



**CATEGORY DEFINITION**

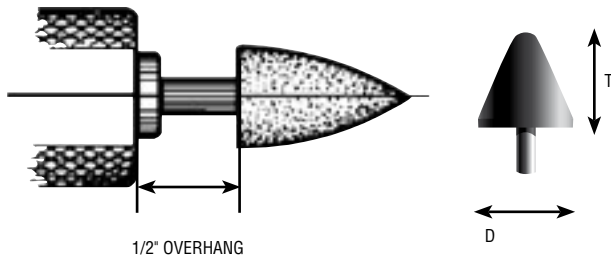
Resin bond, vitrified bond, center lap, and cotton fiber mounted points are available in a wide range of shapes.

- INDUSTRIES:**
- Aerospace
  - Tool and Die
  - Construction
  - Metal Fabrication
  - Automotive
  - Cutlery
  - Mold Shops
  - Stainless Steel Equipment
  - Foundries

**ABRASIVE GRAIN:** Ceramic Alumina, Zirconia Alumina, Aluminum Oxide, Silicon Carbide

**SHAPE AVAILABILITY:** A, B, and W

**MEASUREMENT GUIDE**



**DESCRIPTION OF OVERHANG**

Overhang is the distance between the grinder chuck and the abrasive on the spindle. The larger the overhang, the lower the maximum safe operating speed.

**SIZE**

Measured by diameter (D) x thickness (T)

**FEATURED PRODUCTS**



**CENTER LAP MOUNTED POINTS**

FOR EXCELL-O CENTER LAP AND SIMILAR MACHINES

**FEATURES**

- Specially formulated wheel treatment (#5 wood resin)
- Larger diameter spindle
- Precise dimensional tolerances

**BENEFITS**

- Adds lubricity to the wheel, minimizing risk of metallurgical damage
- Minimum deflection, rigid support
- Ensure accurate location of part centers

**AVAILABILITY**

TIER:	<b>BETTER</b>
BRAND:	Norton
TRADENAME:	<b>CENTER LAP</b>
ABRASIVE:	Aluminum Oxide

SHAPE	SIZE (D x T)	SPINDLE DIA. †	MAX. RPM*	MIN./STD. PKG.	SPEC	PART NO.
<b>Center Lap Mounted Points</b>						
–	1/2 x 2**	1/2	65,000	5/25	A80-VVM	61463621421
–	1 x 2**	1/2	15,900	5/25	A80-VVM	61463622926

\*\* POINTED 60°  
 † SPINDLE LENGTH IS 1-1/4"  
 \* MAXIMUM OPERATING SPEED BASED ON 1/2" OVERHANG

**TECHtip**

Dress the center lap mounted points frequently to ensure accurate and smooth center holes.



It is the user's responsibility to refer to and comply with ANSI B7.1



**COTTON FIBER MOUNTED POINTS**  
GOOD FOR BLENDING AND POLISHING

**FEATURES**

- 80 grit
- 120 grit

**BENEFITS**

- For most materials
- For polishing and stainless steel applications

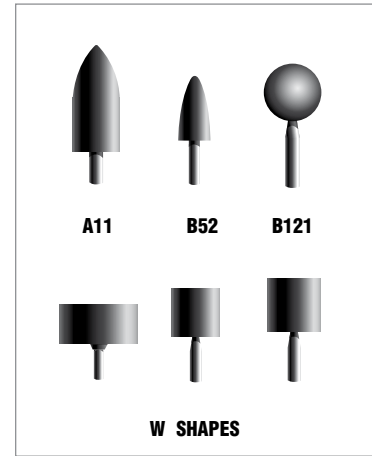
**AVAILABILITY**

TIER:	<b>GOOD</b>
BRAND:	Norton
TRADENAME:	<b>COTTON FIBER</b>
ABRASIVE:	Aluminum Oxide

SHAPE	SIZE (D x T)	SPINDLE DIA. †	MAX. RPM*	MIN./STD. PKG.	SPEC	PART NO.
<b>Cotton Fiber Mounted Points</b>						
A11	7/8 x 2	1/4	19,860	25/25	A80-HBF3	61463622664
B52	3/8 x 3/4	1/8	45,370	25/25	A120-HBF3	61463620242
B121	1/2" Ball	1/8	45,370	25/25	A80-HBF3	61463622657
W163	1/4 x 1/2	1/8	60,000	25/25	A80-HBF3	61463622655
					A120-HBF3	61463622656
W176	3/8 x 1/2	1/8	45,370	25/25	A80-HBF3	61463622654
W185	1/2 x 1/2	1/8	34,500	25/25	A80-HBF3	61463622649
W187	1/2 x 1	1/8	20,620	25/25	A80-HBF3	61463622651
W220	1 x 1	1/4	25,500	25/25	A80-HBF3	61463622646

