

FOREST CITY

Carbon-Steel Screw Shank Dowel Drills
No. 203

PART#	DIA.	TWIST LENGTH	OVERALL LENGTH	ROTATION DIRECTION	PRICE
62000	3/8	2	3-1/2	Right	\$12.97
62001	7/16	2	3-1/2	Right	\$12.97
62002	3/8	2	3-1/2	Left	\$12.97
62003	7/16	2	3-1/2	Left	\$12.97
62004	1/8	3	4-1/2	Right	\$12.97
62005	3/16	3	4-1/2	Right	\$12.97
62006	7/32	3	4-1/2	Right	\$12.97
62007	1/4	3	4-1/2	Right	\$12.97
62008	9/32	3	4-1/2	Right	\$12.97
62009	5/16	3	4-1/2	Right	\$12.97
62010	11/32	3	4-1/2	Right	\$12.97
62011	3/8	3	4-1/2	Right	\$12.97
62012	25/64	3	4-1/2	Right	\$12.97
62013	13/32	3	4-1/2	Right	\$12.97
62014	7/16	3	4-1/2	Right	\$12.97
62015	29/64	3	4-1/2	Right	\$12.97
62016	1/2	3	4-1/2	Right	\$12.97
62017	9/16	3	4-1/2	Right	\$14.44
62018	5/8	3	4-1/2	Right	\$15.27
62019	3/4	3	4-1/2	Right	\$19.65
62020	7/8	3	4-1/2	Right	\$25.59
62021	1	3	4-1/2	Right	\$25.59
62022	1/8	3	4-1/2	Left	\$15.25
62023	3/16	3	4-1/2	Left	\$15.25
62024	7/32	3	4-1/2	Left	\$15.25
62025	1/4	3	4-1/2	Left	\$15.25
62026	5/16	3	4-1/2	Left	\$15.25
62028	3/8	3	4-1/2	Left	\$15.25
62029	7/16	3	4-1/2	Left	\$15.25
62030	1/2	3	4-1/2	Left	\$15.25

All Drills have a 7/16-14" Shank.



These drills feature outlying spurs and brad point. They are the most commonly used drills for dowel hole boring. Made of the finest carbon tool steel, they are heat treated and precision ground to exacting standards. Overall lengths are held to very close tolerances in both left and right hand tools to ensure uniform drilling in multiple boring operations. Round shoulder has pin hole for easy removal from machines. **Discontinued. Quantities limited.**

Steel Screw Shank Dowel Drills
Super Wear™ No. X203

PART#	DIA.	TWIST LENGTH	OVERALL LENGTH	ROTATION DIRECTION	PRICE
62031	1/4	2	3-1/2	Right	\$18.21
62032	5/16	2	3-1/2	Right	\$18.21
62033	3/8	2	3-1/2	Right	\$18.21
62034	7/16	2	3-1/2	Right	\$18.21
62035	1/2	2	3-1/2	Right	\$18.21
62036	1/4	2	3-1/2	Left	\$18.21
62037	5/16	2	3-1/2	Left	\$18.21
62038	3/8	2	3-1/2	Left	\$18.21
62039	7/16	2	3-1/2	Left	\$18.21
62040	1/2	2	3-1/2	Left	\$18.21
62041	3/16	3	4-1/2	Right	\$18.21
62042	1/4	3	4-1/2	Right	\$18.21
62043	9/32	3	4-1/2	Right	\$18.21
62044	5/16	3	4-1/2	Right	\$18.21
62045	11/32	3	4-1/2	Right	\$20.87
62046	3/8	3	4-1/2	Right	\$18.21
62047	25/64	3	4-1/2	Right	\$20.87
62048	7/16	3	4-1/2	Right	\$18.21
62049	29/64	3	4-1/2	Right	\$20.87
62050	1/2	3	4-1/2	Right	\$18.21
62051	9/16	3	4-1/2	Right	\$27.12
62052	5/8	3	4-1/2	Right	\$30.39
62053	3/4	3	4-1/2	Right	\$41.40
62054	7/8	3	4-1/2	Right	\$54.66
62055	1	3	4-1/2	Right	\$56.52
62056	3/16	3	4-1/2	Left	\$18.21
62057	1/4	3	4-1/2	Left	\$18.21
62058	9/32	3	4-1/2	Left	\$18.21
62059	5/16	3	4-1/2	Left	\$18.21
62060	11/32	3	4-1/2	Left	\$20.87
62061	3/8	3	4-1/2	Left	\$18.21
62062	25/64	3	4-1/2	Left	\$20.87
62063	7/16	3	4-1/2	Left	\$18.21
62064	29/64	3	4-1/2	Left	\$20.87
62065	1/2	3	4-1/2	Left	\$18.21
62066	9/16	3	4-1/2	Left	\$27.12
62067	5/8	3	4-1/2	Left	\$30.39
62068	3/4	3	4-1/2	Left	\$41.48
62069	1	3	4-1/2	Left	\$56.52

All Drills have a 7/16-14" Shank.



Designed exactly like the No. 203 except made of Super Wear Steel. This steel requires less frequent sharpening to maintain maximum production. The threaded shanks are treated specially for greater reliability.

Super Wear™ Steel Screw Shank Dowel
Drills No. X203J

PART#	DIA.	TWIST LENGTH	OVERALL LENGTH	ROTATION DIRECTION	PRICE
62084	1/8	1-1/2	2-3/4	Right	\$17.86
62085	3/16	1-1/2	2-3/4	Right	\$17.86
62087	1/4	1-1/2	2-3/4	Right	\$17.86
62088	5/16	1-1/2	2-3/4	Right	\$17.86
62089	3/8	1-1/2	2-3/4	Right	\$17.86
62090	7/16	1-1/2	2-3/4	Right	\$17.86
62091	1/2	1-1/2	2-3/4	Right	\$17.86
62092	1/4	1-1/2	2-3/4	Left	\$17.86
62093	3/8	1-1/2	2-3/4	Left	\$17.86
62094	7/16	1-1/2	2-3/4	Left	\$17.86

All Drills have a 7/16-14" Shank.



Designed for use in J.S. Richardson Boring Machines, but can also be used in Root, Bell, Greenlee, and other machines using threaded spindles. Short length reduces run-out at tip of bit.

