

# FAY Besserbohrer®















Bormax 2.0

We produce quality tools for a better drilling since 1865!



## With a smiling face!

We recognized that we have to know both traditional wood types as well as new materials of the market. This is the only way to know which products are needed by the market and the user. And exactly this is what it's all about: The user. This includes the craftsmen who want high quality as well as everybody with high expectations regarding a perfect drill result! People who use our tools every day and push these beyond limits, develop almost a friendship with their FAMAG tools. And we want to say 'thank you' for that.



We produce quality tools since more than 150 years in the heart of the 'Bergisches Land', in Remscheid. We produce 'Made in Germany' daily in serial - as well as in custom-made production! We want to develop traditional products the way that these fit the work expectation today. With the knowledge of 152 years we manufactured many tools which are unique. And thanks to that we're proud to say 'FAMAG for a better drilling'



With joy we're able to present the new Bormax 2.0 today.



This is a new generation of the cylindrical head drill geometry. All tools of the Bormax 2.0 family have a new centre drill with a cutting effect thanks to a twisted tip geometry. In the product lines Bormax prima the centre drills are changeable and can be changed into a pilot drill bit or pilot bit.

The new Bormax generation has new circumference cutters with fins which work like cooling fins.





But probably the biggest novelty are the chip breaking grooves on the main cutters. The combination of these novelties provide an even easier and faster drilling with even less heat development than before! The drilling into wood becomes a drill experience! Have we set new standards with the new Bormax 2.0 again? You're deciding — now you're able to drill an 80 mm boring into hard wood with a powerful cordless screwdriver. This is new and it's more than possible that you finish your work with a smilling face...

You don't know exactly which drill to use on the various wood types? Not a problem at all. Just call us, we're glad to answer your call and assist you. Either by our sales colleagues or in difficult applications by our technical department.

Of course we're also able to confirm whether a particular tool is in stock and when your parcel is going to be delivered.

You're not a retailer? No problem. Together we'll find a great retailer close to you and provide you with all details. Of course you can also send us an Email – with answer guarantee! On our homepage you're able to use our product finder which will guide you competent to your right tool. In case you want to get our news and offers regularly, subscribe our newsletter. You can do that easily on our homepage or call us, because we want that you finish your work with a smiling...



The combination of know-how, product innovation and availability and the service of the FAMAG team are parts of our standards for ourselves.



With consciousness we want to differ ourselves from our competitors. Being a little bit better, make the difference, build a delta; being a DELTA F! F like FAMAG.

In the catalogue we marked all products which have a delta to our competitors with the new DELTA F logo. We hope you enjoy the following pages and the search for the DELTA F.

Kind regards,

Thomas Pomp & Ralf Hunke



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**Hand tools** 

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### Info-Blocks



subtle distinction



The description of the tool design



Tool material



Recommended r.p.m. and specific example for the most common diameters



Description of application



Practical advice and specialty of the tool



Packaging unit and information on individual packaging

### **Quality-classivication**

- O quality level hobby reasonable quality tools for the amateur segment
- OO quality level classic for the quality-conscious user
- OOO quality level profi professional tools for the craftsman with high demanding requirements concerning tool and application
- OOOO quality level premium wear-resistant tools of the highest quality level, even for extreme conditions of use

# Abbreviations

OØ outer diameter ΙØ inner diameter SØ shank diameter L length of shank OAL overall length MC main cutters EL effective length SL spiral length W weight teeth Т R radius Z degrees Cutting I. cutting length

**Cutting I.** cutting length **max rpm**. Max. r.p.m.

L1 length of the 1. step

L2 length of the 2. stepD1 core diameterlead/1" no. Of threadsPU packing unit

# **Drills and countersinks for wood**



OOO Profi

Bormax® Forstner bit





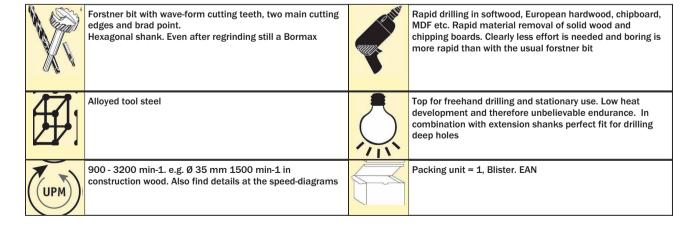








	0-ø	Stem Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	[mm]	€
1622.008	8	6,5	8	90	57	21,10
1622.009	9	7,5	8	90	57	21,10
1622.010	10	8	8	90	57	21,10
1622.011	11	8	8	90	57	21,10
1622.012	12	8	8	90	57	21,10
1622.013	13	8	8	90	57	21,10
1622.014	14	8	8	90	57	21,75
1622.015	15	8	8	90	57	21,30
1622.016	16	8	8	90	57	21,30
1622.017	17	8	8	90	57	23,15
1622.018	18	8	8	90	57	23,15
1622.019	19	8	8	90	57	27,80
1622.020	20	8	8	90	57	23,15
1622.021	21	8	8	90	57	27,80
1622.022	22	10	10	90	57	25,05
1622.023	23	10	10	90	57	25,85
1622.024	24	10	10	90	57	25,85
1622.025	25	10	10	90	57	26,75
1622.026	26	10	10	90	57	26,75
1622.027	27	10	10	90	57	34,50
1622.028	28	12	10	90	57	30,95
1622.029	29	12	10	90	57	37,55
1622.030	30	12	10	90	57	30,95
1622.032	32	12	10	90	57	30,95
1622.033	33	12	10	90	57	37,55
1622.034	34	12	10	90	57	37,55
1622.035	35	12	10	90	57	37,55
1622.036	36	14	10	90	57	43,65
1622.038	38	14	10	90	57	43,65
1622.040	40	14	10	90	57	43,65
1622.042	42	16	10	90	57	57,15
1622.043	43	16	10	90	57	57,15
1622.044	44	16	10	90	57	57,15
1622.045	45	16	10	90	57	57,15
1622.046	46	16	10	90	57	63,40
1622.048	48	16	10	90	57	63,40
1622.049	49	18	10	90	57	92,95
1622.050	50	18	10	90	57	63,40
1622.054	54	18	10	90	57	102,20
1622.055	55	20	13	90	57	92,95
1622.058	58	20	13	90	57	95,35
1622.060	60	20	13	90	57	96,00
Sets						
Order No.	Description					€
1622.505	5 pcs. Set in wo					125,65
1622.606	6 pcs. Set in wo					164,90
1622.570	7 pcs. Set in wo					221,95
1622.508	8 pcs. Set in wo					273,35
1622.515	15 pcs. Set in v 35, 40, 45 and	50 mm			5, 26, 28, 30,	425,65
1622.504	4 pcs. Set in wo	ooden case: Ø 3	35, 40, 45, 50 ı	mm		181,55



