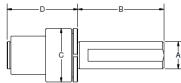
#### **Universal Holders**

Precision Form & Grind Floating Tap Holders

Designed to correct parallel and angular misalignment. Constructions is such that holder permits tap to float freely whether going in or OUT, and will not freeze under tension caused by drag of tap. Amount of float is infinitely variable and is simply adjusted by lock nut. Close tolerances on tapped hole are easier to hold. There are no spring or pivot members to restrict float. Square hole in collet drive taps.

#### STRAIGHT HOLE IS GUARANTEED NO BELL MOUTH WILL OCCUR





USA		Purchase of Holder comes with (1) Collet, customer to specify part # at time of order										er				
2							Flo	oating 1	ap Hol	de	rs					
. [	Mo	del No			Tap Sizes		A - Shan	k Size	B - Sha	ınk	Length	C - Dia	D - Length			Part #
MADE				2/16"	to ½" Inclusive, STD	I	1"							L	1	L200-100
	1	1200			L/8" Pipe Tap	ŀ	1 1/2			4'	'	2.00"	3.06"	-		1200-125
A							1 <sup>3</sup> / <sub>4</sub> 1"							ł		L200-150 L250-100
7	1	1250			⁄4" Inclusive STD Pipe	۱	1 1/			4'		2.50"	3.06"	F		L250-100 L250-125
	-	1200		Ta	aps 1/4" to 5/8"	ŀ	1 1/			_		2.00	0.00	F		1250-150
						1	1 1/							T		L300-125
		1200		1 1/4" to	1 3/4" Inclusive, STD	Į	1 1/	2"		4'		2 00"	2 04 05			L300-125
	_	1300		Pipe	Taps 3/4" to 1 1/4"	ļ	1 3/			4		3.00"	3.8125"	L		L300-175
							2"								1300-200	
15							1	200 Se	ries Col	lle	s					
IN USA	Part #	Tap Size		Part #	Tap Size		Part #	Tap 9	Size		Part #	Tap	o Size		Part #	Tap Size
>	3068	#4		3054	#12		3087	for .30	2 dia		3063	1	5/32		3065	1/8 small pipe
	3050	#6		3055	7/32	ļ	3059	5/1	<u>.</u> 6		3064		1/2	_	3066	1/8 large pipe
Ш	3052	#8		3056	#14	ļ	3060	11/	32		3085	9	/16	-	3069	1/8 grease pipe tap
	3067	#10		3057	1/4		3061	3/	8		3091	į	5/8			
7	3053	3/16	Ш	3058	9/32		3062		13/32 & 7/16							
2		<b>T</b>					1	250 Se	ries Col	lle	is I		1	_		
MADE	Part #	Tap Size		Part #	Tap Size		Part #	Tap	Size		Part #	Tap	o Size		Part #	Tap Size
,	3300	1/4		3308	21/32	ļ	3316	15/	16		3324	3/8	8 pipe	_	3334	1-14 special
ļ	3301	5/16		3309	11/16		3317	1			3325	1/2	2 pipe	ŀ	3335	5/8-11
ļ	3302	3/8	-	3310	23/32	ŀ	3318	1 1/		ŀ	3326		4 pipe	-	3336	7/16
•	3303	1/2	-	3311	3/4	ŀ	3319	11	/8	ŀ	3327	5/8	8 pipe	-	3338	15/64 tap 1/8 pipe & 1/8
A	3304	17/32		3312	25/32		3320	1 3/	16		3329	9/16 a	nd 11/16		3339	sm
2	3305	9/16		3313	13/16		3321	1 1,	/4		3331	11/	32 tap		3340	#10
USA	3306	19/32		3314	27/32	ļ	3322	1/8	oipe		3332	13/	32 tap	_		
	3307	5/8	Ш	3315	7/8		3323	1/4		Ш	3333	7/2	16 tap			
>		T					1	300 Se	ries Col	llet	is I		1	_		
	Part #	Tap Size		Part #	Tap Size		Part #	Tap	Size		Part #	Tap	o Size		Part #	Tap Size
$\mathbf{H}$	3449	5/8		3456	1 7/16		3463	7/8	oipe		3493	1	7/32		3506	3/8
MADE	3450	1		3457	1 1/2 and 1 1/16	Ĺ	3464	1 pi	ре		3494	11	L9/32		3507	3/4
A	3451	1 1/16	1	3458	1 5/8	ļ	3465	1 1/4	pipe		3495	1	3/16	ļ	3512	1 1/2 pipe
7	3452	1 1/8		3459	1 3/4	ļ	3467	7/	8		3496	1 9/	/16-18	ļ	3515	1/2 tap
~	3453	1 1/4		3460	1 7/8	ŀ	3468	5/1			3498	5/8	8 pipe	ļ	3309	11/16
ļ	3454	1 5/16		3461	1/2 Pipe	ŀ	3478	1 9/			3499		4 pipe	ļ	3313	13/16
	3455	1 3/8		3462	3/4 pipe	J	3479	1 11	/16		3500	3/8	8 pipe		3316	15/16

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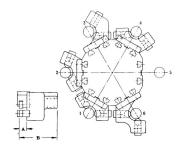




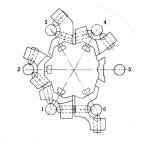


#### **2017 Tool Holders and Attachments**

#### **Roll Supports Six Spindle National Acme**







		D	Standar	d Capacity	Small (	Capacity
	Machine	Position	Order #	Capacity	Order #	Capacity
		1	10-3	<del>1</del> /4 - <b>1</b>	10-3A	1/8 - 3/8
	0/16 9 1 DA	2, 4	10-38	½ - 1	10-38A	1/8 - 3/8
	9/16 & 1 RA	3	10-5	½ - 1	10-5A	1/8 - 3/8
⊳		6	10-25	<del>1</del> /4 - 1	10-25A	1/8 - 3/8
5		1	10-44	5/16 - <b>1</b> <sup>1</sup> / <sub>4</sub>	10-44A	%32 - 1 <sup>1</sup> / <sub>8</sub>
E	1 R, RAS	2, 4	10-43	5/ <sub>16</sub> - 1 <sup>1</sup> / <sub>4</sub>	10-43A	½ - 1 ½
Angular Base	1 ¼ R, RA	3	10-39	5/ <sub>16</sub> - 1 ½	10-39A	½ - 1 ½
as	·	6	10-31	5/16 - <b>1</b> <sup>1</sup> / <sub>4</sub>	10-31A	
Õ		1	10-50	1 1/8 - 2 1/2	n/a	
	0.01/.05/.0.04	2, 4	10-51	1 - 2 5/8	n/a	
	2, 2 ¼, 2 5⁄8 R, RA	3	10-17	7/8 - 2 <sup>1</sup> / <sub>2</sub>	n/a	
		6	10-47	1 1/8 - 2 1/2	n/a	
		1	10-137	3/ <sub>32</sub> - 7/ <sub>16</sub>	n/a	
	7/40	2, 4	10-138	3/ <sub>32</sub> - 7/ <sub>16</sub>	n/a	
	7/16	3	10-139	3/ <sub>32</sub> - 7/ <sub>16</sub>	n/a	
		6	10-140	3/ <sub>32</sub> - 7/ <sub>16</sub>	n/a	
		1	10-175	½ - 5/8	n/a	
	5/8 RN	2, 3, 4	10-176	½ - 5/8	n/a	
		6	10-177	1/8 - 5/8	n/a	
		1	10-126	<del>1</del> /4 - 1	10-126A	½ - 1
		2	10-127	½ - 1	10-127A	½ - 1
	9/16, 1 RA, RAN	3	10-128	<del>1</del> /8 - <b>1</b>	n/a	
		4	10-129	<del>1</del> /4 - 1	10-129A	½ - 1
		6	10-130	½ - 1	10-130A	½ - 1
-		1	10-103	5/ <sub>16</sub> - 1 <sup>1</sup> / <sub>4</sub>	10-103A	1/8 - 3/8
Flat Base	1 1⁄4 RA, RB	2, 4	10-104	5/ <sub>16</sub> - 1 <sup>1</sup> / <sub>4</sub>	10-104A	1/8 - 3/8
Ö	1 74 KA, KD	3	10-105	5/ <sub>16</sub> - 1 <sup>1</sup> / <sub>4</sub>	10-105A	½ - ¾
ase		6	10-106	5/ <sub>16</sub> - 1 <sup>1</sup> / <sub>4</sub>	10-106A	1/8 - 3/8
(D		1	10-34R	1/2 - 2	10-34RA	1/4 - 3/4
	1 % RA, RB	2, 4	10-35R	1/2 - 2	10-35RA	1/4 - 3/4
	2 RB, RAS	3	10-36R	<del>1</del> /4 - 2	n/a	
		6	10-37R	<del>1</del> / <sub>2</sub> - 2	10-37RA	1/4 - 3/4
		1	10-83	5⁄8 - 2 5∕8	n/a	
	2 % RB	2, 4	10-48	5⁄8 - 2 5⁄8	n/a	
	2 78 ND	3	10-84	5⁄8 - 2 5∕8	n/a	
		6	10-49	5⁄8 - 2 5∕8	n/a	
		1	10-85	1 ½ - 3 ½	n/a	
		2	10-86	1 ½ - 3 ½	n/a	
	3, 3 ½ RA, RB	3	10-87	1 ½ - 3 ½	n/a	
		4	10-88	1 ½ - 3 ½	n/a	
		6	10-167	1 ½ - 3	n/a	







#### **Roll Supports Eight Spindle National Acme**



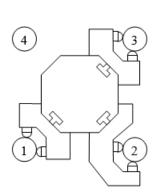
Marshins	Danisia	Standard	l Capacity	Sma	II Capacity		
Machine	Position	Order #	Capacity	Order #	Capacity		
	1	10-152		10-152A			
	2, 5	10-153		10-153A			
3/4 RA	3, 6	10-154	1/4 - 3/4	10-154A	1/8 - 3/8		
	4, 7	10-155		10-155A			
	8	10-156		10-156A			
	1	10-157		10-157A			
	2, 5	10-158		10-158A			
1 ¼ RB 1 % RBN	3, 6	10-159	5/16 - 1 1/4	10-159A	1/8 - 5/8		
	4, 7	10-160		10-160A			
	8	10-161		10-161A			
	1	10-119	1 1/8 - 2 1/2	10-119A			
45/ 84 88	2, 5	10-89	1 - 2 %				
1 % RA, RB 2 RB	3, 6	10-90	7/8 - 2 ½		1/4 - 3/4		
2 110	4, 7	10-120					
	8	10-121	1 1/8 - 2 1/2	10-121A			
	1	10-91	5/8 - 2 5/8				
	2, 5	10-92	5/8 - 2 5/8				
2 1/4, 2 5/8 RA, RB	3, 6	10-93	3/4 - 2 5/8				
	4, 7	10-94	3/4 - 2 5/8				
	8	10-95	5/8 - 2 5/8				