† SPINDLE LENGTH IS 1-1/2"

\* MAXIMUM OPERATING SPEED BASED ON 1/2" OVERHANG



**NORTON NORZON – RESIN BOND MOUNTED POINTS**  
BEST CHOICE FOR FAST STOCK REMOVAL

**FEATURES**

- NZ (NorZon) zirconia alumina self-sharpening abrasive and durable organic bond

**BENEFITS**

- 2X faster stock removal than competitive aluminum oxide products
- Last 4X longer



**NORTON CHARGER – RESIN BOND MOUNTED POINTS**  
BETTER CHOICE FOR FAST STOCK REMOVAL AND LONG LIFE

**FEATURES**

- Zirconia alumina/aluminum oxide abrasive blend
- Specially formulated organic bond

**BENEFITS**

- 35% faster cut rate than standard aluminum oxide
- An aggressive, free cut
- More parts cleaned in less time to substantially increase productivity
- 2X greater life than ordinary aluminum oxide
- Reduces vibration and wheel chatter

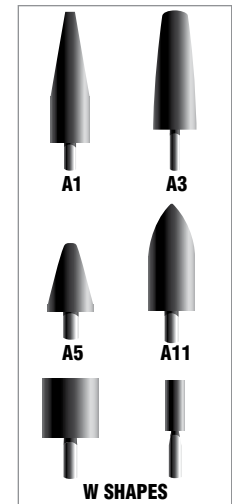
**AVAILABILITY**

TIER:	<b>BEST</b>	<b>BETTER</b>
BRAND:	Norton	Norton
TRADENAME:	<b>NORZON</b>	<b>CHARGER</b>
ABRASIVE:	Zirconia Alumina	Zirconia Alumina/Aluminum Oxide

SHAPE	SIZE (D x T)	SPINDLE DIA. †	MAX. RPM*	MIN./STD. PKG.	SPEC	PART NO.	SPEC	PART NO.
<b>Resin Bond Mounted Points</b>								
A1	3/4 x 2-1/2	1/4	19,800	5/25	NZ24-UBXR1	61463616457	Charger	61463616458
A3	1 x 2-3/4	1/4	16,100	5/25	NZ24-UBXR1	61463616459	Charger	61463616460
A5	3/4 x 1-1/8	1/4	45,000	5/25			Charger	61463616462
A11	7/8 x 2	1/4	19,860	5/25	NZ24-UBXR1	61463616463	Charger	61463616464
W189	1/2 x 2	1/4	24,000	5/25	NZ24-UBXR1	61463616465	Charger	61463616466
W197	5/8 x 2	1/4	21,000	5/25	NZ24-UBXR1	61463616467		
W207	3/4 x 1-1/2	1/4	24,000	5/25			Charger	61463616470
W208	3/4 x 2	1/4	18,750	5/25	NZ24-UBXR1	61463616471	Charger	61463616472
W220	1 x 1	1/4	25,500	5/25	NZ24-UBXR1	61463617520	Charger	61463617521
W221	1 x 1-1/2	1/4	19,120	5/25	NZ24-UBXR1	61463616473	Charger	61463616474
W222	1 x 2	1/4	15,900	5/25	NZ24-UBXR1	61463616475	Charger	61463616476

† SPINDLE LENGTH IS 1-1/2"

\* MAXIMUM OPERATING SPEED BASED ON 1/2" OVERHANG





EXPANDED OFFERING

**NORTON QUANTUM – VITRIFIED BOND MOUNTED POINTS**

BEST CHOICE FOR HIGH VOLUME OPERATIONS

**FEATURES**

- Unique, engineered ceramic grain shape and chemistry with proven bond technology
- NEW! Oil and Gas 36 grit mounted points

**BENEFITS**

- Ideal for high-volume foundry operations – grinding Inconel and similar alloy turbine blade components
- Minimal loading and heat build-up
- 33% + longer life versus competitive ceramic products
- 30% + higher metal removal rates
- Versatile, optimized for all low-, medium- and high-force applications
- Exceptional productivity and life
- Specifically engineered to efficiently grind the carbide matrix material of oilfield drill heads



