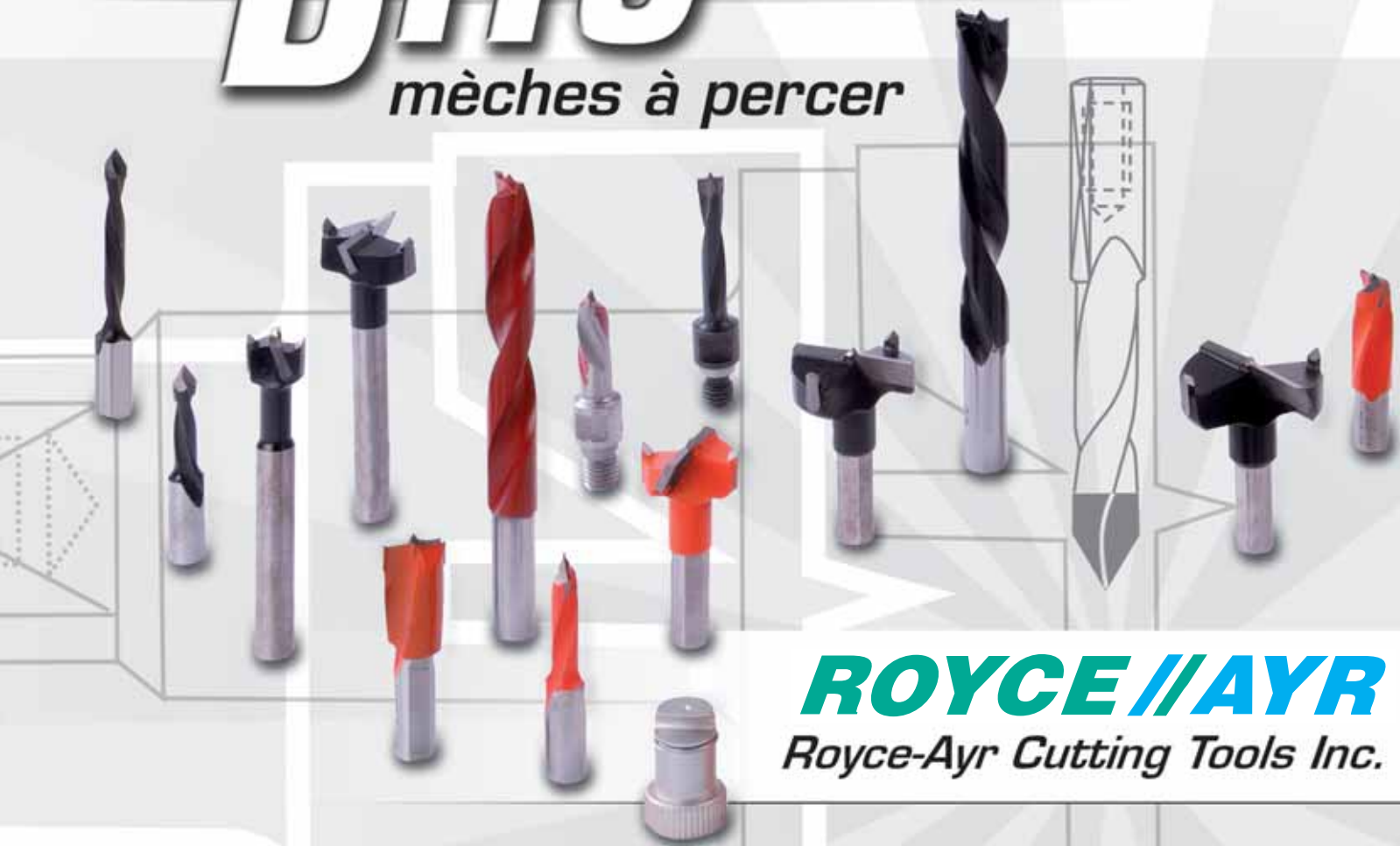


QUALITY PERFORMANCE PRECISION

DRILL BITS

mèches à percer



ROYCE//AYR
Royce-Ayr Cutting Tools Inc.



ISO 9001:2008
registered

SATISFACTION GUARANTEED

Limited Warranty

All items in the Royce//Ayr catalogue, unless otherwise noted, are warranted for 90 days against defects in workmanship and materials. Normal wear and tear or use of a tool for other than the intended purpose is not covered by this warranty. Merchandise may be returned to Royce//Ayr Cutting Tools for repair or replacement at our option. Royce//Ayr liability is limited to repair or replacement of the merchandise. In no event shall Royce//Ayr be liable for any incidental or consequential damages.

Special Items

Special items are those not in the Royce//Ayr catalogue and are special ordered for the customer. These items are covered by our limited warranty. If a special item is defective, it is covered like any other catalogue item.

Custom Items

Custom items are those that are made to our customer's specifications and are not normally carried by Royce//Ayr or the manufacturer. The customer is responsible to make sure his specifications meet his needs. These items cannot be returned unless there is a defect in workmanship or materials.

No Sale is Final

If you have a problem with an order you placed with Royce//Ayr, please call. We want you to be satisfied with our products and service.

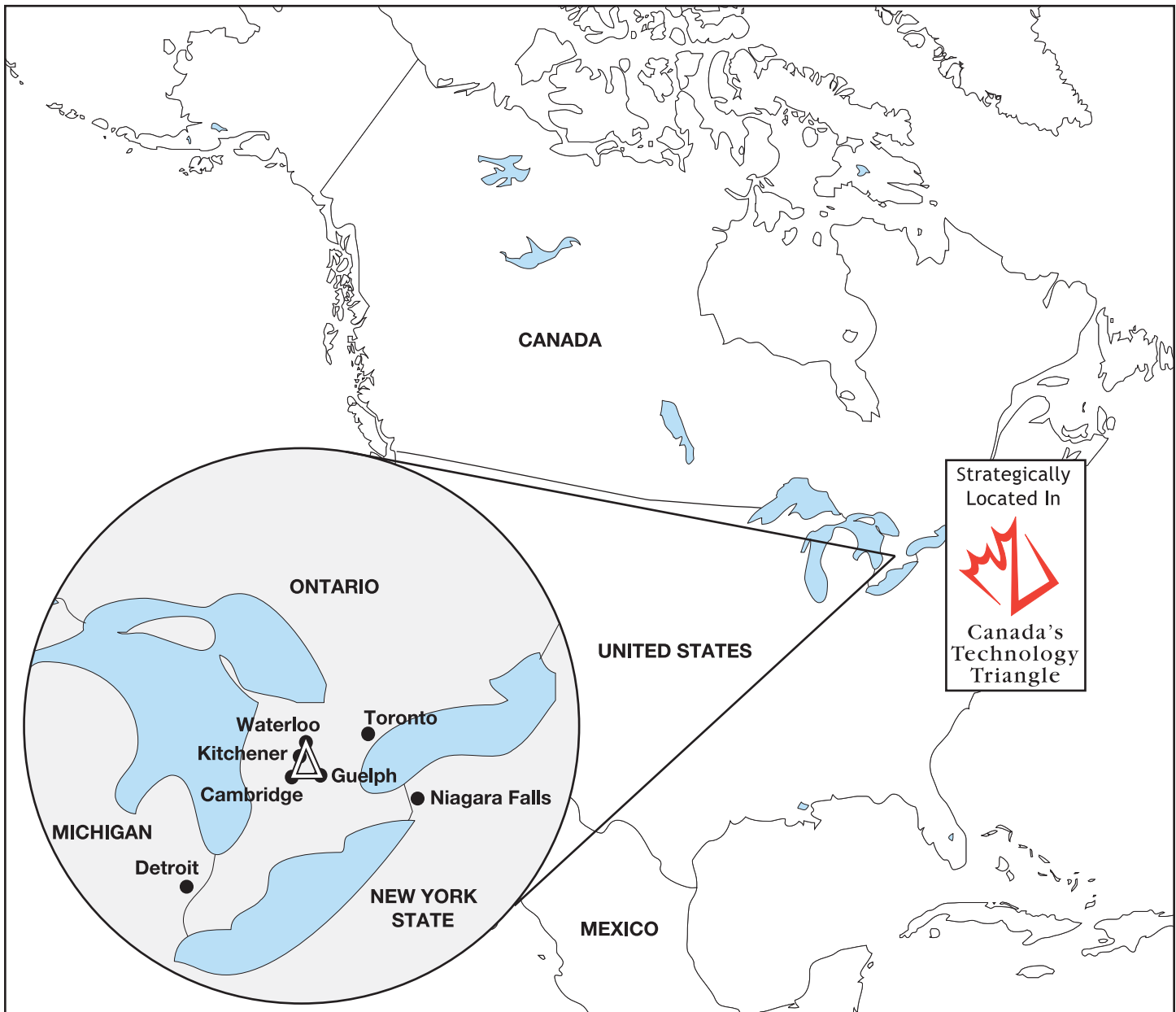
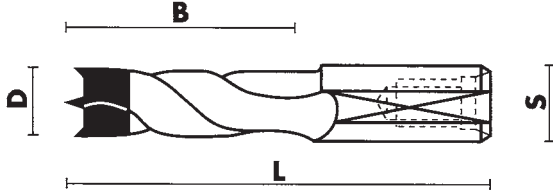


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TCT - METRIC DOWEL DRILLS

- ART. PD100 - 10 x 20 SHK. - 57.5mm O.A.L.
- PD105 - 10 x 20 SHK. - 70mm O.A.L.
- PD110 - 10 x 27 SHK. - 57.5mm O.A.L.
- PD120 - 10 x 30 SHK. - 70mm O.A.L.



ART. #PD100 "PRO-LINE"

Part #	Part #	D	B	L	S
PD100.040R	PD100.040L	4 (5/32")	34	57.5	10x20
PD100.045R	PD100.045L	4.5	34	57.5	10x20
PD100.050R	PD100.050L	5	34	57.5	10x20
PD100.051R	PD100.051L	5.1	34	57.5	10x20
PD100.052R	PD100.052L	5.2	34	57.5	10x20
PD100.055R	PD100.055L	5.5	34	57.5	10x20
PD100.060R	PD100.060L	6	34	57.5	10x20
PD100.064R	PD100.064L	6.35 (1/4")	34	57.5	10x20
PD100.067R	PD100.067L	6.7	34	57.5	10x20
PD100.070R	PD100.070L	7	34	57.5	10x20
PD100.080R	PD100.080L	8 (5/16")	34	57.5	10x20
PD100.081R	PD100.081L	8.1	34	57.5	10x20
PD100.082R	PD100.082L	8.2	34	57.5	10x20
PD100.090R	PD100.090L	9	34	57.5	10x20
PD100.095R	PD100.095L	9.5 (3/8")	34	57.5	10x20
PD100.100R	PD100.100L	10	34	57.5	10x20
PD100.105R	PD100.105L	10.5	34	57.5	10x20
PD100.110R	PD100.110L	11	34	57.5	10x20
PD100.120R	PD100.120L	12	34	57.5	10x20
PD100.127R	PD100.127L	12.7 (1/2")	34	57.5	10x20
PD100.130R	PD100.130L	13	34	57.5	10x20
PD100.140R	PD100.140L	14	34	57.5	10x20
PD100.150R	PD100.150L	15	34	57.5	10x20
PD100.160R	PD100.160L	16	34	57.5	10x20

ART. #PD110 "PRO-LINE"

Part #	Part #	D	B	L	S
PD110.040R	PD110.040L	4 (5/32")	27	57.5	10x27
PD110.047R	PD110.047L	4.7 (3/16")	27	57.5	10x27
PD110.050R	PD110.050L	5	27	57.5	10x27
PD110.060R	PD110.060L	6	27	57.5	10x27
PD110.063R	PD110.063L	6.35 (1/4")	27	57.5	10x27
PD110.070R	PD110.070L	7	27	57.5	10x27
PD110.080R	PD110.080L	8 (5/16")	27	57.5	10x27
PD110.090R	PD110.090L	9	27	57.5	10x27
PD110.095R	PD110.095L	9.5 (3/8")	27	57.5	10x27
PD110.100R	PD110.100L	10	27	57.5	10x27
PD110.110R	PD110.110L	11	27	57.5	10x27
PD110.111R	PD110.111L	11.1 (7/16")	27	57.5	10x27
PD110.120R	PD110.120L	12	27	57.5	10x27
PD110.127R	PD110.127L	12.7 (1/2")	27	57.5	10x27
PD110.130R	PD110.130L	13	27	57.5	10x27
PD110.140R	PD110.140L	14	27	57.5	10x27
PD110.150R	PD110.150L	15	27	57.5	10x27
PD110.160R	PD110.160L	16	27	57.5	10x27

PRO-LINE

**HIGH QUALITY
METRIC DRILLS
AT REDUCED
COST**

ART. #PD105 "PRO-LINE"