Super Wear™ Steel Screw Shank Dowel
Drills No. X204

PART#	DIA.	TWIST LENGTH	OVERALL LENGTH	ROTATION DIRECTION	PRICE
62095	3/8	3	4-1/2	Right	\$19.37
62096	7/16	3	4-1/2	Right	\$19.37
62097	3/8	3	4-1/2	Left	\$19.37
62098	7/16	3	4-1/2	Left	\$19.37

All Drills have a 7/16-14" Shank.



Taper Head drill point accurately ground to insure fast smooth boring. The shanks of all tools are relatively soft to facilitate removal from chuck in event of breakage. Used where exit hole must be clean.

**Steel Screw Shank Dowel Drills
Super Wear™ No. X203B**

PART#	DIA.	TWIST LENGTH	OVERALL LENGTH	ROTATION DIRECTION	PRICE
62070	3/16	1-3/4	4-1/2	Right	\$17.86
62071	1/4	1-3/4	4-1/2	Right	\$17.86
62072	5/16	1-3/4	4-1/2	Right	\$17.86
62073	3/8	1-3/4	4-1/2	Right	\$17.86
62074	25/64	1-3/4	4-1/2	Right	\$20.46
62075	7/16	1-3/4	4-1/2	Right	\$17.86
62076	1/2	1-3/4	4-1/2	Right	\$17.86
62077	3/16	1-3/4	4-1/2	Left	\$20.46
62078	1/4	1-3/4	4-1/2	Left	\$17.86
62079	5/16	1-3/4	4-1/2	Left	\$17.86
62080	3/8	1-3/4	4-1/2	Left	\$17.86
62081	25/64	1-3/4	4-1/2	Left	\$20.46
62082	7/16	1-3/4	4-1/2	Left	\$17.86
62083	1/2	1-3/4	4-1/2	Left	\$17.86

All Drills have a 7/16-14" Shank.



Designed primarily for the Bell 24 Double End Miter and Boring Machine. These tools can be used on any other boring machine where "Run-Out" has become a problem. The extended shaft insures rigidity especially on small diameter tools.

**Carbide Tipped Screw Shank Dowel Drills
No. 203CT**

PART#	DIA.	TWIST LENGTH	OVERALL LENGTH	ROTATION DIRECTION	PRICE
62103	1/4	3	4-1/2	Right	\$41.83
62104	5/16	3	4-1/2	Right	\$41.83
62105	3/8	3	4-1/2	Right	\$41.83
62106	25/64	3	4-1/2	Right	\$43.21
62107	7/16	3	4-1/2	Right	\$50.10
62108	1/2	3	4-1/2	Right	\$55.76
62109	1/4	3	4-1/2	Left	\$46.79
62110	5/16	3	4-1/2	Left	\$46.79
62111	3/8	3	4-1/2	Left	\$46.79
62112	25/64	3	4-1/2	Left	\$46.79
62113	7/16	3	4-1/2	Left	\$56.72
62114	1/2	3	4-1/2	Left	\$59.11

All Drills have a 7/16-14" Shank.

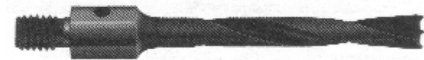


These carbide-tipped drills were developed especially for use in plastics, laminated products, and chip core. Also excellent in fine-grained hardwoods such as maple and pecan.

**Carbide Tipped Screw Shank Dowel Drills
No. M203CT**

PART#	DIA.	TWIST LENGTH	OVERALL LENGTH	ROTATION DIRECTION	PRICE
62528	6 mm	3	4-1/2	Right	\$45.31
62529	6 mm	3	4-1/2	Left	\$45.31
62530	8 mm	3	4-1/2	Right	\$45.31
62531	8 mm	3	4-1/2	Left	\$45.31
62532	10 mm	3	4-1/2	Right	\$51.93
62533	10 mm	3	4-1/2	Left	\$51.93

All Drills have a 7/16-14" Shank.



**1/2" x 2" Shank Carbon Steel Brad Point
Spur Machine Drills No. 200**

PART#	FORMER PART#	DIA.	TWISTED LENGTH	OVERALL LENGTH	PRICE
62115	--	1/8	3	5	\$9.03
62116	--	5/32	3	5	\$9.03
62117	--	3/16	3	5	\$9.03
62118	--	7/32	3	5	\$9.03
62119	--	1/4	3	5	\$9.03
62120	--	17/64	3	5	\$9.03
62121	--	9/32	3	5	\$9.03
62122	--	5/16	3	5	\$9.03
62123	--	11/32	3	5	\$9.03
62124	--	3/8	3	5	\$9.03
62125	--	25/64	3	5	\$10.57
62126	--	13/32	3	5	\$9.03
62127	--	7/16	3	5	\$9.03
62128	--	15/32	3	5	\$9.03
62129	--	1/2	3	5	\$9.03
62130	--	5/8	3	5	\$12.93
62131	--	3/4	3	5	\$14.06
62132	--	1/8	4	6	\$9.03
62133	--	5/32	4	6	\$9.03
62134	--	3/16	4	6	\$9.03
62135	--	7/32	4	6	\$9.03
62136	--	1/4	4	6	\$9.03
62137	--	17/64	4	6	\$9.03
62138	--	9/32	4	6	\$9.03
62139	--	19/64	4	6	\$9.03
62140	--	5/16	4	6	\$9.03
62141	--	11/32	4	6	\$9.03
62142	--	3/8	4	6	\$9.03
62143	--	25/64	4	6	\$10.57
62144	--	13/32	4	6	\$10.23
62145	--	7/16	4	6	\$10.23
62146	--	29/64	4	6	\$11.58
62147	--	15/32	4	6	\$9.03
62148	--	1/2	4	6	\$9.03
62149	--	17/32	4	6	\$11.14
62150	BP 562	9/16	4	6	\$12.06
62151	--	19/32	4	6	\$12.06
62152	BP 625	5/8	4	6	\$12.93
62153	--	21/32	4	6	\$13.31
62154	--	11/16	4	6	\$13.31
62155	BP 750	3/4	4	6	\$14.06
62156	--	25/32	4	6	\$16.13
62157	--	13/16	4	6	\$17.38
62158	BP 875	7/8	4	6	\$20.02
62159	--	15/16	4	6	\$21.53
62160	BP 1000	1	4	6	\$24.02
62161	--	1-1/16	4	6	\$29.67
62162	--	1-1/8	4	6	\$30.28
62163	--	1-1/4	4	6	\$35.78

All Drills have a 1/2" Shank.



Widely used for cross-grain boring and other work requiring smooth, accurate holes. Head, twist, and shank are ground after hardening for accuracy. Two outlining spurs cut in advance of the chip lifter.