**NORTON GEMINI – VITRIFIED BOND MOUNTED POINTS**

GOOD VALUE FOR GENERAL PURPOSE, SMALL JOB SHOP APPLICATIONS

**FEATURES**

- 38A abrasive
- Diverse shapes and sizes

**BENEFITS**

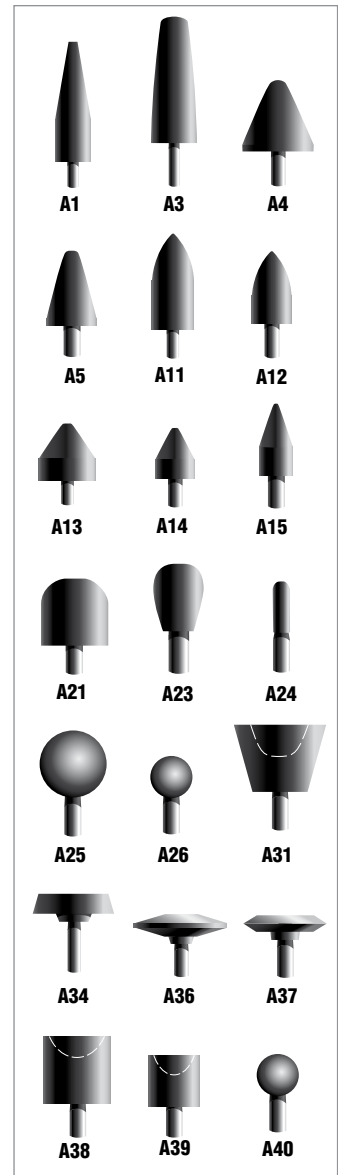
- Cool cutting, less burn
- Ideal when initial price is the main purchasing consideration

AVAILABILITY

TIER:	<b>BEST</b>	<b>GOOD</b>
BRAND:	Norton	Norton
TRADENAME:	<b>QUANTUM</b>	<b>GEMINI</b>
ABRASIVE:	Ceramic Alumina	38A

SHAPE	SIZE (D x T)	SPINDLE DIA.†	MAX. RPM*	MIN./STD. PKG.	SPEC	PART NO.	SPEC	PART NO.
<b>Vitrified Bond Mounted Points – A Shapes</b>								
A1	3/4 x 2-1/2	1/4	19,800	25/250	Oil & Gas 36	61463686139		
A1	3/4 x 2-1/2	1/4	19,800	5/25	3NQ80	69083149139	38A36-T	61463624374
A1	3/4 x 2-1/2	1/4	19,800	5/25			38A60-P	61463624375
A3	1 x 2-3/4	1/4	16,100	25/250	Oil & Gas 36	61463686138		
A3	1 x 2-3/4	1/4	16,100	5/25			38A36-T	61463624377
A3	1 x 2-3/4	1/4	16,100	5/25			38A60-P	61463624378
A4	1-1/4 x 1-1/4	1/4	30,560	5/25			38A60-P	61463624380
A5	3/4 x 1-1/8	1/4	45,000	5/25			38A36-T	61463624381
A5	3/4 x 1-1/8	1/4	45,000	5/25			38A60-P	61463624382
A11	7/8 x 2	1/4	19,860	5/25	3NQ80	69083149141	38A36-T	61463624384
A11	7/8 x 2	1/4	19,860	5/25			38A60-P	61463624385
A12	11/16 x 1-1/4	1/4	48,000	5/25	3NQ60	61463677679	38A60-P	61463624388
A13	1-1/8 x 1-1/8	1/4	33,950	5/25			38A60-P	61463624389
A14	11/16 x 7/8	1/4	55,560	5/25			38A60-P	61463624390
A15	1/4 x 1-1/16	1/4	72,750	5/25			38A60-P	61463624391
A21	1 x 1	1/4	34,500	5/25	3NQ80	69083149144	38A60-P	61463624392
A23	3/4 x 1	1/4	39,370	5/25	3NQ80	69083149143	38A60-P	61463624394
A24	1/4 x 3/4	1/4	76,500	5/25			38A60-P	61463624395
A25	1" Ball	1/4	35,620	5/25	3NQ80	61463677680	38A60-P	61463624396
A26	5/8" Ball	1/4	61,120	5/25	3NQ80	69083149145	38A60-P	61463624397
A31	1-3/8 x 1	1/4	27,780	5/25			38A60-P	61463624399
A34	1-1/2 x 3/8	1/4	25,470	5/25			38A60-P	61463624402
A36	1-5/8 x 3/8	1/4	23,520	25/250	Oil & Gas 36	66253145562		
A36	1-5/8 x 3/8	1/4	23,520	5/25	3NQ80	69083149146	38A60-P	61463624404
A37	1-1/4 x 1/4	1/4	30,560	5/25			38A60-P	61463624405
A38	1 x 1	1/4	34,500	5/25	3NQ80	61463677682	38A60-P	61463624406
A39	3/4 x 3/4	1/4	47,250	5/25	3NQ80	69083149147	38A60-P	61463624407
A40	3/4" Ball	1/4	47,250	5/25			38A60-P	61463624408