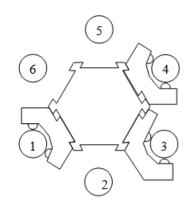




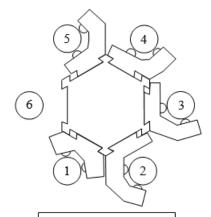
#### **Roll Supports New Britain**



Models 40, 41



Models 60, 61



Models 52, 62

Machine	Position	Order #	Capacity	Roll Dia.	
40	1	10-100	F (4C 4		
40 s/n ≥ 23847	2	10-101	5/16 - 1	5/8	
3/11 = 23041	3	10-55	5/16 - 3/4		
41	1, 3	10-1418	1/2 - 1 5/8	1 ½6	
s/n ≥ 23578	2	10-142S	1/2 - 1 5/6	1 *16	
	1	10-40			
51	2	10-166	3/16 - 1	5/8	
51	3, 5	10-41	3/10-1	5/6	
	4	10-165			
	1	10-122			
50	2	10-123	F (40 41)	2/4	
52	3, 5	10-124	5/16 - 1 1/4	3/4	
	4	10-125			
60	1, 4	10-40	2/46 4		
s/n ≥ 24472	3	10-41	3/16 - 1	5/8	
61	1, 4	10-32	4/4 04/0	45.44.0	
s/n ≥ 24341	3	10-33	1/4 - 2 1/8	15/16	
	1	10-115			
00	2	10-116	3/8 - 2 1/16	45.440	
62	4	10-118		15/16	
	3, 5	10-117	3/8 - 1 3/4		
601	1 - 5	10-46	13/32 - 1 1/4	7/8	
602	1 - 5	10-144	7/16 - 2 1/4	15/16	

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#### **Roll Supports Wickman**

					Spare Parts			
Spindles	Machine	Position	Capacity	Order #	Roll Holder	Roll	Pin	
	1 3/4	1	1/4 - 2	10-162	82-117	82-16-1	82-71-2	
5	2 1/4	2, 3, 4	1/4 - 1	10-38	82-7	82-2-1	82-2-2	
			3/16 – 1	10-201	82-36	82-2-1	82-2-2	
		1	1/8 – 3/4	10-201A	82-29	82-9-1	82-9-2	
	1	2.2	3/16 – 1	10-202	82-36	82-2-1	82-2-2	
	1	2, 3	1/8 – 3/4	10-202A	82-29	82-9-1	82-9-2	
		4	3/16 – 1	10-203	82-36	82-2-1	82-2-2	
		4	1/8 – 3/4	10-203A	82-29	82-9-1	82-9-2	
		1.6	1/4 - 1 1/4	10-107	82-117	82-16-1	82-71-2	
	_	1, 6	1/8 – 15/16	10-107A	82-104	82-4-1	82-10-2	
	1 3/8	2.2	1/4 - 1 1/4	10-108	82-117	82-16-1	82-71-2	
	1 3/4	2, 3	1/8 – 15/16	10-108A	82-104	82-4-1	82-10-2	
6		4, 5	1/4 - 1 1/4	10-109	82-117	82-16-1	82-71-2	
		4, 5	1/8 – 1/2	10-109A	82-104	82-4-1	82-10-2	
		1	1/2 - 2	10-34R	82-23	82-3-1	82-23-2	
		1	1/4 - 1	10-34RA	82-101	82-55-1	82-101-2	
		2	1/2 - 2	10-37R	82-23	82-3-1	82-23-2	
	2 1/4	2	1/4 - 1	10-37RA	82-101	82-55-1	82-101-2	
		3, 5	1/4 - 2	10-36R	82-23	82-3-1	82-23-2	
		4	1/2 - 2	10-35R	82-23	82-3-1	82-23-2	
		4	1/4 - 1	10-35RA	82-101	82-55-1	82-101-2	
	2 5/8	1, 6	1-31/4	10-209	02.45	02.2.4	02.22.2	
	3 1/4	2, 3	1-31/4	10-210	82-45	82-3-1	82-23-2	
		1		10-200				
		2		10-196				
8	1 3/4	3, 6	1/4 - 1 3/4	10-199	82-45	82-3-1	82-23-2	
		4, 7		10-198				
		5, 8		10-197				







#### **Knurl Holder Six and Eight Spindle (cross slide mounted)**

	ב
1	

Order #	Capacity	Max. Dia. Knurl at Capacity	Max. Dia. Knurl	Knurl ID	Max. Knurl Width	Shank Dia.
50-1	0 - 1	3/4	7/8	1/4	5/8	1 %
50-2	1/2 - 1 5/8	3/4	1	1/4	5/8	1 ½
50-3	1 - 2 1/4	7/8	1	1/4	3/4	1 3/4
50-4	13/8-3	7/8	1	1/4	3/4	1 3/4
50-33	1/16 - 9/16	5/8	3/4	1/4	5/8	7/8

#### **Knurl Mount Blocks Six Spindle National Acme**

			Mounting Blocks					
Machine	Capacity	Order #	Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6
7/16 RA		50-33	n/a	52-75†	52-76	52-75	n/a	n/a
5/8 RN	0 - 1	50-1	n/a	52-110	52-1	52-1	n/a	n/a
9/16 RA Last s/n 22326 CM	0 - 1	50-1	52-31	52-31†	52-1	52-1	n/a	52-31†
9/16 RA Start s/n A-23051 1 RA	0 - 1	50-1	n/a	52-31	52-1	52-1	n/a	n/a
4.5.540	0 - 1	50-1	n/a	52-26	52-26	52-26	52-26	n/a
1 R, RAS 1 ¼ R, RA, RB	1/2 - 1 5/8	50-2	n/a	52-21	52-21	52-21	52-21	n/a
± 74 K, W, KD	1 - 2 1/4	50-3	n/a	52-49	52-49	52-49	52-49	n/a
1 5% R, RA, RB	0 - 1	50-1	n/a	52-22	52-29	52-29	52-22	n/a
• •	1/2 - 1 %	50-2	n/a	52-23	52-8	52-8	52-23	n/a
2 RAS, RB	1 - 2 1/4	50-3	n/a	52-67	52-4	52-4	52-67	n/a
0.01/.05/.04	1/2 - 1 5/8	50-2	n/a	52-30	52-8	52-8	n/a	n/a
2, 2 ¼, 2 5⁄8 RA	1 - 2 1/4	50-3	n/1	52-3	52-4	52-4	n/a	n/a
	1/2 - 1 5/8	50-2	52-30	52-30	52-27	52-27	n/a	n/a
2 5/8 RB	1 - 2 1/4	50-3	n/a	52-3	52-28	52-28	n/a	n/a
	1 % - 3	50-4	n/a	52-3	52-28	52-28	n/a	n/a
3 RA, RB	1/2 - 1 %	50-2	n/a	52-27	52-27	52-27	52-27	n/a
•	1 - 2 1/4	50-3	n/a	52-28	52-28	52-28	52-28	n/a
3 ½ RA, RB	1 % - 3	50-4	n/a	52-28	52-28	52-28	52-28	n/a
	1/2 - 1 5/8	50-2	n/a	52-27	52-27	52-27	52-27	n/a
4 RB	1 - 2 1/4	50-3	n/a	52-28	52-28	52-28	52-28	n/a
	1 % - 3	50-4	n/a	52-28	52-28	52-28	52-28	n/a

#### **Knurl Mount Blocks Eight Spindle National Acme**

Machine	Consolty	Order #			Mounting Bloc	ks	
WidChille	Capacity	Oluei #	Pos. 1	Pos. 2	Pos. 4	Pos. 5	Pos. 7
3/4 RA	0 - 1	50-1	n/a	52-31	52-1	52-1	n/a
1 1/4 RB, 1 5/8 RBN	0 - 1	50-1	n/a	52-26	52-26	52-26	52-26
1 1/4 NB, 1 3/8 NBN	1/2 - 1 5/8	50-2	n/a	52-21	52-21	52-21	52-21
1 5/8 RA, RB	0 - 1	50-1	52-22	52-22	52-22	52-22	52-22
2 RB	1/2 - 1 5/8	50-2	n/a	52-23	52-23	52-23	52-23
2 1/4 RA, RB 2 5/8 RA, RB	1/2 - 1 5/8	50-2	n/a	52-28	n/a	n/a	52-28
	1 - 2 1/4	50-3	n/a	n/a	52-4	52-4	n/a







#### **Knurling Mount Blocks New Britain**

Machine				Knurl Holder s slide)		Clamp Style Knurl Holder (main tool slide)			
	Model	Capacity	Order #	Position	Mounting Block	Capacity	Position	Order #	Roll ID x Max OD
_	40 s/n ≥ 23847	0 - 1	50-1	3	52-13				
MADE IN USA	42	1/2 - 1 5/8	50-2	1, 2, 3	52-9	1 3/4 - 2	49-12	1/4 x 3/4	
2	42	1 - 2 ½	50-3	1, 2, 3	52-10	9/16	1, 2, 3	49-12	1/4 x 3/4
	51	0 - 1	50-1	1 - 5	52-13	0 - 1	1, 2, 3	49-9	1/4 x 5/8
	51	1/2 - 1 5/8	50-2	1 - 5	52-77	0 - 1	1, 2, 3	49-9	1/4 x 5/6
	52	0 - 1	50-1	1 - 5	52-13	1/4 - 1 1/4	1, 2, 3, 4, 5	49-27	1/4 x 3/4
	52	1/2 - 1 5/8	50-2	1 - 5	52-77				
Ш	60	0 - 1	50-1	1, 3, 4	52-13	0 - 1	1, 2, 3, 4	49-9	1/4 x 5/8
	00	0-1	30-1	5	52-598	0 - 1	5	49-5	1/4 x 5/8
$\overline{A}$		0 - 1	50-1	1, 3, 4	52-57	5/8 - 2 1/4	1, 2, 3, 4	49-8	1/4 x 3/4
		0-1	30-1	5	52-58				
2	61	1/2 - 1 5/8	50-2	1, 3, 4	52-9				
	01	1/2-178	30-2	5	52-54				
		1 - 2 1/4	50-3	1, 3, 4	52-10				
_		1-2 /4	30-3	5	52-50				
V		0 - 1	50-1	1 - 5	52-57				
5	62	1/2 - 1 5/8	50-2	1 - 5	52-9	5/8 - 2 1/4	1, 2, 3, 4	49-8	1/4 x 3/4
		1 - 2 1/4	50-3	1 - 5	52-10				
		0 - 1	50-1	1, 3, 5	52-15				
		0-1	30-1	2, 4	52-14				
	601, 602	1/2 - 1 %	50-2	1, 3, 5	52-16	1/4 - 1 1/4	1 - 5	49-3	1/4 x 3/4
Щ		1/2-1/8	30-2	2, 4	52-17				
0		1 - 2 1/4	50-3	1, 2, 3, 4, 5	52-18				
D	626 lot A	1 - 2 1/4	50-3	2	52-119	1 - 2 3/4	All	49-28	1/4 x 3/4
MADE IN USA	626 lot B					1 - 2 3/4	All	49-29	1/4 x 3/4
~	627	1 - 2 1/4	50-3	2	52-119	1 - 2 3/4	All	49-29	1/4 x 3/4
	635	1 - 2 1/4	50-3	1, 2, 4, 5	52-119	1 - 2 3/4	All	49-28	1/4 x 3/4
				3 dd	52-127				
	826	1 - 2 1/4	50-3	4, 6	52-120				
				5	52-129				

MADE IN USA

<sup>† 5/8</sup> Maximum size knurl to clear machine on index.