1/2" x 2" Super Wear™ Steel Brad Point Spur Machine Drills No. X200

PART#	DIAMETER	TWISTED LENGTH	OVERALL LENGTH	PRICE
62164	3/16	3	5	\$17.62
62165	1/4	3	5	\$17.62
62166	9/32	3	5	\$17.62
62167	5/16	3	5	\$17.62
62168	11/32	3	5	\$17.62
62169	3/8	3	5	\$17.62
62170	7/16	3	5	\$17.62
62171	1/2	3	5	\$17.62
62172	1/4	4	6	\$17.62
62173	9/32	4	6	\$17.62
62174	5/16	4	6	\$17.62
62175	11/32	4	6	\$17.62
62176	3/8	4	6	\$17.62
62177	13/32	4	6	\$17.62
62178	7/16	4	6	\$17.62
62179	1/2	4	6	\$17.62
62180	17/32	4	6	\$21.97
62181	9/16	4	6	\$21.97
62182	5/8	4	6	\$21.97
62183	11/16	4	6	\$21.97
62184	3/4	4	6	\$21.97
62185	13/16	4	6	\$34.08
62186	7/8	4	6	\$34.08
62187	15/16	4	6	\$34.08
62188	1	4	6	\$34.08

All Drills have a 1/2" Shank.

Carbon-Steel Adjustable Countersinks No. 121V

PART#	COUNTERSINK SIZE	ROTATION DIRECTION	PRICE
62257	3/8	Right	\$27.34
62258	1/2	Right	\$27.34
62259	3/8	Left	\$27.34
62260	1/2	Left	\$27.34

All Countersinks have a 7/16-14" Threaded Shank, 3/16" Drill Size, 2-1/2" Twist Length and 4-1/2" Overall Length.



Designed for Root, Bell and similar boring machines requiring tools with threaded shanks. For seating flat head screws. Use right or left hand part numbers for X124D, or X124B straight shank drills.

Carbon-Steel Adjustable Counterbores No. 121

PART#	COUNTERBORE SIZE	DRILL SIZE	ROTATION DIRECTION	PRICE
62249	3/8	3/16	Right	\$26.09
62250	1/2	3/16	Right	\$26.09
62251	1/2	7/32	Right	\$26.09
62252	1/2	1/4	Right	\$26.09
62253	3/8	3/16	Left	\$26.09
62254	1/2	3/16	Left	\$26.09
62255	1/2	7/32	Left	\$26.09

All Counterbores have a 7/16-14" Threaded Shank, 2-1/2" Twist Length and 4-1/2" Overall Length.



Designed for Root, Bell, and similar boring machines requiring tools with threaded shanks. For flat bottomed holes. Use right or left hand part number for X124D or X124B straight shank drills.

1/2" x 2" Carbon Steel Adjustable Counterbores No. 122

PART#	COUNTERBORE SIZE	DRILL SIZE	TWIST LENGTH	OVERALL LENGTH	PRICE
62261	3/8	1/8	2-1/2	4-1/2	\$16.51
62262	3/8	5/32	2-1/2	4-1/2	\$16.51
62263	3/8	3/16	2-1/2	4-1/2	\$16.51
62264	7/16	3/16	2-1/2	4-1/2	\$16.51
62265	7/16	7/32	2-1/2	4-1/2	\$16.51
62266	1/2	1/8	2-1/2	4-1/2	\$16.51
62267	1/2	5/32	2-1/2	4-1/2	\$16.51
62268	1/2	3/16	2-1/2	4-1/2	\$16.51
62269	1/2	7/32	2-1/2	4-1/2	\$16.51
62270	1/2	1/4	2-1/2	4-1/2	\$16.51
62271	9/16	3/16	2-1/2	4-1/2	\$21.82
62272	9/16	1/4	2-1/2	4-1/2	\$21.82
62273	5/8	3/16	2-1/2	4-1/2	\$23.20
62274	5/8	1/4	2-1/2	4-1/2	\$23.20
62275	5/8	9/32	2-1/2	4-1/2	\$23.20
62276	5/8	5/16	2-1/2	4-1/2	\$23.20
62277	3/4	3/16	2-1/2	4-1/2	\$28.28
62278	3/4	1/4	2-1/2	4-1/2	\$28.28
62279	3/4	9/32	2-1/2	4-1/2	\$28.28
62280	3/4	5/16	2-1/2	4-1/2	\$28.28
62281	3/4	3/8	2-1/2	4-1/2	\$28.28



Bores smooth, flat-bottomed holes. Double-fluted twist with wide channels for easy chip clearance. Drill is held by split shank and set screw. Use with Drill# X122D & X122B. Center drills not included with counterbores.

1/2" x 2" Carbide-Tipped Brad Point Spur Machine Drills No. 200CT

PART#	DIAMETER	TWISTED LENGTH	OVERALL LENGTH	PRICE
62189	1/4	3	5	45.66
62190	5/16	3	5	\$45.66
62191	3/8	3	5	\$45.66
62192	7/16	3	5	\$53.66
62193	1/2	3	5	\$58.30
62194	5/8	3	5	\$69.57
62195	3/4	3	5	\$88.60
62196	1/4	4	6	\$45.65
62197	5/16	4	6	\$45.65
62198	3/8	4	6	\$45.65
62199	7/16	4	6	\$51.77
62200	1/2	4	6	\$56.70
62201	5/8	4	6	\$68.43
62202	3/4	4	6	\$91.07

All Drills have a 1/2" Shank.



Similar to No. 200 Drill except carbide-tipped for drilling plastics, laminates, chip core, and other tough-to-drill materials.

Carbide-Tipped Countersinks No. M125

PART#	ROTATION DIRECTION	PRICE
62235	Right	\$35.96
62237	Left	\$35.96

For use with M200 and M201 drills. Designed to chamfer holes for easier insertion of hardware or dowels. Fastens to shank with set screw. For drill size 5 to 10, inside diameter 10, outside diameter 20, overall length 16.5.



1/2" x 2" 82° Carbon-Steel Countersinks & Adjustable Counterbores No. 122V

PART#	COUNTERSINK SIZE	DRILL SIZE	PRICE
62282	3/8	1/8	\$21.21
62283	3/8	5/32	\$21.27
62284	3/8	3/16	\$21.27
62285	7/16	3/16	\$21.27
62286	7/16	7/32	\$21.27
62287	1/2	1/8	\$21.27
62288	1/2	5/32	\$21.27
62289	1/2	3/16	\$21.27
62290	1/2	7/32	\$21.27
62291	1/2	1/4	\$21.27

All Countersinks have a 2-1/2" Twist Length and 4-1/2" Overall Length.



