

Frese per pantografi portatili con gambo Ø10 - Ø12 - Ø12,7 (1/2")

2



FRESE HW PER PANTOGRAFO S=10
Pag. 2.05



FRESE HW PER PANTOGRAFO S=10
TIPO LUNGO
Pag. 2.05



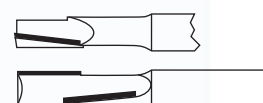
FRESE HW PER PANTOGRAFO S=12
Pag. 2.05



FRESE HW PER CANALI Z=2
Pag. 2.05



FRESE HW PER CANALI Z=2 TIPO LUNGO
Pag. 2.06



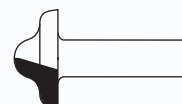
FRESE HW CON
TAGLIENTI ASSIALI Z=2
Pag. 2.06



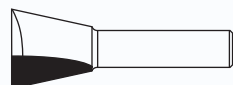
FRESE HW PER ASOLE Z=1+1
Pag. 2.06



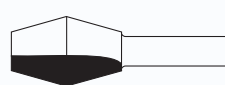
FRESE HW A DOPPIO RAGGIO - FONDO
PIATTO Z=2
Pag. 2.06



FRESE HW A DOPPIO
RAGGIO - FONDO ROTONDO Z=2
Pag. 2.06



FRESE HW PER INCASTRI Z=2
Pag. 2.06



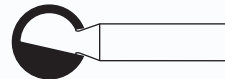
FRESE HW PER UNIRE INCASTRI A
CODA DI RONDINE Z=2
Pag. 2.07



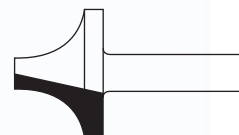
FRESE HW CON PROFILO A "V" Z=2
Pag. 2.07



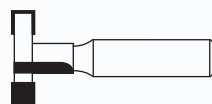
FRESE HW A RAGGIO CONVESSO Z=2
Pag. 2.07



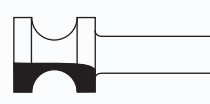
FRESE HW A TUTTO TONDO Z=2
Pag. 2.07



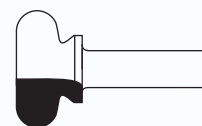
FRESE HW A RAGGIO CONCAVO Z=2
Pag. 2.07



FRESE HW PER SCANALATURE "T" Z=2
Pag. 2.07



FRESE HW SAGOMATE A MEZZO
TONDO Z=2
Pag. 2.08



FRESE HW SAGOMATE
PER MANIGLIE Z=2
Pag. 2.08



FRESE HW SAGOMATE PER
DECORAZIONI Z=2
Pag. 2.08

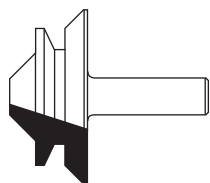


FRESE HW SAGOMATE
PER MANIGLIE Z=2
Pag. 2.08

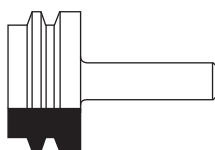


FRESE HW PER GIUNZIONI
PER CASSETTI Z=2
Pag. 2.08

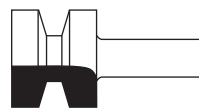
Klein®



FRESE HW PER GIUNZIONI A 90° Z=2
Pag. 2.08



FRESE HW PER GIUNZIONI Z=2
Pag. 2.08



FRESE HW PER GIUNZIONI Z=2
Pag. 2.09



FRESE HW SAGOMATE Z=2
Pag. 2.09



FRESE HW SAGOMATE PER CORNICI Z=2
Pag. 2.09



FRESE HW SAGOMATE PER CORNICI Z=2
Pag. 2.09



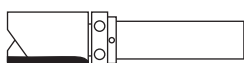
FRESE HW SAGOMATE PER CORNICI Z=2
Pag. 2.09



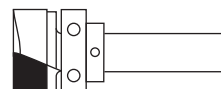
FRESE HW SAGOMATE Z=2
Pag. 2.09



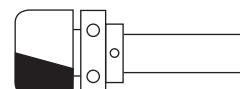
FRESE HW SAGOMATE Z=2
Pag. 2.09



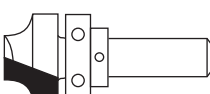
FRESE HW CON CUSCINETTO
SUPERIORE Z=2
Pag. 2.10



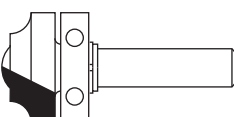
FRESE HW CON CUSCINETTO
SUPERIORE Z=2
Pag. 2.10



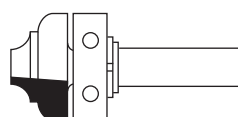
FRESE HW CON CUSCINETTO
SUPERIORE Z=2
Pag. 2.10



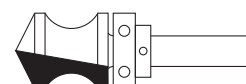
FRESE HW CON CUSCINETTO
SUPERIORE Z=2
Pag. 2.10



FRESE HW CON CUSCINETTO
SUPERIORE Z=2
Pag. 2.10



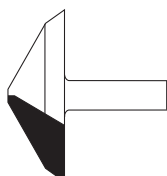
FRESE HW CON CUSCINETTO
SUPERIORE Z=2
Pag. 2.11



FRESE HW CON CUSCINETTO
SUPERIORE Z=2
Pag. 2.11



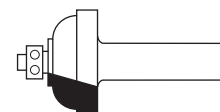
FRESE HW SAGOMATE Z=2
Pag. 2.11



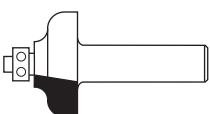
FRESE HW A TAGLIENTE INCLINATO Z=2
Pag. 2.11



FRESE HW A DOPPIO RAGGIO Z=2
Pag. 2.11



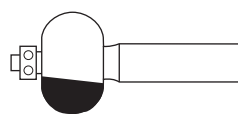
FRESE HW A RAGGIO CONVESSO Z=2
Pag. 2.11



FRESE HW A DOPPIO RAGGIO Z=2
Pag. 2.12



FRESE HW A RAGGIO Z=2
Pag. 2.12



FRESE HW A RAGGIO Z=2
Pag. 2.12



FRESE HW A RAGGIO SCHIACCIATO Z=2
Pag. 2.12



FRESE HW A RAGGIO Z=2
Pag. 2.12



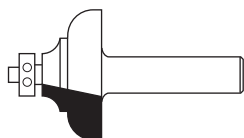
FRESE HW A TAGLIENTI DIRITTI CON
CUSCINETTO Z=2
Pag. 2.12



FRESE HW A RAGGIO CONVESSO CON
CUSCINETTO Z=2
Pag. 2.13



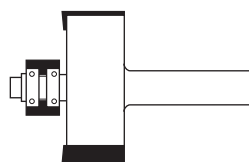
FRESE HW A DOPPIO RAGGIO CON
CUSCINETTO Z=2
Pag. 2.13



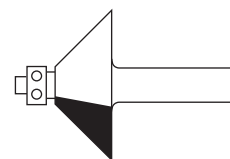
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CUSCINETTO Z=2
Pag. 2.13



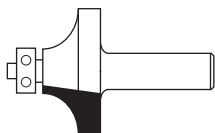
FRESE HW A GRADINO CON
CUSCINETTO Z=2
Pag. 2.13



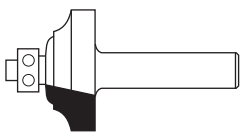
FRESE HW PER OGNI TIPO DI
GRADINO Z=2
Pag. 2.14



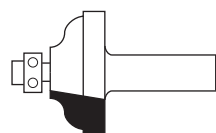
FRESE HW PER SMUSSARE CON
CUSCINETTO Z=2
Pag. 2.14



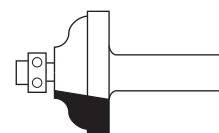
FRESE HW A RAGGIO CONCAVO CON
CUSCINETTO Z=2
Pag. 2.14



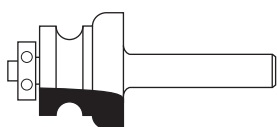
FRESE HW A DOPPIO RAGGIO CON
CUSCINETTO Z=2
Pag. 2.14



FRESE HW A DOPPIO RAGGIO CON
CUSCINETTO Z=2
Pag. 2.15



FRESE HW PER DECORAZIONI CON
CUSCINETTO Z=2
Pag. 2.15



FRESE HW PER DECORAZIONI CON
CUSCINETTO Z=2
Pag. 2.15



FRESE HW PER DECORAZIONI CON
CUSCINETTO Z=2
Pag. 2.15



FRESE HW PER DECORAZIONI CON
CUSCINETTO Z=2
Pag. 2.15



FRESE HW PER DECORAZIONI CON
CUSCINETTO Z=2
Pag. 2.15



FRESE HW PER DECORAZIONI CON
CUSCINETTO Z=2
Pag. 2.16



FRESE HW PER CORNICI CON
CUSCINETTO Z=2
Pag. 2.16



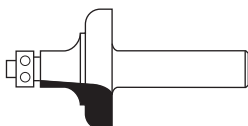
FRESE HW PER CORNICI CON
CUSCINETTO Z=2
Pag. 2.16



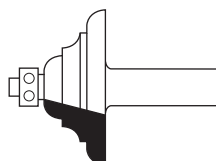
FRESE HW PER CORNICI CON
CUSCINETTO Z=2
Pag. 2.16



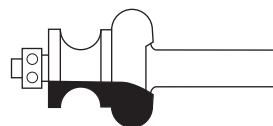
FRESE HW A TRIPLO RAGGIO CONCAVO Z=2
Pag. 2.16



FRESE HW A PROFILO CLASSICO Z=2
Pag. 2.16



FRESE HW MULTIPROFILO Z=2
Pag. 2.17



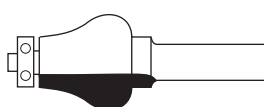
FRESE HW MULTIPROFILO Z=2
Pag. 2.17



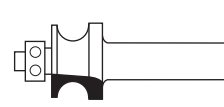
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Pag. 2.17



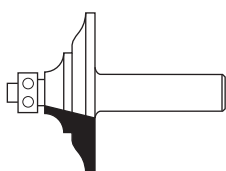
FRESE HW PER CORRIMANI E SAGOME
DI BORDI Z=2
Pag. 2.17



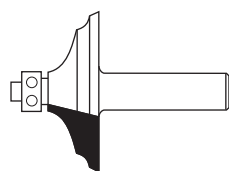
FRESE HW PER CORRIMANI E SAGOME
DI BORDI Z=2
Pag. 2.18



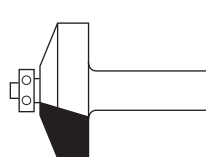
FRESE HW A MEZZO TONDO Z=2
Pag. 2.18



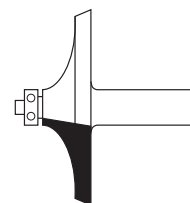
FRESE HW PER CORRIMANI E SAGOME
DI BORDI Z=2
Pag. 2.18



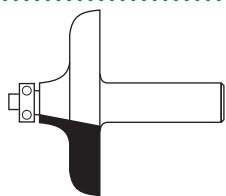
FRESE HW PER CORRIMANI E SAGOME
DI BORDI Z=2
Pag. 2.18



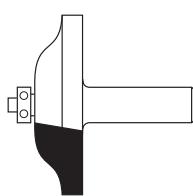
FRESE HW SAGOMATE PER
PIATTABANDE Z=2
Pag. 2.18



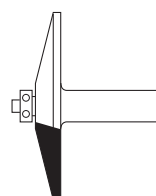
FRESE HW PER CORRIMANI
E SAGOME DI BORDI Z=2
Pag. 2.18



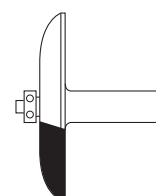
**FRESE HW PER CORRIMANI E SAGOME
DI BORDI Z=2**
Pag. 2.19



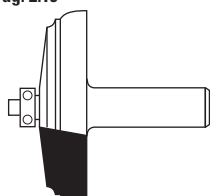
**FRESE HW SAGOMATE PER
PIATTABANDE Z=2**
Pag. 2.19



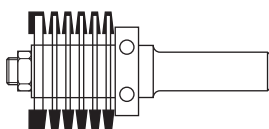
**FRESE HW SAGOMATE PER
PIATTABANDE Z=2**
Pag. 2.19



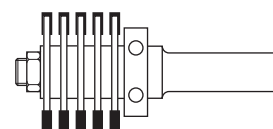
**FRESE HW SAGOMATE PER
PIATTABANDE Z=2**
Pag. 2.19



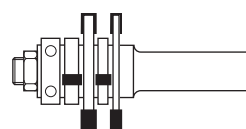
**FRESE HW SAGOMATE PER
PIATTABANDE Z=2**
Pag. 2.19



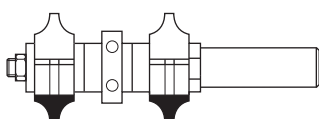
FRESE HW COMPONIBILI PER GIUNZIONI Z=2
Pag. 2.20



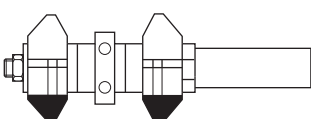
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Pag. 2.20



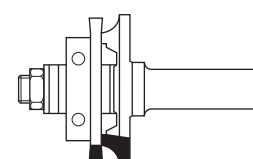
**FRESE HW COMPONIBILI PER CANALI,
INCASTRI E BATTUTE Z=2**
Pag. 2.21