Bormax® Forstner bit













	O-Ø	AØ	Stem Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[Inch]	[mm]	[mm]	[mm]	[mm]	€
1622.215	9,53	3/8	8	8	90	57	23,45
1622.217	12,7	1/2	8	8	90	57	23,45
1622.219	15,88	5/8	8	8	90	57	23,45
1622.220	17,46	11/16	8	8	90	57	25,45
1622.221	19,05	3/4	8	8	90	57	25,45
1622.222	20,64	13/16	8	8	90	57	30,60
1622.223	22,23	7/8	10	10	90	57	27,60
1622.224	23,81	15/16	10	10	90	57	28,35
1622.225	25,4	1	10	10	90	57	29,50
1622.226	26,99	1 1/16	10	10	90	57	34,50
1622.227	28,58	1 1/8	12	10	90	57	41,25
1622.228	30,16	1 3/16	12	10	90	57	34,05
1622.229	31,75	1 1/4	12	10	90	57	34,05
1622.230	33,34	1 5/16	12	10	90	57	41,25
1622.231	34,93	13/8	12	10	90	57	37,55
1622.233	38,1	1 1/2	14	10	90	57	48,05
1622.235	41,28	15/8	14	10	90	57	62,90
1622.237	44,45	13/4	16	10	90	57	62,90
1622.239	47,63	17/8	16	10	90	57	69,75
1622.241	50,8	2	18	10	90	57	69,75
1622.243	53,98	2 1/8	18	10	90	57	102,20
1622.245	57,15	2 1/4	20	13	90	57	105,60

Sets	
Order	ľ

ler No.	Description

1622.605 5 pcs. Set in wooden case. Ø 5/8, 3/4, 1, 1 1/8, 1 3/8 INCH 1622.607

7 pcs. Set in wooden case. Ø 1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1 INCH 16 pcs. Set in wooden case. Ø 1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1, 1 1

1/8, 1 1/4, 1 3/8, 1 7/8, 2, 2 1/8 INCH 647,8  Rapid drilling in softwood, European hardwood, chipboard,						
1/8, 1 1/4, 1 3/8, 1 7/8, 2, 2 1/8 INCH 647,80						
Н		156,05				
		156,05				
		C				



Forstner bit with wave-form cutting teeth, two main cutting edges and brad point.

Even after regrinding still a Bormax



MDF etc. Rapid material removal of solid wood and chipping boards. Clearly less effort is needed and boring is more rapid than with the usual forstner bit



Alloyed tool steel



Top for freehand drilling and stationary use. Low heat development and therefore unbelievably endurant



900 - 3200 min-1. e.g. Ø 1 inch 2200 min-1 in construction wood. Also find details at the speed-diagrams



Packing unit = 1, Blister. EAN



Rormax® Forstner bit long version











	0-Ø	AØ	Stem Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[Inch]	[mm]	[mm]	[mm]	[mm]	€
1623.010	10		8	13	120	70	28,75
1623.012	12		8	13	120	70	28,75
1623.013	13		8	13	125	75	28,75
1623.014	14		8	13	125	75	28,75
1623.015	15		8	13	125	75	26,75
1623.016	16		8	13	125	75	29,20
1623.018	18		8	13	130	80	31,25
1623.019	19		8	13	130	80	33,00
1623.020	20		8	13	130	80	31,25
1623.021	21		8	13	130	80	33,00
1623.022	22		13	13	130	80	31,70
1623.024	24		13	13	135	85	32,70
1623.025	25		13	13	135	85	33,00
1623.225	25,40	1"	13	13	135	85	37,58
1623.026	26		13	13	135	85	36,15
1623.027	27		13	13	135	85	40,95
1623.028	28		13	13	135	85	37,60
1623.030	30		13	13	140	90	38,35
1623.229	31,75	1 1/4"	14	13	140	90	43,68
1623.032	32		14	13	140	90	40,95
1623.034	34		14	13	140	90	49,20
1623.035	35		14	13	145	95	44,35
1623.036	36		14	13	145	95	48,50
1623.037	37		14	13	145	95	52,95
1623.038	38		16	13	145	95	52,95
1623.233	38,10	1 1/2"	16	13	145	95	60,26
1623.040	40		16	13	145	95	52,95

	Long Forstner bit with wave-form cutting teeth, two main cutting edges and brad point. Hexagonal shank. Even after regrinding still a Bormax	Rapid drilling in softwood, European hardwood, chipboard, MDF etc. Rapid material removal of solid wood and chipping boards. Clearly less effort is needed and boring is faster than with the usual forstner bit
倒	Alloyed tool steel	Top for freehand drilling and stationary use. Low heat development and therefore unbelievable endurance. In combination with extension shanks perfect fit for drilling deep holes. For bigger diameters we recommend line 1614 Bormax® 2.0 tool steel prima long
UPM	900 - 3200 min-1. e.g. Ø 30 mm 1750 min-1 in softwood. Also find details at the speed diagrams	Packing unit = 1. Yellow cardboard tube. EAN

Pilot guided Bormax®













	O-Ø	Stem Ø	S-Ø	OAL	Cutting I.					
Order No.	[mm]	[mm]	[mm]	[mm]	[mm]	HS	€			
1624.015	15	10	10	90	57	1	29,95			
1624.016	16	10	10	90	57	1	29,95			
1624.162	16,2	10	10	90	57	1	31,95			
1624.018	18	10	10	90	57	1	31,95			
1624.020	20	10	10	90	57	1	31,95			
1624.022	22	10	10	90	57	2	33,95			
1624.025	25	10	10	90	57	2	35,55			
1624.030	30	12	10	90	57	2	39,75			
1624.035	35	12	10	90	57	2	46,35			
1624.040	40	14	10	90	57	2	52,50			
1624.045	45	16	10	90	57	2	66,95			
1624.050	50	18	10	90	57	2	72,25			
Accessory										
,		0-Ø	S-Ø	OAL	Cutting I.	PU				
Order No.	Description	[mm]	[mm]	[mm]	[mm]	[pcs]	€			
1624.004	pre-drill bit	4	4	45	30	1	3,60			
1624.104	pre-drill bit (PU 4)	4	4	45	30	4	12,95			
Sets	,						,			
Order No.	Description						€			
1624.505	5 pcs. Set in wooden c	asa 0 15 20 25 30	and 35 mm				165,20			
1624.506	6 pcs. Set in wooden c			ion shank 1639 001			185,30			
1624.507	7 pcs. Set in wooden c			ion shank 1000.001			147,05			
1624.606	6 pcs. Set in wooden c	, , ,					212,45			
1624.570	7 pcs. Set in wooden c			•			277,50			
1624.508	8 pcs. Set in wooden c						337,75			
1624.504		, , ,					214,25			
1027.004	+ pos. set in wooden c	asc. & ss, 40, 45 an	4 pcs. Set in wooden case: Ø 35, 40, 45 and 50 mm							

1	A Gennil
	X
	W 18

Bormax with exchangeable brad point, also a pre-drill bit. Included in the delivery: Bormax with exchangeable brad point/pr-drill bit, center point, pre-drill Ø 4 mm and one MEX Key. Hexagonal shank



The pilot-drill bit is ideal for drilling at an angle which is not  $90^{\circ}$  in workpieces surface, which occures for example in the construction of staircase. Can be used with the centre point as traditional Bormax.