Part #	Part #	D	B	L	S
PD105.040R	PD105.040L	4 (5/32")	46	70	10x20
PD105.045R	PD105.045L	4.5	46	70	10x20
PD105.050R	PD105.050L	5	46	70	10x20
PD105.051R	PD105.051L	5.1	46	70	10x20
PD105.052R	PD105.052L	5.2	46	70	10x20
PD105.055R	PD105.055L	5.5	46	70	10x20
PD105.060R	PD105.060L	6	46	70	10x20
PD105.064R	PD105.064L	6.35 (1/4")	46	70	10x20
PD105.067R	PD105.067L	6.7	46	70	10x20
PD105.070R	PD105.070L	7	46	70	10x20
PD105.080R	PD105.080L	8 (5/16")	46	70	10x20
PD105.081R	PD105.081L	8.1	46	70	10x20
PD105.082R	PD105.082L	8.2	46	70	10x20
PD105.090R	PD105.090L	9	46	70	10x20
PD105.095R	PD105.095L	9.5 (3/8")	46	70	10x20
PD105.100R	PD105.100L	10	46	70	10x20
PD105.105R	PD105.105L	10.5	46	70	10x20
PD105.110R	PD105.110L	11	46	70	10x20
PD105.120R	PD105.120L	12	46	70	10x20
PD105.127R	PD105.127L	12.7 (1/2")	46	70	10x20
PD105.130R	PD105.130L	13	46	70	10x20
PD105.140R	PD105.140L	14	46	70	10x20
PD105.150R	PD105.150L	15	46	70	10x20
PD105.160R	PD105.160L	16	46	70	10x20

ART. #PD120 "PRO-LINE"

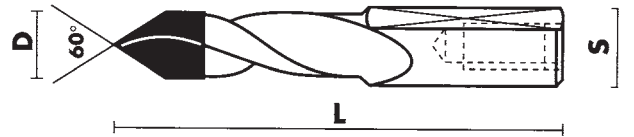
Part #	Part #	D	B	L	S
PD120.040R	PD120.040L	4 (5/32")	35	70	10x30
PD120.047R	PD120.047L	4.7 (3/16")	35	70	10x30
PD120.050R	PD120.050L	5	35	70	10x30
PD120.060R	PD120.060L	6	35	70	10x30
PD120.063R	PD120.063L	6.35 (1/4")	35	70	10x30
PD120.070R	PD120.070L	7	35	70	10x30
PD120.080R	PD120.080L	8 (5/16")	35	70	10x30
PD120.090R	PD120.090L	9	35	70	10x30
PD120.095R	PD120.095L	9.5 (3/8")	35	70	10x30
PD120.100R	PD120.100L	10	35	70	10x30
PD120.110R	PD120.110L	11	35	70	10x30
PD120.111R	PD120.111L	11.1 (7/16")	35	70	10x30
PD120.120R	PD120.120L	12	35	70	10x30
PD120.127R	PD120.127L	12.7 (1/2")	35	70	10x30
PD120.130R	PD120.130L	13	35	70	10x30
PD120.140R	PD120.140L	14	35	70	10x30
PD120.150R	PD120.150L	15	35	70	10x30
PD120.160R	PD120.160L	16	35	70	10x30

TCT - METRIC THROUGH-HOLE DRILLS

ART. PD145 - 10 x 20 SHK. - 57.5mm O.A.L.
 PD150 - 10 x 20 SHK. - 70mm O.A.L.

ART. #PD145 "PRO-LINE"

Part #	Part #	D	B	L	S
PD145.040R	PD145.040L	4 (5/32")	27	57.5	10x20
PD145.050R	PD145.050L	5	27	57.5	10x20
PD145.060R	PD145.060L	6	27	57.5	10x20
PD145.070R	PD145.070L	7	27	57.5	10x20
PD145.080R	PD145.080L	8 (5/16")	27	57.5	10x20
PD145.090R	PD145.090L	9	27	57.5	10x20
PD145.100R	PD145.100L	10	27	57.5	10x20
PD145.110R	PD145.110L	11	27	57.5	10x20
PD145.120R	PD145.120L	12	27	57.5	10x20
PD145.130R	PD145.130L	13	27	57.5	10x20
PD145.140R	PD145.140L	14	27	57.5	10x20
PD145.150R	PD145.150L	15	27	57.5	10x20
PD145.160R	PD145.160L	16	27	57.5	10x20



ART. #PD150 "PRO-LINE"

Part #	Part #	D	B	L	S
PD150.040R	PD150.040L	4 (5/32")	35	70	10x20
PD150.050R	PD150.050L	5	35	70	10x20
PD150.060R	PD150.060L	6	35	70	10x20
PD150.070R	PD150.070L	7	35	70	10x20
PD150.080R	PD150.080L	8 (5/16")	35	70	10x20
PD150.090R	PD150.090L	9	35	70	10x20
PD150.100R	PD150.100L	10	35	70	10x20
PD150.110R	PD150.110L	11	35	70	10x20
PD150.120R	PD150.120L	12	35	70	10x20
PD150.130R	PD150.130L	13	35	70	10x20
PD150.140R	PD150.140L	14	35	70	10x20
PD150.150R	PD150.150L	15	35	70	10x20
PD150.160R	PD150.160L	16	35	70	10x20

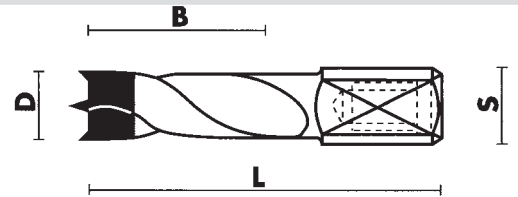
INDUSTRIAL QUALITY DOWEL DRILLS

TCT - METRIC DOWEL DRILLS

ART. D100 - 10 x 20 SHK. - 57mm O.A.L.
 D105 - 10 x 20 SHK. - 70mm O.A.L.

ART. #D100

Part #	Part #	D	B	L	S
D100.030R	D100.030L	3	27	57.5	10x27
D100.040R	D100.040L	4 (5/32")	30	57.5	10x20
D100.045R	D100.045L	4.5	30	57.5	10x20
D100.050R	D100.050L	5	30	57.5	10x20
D100.052R	D100.052L	5.2	30	57.5	10x20
D100.055R	D100.055L	5.5	30	57.5	10x20
D100.060R	D100.060L	6	30	57.5	10x20
D100.064R	D100.064L	6.35 (1/4")	30	57.5	10x20
D100.070R	D100.070L	7	30	57.5	10x20
D100.080R	D100.080L	8 (5/16")	30	57.5	10x20
D100.082R	D100.082L	8.2	30	57.5	10x20
D100.090R	D100.090L	9	30	57.5	10x20
D100.095R	D100.095L	9.5 (3/8")	30	57.5	10x20
D100.100R	D100.100L	10	30	57.5	10x20
D100.110R	D100.110L	11	30	57.5	10x20
D100.120R	D100.120L	12	30	57.5	10x20
D100.127R	D100.127L	12.7 (1/2")	30	57.5	10x20
D100.130R	D100.130L	13	30	57.5	10x20
D100.140R	D100.140L	14	30	57.5	10x20
D100.150R	D100.150L	15	30	57.5	10x20
D100.158R	D100.158L	15.8 (5/8")	30	57.5	10x20
D100.160R	D100.160L	16	30	57.5	10x20



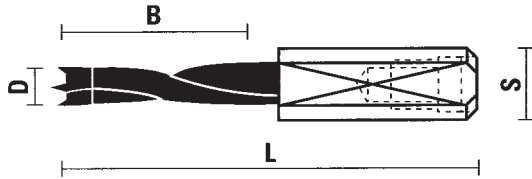
ART. #D105

Part #	Part #	D	B	L	S
D105.030R	D105.030L	3	43	70	10x23
D105.040R	D105.040L	4 (5/32")	43	70	10x20
D105.047R	D105.047L	4.7 (3/16")	43	70	10x20
D105.050R	D105.050L	5	43	70	10x20
D105.052R	D105.052L	5.2	43	70	10x20
D105.055R	D105.055L	5.5	43	70	10x20
D105.060R	D105.060L	6	43	70	10x20
D105.064R	D105.064L	6.35 (1/4")	43	70	10x20
D105.070R	D105.070L	7	43	70	10x20
D105.080R	D105.080L	8 (5/16")	43	70	10x20
D105.090R	D105.090L	9	43	70	10x20
D105.095R	D105.095L	9.5 (3/8")	43	70	10x20
D105.100R	D105.100L	10	43	70	10x20
D105.110R	D105.110L	11	43	70	10x20
D105.111R	D105.111L	11.1 (7/16")	43	70	10x20
D105.120R	D105.120L	12	43	70	10x20
D105.127R	D105.127L	12.7 (1/2")	43	70	10x20
D105.130R	D105.130L	13	43	70	10x20
D105.140R	D105.140L	14	43	70	10x20
D105.150R	D105.150L	15	43	70	10x20
D105.158R	D105.158L	15.8 (5/8")	43	70	10x20
D105.160R	D105.160L	16	43	70	10x20

S/C - METRIC DOWEL DRILLS

ART. D107 - 10 x 20 SHK. - 57mm O.A.L.

D108 - 10 x 27 SHK. - 70mm O.A.L.



ART. #D107

Part #	Part #	D	B	L	S
D107.030R	D107.030L	3	37	57	10x20
D107.040R	D107.040L	4 (5/32")	37	57	10x20
D107.050R	D107.050L	5	37	57	10x20
D107.060R	D107.060L	6	37	57	10x20
D107.070R	D107.070L	7	37	57	10x20
D107.080R	D107.080L	8 (5/16")	37	57	10x20

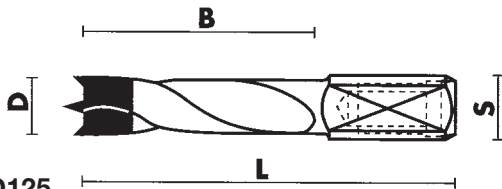
ART. #D108

Part #	Part #	D	B	L	S
D108.030R	D108.030L	3	43	70	10x27
D108.040R	D108.040L	4 (5/32")	43	70	10x27
D108.050R	D108.050L	5	43	70	10x27
D108.060R	D108.060L	6	43	70	10x27
D108.070R	D108.070L	7	43	70	10x27
D108.080R	D108.080L	8 (5/16")	43	70	10x27

TCT - METRIC DOWEL DRILLS

ART. D125 - 10 x 30 SHK. - 77mm O.A.L.

D130 - 10 x 27 SHK. - 85mm O.A.L.



ART. #D125

Part #	Part #	D	B	L	S
D125.050R	D125.050L	5	44	77	10x30
D125.060R	D125.060L	6	44	77	10x30
D125.080R	D125.080L	8 (5/16")	44	77	10x30
D125.100R	D125.100L	10	44	77	10x30
D125.120R	D125.120L	12	44	77	10x30

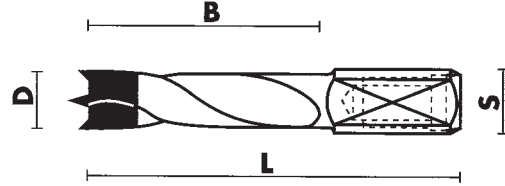
ART. #D130

Part #	Part #	D	B	L	S
D130.050R	D130.050L	5	50	85	10x27
D130.060R	D130.060L	6	50	85	10x27
D130.080R	D130.080L	8 (5/16")	50	85	10x27
D130.100R	D130.100L	10	50	85	10x27
D130.120R	D130.120L	12	50	85	10x27

TCT - 8MM SHK. - DOWEL DRILLS

ART. D135 - 8 x 20 SHK. - 55.5mm O.A.L.

D140 - 8 x 20 SHK. - 67mm O.A.L.



ART. #D135

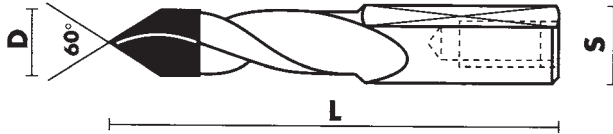
Part #	Part #	D	B	L	S
D135.030R	-	3	30	55.5	8x20
D135.050R	D135.050L	5	30	55.5	8x20
D135.055R	D135.055L	5.5 (7/32")	30	55.5	8x20
D135.060R	D135.060L	6	30	55.5	8x20
D135.064R	D135.064L	6.35 (1/4")	30	55.5	8x20
D135.070R	D135.070L	7	30	55.5	8x20
D135.080R	D135.080L	8 (5/16")	30	55.5	8x20
D135.090R	D135.090L	9	30	55.5	8x20
D135.100R	D135.100L	10	30	55.5	8x20
D135.120R	D135.120L	12	30	55.5	8x20

ART. #D140

Part #	Part #	D	B	L	S
D140.050R	D140.050L	5	40	67	8x20
D140.055R	D140.055L	5.5 (7/32")	40	67	8x20
D140.060R	D140.060L	6	40	67	8x20
D140.064R	D140.064L	6.35 (1/4")	40	67	8x20
D140.070R	D140.070L	7	40	67	8x20
D140.080R	D140.080L	8 (5/16")	40	67	8x20
D140.090R	D140.090L	9	40	67	8x20
D140.095R	D140.095L	9.5 (3/8")	40	67	8x20
D140.100R	D140.100L	10	40	67	8x20
D140.120R	D140.120L	12	40	67	8x20

TCT - THROUGH-HOLE DOWEL DRILLS

ART. D145 - 10 x 20 SHK. - 57mm O.A.L.
 D150 - 10 x 20 SHK. - 70mm O.A.L.
 D155 - 10 x 26 SHK. - 77mm O.A.L.