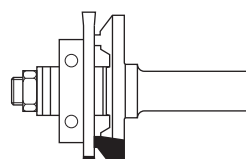
**FRESE HW COMPONIBILI A DOPPIO
RAGGIO Z=3**
Pag. 2.21



**FRESE HW COMPONIBILI A DOPPIO
SMUSSO Z=3**
Pag. 2.22



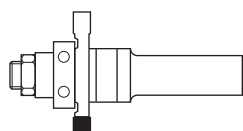
FRESE HW COMPONIBILI PER PERLINATI Z=2
Pag. 2.22



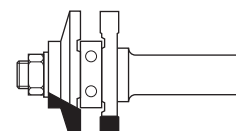
**FRESE HW COMPONIBILI PER
PERLINATI Z=2**
Pag. 2.23



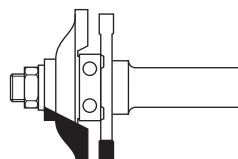
FRESE HW COMPONIBILI PER FINESTRE Z=2
Pag. 2.23



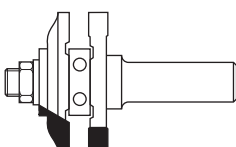
FRESE HW COMPONIBILI PER ANTINE Z=2
Pag. 2.24



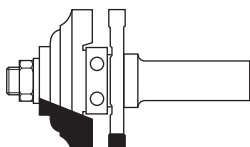
FRESE HW COMPONIBILI PER ANTINE Z=2
Pag. 2.24



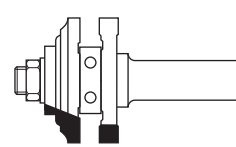
FRESE HW COMPONIBILI PER ANTINE Z=2
Pag. 2.25



FRESE HW COMPONIBILI PER ANTINE Z=2
Pag. 2.25



FRESE HW COMPONIBILI PER ANTINE Z=2
Pag. 2.26



FRESE HW COMPONIBILI PER ANTINE Z=2
Pag. 2.26



FRESE HW PER INFISSI CURVI Z=2
Pag. 2.27



SET DI FRESE HW PER ANTINE "TIPO 1"
Pag. 2.28



SET DI FRESE HW PER ANTINE "TIPO 2"
Pag. 2.28



SET DI FRESE HW PER ANTINE "TIPO 3"
Pag. 2.29



**SET DI FRESE HW PER ANTINE
E INCASTRI "TIPO 1"**
Pag. 2.29



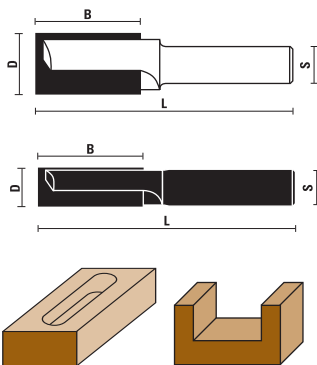
**SET DI FRESE HW PER ANTINE
E INCASTRI "TIPO 2"**
Pag. 2.30



**SET DI FRESE HW PER ANTINE
E INCASTRI "TIPO 3"**
Pag. 2.30

FRESE HW PER PANTOGRAFO S=10

ART. D101



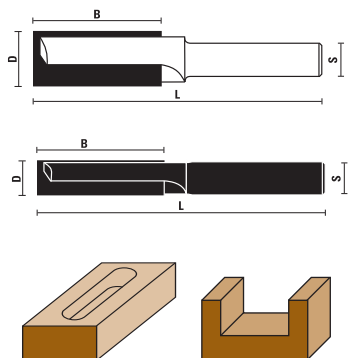
- Fora e contorna (Z=2+1)
- Indicate anche per la lavorazione di materiali plastici, acrilici, polipropilene, acetati e policarbonati
- Si usano anche su macchine C.N.C.

S Ø 10	D	B	L
D101.040.R ▲	4	13	49
D101.050.R ▲	5	15	49
D101.060.R ▲	6	16	53
D101.070.R ▲	7	20	55
D101.080.R ▲	8	23	60
D101.090.R ▲ NEW	9	23	60
D101.100.R ▲	10	23	70
D101.120.R	12	23	70
D101.140.R	14	23	70
D101.150.R	15	23	70
D101.160.R	16	23	70
D101.180.R	18	23	70
D101.200.R	20	23	70
D101.220.R	22	23	70
D101.240.R	24	23	70

▲ HW integrale

FRESE HW PER PANTOGRAFO S=10 TIPO LUNGO

ART. D102



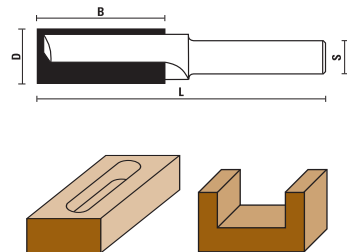
- Fora e contorna (Z=2+1)
- Indicate anche per la lavorazione di materiali plastici, acrilici, polipropilene, acetati e policarbonati
- Si usano anche su macchine C.N.C.

S Ø 10	D	B	L
D102.100.R ▲	10	40	87
D102.120.R	12	40	87
D102.140.R	14	40	87
D102.160.R	16	45	87
D102.180.R	18	45	87
D102.200.R	20	45	87

▲ HW integrale

FRESE HW PER PANTOGRAFO S=12

ART. D103

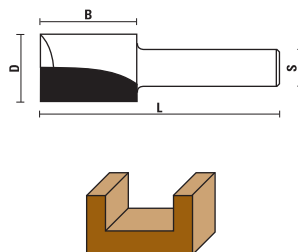


- Fora e contorna (Z=2+1)
- Indicate anche per la lavorazione di materiali plastici, acrilici, polipropilene, acetati e policarbonati
- Si usano anche su macchine C.N.C.

S Ø 12	D	B	L
D103.100.R	10	35	90
D103.120.R	12	35	90
D103.121.R	12	45	90
D103.140.R	14	35	90
D103.141.R	14	50	100
D103.160.R	16	35	90
D103.161.R	16	50	100
D103.180.R	18	35	90
D103.181.R	18	50	100
D103.200.R	20	35	90
D103.201.R	20	50	100
D103.220.R	22	35	90
D103.240.R	24	35	90

FRESE HW PER CANALI Z=2

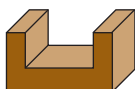
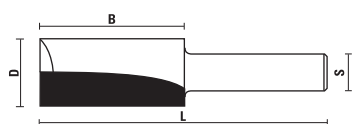
ART. E101 - G101



S Ø 12	S Ø 12,7 (1/2")	D	B	L
E101.040.R		4	11	63
E101.050.R		5	11	60
E101.060.R	G101.060.R	6	19	63
	G101.064.R	6,4	19	63
E101.070.R		7	19	63
E101.080.R	G101.080.R	8	19	63
	G101.095.R	9,5	25	70
E101.100.R	G101.100.R	10	25	70
E101.120.R		12	25	70
	G101.127.R	12,7	25	66
E101.140.R		14	32	73
	G101.143.R	14,3	32	73
E101.150.R		15	25	66
E101.160.R	G101.160.R	16	32	73
E101.170.R		17	32	73
	G101.175.R	17,5	32	73
E101.180.R		18	32	73
E101.200.R		20	32	73
E101.220.R		22	32	73
E101.250.R		25	32	73
	G101.254.R	25,4	32	73
E101.300.R		30	32	73
E101.350.R		35	32	73
E101.400.R		40	32	73

FRESE HW PER CANALI Z=2 TIPO LUNGO

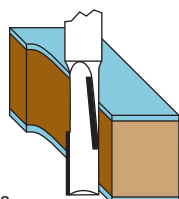
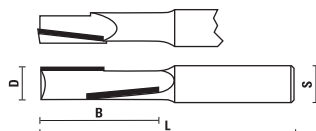
ART. E102 - G102 / E103 - G103



S Ø 12	S Ø 12,7 (1/2")	D	B	L
E102.080.R		8	25	70
	G102.095.R	9,5	32	76
E102.100.R	G102.100.R	10	32	76
E102.120.R	G102.120.R	12	38	80
	G102.127.R	12,7	38	80
E102.160.R	G102.160.R	16	38	80
E102.190.R	G102.190.R	19	38	80
E103.120.R	G103.120.R	12	50	108
	G103.127.R	12,7	50	108
E103.180.R		18	50	92
E103.200.R		20	50	92
E103.220.R		22	50	92

FRESE HW CON TAGLIENTI ASSIALI Z=2

ART. E104 - G104

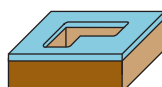
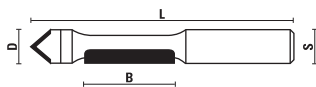


- Ottimo per la lavorazione di laminato, melaminico, impiallacciato e compensato.
- Per un ottima finitura sopra e sotto.

S Ø 12	S Ø 12,7 (1/2")	D	B	L
E104.127.R	G104.127.R	12,7	38	79
E104.128.R	G104.128.R	12,7	54	108

FRESE HW PER ASOLE Z=1+1

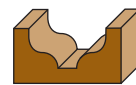
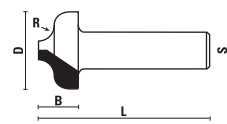
ART. E105 - G105



S Ø 12	S Ø 12,7 (1/2")	D	B	L
E105.127.R	G105.127.R	12,7	30	90

FRESE HW A DOPPIO RAGGIO - FONDO PIATTO Z=2

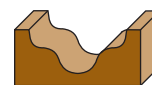
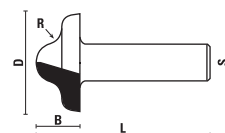
ART. E106 - G106



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E106.190.R	G106.190.R	19	3,5	13	68
E106.254.R	G106.254.R	25,4	3,2	9,5	50
E106.350.R	G106.350.R	35	3,2	9,5	59

FRESE HW A DOPPIO RAGGIO - FONDO ROTONDO Z=2

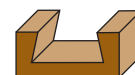
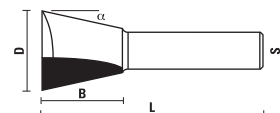
ART. E107 - G107



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E107.270.R	G107.270.R	27	6	12	57

FRESE HW PER INCASTRI A CODA DI RONDINE Z=2

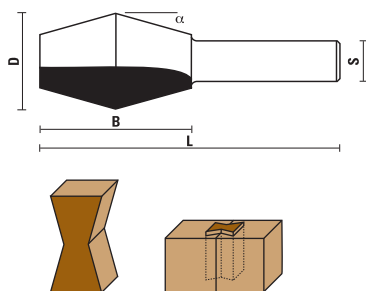
ART. E108 - G108



S Ø 12	S Ø 12,7 (1/2")	D	α	B	L
E108.160.R	G108.160.R	16	7°	16	59
E108.161.R	G108.161.R	16	7°	22	65
E108.190.R	G108.190.R	19	14°	19	65
E108.191.R	G108.191.R	19	7°	22	65
E108.220.R	G108.220.R	22	14°	22	67
E108.221.R	G108.221.R	22	7°	22	60
E108.254.R	G108.254.R	25,4	14°	25,4	70

FRESE HW PER UNIRE INCASTRI A CODA DI RONDINE

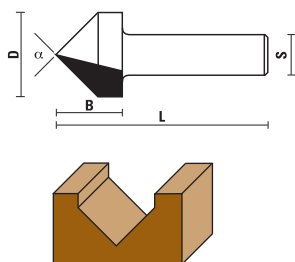
ART. E109 - G109



S Ø 12	S Ø 12,7 (1/2")	D	α	B	L	Z
E109.280.R	G109.280.R	28	14°	46	84	2

FRESE HW CON PROFILO A "V" Z=2

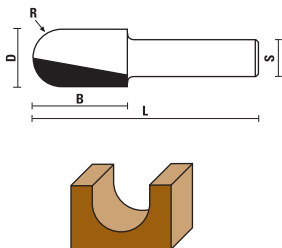
ART. E110 - G110



S Ø 12	S Ø 12,7 (1/2")	D	α	B	L
E110.127.R	G110.127.R	12,7	90°	13	54
E110.160.R	G110.160.R	16	90°	13	51
E110.190.R	G110.190.R	19	90°	16	54
E110.254.R	G110.254.R	25,4	90°	19	57
E110.320.R	G110.320.R	32	90°	25	64
E110.381.R	G110.381.R	38,1	90°	32	70
E110.501.R	G110.501.R	51	90°	44	83

FRESE HW A RAGGIO CONVESSO Z=2

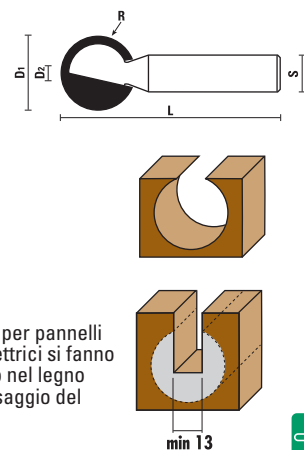
ART. E111 - G111



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E111.127.R	G111.127.R	12,7	6,4	32	73
E111.160.R	G111.160.R	16	8	32	70
E111.190.R	G111.190.R	19	9,5	32	70
E111.220.R	G111.220.R	22	11	32	70
E111.254.R	G111.254.R	25,4	12,7	32	70
E111.317.R	G111.317.R	32	16	32	70
E111.380.R	G111.380.R	38	19	32	70
E111.500.R	G111.500.R	50	25	32	70

FRESE HW A TUTTO TONDO Z=2

ART. E112 - G112

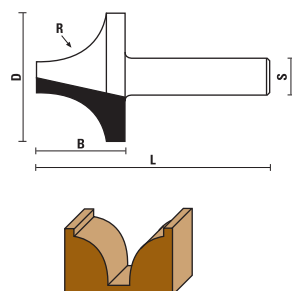


- Queste frese possono produrre cave per pannelli scorrevoli o per il passaggio di fili elettrici si fanno con queste frese dopo aver praticato nel legno una scanalatura che permetta il passaggio del gambo.