Alloyed tool steel, pre-drill bit HSS-G



Clean drilling at many angles in all softwoods, European hardwood, and MDF panels. Very good alternative to the expensive machine drill for stairs building article 1575. In combination with extension shanks perfect fit for drilling deep holes.



1500 - 3000 min-1. e.g. Ø 20 mm 2400 min-1 in softwood. Also find details at the speed-diagrams



Packing unit = 1. PE tube. EAN

OOO Profi

Bormax® 2.0 WS prima\_long (Special Counterhore)











	0-Ø	AØ	Stem Ø	S-Ø	I-Ø	OAL	NL	
Order No.	[mm]	[Inch]	[mm]	[mm]	[mm]	[mm]	[mm]	€
1614.020	20		13	13	8	140	90	75,55
1614.025	25		13	13	8	140	90	78,60
1614.030	30		14	13	8	140	90	87,00
1614.032	32		14	13	8	140	90	90,90
1614.035	35		16	13	8	145	95	90,90
1614.040	40		20	13	8	145	95	99,00
1614.237	44,45	13/4"	20	13	10	150	100	105,00
1614.045	45		20	13	10	150	100	105,00
1614.050	50		20	13	10	150	100	110,15
1614.241	50,80	2"	20	13	10	150	100	110,15
1614.243	53,98	2 1/8"	20	13	10	150	100	119,95
1614.055	55		20	13	10	150	100	110,15
1614.245	57,15	2 1/4"	20	13	10	150	100	119,95
1614.058	58		20	13	10	150	100	119,95
1614.060	60		20	13	10	150	100	119,95
1614.247	60,33	2 3/8"	20	13	10	155	105	139,95
1614.249	63,50	2 1/2"	20	13	10	155	105	149,95
1614.065	65		20	13	10	155	105	139,95
1614.251	66,68	2 5/8"	20	13	10	155	105	149,95
1614.068	68		20	13	10	155	105	149,95
1614.253	69,85	2 3/4"	20	13	10	155	105	149,95
1614.070	70	0 = (0)	20	13	10	155	105	149,95
1614.255	73,03	2 7/8"	20	13	10	155	105	179,95
1614.075	75	0.11	20	13	10	155	105	179,95
1614.257	76,20	3"	20	13	10	155	105	179,95
1614.080	80		20	13	10	155	105	179,95
1614.085	85	2.4 /01	20	13	10	160	110	224,95
1614.261	88,90 90	3 1/2"	20 20	16 16	10 10	160 160	110 110	224,95 224,95
1614.090 1614.095	95		24	16	10	160	110	279,95
1614.100	100		24	16	10	160	110	279,95
1614.265	101,60	4"	24	16	10	160	110	279,95
1614.110	110	-	25	16	10	160	110	324,95
1614.110	120		25	16	10	160	110	324,95
	120		23	10	10	100	110	324,33
Accessory								_
Order No.	Description			. 0				€
1619.208		,	mm shank					16,85
1619.210			mm shank					16,85
1614.208 1614.210			for Ø 20 -					16,85
	nss pre ur	ווו טב ש ווו	n for Ø 44,4	+5 - 120 II	IIII			16,85
Sets								
Order No.	Description							€
1614.509			na Set with		p, 1614: 5	0, 60, 70 n	nm. 1619:	438,30
4044540			1K2 fix ada		4044 40	F0.00	44400	404.55
1614.510			na & auger	arııı set: :	1014: 40,	50, 60 mn	1, 1410.3	404,55
1614 544	and 1619:	, , -		duill aat	1614.40	E0 60	1/102	414.00
1614.511			na & auger	uriii set: :	1014: 40,	ou, ou mn	1, 1410.3	411,80
	and 1619:	12, 10, 20	HIIII					



Bormax® 2.0 WS prima with exchangeable predrill or guiding pin. Much less feed forces needed as well as minimized friction and therefore less heat generation. Reasons: The two main cutting edges are grooved shifted, as well as the toothed linear grooved pre-cutters.A matching center drill and a hex wrench are included in the delivery. Hexagonal shank for a better power transmission.



Perfect fit for slanting drills with our pre-drill or guiding pins 1471/1619.

Clean drills in all soft woods, european hard wood, chipboard and MDF.



Alloyed tool steel



We recommend our Bormax® 2.0 WS prima (pilot guided) with matching extension for smaller diameter (1624 & 1639)



300 - 800 min-1, for example Ø 60 mm 500 min-1 in laminated timber. Please see also "info´s"



packing unit = 1. Yellow cardboard tube (Ø 100 mm max.) > 100 mm in cardboard.





















	0-Ø	SØ	OAL	NL	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1619.008	8	8	75	50	16,85
1619.110	10	8	75	50	16,85
1619.112	12	8	75	50	18,35
1619.113	13	8	75	50	18,50
1619.114	14	8	75	50	18,50
1619.116	16	8	75	50	19,65
1619.118	18	8	75	50	20,55
1619.120	20	8	75	50	21,45
1619.122	22	8	75	50	25,10
Pilot bit for Bo	rmax prima long	from Ø 44,45 mm			
	0-Ø	SØ	OAL	NL	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1610 010	10	10	75	EO	16 05

Phot bit for Borniax prima long from \$2.44,45 min										
		0-Ø	SØ	OAL	NL					
	Order No.	[mm]	[mm]	[mm]	[mm]	€				
	1619.010	10	10	75	50	16,85				
	1619.012	12	10	75	50	18,35				
	1619.013	13	10	75	50	18,50				
	1619.014	14	10	75	50	18,50				
	1619.016	16	10	75	50	19,65				
	1619.017	17	10	75	50	20,50				
	1619.018	18	10	75	50	20,55				
	1619.020	20	10	75	50	21,45				
	1619.022	22	10	75	50	25,10				
	1619.026	26	10	75	50	26,30				
	1619.032	32	10	75	50	28,45				
	centre bit for Bormax primal long									
	Order No.	Description				€				
	1619.208	HSS centre drill Ø 3,8 mm shank 8 mm								
	1619.210	HSS centre drill Ø 4,0 mm shank 10 mm								
	pre drill for l	Bormax primal long								
١	Order No.	. •								
,	1614.208	HSS pre drill Ø 8 mm for Ø 20 - 40 mm								
	1614.210	HSS pre drill Ø 10	mm for Ø 44,45 - 1	.20 mm		16,85				
	Order No.	Description				€				
	1619.100	depth stop for drill	Ø 40 - 90 mm			115,10				
	1010.100	acptil stop for affil	D 40 30 IIIII			±±0,±0				