ART. #D145

Part #	Part #	D	B	L	S
D145.040R	D145.040L	4 (5/32")	27	57	10x20
D145.050R	D145.050L	5	27	57	10x20
D145.060R	D145.060L	6	27	57	10x20
D145.070R	D145.070L	7	27	57	10x20
D145.080R	D145.080L	8 (5/16")	27	57	10x20
D145.090R	D145.090L	9	27	57	10x20
D145.100R	D145.100L	10	27	57	10x20
D145.110R	D145.110L	11	27	57	10x20
D145.120R	D145.120L	12	27	57	10x20
D145.130R	D145.130L	13	27	57	10x20
D145.140R	D145.140L	14	27	57	10x20
D145.150R	D145.150L	15	27	57	10x20

ART. #D150

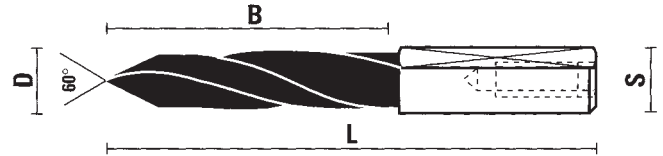
Part #	Part #	D	B	L	S
D150.040R	D150.040L	4 (5/32")	40	70	10x20
D150.047R	D150.047L	4.7 (3/16")	40	70	10x20
D150.050R	D150.050L	5	40	70	10x20
D150.055R	D150.055L	5.5 (7/32")	40	70	10x20
D150.060R	D150.060L	6	40	70	10x20
D150.064R	D150.064L	6.35 (1/4")	40	70	10x20
D150.070R	D150.070L	7	40	70	10x20
D150.080R	D150.080L	8 (5/16")	40	70	10x20
D150.090R	D150.090L	9	40	70	10x20
D150.095R	D150.095L	9.5 (3/8")	40	70	10x20
D150.100R	D150.100L	10	40	70	10x20
D150.110R	D150.110L	11	40	70	10x20
D150.111R	D150.111L	11.1 (7/16")	40	70	10x20
D150.120R	D150.120L	12	40	70	10x20
D150.127R	D150.127L	12.7 (1/2")	40	70	10x20
D150.130R	D150.130L	13	40	70	10x20
D150.140R	D150.140L	14	40	70	10x20
D150.150R	D150.150L	15	40	70	10x20

ART. #D155

Part #	Part #	D	B	L	S
D155.050R	D155.050L	5	45	77	10x26
D155.060R	D155.060L	6	45	77	10x26
D155.080R	D155.080L	8 (5/16")	45	77	10x26
D155.100R	D155.100L	10	45	77	10x26

S/C - THROUGH-HOLE DRILLS

ART. D157 - 10 x 20 SHK. - 57mm O.A.L.
 D158 - 10 x 27 SHK. - 70mm O.A.L.



ART. #D157

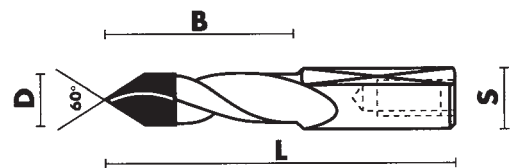
Part #	Part #	D	B	L	S
D157.030R	D157.030L	3	30	57	10x20
D157.040R	D157.040L	4 (5/32")	30	57	10x20
D157.050R	D157.050L	5	30	57	10x20
D157.060R	D157.060L	6	30	57	10x20
D157.070R	D157.070L	7	30	57	10x20
D157.080R	D157.080L	8 (5/16")	30	57	10x20

ART. #D158

Part #	Part #	D	B	L	S
D158.030R	D158.030L	3	35	70	10x27
D158.040R	D158.040L	4 (5/32")	35	70	10x27
D158.050R	D158.050L	5	35	70	10x27
D158.060R	D158.060L	6	35	70	10x27
D158.070R	D158.070L	7	35	70	10x27
D158.080R	D158.080L	8 (5/16")	35	70	10x27

TCT - 8MM SHK. THROUGH-HOLE DRILLS

ART. D160 - 8 x 20 SHK. - 55.5mm O.A.L.
 D165 - 8 x 25 SHK. - 67mm O.A.L.



ART. #D160

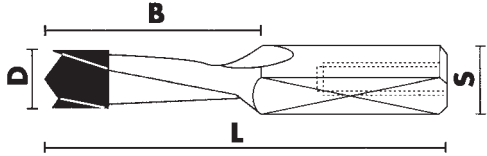
Part #	Part #	D	B	L	S
D160.050R	D160.050L	5	30	55.5	8x20
D160.060R	D160.060L	6	30	55.5	8x20
D160.080R	D160.080L	8 (5/16")	30	55.5	8x20
D160.100R	D160.100L	10	30	55.5	8x20

ART. #D165

Part #	Part #	D	B	L	S
D165.050R	D165.050L	5	40	67	8x25
D165.060R	D165.060L	6	40	67	8x25
D165.080R	D165.080L	8 (5/16")	40	67	8x25
D165.100R	D165.100L	10	40	67	8x25

TCT - "DUROX" DOWEL DRILLS

ART. D146 - 10 x 30 SHK. - 58mm O.A.L.
 D151 - 10 x 24 SHK. - 70mm O.A.L.



ART. #D146 "DUROX"

Part #	Part #	D	B	L	S
D146.050R	D146.050L	5	27	58	10x30
D146.080R	D146.080L	8 (5/16")	27	58	10x30

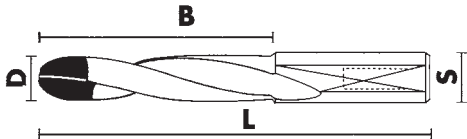
ART. #D151 "DUROX"

Part #	Part #	D	B	L	S
D151.050R	D151.050L	5	35	70	10x24
D151.080R	D151.080L	8 (5/16")	35	70	10x24

Long life precision dowel drills. New design for cleaner, finished holes.

TCT - "DUROX" THROUGH-HOLE DRILLS

ART. D147 - 10 x 24 SHK. - 57mm O.A.L.
 D152 - 10 x 24 SHK. - 70mm O.A.L.



ART. #D147 "DUROX"

Part #	Part #	D	B	L	S
D147.050R	D147.050L	5	27	57	10x24
D147.080R	D147.080L	8 (5/16")	27	57	10x24

ART. #D152 "DUROX"

Part #	Part #	D	B	L	S
D152.050R	D152.050L	5	35	70	10x24
D152.080R	D152.080L	8 (5/16")	35	70	10x24

Long life precision through hole drills. New design for cleaner, finished holes.

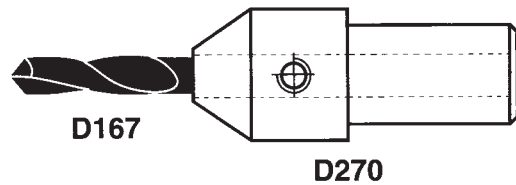
SOLID CARBIDE - CENTER DRILL

ART. D167 - Use with drill adaptor or bushing number D270 or D275



ART. #D167

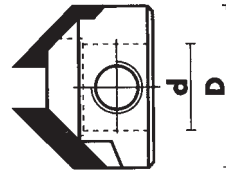
Part #	Part #	D	B	L
D167.020R	D167.020L	2	18	49
D167.025R	D167.025L	2.5	22	55
D167.030R	D167.030L	3	22	55
D167.032R	D167.032L	3.2 (1/8")	22	55
D167.035R	D167.035L	3.5	25	55
D167.040R	D167.040L	4 (5/32")	25	55
D167.050R	D167.050L	5	25	55



TCT - SHELL COUNTERSINK

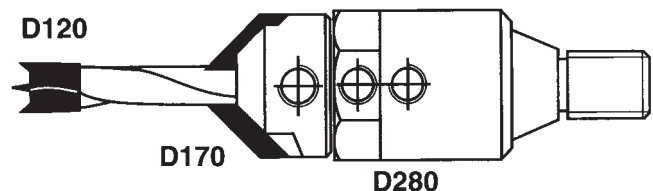
ART. D170 - To be mounted on 10mm shank. To be used in conjunction with drills with diameters 5 to 10mm or 11 to 12mm as required.

ART. D175 - To be mounted on twist of drill at desired depth.



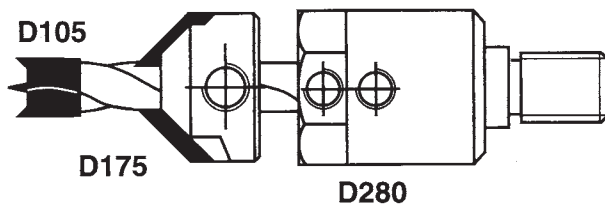
ART. #D170

Part #	Part #	d	D
D170.020R	D170.020L	5/10	20
D170.022R	D170.022L	11/12	22



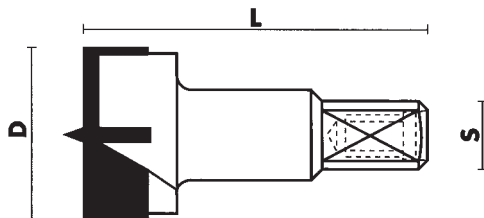
ART. #D175

Part #	Part #	d	D
D175.040R	D175.040L	4 (⁵ / ₃₂ "	15.5
D175.050R	D175.050L	5	15.5
D175.060R	D175.060L	6	15.5
D175.070R	D175.070L	7	18
D175.080R	D175.080L	8 (⁵ / ₁₆ "	18
D175.090R	D175.090L	9	18
D175.100R	D175.100L	10	20
D175.120R	D175.120L	12	20



TCT - HINGE BORING BITS Z = 2+2

- ART. D180 - 10 x 30 SHK. - 57mm O.A.L.
- D185 - 10 x 30 SHK. - 70mm O.A.L.
- D190 - 10 x 30 SHK. - 77mm O.A.L.



ART. #D180

Part #	Part #	D	L	S
D180.150R	D180.150L	15	57	10x30
D180.160R	D180.160L	16	57	10x30
D180.170R	D180.170L	17	57	10x30
D180.180R	D180.180L	18	57	10x30
D180.190R	D180.190L	19	57	10x30
D180.200R	D180.200L	20	57	10x30
D180.210R	D180.210L	21	57	10x30
D180.220R	D180.220L	22	57	10x30
D180.230R	D180.230L	23	57	10x30
D180.240R	D180.240L	24	57	10x30
D180.250R	D180.250L	25	57	10x30
D180.260R	D180.260L	26	57	10x30
D180.270R	D180.270L	27	57	10x30
D180.280R	D180.280L	28	57	10x30
D180.290R	D180.290L	29	57	10x30
D180.300R	D180.300L	30	57	10x30
D180.310R	D180.310L	31	57	10x30
D180.320R	D180.320L	32	57	10x30
D180.330R	D180.330L	33	57	10x30
D180.340R	D180.340L	34	57	10x30
D180.350R	D180.350L	35	57	10x30
D180.380R	D180.380L	38	57	10x30
D180.400R	D180.400L	40	57	10x30

ART. #D185

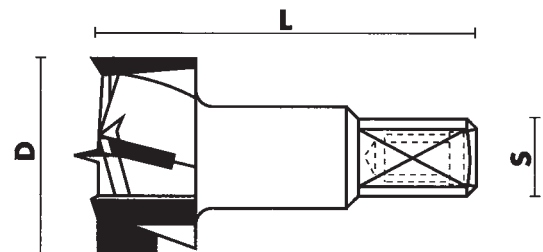
Part #	Part #	D	L	S
D185.150R	D185.150L	15	70	10x30
D185.160R	D185.160L	16	70	10x30
D185.170R	D185.170L	17	70	10x30
D185.180R	D185.180L	18	70	10x30
D185.190R	D185.190L	19	70	10x30
D185.200R	D185.200L	20	70	10x30
D185.210R	D185.210L	21	70	10x30
D185.220R	D185.220L	22	70	10x30
D185.230R	D185.230L	23	70	10x30
D185.240R	D185.240L	24	70	10x30
D185.250R	D185.250L	25	70	10x30
D185.260R	D185.260L	26	70	10x30
D185.270R	D185.270L	27	70	10x30
D185.280R	D185.280L	28	70	10x30
D185.290R	D185.290L	29	70	10x30
D185.300R	D185.300L	30	70	10x30
D185.310R	D185.310L	31	70	10x30
D185.320R	D185.320L	32	70	10x30
D185.330R	D185.330L	33	70	10x30
D185.340R	D185.340L	34	70	10x30
D185.350R	D185.350L	35	70	10x30
D185.380R	D185.380L	38	70	10x30
D185.400R	D185.400L	40	70	10x30

ART. #D190

Part #	Part #	D	L	S
D190.180R	D190.180L	18	77	10x30
D190.200R	D190.200L	20	77	10x30
D190.250R	D190.250L	25	77	10x30
D190.300R	D190.300L	30	77	10x30
D190.350R	D190.350L	35	77	10x30

TCT - HINGE BORING BITS Z = 3+3

- ART. D195 - 10 x 26 SHK. - 57mm O.A.L.