Designed for seating flat head screws. Double-fluted twist with wide channels for easy chip clearances. Drill is held by split and set screw. Use with Drill Numbers X122D and X122B. Center drills not included with countersinks.

1/2" x 2" Carbide-Tipped Adjustable Counterbores No. 122CT

PART#	COUNTERBORE SIZE	DRILL SIZE	PRICE
62292	3/8	3/16	\$47.44
62293	1/2	3/16	\$47.44
62294	1/2	7/32	\$47.44
62295	1/2	1/4	\$53.66

All Counterbores have a 2-1/2" Twist Length and 4-1/2" Overall Length.



Bores smooth, flat-bottomed holes. Double-fluted twist with wide channels for easy chip clearance. Drill is held by split shank and set screw. Carbide-tipped for longer life in particle boards, fiber boards, and plastics. Use with drill numbers X122D and X122B. Center drills not included with counterbores and countersinks.

1/2" x 2" Carbide-Tipped Adjustable Countersinks No. 122VCT

PART#	COUNTERSINK SIZE	DRILL SIZE	PRICE
62296	3/8	3/16	\$50.90
62297	1/2	3/16	\$50.90
62298	1/2	7/32	\$56.02
62299	1/2	1/4	\$60.14

All Countersinks have a 2-1/2" Twist Length and 4-1/2" Overall Length.



Designed for seating flat head screw. Double-fluted twist with wide channels for easy chip clearance. Drill is held by split shank and set screw. Carbide-tipped for longer life in particle board, fiber board, and plastics. Use with drill numbers X122D and X122B.

1/2" x 2" Shank Adjustable Counterbores No. 122EL

PART#	COUNTERBORE SIZE	DRILL SIZE	TWIST LENGTH	OVERALL LENGTH	PRICE
62300	1/2	3/16	5	7	\$28.11



Designed for counterboring table aprons. Double fluted twist with wide channels for easy chip clearance. Drill held by set screw. Use with drill number X122B8.

Adjustable Counterbores No. 123

PART#	COUNTERBORE SIZE	DRILL SIZE	STYLE	OVERALL LENGTH	PRICE
62301	3/8	3/16	B	1-1/2	\$10.40
62302	1/2	3/16	B	1-1/2	\$11.24
62303	1/2	7/32	B	1-1/2	\$11.24
62304	1/2	1/4	B	1-1/2	\$11.35
62305	5/8	1/4	A	2	\$24.42
62306	5/8	5/16	A	2	\$24.42
62307	3/4	1/4	A	2	\$26.77
62308	3/4	5/16	A	2	\$26.77
62309	7/8	5/16	A	2	\$31.46
62310	7/8	3/8	A	2	\$31.46
62311	7/8	7/16	A	2	\$31.46
62312	1	5/16	A	2	\$39.00
62313	1	3/8	A	2	\$39.00
62314	1	1/2	A	2	\$39.00
62315	1-1/8	1/2	A	2	\$41.48
62316	1-1/4	1/2	A	2	\$48.31
62317	1-3/8	1/2	A	2	\$52.28
62318	1-1/2	1/2	A	2	\$59.19

Style A: 5/8 x 1-1/2



Style B: 3/8 x 1-1/2

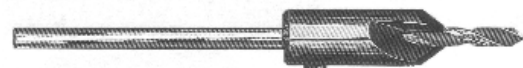


Extension-lip head bores smooth, flat-bottomed holes. Set screws hold counterbore. Often used in portable drills because of ability to chuck up on smaller primary drill or center drills. Use with drill numbers X122D or 200 Series. Center drills not included with countersinks.

Carbide-Tipped Adjustable Countersinks No. 125CT

PART#	DRILL SIZE	PRICE
62338	3/16	\$38.87
62339	7/32	\$38.87
62340	1/4	\$44.33

All Countersinks have a 1/2" Countersink Size and 1-1/2" Overall Length.



Beveled head countersinks for flat-head wood screws. Socket set screw holds countersink firmly in place. Designed for use primarily in portable drills. Use with drill numbers X124D & X124B or 200 & 200A series drills. **Discontinued. Quantities limited.**

Carbon-Steel Adjustable Countersinks No. 125

PART#	COUNTERSINK SIZE	DRILL SIZE	PRICE
62326	3/8	3/16	\$9.73
62327	1/2	1/8	\$9.73
62328	1/2	9/64	\$9.73
62329	1/2	5/32	\$9.73
62330	1/2	11/64	\$9.73
62331	1/2	3/16	\$9.73
62332	1/2	7/32	\$9.73
62333	1/2	1/4	\$9.73
62334	5/8	1/4	\$14.61
62335	5/8	5/16	\$14.61
62336	3/4	5/16	\$14.61
62337	3/4	3/8	\$14.25

All Countersinks have a 1-1/2" Overall Length.



Beveled head countersinks for flat-head wood screws. Socket set screw holds countersink firmly in place. Designed for use primarily in portable drills. Use with drill numbers X124D & X124B or 200 & 200A series drills.

High-Speed Steel Straight Shank Brad Point Center Drills No. X122B8

PART#	DRILL SIZE	SHANK SIZE	ROTATION DIRECTION	PRICE
62382	3/16	3/16	Right	\$8.92
62383	7/32	7/32	Right	\$8.92
62384	1/4	1/4	Right	\$9.27

All Drills have a 3-1/2" Twist Length and 8" Overall Length.

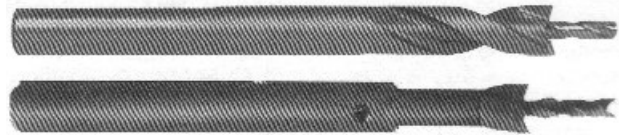
Designed for use with number 122EL adjustable counterbore. Also for counter-boring in table aprons. Can also be used in regular style number 122 adjustable counterbores when a deep pilot hole is required.

Carbide-Tipped Counterbore with High-Speed Steel Drill No. 135CT

PART#	SIZE	OVERALL SPIRAL LENGTH	PRICE
135 SP Counterbore with High-Speed Drill 61356	3/8 x #29	4	\$34.70
135 CT Counterbore with High-Speed Drill 62356	3/8 x #29	4	\$25.22

REPLACEMENT CENTER DRILLS

62357 High-Speed Steel	#29	2-7/8	\$4.72
62358 Cobalt	#29	2-7/8	\$6.12



Designed for face frame boring machine. Can also be used on Ritter and Evans Rotork Machines.