	Stepped dowel pin with shank of 8 or 10 mm x 25 mm	and a little	For the use of counterbore 1614 or 1618. Ensures the good guidance of the counterbore tools
倒	Tool steel		Ground slightly undersized so that easy working is ensured.
UPM	please see drill range 1614 and 1619	A	Packing unit = 1. Rose-tube. EAN













	O-Ø	AØ	Stem Ø	S-Ø	OAL	Cutting I.		
Order No.	[mm]	[Inch]	[mm]	[mm]	[mm]	[mm]	HS	€
1663.015	15		8	8	90	57	1	57,60
1663.219	15,88	5/8	8	8	90	57	1	59,50
1663.016	16		8	8	90	57	1	59,15
1663.018	18		8	8	90	57	1	59,15
1663.019	19		8	8	90	57	1	59,15
1663.221	19,05	3/4	8	8	90	57	1	59,15
1663.020	20		8	8	90	57	1	59,15
1663.022	22		10	10	90	57	1	60,75
1663.223	22,23	7/8	10	10	90	57	1	60,75
1663.023	23		10	10	90	57	1	60,75
1663.024	24		10	10	90	57	1	60,75
1663.025	25		10	10	90	57	2	60,75
1663.225	25,4	1	10	10	90	57	2	62,35
1663.026	26		10	10	90	57	2	60,75
1663.028	28		12	10	90	57	2	62,35
1663.227	28,58	1 1/8	12	10	90	57	2	65,25
1663.030	30		12	10	90	57	2	62,35
1663.229	31,75	1 1/4	12	10	90	57	2	62,35
1663.032	32		12	10	90	57	2	62,35
1663.231	34,93	13/8	12	10	90	57	2	65,20
1663.035	35		12	10	90	57	2	65,25
1663.038	38		14	10	90	57	2	77,45
1663.233	38,10	1 1/2	14	10	90	57	2	77,45
1663.040	40		14	10	90	57	2	77,45
1663.044	44		16	10	90	57	2	106,45
1663.237	44,45	13/4	16	10	90	57	2	114,55
1663.045	45		16	10	90	57	2	99,95
1663.050	50		18	10	90	57	2	114,55
1663.241	50,80	2	18	10	90	57	2	126,00
1663.243	53,98	2 1/8	18	10	90	57	2	150,05
1663.054	54		18	10	90	57	2	150,05
1663.060	60		20	13	90	57	2	159,95

Sets	
Order No. Description €	)
1663.505 5 pcs. Set in wooden case. Ø 15, 20, 25, 30 and 35 mm	4,50
1663.606 6 pcs. Set in wooden case. Ø 15, 20, 25, 30, 35 and 40 mm	14,20
1663.570 7 pcs. Set in wooden case. Ø 15, 20, 25, 30, 35, 40 and 50 mm	17,25
1663.508 8 pcs. Set in wooden case. Ø 15, 20, 25, 30, 35, 40, 45 and 50 mm 53	36,90
1663.504 4 pcs. Set in wooden case: Ø 35, 40, 45, 50 mm	21,30

No.		4
-	17	

The first carbide tipped Forstner bit with brad point, carbidetipped main cutting edge and carbide-tipped wave-form cutting teeth. Hexagonal shank



Freehand drilling to all types of wood: soft and hard wood, European and exotic (also bongossi), MDF, panel materials, also laminated materials and many plastics



High quality carbide tipping of the main cutting edge and roughing tap



Truely the first universal carbide tipped drill for freehand drilling and of course also for stationary use. In combination with extension shanks perfect fit for drilling deep holes



1800 - 5000 min-1. e.g. Ø 35 mm 3000 min-1 in euro. hardwood. Also find details at the speed-diagrams



Packing unit = 1, Blister. EAN

355,40

554,65

622,65

927,30









	0-ø	Stem Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	[mm]	€
1662.008	8	7	10	90	57	49,60
1662.010	10	8	10	90	57	49,60
1662.011	11	8	10	90	57	52,80
1662.012	12	8	10	90	57	52,80
1662.013	13	8	10	90	57	59,50
1662.014	14	10	10	90	57	59,50
1662.015	15	10	10	90	57	59,50
1662.016	16	10	10	90	57	61,10
1662.017	17	10	10	90	57	61,10
1662.018	18	10	10	90	57	61,10
1662.019	19	10	10	90	57	61,10
1662.020	20	10	10	90	57	61,10
1662.021	21	10	10	90	57	62,75
1662.022	22	10	10	90	57	62,75
1662.023	23	10	10	90	57	62,75
1662.024	24	10	10	90	57	62,75
1662.025	25	12	10	90	57	62,75
1662.026	26	12	10	90	57	62,75
1662.027	27	13	10	90	57	80,65
1662.028	28	13	10	90	57	64,40
1662.029	29	13	10	90	57	80,65
1662.030	30	13	10	90	57	64,40
1662.031	31	13	10	90	57	84,50
1662.032	32	14	10	90	57	67,40
1662.033	33	14	10	90	57	92,90
1662.034	34	14	10	90	57	67,40
1662.035	35	14	10	90	57	67,40
1662.036	36	14	10	90	57	67,40
1662.037	37	14	10	90	57	99,75
1662.038	38	14	10	90	57	80,00
1662.039	39	16	10	90	57	99,75
1662.040	40	16	10	90	57	80,00
1662.042	42	18	10	90	57	100,30
1662.043	43	18	10	90	57	109,95
1662.044	44	18	10	90	57	109,95
1662.045	45	18	10	90	57	103,20
1662.046	46	18	10	90	57	119,80
1662.048	48	18	10	90	57	124,30
1662.050	50	18	10	90	57	118,30
1662.055	55	18	13	90	57	140,40
1662.058	58	18	13	90	57	159,65
1662.060	60	18	13	90	57	165,20
Sets						
Order No.	Description					€
1662.505	5 pcs. Set in wo	oden case. Ø 1	5, 20, 25, 30	and 35 mm		283,45
1662 606	6 ncs Set in w				,	355.40

6 pcs. Set in wooden case. Ø 15, 20, 25, 30, 35 and 40 mm 8 pcs. Set in wooden case. Ø 15, 20, 25, 30, 35, 40, 45 and 50 mm