S Ø 12	S Ø 12,7 (1/2")	D1	D2	R	L
E112.127.R	G112.127.R	12,7	6,5	6,4	57
E112.160.R	G112.160.R	16	7,5	8	60
E112.190.R	G112.190.R	19	8,5	9,5	64
E112.254.R	G112.254.R	25,4	9	12,7	70
E112.286.R	G112.286.R	28,6	10,3	14,3	70
E112.320.R	G112.320.R	32	12,7	16	73

FRESE HW A RAGGIO CONCAVO Z=2

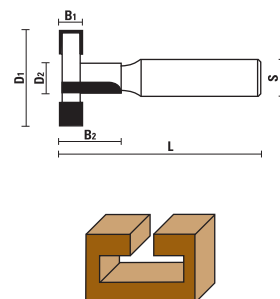
ART. E113 - G113



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E113.160.R	G113.160.R	16	5	11	49
E113.190.R	G113.190.R	19	6,4	13	51
E113.220.R	G113.220.R	22	8	14	52
E113.254.R	G113.254.R	25,4	9,5	16	54
E113.349.R	G113.349.R	34,9	12,7	25,4	63,5
E113.445.R	G113.445.R	44,5	16	31,8	70
E113.510.R	G113.510.R	51	19	36	75

FRESE HW PER SCANALATURE "T" Z=2

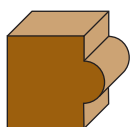
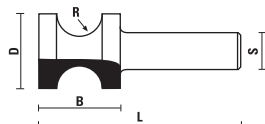
ART. E114 - G114



S Ø 12	S Ø 12,7 (1/2")	D1	D2	B1	B2	L
E114.280.R	G114.280.R	28	9,5	8	21	65
E114.350.R	G114.350.R	35	13	9,5	22	65

FRESE HW SAGOMATE A MEZZO TONDO Z=2

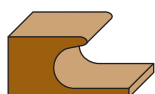
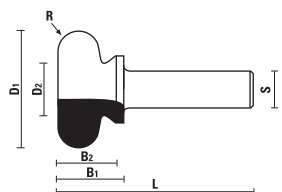
ART. E115 - G115



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E115.220.R	G115.220.R	22	5	19	57
E115.260.R	G115.260.R	26	6,8	25	63
E115.280.R	G115.280.R	28	8	25	64
E115.333.R	G115.333.R	33,3	9,5	35	73
E115.429.R	G115.429.R	42,9	12,7	40	78
E115.510.R	G115.510.R	51	16	50	88
E115.600.R	G115.600.R - giri max 18.000	60	19	50	88

FRESE HW SAGOMATE PER MANIGLIE Z=2

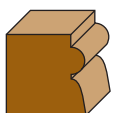
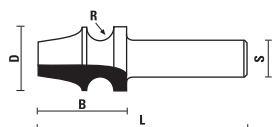
ART. E116 - G116



S Ø 12	S Ø 12,7 (1/2")	D1	D2	R	B1	B2	L
E116.190.R	G116.190.R	19	10	4,8	19	14	57
E116.381.R	G116.381.R	38,1	17	6	21	18	59
E116.445.R	G116.445.R	44,5	17	8	25	22	63

FRESE HW SAGOMATE PER DECORAZIONI Z=2

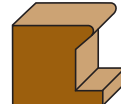
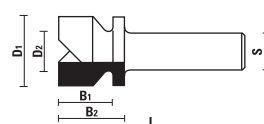
ART. E117 - G117



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E117.220.R	G117.220.R	22	4	26	64

FRESE HW SAGOMATE PER MANIGLIE Z=2

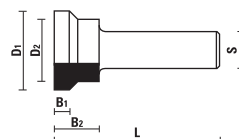
ART. E118 - G118



S Ø 12	S Ø 12,7 (1/2")	D1	D2	B1	B2	L
E118.220.R	G118.220.R	22	13	17	21	59

FRESE HW PER GIUNZIONI PER CASSETTI Z=2

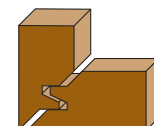
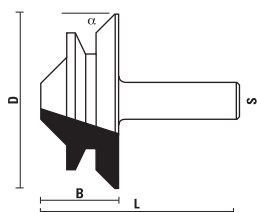
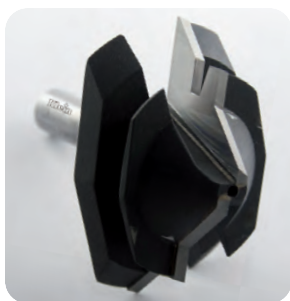
ART. E119 - G119



S Ø 12	S Ø 12,7 (1/2")	D1	D2	B1	B2	L
E119.254.R	G119.254.R	25,4	18,5	4	13	49

FRESE HW PER GIUNZIONI A 90° Z=2

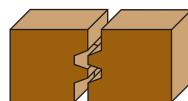
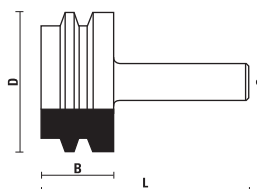
ART. E120 - G120



S Ø 12	S Ø 12,7 (1/2")	D	α	B	L
E120.445.R	G120.445.R	44,5	45°	20	58
E120.680.R	G120.680.R - giri max 18.000	68	45°	29,5	68

FRESE HW PER GIUNZIONI Z=2

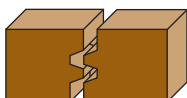
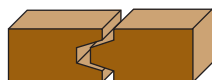
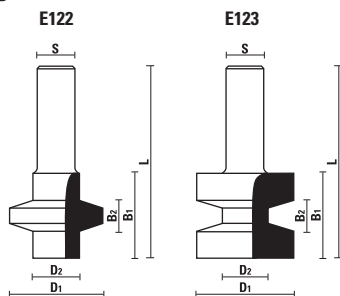
ART. E121 - G121



S Ø 12	S Ø 12,7 (1/2")	D	B	L
E121.470.R	G121.470.R	47	28	66

FRESE HW PER GIUNZIONI Z=2

ART. E122 - G122 / E123 - G123



S Ø 12	S Ø 12,7 (1/2")	D1	D2	α	B1	B2	L
E122.320.R	G122.320.R	32	14	15°	32	11	70
E123.320.R	G123.320.R	32	14	15°	32	11	70

FRESE HW SAGOMATE Z=2

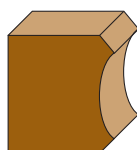
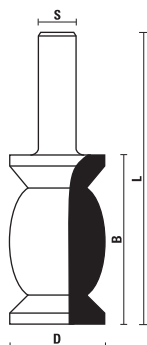
ART. E124 - G124



S Ø 12	S Ø 12,7 (1/2")	D	R1	R2	B	L
E124.190.R	G124.190.R	19	3,6	4	13	70
E124.254.R	G124.254.R	25,4	5	6,4	17,5	73

FRESE HW SAGOMATE PER CORNICI Z=2

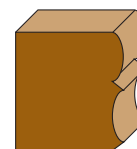
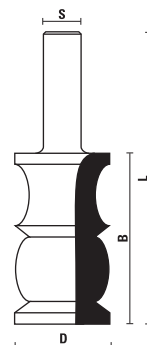
ART. E125 - G125



S Ø 12	S Ø 12,7 (1/2")	D	B	L
E125.320.R	G125.320.R	32	58	96

FRESE HW SAGOMATE PER CORNICI Z=2

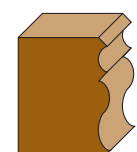
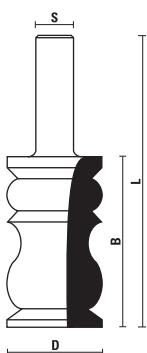
ART. E126 - G126



S Ø 12	S Ø 12,7 (1/2")	D	B	L
E126.320.R	G126.320.R	32	58	96

FRESE HW SAGOMATE PER CORNICI Z=2

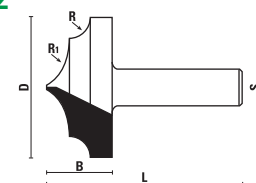
ART. E127 - G127



S Ø 12	S Ø 12,7 (1/2")	D	B	L
E127.320.R	G127.320.R	32	58	96

FRESE HW SAGOMATE Z=2

ART. E128 - G128

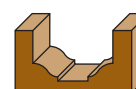
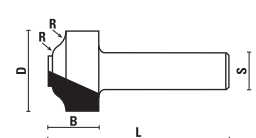


Per realizzare decori

S Ø 12	S Ø 12,7 (1/2")	D	R1	R2	B	L
E128.410.R	G128.410.R	41	6,4	15	18	56

FRESE HW SAGOMATE Z=2

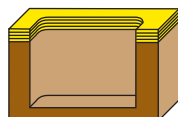
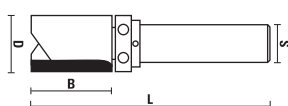
ART. E129 - G129



S Ø 12	S Ø 12,7 (1/2")	D	D1	R	B	L
E129.254.R	G129.254.R	25,4	9,5	4,8	15	53
E129.300.R	G129.300.R	30	12	6	15	53

FRESE HW CON CUSCINETTO SUPERIORE Z=2

ART. E130 - G130



S Ø 12	S Ø 12,7 (1/2")	D	B	L
E130.190.R	G130.190.R	19	25,4	77
E130.191.R NEW	G130.191.R NEW	19	51	92



Z050.012.N



Z058.002.N



Z051.005.N

S Ø 12	S Ø 12,7 (1/2")	D	B	L
E130.254.R	G130.254.R	25,4	45	95



Z050.009.N



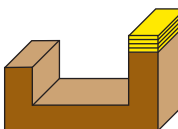
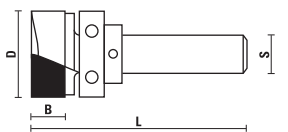
Z058.002.N



Z051.005.N

FRESE HW CON CUSCINETTO SUPERIORE Z=2

ART. E131 - G131



S Ø 12	S Ø 12,7 (1/2")	D	B	L
E131.190.R	G131.190.R	19	11	64



Z050.012.N



Z058.002.N



Z051.005.N

S Ø 12	S Ø 12,7 (1/2")	D	B	L
E131.254.R	G131.254.R	25,4	11	64



Z050.009.N



Z058.002.N



Z051.005.N

S Ø 12	S Ø 12,7 (1/2")	D	B	L
E131.380.R	G131.380.R	38	16	69



Z050.013.N



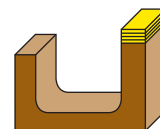
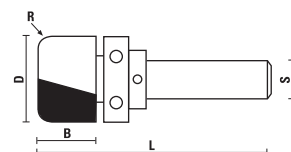
Z058.003.N



Z051.005.N

FRESE HW CON CUSCINETTO SUPERIORE Z=2

ART. E132 - G132



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E132.190.R	G132.190.R	19	6,4	16	67



Z050.012.N



Z058.002.N



Z051.005.N

S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E132.286.R	G132.286.R	28,6	6,4	16	67



Z050.015.N



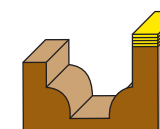
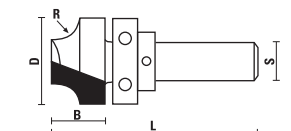
Z058.003.N



Z051.005.N

FRESE HW CON CUSCINETTO SUPERIORE Z=2

ART. E133 - G133



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E133.286.R	G133.286.R	28,6	8	15	58



Z050.015.N



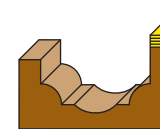
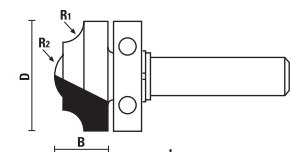
Z058.003.N



Z051.005.N

FRESE HW CON CUSCINETTO SUPERIORE Z=2

ART. E134 - G134



Per decorare cassetti e antine

S Ø 12	S Ø 12,7 (1/2")	D	R ₁	R ₂	B	L
E134.350.R	G134.350.R	35	6,4	10	15	68



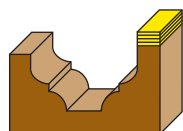
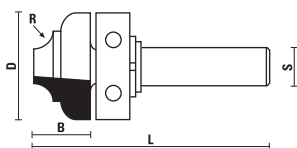
Z050.014.N



DIN 471-15

FRESE HW CON CUSCINETTO SUPERIORE Z=2

ART. E135 - G135



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E135.350.R	G135.350.R	35	5	14	67



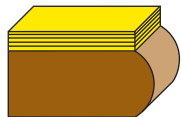
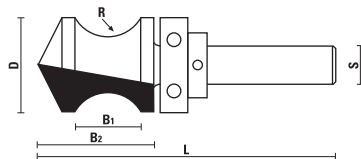
Z050.014.N