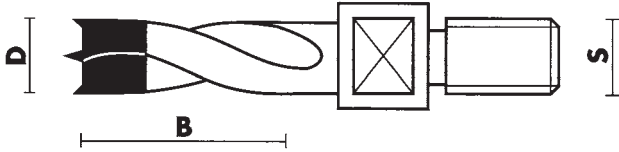


ART. #D195

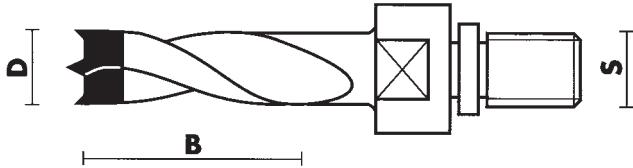
Part #	Part #	D	L	S
D195.250R	D195.250L	25	57	10x26
D195.260R	D195.260L	26	57	10x26
D195.300R	D195.300L	30	57	10x26
D195.350R	D195.350L	35	57	10x26
D195.400R	D195.400L	40	57	10x26

TCT - THREADED SHANK - DOWEL DRILLS

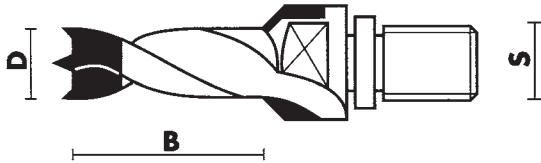
ART. D200 - M8 Thread
 D205 - M10 Thread
 M8 NOTTMEYER
 M10 AYEN



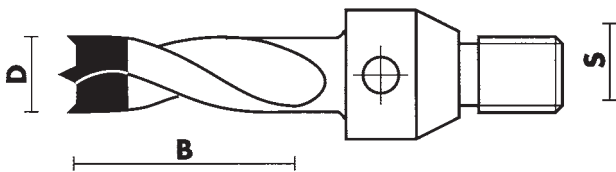
ART. D210
 M10/11x4 MORBIDELLI - BIESSE - WEEKE



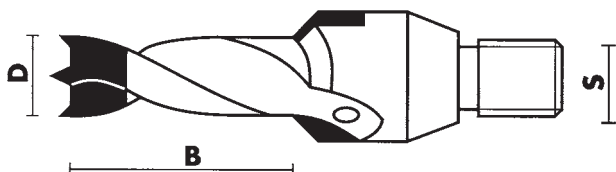
ART. D215
 M10/11x4 MORBIDELLI - BIESSE - WEEKE



ART. D220 - M8
 D225 - M10
 M8/cone 20° BILEK
 M10/cone 30° VITAP - BUSELLATO - SCHLEICHER



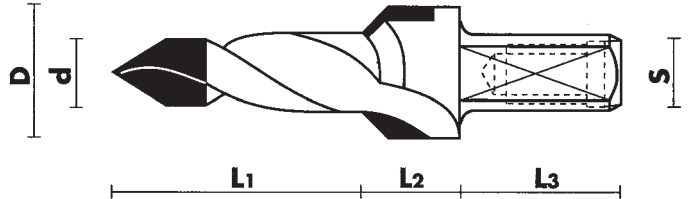
ART. D230
 M10/cone 30° VITAP - BUSELLATO - SCHLEICHER



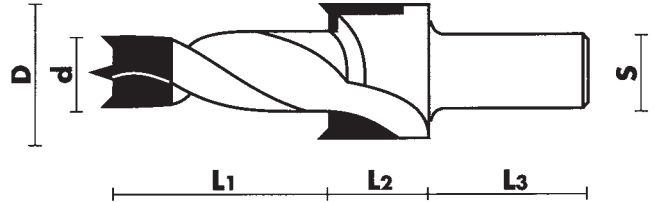
TCT COUNTERBORES

ART. D235
 D240 Specify: dxL1
 DxL2
 SxL3

ART. D235



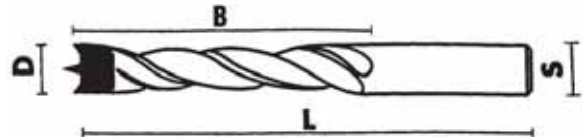
ART. D240



* Art #'s D200 - D240 custom "made to order"

TCT - BRAD POINT WOOD DRILL

ART. D250
 N. B. Shank diameter is same as drill diameter.

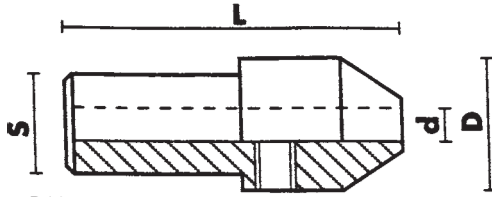


ART. #D250

Part #	D	B	L
D250.050R	5	50	85
D250.060R	6	55	90
D250.070R	7	65	105
D250.080R	8	75	115
D250.090R	9	80	125
D250.100R	10	90	135
D250.120R	12	100	150

DRILL ADAPTORS & BUSHINGS

ART. D270 - 10 x 20 SHK. - 38mm O.A.L.
 D275 - 10 x 23 SHK. - 23mm O.A.L.

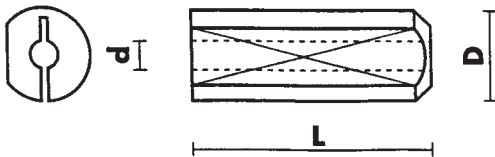


Used with Art. D167



ART. #D270

Part #	d	D	L	S
D270.20	2	15	38	10x20
D270.25	2.5	15	38	10x20
D270.30	3	15	38	10x20
D270.32	3.2	15	38	10x20
D270.35	3.5	15	38	10x20
D270.40	4	15	38	10x20
D270.45	4.5	15	38	10x20
D270.50	5	15	38	10x20

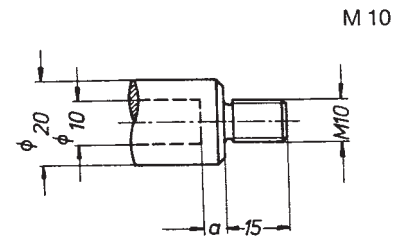


ART. #D275

Part #	d	D	L
D275.20	2	10	23
D275.25	2.5	10	23
D275.30	3	10	23
D275.32	3.2	10	23
D275.35	3.5	10	23
D275.40	4	10	23
D275.45	4.5	10	23
D275.50	5	10	23

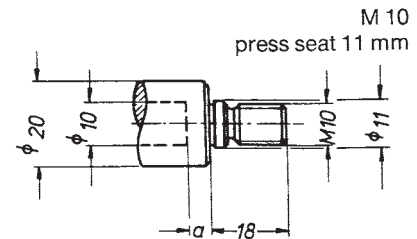
DRILL ADAPTORS - M10 THREAD

(also available with M8 thread)

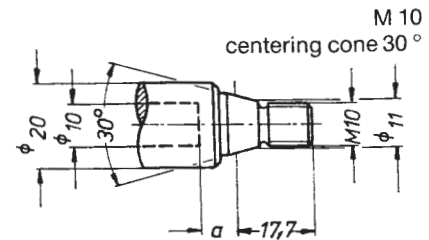


ART. #D280

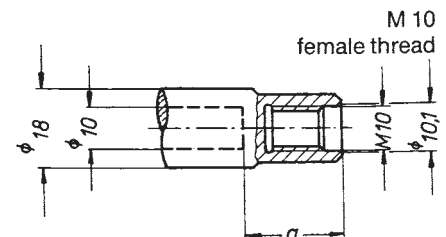
Part #	MACHINE MAKE
D280.01R	Holzma - Ayen - Mayer
D280.01L	Torwegge - Knoevenagel



Part #	MACHINE MAKE
D280.02R	Morbidelli - Biesse - Masterwood
D280.02L	Torwegge - Vitap - Weeke

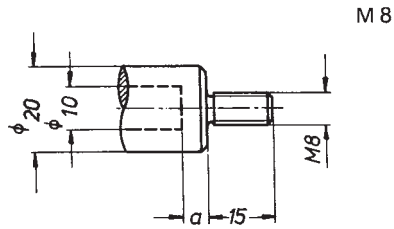


Part #	MACHINE MAKE
D280.03R	Alberti - Vitap - Balestrini
D280.03L	Busellato - Schleicher - Bilek



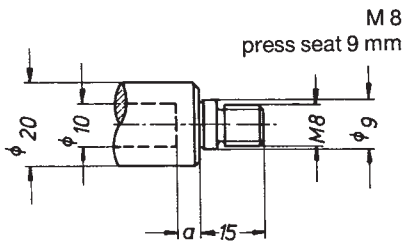
Part #	MACHINE MAKE
D280.04R	Scheer
D280.04L	

DRILL ADAPTORS - M8 THREAD

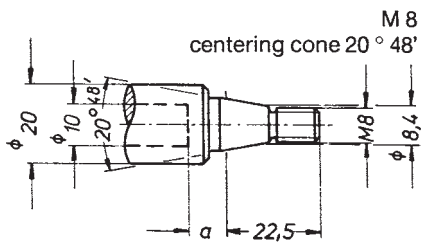


ART. #D285

Part #	MACHINE MAKE
D285.01R	Nottmeyer
D285.01L	



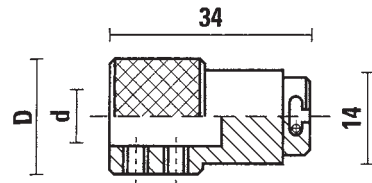
Part #	MACHINE MAKE
D285.02R	Morbidelli - Nottmeyer - Masterwood
D285.02L	



Part #	MACHINE MAKE
D285.03R	Bilek - Balestrini
D285.03L	

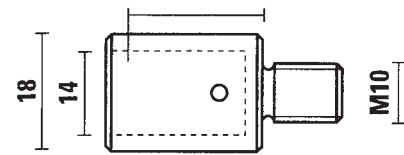
QUICK-CHANGE CHUCKS

ART. #D290.N

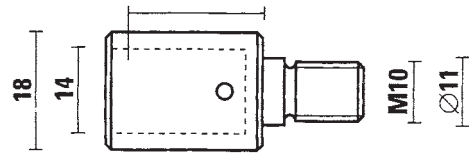


D290.N - Universal Drill Holder

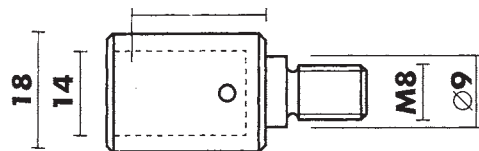
THREADED ADAPTORS



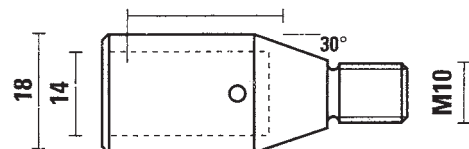
D290A.01 - RH + LH Rot
for: Ayen, Holzma



D290B.01 - RH + LH Rot
for: Morbidelli, Biesse, Weeke, Busellato, Torwegge

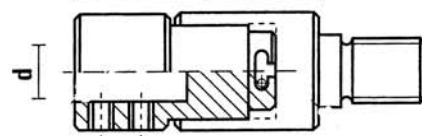


D290C. - RH + LH Rot
for: Nottmeyer



D290D. - RH + LH Rot
for: Vitap, Alberti

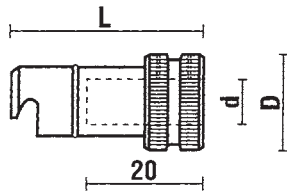
Chuck + Adaptor



= Assembly

QUICK CHANGE DRILL HOLDERS ONLY

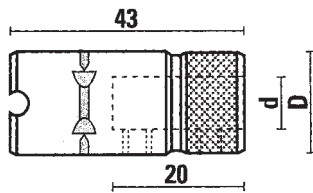
ART. # D295



For: Biesse

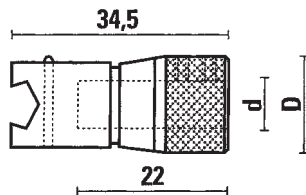
Part #	d	L	D
D295.05R/L*	10	37	20
D295.05RS/RL	10	30	20

*Universal



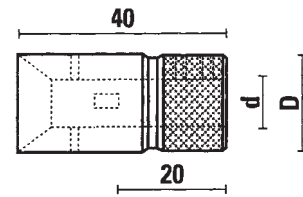
For: Morbidelli

Part #	d	D
D295.15R	10	20



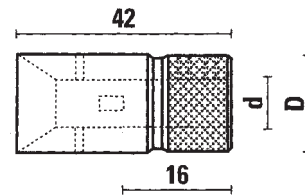
For: Busellato

Part #	d	D
D295.25R	10	19



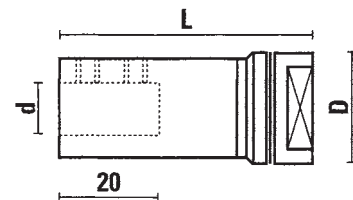
For: Masterwood, Maggi, Griggio

Part #	d	D
D295.10R	10	20



For: Vitap

Part #	d	D
D295.20R	10	18



For: Weeke

Part #	d	D	L
D295.30R	10	20	46
D295.31R	10	20	56
D295.32R	10	20	66

REGULAR HOLLOW MORTISING CHISEL (F27)



Part #	Dia.	Shank Dia.	Mortise Depth
F2704	1/4"	5/8"	1-7/8"
F2705	5/16"	5/8"	1-7/8"
F2706	3/8"	5/8"	1-7/8"
F2708	1/2"	5/8"	1-7/8"

2-3/4" blade

Note: Chisels and Bits are sold separately.