10 pcs. Set in wooden case. Ø 10, 15, 18, 20, 22, 25, 26, 30, 35 and 40

15 pcs. Set in wooden case. Ø 10, 12, 15, 16, 18, 20, 22, 25, 26, 30, 35,

	Carbide tipped with brad point, 2 main edges, 2 roughing taps. Precisely ground by diamond wheel on CNC machines. High quality carbide tipping and special waved grinding (> $\emptyset$ 23 mm) on the main edges.	Tear free accurate holes in all types of hardwood, plastic coated chipboards and plastics. Very good material removal due to the waved ground main edges. For stationary use
倒	High quality carbide tipping	Boring with nearly no effort, also unbelievable endurance when used for hardwood and hard plastics. For freehand drilling we recommend the TCT-Bormax³ (product line 1663)
(UPM)	1500 - 8000 min-1. e.g. Ø 35 mm 3000 min-1 in euro. hardwood. Also find details at the speed-diagrams	Packing unit = 1. Rose-tube (up to Ø 55 mm) . EAN

40, 45 and 50 mm

1662.606 1662.508

1662.510

1662.515

SUPER-Cylinder Boring bit, carbide-tipped, long version,

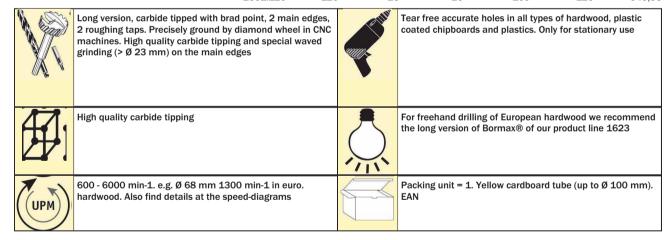








	0-Ø	Stem Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	[mm]	€
1661.010	10	8	13	140	90	75,30
1661.012	12	8	13	140	90	75,30
1661.014	14	8	13	140	110	76,40
1661.015	15	8	13	140	110	76,40
1661.016	16	8	13	140	110	78,40
1661.018	18	8	13	140	110	79,25
1661.020	20	8	13	140	110	82,45
1661.022	22	10	13	140	110	84,55
1661.024	24	10	13	140	110	88,55
1661.025	25	10	13	140	110	90,60
1661.026	26	10	13	140	110	91,55
1661.028	28	13	13	140	110	96,70
1661.030	30	13	13	140	110	98,75
1661.032	32	13	13	140	110	104,10
1661.035	35	16	13	140	110	117,50
1661.036	36	16	13	140	110	124,55
1661.038	38	16	13	140	110	126,10
1661.040	40	16	13	140	110	131,90
1661.042	42	16	16	140	110	144,70
1661.045	45	16	16	140	110	149,25
1661.050	50	18	16	140	110	168,00
1661.055	55	18	16	140	110	194,45
1661.058	58	18	16	140	110	206,70
1661.060	60	18	16	140	120	214,00
1661.065	65	18	16	140	120	229,00
1661.068	68	20	16	140	120	303,05
1661.070	70	20	16	140	120	303,05
1661.075	75	20	16	160	120	354,50
1661.080	80	20	16	160	120	391,95
1661.085	85	20	16	160	120	459,25
1661.090	90	25	20	160	120	501,30
1661.095	95	25	20	160	120	549,45
1661.100	100	25	20	160	120	581,85
1661.120	120	25	20	160	120	949,95







OO Classic





	0-Ø	AØ	Stem Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[Inch]	[mm]	[mm]	[mm]	[mm]	€
1630.213	6,35	1/4"	4,5	8	90	57	17,05
1630.214	7,94	5/16"	8	8	90	57	17,05
1630.215	9,53	3/8"	8	8	90	57	17,05
1630.010	10	,	8	8	90	57	15,05
1630.012	12		8	8	90	57	15,50
1630.217	12,70	1/2"	8	8	90	57	17,90
1630.014	14		8	8	90	57	16,20
1630.015	15		8	8	90	57	16,80
1630.219	15,88	5/8"	8	8	90	57	18,50
1630.016	16		8	8	90	57	16,85
1630.018	18		8	8	90	57	17,95
1630.221	19,05	3/4"	8	8	90	57	20,80
1630.020	20		8	8	90	57	18,80
1630.022	22		10	10	90	57	20,25
1630.223	22,23	7/8"	10	10	90	57	22,35
1630.024	24		10	10	90	57	21,45
1630.025	25		10	10	90	57	22,75
1630.225	25,40	1"	10	10	90	57	25,10
1630.026	26		10	10	90	57	23,75
1630.028	28		12	10	90	57	26,30
1630.227	28,58	1 1/8"	12	10	90	57	29,00
1630.030	30		12	10	90	57	26,85
1630.229	31,75	1 1/4"	12	10	90	57	32,90
1630.032	32		12	10	90	57	29,95
1630.034	34		12	10	90	57	31,30
1630.231	34,93	1 3/8"	12	10	90	57	32,50
1630.035	35		12	10	90	57	32,50
1630.038	38		14	10	90	57	35,60
1630.233	38,10	1 1/2"	14	10	90	57	35,55
1630.040	40		14	10	90	57	38,95
1630.235	41,28	1 5/8"	14	10	90	57	52,25
1630.237	44,45	1 3/4"	16	10	90	57	52,25
1630.045	45		16	10	90	57	47,50
1630.239	47,63	17/8"	16	10	90	57	52,25
1630.050	50		18	10	90	57	51,40
1630.241	50,80	2"	18	10	90	57	56,50
1630.243	53,98	2 1/8"	18	10	90	57	82,90
1630.245	57,15	2 1/4"	20	10	90	57	85,55
Sets							
Order No.	Description						€
1630.505	5 pcs. Set in	wooden cas	e. Ø 15, 20, 2	25, 30 and 3	85 mm		105,80
1630.508	8 pcs. Set in	wooden cas	e. Ø 15, 20, 2	25, 30, 35, 4	10, 45 and 5	i0 mm	229,75
1630.510	10 pcs. Set i	n wooden ca	se. Ø 10, 15,	18, 20, 22,	25, 26, 30,	35 and 40	233,65
1630.515	15 pcs. Set i	n wooden ca	se. Ø 10, 12,	15, 16, 18,	20, 22, 25,	26, 28, 30,	351,55
	35, 40, 45 a						
1630.607			e. Ø 1/4, 3/8		, , , ,		124,60
1630.616			se. Ø 1/4, 3/		, 3/4, 7/8, 1	1, 1 1/8, 1	513,80
	1/4, 1 3/8,	1 1/2, 1 5/8	, 1 3/4, 1 7/	8, 2, 2 1/8"			