DIN 471-15

FRESE HW CON CUSCINETTO SUPERIORE Z=2

ART. E136 - G136



S Ø 12	S Ø 12,7 (1/2")	D	R	B1	B2	L
E136.286.R	G136.286.R	28,6	13	22	40	92



Z050.015.N



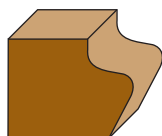
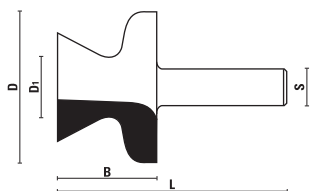
Z058.003.N



Z051.005.N

FRESE HW SAGOMATE Z=2

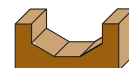
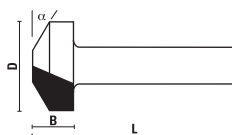
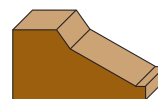
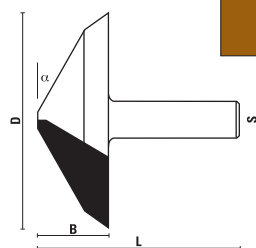
ART. E137 - G137



S Ø 12	S Ø 12,7 (1/2")	D	D1	B	L
E137.510.R	G137.510.R	51	19	32	70

FRESE HW A TAGLIANTE INCLINATO Z=2

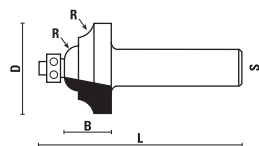
ART. E138 - G138



S Ø 12	S Ø 12,7 (1/2")	D	α	B	L
E138.286.R	G138.286.R	28,6	30°	13	70
E138.690.R	G138.690.R - giri max 18.000	69	25°	19	57

FRESE HW A DOPPIO RAGGIO Z=2

ART. E139 - G139



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E139.254.R	G139.254.R	25,4	4	16	63
E139.350.R	G139.350.R	35	6,4	20	67



Z050.001.N



Z053.001.N



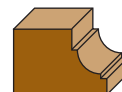
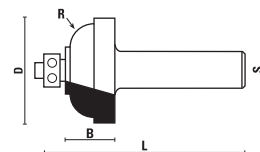
Z054.001.N



Z051.001.R

FRESE HW A RAGGIO CONVESSO Z=2

ART. E140 - G140



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E140.286.R	G140.286.R	28,6	4,8	13	61
E140.350.R	G140.350.R	35	8	16	64



Z050.003.N



Z053.003.N



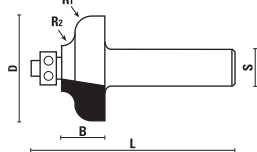
Z054.002.N



Z051.002.R

FRESE HW A DOPPIO RAGGIO Z=2

ART. E141 - G141



S Ø 12	S Ø 12,7 (1/2")	D	R1	R2	B	L
E141.286.R	G141.286.R	28,6	4,5	4	13	60
E141.350.R	G141.350.R	35	6	5	17,5	65



Z050.002.N



Z053.002.N



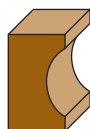
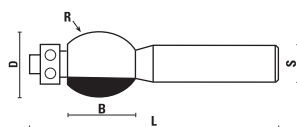
Z054.002.N



Z051.002.R

FRESE HW A RAGGIO Z=2

ART. E142 - G142



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E142.190.R	G142.190.R	19	8	13	70
E142.220.R	G142.220.R	22	12	19	78
E142.254.R	G142.254.R	25,4	32	38	98



Z050.003.N



Z053.003.N



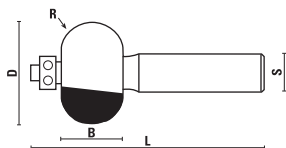
Z054.002.N



Z051.002.R

FRESE HW A RAGGIO Z=2

ART. E143 - G143



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E143.330.R	G143.330.R	33	10	20	75



Z050.003.N



Z053.003.N



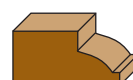
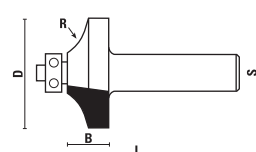
Z054.002.N



Z051.002.R

FRESE HW A RAGGIO SCHIACCIATO Z=2

ART. E144 - G144



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E144.300.R	G144.300.R	30	12	10	57



Z050.003.N



Z053.003.N



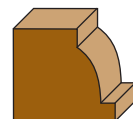
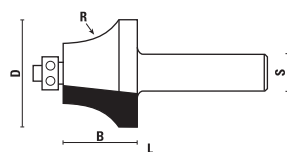
Z054.002.N



Z051.002.R

FRESE HW A RAGGIO Z=2

ART. E145 - G145



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E145.270.R	G145.270.R	27	17	17	67



Z050.003.N



Z053.003.N



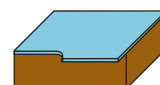
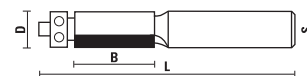
Z054.002.N



Z051.002.R

FRESE HW A TAGLIENTI DIRITTI CON CUSCINETTO Z=2

ART. E146 - G146



S Ø 12	S Ø 12,7 (1/2")	D	B	L
E146.126.R NEW	G146.126.R NEW	12,7	13	71
E146.127.R	G146.127.R	12,7	25	84
E146.128.R	G146.128.R	12,7	38	98
E146.129.R	G146.129.R	12,7	51	106



Z050.003.N



Z053.003.N



Z054.002.N



Z051.002.R

S Ø 12	S Ø 12,7 (1/2")	D	B	L
E146.190.R	G146.190.R	19	25	82
E146.191.R NEW	G146.191.R NEW ang. assiale	19	38	98
E146.192.R NEW	G146.192.R NEW ang. assiale	19	51	108



Z050.005.N



Z053.002.N



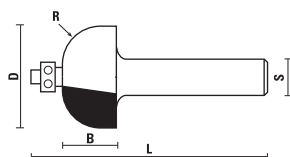
Z054.002.N



Z051.004.R

FRESE HW A RAGGIO CONVESSO CON CUSCINETTO

ART. E147 - G147



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L	Z
E147.222.R	G147.222.R	22,2	6,4	14	60	2
E147.254.R	G147.254.R	25,4	8	14	60	2
E147.286.R	G147.286.R	28,6	9,5	14	62	2
E147.350.R	G147.350.R	35	12,7	17	64	2
E147.410.R	G147.410.R	41	16	18	65	2



Z050.001.N



Z053.001.N



Z054.001.N



Z051.001.R

S Ø 12	S Ø 12,7 (1/2")	D	R	B	L	Z
E147.570.R	G147.570.R	57	22	32	81	2



Z050.003.N



Z053.003.N



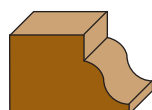
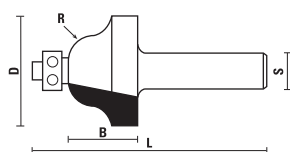
Z054.002.N



Z051.002.R

FRESE HW A DOPPIO RAGGIO CON CUSCINETTO Z=2

ART. E148 - G148



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E148.254.R	G148.254.R	25,4	4	16	63
E148.350.R	G148.350.R	35	6,4	20	67



Z050.001.N



Z053.001.N



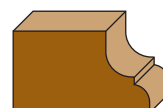
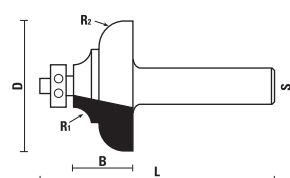
Z054.001.N



Z051.001.R

FRESE HW A DOPPIO RAGGIO CON CUSCINETTO Z=2

ART. E149 - G149



S Ø 12	S Ø 12,7 (1/2")	D	R1	R2	B	L
E149.286.R	G149.286.R	28,6	4	4	13	60
E149.350.R	G149.350.R	35	6	4,8	18	64
E149.380.R	G149.380.R	38	4,7	8	16	65
E149.510.R	G149.510.R	51	9,5	9,5	23	72



Z050.003.N



Z053.003.N



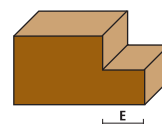
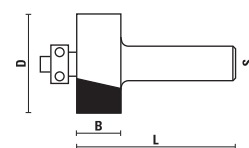
Z054.002.N



Z051.002.R

FRESE HW A GRADINO CON CUSCINETTO Z=2

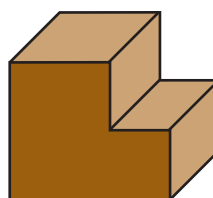
ART. E150 - G150



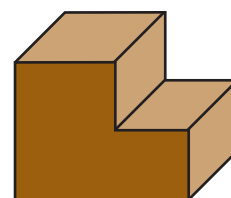
S Ø 12	S Ø 12,7 (1/2")	D	B	E	L
E150.240.R	G150.240.R	24	13	4	63
E150.320.R	G150.320.R	32	13	9,5	60
E150.350.R	G150.350.R	35	13	11	60
E150.850.R	G150.850.R	35	13	8-9,5-11-12,7	60

Art. E150.850.R/G150.850.R

Completo di nr.4 cuscinetti per ottenere E= 8-9,5-11-12,7

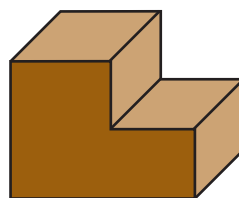


8

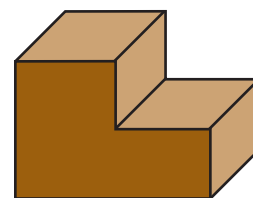


9,5

Scala 1:1



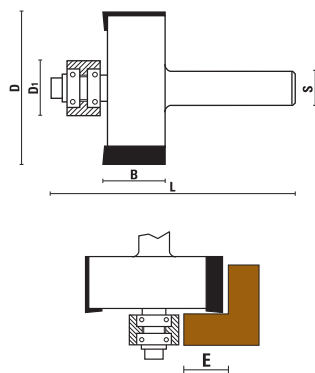
11



12,7

FRESE HW PER OGNI TIPO DI GRADINO Z=2

ART. E150 - G150



- Sostituendo l'anello copiatore si ottengono gradini da 1,6 a 18,25 mm ed una altezza fino a 22 mm.
- Il disegno dell'utensile permette di lavorare con la massima sicurezza.



S Ø 12	S Ø 12,7 (1/2")	D	D1	B	E	L
E150.510.R	G150.510.R	51	19	22,5	16	78



Z050.007.N



Z057.010.N



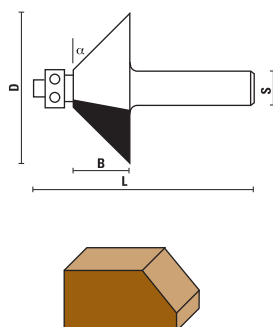
Z051.008.R

Anelli di Ricambio	D1	E
Z050.901.N	14,3	18,25
Z050.902.N	16	17,5
Z050.903.N	19	16
Z050.904.N	20,6	15,2
Z050.905.N	22,2	14,3
Z050.906.N	25,4	12,7
Z050.907.N	27	12
Z050.908.N	28,6	11,1
Z050.909.N	31,8	9,5
Z050.910.N	32,5	9,25
Z050.911.N	35	8
Z050.912.N	38	6,4
Z050.913.N	39	6
Z050.914.N	41,3	4,8
Z050.915.N	44,4	3,2
Z050.916.N	47,6	1,6

Z050.999.N KIT COMPLETO DI nr. 16 ANELLI

FRESE HW PER SMUSSARE CON CUSCINETTO Z=2

ART. E151 - G151



S Ø 12	S Ø 12,7 (1/2")	D	α	B	L
E151.351.R	G151.351.R	35	60°	20,6	60
E151.508.R	G151.508.R	50,8	45°	19	68
E151.635.R	G151.635.R	60,5	45°	25	74



Z050.003.N



Z053.003.N



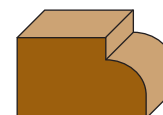
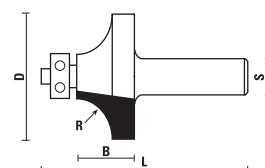
Z054.002.N



Z051.002.R

FRESE HW A RAGGIO CONCAVO CON CUSCINETTO Z=2

ART. E152 - G152



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E152.191.R	G152.191.R	19,1	3,2	9,5	59
E152.207.R	G152.207.R	20,7	4	10	59
E152.220.R	G152.220.R	22	5	13	62
E152.254.R	G152.254.R	25,4	6,4	13	62
E152.286.R	G152.286.R	28,6	8	14	62
E152.318.R	G152.318.R	31,8	9,5	16	65
E152.327.R	G152.327.R	32,7	10	16	65
E152.367.R	G152.367.R	36,7	12	20	67
E152.380.R	G152.380.R	38	12,7	19	67
E152.410.R	G152.410.R	41	14	20	70
E152.427.R	G152.427.R	42,7	15	22	70
E152.445.R	G152.445.R	44,5	16	22,2	71
E152.487.R	G152.487.R	48,7	18	26	72
E152.508.R	G152.508.R	50,8	19	25,4	73
E152.527.R	G152.527.R	52,7	20	27	73
E152.570.R	G152.570.R	57	22	29	78
E152.635.R	G152.635.R	63,5	25	32	81
E152.700.R	G152.700.R - giri max 18.000	70	28	35	84
E152.726.R	G152.726.R - giri max 18.000	72,6	30	36	85
E152.760.R	G152.760.R - giri max 18.000	76	32	38	87
E152.825.R	G152.825.R - giri max 16.000	82,5	35	41	90
E152.890.R	G152.890.R - giri max 16.000	89	38	45	94