† STANDARD SPINDLE SIZE IS 1/4" X 1-1/2"  
\* MAXIMUM OPERATING SPEED BASED ON 1/2" OVERHANG



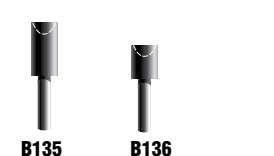
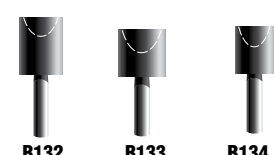
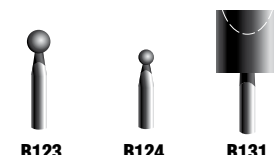
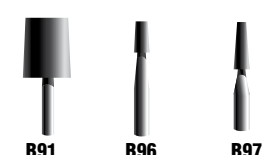
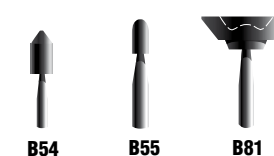
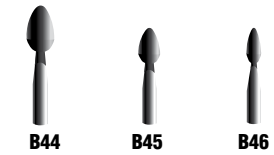
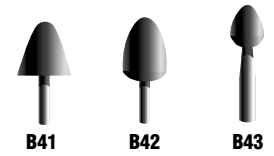


## AVAILABILITY

TIER:	<b>BEST</b>	<b>GOOD</b>
BRAND:	Norton	Norton
TRADENAME:	<b>QUANTUM</b>	<b>GEMINI</b>
ABRASIVE:	Ceramic Alumina	38A

SHAPE	SIZE (D x T)	SPINDLE DIA.†	MAX. RPM*	MIN./STD. PKG.	SPEC	PART NO.	SPEC	PART NO.
<b>Vitrified Bond Mounted Points – B Shapes</b>								
B41	5/8 x 5/8	1/8	33,570	5/25			38A60-P	61463624410
B42	1/2 x 3/4	1/8	33,570	5/25	3NQ80	69083149045	38A60-P	61463624412
B43	1/4 x 5/16	1/8	81,370	5/25			38A60-P	61463624413
B44	7/32 x 3/8	1/8	68,400	5/25			38A60-P	61463624414
B45	3/16 x 5/16	1/8	104,250	5/25			38A60-P	61463624415
B46	1/8 x 5/16	1/8	105,000	5/25			38A60-P	61463624416
B51	7/16 x 3/4	1/8	45,370	5/25			38A60-P	61463624418
B52	3/8 x 3/4	1/8	45,370	5/25	3NQ80	69083149046	38A60-P	61463624420
B52	3/8 x 3/4	1/4	81,000	5/25			38A60-P	61463624419
B52	3/8 x 3/4	1/8	45,370	5/25			38A90-Q	61463624422
B53	5/16 x 5/8	1/8	60,000	5/25			38A60-P	61463624423
B54	1/4 x 1/2	1/8	60,000	5/25			38A60-P	61463624424
B55	1/8 x 1/4	1/8	105,000	5/25			38A60-P	61463624425
B81	3/4 x 3/16	1/8	50,930	5/25			38A60-P	61463624437
B91	1/2 x 5/8	1/8	34,500	5/25			38A60-P	61463624443
B96	1/8 x 1/4	1/8	105,000	5/25			38A60-P	61463624448
B96	1/8 x 1/4	1/8	105,000	5/25			38A90-Q	61463624449
B97	1/8 x 3/8	1/8	105,000	5/25	3NQ80	69083149048	38A60-P	61463624451
B98	3/32 x 1/4	1/8	105,000	5/25			38A60-P	61463624452
B121	1/2" Ball	1/8	45,370	5/25			38A60-P	61463624466
B122	3/8" Ball	1/8	61,650	5/25	3NQ80	69083149050	38A60-P	61463624470
B122	3/8" Ball	1/8	61,650	5/25			38A90-Q	61463624471
B123	3/16" Ball	1/8	104,250	5/25			38A60-P	61463624472
B124	1/8" Ball	1/8	105,000	5/25			38A90-Q	61463624474
B131	1/2 x 1/2	1/8	34,500	5/25	3NQ80	69083149049	38A60-P	61463624475
B132	3/8 x 1/2	1/8	45,370	5/25			38A60-P	61463624479
B133	3/8 x 3/8	1/8	54,000	5/25			38A60-P	61463624481
B134	5/16 x 3/8	1/8	61,650	5/25			38A60-P	61463624482
B135	1/4 x 1/2	1/8	60,000	5/25			38A60-P	61463624484
B136	1/4 x 5/16	1/8	77,250	5/25			38A60-P	61463624485