	Traditional forstner bit with brad point, two main cutting edges and circumference cutter. Low friction due to the reduced perpheral cutting edge.	and a little	Tear free accurate holes in softwood, glued laminated timber etc. Specially suitable for freehand boring with a drilling machine
倒	Alloyed tool steel		This bit obtained the first position in an important test of Forstner bits in the E.E.U.U. published in "Fine Woodworking 04.2008". For hardwood we recommend the rapid forstner bit Bormax® of our product line 1622 or the TCT-Bormax³ of our product line 1663
UPM	700 - 2800 min-1. e.g. Ø 35 mm 1000 min-1 in softwood. Also find details at the speed-diagrams	A	Packing unit = 1. Rose-tube. EAN

OO Classic





	O-Ø	Stem Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	[mm]	€
1633.010	10	8	8	90	57	15,05
1633.012	12	8	8	90	57	15,50
1633.014	14	8	8	90	57	16,20
1633.015	15	8	8	90	57	16,80
1633.016	16	8	8	90	57	16,85
1633.018	18	8	8	90	57	17,95
1633.020	20	8	8	90	57	18,80
1633.022	22	10	10	90	57	20,25
1633.023	23	10	10	90	57	21,45
1633.024	24	10	10	90	57	21,45
1633.025	25	10	10	90	57	22,75
1633.026	26	10	10	90	57	23,75
1633.028	28	12	10	90	57	26,30
1633.030	30	12	10	90	57	26,85
1633.032	32	12	10	90	57	29,95
1633.034	34	12	10	90	57	31,30
1633.035	35	12	10	90	57	32,50
1633.040	40	14	10	90	57	38,95
1633.045	45	16	10	90	57	47,50
1633.050	50	18	10	90	57	51,40

		-			 ,
Sets					
Order No.	Description				€
1633.505	5 pcs. Set in wooden case. Ø 15, 20, 2	5, 30 and 35 mm			105,80
1633.510	10 pcs. Set in wooden case. Ø 10, 15,	18, 20, 22, 25, 26, 30,	35 and 40 mm		210,00
1633.515	15 pcs. Set in wooden case. Ø 10, 12,	15, 16, 18, 20, 22, 25,	26, 28, 30, 35, 40, 45 and	1 50 mm	351,55

Traditional SUPER-Cylinder Boring bit with brad point, 2 main edges and 2 cutting lips. Exact grinding, right-hand cut, grey	Tear free accurate holes in softwood, can also be used for European hardwood and veneered boards. Especially easy to resharpen due to the straight cutting lips. Stationary deep-hole drilling is possible with our extension shank 1639.
Alloyed tool steel	Cylinder Boring bits are only suitable for stationary operation. For freehand drilling we recommend our rapid forstner bit Bormax 1622 or the TCT-Bormax³ 1663.
700 - 3000 min-1. e.g. Ø 15 mm 2300 min-1 in softwood. Also find details at the speed-diagrams	Packing unit = 1. Rose-tube. EAN

OOO Profi

Depth Stop supported by ball bearing for FAMAG-Forstner bits 1622, 1630, 1663







	A MARKET	
Order No.	Description	€
1621.108	Depth Stop for 1622, 1630, 1663, Drills-Ø 10 - 21 mm	40,25
1621.110	Depth Stop for 1622, 1630, 1663, Drills-Ø 28 - 35 mm	40,25
1621.112	Depth Stop for 1622, 1630, 1663, Drills-Ø 28 - 35 mm	40,25
1621.114	Depth Stop for 1622, 1630, 1663, Drills-Ø 36 - 40 mm	40,25
1621.116	Depth Stop for 1622, 1630, 1663, Drills-Ø 42 - 48 mm	40,25
Sets		
Order No.	Description	€
1621.200	Depth Stop Set for 1622,1630,1633, for drills-Ø 10 - 48 mm, incl a nipper	103,20
Accessory		
Order No.	Description	€
1621.100	Depth Stop single for 1622, 1630, 1663	26,85
1621.001	Nipper for locking ring	17,55
1621.008	Guide bush I-Ø 8 mm for 1621.100	13,45
1621.010	Guide bush I-Ø 10 mm for 1621.100	13,45
1621.012	Guide bush I-Ø 12 mm for 1621.100	13,45
1621.014	Guide bush I-Ø 14 mm for 1621.100	13,45
1621.016	Guide bush I-Ø 16 mm for 1621.100	13,45
N AST	Depth Stop supported by ball bearing for FAMAG-Forstner  The depth stop is mounted on the stalk and the drilling for FAMAG-Forstner	ng

	bits with exchangeable guide bushings	depth is adjusted, so it is possible to drill holes always exactly at the same depth. The bushings are rotatably supported by ball-bearings and thus produce no disturbing marks on the workpiece surface.
倒	Depth Stop made of resistant ABS plastic, guide bushing made of steel	For larger depths, it is possible to mount the guide bushing in reverse form, so you can reach a larger adjustment of the depth stop.
UPM	see speed of Forstner bit	Packing unit = 1 piece in Rose-box



S-Ø

[mm]

4,8

10,30



Classic

	O-Ø	AØ	S-Ø	I-Ø	IØ	OAL	Cutting I.	
Order No.	[mm]	[Inch]	[mm]	[mm]	[Inch]	[mm]	[mm]	€
1010.025	25,4	1	12,7	4,8	3/16	150	120	67,10
1010.029	28,6	1 1/8	12,7	4,8	3/16	150	120	67,10
1010.032	31,8	1 1/4	12,7	4,8	3/16	150	120	67,10
1010.035	35,0	13/8	12,7	4,8	3/16	150	120	67,10
1010.038	38,1	1 1/2	12,7	4,8	3/16	150	120	67,10
1010.041	41,3	15/8	12,7	4,8	3/16	150	120	76,80
1010.044	44,5	13/4	12,7	6,3	1/4	150	120	76,80
1010.051	50,8	2	12,7	6,3	1/4	150	120	76,80
1010.054	54,0	2 1/8	12,7	6,3	1/4	150	120	83,50
1010.057	57,2	2 1/4	12,7	6,3	1/4	150	120	83,50
1010.065	65,1	2 9/16	12,7	6,3	1/4	150	120	96,25
1010.068	68,0	-	12,7	6,3	1/4	150	120	99,85
1010.074	74,0	-	12,7	6,3	1/4	150	120	115,55
Extensions								

Extensions							
	O-Ø	S-Ø	I-Ø	ΙØ	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[Inch]	[mm]	[mm]	€
1639.005	22	13	12,7	1/2	125	100	26,60
1639.006	22	13	12,7	1/2	250	220	30,15
1639.008	22	13	12,7	1/2	400	360	43,50
crest of threa	nd						

ΑØ

[Inch]

3/16

1010.903	6,3	1/	4	6,3	10,30			
dowel pin with shank dia 4.8mm								
	O-Ø	S-Ø	OAL	Cutting I.				
Order No.	[mm]	[mm]	[mm]	[mm]	€			
1010.810	10	4,8	68	25	29,90			
1010.811	11	4,8	68	25	29,90			
1010.812	12	4,8	68	25	29,90			
1010.813	13	4,8	68	25	29,90			
1010.814	14	4,8	68	25	29,90			
1010.815	15	4,8	68	25	29,90			
1010.816	16	4,8	68	25	29,90			
1010.818	18	4,8	68	25	29,90			
1010.820	20	4,8	68	25	29,90			
1010.822	22	4,8	68	25	29,90			