Z050.003.N



Z053.003.N

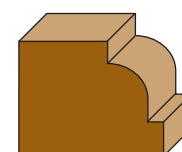


Z054.002.N



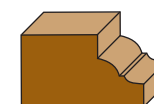
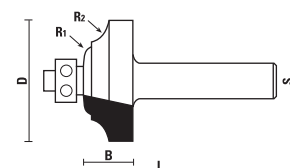
Z051.002.R

Sostituendo il cuscinetto art. **Z050.003.N** con il cuscinetto art. **Z050.002.N** si ottiene la stessa sagoma con il gradino



FRESE HW A DOPPIO RAGGIO CON CUSCINETTO Z=2

ART. E153 - G153



S Ø 12	S Ø 12,7 (1/2")	D	R1	R2	B	L
E153.381.R	G153.381.R	38,1	5,5	6	15,9	63,5



Z050.003.N



Z053.003.N



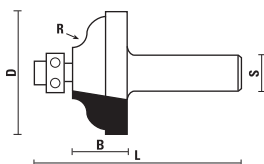
Z054.002.N



Z051.002.R

FRESE HW A DOPPIO RAGGIO CON CUSCINETTO Z=2

ART. E154 - G154



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E154.350.R	G154.350.R	35	4	13	61
E154.413.R	G154.413.R	41,3	6,4	19	67
E154.570.R	G154.570.R	57	9,5	25	75



Z050.002.N



Z053.002.N



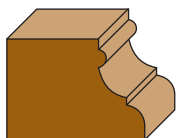
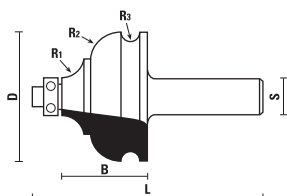
Z054.002.N



Z051.002.R

FRESE HW PER DECORAZIONI CON CUSCINETTO Z=2

ART. E156 - G156



S Ø 12	S Ø 12,7 (1/2")	D	R1	R2	R3	B	L
E156.413.R	G156.413.R	41,3	6,4	9,5	3,2	28,5	75,5



Z050.003.N



Z053.003.N



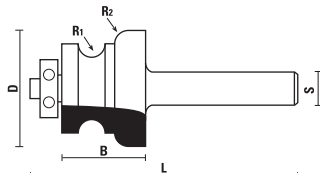
Z054.002.N



Z051.002.R

FRESE HW PER DECORAZIONI CON CUSCINETTO Z=2

ART. E157 - G157



S Ø 12	S Ø 12,7 (1/2")	D	R1	R2	B	L
E157.400.R	G157.400.R	40	5,5	6	30	78



Z050.004.N



Z053.004.N



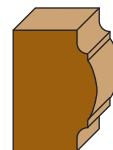
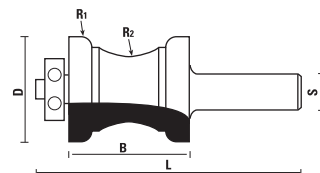
Z054.002.N



Z051.002.R

FRESE HW PER DECORAZIONI CON CUSCINETTO Z=2

ART. E158 - G158



S Ø 12	S Ø 12,7 (1/2")	D	R1	R2	B	L
E158.350.R	G158.350.R	35	5	13	40	88



Z050.004.N



Z053.004.N



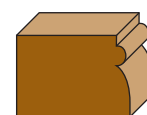
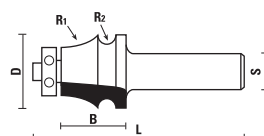
Z054.002.N



Z051.002.R

FRESE HW PER DECORAZIONI CON CUSCINETTO Z=2

ART. E159 - G159



S Ø 12	S Ø 12,7 (1/2")	D	R1	R2	B	L
E159.254.R	G159.254.R	25,4	19	3,2	22	70



Z050.004.N



Z053.004.N



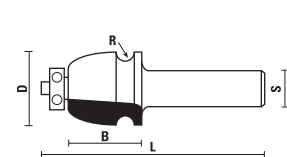
Z054.002.N



Z051.002.R

FRESE HW PER DECORAZIONI CON CUSCINETTO Z=2

ART. E160 - G160



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E160.260.R	G160.260.R	26	3,5	25	74



Z050.003.N



Z053.003.N



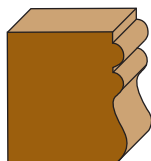
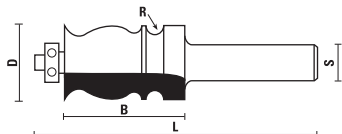
Z054.002.N



Z051.002.R

FRESE HW PER DECORAZIONI CON CUSCINETTO Z=2

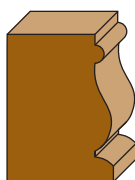
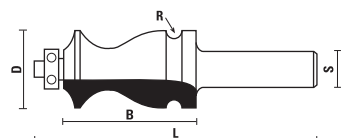
ART. E161 - G161



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E161.254.R	G161.254.R	25,4	3,5	45	94
 Z050.003.N	 Z053.003.N	 Z054.002.N	 Z051.002.R		

FRESE HW PER CORNICI CON CUSCINETTO Z=2

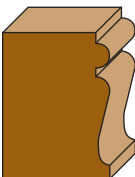
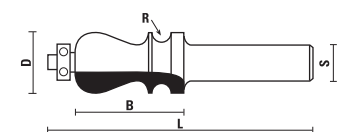
ART. E162 - G162



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E162.270.R	G162.270.R	27	3	45	94
 Z050.003.N	 Z053.003.N	 Z054.002.N	 Z051.002.R		

FRESE HW PER CORNICI CON CUSCINETTO Z=2

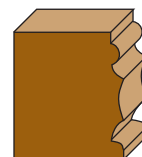
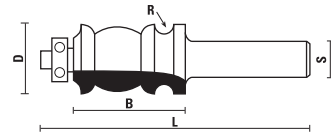
ART. E163 - G163



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E163.220.R	G163.220.R	22	4	38	87
 Z050.003.N	 Z053.003.N	 Z054.002.N	 Z051.002.R		

FRESE HW PER CORNICI CON CUSCINETTO Z=2

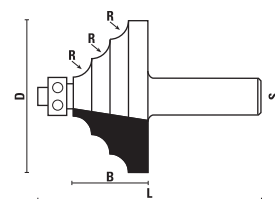
ART. E164 - G164



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E164.240.R	G164.240.R	24	3,5	39	89
 Z050.003.N	 Z053.003.N	 Z054.002.N	 Z051.002.R		

FRESE HW A TRIPLO RAGGIO CONCAVO Z=2

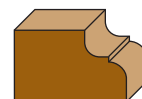
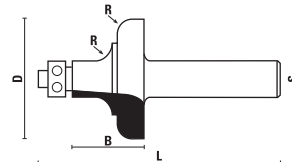
ART. E165 - G165



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E165.470.R	G165.470.R	47	6	24	73
 Z050.003.N	 Z053.003.N	 Z054.002.N	 Z051.002.R		

FRESE HW A PROFILO CLASSICO Z=2

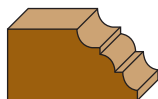
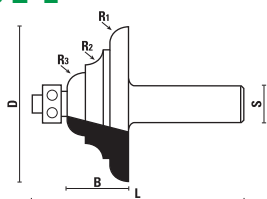
ART. E166 - G166



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E166.510.R	G166.510.R	51	8,5	31	80
 Z050.003.N	 Z053.003.N	 Z054.002.N	 Z051.002.R		

FRESE HW MULTIPROFILO Z=2

ART. E167 - G167



S Ø 12	S Ø 12,7 (1/2")	D	R1	R2	R3	B	L
E167.590.R	G167.590.R	59	6,5	6,5	7,5	22	70



Z050.003.N



Z053.003.N



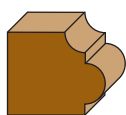
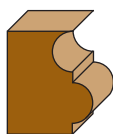
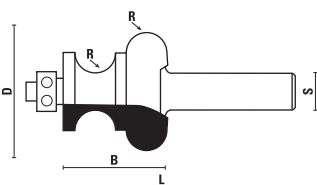
Z054.002.N



Z051.002.R

FRESE HW MULTIPROFILO Z=2

ART. E168 - G168



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E168.510.R	G168.510.R	51	6,4	32	80



Z050.004.N



Z053.004.N



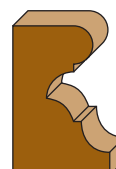
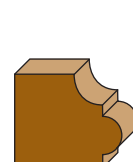
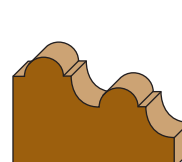
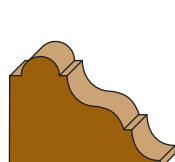
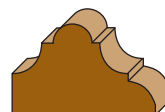
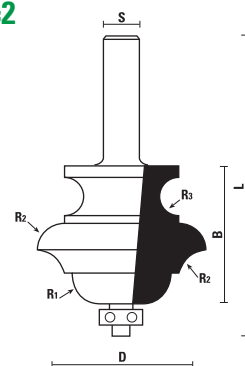
Z054.002.N



Z051.002.R

FRESE HW MULTIPROFILO Z=2

ART. E169 - G169



S Ø 12	S Ø 12,7 (1/2")	D	R1	R2	R3	B	L
E169.540.R	G169.540.R	54	9	8,5	6,4	47	96



Z050.003.N



Z053.003.N



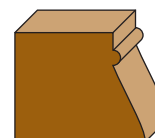
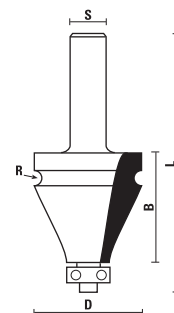
Z054.002.N



Z051.002.R

FRESE HW PER CORRIMANI E SAGOME DI BORDI Z=2

ART. E170 - G170



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E170.350.R	G170.350.R	35	3,2	37	86



Z050.003.N



Z053.003.N



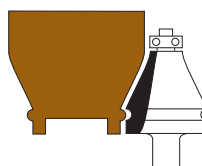
Z054.002.N



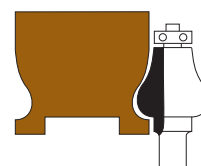
Z051.002.R

ESEMPI DI LAVORAZIONE DI CORRIMANO

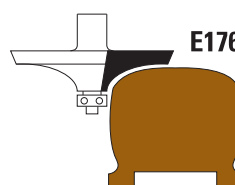
E170



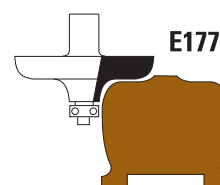
E171



E176

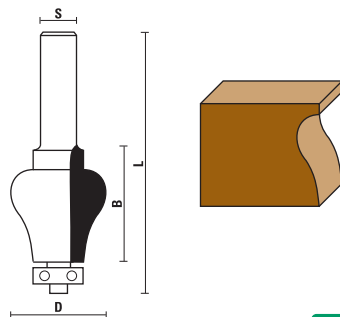


E177



FRESE HW PER CORRIMANI E SAGOME DI BORDI Z=2

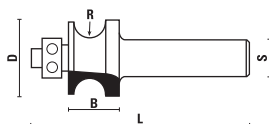
ART. E171 - G171



S Ø 12	S Ø 12,7 (1/2")	D	R	B	
E171.320.R	G171.320.R	32	38	87	
					
Z050.003.N	Z053.003.N	Z054.002.N	Z051.002.R		

FRESE HW A MEZZO TONDO Z=2

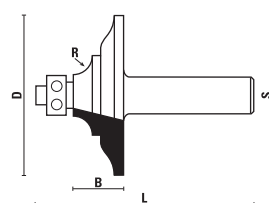
ART. E172 - G172



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E172.220.R	G172.220.R	22	3,2	14	63
E172.280.R	G172.280.R	28	4,8	16	66
E172.320.R	G172.320.R	32	6,4	19	67
E172.380.R	G172.380.R	38	9,5	25	74
					
Z050.004.N	Z053.004.N	Z054.002.N	Z051.002.R		

FRESE HW PER CORRIMANI E SAGOME DI BORDI Z=2

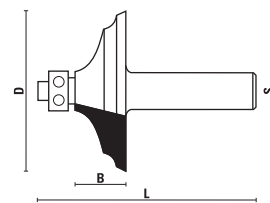
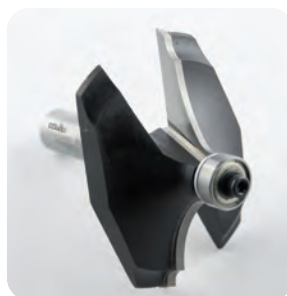
ART. E173 - G173



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E173.640.R	G173.640.R - giri max 18.000	64	6,5	20	69
					