#### **Knurling Mount Blocks Wickman**

	# of Spindles	Machine Model	Position	Assembly	Capacity	Mounting Block		
		4.27		50-1	0 - 1	52-11		
	5	1 <sup>3</sup> / <sub>4</sub> , 2 <sup>1</sup> / <sub>4</sub>	2, 3, 4	50-2	1/2 - 1 5/8	52-6		
MADE IN USA		Z 74		50-3	1 - 2 1/4	52-7		
2		5/8	1, 2, 3, 4, 5	50-35	0 - 5/8†	52-104		
<b>3</b>		1	1, 2, 3, 4, 5	50-1	0 - 1	52-64		
<b>&gt;</b>		4.3/	1, 2, 4, 5	50-1	0 - 1	52-11		
		1 3/8	2, 4, 5	50-2	1/2 - 1 5/8	52-6		
	6		1, 2, 4, 5	50-1	0 - 1	52-11		
ш	6	1 3/4	2.4.5	50-2	1/2 - 1 5/8	52-6		
5			2, 4, 5	50-3	1 - 2 1/4	52-7		
7			4 0 4 5	50-1	0 - 1	52-22		
<u> </u>		2 1/4	2 1/4	1, 2, 4, 5	50-2	1/2 - 1 5/8	52-23	
<b>S</b> _			2, 4, 5	50-3	1 - 2 1/4	52-67		
_				50-1	0 - 1	52-22		
V USA	8	1 3/4	2, 5, 6	50-2	1/2 - 1 5/8	52-23		
Knurling Mount Davenport  Holder Style Position Order # Mounting Block Ploating knurl holder is adjustable from top and bottom. Rugged design provides years of use. Ca-								
Ĭ	Holder Style	Position	Order #	Mounting Block		Notes		
5		2 <sup>nd</sup> or B	50-36	52-126		r is adjustable from top and ign provides years of use. Ca-		
-	2	3 <sup>rd</sup> or C	50-36	52-124		/8. Accepts knurls with 1/4 II		

Holder Style	Position	Order #	Mounting Block	Notes
	2 <sup>nd</sup> or B	50-36	52-126	Floating knurl holder is adjustable from top and bottom. Rugged design provides years of use. Ca-
3	3 <sup>rd</sup> or C	50-36	52-124	pacity from 1/8 to 7/8. Accepts knurls with 1/4 ID, 5/8 wide, 7/8 OD.
Shank Style	4 <sup>th</sup> or D	50-32	71-360	Built-in taper adjustment.
	3 <sup>rd</sup> or C			Disc mount holder has all the features of our popu-
Disc Mount	4 <sup>th</sup> or D	50-31	n/a	lar shank style knurl holders but mounts directly to the machine. No taper adjustment.

† 5/8 Maximum size knurl to clear machine on index.





#### **2017 Tool Holders and Attachments**

#### Recessing

#### 3 Styles for All your needs...

- Hardened, match-ground bearing surfaces for precise movement and extreme rigidity.
- Quick-change tool mechanism; Fast, easy setup.



Shank Style Recess Holder: Economy, Flexibility, Ease of Use



Adj Stationary Recess Holders: Robust, Rigid



Recess Milling Attachment: Superior Performance, No Chip Problems

#### Shank style recess attachments

Ideal for light undercuts and single O-rings. Its universal design allows it to be mounted on the widest variety of machines.

#### Adj Stationary recess attachments

Designed for superior cutting and profiling capability as well as increased accuracy over shank style attachments. This model bolts directly to your machine's main tool slide. Its wide base provides more rigidity than shank style holders. Clamp style recess attachments offer superior accuracy, repeatability, and tool life.

#### Recess milling attachments outperform all other styles.

Its true milling cutter eliminates taper from tool deflection, performs complex profiling and takes the kind of heavy undercuts normally associated with secondary work. The rotating tool produces fine chips which are easily washed from the cutting area with TRUE High Pressure through-tool coolant. Recess milling attachments also provide a much finer finish than can be achieved with either a shank or clamp style holder. You'll get faster setup, longer tool life, shorter tool changes and easier control of part quality. BME recess milling attachments feature Erikson style ER spindles for minimal runout and quick tool change.

Features	Shank	Adj Stationary	Recess Milling
Universal mounting	Х	X	Х
Hardened & ground	Х	Х	Х
Quick change tool mechanism	Х	X	Х
Fast, easy setup	Х	X	Х
Long service life	Х	X	Х
Light undercuts	Х	X	Х
Medium undercuts, profiling		X	Х
Through tool coolant		X	Х
Comes Standard w/ Draw Bar		Х	Х
Heavy cuts, complex profiling			Х
Active control of tool deflection			Х
Positive chip control			Х
Fine infeed adjustments			X





#### **Recess Tool Holders, Shank Style**



	58-10	58-12	58-1	58-2	58-3	58-7
Shank Diameter	3/4	1	1 1/4	1 1/2	2	2 ½
Tool Bore	3/8	1/2	5/8	1	1 ½	1 1/4
Bore Depth	3/4	3/4	7/8	1 1/4	1 1/2	1 1/2
Tool Offset	0.031	0.031	0.031	0.062	0.062	0.125
Degree Rise	16°	16°	15°	20°	18°	12°
Rise per .001 feed	0.00029	0.00029	0.00027	0.00036	0.00032	0.00021
Max. Expansion	0.179	0.179	0.201	0.273	0.274	0.213
Draw Bar	59-7	59-3	59-1	59-1	59-1	59-1
Stop Rod	59-53	59-50	59-51	59-51	59-51	59-51

New Britain Recommended Shank Style Recesses									
Machine Model	Order #	Draw Bar #	Stop Rod #						
52	58-1	59-1	59-51						
60	58-12	59-3	59-50						
00	58-1	59-1	59-51						
(1.60	58-2	59-1	59-51						
61, 62	58-3	59-1	59-51						

Wickman Recommended Shank Style Recesses									
Machine Model	Order #	Draw Bar #	Stop Rod #						
5/8, 1	58-12	59-3	59-50						
1 3/8,1 3/4, 2	58-1	59-1	59-51						
1/4	58-2	59-1	59-51						
2 5/8	58-2	59-1	59-51						
2.4.44	58-3	59-1	59-51						
3 1/4	58-7	59-1	59-51						

	Davenport Recommended Shank Style Recess For use in 3rd,4th and 5th pos (5th pos requires adapter bracket #14060 for draw bar)									
Order #	Travel Shank									
58-8	59-6	.161	9/16	3/4	3/8 x 3/4	.031				

National Ad	National Acme Recommended Shank Style Recesses								
Machine Model	Order #	Draw Bar #	Stop Rod #						
3/4"RA8, 1"RA6 9/16"RA6 1"RAN6	58-2	59-1	59-51						
1 1/4"RA6 1 1/4"RB8 1 5/8"RBN8 1 5/8"RB8 1 5/8"RB6 2"RB6 2RB8	58-3	59-1	59-51						
2 5/8"RB6 2 5/8"RB8 (Requires Bushing)	58-3	59-1	59-51						

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#### **2017 Tool Holders and Attachments**

#### **Adjustable Stationary and Recess Milling attachments**

National Acme Machines									
Machine	Adj Stat Part #	Recess Mill- ing Part #	Collet Size	Degree Rise					
5% RN-6 (Flat base)	AA-10-19-0	AM-3-19-40- HP		10°					
<sup>9/16</sup> & 1" RA-6 & RAN-6 (Flat Base)	AA-10-1-0	AM-3-1-40- HP	ER25	10°					
<sup>9/16</sup> & 1" RA-6 & RAN-6 (Angular Base)	AA-10-2-0	AM-3-2-40- HP	ER25	10°					
2 3/8 -HSC-6 Acme Chucker	AA-10-16-0	AM-3-18-59- HP	ER25	10°					
1 1/4" RA-6 (Flat Base)	AA-12-3-0	AM-28-3-5- HP	ER32	15°					
1 ¼: RA-6 (Angular Base)	AA-12-4-0	AM-31-4-5- HP	ER32	15°					
1 ¼" RB-8 1 5/8" RBN-8	AA-12-5-0	AM-28-5-5- HP	ER32	15°					
1 5/8" RA-6 & 8 1 5/8" RB-6 & 8 2" RB 6 & 8 2" RAS-6	AA-12-6-0	AM-28-6-15- HP	ER32	15°					
2 5/8" RB-6	AA-18-8-0	AM-12-8-18- HP	ER32	15°					
2 5/8" RB-8	AA-18-10-0	AM-12-10-18 -HP	ER32	15°					
3 ½" RB-6 3 ½" RB-8	AA-18-11-0	AM-13-9-66- HP	ER40	15°					
4" RB-6	AA-18-12-0	AM-12-13-XX- HP	ER40	15°					

Wickman Machines										
Machine	Adj Stat Part #	Recess Mill- ing Part #	Collet Size	Deg rise						
1"-6 & 8	WA-10-20-0	WM-3-2-66- HP	ER25	10 deg						
1 3/8" and 1 3/4"-6	WA-12-3-0	WM-28-3-47- HP	ER25	15 deg						
1 3/4"-8 2 1/4-6" 6 5/8"-6 Chuck	WA-12-5-0	WM-28-5-47- HP	ER32	15 deg						

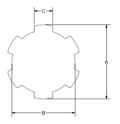
Draw bar included on recess milling attachments. Erickson style spindle standard. Straight bores available on request. To add precision spindle bearings to recess milling attachment, Add -P to the end of part #

#### Why an Erickson style spindle?

- Flexibility- use the widest possible size of tooling.
- Better concentricity- the shank will automatically center itself with the spindle resulting in better finishes and more consistent geometry.