Standard Specifications: All Shank Lengths 1-1/2"
All Overall Lengths 4-1/4"

CARBON-STEEL HOLLOW CHISEL BITS (F1-27)



Part #	Dia.	Shank Dia.	Twist Length
F1-2704	1/4"	3/16"	4-3/4"
F1-2705	5/16"	1/4"	4-3/4"
F1-2706	3/8"	19/64"	4-3/4"
F1-2708	1/2"	19/64"	4-3/4"

For 2-3/4" blade hollow chisels.

Bits have knife edged spurs and no point.

Standard Specifications: All Shank Lengths 3-1/4"
All Overall Lengths 8"

HOLLOW MORTISING CHISELS (F28)



Part #	Dia.	Shank Dia.	Mortise Depth
F2804	1/4"	5/8"	1-7/8"
F2805	5/16"	5/8"	1-7/8"
F2806	3/8"	5/8"	3-1/4"
F2808	1/2"	5/8"	3-1/4"
F2810	5/8"	3/4"	3-1/4"
F2812	3/4"	1-1/8"	3-1/4"
F2816	1"	1-1/8"	3-1/4"

4" blade

Note: Chisels and Bits are sold separately.

Standard Specifications: All Shank Lengths 1-1/2"
All Overall Lengths 5-1/2"

CARBON-STEEL HOLLOW CHISEL BITS (F1-28)



Part #	Dia.	Shank Dia.	Twist Length
F1-2804	1/4"	3/16"	3-1/4"
F1-2805	5/16"	1/4"	3-1/4"
F1-2806	3/8"	19/64"	6"
F1-2808	1/2"	19/64"	6"
F1-2810	5/8"	1/2"	6"
F1-2812	3/4"	1/2"	6"
F1-2816	1"	1/2"	6"

For 4" blade hollow chisels.

Bits have knife edged spurs and no point.

Standard Specifications: All Overall Lengths 9"

SUPER WEAR STEEL HOLLOW CHISEL BIT (FX1-28)

For use with F28 Mortising Chisels. Super Wear Steel boosts life substantially on hardwood.

Part #	Dia.	Shank Dia.	Twist Length
FX1-2812	3/4"	1/2"	6"

Standard Specifications: Shank Length 3"
Overall Length 9"

CARBIDE TIPPED HOLLOW CHISEL BITS (F1-28CT)

For use on chip core and particle board.

Use with F28 Mortising Chisels.

Part #	Dia.	Shank Dia.	Twist Length
F1-2812CT	3/4"	1/2"	6"

Standard Specifications: Shank Length 3"
Overall Length 9"

**SCREW POINT DOUBLE SPUR
MACHINE BITS (F150)**

Furnished with medium pitch screw point.



Part #	Dia.	Shank Dia.	Twist Length	Overall Length
F150406	3/8"	1/2"	4"	6-1/4"
F150407	7/16"	1/2"	4"	6-1/4"
F150408	1/2"	1/2"	4"	6-1/4"
F150410	5/8"	1/2"	4"	6-1/4"
F150412	3/4"	1/2"	4"	6-1/4"
F150414	7/8"	1/2"	4"	6-1/4"
F150416	1"	1/2"	4"	6-1/4"
F150606	3/8"	1/2"	6"	8-1/4"
F150607	7/16"	1/2"	6"	8-1/4"
F150608	1/2"	1/2"	6"	8-1/4"
F150609	9/16"	1/2"	6"	8-1/4"
F150610	5/8"	1/2"	6"	8-1/4"
F150611	11/16"	1/2"	6"	8-1/4"
F150612	3/4"	1/2"	6"	8-1/4"
F150613	13/16"	1/2"	6"	8-1/4"
F150614	7/8"	1/2"	6"	8-1/4"
F150615	15/16"	1/2"	6"	8-1/4"
F150616	1"	1/2"	6"	8-1/4"

Additional Specifications: All Shank Lengths 2-1/4"

CARBON STEEL SCREW SHANK DOWEL DRILLS (F203)

These drills feature outlining spurs and brad point. They are the most commonly used drills for dowel hole boring. Made of the finest carbon tool steel. Heat treated, 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 pinhole for easy removal from machines.



Part #	Dia.	Twist Length	Overall Length
F20304L	1/4"	3"	4-1/2"
F20306R	3/8"	3"	4-1/2"
F20307R	7/16"	3"	4-1/2"
F20308L	1/2"	3"	4-1/2"
F20312R	3/4"	3"	4-1/2"

Standard Specifications: All Shanks 7/16" - 14 Thread.

Note: Some sizes available in left hand.

3/8" and 7/16" Dia's are available in 2" twist length x 3-1/2" overall length.

Available while quantities last.

SUPER WEAR STEEL SCREW SHANK DOWEL DRILLS (FX203)

Designed exactly like the F203 except made of Super Wear Steel. This steel requires a minimum of sharpening to maintain maximum production.

The threaded shank is relatively soft to insure against breakage.



Part #	Dia.	Twist Length	Overall Length
FX20303R	3/16"	3"	4-1/2"
FX20304R	1/4"	3"	4-1/2"
FX203092R	9/32"	3"	4-1/2"
FX20305R	5/16"	3"	4-1/2"
FX203112R	11/32"	3"	4-1/2"
FX20306R	3/8"	3"	4-1/2"
FX203254R	25/64"	3"	4-1/2"
FX20307R	7/16"	3"	4-1/2"
FX203294R	29/64"	3"	4-1/2"
FX20308R	1/2"	3"	4-1/2"
FX20309R	9/16"	3"	4-1/2"
FX20310R	5/8"	3"	4-1/2"
FX20312R	3/4"	3"	4-1/2"
FX20314R	7/8"	3"	4-1/2"
FX20316R	1"	3"	4-1/2"

Standard Specifications: All Shanks 7/16" - 14 Thread.

Note: Specify right or left hand.

7/8" not available in left hand.

Some sizes available in

2" twist length x 3-1/2" overall length.

C/T SCREW SHANK DOWEL DRILLS (F203CT)

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.



Part #	Dia.	Twist Length	Overall Length
F203C04	1/4"	3"	4-1/2"
F203C05	5/16"	3"	4-1/2"
F203C06	3/8"	3"	4-1/2"
F203C254	25/64"	3"	4-1/2"
F203C07	7/16"	3"	4-1/2"
F203C08	1/2"	3"	4-1/2"

Standard Specifications: All Shanks 7/16" - 14 Thread.

Note: Specify right or left hand.

SUPER WEAR STEEL SHORT TWIST SCREW SHANK DOWEL DRILLS (FX203B)

Designed primarily for the Bell 24 Double End Mitre 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.



Part #	Dia.	Twist Length	Overall Length
FX203B03	3/16"	1-3/4"	4-1/2"
FX203B04	1/4"	1-3/4"	4-1/2"
FX203B05	5/16"	1-3/4"	4-1/2"
FX203B06	3/8"	1-3/4"	4-1/2"
FX203B254	25/64"	1-3/4"	4-1/2"
FX203B07	7/16"	1-3/4"	4-1/2"
FX203B08	1/2"	1-3/4"	4-1/2"

Standard Specifications: All Shanks 7/16" - 14 Thread.

Note: Specify right or left hand.

SUPER WEAR STEEL SCREW SHANK DOWEL DRILLS (FX203J)

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.



Part #	Dia.	Twist Length	Overall Length
FX203J02R	1/8"	1-1/2"	2-3/4"
FX203J03R	3/16"	1-1/2"	2-3/4"
FX203J04R	1/4"	1-1/2"	2-3/4"
FX203J05R	5/16"	1-1/2"	2-3/4"
FX203J06R	3/8"	1-1/2"	2-3/4"
FX203J07R	7/16"	1-1/2"	2-3/4"
FX203J08R	1/2"	1-1/2"	2-3/4"

Standard Specifications: All Shanks 7/16" - 14 Thread.

Note: 1/4", 3/8", 7/16" available in left hand.

CARBON STEEL BRAD POINT SPUR MACHINE DRILLS (F200)

1/2 x 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.



Part #	Dia.	Twist Length	Overall Length
F20002	1/8"	4"	6"
F20052	5/32"	4"	6"
F20003	3/16"	4"	6"
F20072	7/32"	4"	6"
F20004	1/4"	4"	6"
F200174	17/64"	4"	6"
F200092	9/32"	4"	6"
F200194	19/64"	4"	6"
F20005	5/16"	4"	6"
F200112	11/32"	4"	6"
F20006	3/8"	4"	6"
F200254	25/64"	4"	6"
F200132	13/32"	4"	6"
F20007	7/16"	4"	6"
F200294	29/64"	4"	6"
F200152	15/32"	4"	6"
F20008	1/2"	4"	6"
F200172	17/32"	4"	6"
F20009	9/16"	4"	6"
F200192	19/32"	4"	6"
F20010	5/8"	4"	6"
F200212	21/32"	4"	6"
F20011	11/16"	4"	6"
F20012	3/4"	4"	6"
F200252	25/32"	4"	6"
F20013	13/16"	4"	6"
F20014	7/8"	4"	6"
F20015	15/16"	4"	6"
F20016	1"	4"	6"
F20017	1-1/16"	4"	6"
F20018	1-1/8"	4"	6"
F20020	1-1/4"	4"	6"

Standard Specifications: All Shank Lengths 2"

Some sizes also available in 3" twist lengths x 5" overall lengths.

SUPER WEAR STEEL BRAD POINT SPUR MACHINE DRILLS (FX200)

1/2 x 2" Shank

Same as F200 Drills except made of Super Wear Steel for added drill life in tough applications. Twist is specially ground to give maximum chip clearance.



Part #	Dia.	Twist Length	Overall Length
FX20004	1/4"	4"	6"
FX200092	9/32"	4"	6"
FX20005	5/16"	4"	6"
FX200112	11/32"	4"	6"
FX20006	3/8"	4"	6"
FX200132	13/32"	4"	6"
FX20007	7/16"	4"	6"
FX20008	1/2"	4"	6"
FX200172	17/32"	4"	6"
FX20009	9/16"	4"	6"
FX20010	5/8"	4"	6"
FX20011	11/16"	4"	6"
FX20012	3/4"	4"	6"
FX20013	13/16"	4"	6"
FX20014	7/8"	4"	6"
FX20015	15/16"	4"	6"
FX20016	1"	4"	6"

Standard Specifications: All Shank Dia. 1/2" x 2" long

Some sizes also available in 3" twist lengths x 5" overall lengths.

INDIVIDUAL BRAD POINT WOOD BORING DRILLS (F200A)

For use in 3/8" or larger chucks

These drills can be used in portable electric drills or drill presses with chucks of 3/8" or more.



Part #	Dia.	Shank Dia.	Overall Length
F200A02	1/8"	1/8"	2-7/8"
F200A03	3/16"	3/16"	3-1/2"
F200A04	1/4"	1/4"	4-3/8"
F200A05	5/16"	5/16"	4-3/8"
F200A06	3/8"	3/8"	4-3/8"
F200A07	7/16"	3/8"	4-3/8"
F200A08	1/2"	3/8"	4-3/8"

CARBIDE TIPPED BRAD POINT SPUR MACHINE DRILLS (F200CT)

1/2 x 2" Shank

Identical to F200 Drill, except carbide-tipped for drilling plastics, laminates, chip core, and other tough-to-drill materials.



Part #	Dia.	Twist Length	Overall Length
F200C04	1/4"	4"	6"
F200C05	5/16"	4"	6"
F200C06	3/8"	4"	6"
F200C07	7/16"	4"	6"
F200C08	1/2"	4"	6"
F200C10	5/8"	4"	6"
F200C12	3/4"	4"	6"
F200C14	1"	4"	6"

Standard Specifications: All Shank Dia. 1/2" x 2" long
Most sizes available in 3" twist lengths x 5" overall lengths.

CARBIDE TIPPED COUNTERBORE WITH HIGH-SPEED STEEL DRILL (F135CT)



Part #	Dia.	Overall Length
F135C06 Counterbore	3/8"	4"
F135C29 Center Drill	#29 (.1360)"	2-7/8"

Note: Center drill included with counterbore used on Ritter and Evans Rotork Machines.