1010.820	20	4,8	68	25	29,90				
1010.822	22	4,8	68	25	29,90				
dowel pin with shank dia 6.3mm									
	O-Ø	S-Ø	OAL	Cutting I.					
Order No.	[mm]	[mm]	[mm]	[mm]	€				
1010.910	10	6,3	68	25	29,90				
1010.911	11	6,3	68	25	29,90				
1010.912	12	6,3	68	25	29,90				
1010.913	13	6,3	68	25	29,90				
1010.914	14	6,3	68	25	29,90				
1010.915	15	6,3	68	25	29,90				
1010.916	16	6,3	68	25	29,90				
1010.918	18	6,3	68	25	29,90				
1010.920	20	6,3	68	25	29,90				
1010.922	22	6,3	68	25	29,90				



Drill bit with 1 main edge, roughly toothed circumference cutter and changeable dowel pin and brad point. Shank with three clamping surfaces. One rough and one fine screw threading centre point included.



0-Ø

[mm]

4,8

Order No.

1010.803

For roughly boring into wooden floor boards, the ceilings of old buildings, gypsum plaster boards etc. in freehand drilling. Using the dowel pin it is also possible to countersink plugs



Tool steel



The speed of the machine gives the speed of the feed. No feed force required, this is great for overhead work.



500 - 1100 min-1. e.g. Ø 68 mm 500 min-1 in softwood. Also find details at the speed-diagrams



Packing unit = 1. Yellow cardboard tube. EAN

OOO Profi 1616

Disc + Plug Cutter









	I-Ø	S-Ø	0-Ø		OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	AZ	[mm]	[mm]	€
1616.006	6	13	16	4	140	70	72,25
1616.008	8	13	18	4	140	70	72,25
1616.009	9	13	19	4	140	70	85,10
1616.010	10	13	20	4	140	70	59,10
1616.011	11	13	21	4	140	70	85,10
1616.012	12	13	22	4	140	70	64,00
1616.013	13	13	23	4	140	70	85,10
1616.014	14	13	24	4	140	70	64,00
1616.015	15	13	25	4	140	70	64,00
1616.016	16	13	26	4	140	70	68,70
1616.018	18	13	28	4	140	70	68,70
1616.020	20	13	30	4	140	70	68,70
1616.022	22	13	32	4	140	70	76,40
1616.024	24	13	36	5	140	70	100,70
1616.025	25	13	37	5	140	70	76,60
1616.026	26	13	38	5	140	70	111,50
1616.028	28	13	40	5	140	70	111,50
1616.030	30	13	42	5	140	70	83,60
1616.032	32	13	44	5	140	70	128,00
1616.034	34	13	48	6	140	70	128,00
1616.035	35	13	49	6	140	70	92,90
1616.036	36	16	50	6	140	70	138,35
1616.040	40	16	54	6	140	70	106,30
1616.045	45	16	59	6	140	70	118,25
1616.050	50	16	64	6	140	70	134,20
1616.055	55	16	69	6	140	70	202,90
1616.060	60	16	74	6	140	70	202,90
1616.065	65	16	79	6	140	70	305,15
1616.070	70	16	84	8	140	70	305,15
1616.080	80	16	94	9	140	70	394,25
Sets							
Order No.	Description						€

Sets		
Order No.	Description	€
1616.505	5 pcs. Set in wooden case. Ø 15, 20, 25, 30 and 35 mm	348,30
1628.306	6 pcs. Set in wooden case with Plug Cutters and Bormax Bits. Ø 15, 20 and 25 mm	152,35
1629.308	8 pcs. Set in wooden case with Plug Cutters and HSS-G Bits. Ø 6, 8, 10 and 12 mm	279,90

	Twofold by robots relief ground main edges and circumference cutters. Effective length of the plug max. 75 mm, if lateral ejection is required the effective length of the plug is max. 40 mm	For the plug production for filling knot holes or fixing partial wood damage in combination with Bormax®. For precise fitting use FAMAG borers
倒	Alloyed tool steel	Place 1616 at the edge of the workpiece in a way that the annulus is opened sideways and good removal of the chips is possible
UPM	400 - 1500 min-1. e.g. Ø 15 mm 1000 min-1 in softwood	Packing unit = 1. Rose-box. EAN

1616.2

OOO Profi

Disc + Plug Cutter





	I-Ø	IØ	O-Ø		S-Ø	OAL	Cutting I.	
Order No.	[mm]	[Inch]	[mm]	ΑZ	[mm]	[mm]	[mm]	€
1616.215	9,53	3/8	19,53	4	13	140	70	91,45
1616.217	12,70	1/2	22,70	4	13	140	70	91,45
1616.219	15,88	5/8	25,88	4	13	140	70	91,45
1616.221	19,05	3/4	29,05	4	13	140	70	91,45
1616.223	22,23	7/8	32,23	4	13	140	70	96,55
1616.225	25,40	1	37,40	5	13	140	70	96,55
1616.231	34,93	13/8	48,93	6	13	140	70	117,75

	Twofold by robots relief ground main edges and circumference cutters. Effective plug length is max. 2 inch, if lateral ejection is required the effective plug length is max. 1.5 inch	For the plug production for filling knot holes or fixing partial wood damage in combination with Bormax®. For precise fitting use FAMAG borers
倒	Alloyed tool steel	Place 1616 at the workpiece´s edge in a way that the annulus is opened sidewise and good removal of the chips is possible
UPM	400 - 1000 min-1. e.g. Ø 1/2 ich 1200 min-1 in softwood	Packing unit = 1. Rose-box. EAN

1616.1

OOOO Premium

Disc + Plug Cutter, Carbide-tipped





l-Ø [mm]	S-Ø [mm]	0-Ø [mm]	AZ	OAL [mm]	Cutting I. [mm]	€
15	13	25	4	140	70	172,95
20	13	30	4	140	70	179,30
25	13	37	5	140	70	185,10
30	13	42	5	140	70	190,90
35	13	49	6	140	70	195,55
40	16	54	6	140	70	214,00
50	16	64	6	140	70	277,60
	[mm] 15 20 25 30 35 40	[mm] [mm] 15 13 20 13 25 13 30 13 35 13 40 16	[mm]         [mm]         [mm]           15         13         25           20         13         30           25         13         37           30         13         42           35         13         49           40         16         54	[mm]         [mm]         [mm]         AZ           15         13         25         4           20         13         30         4           25         13         37         5           30         13         42         5           35         13         49         6           40         16         54         6	[mm]         [mm]         [mm]         AZ         [mm]           15         13         25         4         140           20         13         30         4         140           25         13         37         5         140           30         13         42         5         140           35         13         49         6         140           40         16         54         6         140	[mm]         [mm]         [mm]         AZ         [mm]         [mm]           15         13         25         4         140         70           20         13         30         4         140         70           25         13         37         5         140         70           30         13         42         5         140         70           35         13         49         6         140         70           40         16         54         6         140         70