	New Britain Machines											
Machine	Adj Stat Part #	Recess Milling Part #	Collet Size	Deg rise								
51	NA-10-10-0	NM-3-10-40-HP	ER25	10 deg								
52	NA-12-2-0	NM-28-2-28-HP	ER32	15 deg								
60	NA-10-1010	NM-3-10-XX-HP	ER25	15 deg								
61,62,656, 657	NA-12-3-0	NM-28-3-XX-HP	ER32	15 deg								
602	NA-12-4-0	NM-28-4-XX-HP	ER32	15 deg								
16	NA-16-6-0	NM-12-6-XX-HP	ER32	15 deg								
88	NA-18-7-0	NM-12-7-90-HP	ER32	15 deg								
865	NA-18-6-0	NM-12-6-XX-HP	ER32	15 deg								

XX = Specify Spline Size (see page xx)



SPLINE NO.	SPLINE PART NO.	Α	В	С	# TEETH	U-JOINT PART NO.
4	GRH-4-19	1.121	0.881	0.171	10	ARH-5-18
5	ARH-5-19	0.995	0.845	0.25	6	ARH-5-18
13	CRH-13-19	1.498	1.194 5	0.372	6	CRH-13-18
14	ARH-14-19	1.495	1.267	0.372	6	CRH-13-18
15	ARH-15-19	1.245	1.062	0.31	6	ARH-5-18
18	ARH-18-19	1.248	1.062	0.31	6	CRH-13-18
19	CRH-19-19	1.245	0.989	0.308	6	ARH-5-18
28	NRH-28-19	1.245	0.989	0.308	6	ARH-5-18
32	CRH-32-19	1.998	1.562	0.498	6	CRH-13-18
40	ARH-40-19	0.882	0.693	0.216	6	SRS-24-18
47	WRH-47-19	0.998	0.84	0.181	6	ARH-5-18
51	CRH-51-19	1.245	0.989	0.308	6	ARH-5-18
55	SRH-55-19	0.999	0.839	0.239	6	ARH-15-18
59	ARH-59-19	0.745	0.597	0.185	6	ARH-40-18
66	ARH-66-19	1.245	1.061	0.31	6	CRH-13-18
86	WRH-86-19	0.745	0.65	0.18	6	ARH-40-18
90	NRH-90-19	1.495	1.189	0.37	6	CRH-13-18





#### **Rotary Recess Push Type Davenport**

- Push Type Rotary Recess
- ER Collet Mounting System
- Allows for High Pressure Coolant thru the spindle
- Mounts in 3rd or 4th Pos
- 75% and 125% Ratios Available
- Special Ratios Available Upon Request
- High Precision Spindle Bearing Setup



	Davenport Push Type Rotary Recess										
Pos	Ratio	Max DOC	ER Collet Size	Order #							
3rd	75	.25"	ER11	DV-660-003-75							
3rd	125	.25"	ER11	DV-660-003-125							
4th	75	.25"	ER11	DV-660-004-75							
4111	125	.25"	ER11	DV-660-004-125							







### 2017 Tool Holders and Attachments A Passion for Precision...

A bold new design in precision shaving systems for shops looking for a competitive edge.

Uses most of the same components as our original, pin-style shave tool holders.

Designed with the fewest possible number of parts for easy maintenance and reliable operation.

Use traditional dovetail tooling or our more advanced Direct Mount™ Insert style tooling. Inserts improve performance and productivity.





Precision gib system provides precise fit even after years of operation.



19 different holders & counting for all makes and sizes of screw machine.

From the original manufacture of the most widely used shave tool holder in the world.



We spent years getting feedback from owners and operators before putting pen to paper to design our advanced new shaving system. The main drawback to our original, best-selling pin style shave tool holders was a slide mechanism that could wear over time, requiring regular maintenance to prevent a loose head which might allow chatter.

Our New G-Series shaving system resists wear in the slide mechanism by increasing the hardness and area of the bearing surface. The tapered gib allows for quick adjustment for wear when it occurs. The robust design is engineered with the fewest possible number of parts to reduce maintenance and to provide consistent accuracy over time.

We designed the new holder to accept both traditional dovetail tooling and advanced new insert style tooling.

We call this our Direct Mount<sup>TM</sup> insert system. This system eliminates the design limitations of using dovetail adapters with inserts. We eliminated tool clamps for most parts under  $1\frac{1}{2}$ " long for better coolant and chip flow and to avoid any pockets where a small chip could cock the insert during tool change.

Direct Mount™ inserts are self-aligning and essentially fool proof. They are available in HSS and a tough, micrograin carbide in both unfinished blanks and with finished forms. Because inserts can be positioned anywhere, one

insert blank can replace several dovetail blanks with various offsets.

Tool posts are extremely rigid. One customer reported shaving over 1/2" from the diameter on 1000 pieces when an improperly clamped form tool backed off the part. The parts were perfectly to size and the holder was completely undamaged. They only noticed a problem from a slight heat blemish on the part from the aggressive cut.

The G-Series holders are a great value and preserve your investment in parts, mounting blocks and tooling. The next time you need a shave tool holder, make it a G-Series holder from Schlitter Tool.



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#### **2017 Tool Holders and Attachments**

#### **Shave Holders**







**Schlitter Pin and G Type Heads** 

Traditional pin-style shave tool holder shown with optional adjustable shave block.

Model B are Box Type Shank Shaves that have adjustable spring tension

New G-Series™ Shaving System shown with optional Direct Mount™ tool post and insert.

	January 2000 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							·			
Holder Capacity	Dovetail Size	Max. Tool Length	Shank Diameter	Original Pin Style	Body Length	Model "B" Type	NEW G-series	Body Length			
0 to ½	1/2	1 ½	7/8	62-1H	2 1/8	121-79	n/a	2 1/8			
0 to 5/8	5/8	1 1/4	1	62-2	2 %	29-2	62-2G	2 1/8			
0 to 1	5/8	1 1/2	1 1/4	62-62H	3	36-62H	62-62G	3 1/4			
0 to 1	1	1 %	1 1/4	62-4H	3 1/8	36-4H	62-4G	3 %			
0 to 1 1/4	1	1 3/4	1 1/4	62-5	3 ½	51-5	62-5G	3 3/4			
3/8 to 1 5/8	1	1 3/4	1 ½	62-6	3 ½	48-6	62-6G	3 3/4			
1 ¾ to 2	1 1/4	1 3/4	1 ½	62-7	3 ½	49-7	62-7G	3 3/4			
1 1/4 to 2 1/4	1 1/4	1 3/4	1 ½	62-8	3 ½	75-7	62-8G	3 3/4			
1 1/4 to 2 5/8	1 1/2	1 1/8	1 ½	62-9	3 ¾	47-9	62-9G	3 3/4			
1 ½ to 3	1 1/2	1 1/8	1 3/4	62-10	4						
1 % to 3 ½	1 1/2	1 1/8	1 ¾	62-11	4	40-11					
2 1/8 to 4	1 %	2 1/16	2	62-12H	4 %						

#### Mount Blocks for Shank Style Shave heads, Six Spindle Nat'l Acme

Machine Model	Shave Order #	Shaving Capacity	Dovetail Size	Block for Pos. 2 dd	Block for Pos. 3	Block for Pos. 4	Shank Size/ Block Bore
7∕ <sub>16</sub> RA	62-1H	0 - 1/2	1/2	71-302H	71-302H	71-302H	7/8
	62-1H	0 - 1/2	1/2	71-167H	71-112H	71-112H	7/8
%16 R, RA, RAN	62-2, 62-2G	0 - 5/8	5/8	71-45	71-43	71-57	1
1 RA, RAN	62-62H	0 - 1	5/8	71-38	71-41H	71-41H	1 1/4
	62-4H	0 - 1	1	71-38	71-41H	71-41H	1 1/4
	62-2, 62-2G	0 - 5/8	5/8	71-57	71-43	71-57	1
5/8 RN	62-62H, 62-62G	0 - 1	5/8	71-41H	71-41H	71-41H	1 ½
	62-4H, 62-4G	0 - 1	1	71-41H	71-41H	71-41H	1 1/4
	62-2, 62-2G	0 - 5/8	5/8	71-133	71-204	71-133	1
1 R, RAS	62-62H, 62-62G	0 - 1	5/8	71-64	71-36	71-64	1 ½
1 ¼ R, RA, RB	62-4H, 62-4G	0 - 1	1	71-64	71-36	71-64	1 1/4
	62-5, 62-5G	0 - 1 1/4	1	71-64	71-36	71-64	1 ½
	62-4H, 62-4G	0 - 1	1	61-94	61-94	61-94	1 ½
1 %, 1 % AG	62-5, 62-5G	0 - 1 ½	1	61-95	61-96	61-95	1 1/4
	62-6, 62-6G	3/8 - 1 5/8	1	61-95	61-96	61-95	1 ½
	62-4H, 62-4G	0 - 1	1	71-136	71-127	71-67	1 1/4
1 % R, RA, RB	62-5, 62-5G	0 - 1 ½	1	71-136	71-127	71-67	1 ½
2 RB, RAS	62-6, 62-6G	3/8 - 1 5/8	1	71-40	71-32	71-39	1 ½
	62-7, 62-7G	3/4 - 2	1 ½	71-40	71-32	71-39	1 ½
	62-6, 62-6G	3/8 - 1 5/8	1	71-105	71-32	71-39	1 ½
0.01/.05/.0.5:	62-7, 62-7G	3/4 - 2	1 1/4	71-105	71-32	71-39	1 ½
2, 2 ¼, 2 5/8 R, RA	62-8, 62-8G	1 - 2 1/4	1 ½	71-105	71-32	71-39	1 ½
	62-9, 62-9G	1 1/4 - 2 5/8	1 1/2	71-105	71-32	71-39	1 ½
			C	continued next	page		





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#### **2017 Tool Holders and Attachments**

#### Mount Blocks for Shank Style Shave heads, Six Spindle Acme Continued

Machine Model	Shave Order #	Shaving Capacity	Dovetail Size	Block for Pos. 2 dd	Block for Pos. 3	Block for Pos. 4	Shank Size/ Block Bore
	62-6, 62-6G	3/8 - 1 5/8	1	71-105	71-62	71-63	1 1/2
2 5% RB	62-7, 62-7G	3/4 - 2	1 1/4	71-105	71-62	71-63	1 1/2
2 78 ND	62-8, 62-8G	1 - 2 1/4	1 1/2	71-105	71-62	71-63	1 1/2
	62-9, 62-9G	1 ½ - 2 ½	1 1/2	71-105	71-62	71-63	1 1/2
	62-6, 62-6G	3⁄8 - 1 5⁄8	1	71-63	71-62	71-63	1 1/2
	62-7, 62-7G	3/4 - 2	1 1/4	71-63	71-62	71-63	1 1/2
3, 3 ½ RA, RB	62-8, 62-8G	1 - 2 1/4	1 1/2	71-63	71-62	71-63	1 1/2
4 RB	62-9, 62-9G	1 1/4 - 2 5/8	1 1/2	71-63	71-62	71-63	1 1/2
	62-10	1 ½ - 3	1 ½	71-48	71-83	71-48	1 3/4
	62-11	1 % - 3 ½	1 1/2	71-48	71-83	71-48	1 <sup>3</sup> / <sub>4</sub>
	62-12H	2 1/8-4	1 %	71-114	71-115	71-114	2