CARBON STEEL ADJUSTABLE COUNTERBORES WITH THREADED SHANKS (F121)

Designed for Root, Bell, and similar boring machines requiring tools with threaded shanks. For flat-bottomed holes.



Part #	Counterbores	Drill Size	Overall Length
F12163	3/8"	3/16"	4-1/2"
F12183	1/2"	3/16"	4-1/2"
F121872	1/2"	7/32"	4-1/2"
F12184	1/2"	1/4"	4-1/2"

Standard Specifications:

All Threaded Shanks 7/16" - 14 Thread.

All Twist Lengths 2-1/2"

Note: Specify right or left hand.
Use with HSS center drills.
Center drills not included.

CARBON STEEL ADJUSTABLE COUNTERSINKS WITH THREADED SHANKS (F121V)

Designed for Root, Bell, and similar boring machines requiring tools with threaded shanks. For seating flat head screws.



Part #	Countersink	Drill Size	Overall Length
F121V63	3/8"	3/16"	4-1/2"
F121V83	1/2"	3/16"	4-1/2"

Standard Specifications:

All Threaded Shanks 7/16" - 14 Thread.

All Twist Lengths 2-1/2"

Note: Specify right or left hand.
Use with HSS center drills.
Center drills not included.

CARBON STEEL ADJUSTABLE COUNTERBORES (F122)

Bores smooth, flat-bottomed holes. Double-fluted twist with wide channels for easy chip clearance. Drill is held by split shank and set screw.



Part #	Counterbore	Drill Size	Overall Length
F122062	3/8"	1/8"	4-1/2"
F1220652	3/8"	5/32"	4-1/2"
F122063	3/8"	3/16"	4-1/2"
F122073	7/16"	3/16"	4-1/2"
F1220772	7/16"	7/32"	4-1/2"
F122082	1/2"	1/8"	4-1/2"
F1220852	1/2"	5/32"	4-1/2"
F122083	1/2"	3/16"	4-1/2"
F1220872	1/2"	7/32"	4-1/2"
F122084	1/2"	1/4"	4-1/2"
F122093	9/16"	3/16"	4-1/2"
F122094	9/16"	1/4"	4-1/2"
F122103	5/8"	3/16"	4-1/2"
F122104	5/8"	1/4"	4-1/2"
F122092	5/8"	9/32"	4-1/2"
F122105	5/8"	5/16"	4-1/2"
F122123	3/4"	3/16"	4-1/2"
F122124	3/4"	1/4"	4-1/2"
F122292	3/4"	9/32"	4-1/2"
F122125	3/4"	5/16"	4-1/2"
F122126	3/4"	3/8"	4-1/2"

Standard Specifications: All Shank Dia. 1/2" x 2" long.

Note: Use with HSS center drills.
Center drills not included.

C/T ADJUSTABLE COUNTERBORES (F122CT)

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.



Part #	Counterbore	Drill Size	Overall Length
F122C63	3/8"	3/16"	4-1/2"
F122C83	1/2"	3/16"	4-1/2"
F122C872	1/2"	7/32"	4-1/2"
F122C84	1/2"	1/4"	4-1/2"

Standard Specifications: All Shank Dia. 1/2" x 2" long.

Note: Use with HSS center drills.
Center drills not included.

CARBON STEEL ADJUSTABLE COUNTERSINK (122V)

Designed for seating flat head screws. Double-fluted twist with wide channels for easy chip clearances. Drill is held by split and set screw.



Part #	Countersink	Drill Size	Overall Length
F122V62	3/8"	1/8"	4-1/2"
F122V652	3/8"	5/32"	4-1/2"
F122V63	3/8"	3/16"	4-1/2"
F122V73	7/16"	3/16"	4-1/2"
F122V772	7/16"	7/32"	4-1/2"
F122V82	1/2"	1/8"	4-1/2"
F122V852	1/2"	5/32"	4-1/2"
F122V83	1/2"	3/16"	4-1/2"
F122V872	1/2"	7/32"	4-1/2"
F122V84	1/2"	1/4"	4-1/2"

Standard Specifications: All Shank Dia. 1/2" x 2" long.
All Twist Lengths 2-1/2"

Note: Use with HSS center drills.
Center drills not included.

C/T ADJUSTABLE COUNTERSINK (F122VCT)

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



Part #	Countersink	Drill Size	Overall Length
F122VC63	3/8"	3/16"	4-1/2"
F122VC83	1/2"	3/16"	4-1/2"
F122VC872	1/2"	7/32"	4-1/2"
F122VC84	1/2"	1/4"	4-1/2"

Standard Specifications: All Shank Dia. 1/2" x 2" long.
All Twist Lengths 2-1/2"

Note: Use with HSS center drills.
Center drills not included.

CARBON-STEEL ADJUSTABLE COUNTERBORES (F122EL)

Designed for counterboring table aprons. Double-fluted twist with wide channels for easy chip clearance. Drill held by split shank and set screws.



Part #	Counterbore	Drill Size	Overall Length
F122EL83	1/2"	3/16"	7"

Standard Specifications: Shank Dia. 1/2" x 2" long.

Note: Use FX122D803 drill, not included.

CARBON-STEEL ADJUSTABLE COUNTERBORES (F123)

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.



Part #	Counterbore	Drill Size	Overall Length
F123063	3/8"	3/16"	1-1/2"
F123083	1/2"	3/16"	1-1/2"
F1230872	1/2"	7/32"	1-1/2"
F123084	1/2"	1/4"	1-1/2"
F123104	5/8"	1/4"	2"
F123105	5/8"	5/16"	2"
F123124	3/4"	1/4"	2"
F123125	3/4"	5/16"	2"
F123145	7/8"	5/16"	2"
F123146	7/8"	3/8"	2"
F123147	7/8"	7/16"	2"
F123165	1"	5/16"	2"
F123166	1"	3/8"	2"
F123168	1"	1/2"	2"
F123188	1-1/8"	1/2"	2"
F123208	1-1/4"	1/2"	2"
F123228	1-3/8"	1/2"	2"
F123248	1-1/2"	1/2"	2"

Note: Use with HSS center drills.
Center drill not included.

CARBON STEEL ADJUSTABLE COUNTERSINKS (F124)

Features two cutting edges beveled 82 Degrees to match taper of flat-head screws. Held in place by split shank and with socket set screw. Used when sinking just the head of the screw.



Part #	Countersink	Drill Size	Overall Length
F12483	1/2"	3/16"	3"

Standard Specifications: All Shank Dia. 1/2" x 1-1/2" long.

Note: Use with HSS center drills.
Center drill not included.

Available while quantities last.

CARBON STEEL ADJUSTABLE COUNTERSINKS (F125)

Beveled head countersinks for flat-head wood screws. Socket set screw holds countersink firmly in place. Designed for use primarily in portable drills.



Part #	Countersink	Drill Size	Overall Length
F125063	3/8"	3/16"	1-1/2"
F125082	1/2"	1/8"	1-1/2"
F1250894	1/2"	9/64"	1-1/2"
F1250852	1/2"	5/32"	1-1/2"
F1258114	1/2"	11/64"	1-1/2"
F125083	1/2"	3/16"	1-1/2"
F1250872	1/2"	7/32"	1-1/2"
F125084	1/2"	1/4"	1-1/2"
F125104	5/8"	1/4"	1-1/2"
F125105	5/8"	5/16"	1-1/2"
F125125	3/4"	5/16"	1-1/2"
F125126	3/4"	3/8"	1-1/2"

Note: Use with HSS center drills.
Center drill not included.

C/T ADJUSTABLE COUNTERSINKS (F125CT)

Beveled head carbide-tipped countersinks for seating flat-head wood screws. Socket set screw holds countersink firmly in place.



Part #	Countersink	Drill Size	Overall Length
F125C83	1/2"	3/16"	1-1/2"
F125C872	1/2"	7/32"	1-1/2"
F125C84	1/2"	1/4"	1-1/2"

Note: Use with HSS center drills.
Center drill not included.

VIX BITS (F137)

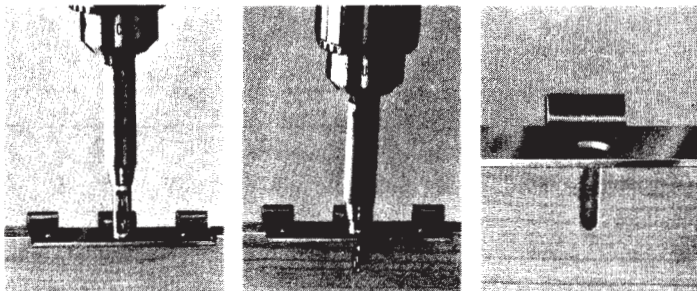
For accurately centering drilling holes for Hinges, Striker Plates, Door Butts, Window Pulls and all hardware using screws.

F137 Vix Bit



Part #	Size	Description
F13774	7/64" #5, 6	Carbon-Steel, 1/4" shank
F13794	9/64" #8, 9, 10	Carbon-Steel, 1/4" shank

Fast, Easy and Simple



Line up with hinge hole.

Self-centering springloaded guide retracts as you drill.

Makes pilot holes fast, easy, and accurate.

Replacement Drills: **F13774CD** 7/64"
F1374CD 9/64"

CARBON STEEL MULTI SPUR COUNTERBORES (F120)

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



Part #	Counterbore	Bore Size
F12018	1-1/8"	1/2"
F12020	1-1/4"	1/2"
F12022	1-3/8"	1/2"
F12024	1-1/2"	1/2"
F12026	1-5/8"	1/2"
F12028	1-3/4"	1/2"
F12030	1-7/8"	1/2"
F12032	2"	1/2"
F12034	2-1/8"	1/2"
F12036	2-1/4"	1/2"
F12040	2-1/2"	1/2"

Note: Center drill not included.

CUSTOM COUNTERSINK (F117)

Sizes made to order

Designed for applications where adjustable-type cutters are not suitable. Drills and countersinks screw hole in one operation.

Taper head drill lead. 82 degree beveled countersink.



CUSTOM COUNTERBORE (F118)

Sizes made to order

Made with machine-drill type counterbore and lead for boring flat-bottomed holes for screws, lag screws, stove bolts, and other fasteners that are countersunk and covered with a plug.

Drills have brad point lead, with two outlining spurs both on the lead and the counterbore. Produces smooth holes on both diameters.



HIGH SPEED STEEL BRAD POINT CENTER DRILL (FX122-BEDLOCK)

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



Part #	Twist	Drill/Shank Size	Twist Length	Overall Length
FX122-Bedlock	Right	19/64"	3-1/2"	6"

HIGH SPEED STRAIGHT SHANK BRAD POINT CENTER DRILL (FX122B)

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



Part #	Drill/Shank Size	Twist Length	Overall Length
FX122B02	1/8"	2-1/4"	6"
FX122B52	5/32"	2-1/4"	6"
FX122B03	3/16"	2-1/4"	6"
FX122B72	7/32"	2-1/4"	6"
FX122B04	1/4"	2-1/4"	6"
FX122B92	9/32"	2-1/4"	6"
FX122B19	19/64"	2-1/4"	6"
FX122B05	5/16"	2-1/4"	6"
FX122B06	3/8"	2-1/4"	6"

Sizes 3/16", 7/32", and 1/4" are available in left hand.

HIGH SPEED STRAIGHT SHANK BRAD POINT CENTER DRILLS (FX122B8)

Designed for use with F122EL Adjustable Counterbore. For counterboring in table aprons. Can also be used in regular style F122 Adjustable Counterbores when a deep pilot hole is required.



Part #	Drill/Shank Size	Twist Length	Overall Length
FX122B803	3/16"	3-1/2"	8"
FX122B807	7/32"	3-1/2"	8"
FX122B804	1/4"	3-1/2"	8"

HIGH-SPEED STEEL STRAIGHT SHANK BRAD POINT CENTER DRILLS (FX124B)

Drills are made of tough, long-lasting, high-speed steel. Shank is same diameter as drill.



Part #	Drill/Shank Size	Twist Length	Overall Length
FX124B02	1/8"	2-1/4"	4-1/2"
FX124B52	5/32"	2-1/4"	4-1/2"
FX124B03	3/16"	2-1/4"	4-1/2"
FX124B72	7/32"	2-1/4"	4-1/2"
FX124B04	1/4"	2-1/4"	4-1/2"

Sizes 3/16", 7/32", and 1/4" are available in left hand.

CARBON-STEEL BRAD POINT CENTER DRILLS (F122C)

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.



Part #	Size	Twist Length	Overall Length
F122C05	5/16"	1-1/2"	6"
F122C06	3/8"	1-1/2"	6"
F122C07	7/16"	1-1/2"	6"
F122C08	1/2"	1-1/2"	6"

Standard Specifications: All Shank Dia. 1/4" x 4-1/2" long

HIGH-SPEED STEEL STRAIGHT SHANK CENTER DRILLS (FX122D)

Drills are made with high-speed steel for extra long tool life.