† STANDARD SPINDLE SIZE IS 1/8" OR 1/4" X 1-1/2"  
 \* MAXIMUM OPERATING SPEED BASED ON 1/2" OVERHANG





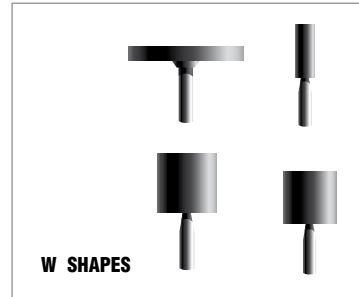
## AVAILABILITY

TIER:	<b>BEST</b>	<b>GOOD</b>
BRAND:	Norton	Norton
TRADENAME:	<b>QUANTUM</b>	<b>GEMINI</b>
ABRASIVE:	Ceramic Alumina	38A

SHAPE	SIZE (D x T)	SPINDLE DIA. †	MAX. RPM*	MIN./STD. PKG.	SPEC	PART NO.	SPEC	PART NO.
<b>Vitrified Bond Mounted Points – W Shapes</b>								
W144	1/8 x 1/4	1/8	105,000	5/25			38A60-P	61463624488
W145	1/8 x 3/8	1/8	105,000	5/25			38A60-P	61463624489
W146	1/8 x 1/2	1/8	105,000	5/25			38A60-P	61463624491
W152	3/16 x 1/4	1/8	105,000	5/25			38A60-P	61463624495
W153	3/16 x 3/8	1/8	80,850	5/25			38A60-P	61463624496
W154	3/16 x 1/2	1/8	70,500	5/25	3NQ80	69083149133	38A60-P	61463624497
W160	1/4 x 1/4	1/8	81,370	5/25			38A60-P	61463624501
W162	1/4 x 3/8	1/8	64,800	5/25			38A60-P	61463624503
W163	1/4 x 1/2	1/8	60,000	5/25			38A60-P	61463624504
W164	1/4 x 3/4	1/8	45,900	5/25	3NQ80	69083149135	38A60-P	61463624505
W170	5/16 x 1/2	1/8	52,500	5/25			38A60-P	61463624511
W175	3/8 x 3/8	1/8	54,000	5/25			38A60-P	61463624516
W176	3/8 x 1/2	1/8	45,370	5/25			38A60-P	61463624517
W177	3/8 x 3/4	1/8	33,750	5/25			38A60-P	61463624518
W179	3/8 x 1-1/4	1/8	20,415	25/250	Oil & Gas 36	69083154055		
W185	1/2 x 1/2	1/8	34,500	5/25	3NQ80	69083149137	38A60-P	61463624525
W185	1/2 x 1/2	1/4	61,500	5/25			38A60-P	61463624526
W186	1/2 X 3/4	1/4	51,000	5/25			38A60-P	61463624528
W188	1/2 x 1-1/2	1/4	30,370	5/25			38A60-P	61463624530
W189	1/2 x 2	1/4	24,000	25/250	Oil & Gas 36	61463686137		
W189	1/2 x 2	1/4	24,000	5/25	3NQ80	61463677683	38A60-P	61463624531
W196	5/8 x 1	1/4	35,250	5/25			38A60-P	61463624539
W200	3/4 x 1/8	1/8	50,930	5/25			38A60-P	61463624543
W200	3/4 x 1/8	1/8	50,930	5/25			38A90-Q	61463624544
W204	3/4 x 3/4	1/4	42,750	5/25			38A60-P	61463624549
W205	3/4 x 1	1/4	34,500	5/25			38A60-P	61463624550
W208	3/4 x 2	1/4	18,750	5/25	3NQ80	61463677684	38A60-P	61463624553
W215	1 x 1/8	1/8	38,200	5/25	3NQ80	69083149138	38A60-P	61463624560
W216	1 x 1/4	1/4	38,200	5/25			38A60-P	61463624562
W218	1 x 1/2	1/4	38,200	25/250	Oil & Gas 36	69083154061		
W218	1 x 1/2	1/4	38,200	5/25			38A60-P	61463624564
W220	1 x 1	1/4	25,500	5/25	3NQ80	61463677685	38A60-P	61463624566
W221	1 x 1-1/2	1/4	19,120	5/25			38A60-P	61463624567
W222	1 x 2	1/4	15,900	5/25			38A60-P	61463624569
W230	1-1/4 x 1-1/4	1/4	20,400	5/25			38A60-P	61463624578
W235	1-1/2 x 1/4	1/4	25,470	5/25			38A60-P	61463624583
W236	1-1/2 x 1/2	1/4	25,470	5/25	3NQ80	61463677686	38A60-P	61463624585
W237	1-1/2 x 1	1/4	22,500	5/25			38A60-P	61463624587
W238	1-1/2 x 1-1/2	1/4	15,600	5/25			38A60-P	61463624588
W242	2 x 1	1/4	19,100	5/25			38A60-P	61463624592