#### Mount Blocks for Shank Style Shave heads, Eight Spindle Nat'l Acme

Machine Model	Shave Holder Order #	Shaving Capacity	Dovetail Size	Pos. 2 dd	Pos. 4	Pos. 5
	62-1H	0 - 1/2	1/2	71-167H	71-112H	71-112H
3/4 RA	62-2, 62-2G	0 - 5/8	5/8	71-45	71-43	71-57
3/4 KA	62-62H, 62-62G (5 <sup>th</sup> only)	0 - 1	5/8	71-38	71-41H	71-41H
	62-4H	0 - 1	1	71-38	71-41H	71-41H
	62-2, 62-2G	0 - 5/8	5/8	71-133	71-204	71-133
1 ¼ RB	62-62H, 62-62G	0 - 1	5/8	71-64	71-36	71-64
	62-4H, 62-4G	0 - 1	1	71-64	71-36	71-64
1 % RBN	62-5, 62-5G	0 - 1 1/4	1	71-64	71-36	71-64
	62-6, 62-6G	3/8 - 1 5/8	1	71-46	71-34	71-46
	62-4H, 62-4G	0 - 1	1	71-136	71-169	71-136
1 % RA, RB	62-5, 62-5G	0 - 1 1/4	1	71-136	71-169	71-136
2 RB	62-6, 62-6G	3/8 - 1 %	1	71-40	71-60	71-40
	62-7, 62-7G	3/4 - 2	11/4	71-40	71-60	71-40
	62-5, 62-5G	0 - 1 1/4	1	71-347	71-127	71-67
	62-6, 62-6G	3/8 - 1 5/8	1	71-63	71-32	71-39
2 ¼, 2 % RA, RB	62-7, 62-7G	3/4 - 2	11/4	71-63	71-32	71-39
	62-8, 62-8G	1 - 2 1/4	1½	71-63	71-32	71-39
	62-9	1 ½ - 2 %	1½	71-63	71-32	71-39
	62-7, 62-7G	3/4 - 2	11/4	71-63	71-62	71-63
	62-8, 62-8G	1 - 2 1/4	1½	71-63	71-62	71-63
3 ⅓, 4 RB	62-9	1 1/4 - 2 5/8	1½	71-63	71-62	71-63
J /2, 4 ND	62-10	1 ½ - 3	1½	71-48	71-83	71-48
	62-11	1	11/2	71-48	71-83	71-48
	62-12H	2 1/8-4	15/8	71-114	71-115	71-114

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#### **2017 Tool Holders and Attachments**

#### Mount Blocks for Shank Style Shave heads (Pin Type), New Britain

	Shaving	Dovetail	Pin Style			Mounting Blo	cks	
Machine Model	Capacity	Size	Shave Holder	Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5
	0 - 5/8	5/8	62-2	61-4	61-3	61-3†	61-4	61-3
51 (1 cap.)	0 - 1	5/8	62-62H	61-6	61-5	61-5†	61-6	61-5
52 (1½ cap.)	0 - 1	1	62-4	61-6	61-5	61-5†	61-6	61-5
	0 - 1 1/4	1	62-5	61-6	61-5	61-5†	61-6	61-5
	0 - 5/8	5/8	62-2	61-4		61-3	61-4	
60 (1 cap.)	0 - 1	5/8	62-62H	61-6‡		61-5*	61-6‡	
s/n ≥ 24472	0 - 1	1	62-4	61-6‡		61-5*	61-6‡	
	0 - 1 1/4	1	62-5	61-6‡		61-5*	61-6‡	
	0 - 5/8	5/8	62-2	61-33		61-34	61-33	
	0 - 1	5/8	62-62H	61-21		61-22	61-21	
61 s/n ≥ 24341	0 - 1	1	62-4	61-21		61-22	61-21	
656	0 - 1 1/4	1	62-5	61-21		61-22	61-21	
(15/8 and 21/4 cap.)	3/8 - 1 5/8	1	62-6	61-8		61-7	61-8	
	3/4 - 2	1 ½	62-7	61-8		61-7	61-8	
	1 - 2 1/4	1 1/2	62-8	61-8		61-7	61-8	
	0 - 5/8	5/8	62-2	61-33	61-34	61-34†	61-33	61-34
	0 - 1	5/8	62-62H	61-21	61-22	61-22†	61-21	61-22
62	0 - 1	1	62-4H	61-21	61-22	61-22†	61-21	61-22
657, 812, 816, 817	0 - 1 1/4	1	62-5	61-21	61-22	61-22†	61-21	61-22
(2½ cap.)	3/8 - 1 %	1	62-6	61-8	61-7	61-7†	61-8	61-7
	3/4 - 2	1 1/4	62-7	61-8	61-7	61-7†	61-8	61-7
	1 - 2 1/4	1 1/2	62-8	61-8	61-7	61-7†	61-8	61-7
	0 - 1/2	1/2	62-1H	61-37H	61-27H	61-37H	61-27H	61-37H**
	0 - 5/8	5/8	62-2	61-10	61-13	61-10	61-13	61-10**
	0 - 1	5/8	62-62H	61-11	61-12	61-12	61-11	61-12**
601 & 602	0 - 1	1	62-4	61-11	61-12	61-12	61-11	61-12**
21/4 cap.	0 - 1 1/4	1	62-5	61-11	61-12	61-12	61-11	61-12**
	3/8 - 1 5/8	1	62-6	61-1	61-2	61-2	61-1	61-2**
	3/4 - 2	1 1/4	62-7	61-1	61-2	61-2	61-1	61-2**
	1 - 2 1/4	1 1/2	62-8	61-1	61-2	61-2	61-1	61-2**

<sup>†</sup> must have 3<sup>rd</sup> position shelf type slide. ‡ remove 5/8 x 1 section of cross slide for clearance per layout #12388 to clear assembly.

<sup>\*</sup> capacity limited to ½" in this position to clear roll holder.

<sup>\*\* 5</sup>th position slide must have T-slots and slide dimensions identical to 1st & 3rd position slides.







#### **2017 Tool Holders and Attachments**

#### Mount Blocks for Shank Style Shave heads (G Type), New Britain

Machine Model	Shaving	Dovetail	Advanced			Mounting Bloc	ks	
Machine Model	Capacity	Size	G-Series	Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5
	0 - 5/8	5/8	62-2G	61-4G	61-3G	61-3G†	61-4G	61-3G
51 (1 cap.)	0 - 1	5/8	62-62G	61-6	61-5	61-5†	61-6	61-5
52 (1½ cap.)	0 - 1	1	62-4G	61-6	61-5	61-5†	61-6	61-5
	0 - 1 1/4	1	62-5GU	61-6	61-5	61-5†	61-6	61-5
	0 - 5/8	5/8	62-2G	61-4		61-3	61-4	
60 (1 cap.)	0 - 1	5/8	62-62G	61-6‡		61-5*	61-6‡	
s/n ≥ 24472	0 - 1	1	62-4G	61-6‡		61-5*	61-6‡	
	0 - 1 1/4	1	62-5GU	61-6‡		61-5*	61-6‡	
	0 - 5/8	5/8	62-2G	61-33G		61-34G	61-33G	
	0 - 1	5/8	62-62G	61-21		61-22	61-21	
61 s/n ≥ 24341	0 - 1	1	62-4G	61-21		61-22	61-21	
656	0 - 1 1/4	1	62-5GU	61-21		61-22	61-21	
(15% and 21/4 cap.)	3/8 - 1 5/8	1	62-6G	61-8G		61-7G	61-8G	
	3/4 - 2	1 1/4	62-7G	61-8G		61-7G	61-8G	
	1 - 2 1/4	1 1/2	62-8G	61-8G		61-7G	61-8G	
	0 - 5/8	5/8	62-2G	61-33G	61-34G	61-34G†	61-33G	61-34G
	0 - 1	5/8	62-62G	61-21	61-22	61-22†	61-21	61-22
62	0 - 1	1	62-4G	61-21	61-22	61-22†	61-21	61-22
657, 812, 816, 817	0 - 1 1/4	1	62-5GU	61-21	61-22	61-22†	61-21	61-22
(2½ cap.)	3/8 - 1 5/8	1	62-6G	61-8G	61-7G	61-7G†	61-8G	61-7G
	3/4 - 2	1 1/4	62-7G	61-8G	61-7G	61-7G†	61-8G	61-7G
	1 - 2 1/4	1 1/2	62-8G	61-8G	61-7G	61-7G†	61-8G	61-7G
	0 - 5/8	5/8	62-2G	61-10	61-13	61-10	61-13	61-10**
	0 - 1	5/8	62-62G	61-11	61-12	61-12	61-11	61-12**
	0 - 1	1	62-4G	61-11	61-12	61-12	61-11	61-12**
601 & 602	0 - 1 1/4	1	62-5GU	61-11	61-12	61-12	61-11	61-12**
2¼ cap.	3/8 - 1 5/8	1	62-6G	61-1	61-2	61-2	61-1	61-2**
	3/4 - 2	1 1/4	62-7G	61-1	61-2	61-2	61-1	61-2**
	1 - 2 1/4	1 1/2	62-8G	61-1	61-2	61-2	61-1	61-2**

<sup>†</sup> must have 3<sup>rd</sup> position shelf type slide. ‡ remove 5/8 x 1 section of cross slide for clearance per layout #12388 to clear assembly.

<sup>\*</sup> capacity limited to ½" in this position to clear roll holder.

<sup>\*\* 5</sup>th position slide must have T-slots and slide dimensions identical to 1st & 3rd position slides.







#### **Mount Blocks for Shank Style Shave heads, Wickmans**

#	Machine	Pin Style	G-Series	Shaving	Dovetail	Mour	nting Blocks x P	osition
Spindles	Model	Shave	Shave	Capacity	Size	2	3	4
4	3 ½	62-11		1 % to 3 ½	1 ½	71-83†	71-48‡	71-83‡
		62-62H		0 - 1	5/8	71-217	71-218	71-217
	1	62-4H		0 - 1	1	11-211		11-211
		62-5		0 to 1 1/4	1	71-215	71-216	71-215
		62-2	62-2G	0 - 5/8	5/8			
5		62-62H	62-62G	0 - 1	5/8	71-428	71-429	71-428
	1 3/4	62-4H	62-4G	0 - 1	1			
	2 1/4	62-5	62-5G	0 to 1 1/4	1			
		62-6	62-6G	3/8 to 1 %	1	71-306	71-307	71-306
		62-7	62-7G	1 ¾ to 2	1 1/4			

<sup>†3</sup> ½ travel required to clear 3 ½ capacity stock at index.

<sup>‡ 2 1/2</sup> travel required to clear 3 1/2 stock at index.