Carbon-Steel Multi-Spur™ Counterbores No. 120

PART#	COUNTERBORE SIZE	BORE SIZE	PRICE
62345	1-1/8	1/2	\$43.55
62346	1-1/4	1/2	\$44.29
62347	1-3/8	1/2	\$47.13
62348	1-1/2	1/2	\$51.42
62349	1-5/8	1/2	\$55.77
62350	1-3/4	1/2	\$59.80
62351	1-7/8	1/2	\$62.33
62352	2	1/2	\$64.38
62353	2-1/8	1/2	\$66.44
62354	2-1/4	1/2	\$70.51
62355	2-1/2	1/2	\$81.50



An adjustable counterbore cutter designed to fit any drill or bit 1/2" diameter or large. Cutter is held firmly in place with set screw on 1/2" diameter shank.

High-Speed Steel Brad Point Center Drill No. X122-Bedlock

PART#	DRILL & SHANK SIZE	TWIST LENGTH	OVERALL LENGTH	ROTATION DIRECTION	PRICE
62381	19/64	3-1/2	6	Right	\$9.72

Popular for cross-grain boring and other general work requiring smooth, accurate holes. Head, twist, and shank are ground after hardening.

High-Speed Steel Straight Shank Center Drills No. X122D8

PART#	DRILL SIZE	SHANK SIZE	ROTATION DIRECTION	PRICE
62423	3/16	3/16	Right	\$5.81
62424	7/32	7/32	Right	\$6.71
62425	1/4	1/4	Right	\$6.82

All Drills have a 3-1/2" Twist Length and 8" Overall Length.



Similar to number X122D drills, except overall length is 8". Shank is same diameter as drill. For use with countersinks and counterbores.

High-Speed Steel Straight Shank Brad Point Center Drills No. X124B

PART#	DRILL & SHANK SIZE	ROTATION DIRECTION	PRICE
62402	1/8	Right	\$7.49
62403	5/32	Right	\$8.35
62404	3/16	Right	\$8.35
62405	7/32	Right	\$8.35
62406	1/4	Right	\$9.18
70522	3/16	Left	\$12.45
70523	7/32	Left	\$12.45
70524	1/4	Left	\$12.45

All Drills have a 2-1/4" Twist Length and 4-1/2" Overall Length.

High-Speed Steel Straight Shank Brad Point Center Drills No. X122B

PART#	DIA.	TWIST LENGTH	OVERALL LENGTH	ROTATION DIRECTION	PRICE
62385	1/8	2-1/4	6	Right	\$6.71
62386	5/32	2-1/4	6	Right	\$6.71
62387	3/16	2-1/4	6	Right	\$6.92
62388	7/32	2-1/4	6	Right	\$6.92
62389	1/4	2-1/4	6	Right	\$6.92
62390	9/32	2-1/4	6	Right	\$11.04
62391	19/64	2-1/4	6	Right	\$11.04
62392	5/16	2-1/4	6	Right	\$11.43
62393	3/8	2-1/4	6	Right	\$11.43
62394	3/16	2-1/4	6	Left	\$9.31
62395	7/32	2-1/4	6	Left	\$9.31
62396	1/4	2-1/4	6	Left	\$9.68

For use with all types of adjustable counterbores and countersinks or for straight boring jobs. Two outlying spurs and brad point produce clean, accurate holes. High-speed steel for extra tool life.

High-Speed Steel Straight Shank Center Drills No. X122D7

PART#	DRILL & SHANK SIZE	TWIST LENGTH	OVERALL LENGTH	PRICE
62421	3/16	3-1/2	7	\$6.10
62422	7/32	3-1/2	7	\$6.41

No. X122D

PART#	DIA.	TWIST LENGTH	OVERALL LENGTH	PRICE
62426	3/32	2-1/4	6	\$5.05
62427	1/8	2-1/4	6	\$5.05
62428	5/32	2-1/4	6	\$5.05
62429	11/64	2-1/4	6	\$5.05
62430	3/16	2-1/4	6	\$5.89
62431	7/32	2-1/4	6	\$5.89
62432	1/4	2-1/4	6	\$6.30
62434	5/16	2-1/4	6	\$9.99
62435	3/8	2-1/4	6	\$11.03

Similar to No.122D drills, except made with high-speed steel for extra long tooth life. For use with countersinks and counterbores.

No. X124D

PART#	DRILL & SHANK SIZE	PRICE
62450	3/32	\$7.94
62451	1/8	\$7.94
62452	9/64	\$7.94
62453	5/32	\$7.94
62454	11/64	\$7.94
62455	3/16	\$5.89
62456	7/32	\$8.97
62457	1/4	\$9.38
62458	9/32	\$9.96
62459	5/16	\$10.19
62460	3/8	\$12.27

All Drills have a 2-1/4" Twist Length and 4-1/2" Overall Length.



For use with No. 124 Countersinks.

High-Speed Steel Straight Shank Taper Point Center Drills No. X122T

PART#	DRILL & SHANK SIZE	PRICE
62461	3/16	\$12.11
62462	7/32	\$13.38

All Drills have a 2-1/4" Twist Length and 6" Overall Length.

For boring tapered holes for wood screws. Twist is tapered to correspond to threaded portion of screw.

No. X124T

PART#	DRILL & SHANK SIZE	PRICE
62465	3/16	\$11.33
62466	7/32	\$13.27
62467	1/4	\$12.95

All Drills have a 2-1/4" Twist Length and 4-1/2" Overall Length.

Similar to No. X122T drills, except 4-1/2" long overall.

1/4" x 4-1/2" Shank Carbon-Steel Brad Point Center Drills No. 122C

PART#	DRILL SIZE	PRICE
62469	5/16	\$12.11
62470	3/8	\$12.11
62471	7/16	\$12.11

All Drills have a 1-1/2" Twist Length and 6" Overall Length.



Designed to use with countersinks and counterbores with 1/4" hole. Works well in applications where countersink and center drill diameters are too close for a standard configuration center drill.