Z050.003.N	Z053.003.N	Z054.002.N	Z051.002.R		

FRESE HW PER CORRIMANI E SAGOME DI BORDI Z=2

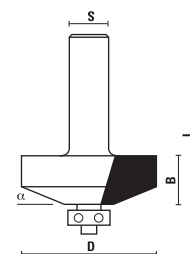
ART. E174 - E174



S Ø 12	S Ø 6,4 (1/4")	D	B	L
E174.660.R	G174.660.R - giri max 18.000	66	20	69
				
Z050.003.N	Z053.003.N	Z054.002.N	Z051.002.R	

FRESE HW SAGOMATE PER PIATTABANDE Z=2

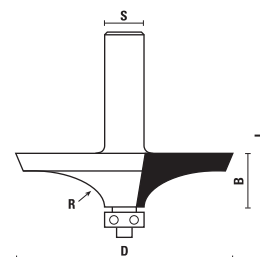
ART. E175 - E175



S Ø 12	S Ø 12,7 (1/2")	D	α	B	L
E175.420.R	G175.420.R	42	25°	13	62
					
Z050.003.N	Z053.003.N	Z054.002.N		Z051.002.R	

FRESE HW PER CORRIMANI E SAGOME DI BORDI Z=2

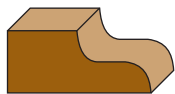
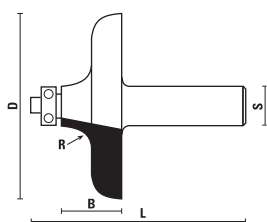
ART. E176 - G176



S Ø 12	S Ø 6,4 (1/4")	D	R	B	L
E176.690.R	G176.690.R - giri max 18.000	69	43	16	64
					
Z050.003.N	Z053.003.N	Z054.002.N	Z051.002.R		

FRESE HW PER CORRIMANI E SAGOME DI BORDI Z=2

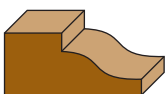
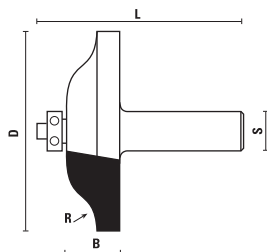
ART. E177 - G177



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E177.640.R	G177.640.R - giri max 18.000	64	9,5	20	69
 Z050.003.N	 Z053.003.N	 Z054.002.N	 Z051.002.R		

FRESE HW SAGOMATE PER PIATTABANDE Z=2

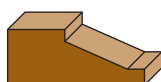
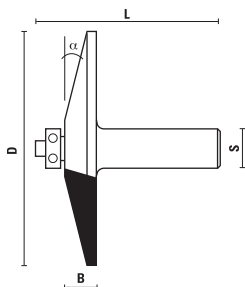
ART. E178 - G178



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E178.670.R	G178.670.R - giri max 18.000	67	19	17	65
E178.860.R	G178.860.R - giri max 16.000	86	22	16	65
 Z050.003.N	 Z053.003.N	 Z054.002.N	 Z051.002.R		

FRESE HW SAGOMATE PER PIATTABANDE Z=2

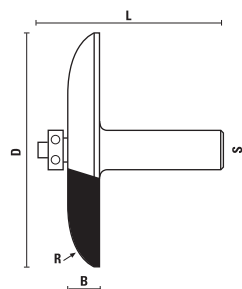
ART. E178 - G178



S Ø 12	S Ø 12,7 (1/2")	D	α	B	L
E178.861.R	G178.861.R - giri max 16.000	86	15°	13	61
 Z050.003.N	 Z053.003.N	 Z054.002.N	 Z051.002.R		

FRESE HW SAGOMATE PER PIATTABANDE Z=2

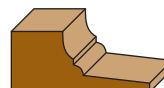
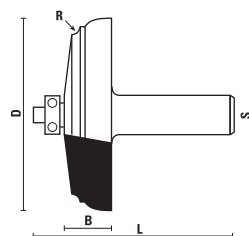
ART. E178 - G178



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E178.862.R	G178.862.R - giri max 16.000	86	40	13	61
 Z050.003.N	 Z053.003.N	 Z054.002.N	 Z051.002.R		

FRESE HW SAGOMATE PER PIATTABANDE Z=2

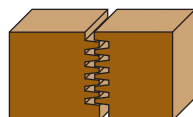
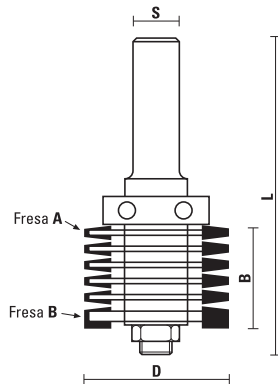
ART. E179 - G179



S Ø 12	S Ø 12,7 (1/2")	D	R	B	L
E179.640.R	G179.640.R - giri max 18.000	64	3	13	62
 Z050.003.N	 Z053.003.N	 Z054.002.N	 Z051.002.R		

FRESE HW COMPONIBILI PER GIUNZIONI Z=2

ART. E180 - G180



Spessore pannello da 11 a 36 mm



S Ø 12	S Ø 12,7 (1/2")	D	B	L	Z
E180.397.R	G180.397.R	39,7	36	96	2

RICAMBI

Mandrino

S Ø 12	S Ø 12,7 (1/2")
E117.120.R	G117.120.R

Fresa circolare "A" (5 pz.) Ø 39,2 Foro Ø 8 Z=2 Sp.=1,85
C180.500.R

Fresa per bordo "B" (1 pz.) Ø 39,7 Foro Ø 8 Z=2 Sp.=5,5
C180.501.R



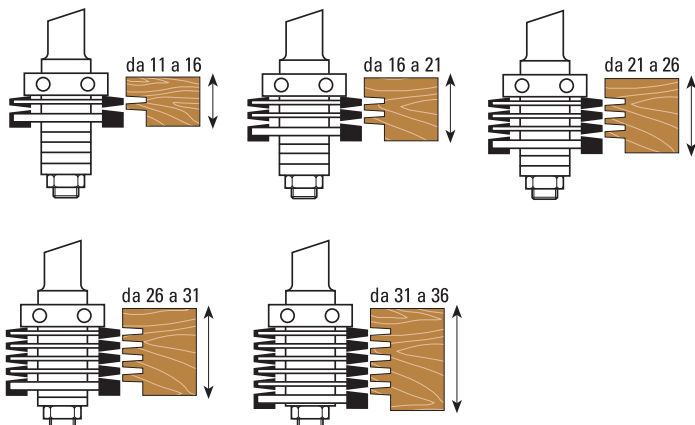
Z050.010.N



Z057.001.N - 6 pz.

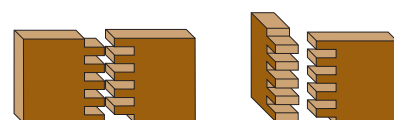
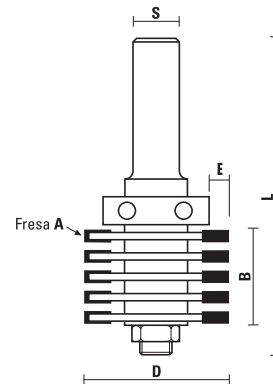


Z057.002.N - 2 pz.
Z057.003.N - 1 pz.
Z057.004.N - 10 pz.



FRESE HW COMPONIBILI PER GIUNZIONI Z=3

ART. E181 - G181



- Spessore pannello da 22 a 45 mm
- Completo di nr. 3 cuscinetti di diverso diametro per 3 profondità di lavorazione (E=9,8 - E=9,3 - E=6,8)



S Ø 12	S Ø 12,7 (1/2")	D	B	L	Z	E
E181.476.R	G181.476.R	47,6	36	96	3	9,8

RICAMBI

Mandrino

S Ø 12	S Ø 12,7 (1/2")
E117.120.R	G117.120.R

Fresa circolare "A" (5 pz.) Ø 47,6 Foro Ø 8 Z=3 Sp.=4
C118.340.R



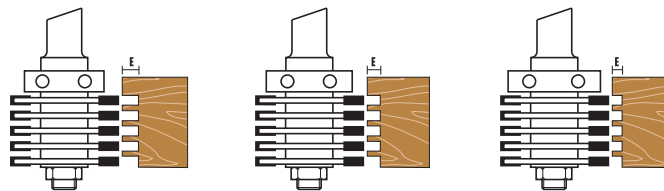
Z050.107.N - 1 pz.
Z050.108.N - 1 pz.
Z050.109.N - 1 pz.



Z057.009.N - 4 pz.



Z057.004.N - 4 pz.
Z057.008.N - 8 pz.



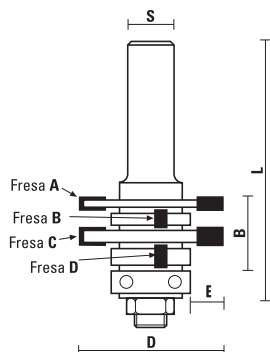
Z050.107.N
Cuscinetto Ø28
E=9,8

Z050.108.N
Cuscinetto Ø29
E=9,3

Z050.109.N
Cuscinetto Ø34
E=6,8

FRESE HW COMPONENTI PER CANALI, INCASTRI E BATTUTE Z=2

ART. E182 - G182



- Con questo kit di frese si possono ottenere canali da **3,2 a 18 mm**.
- Di seguito alcuni esempi di combinazioni per ottenere varie misure di canale.
- Altre misure si possono ottenere aggiungendo o togliendo gli spessori forniti nel kit (vedi disegno).



S Ø 12	S Ø 12,7 (1/2")	D	B	L	Z	E
E182.476.R	G182.476.R	47,6	3,2÷18	76	2	12,8

RICAMBI

Mandrino

S Ø 12	S Ø 12,7 (1/2")
E117.123.R	G117.123.R

Fresa (4 pz.)

"A" - C118.232.R	Ø 47,6	Foro Ø 8	Z=2	Sp.=3,2
"B" - C118.240.R	Ø 47,6	Foro Ø 8	Z=2	Sp.=4
"C" - C118.248.R	Ø 47,6	Foro Ø 8	Z=2	Sp.=4,8
"D" - C118.264.R	Ø 47,6	Foro Ø 8	Z=2	Sp.=6,4



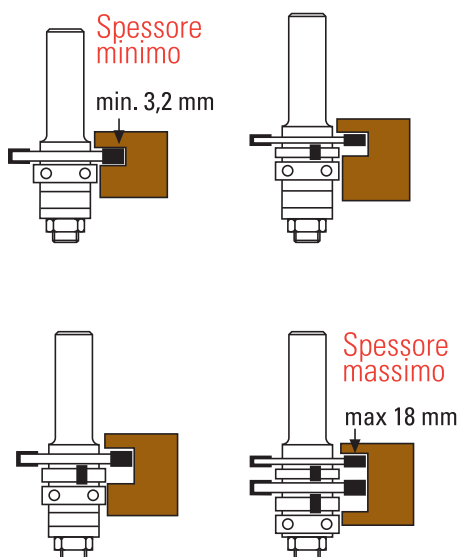
Z050.008.N - 1 pz.



Z057.006.N - 3 pz.
Z057.002.N - 5 pz.

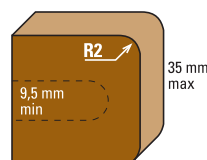
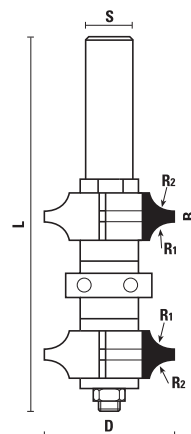


Z057.003.N - 5 pz.
Z057.004.N - 10 pz.

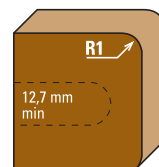


FRESE HW COMPONENTI A DOPPIO RAGGIO Z=3

ART. E186 - G186 - C186



35 mm max



38 mm max

- R2 = 4,8 mm
- Altezza da 9,5 a 35 mm
- R1 = 6,4 mm
- Altezza da 12,7 a 38 mm



S Ø 12	S Ø 12,7 (1/2")	S Ø 8	D	R1	R2	B	L
E186.350.R	G186.350.R	C186.350.R	35	6,4	4,8	14	108

RICAMBI

Mandrino

S Ø 12	S Ø 12,7 (1/2")	S Ø 8
E117.121.R	G117.121.R	C117.081.R

Fresa superiore	Ø 35	Foro Ø 8	Z=3	R1=6,4	R2=4,8
C186.500.R					

Fresa inferiore	Ø 35	Foro Ø 8	Z=3	R1=6,4	R2=4,8
C186.501.R					



Z050.008.N - 1 pz.



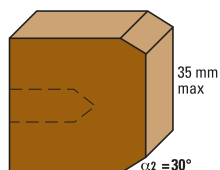
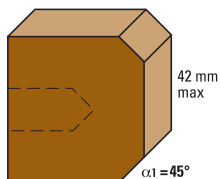
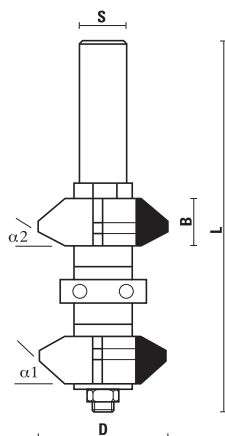
Z057.002.N - 2 pz.
Z057.005.N - 2 pz.
Z057.006.N - 2 pz.



Z057.003.N - 1 pz.
Z057.004.N - 4 pz.