#	Machine	Pin Styl	e G-S	eries	Shaving	Doveta	ii 📗		Mounting	Blocks by F	Position	
Spindles	Model	Shave	SI	nave	Capacity	Size		1	2	3	4	5
		62-1H	62	2-1G	0 - 1/2	1/2		7	1-526	71-526		71-526
	1,	62-2	62	2-2G	0 - 5/8	5/8	71-	41H 7	1-423	71-423	71-471	71-423
	6-26	62-62H	62	-62G	0 - 1	5/8		7	1-309	71-309	71-308	71-309
		62-4H	62	2-4G	0 - 1	1		,	1-309	11-309	11-300	11-309
		62-4H	62	2-4G	0 to 1	1	71.	429 7	1-428	71-429	71-429	71-428
	1 %,	62-5	62	2-5G	0 to 1 1/4	1	, 1	725	1-420	11-425	11-425	71-420
	1 3/4	62-6	62	2-6G	3/8 to 1 5/8	1	71.	307 7	1-306	71-307	71-307	71-306
		62-7	62	2-7G	3/4 - 2	1 1/4	, 1	301 1	1-300	11-301	11-301	71-300
		62-4H	62	2-4G	0 to 1	1	71.	136 7	1-169		71-136	71-169
6	2,	62-5	62	2-5G	0 to 1 1/4	1	, -	100 /	1 100		7 1 100	71100
	2 1/4	62-6	62	2-6G	3/8 - 1 %	1						
	2 /4	62-7		2-7G	3/4 - 2	1 1/4	71	40	71-60		71-40	71-60
		62-8	62	2-8G	1 - 2 1/4	1 1/2						
		62-6	62	2-6G	3/8 - 1 %	1						71-62
		62-7		2-7G	3/4 - 2	1 1/4	71	63	71-62	71-62	71-63	
	2 5/8,	62-8		2-8G	1 - 2 1/4	1 ½			102	. 1 02	1 2 00	. 1 02
	3 1/4	62-9		2-9G	1 1/4 - 2 5/8	1 ½						
		62-10	62	-10G	1 ½ - 3	1 ½	71	40	71 00	74.00	71-48	71-83
		62-11	62	-11G	1 % - 3 ½	1 ½	1 1	48	71-83	71-83	11-48	11-83
#	Machine	Pin Style	G-Series	Shaving	Dovetail			Mountir	g blocks	by position		
Spindles	Model	Shave	Shave	Capacity	Size	2	3	4	5	6	7	8
	4	62-2	62-2G	0 - 5/8	5/8	71-522	71-535	71-513	71-524	71-522	71-535	71-513
8	1	62-4H	62-4G	0 - 1	1		71-512				71-512	
	1 ¾	62-6	62-6G	3/8 - 1 5/8	1	71-60			71-40	71-60		

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#### **2017 Tool Holders and Attachments**

#### **Model "B" Box Way Type Shave Holders**



FASTER SETUP - All adjustments simple and conveniently to oper-

QUICK ELIMINATION OF TAPER - Adjusting screws in hear 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 the same base for all normal shaving positions

NO FLEXING OR LOSS OF ACCURACY - Heavy Duty head is made of 6150 steel, heat treated, and ground

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

IMPORTANT - HOLDER NO. CODE							
MACHINE	SHAVE	HEAD	ROLL	MOUNT	BASE		
٨	C	20	1	41	CO		
А	5	-29	-1	-41	-68		

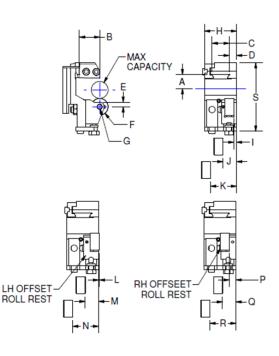
If different roll rest is need L.H., R.H., or Wide add the letter after the roll no.

AS-29-1RH-41-68

Example: AS-29-1LH-41-68

AS-29-1W-41-68

Head Code No.	29	36	51	48	49	75	47	40
Max Capacity	5/8"	1"	1 1/4"	15/8"	2"	2 1/4"	2 5/8"	3 1/2"
Min. Capacity	-0-	-0-	-0-	3/8"	3/4"	1"	1 1/4"	15/8"
Dovetail Size	5/8"	1"	1"	1"	1 1/4"	1 1/4"	1 1/2"	1 1/2"
Α	0.81	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	0.914	1.289	1.289	1.289	1.557	1.557	1.789	1.789
D	0.36	0.53	0.53	0.53	0.53	0.53	0.41	0.41
Е	0.25	0.34	0.34	0.34	0.42	0.42	0.42	0.42
F	0.75	1.25	1.25	1.25	1.25	1.25	1.25	1.25
G	0.31	0.37	0.37	0.37	0.50	0.50	0.50	0.50
Н	1.62	2.37	2.37	2.37	2.62	2.62	2.62	2.62
I	0.12	0.19	0.19	0.19	0.25	0.25	0.25	0.25
J	0.56	0.81	0.81	0.81	0.91	0.91	0.91	0.91
K	1.00	1.38	1.38	1.38	156	156	1.56	1.56
L	-0.06	-0.06	-0.06	-0.06	0.01	0.01	0.01	0.01
M	0.37	0.57	0.57	0.57	0.66	0.66	0.66	0.66
N	0.81	1.19	1.19	1.19	1.32	1.32	1.32	1.32
Р	0.43	1.18	1.18	1.18	1.30	1.30	1.30	1.30
Q	0.88	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 Shave Head Assy**

National Ac	me Machines - I	Model "B" Shaves	3	
Machine: Size & Model	Pos to be Used	Head Size and DT	Ordering Holder Code #	
7/8"RA & 1"RA-4 5/8"RN-6, 9/16", 1"RA & RAN-6, 3/4"RA-8	2 & 3 2DD, 3 & 4	5/8" Capacity 5/8" DT	AS-29-1-41-68	
7/8"RA & 1"RA-4 5/8"RN-6, 9/16", 1"RA & RAN-6, 3/4"RA-8	2 & 3 2DD, 3 & 4	1" Capacity 1" DT	AS-36-3-25-30	
1 1/4"RA-6 1 1/4"RB-8	2DD, 3 & 4 2DD, 4 & 5	1 1/4" Capacity 1" DT	AS-51-3-33-42	
1 3/8"AG-6	2DD, 3 & 4	1 1/4" Capacity 1" DT	AS-51-3-33-60	
1 5/8", 2"RAS-4 1 5/8"RBN-8	2 & 3 2DD, 4 & 5	1 5/8" Capacity 1" DT	AS-48-3-33-42	
1 5/8", 2"RB & RA-6 1 5/8", 2"RB-8	2DD, 3 & 4 2DD, 4 & 5	1 5/8" Capacity 1" DT	AS-48-3-33-39	
2"RAS-6	2DD, 3 & 4	2" Capacity 1 1/4" DT	AS-49-5-33-43	
2"RA-6	2DD, 3 & 4	2" Capacity 1 1/4" DT	AS-49-5-33-40	
2"RB-6 2"RB-8	2DD, 3 & 4 2DD, 4 & 5	2" Capacity 1 1/4" DT	AS-49-5-33-39	
2 5/8"RB-4 2 5/8"RB-6	2 & 3 2DD, 3 & 4	2 5/8" Capacity 1 1/2" DT	AS-47-5-32A-50	
2 5/8"RA-6	2DD, 3 & 4	2 5/8" Capacity 1 1/2" DT	AS-47-5-32A-38A	
2 5/8"RB-8	2DD, 4 & 5	2 5/8" Capacity 1 1/2" DT	AS-47-5-37A-69	
3 1/2"RB-4 3 1/2"RA & RB-6 3 1/2" RB-8	2 & 3 2DD, 3 & 4 2DD, 4 & 5	3 1/2" Capacity 1 1/2" DT	AS-40-5-32A-50	
4"RB-6	2DD, 3 & 4	4" Capacity 1 5/8" DT	AS-90-5-32A-50	

New Britain Ma	New Britain Machines - Model "B" Shaves									
Machine: Size & Model	Pos to be Used	Head Size and DT	Ordering Holder Code #							
51, 52	1,2,3,4,5	5/8" Capacity 5/8" DT	NS-29-1-41-51B							
60	1,3,4	3/6 Capacity 3/6 D1	N3-29-1-41-31B							
51, 52	3,4,5	1" Capacity 1" DT	NS-36-3-53-71							
60	1,4	1 Capacity 1 D1	143-30-3-33-71							
51, 52	1,2,3,4,5	1 1/4" Capacity 1" DT	NS-51-3-53-71							
60	3,4	1 1/4 Capacity 1 DT	N3-91-3-93-71							
61	1,3,4	1 1/4" Capacity 1" DT	NS-51-3-33-40							
61	1,3,4	1 5/8" Capacity 1" DT	NS-48-3-33-49							
		1 1/4" Capacity 1" DT	NS-51-3-33-49							
62	1,2,3,4,5	1 5/8" Capacity 1" DT	NS-48-3-33-49							
		2" Capacity 1 1/4" DT	NS-49-5-33-49							
625,627,635	1 2 2 4 5	2 5/8" Capacity 1 1/2" DT	NS-47-5-32-55B							
023,021,033	1,2,3,4,5	3 1/2" Capacity 1 1/24" DT	NS-40-5-32-55							
812,816,817	1,4,5,6	1 5/8" Capacity 1" DT	NS-48-3-33-65							
816,817	1,4,5,6	2" Capacity 1 1/4" DT	NS-49-5-33-65							
82	4,5,6	2" Capacity 1 1/4" DT	143-48-5-33-65							

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#### **2017 Tool Holders and Attachments**

#### **Model B Shave Head Assy Continued**

	Wickman - Model "B" Shaves									
Machine: Size & Model Pos to be Used Head Size and DT Ordering Holder Code #										
1"-6	4,5	F/O" Canacity F/O" DT	W 20 1 41 72							
1"-8	5,6	5/8" Capacity 5/8" DT	W-29-1-41-72							
1"-6	4,5	4    Composite 4    DT	W 20 05 05 54							
1"-8	4,6	1" Capacity 1" DT	W-36-25-25-51							
411.0	4.5	5/8" Capacity 5/8" DT	W-94-1W-41-83							
1"-8	4,5	1" Capacity 1" DT	W-36A-3-25-83							
4.2700.6.4.2740.6	4.5	1 1/4" Capacity 1" DT	W-51-3-33-45							
1 3/8"-6, 1 3/4"-6	4,5	1 5/8" Capacity 1" DT	W-48-3-33-45							
2 1/4"-6	3,4,5	2 1/4" Capacity 1 1/4" DT	W-49-5-33-39							



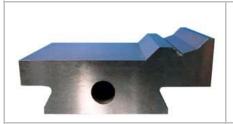


#### **Davenport Shave Heads**

Holder Style	Order #	Details	2 <sup>nd</sup> or B	3 <sup>rd</sup> or C	4 <sup>th</sup> or D	Notes	
	62-72G	0-5/8 cap. 1/2 dovetail	71-229\$2			Adjustable dovetail slide resists chatter, improves accuracy.	
New G-Series	62-77G†	0-7/8 cap. 1/2 dovetail		71-313S	71-360	Allows for traditional dovetail tool or Direct Mount™ Inserts.	
	62-72	0-5/8 cap. 1/2 dovetail	71-229	71-313S	71-360 71-360	Traditional Pin Style holder is an economical choice for finishing diameters. Built-in taper adjustment.  Adjustable box way slide resists chatter, improves	
Pin Style	62-77†	0-7/8 cap. 1/2 dovetail	71223	71-3135			
Model "B" Shank	111-87	0-5/8 cap. 1/2 dovetail	71-229	71-3138			
Style	95-87†	0-7/8 cap. 1/2 dovetail				accuracy.	

<sup>†</sup> For 7/8 Oversize Model Only. Note: G-Series Shaving System Shown with Optional Direct Mount™ Tool Post and Inserts

#### **Tooling Options**



**Dovetail Tooling:** Our dovetail tooling is extremely accurate and very affordable. This traditional tooling supplies long life and is available in various HSS and carbides.