118° Point High-Speed Steel General Purpose Jobbers - Length Straight Twist Drills No. X10

PART#	DIA.	OVERALL LENGTH	APPROX TWIST LENGTH	PRICE
62498	3/64	1-3/4	3/4	\$1.38
62499	1/16	1-7/8	7/8	\$1.41
62500	5/64	2	1	\$1.41
62501	3/32	2-1/4	1-1/4	\$1.41
62502	7/64	2-5/8	1-1/2	\$1.59
62503	1/8	2-3/4	1-5/8	\$1.63
62504	9/64	2-7/8	1-3/4	\$1.68
62505	5/32	3-1/8	2	\$1.71
62506	11/64	3-1/4	2-1/8	\$1.85
62507	3/16	3-1/2	2-5/16	\$2.09
62508	13/64	3-5/8	2-7/16	\$2.30
62509	7/32	3-3/4	2-1/2	\$2.62
62510	15/64	3-7/8	2-5/8	\$2.81
62511	1/4	4	2-3/4	\$2.98
62512	17/64	4-1/8	2-7/8	\$3.49
62513	9/32	4-1/4	2-15/16	\$3.61
62514	19/64	4-3/8	3-1/16	\$4.19
62515	5/16	4-1/2	3-3/16	\$4.65
62516	21/64	4-5/8	3-5/16	\$5.11
62517	11/32	4-3/4	3-7/16	\$5.72
62518	23/64	4-7/8	3-1/2	\$6.40
62519	3/8	5	3-5/8	\$6.61
62521	13/32	5-1/4	3-7/8	\$7.72
62522	27/64	5-3/8	3-15/16	\$8.56
62523	7/16	5-1/2	4-1/16	\$8.89
62526	31/64	5-7/8	4-3/8	\$11.07
62527	1/2	6	4-1/2	\$11.31



Hollow Mortising Chisels No. 27

PART#	DIAMETER	MORTISING DEPTH	PRICE
62618	1/4	1-7/8	\$51.22
62619	5/16	1-7/8	\$57.95
62620	3/8	1-7/8	\$60.23
62621	1/2	1-7/8	\$63.48

All Chisels have a 5/8" Shank Diameter and 4-1/4" Overall Length.



Makes square mortises in one stroke and oblong mortises with succeeding strokes. 2-3/4" blade. For shallow mortises. Chisels & Bits are sold separately. Designed to be used with No. 1-27, shown below.

Hollow Mortising Chisel No. 28

PART#	DIA.	SHANK DIA.	MORTISING DEPTH	OVERALL LENGTH	PRICE
62602	1/4	5/8	1-7/8	5-1/2	\$57.96
62603	5/16	5/8	1-7/8	5-1/2	\$60.23
62604	3/8	5/8	3-1/4	5-1/2	\$60.96
62605	1/2	5/8	3-1/4	5-1/2	\$63.91
62606	5/8	3/4	3-1/4	5-1/2	\$89.63
62607	3/4	1-1/8	3-1/4	5-1/2	\$101.25
62608	1	1-1/8	3-1/4	5-1/2	\$110.98

Works on Delta Model 14-561 and Jet Model JBM-5.



For making square mortises in one stroke, and oblong mortises with each succeeding stroke. 4" blade, 5-1/2" overall length. 1/4" and 5/16" sizes have reinforced blade. Chisel and Bit are sold separately. Uses X1-28 chisel bit. Designed to be used with No. 1-28, shown below.

Carbon-Steel Hollow Chisel Bits No. 1-27

PART#	DIAMETER	SHANK DIAMETER	PRICE
62622	1/4	3/16	\$20.72
62623	5/16	1/4	\$20.72
62624	3/8	19/64	\$20.72

All Chisels have a 3-1/4 Mortising Length, 4-3/4 Twist Length and 8" Overall Length.



For 2-3/4" blade hollow chisels. Bits have knife edged spurs and no point.

Carbon-Steel Hollow Chisel Bits No. 1-28

PART#	DIA.	SHANK DIA.	SHANK LENGTH	TWIST LENGTH	OVERALL LENGTH	PRICE
62609	1/4	3/16	5-3/4	3-1/4	9	\$20.51
62610	5/16	1/4	5-3/4	3-1/4	9	\$20.51
62611	3/8	19/64	3	6	9	\$20.51
62612	1/2	19/64	3	6	9	\$24.84
62613	5/8	1/2	3	6	9	\$32.07
62614	3/4	1/2	3	6	9	\$38.01
62615	1	1/2	3	6	9	\$59.99



For 4" Blade Hollow Chisels. Bits have knife edged spurs and no point.

Mortising Chisel & Bit Sets for Delta Model 14-651 Mortiser

PART#	DIA.	SHANK CHISEL--BIT	MORTISING DEPTH	OAL CHISEL--BIT	PRICE
80101	1/4	5/8--3/16	1-7/8	5-1/2--8	\$78.47
80102	5/16	5/8--1/4	1-7/8	5-1/2--8	\$80.74
80103	3/8	5/8--19/64	3-1/4	5-1/2--8	\$81.47
80104	1/2	5/8--19/64	3-1/4	5-1/2--8	\$88.75

Mortising Chisel & Bit Sets for Jet Model JBM-5 Mortiser

PART#	DIA.	SHANK CHISEL--BIT	MORTISING DEPTH	OAL CHISEL--BIT	PRICE
80201	1/4	5/8--3/16	1-7/8	5-1/2--7-3/4	\$78.47
80202	5/16	5/8--1/4	1-7/8	5-1/2--7-3/4	\$80.74
80203	3/8	5/8--19/64	3-1/4	5-1/2--7-3/4	\$81.47
80204	1/2	5/8--19/64	3-1/4	5-1/2--7-3/4	\$88.75

Hollow Chisel Replacement Bits for Delta Model 14-651 (No. 1-28)

PART#	DIA.	SHANK DIA.	MORTISING DEPTH	TWIST LENGTH	OVERALL LENGTH	PRICE
62609D	1/4	3/16	1-3/4	3-1/4	8	\$20.51
62610D	5/16	1/4	1-3/4	3-1/4	8	\$20.51
62611D	3/8	19/64	3	6	8	\$20.51
62612D	1/2	19/64	3	6	8	\$24.84

For 4" blade hollow chisels. Bits have knife edged spurs and no point.

Hollow Chisel Replacement Bits for Jet Model JBM-5 (No. 1-28)

PART#	DIA.	SHANK DIA.	MORTISING DEPTH	TWIST LENGTH	OVERALL LENGTH	PRICE
62609J	1/4	3/16	1-3/4	3-1/4	7-3/4	\$20.51
62610J	5/16	1/4	1-3/4	3-1/4	7-3/4	\$20.51
62611J	3/8	19/64	3	6	7-3/4	\$20.51
62612J	1/2	19/64	3	6	7-3/4	\$24.84

For 4" blade hollow chisels. Bits have knife edged spurs and no point.