FRESE HW COMPONENTI A DOPPIO SMUSSO Z=3

ART. E187 - G187 - C187



- $\alpha1 = 45^\circ$ (Altezza da 0 a 42 mm)
- $\alpha2 = 30^\circ$ (Altezza da 0 a 35 mm)



S Ø 12	S Ø 12,7 (1/2")	S Ø 8	D	B	$\alpha1$	$\alpha2$	L
E187.350.R	G187.350.R	C187.350.R	35	14	45°	30°	108

RICAMBI

Mandrino

S Ø 12	S Ø 12,7 (1/2")	S Ø 8
E117.121.R	G117.121.R	C117.081.R

Fresa superiore	Ø 35	Foro Ø 8	Z=3	$\alpha1=45^\circ$	$\alpha2=30^\circ$
C187.500.R					

Fresa inferiore	Ø 35	Foro Ø 8	Z=3	$\alpha1=45^\circ$	$\alpha2=30^\circ$
C187.501.R					



Z050.008.N - 1 pz.



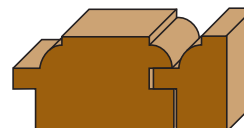
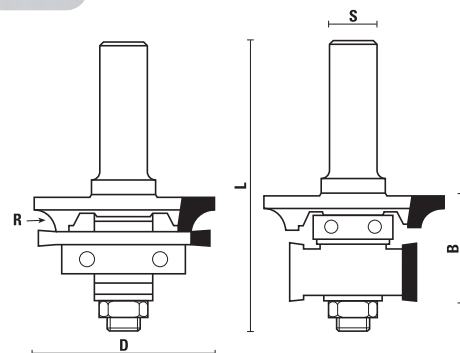
Z057.002.N - 3 pz.
Z057.005.N - 2 pz.
Z057.006.N - 2 pz.



Z057.003.N - 1 pz.
Z057.004.N - 4 pz.

FRESE HW COMPONENTI PER PERLINATI Z=2

ART. E188 - G188 - C188



S Ø 12	S Ø 12,7 (1/2")	S Ø 8	D	R	B	L
E188.490.R	G188.490.R	C188.490.R	49	6	30	80

RICAMBI

Mandrino

S Ø 12	S Ø 12,7 (1/2")	S Ø 8
E117.122.R	G117.122.R	C117.082.R

Fresa profilata	Ø 49	Foro Ø 8	Z=2	Sp.=9
C188.500.R				

Fresa per canale	Ø 46	Foro Ø 8	Z=2	Sp.=4
C188.501.R				

Fresa per battuta	Ø 33,5	Foro Ø 8	Z=2	Sp.=17,5
C188.502.R				



Z050.008.N - 1 pz.
Z050.016.N - 1 pz.



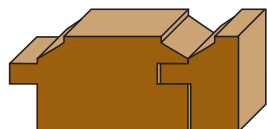
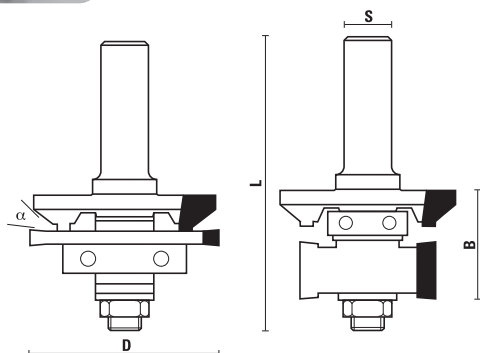
Z057.002.N - 2 pz.
Z057.005.N - 3 pz.



Z057.003.N - 1 pz.
Z057.007.N - 1 pz.
Z057.004.N - 3 pz.
Z057.008.N - 1 pz.

FRESE HW COMPONIBILI PER PERLINATI Z=2

ART. E189 - G189 - C189



S Ø 12	S Ø 12,7 (1/2")	S Ø 8	D	α	B	L
E189.425.R	G189.425.R	C189.425.R	42,5	45°	30	80

RICAMBI

Mandrino

S Ø 12	S Ø 12,7 (1/2")	S Ø 8
E117.122.R	G117.122.R	C117.082.R

Fresa prof. a smusso	Ø 42,5	Foro Ø 8	Z=2	Sp.=9
C189.500.R				

Fresa per canale	Ø 46	Foro Ø 8	Z=2	Sp.=4
C188.501.R				

Fresa per battuta	Ø 33,5	Foro Ø 8	Z=2	Sp.=17,5
C188.502.R				



Z050.008.N - 1 pz.
Z050.016.N - 1 pz.



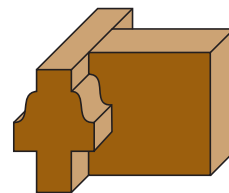
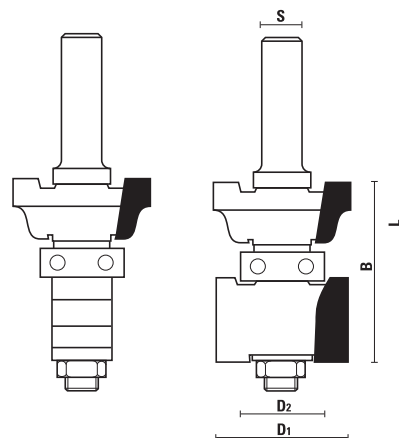
Z057.002.N - 2 pz.
Z057.005.N - 3 pz.



Z057.003.N - 1 pz.
Z057.007.N - 1 pz.
Z057.004.N - 3 pz.
Z057.008.N - 1 pz.

FRESE HW COMPONIBILI PER FINESTRE Z=2

ART. E191 - G191 - C191



S Ø 12	S Ø 12,7 (1/2")	S Ø 8	D1	D2	B	L
E191.350.R	G191.350.R	C191.350.R	35	22	47	96

RICAMBI

Mandrino

S Ø 12	S Ø 12,7 (1/2")	S Ø 8
E117.120.R	G117.120.R	C117.080.R

Fresa profilata	Ø 35	Foro Ø 8	Z=2	Sp.=17
C191.500.R				

Fresa per battuta	Ø 35	Foro Ø 8	Z=2	Sp.=22
C191.501.R				



Z050.008.N - 1 pz.



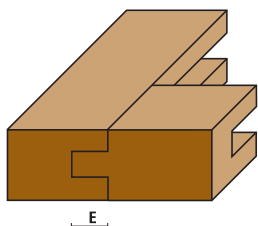
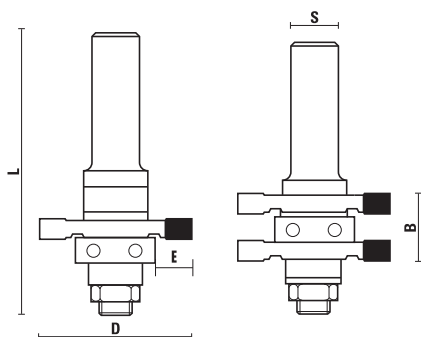
Z057.005.N - 1 pz.
Z057.006.N - 3 pz.



Z057.003.N - 1 pz.
Z057.004.N - 3 pz.
Z057.008.N - 1 pz.

FRESE HW COMPONIBILI PER ANTINE Z=2

ART. E193 - G193 - C193



S Ø 12	S Ø 12,7 (1/2")	S Ø 8	D	B	L	E
E193.410.R	G193.410.R		41	19	76	9,5
		C193.410.R	41	19	70	9,5

RICAMBI

Mandrino

S Ø 12	S Ø 12,7 (1/2")	S Ø 8
E117.123.R	G117.123.R	C117.079.R

Fresa per canale (2 pz.) Ø 41 Foro Ø 8 Z=2 Sp.=6,4
C193.500.R



Z050.008.N - 1 pz.



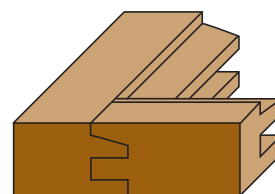
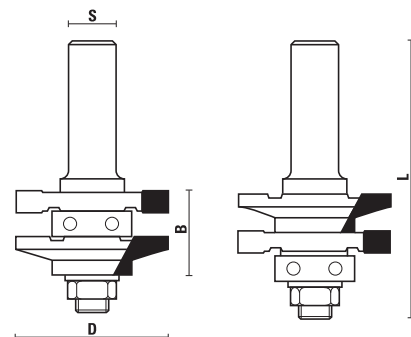
Z057.002.N - 1 pz.
Z057.006.N - 2 pz.



Z057.004.N - 4 pz.
Z057.008.N - 2 pz.

FRESE HW COMPONIBILI PER ANTINE Z=2

ART. E194 - G194 - C194



S Ø 12	S Ø 12,7 (1/2")	S Ø 8	D	B	L
E194.410.R	G194.410.R		41	22	76
		C194.410.R	41	22	70

RICAMBI

Mandrino

S Ø 12	S Ø 12,7 (1/2")	S Ø 8
E117.123.R	G117.123.R	C117.079.R

Fresa profilata Ø 41 Foro Ø 8 Z=2 Sp.=11
C194.500.R

Fresa per canale Ø 41 Foro Ø 8 Z=2 Sp.=6,4
C193.500.R



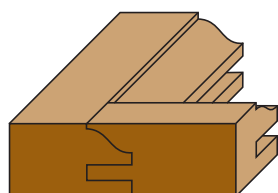
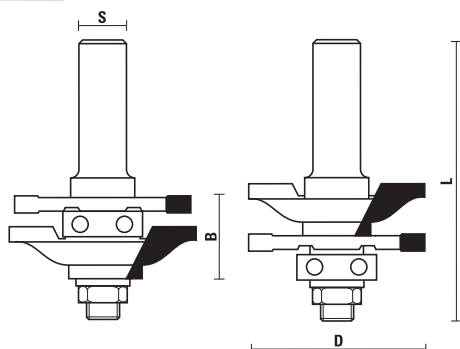
Z050.008.N - 1 pz.



Z057.004.N - 3 pz.
Z057.008.N - 1 pz.

FRESE HW COMPONIBILI PER ANTINE Z=2

ART. E195 - G195 - C195



S Ø 12	S Ø 12,7 (1/2")	S Ø 8	D	B	L
E195.460.R	G195.460.R		46	22	76
		C195.460.R	46	22	70

RICAMBI

Mandrino

S Ø 12	S Ø 12,7 (1/2")	S Ø 8
E117.123.R	G117.123.R	C117.079.R

Fresa profilata	Ø 46	Foro Ø 8	Z=2	Sp.=15
C195.500.R				

Fresa per canale	Ø 46	Foro Ø 8	Z=2	Sp.=4
C188.501.R				



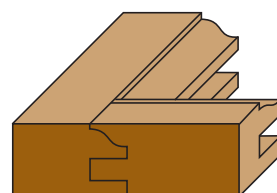
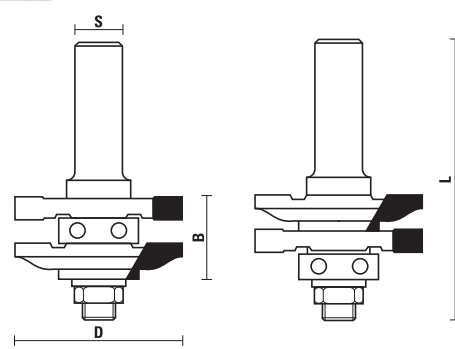
Z050.008.N - 1 pz.



Z057.004.N - 3 pz.
Z057.008.N - 1 pz.

FRESE HW COMPONIBILI PER ANTINE Z=2

ART. E196 - G196 - C196



S Ø 12	S Ø 12,7 (1/2")	S Ø 8	D	B	L
E196.410.R	G196.410.R		41	22	76
		C196.410.R	41	22	70

RICAMBI

Mandrino

S Ø 12	S Ø 12,7 (1/2")	S Ø 8
E117.123.R	G117.123.R	C117.079.R

Fresa profilata	Ø 41	Foro Ø 8	Z=2	Sp.=11
C196.500.R				

Fresa per canale	Ø 41	Foro Ø 8	Z=2	Sp.=6,4
C193.500.R				



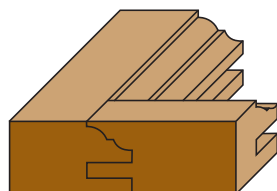
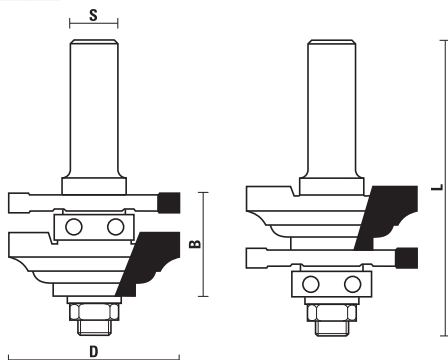
Z050.008.N - 1 pz.



Z057.004.N - 2 pz.
Z057.008.N - 2 pz.

FRESE HW COMPONIBILI PER ANTINE Z=2

ART. E197 - G197 - C197



S Ø 12	S Ø 12,7 (1/2")	S Ø 8	D	B	L
E197.460.R	G197.460.R		46	22	76
		C197.460.R	46	22	70

RICAMBI

Mandrino

S Ø 12	S Ø 12,7 (1/2")	S Ø 8
E117.123.R	G117.123.R	C117.079.R

Fresa profilata	Ø 46	Foro Ø 8	Z=2	Sp.=15
C197.500.R				

Fresa per canale	Ø 46	Foro Ø 8	Z=2	Sp.=4
C188.501.R				



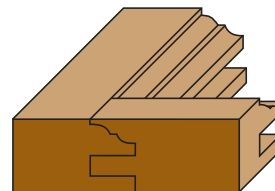
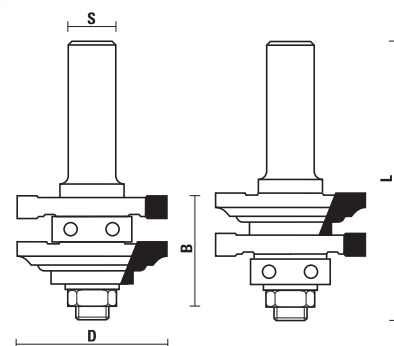
Z050.008.N - 1 pz.