**Insert Style Tooling:** For those looking to advance their shops in quality and productivity. Works best with G-Series Shaving Systems (the most advanced shave tool holder available today). Inserts are great time savers. They must be used with dovetail adapters or tool posts. Our insert system promotes better coolant and chip flow than the competition. We also have no minimum orders and can provide inserts in both carbide and HSS.

Better chip and coolant flow than the competition.

Adapters about 1/3 less cost than the competition.







#### Shave Supports—Tool Slide Mounted National Acme Six Spindle



	Machine Model	Style	Pos. 2	Pos. 3	Pos. 4	Roll Holder	Roll Width
	9/16 R, RA	Standard	85-26	85-3	85-4	82-50	3/8
		Wide	85-26A	85-3A	85-4A	82-57	3/4
בו בי	1 RA	Tapered	85-26B	85-3B	85-4B	82-57	3/4
Angular Tool Slide	1 R, RAS	Standard	85-22	85-6	85-12	82-53	3/8
<u>3</u>		Wide	85-22A	85-6A	85-12A	82-61	3/4
2	1 ¼ R, RA	Tapered	85-22B	85-6B	85-12B	82-61	3/4
D	0.01/.05/.0.04	Wide	85-87A	85-21A	85-48A	82-60	1
	2, 2 ¼, 2 % R, RA	Tapered	85-87B	85-21B	85-48B	82-60	1
		Standard	85-75	85-72	85-73	82-118	3/8
	7/16 RA	Wide	85-75A	85-72A	85-73A	82-119	1/2
		Tapered	85-75B	85-72B	85-73B	82-119	1/2
	5/8 RN	Standard	85-109	85-109	85-109	82-50	3/8
		Wide	85-109A	85-109A	85-109A	82-57	3/4
		Tapered	85-109B	85-109B	85-109B	82-57	3/4
		Standard	85-83	85-45	85-55	82-50	3/8
_	9/16, 1 RAN	Wide	85-83A	85-45A	85-55A	82-57	3/4
<u> </u>		Tapered	85-83B	85-45B	85-55B	82-57	3/4
3		Standard	85-60	85-59	85-58	82-108	3/8
Flat Tool Slide	1 ¼ RA, RB	Wide	85-60A	85-59A	85-58A	82-109	3/4
.D		Tapered	85-60B	85-59B	85-58B	82-109	3/4
	4.5/ DA DD	Standard	85-19	85-10	85-11	82-55	1/2
	1 % RA, RB	Wide	85-19A	85-10A	85-11A	82-82	1
	2 RB, RAS	Tapered	85-19B	85-10B	85-11B	82-82	1
	0.5/ DD	Wide	85-88A	85-76A	85-44A	82-116	1
	2 5% RB	Tapered	85-88B	85-76B	85-44B	82-116	1
	0.04/.04.05	Wide	85-42A	85-57A	85-89A	82-116	1
	3, 3 ½ RA, RB	Tapered	85-42B	85-57B	85-89B	82-116	1

#### **Shave Supports—Tool Slide Mounted National Acme Eight Spindle**

Machine Model	Style	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Roll Width
	Standard	85-117		85-118	85-121		3/8
3/4 RA	Wide	85-117A		85-118A	85-121A		3/4
	Tapered	85-117B		85-118B	85-121B		3/4
1 ¼ RB	Standard	85-99	85-100	85-96	85-101	85-102	1/2
1 5/4 RBN	Wide	85-99A	85-100A	85-96A	85-101A	85-102A	1
	Tapered	85-99B	85-100B	85-96B	85-101B	85-102B	1
1 5% RA. RB	Standard	85-82	85-122	85-35	85-85	85-110	1/2
- /	Wide	85-82A	85-122A	85-35A	85-85A	85-110A	1
2 RB	Tapered	85-82B	85-122B	85-35B	85-85B	85-110B	1
0.1/ 0.5/ 0.4 0.0	Wide	85-78A	85-103A	85-84A	85-86A	85-103A	1
2 ¼, 2 % RA, RB	Tapered	85-78B	85-103B	85-84B	85-86B	85-103B	1

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#### **Shave Supports—Tool Slide Mounted New Britain**



Machine	Ctulo	Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Roll Width
Model	Style	P0S. 1	P05. 2		P0S. 4	P05. 5	Koli Wiath
	Standard	85-1		85-1			3/8
41	Wide	85-1A		85-1A			
	Tapered	85-1B		85-1B			
	Standard	85-111	85-115	85-113	85-114	85-113	3/8
51	Wide	85-111A	85-115A	85-113A	85-114A	85-113A	3/4
	Tapered	85-111B	85-115B	85-113B	85-114B	85-113B	
	Standard	85-91	85-92	85-93	85-94	85-93	1/2
52	Wide	85-91A	85-92A	85-93A	85-94A	85-93A	1
	Tapered	85-91B	85-92B	85-93B	85-94B	85-93B	1
	Standard	85-7		85-20	85-7	85-115	3/8
60	Wide	85-7A		85-20A	85-7A	85-115A	3/4
	Tapered	85-7B		85-20B	85-7B	85-115B	3/4
	Standard	85-17		85-18	85-17	85-43	1/2
61	Wide	85-17A		85-18A	85-17A	85-43A	1
	Tapered	85-17B		85-18B	85-17B	85-43B	1
	Standard	85-65	85-43	85-66	85-67	85-66	1/2
62	Wide	85-65A	85-43A	85-66A	85-67A	85-66A	1
	Tapered	85-65B	85-43B	85-66B	85-67B	85-66B	1
	Standard	85-77	85-77	85-77	85-77	85-95	1/2
601	Wide	85-77A	85-77A	85-77A	85-77A	85-95A	1
	Tapered	85-77B	85-77B	85-77B	85-77B	85-95B	1
	Standard	85-46	85-46	85-46	85-46	85-46	1/2
602	Wide	85-46A	85-46A	85-46A	85-46A	85-46A	1
	Tapered	85-46B	85-46B	85-46B	85-46B	85-46B	1
626 lot A 635	Wide			85-124A	85-123A	85-124A	1
626 lot B	Wide			85-125A	85-126A	85-125A	1

#### **Shave Supports—Tool Slide Mounted Wickman**

# Spindles	Machine Model	Style	Capacity	1	2	3	4	5	6	7
	1 3/4,	Wide	13/32 - 1 1/4	85-64A	85-61A	85-62A	85-63A			
5	2 1/4	Tapered	13/32 - 1 -74	85-64B	85-61B	85-62B	85-63B			
	1	Standard	0 - 1	85-142	85-142	85-142	85-142	85-142		
6	1 %,	Wide	12/20 11/		85-71A	85-71A	85-56A	85-56A		
	1 3/4	Tapered	13/32 - 1 <sup>1</sup> / <sub>4</sub>		85-71B	85-71B	85-56B	85-56B		
0	1	Standard						85-141	85-140	
<u> </u>	1 3/4	Standard					85-110	85-85	85-35	85-122

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### Advanced Insert System Reduces Downtime, Improves Quality

Our customers talked. We listened. The results have been impressive. Our new Direct Mount™ Insert technology works hand-in-hand with setup reduction programs to improve machine utilization. Screw-on inserts eliminate tool adjustments at tool change and allow excellent chip flow and coolant access to the cutting edge. Mount directly to our new G-Series Shaving System or use a dovetail adapter with older shave tool holders and dovetail form tool holders.

#### Case History: Berkley Screw

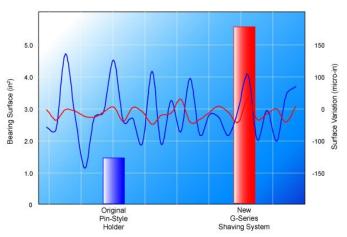
Like most companies, Berkley Screw used our original pin-style shave tool holder with dovetail HSS tooling. Quality and uptime were both considered acceptable. We replaced their traditional shave tool system with a new G-Series™ Shaving System with Direct Mount™ Inserts. The results were impressive. Initial surface finish approached the quality of a ground part while tool life soared. With the older holder, Berkley had to adjust for diameter once a shift as the tool either wore or was replaced with a new tool. After switching to our advanced shaver, diameter adjustments were eliminated.

Inserts blanks are available from stock for those who EDM their own tools, or we can finish EDM the tooling for you and guarantee tool-to-tool deviation of less than ±.0005" with tighter tolerances within the form. Each job has a dedicated tool post or adapter, guaranteeing the integrity of the setup and making for quick changeovers.

Customers have two choices in materials: An extremely tough micro-grain carbide or a specialty high-alloy PM tool steel which is as tough as T-15 but about 8% harder, it yields better part finishes with about the same grindability as T-15.

#### What's New in Shaving

Our new G-Series shaving system has innovative features which improve the shaving process. A tighter, smoother float handles chatter better and stands up to abuse. One customer accidentally proved the strength of the new G-Series™ Shaving System when their form tool wasn't clamped during the initial setup. The customer shaved .600" off the diameter of hundreds of parts with no damage to the holder or the tool. The only sign of trouble was a small heat blemish on the part. The part was perfectly sized.



New G-Series Shaving System with Direct™ Mount Inserts Outperforms Traditional Pin-Style Shaver

#### **Actual Results**

Material: 12L14

Machine: Model 62 New Britain

	Before	After
Microfinish (new tool)	45 Ra	9 Ra
Microfinish (at tool change)	120 Ra	65 Ra
Pieces per edge	5,000	70,000
Shifts to tool change	2	24
Holder adj per shift	1	0

Our Advanced Direct Mount™ Tooling System is engineered for both forming and shaving. Screw on inserts have all the ease and repeatability of standard ISO inserts, excellent chip flow and no blind pockets for chips to accumulate



Typical Shaving Application
Tool Post & Insert



Dovetail Form Adapter w/o Insert

**Are you ready for a change?** Direct Mount<sup>m</sup> is Easy, Fast and Reliable. Call for details.

- Improve part quality & finish.
- Reduce downtime from tool changes.
- Reduce tool inventory & safety stock.
- Eliminate Operator Error in Tool Change.
- Decrease Tooling Lead Times.







#### **Perishable Tooling - Do it yourself Inserts!**

You machine your own dovetail tooling, now machine your own inserts...



#### Features & benefits

- Lower your tooling costs by moving to replaceable inserts... One insert blank replaces multiple form and shave blanks with various dovetail sizes, offsets and rake angles. You'll reduce your tooling inventory dramatically. Instead of buying dovetail blanks that might sit for months (or more), your inserts will work with multiple jobs and never go unused. We found that we could replace 39 standard dovetail form blanks and 99 standard shave blanks with only 3 different inserts.
- Are you buying inserts but making your own dovetail tools? Save money and time by finish machining insert blanks in-house. End the frustration of uncertain delivery times and communication errors. Get what you want when you want every time. You control the process!
- Simplify your perishable tooling... worry only about the length of the part. Our patent pending insert system works with any dovetail size, any offset, any rake angle, any tool length, and part lengths up to 2". Custom sizes are available.
- You'll save time and money finishing your tools because inserts machine faster than dovetail tools, improving turnaround on all jobs in the shop. Operators and quality control staff both agree that inserts improve both quality and machine utilization.
- One standard Schlitter insert blank can be used for any offset, any rake angle, any tool length and any part width up to 2" wide. We found that we can cover a range of 39 standard dovetail form tool blanks and 99 standard dovetail shave tool blanks with only 3 insert blanks. That's a huge savings by any standard.
- Works with any datum system.
- We provide the insert blanks, engineering support, EDM fixturing, adaptive form tool holders and our advanced G-Series shaving system.