Super Wear™ Steel Hollow Chisel Bits #X1-28

PART#	DIA.	SHANK DIA.	MORTISING DEPTH	TWIST LENGTH	OVERALL LENGTH	PRICE
62616	3/4	1/2	3	6	9	\$54.75

For use with No. 28 and No. 30 Mortising Chisels. Super Wear Steel boosts life substantially on hard wood. Works on both Delta 14-561 and Jet JBM-5.

Carbide-Tipped Hollow Chisel Bits #CT1-28

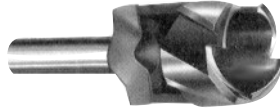
PART#	DIA.	SHANK DIA.	MORTISING DEPTH	TWIST LENGTH	OVERALL LENGTH	PRICE
62617	3/4	1/2	3	6	9	\$68.20

For use on core and particle board. Use with No. 28 and 30 Mortising Chisels. Works on both Delta 14-561 and Jet JBM-5.

1/2" x 2" Shank Carbon-Steel Plug Cutters No. 600P

PART#	PLUG SIZE	CUTTER BARRELS	OVERALL LENGTH	PRICE
62876	3/8	2	4-1/2	\$64.78
62877	1/2	2	4-1/2	\$64.78
62878	5/8	2	4-1/2	\$64.78
62879	3/4	2	4-1/2	\$64.78
62880	7/8	2	4-1/2	\$64.78
62881	1	2	4-1/2	\$74.52
62882	1-1/4	2	4-1/2	\$92.87
62883	1-1/2	2	4-1/2	\$132.74
62884	1-3/4	2	4-1/2	\$164.62
62885	2	2	4-1/2	\$187.85

Designed to cut a true-sized plug under most conditions. More effective at clearing chips than No. 140 because of multiple spiral flutes. **For Hard Wood.**



Brad Point Double Spur Machine Bits No. 107

PART#	DIAMETER	TWIST LENGTH	OVERALL LENGTH	PRICE
62627	3/8	4	6-1/4	\$51.13
62635	3/8	6	8-1/4	\$51.82
62636	7/16	6	8-1/4	\$51.82
62637	1/2	6	8-1/4	\$51.82
62639	5/8	6	8-1/4	\$58.68
62640	11/16	6	8-1/4	\$60.81
62641	3/4	6	8-1/4	\$63.42
62643	7/8	6	8-1/4	\$71.29
62645	1	6	8-1/4	\$75.39

All Bits have 1/2" Shank Diameter and 2-1/4" Shank Length.



These bits have two outlining spurs, supported by side lips, for cutting smooth holes in soft or hard woods, cross, or end grain. The Brad Point allows fingertip control while boring.

1/2" x 2" Shank Carbon-Steel Spiral Plug Cutters No. 140

PART#	PLUG SIZE	CUTTER BARRELS	OVERALL LENGTH	PRICE
62871	3/8	2-1/8	4-1/2	\$51.26
62872	1/2	2-1/8	4-1/2	\$51.26
62873	5/8	2-1/8	4-1/2	\$51.26
62874	3/4	2-1/8	4-1/2	\$57.49
62875	1	2-1/8	4-1/2	\$69.60



This one-piece Plug Cutter is designed to cut cross-grain plugs or end-grain dowels up to 2" in length. Plugs up to 1" thick are easily cleared through the 1-1/8" opening. **For Soft Wood.**

Solid-Center Machine Bits No. 155

PART#	DIAMETER	TWIST LENGTH	OVERALL LENGTH	PRICE
62702	7/16	4	6-1/4	\$25.37
62703	1/2	4	6-1/4	\$25.37
62706	11/16	6	8-1/4	\$25.37
62707	3/4	6	8-1/4	\$25.37
62708	13/16	6	8-1/4	\$25.37
62716	11/16	8	10-1/4	\$26.86
62686	13/16	10	12-1/4	\$32.60
62693	11/16	12	14-1/4	\$32.60
62694	3/4	12	14-1/4	\$32.60
62695	13/16	12	14-1/4	\$33.06

All Bits have 1/2" Shank Diameter and 2-1/4" Shank Length.



Made with two outlining spurs, two extended cutting lips, and medium pitch screw point. Solid-center design gives added strength. **Discontinued. Quantities limited.**

Screw Point Double Spur Machine Bits No. 150

PART#	DIAMETER	TWIST LENGTH	OVERALL LENGTH	PRICE
62655	3/8	4	6-1/4	\$38.70
62656	7/16	4	6-1/4	\$38.70
62657	1/2	4	6-1/4	\$38.70
62658	5/8	4	6-1/4	\$46.09
62659	3/4	4	6-1/4	\$54.78
62660	7/8	4	6-1/4	\$59.10
62661	1	4	6-1/4	\$63.08
62663	3/8	6	8-1/4	\$38.70
62664	7/16	6	8-1/4	\$40.94
62665	1/2	6	8-1/4	\$40.94
62666	9/16	6	8-1/4	\$46.80
62667	5/8	6	8-1/4	\$48.75
62668	11/16	6	8-1/4	\$54.79
62669	3/4	6	8-1/4	\$60.12
62670	13/16	6	8-1/4	\$66.13
62671	7/8	6	8-1/4	\$66.13
62672	15/16	6	8-1/4	\$70.60
62673	1	6	8-1/4	\$72.65

All Bits have 1/2" Shank Diameter and 2-1/4" Shank Length.



Same as No. 107 except furnished with medium pitch screw point.

Carbide-Tipped Drills No. 811CT

PART#	DIAMETER	PRICE
62797	1	\$121.79
62798	1-1/8	\$121.79
62799	1-1/4	\$121.79
62800	1-3/8	\$121.79
62801	1-1/2	\$124.37
62802	1-5/8	\$142.53
62803	1-3/4	\$145.06
62804	1-7/8	\$165.93
62805	2	\$165.93
62806	2-1/4	\$165.93
62807	2-1/4	\$194.31
62808	2-1/2	\$207.38
62809	2-3/4	\$233.24
62810	3	\$298.00

All Bits have 1/2" Shank Diameter and 6" Nominal Overall Length.



Bores clean, accurate holes in plastic laminates and wood. Spur outlines the hole before the chip lifters plane the material; helps prevent cracked edges. Includes solid carbide point.