For use with countersinks and counterbores.



Part #	Drill/Shank Size	Twist Length	Overall Length
FX122D32	3/32"	2-1/4"	6"
FX122D02	1/8"	2-1/4"	6"
FX122D52	5/32"	2-1/4"	6"
FX122D114	11/64"	2-1/4"	6"
FX122D03	3/16"	2-1/4"	6"
FX122D72	7/32"	2-1/2"	6"
FX122D04	1/4"	2-1/4"	6"
FX122D92	9/32"	2-1/4"	6"
FX122D05	5/16"	2-1/4"	6"
FX122D06	3/8"	2-1/4"	6"

HIGH SPEED STEEL STRAIGHT SHANK CENTER DRILLS (FX122D7)

Shank is same diameter as drill.

For use with countersinks and counterbores.



Part #	Drill/Shank Size	Twist Length	Overall Length
FX122D703	3/16"	3-1/2"	7"
FX122D772	7/32"	3-1/2"	7"

HIGH SPEED STEEL STRAIGHT SHANK CENTER DRILLS (FX122D8)

Shank is same diameter as drill.

For use with countersinks and counterbores.



Part #	Drill/Shank Size	Twist Length	Overall Length
FX122D803	3/16"	3-1/2"	8"
FX122D872	7/32"	3-1/2"	8"
FX122D804	1/4"	3-1/2"	8"

HIGH SPEED STEEL STRAIGHT SHANK CENTER DRILLS (FX124D)

Made of high-speed steel for extra tool life. Shank is same diameter as drill.

For use with countersinks and counterbores.



Part #	Drill/Shank Size	Twist Length	Overall Length
FX124D32	3/32"	2-1/4"	4-1/2"
FX124D02	1/8"	2-1/4"	4-1/2"
FX124D94	9/64"	2-1/4"	4-1/2"
FX124D52	5/32"	2-1/4"	4-1/2"
FX124D114	11/64"	2-1/4"	4-1/2"
FX124D03	3/16"	2-1/4"	4-1/2"
FX124D72	7/32"	2-1/4"	4-1/2"
FX124D04	1/4"	2-1/4"	4-1/2"
FX124D92	9/32"	2-1/4"	4-1/2"
FX124D05	5/16"	2-1/4"	4-1/2"
FX124D06	3/8"	2-1/4"	4-1/2"

GENERAL PURPOSE JOBBERS LENGTH STRAIGHT SHANK TWIST DRILLS (FX10)

High-Speed Steel 118 degree Point



Part #	Drill/Shank Size	Decimal	Overall Length
FX100156R	1/64"	.0156"	3/4"
FX100312R	1/32"	.0312"	1-3/8"
FX100469R	3/64"	.0469"	1-3/4"
FX100625R	1/16"	.0625"	1-7/8"
FX100781R	5/64"	.0781"	2"
FX100938R	3/32"	.0938"	2-1/4"
FX101094R	7/64"	.1094"	2-5/8"
FX101250R	1/8"	.1250"	2-3/4"
FX101406R	9/64"	.1406"	2-7/8"
FX101562R	5/32"	.1562"	3-1/8"
FX101719R	11/64"	.1719"	3-1/4"
FX101875R	3/16"	.1875"	3-1/2"
FX102031R	13/64"	.2031"	3-5/8"
FX102188R	7/32"	.2188"	3-3/4"
FX102344R	15/64"	.2344"	3-7/8"
FX102500R	1/4"	.2500"	4"
FX102656R	17/64"	.2656"	4-1/8"
FX102812R	9/32"	.2812"	4-1/4"
FX102969R	19/64"	.2969"	4-3/8"
FX103125R	5/16"	.3125"	4-1/2"
FX103281R	21/64"	.3281"	4-5/8"
FX103438R	11/32"	.3438"	4-3/4"
FX103594R	23/64"	.3594"	4-7/8"
FX103750R	3/8"	.3750"	5"
FX103906R	25/64"	.3906"	5-1/8"
FX104062R	13/32"	.4062"	5-1/4"
FX104219R	27/64"	.4219"	5-3/8"
FX104375R	7/16"	.4375"	5-1/2"
FX104531R	29/64"	.4531"	5-5/8"
FX104688R	15/32"	.4688"	5-3/4"
FX104844R	31/64"	.4844"	5-7/8"
FX105000R	1/2"	.5000"	6"
FX105156R	33/64"	.5156"	6-5/8"
FX105312R	17/32"	.5312"	6-5/8"
FX105469R	35/64"	.5469"	6-5/8"
FX105625R	9/16"	.5625"	6-5/8"
FX105781R	37/64"	.5781"	6-5/8"
FX105938R	19/32"	.5938"	7-1/8"
FX106094R	39/64"	.6094"	7-1/8"
FX106250R	5/8"	.6250"	7-1/8"
FX106406R	41/64"	.6406"	7-1/8"
FX106562R	21/32"	.6562"	7-1/8"
FX106719R	43/64"	.6719"	7-5/8"
FX106875R	11/16"	.6875"	7-5/8"

Note: Some sizes available in left hand.

These drills can be used in portable electric drills or drill presses with chucks of 3/8" or more.

Brad point prevents "skating"... keeps the drill boring right where you want it to bore. With these wood drills you can even bore holes that overlap.

Two outlining spurs cut the outline of the hole ... help assure round, true holes every time. Spiral flutes lift chips up and out of the hole.

5 PC. BRAD POINT WOOD BORING DRILL SET (F19-2005)



F19-2005 includes:
1/4", 5/16", 3/8", 7/16", 1/2" drills.

Contents:

Part #	Dia.	Shank Dia.	Shank Length	Overall Length
F200A04	1/4"	1/4"	1-1/4"	4-3/8"
F200A05	5/16"	5/16"	1-1/4"	4-3/8"
F200A06	3/8"	3/8"	1-1/4"	4-3/8"
F200A07	7/16"	3/8"	1-1/4"	4-3/8"
F200A08	1/2"	3/8"	1-1/4"	4-3/8"

7 PC. BRAD POINT WOOD BORING DRILL SET (F19-2007)



F19-2007 includes:
1/8", 3/16", 1/4", 5/16", 3/8", 7/16",
and 1/2" drills.

Contents:

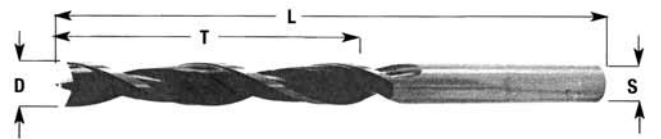
Part #	Dia.	Shank Dia.	Shank Length	Overall Length
F200A02	1/8"	1/8"	1-1/4"	2-7/8"
F200A03	3/16"	3/16"	1-3/4"	3-1/2"
F200A04	1/4"	1/4"	1-1/4"	4-3/8"
F200A05	5/16"	5/16"	1-1/4"	4-3/8"
F200A06	3/8"	3/8"	1-1/4"	4-3/8"
F200A07	7/16"	3/8"	1-1/4"	4-3/8"
F200A08	1/2"	3/8"	1-1/4"	4-3/8"

HIGH SPEED STEEL METRIC BRAD POINT CENTER DRILLS



Part #	Part #	D	T	L	S
FP51020R	FP51020L	2mm	24	49	2
FP51025R	FP51025L	2.5mm	30	57	2.5
FP51030R	FP51030L	3mm	33	61	3
FP51035R	FP51035L	3.5mm	39	70	3.5
FP51040R	FP51040L	4mm	43	75	4
FP51045R	FP51045L	4.5mm	47	80	4.5
FP51050R	FP51050L	5mm	52	86	5
FP51055R	FP51055L	5.5mm	57	93	5.5
FP51060R	FP51060L	6mm	57	93	6
FP51070R	FP51070L	7mm	69	106	7
FP51080R	FP51080L	8mm	75	117	8
FP51090R	FP51090L	9mm	81	125	9
FP51100R	FP51100L	10mm	87	133	10

CARBON STEEL METRIC BRAD POINT CENTER DRILLS

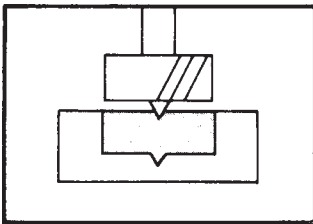


Part #	D	T	L	S
FP31030	3mm	33	61	3
FP31040	4mm	43	75	4
FP31050	5mm	52	86	5
FP31060	6mm	57	94	6
FP31070	7mm	69	109	7
FP31080	8mm	75	117	8
FP31090	9mm	80	125	9
FP31100	10mm	87	133	10
FP31110	11mm	89	142	10
FP31120	12mm	96	151	10
FP31130	13mm	96	151	10
FP31140	14mm	97	151	10
FP31150	15mm	100	160	10
FP31160	16mm	100	160	10
FP31180	18mm	120	180	10
FP31200	20mm	130	200	13

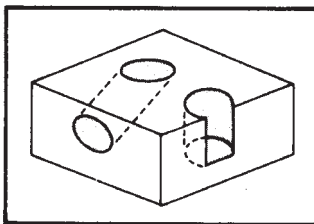
FORSTNER STYLE BITS (F809)



FOR DRILLING VERSATILITY - Forstner style bits are guided by the outside rim instead of by a point. The result is outstanding versatility in drilling operations. Forstner style bits are forged from special steel and heat treated for longer life. For use in drill presses or any portable drill with a 3/8" or larger chuck. All bits are 3-1/2" long.



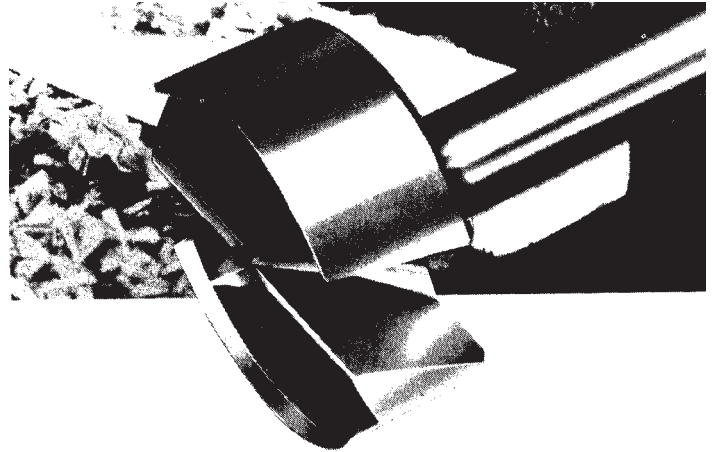
- Drill clean holes in thin stock and veneer
- Drill smooth flat bottomed holes ... even in end grain



- Drill at any angle... creating ovals or curved openings
- Drill off the edge



Shown are 16 and 7 piece sets.



Part #	Dia.	Shank Dia.	Overall Length
F80904	1/4"	5/16"	3-1/2"
F80906	3/8"	5/16"	3-1/2"
F80908	1/2"	5/16"	3-1/2"
F80909	9/16"	5/16"	3-1/2"
F80910	5/8"	5/16"	3-1/2"
F80911	11/16"	5/16"	3-1/2"
F80912	3/4"	5/16"	3-1/2"
F80913	13/16"	5/16"	3-1/2"
F80914	7/8"	5/16"	3-1/2"
F80915	15/16"	5/16"	3-1/2"
F80916	1"	5/16"	3-1/2"
F80917	1-1/16"	5/16"	3-1/2"
F80918	1-1/8"	5/16"	3-1/2"
F80919	1-3/16"	5/16"	3-1/2"
F80920	1-1/4"	3/8"	3-1/2"
F80921	1-5/16"	3/8"	3-1/2"
F80922	1-3/8"	3/8"	3-1/2"
F80924	1-1/2"	3/8"	3-1/2"
F80926	1-5/8"	3/8"	3-1/2"
F80928	1-3/4"	3/8"	3-1/2"
F80930	1-7/8"	3/8"	3-1/2"
F80932	2"	3/8"	3-1/2"
F80934	2-1/8"	3/8"	3-1/2"
F80935	2-1/4"	3/8"	3-1/2"

Metric sizes available on request.

7 PC. FORSTNER BIT SET

Part #	Description
F809-1	Includes: 1/4", 3/8", 1/2", 5/8", 3/4", 7/8" and 1" bits.

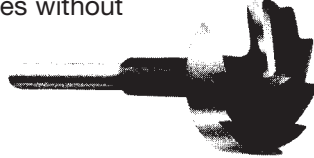
16 PC. FORSTNER BIT SET

Part #	Description
F809-3	Includes: 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4", 1-3/8", 1-1/2", 1-5/8", 1-3/4", 1-7/8", 2" and 2-1/8" bits.

F809-2 also available in a 9 Piece Set.

MULTI-SPUR MACHINE BITS (F149)

Cutting edge is precision ground at the best angle to bore fast and lift chips cleanly up and out of the hole. Multiple outlining spurs bore clean holes without chipping or splintering the surface of the wood. Perfect for boring through veneers.