#### **Need Tooling? We can help!**

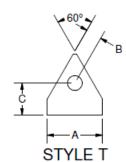
Get your tooling from the industry experts. Our tooling is accurate and highly repeatable. Our zero-defect process creates extremely accurate profiles on-time, every time. Call today

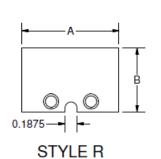


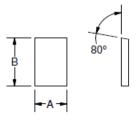




#### **Perishable Tooling - Do it yourself Inserts Blanks**







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Part #	Insert Style	Thickness	A	В	С	Hole Size	Material Spec	Notes
T-650-CZ	Т	0.1875	0.650	0.188	0.438	4mm ISO	High Grade Carbide	
T-650-MX	T	0.1875	0.650	0.188	0.438	4mm ISO	Heat Treated HSS	
T-866-CZ	T	0.1875	0.866	0.250	0.500	5mm ISO	High Grade Carbide	
T-866-MX	T	0.1875	0.866	0.250	0.500	5mm ISO	Heat Treated HSS	
R1501-CZ	R	0.1875	1.52	1.000		4mm ISO	High Grade Carbide	
R1501- MX	R	0.1875	1.52	1.000		4mm ISO	Heat Treated HSS	
R2001-CZ	R	0.1875	2.02	1.000		4mm ISO	High Grade Carbide	
R2001- MX	R	0.1875	2.02	1.000		4mm ISO	Heat Treated HSS	
R2501- MX	R	0.1875	2.52	1.000		4mm ISO	High Grade Carbide	
R3001- MX	R	0.1875	3.02	1.000		4mm ISO	Heat Treated HSS	
1395- BLANK	S	0.125	.5000/.49 95	.7495/.74 90		n/a	High Grade Carbide	J Polished Top Suface, Exterior Sizes Finished, with 10 deg on Cutting Edge







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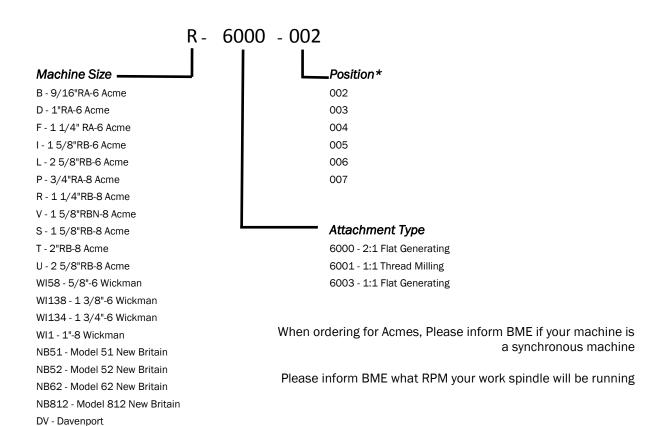
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#### **2017 Tool Holders and Attachments**

#### Cross Slide Flat Generating & Thread Milling Make it complete!

- Heavy Duty attachment allows for machining in steel
- Attachment Drives 1:1 or 2:1 with change gears, allowing core attachment to both Thread Mill and Flat Generate
- Heat Treated Gears and Components
- Drives of Standard Spindle Drive Shaft Pickoff Gear
- Flat Generating cutter uses Carbide Inserts
- Attachment can be mounted in different positions by change the base plate
- Thread Milling Attachment has taper adjustments for exact pitch straightness
- Outboard transmission allows room for drill saddle to be mounted on the tool slide in the same position
- Handles "Behind Shoulder Flats" that eliminates Secondary Operations
- Requires Spindle Drive Shaft Mounted Pickoff Drive Gear (not included)
- Cross slide mounted, easily generates flats and threads behind shoulders



#### \*Notes on Positions -

Acme Six Spindles are available in Positions 2, 3, and 4
Acme Eight Spindles are available in Positions 3, 4, 5,6
New Britain and Wickman Six Spindles are available in Positions 3,4,5
New Britain and Wickman Eight Spindles are available in Positions 3,4,5,6
Davenport Models are only available in Position 4 – Please specify if threading is also being used.
For best results, BME recommends keeping cross slide feed cam at .0005"/rev or below







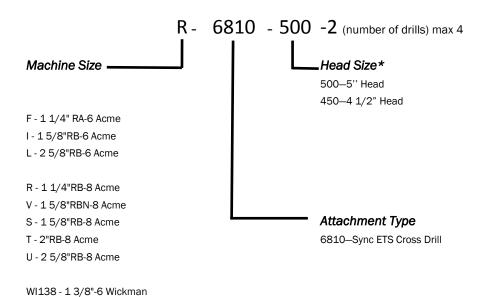
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#### **2017 Tool Holders and Attachments**

#### Synchronous ETS Cross Drill Make it complete!

- Heavy Duty attachment allows for machining in steel
- Drill Cross Holes without stopping the spindle
- Quick Change Drill Cap Assy for fast and easy tooling change
- Simple individual depth adjustments for Drill
- Patent Pending Design
- Drill 1 to 4 Holes
- RH Tooling
- Drill Strokes up to .400"
- RPM Ratio (Drill to Work Spindle) 1.25:1 Feed Ratio (MTS / Drill Feed) 1.0:.414
- Max Drill Diameter of Part to be drilled—1.25"
- Requires 1:1 Pickoff Drive Unit, not included



Please inform BME what RPM your work spindle will be running

NB52 - Model 52 New Britain NB62 - Model 62 New Britain

WI134 - 1 3/4"-6 Wickman

<sup>\*</sup>Notes on Positions -

 $<sup>^*13/8</sup>$ ''-6 Wickman requires an alteration to the machine tool slide to use 5'' Head,  $^41/2$ ''' head fits

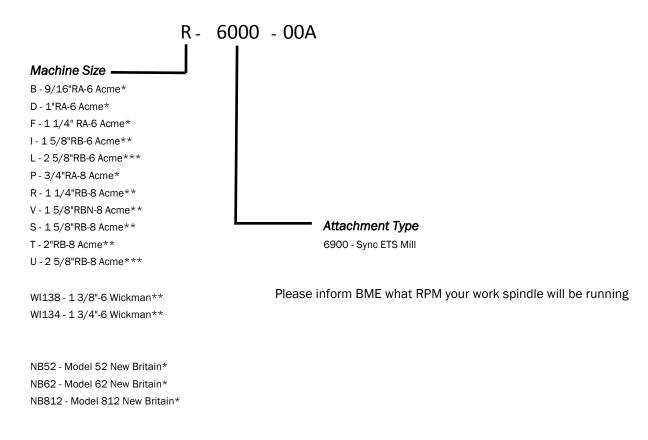
<sup>\*</sup> Max Head on 52 New Britain is a 4 1/2".





#### Synchronous End Tool Slide Milling Attachments Make it complete!

- Fits most multi spindles automatics
- Heavy Duty Ball Bearing Construction
- Face Plate System allows Support Bushings
- High Pressure Coolant Ports
- Hardened and Ground Components
- No Line Boring Required
- Requires 1:1 Pickoff Drive Unit, not included



#### \*Notes on Positions -

\*3" Body—Max 3" Cutter w/ 1" Arbor \*\* 4.5 Body—Max 4 1/2" Cutter w/ 1" Arbor \*\*\* 5" Body—Max 5 1/2"" Cutter w/ 1" Arbor

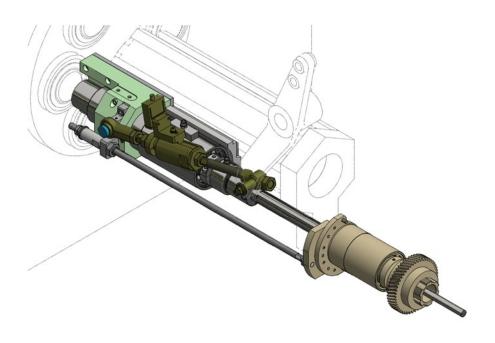




#### **New Britain Air Operated Pick Off Assemblies Make it complete!**

- Units available for Model 51, Model 52, and Model 62 New Britains
- Completely Pneumatic Piston, including air blow out, "Acme" style Pickoff
- Utilizes National Acme Pick Off collets
- Hardened and Ground Components
- Sealed Bearings, included the front angular contact bearing
- Unit comes with Housing and Spindle, Drive Unit, and Safety Link Assy with Elec Jam Switch
- Utilizes Existing Standard New Britain Feed Lever and Linkage (not provided)
- Boring Bar adapter available
- Pneumatic control packages available
- Installation available

Machine Size	Complete Assy #	Nat'l Acme Collet #
Model 51 New Britain	NB51-2000	A0-2920 thru A0-2940 (1'' Max)
Model 52 New Britain	NB52-2000	JM-2920 thru JM-2940 (1 1/4'' Max)
Model 62 New Britain	NB62-2000	AW-2920 thru AW-2940 (2" Max)



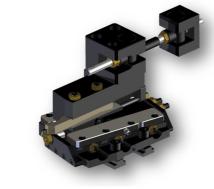


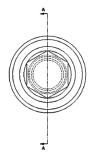


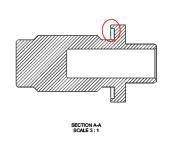
#### **2017 Tool Holders and Attachments**

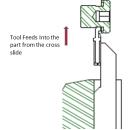
#### Cross Slide Recess Attachments / Face Grooving Make it complete!

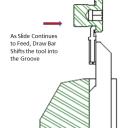
- Designed and Manufactured for Acmes, New Britains, Wickmans, and more
- Mounts on Cross Slide,
- Unit can be purchased to feed toward the spindle or away from the spindle
- Provides a solution to cutting grooves, trepans, and under cuts

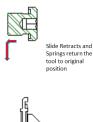








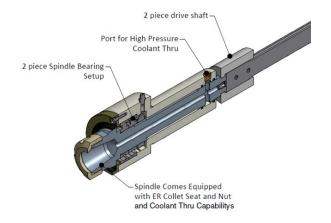




#### Contact BME for Pricing and Availability!

#### **Ball Bearing Style High Speed Drilling Spindles**

- Precision Spindle Bearings replace traditional plain bearings and ball thrust bearing, allowing for proper end play, and better tool performance and tool life
- Spindle comes with ER collet seat, allowing for easier change over between drill sizes, and better tool performance and tool life
- 2 piece drive shaft construction allows for easier installation



Contact BME for Pricing and Availability!