PRODUCT IMAGES AND PROFILES ARE NOT SHOWN ACTUAL SIZE

FOREST CITY

Carbide-Tipped 3 Wing Drills No. 812CT

PART#	DIAMETER	PRICE
62827*	5/8	\$95.79
62828	11/16	\$89.73
62829	3/4	\$89.73
62830	13/16	\$89.73
62831	7/8	\$89.73
62832	1	\$89.73
62833	1-1/8	\$89.73
62834	1-1/4	\$89.73
62835	1-3/8	\$118.03
62836	1-1/2	\$118.03
62837	1-5/8	\$118.03
62838	1-3/4	\$118.03
62839	1-7/8	\$145.60
62840	2	\$145.60
62841	2-1/8	\$145.60
62842	2-1/4	\$178.49
62843	2-1/2	\$178.49



All Bits have 1/2" Shank Diameter and 6" Overall Length.

* Reduced shank behind wings.

Designed to bore plastic Formica™ and tempered Masonite™ as well as abrasive materials and hard woods. Only 2" through 2-1/2" diameter are furnished with 2-1/4" long reinforced shaft.

Multi-Spur Machine Bits No.149

PART#	FORMER PART#	DIAMETER	PRICE
62736	--	1/2	\$33.03
62737	--	9/16	\$33.03
62738	--	5/8	\$33.03
62739	--	11/16	\$28.45
62740	S750	3/4	\$28.45
62741	--	13/16	\$28.45
62742	S875	7/8	\$30.63
62743	--	15/16	\$30.63
62744	S1000	1	\$30.63
62745	--	1-1/16	\$30.63
62746	S1125	1-1/8	\$32.11
62747	--	1-3/16	\$32.11
62748	S1250	1-1/4	\$32.11
62749	--	1-5/16	\$33.49
62750	S1375	1-3/8	\$33.49
62751	--	1-7/16	\$34.11
62752	S1500	1-1/2	\$34.11
62753	--	1-9/16	\$36.62
62754	S1625	1-5/8	\$36.62
62755	--	1-11/16	\$38.35
62756	S1750	1-3/4	\$38.35
62757	--	1-13/16	\$42.21
62758	S1875	1-7/8	\$42.21
62759	--	1-15/16	\$42.21
62760	S2000	2	\$45.38
62761	S2125	2-1/8	\$49.72
62762	S2250	2-1/4	\$53.98
62763	--	2-3/8	\$55.90
62764	S2500	2-1/2	\$77.35
62765	--	2-5/8	\$87.17
62766	S2750	2-3/4	\$99.69
62767	--	2-7/8	\$109.44
62768	S3000	3	\$119.25
62774	--	3-1/8	\$201.69
62775	--	3-1/4	\$206.37
62776	--	3-1/2	\$222.52
62777	--	3-3/4	\$275.49
62778	--	4	\$293.23



All Bits have a 1/2" Shank Diameter and 6" Overall Length.

- Works well across or with the grain.
- Excellent for boring overlapping holes or on close centers.
- Careful heat-treating assures tough, uniformly hard cutting edges
- Precision made and finished meaning uniform quality in every Multi-Spur.
- Brad point design for positive centering.

Note: 3-1/8", 3-1/4", 3-3/4", and 4" bits are available with 1/2" shanks for light duty applications that do not overstress the shank. 1/2" shanks in larger diameter bits are not recommended for medium or heavy duty applications. Bits 2-1/4" thru 3" are furnished with a long 2-1/4" shaft and 1/2" x 2-3/4" shank.

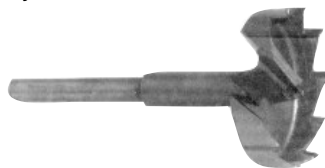
Carbide-Tipped Multi-Spur Machine Bits No. 149CT

PART#	DIAMETER	SHANK DIAMETER	PRICE
62779*	3/4	1/2	\$93.10
62780*	7/8	1/2	\$93.10
62781*	15/16	1/2	\$93.10
62782*	1	1/2	\$93.10
62783	1-1/16	1/2	\$93.10
62784	1-1/8	1/2	\$93.10
62785	1-3/16	1/2	\$93.10
62786	1-1/4	1/2	\$93.95
62787	1-5/16	1/2	\$93.95
62788	1-3/8	1/2	\$96.18
62789	1-7/16	1/2	\$97.59
62790	1-1/2	1/2	\$97.59
62791	1-9/16	1/2	\$99.24
62792	1-5/8	1/2	\$99.97
62793	1-3/4	1/2	\$111.98
62794	1-7/8	1/2	\$113.99
62795	2	1/2	\$115.52
62796	2-1/8	1/2	\$126.58
62811	2-1/4	1/2	\$144.07
62812	2-3/8	1/2	\$158.76
62813	2-1/2	1/2	\$165.62
62815	2-3/4	1/2	\$189.84
62816	3	1/2	\$213.15
62821	3-1/4	1/2	\$332.96
62822	3-1/2	1/2	\$332.96

All Bits have a 6" Nominal Overall Length.

* Furnished with Carbide Tips on every other tooth.

Same as No. 149 Multi-Spur but furnished with carbide tips.



Note: 3-1/8", 3-1/4", 3-3/4" and 4" bits are available with 1/2" shanks for light duty applications that do not overstress the shank. 1/2" shanks in these larger diameter bits are not recommended for medium or heavy duty applications. Bits 2-1/4" through 3" are furnished with 2-1/4" long reinforced shaft and 1/2" x 2-3/4" shank. 3-1/8" and larger will have 2 chiplifters and replaceable points.

Vix Bits (No. 137)

PART#	SIZE	DIA.	SCREW SIZE	DESCRIPTION	PRICE
63350	#3	5/64	#3,#4	1/4" Shank	\$13.80
63359	#5	7/64	#5,#6	1/4" Shank	\$11.72
63360	#9	9/64	#8,#9,#10	1/4" Shank	\$12.58
63352	#12	11/64	#12	1/4" Shank	\$62.12
63354	#14	13/64	#14,#16	1/4" Shank	\$62.12

REPLACEMENT PARTS

PART#	SCREW SIZE	DIA.	DESCRIPTION	PRICE
63351	#3	5/64	Drill-HSS	\$3.32
63361	#5	7/64	Drill-HSS	\$3.44
63362	#9	9/64	Drill-HSS	\$3.62
63353	#12	11/64	Drill-HSS	\$7.26
63355	#14	13/64	Drill-HSS	\$7.26

Designed accurately centering drilling holes for hinges. Striker Plates, Door Butts, Window Pulls and hardware using screws.