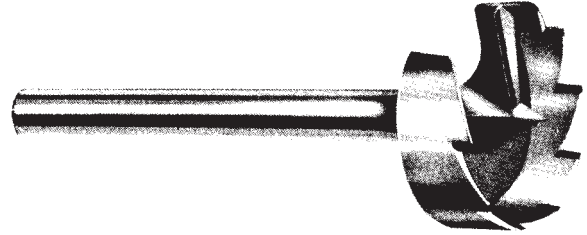


Part #	Dia.	Shank Dia.	Overall Length
F14908	1/2"	1/2"	6"
F14909	9/16"	1/2"	6"
F14910	5/8"	1/2"	6"
F14911	11/16"	1/2"	6"
F14912	3/4"	1/2"	6"
F14913	13/16"	1/2"	6"
F14914	7/8"	1/2"	6"
F14915	15/16"	1/2"	6"
F14916	1"	1/2"	6"
F14917	1-1/16"	1/2"	6"
F14918	1-1/8"	1/2"	6"
F14919	1-3/16"	1/2"	6"
F14920	1-1/4"	1/2"	6"
F14921	1-5/16"	1/2"	6"
F14922	1-3/8"	1/2"	6"
F14923	1-7/16"	1/2"	6"
F14924	1-1/2"	1/2"	6"
F14925	1-9/16"	1/2"	6"
F14926	1-5/8"	1/2"	6"
F14927	1-11/16"	1/2"	6"
F14928	1-3/4"	1/2"	6"
F14929	1-13/16"	1/2"	6"
F14930	1-7/8"	1/2"	6"
F14931	1-15/16"	1/2"	6"
F14932	2"	1/2"	6"
F14934	2-1/8"	1/2"	6"
F14936	2-1/4"	1/2"	6"
F14938	2-3/8"	1/2"	6"
F14940	2-1/2"	1/2"	6"
F14942	2-5/8"	1/2"	6"
F14944	2-3/4"	1/2"	6"
F14946	2-7/8"	1/2"	6"
F14948	3"	1/2"	6"
F14950	3-1/8"	* 1/2" or 3/4"	6"
F14952	3-1/4"	* 1/2" or 3/4"	6"
F14956	3-1/2"	* 1/2" or 3/4"	6"
F14960	3-3/4"	* 1/2" or 3/4"	6"
F14964	4"	* 1/2" or 3/4"	6"

* for medium to heavy duty work, use 3/4" shank diameter.

C/T MULTI-SPUR MACHINE BITS (F149CT)

Same as F149 Multi-Spur but furnished with carbide tips.



Part #	Dia.	Shank Dia.	Overall Length
F149C12	3/4"	1/2"	6"
F149C14	7/8"	1/2"	6"
F149C15	15/16"	1/2"	6"
F149C16	1"	1/2"	6"
F149C17	1-1/16"	1/2"	6"
F149C18	1-1/8"	1/2"	6"
F149C19	1-3/16"	1/2"	6"
F149C20	1-1/4"	1/2"	6"
F149C21	1-5/16"	1/2"	6"
F149C22	1-3/8"	1/2"	6"
F149C23	1-7/16"	1/2"	6"
F149C24	1-1/2"	1/2"	6"
F149C25	1-9/16"	1/2"	6"
F149C26	1-5/8"	1/2"	6"
F149C28	1-3/4"	1/2"	6"
F149C30	1-7/8"	1/2"	6"
F149C32	2"	1/2"	6"
F149C34	2-1/8"	1/2"	6"
F149C36	2-1/4"	1/2"	6"
F149C38	2-3/8"	1/2"	6"
F149C40	2-1/2"	1/2"	6"
F149C42	2-5/8"	1/2"	6"
F149C44	2-3/4"	1/2"	6"
F149C48	3"	1/2"	6"
F149C52	3-1/4"	* 1/2" or 3/4"	6"
F149C56	3-1/2"	* 1/2" or 3/4"	6"
F149C60	3-3/4"	* 1/2" or 3/4"	6"
F149C64	4"	* 1/2" or 3/4"	6"

* for medium to heavy duty work, use 3/4" shank diameter.

CARBIDE TIPPED DRILLS 2-WING (F811CT)

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.



Part #	Dia.	Shank Dia.	Overall Length
F811C16	1"	1/2"	6"
F811C18	1-1/8"	1/2"	6"
F811C20	1-1/4"	1/2"	6"
F811C22	1-3/8"	1/2"	6"
F811C24	1-1/2"	1/2"	6"
F811C26	1-5/8"	1/2"	6"
F811C28	1-3/4"	1/2"	6"
F811C30	1-7/8"	1/2"	6"
F811C32	2"	1/2"	6"
F811C34	2-1/8"	1/2"	6"
F811C36	2-1/4"	1/2"	6"
F811C40	2-1/2"	1/2"	6"
F811C44	2-3/4"	1/2"	6"
F811C48	3"	1/2"	6"

Note: Only 2-1/4" through 3" diameter drills are furnished with 2-1/4" long reinforced shaft. 2 wings & 2 spurs for clean cuts.

CARBON-STEEL PLUG CUTTERS (F600P)

Designed to cut a true-sized plug under most conditions. Works more effectively at clearing chips than F140 cutters because it has multiple spiral flutes.

Completely enclosed cylinder with opening to expel 1" long plugs.



Part #	Dia.	Cutter Barrel	Overall Length
F600P06	3/8"	2"	4-3/8"
F600P08	1/2"	2"	4-3/8"
F600P10	5/8"	2"	4-3/8"
F600P12	3/4"	2"	4-3/8"
F600P14	7/8"	2"	4-3/8"
F600P16	1"	2"	4-3/8"
F600P20	1-1/4"	2"	4-3/8"
F600P24	1-1/2"	2"	4-3/8"
F600P28	1-3/4"	2"	4-3/8"
F600P32	2"	2"	4-3/8"

Standard Specifications: All Shank Dia. 1/2" x 2" long.

CARBIDE TIPPED DRILLS 3-WING (F812CT)

Use for plastic Formica, tempered Masonite as well as abrasive materials and hard woods.



Part #	Dia.	Shank Dia.	Overall Length
F812C08	● 1/2"	1/2"	6"
F812C09	● 9/16"	1/2"	6"
F812C10	● 5/8"	1/2"	6"
F812C11	11/16"	1/2"	6"
F812C12	3/4"	1/2"	6"
F812C13	13/16"	1/2"	6"
F812C14	7/8"	1/2"	6"
F812C16	1"	1/2"	6"
F812C18	1-1/8"	1/2"	6"
F812C20	1-1/4"	1/2"	6"
F812C22	1-3/8"	1/2"	6"
F812C24	1-1/2"	1/2"	6"
F812C26	1-5/8"	1/2"	6"
F812C28	1-3/4"	1/2"	6"
F812C30	1-7/8"	1/2"	6"
F812C32	2"	1/2"	6"
F812C34	2-1/8"	1/2"	6"
F812C36	2-1/4"	1/2"	6"
F812C40	2-1/2"	1/2"	6"

Note: Only 2" through 2-1/2" diameter drills are furnished with 2-1/4" long reinforced shaft.

- Reduced shank behind wings.

Center Point Replacements F812-CP

CARBON-STEEL SPIRAL PLUG CUTTERS (F140)

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.



Part #	Dia.	Cutter Barrels	Overall Length
F14006	3/8"	2-1/8"	4-3/8"
F14008	1/2"	2-1/8"	4-3/8"
F14010	5/8"	2-1/8"	4-3/8"
F14012	3/4"	2-1/8"	4-3/8"
F14016	1"	2-1/8"	4-3/8"

Standard Specifications: All Shank Dia. 1/2" x 2" long.

DOVETAIL SLOT CUTTERS (F819)

For use on French Dovetail Machines for producing slots for drawer bottoms. **Shanks sold separately.**

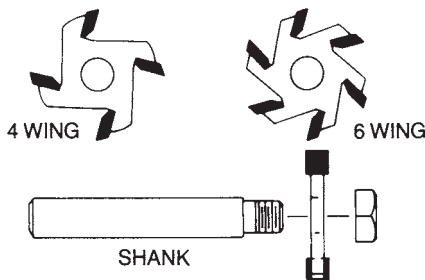


Cutter only

Part #	Dia.	Kerf	Wings
F819-04	1-1/4"	3/16"	4 wings
F819-06	1-1/4"	3/16"	6 wings

5/16" straight bore

SHANKS FOR DOVETAIL SLOT CUTTERS (F820)



Shank only

Part #	Shank Dia.	Overall Length	Threads
F82006	3/8"	3-7/16"	5/16"-24"
F82008	1/2"	3-7/16"	5/16"-24"

HIGH-ALLOY STEEL MORTISING ROUTER BITS (F407)

For use on Rye oscillating mortising machines.



Part #	Cutting Dia.	Flute Length	Overall Length
F40704	1/4"	2-1/4"	4-1/2"
F40705	5/16"	2-1/4"	4-1/2"
F40706	3/8"	2-1/4"	4-1/2"
F40708	1/2"	2-1/4"	4-1/2"

Standard Specifications: All Shank Diameters 1/2"
All Shank Lengths 2-1/4"

BORING CHUCKS (F5)

Furnished with 7/16" - 14 threaded shank to accept straight shank drills.



Part #	Dia.	OD	Overall Length	Shank Dia.
F502	1/8"	5/8"	1-3/4"	7/16" - 14
F552	5/32"	5/8"	1-3/4"	7/16" - 14
F503	3/16"	5/8"	1-3/4"	7/16" - 14
F572	7/32"	5/8"	1-3/4"	7/16" - 14
F504	1/4"	5/8"	1-3/4"	7/16" - 14
F592	9/32"	5/8"	1-3/4"	7/16" - 14
F505	5/16"	5/8"	1-3/4"	7/16" - 14
F506	3/8"	5/8"	1-3/4"	7/16" - 14
F507	7/16"	1"	2-1/2"	7/16" - 14
F508	1/2"	1"	2-1/2"	7/16" - 14
F510	10mm	5/8"	1-3/4"	7/16" - 14

Note: All sizes available in left hand.

DRILL BUSHING (F6-DB)

Used for small diameter drills and as a depth stop when using 1/4" hand drills.

1/4" x 1" Shank - 2" overall length.



SPLIT-DRILL BUSHING (F7-DB)

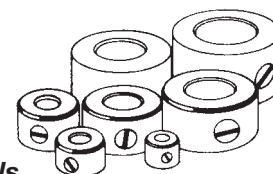
Designed for chucks with set screw retention. Not recommended for drills over 1/4" diameter.

1/2" x 1" Shank - 2" overall length.

Part No. F6DB and F7DB are made to your order.



DEPTH ADJUSTING COLLAR SETS

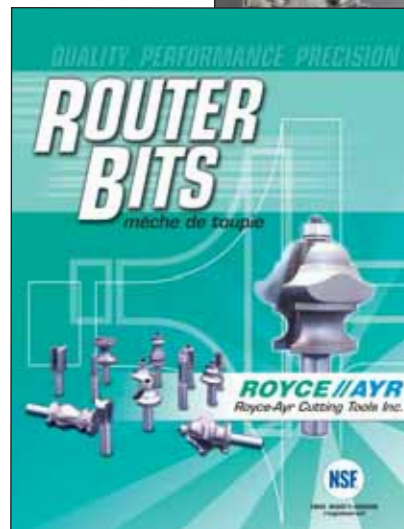
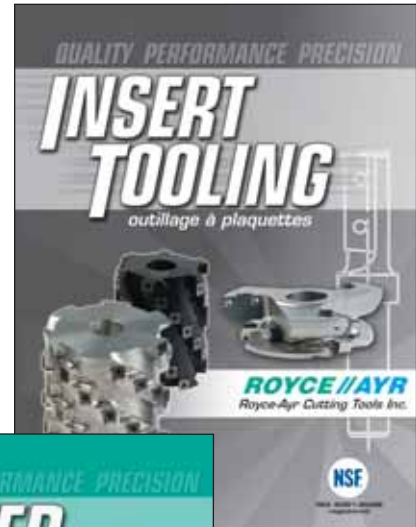
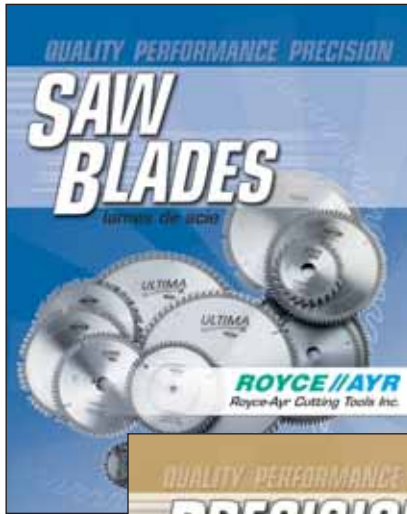


8-Pc set for drills

Part #	Description
F825-7	3mm, 4mm, 5mm, 6mm, 7mm, 8mm, 9mm, 10mm
F825-8	1/8", 5/32", 3/16", 1/4", 9/32", 5/16", 11/32", 3/8"

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Edition: DB 2011