Z057.004.N - 2 pz.
Z057.008.N - 2 pz.

FRESE HW COMPONIBILI PER ANTINE Z=2

ART. E198 - G198 - C198



S Ø 12	S Ø 12,7 (1/2")	S Ø 8	D	B	L
E198.410.R	G198.410.R		41	22	76
		C198.410.R	41	22	70

RICAMBI

Mandrino

S Ø 12	S Ø 12,7 (1/2")	S Ø 8
E117.123.R	G117.123.R	C117.079.R

Fresa profilata	Ø 41	Foro Ø 8	Z=2	Sp.=11
C198.500.R				

Fresa per canale	Ø 41	Foro Ø 8	Z=2	Sp.=6,4
C193.500.R				



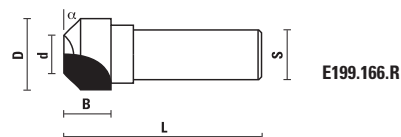
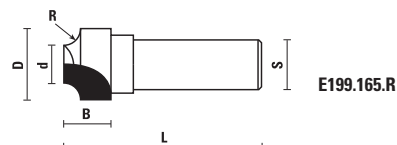
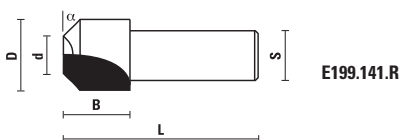
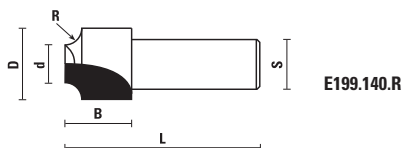
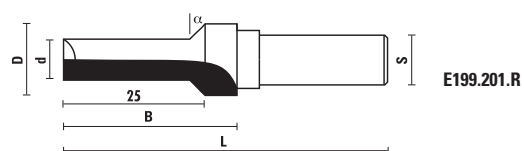
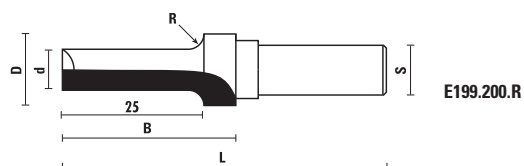
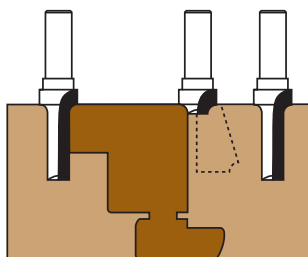
Z050.008.N - 1 pz.



Z057.004.N - 2 pz.
Z057.008.N - 2 pz.

FRESE HW PER INFISSI CURVI Z=2

ART. E199 - G199 - C199

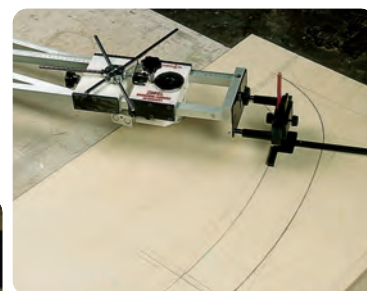


- Da utilizzare su attrezzatura "ARKADE + ZINKEL" o su altre attrezzature simili.
 - Per recupero listello fermavetro
 Vedi Art. T141.061.R (HW) a pag. 7.38
 e Art. U211.061.R (HSS) a pag. 8.08



S Ø 12	S Ø 12,7 (1/2")	S Ø 8	D	d	R	α	B	L
E199.140.R	G199.140.R	C199.140.R	14	6	3		16	46
E199.141.R	G199.141.R	C199.141.R	14	6		45°	16	46
E199.165.R	G199.165.R	C199.165.R	16,5	8,5	3		11	46
E199.166.R	G199.166.R	C199.166.R	16,5	8,5		45°	11	46
E199.200.R	G199.200.R	C199.200.R	20	12	3		33	68
E199.201.R	G199.201.R	C199.201.R	20	12		45°	33	68

"Arkade+Zinkel+Ellix" un attrezzo per tutti gli archi



Vedi capitolo 16 pag. 16.03

SET DI FRESE HW PER ANTINE "TIPO 1"

ART. X021



- Set completo di nr. 2 frese in HW e chiave di servizio.
- Pratica valigetta in plastica.

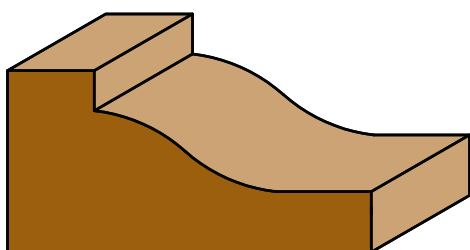
Articolo

X021.012.R (S Ø 12) **NEW** X021.127.R (Ø 12,7 (1/2")) **NEW**

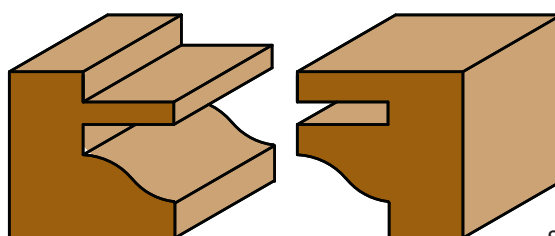
Set composto da 2 pz.: Set composto da 2 pz.:

E178.860.R G178.860.R

E195.460.R G195.460.R



E178.860.R



E195.460.R

Scala 1:1

SET DI FRESE HW PER ANTINE "TIPO 2"

ART. X022



- Set completo di nr. 2 frese in HW e chiave di servizio.
- Pratica valigetta in plastica.

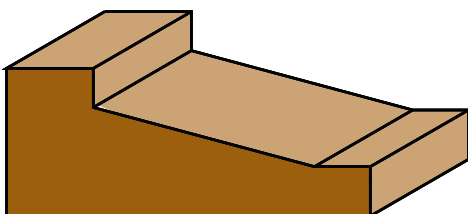
Articolo

X022.012.R (S Ø 12) **NEW** X022.127.R (Ø 12,7 (1/2")) **NEW**

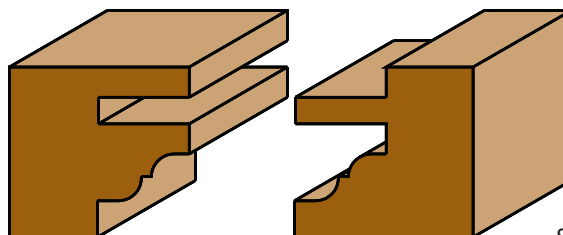
Set composto da 2 pz.: Set composto da 2 pz.:

E178.861.R G178.861.R

E197.460.R G197.460.R



E178.861.R



E197.460.R

Scala 1:1

SET DI FRESE HW PER ANTINE "TIPO 3"

ART. X023



- Set completo di nr. 2 frese in HW e chiave di servizio.
- Pratica valigetta in plastica.

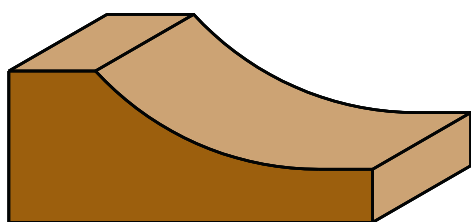
Articolo

X023.012.R (S Ø 12) **NEW** X023.127.R (Ø 12,7 (1/2")) **NEW**

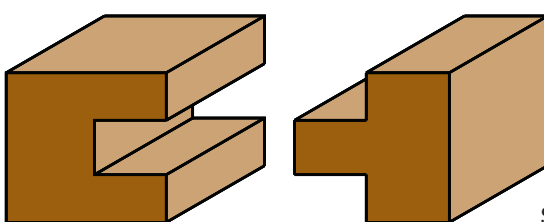
Set composto da 2 pz.: Set composto da 2 pz.:

E178.862.R G178.862.R

E193.410.R G193.410.R



E178.862.R



E193.410.R

Scala 1:1

SET DI FRESE HW PER ANTINE E INCASTRI "TIPO 1"

ART. X024



- Set completo di nr. 3 frese in HW e chiave di servizio.
- Pratica valigetta in plastica.

Articolo

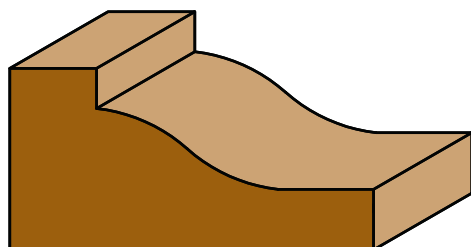
X024.012.R (S Ø 12) **NEW** X024.127.R (Ø 12,7 (1/2")) **NEW**

Set composto da 3 pz.: Set composto da 3 pz.:

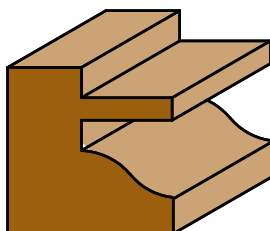
E178.860.R G178.860.R

E195.460.R G195.460.R

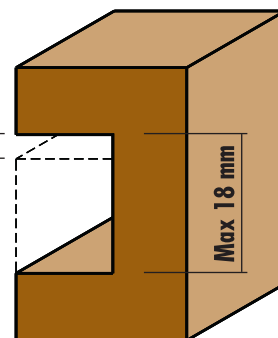
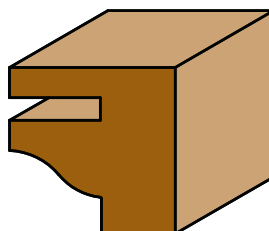
E182.476.R G182.476.R



E178.860.R



E195.460.R



E182.476.R

Scala 1:1

SET DI FRESE HW PER ANTINE E INCASTRI "TIPO 2"

ART. X025



- Set completo di nr. 3 frese in HW e chiave di servizio.
- Pratica valigetta in plastica.

Articolo

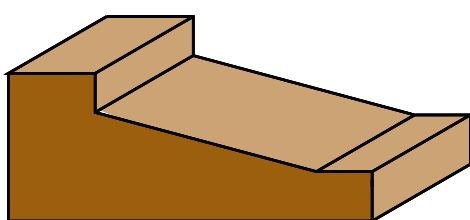
X025.012.R (S Ø 12) **NEW** X025.127.R (Ø 12,7 (1/2")) **NEW**

Set composto da 3 pz.: Set composto da 3 pz.:

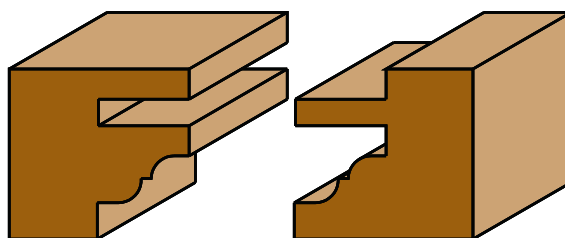
E178.861.R G178.861.R

E197.460.R G197.460.R

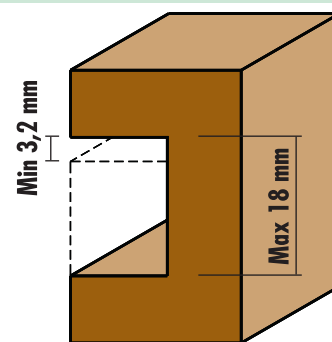
E182.476.R G182.476.R



E178.861.R



E197.460.R



E182.476.R

Scala 1:1

SET DI FRESE HW PER ANTINE E INCASTRI "TIPO 3"

ART. X026



- Set completo di nr. 3 frese in HW e chiave di servizio.
- Pratica valigetta in plastica.

Articolo

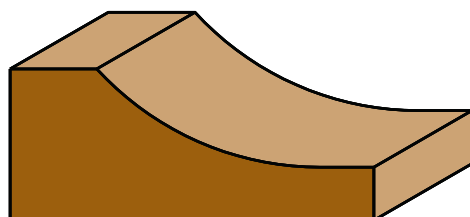
X026.012.R (S Ø 12) **NEW** X026.127.R (Ø 12,7 (1/2")) **NEW**

Set composto da 3 pz.: Set composto da 3 pz.:

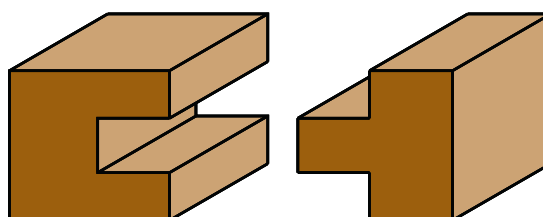
E178.862.R G178.862.R

E193.410.R G193.410.R

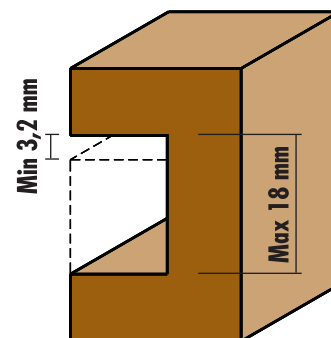
E182.476.R G182.476.R



E178.862.R



E193.410.R



E182.476.R

Scala 1:1