† STANDARD SPINDLE SIZE IS 1/8" OR 1/4" X 1-1/2"

\* MAXIMUM OPERATING SPEED BASED ON 1/2" OVERHANG



## TECHtip

- For best mounted point performance, always run the mounted point at the maximum allowable speed according to ANSI B7.1. Refer to the speed chart included in each shipment for proper operating speeds.
- Use "A" shapes for medium- to heavy-duty blending.
- Use "B" shapes for light deburring and finishing/polishing.
- Use "W" shapes for offhand and precision grinding of medium to heavy stock.
- Use 36 grit and coarser for rough grinding.
- Use 60 and 90 grits for imparting fine finishes or when grinding on narrow surfaces.



It is the user's responsibility to refer to and comply with ANSI B7.1



## 50-Piece Mounted Point Kits

- Each kit contains 5 each of 10 of our best selling mounted point shapes and specifications
- The 1/4" spindle kits contain "A"-shaped points that are ideal for general maintenance and metalworking applications
- The 1/8" spindle kits contain "B"-shaped points for light deburring machine parts or finishing/polishing dies
- The "W"-shaped points in all of these kits work well for precision grinding of medium to heavy stock

TIER:	<b>BEST</b>	<b>GOOD</b>
BRAND:	Norton	Norton
TRADE NAME:	<b>QUANTUM</b>	<b>GEMINI</b>

SHAPE	SPINDLE DIA. †	MIN./STD. PKG.	PART NO.	PART NO.
<b>Mounted Point Kits</b>				
Assorted	1/4	1	50 piece Premium Norton Quantum 1/4" Spindle Mounted Point Kit contains 5 each of A1, A5, A11, A21, A23, A26, A36, A39, W242 Norton Quantum and 5 W220 A80-HBF3	69083147810
Assorted	1/8	1	50 piece Premium Norton Quantum 1/8" Spindle Mounted Point Kit contains 5 each of B42, B52, B97, B122, B131, W154, W164, W185, W215 Norton Quantum and W163 A80-HBF3	69083147806
Assorted	1/4	1	50 piece 38A60-P 1/4" Spindle Gemini Mounted Point Kit contains 5 each of A1, A5, A11, A21, A23, A26, A36, A39, W242 Gemini and 5 W220 A80-HBF3	69083147789
Assorted	1/8	1	50 piece 38A60-P 1/8" Spindle Gemini Mounted Point Kit contains 5 each of B42, B52, B97, B122, B131, W154, W164, W185, W215 Gemini and W163 A80-HBF3	69083147669

† STANDARD SPINDLE SIZE IS 1/8" OR 1/4" X 1-1/2"