	Twofold by robots relief ground main edges and circumference cutter. Total length 140 mm. Effective length of the plug max. 75 mm, if lateral ejection is required the effective length of the plug is max. 40 mm. Precisely ground by diamond wheel on CNC	For the plug production of European and exotic hardwood. Also applicable for some plastics. Long endurance
倒	High quality carbide tipping	Place 1616 at the edge of the work piece in a way that the outside of the cutter is overlapping the edge, allowing fast chip ejection
UPM	1500 - 2000 min-1. e.g. Ø 15 mm 1800 min-1 in euro. hardwood	Packing unit = 1. Rose-box. EAN





	I-Ø	0-Ø	S-Ø	OAL	Cutting I.			
Order No.	[mm]	[mm]	[mm]	[mm]	[mm]	€		
1639.011	8	16	10	80	50	21,50		
1639.003	8	16	10	125	100	24,05		
1639.004	8	16	10	250	220	26,60		
1639.010	10	16	10	80	50	21,50		
1639.001	10	16	10	125	100	24,05		
1639.002	10	16	10	250	220	26,60		
1639.009	10	22	13	400	360	45,30		
1639.007	12	22	13	400	360	43,50		
1639.005	13	22	13	125	100	26,60		
1639.006	13	22	13	250	220	30,15		
1639.008	13	22	13	400	360	43,50		
Sets								
Order No.	Description					€		
1639.583	3 pcs. Set in wooden case	e: IØ 10mm, GL 80, 125, 2	250			64,90		
1639.503	3 3 pcs. Set in wooden case: IØ 8mm, GL 80, 125, 250							

	Ø of the shank 10 mm, or 13 x 30 mm. With 4 attachment screws for fixing. Solid quality. The shank of Ø 13 mm has 3 clamping surfaces	The state of the s	For the extension of all cylinder boring bits or all tools with Ø of shank 8, 10, 12, 13 mm
倒	Tool steel		Perfect for drilling deep holes, also for turning. Only limited fit for drilling end grain (especially hardwood) because there is considerable strain on the drill chuck
UPM	in combination with extentions please use less speed		Packing unit = 1. Rose-tube. EAN





	O-Ø	Stem Ø	S-Ø	I-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	€
1618.020	20	13	13	8	140	110	204,45
1618.025	25	13	13	8	140	110	221,35
1618.030	30	16	13	8	140	110	238,00
1618.035	35	16	13	8	140	110	255,10
1618.040	40	16	13	8	140	110	305,60
1618.045	45	20	13	10	140	110	339,25
1618.050	50	20	13	10	140	110	356,35
1618.055	55	20	13	10	140	110	373,20
1618.060	60	20	13	10	140	110	406,95

	1010.00	0 00	20	10	10	140	110	+00,55
	Carbide tipped cylinder boring bit with center ho exchangeable dowel pins or pilot drills. 2 main roughing taps, ground by diamond wheels on Cl machines for long endurance	edges and 2		For countersii screws and pl counterbore is Please order	ugs in wood s reached by	len constructi	ions. Guidan	ce of the
倒	High quality carbide tipping			Please order counterboring demand, deliv pin is NOT inc	g in one work very time ap	kstep. Interm prox. 4 week	ediate sizes	on
UPM	1500 - 3000 min-1. e.g. Ø 35 mm 2800 min-1 hardwood. Also find details at the speed-diagram			Packing unit = EAN	= 1. Yellow o	cardboard tub	pe (up to Ø 1	00 mm).



Depth Guide





	Foot measure Foot measure					
	for drill length	Drilling depth	outside	inside	OAL	
Order No.	[mm]	[mm]	[mm]	[mm]	[mm]	€
D 1405.210	240	210	150	90	~330	172,95

	Depth guide with two guide rods, retainer for drill machine Ø 43 mm with handle and guide ring (inner Ø 90 mm)	Tool independent bit stop which is suitable for boring countersinks for washers. Continously adjustable depth of sinking by adjusting ring on guide rods
倒	Tool holder of cast aluminium	Very easy to handle and precisely applicable. The second handle allows good guidance
UPM	Power drill	Packing unit = 1. EAN

3582



Self-centering hinge boring bit

Order No. 3582.020



Cutting I. [mm] 14

€ 17,05



3582.030	2,75	E 6,3	86	14	17,40
3582.035	3,5	E 6,3	95	15	18,65
Accessory					
			0	-Ø	
Order No.	Description		[m	nm]	€
3582.120	core drill HSS for	3582.020	2	2,0	1,25
3582.130	core drill HSS for	3582.030	2,	75	1,60
3582.135	core drill HSS for	3582.035	3	3,5	1,80

OAL

[mm] 84

S [Ø] E 6,3

	Self-centring hinge boring bit for power drill. Equipped with a guide bush containing a spring and core drill HSS with roof tip		The guide bush will be inserted in the screw hole of a fitting or a hinge. The guide bush will centre itself in the fitting / hinge screw.
倒	Drill HSS		You can precisely locate the hinge screw using this countersink hole in this hinge
UPM	500 - 1000 min-1. e.g. Ø 2,0 mm 1000 min-1 in MDF	A	Packing unit = 1. Rose-tube. EAN

Ø

[mm] 2,0

OO Classic

Hinge Boring bit









with Bormax he	ad				
	O-Ø	S-Ø	OAL	NL	
Order No.	[mm]	[mm]	[mm]	[mm]	€
3514.026	26	10	60	40	16,45
3514.035	35	10	60	40	16,45
in tool-steel					
100. 0100.	O-Ø	S-Ø	OAL	UL	
Order No.	[mm]	[mm]	[mm]	[mm]	€
3515.026	26	8	60	40	10,80
3515.030	30	8	60	40	11,20
3515.035	35	8	60	40	11,30
tct version					
	O-Ø	S-Ø	OAL	UL	
Order No.	[mm]	[mm]	[mm]	[mm]	€
3516.015	15	8	60	40	20,50
3516.020	20	8	60	40	20,50
3516.025	25	8	60	40	19,75
3516.026	26	8	60	40	19,75
3516.030	30	8	60	40	20,50
3516.035	35	8	60	40	19,75

	Little brad point, roughing tap and two main edges. Improved edge geometry	Salling State of the State of t	Tear free accurate hinge borings. The tool steel version for uncoated softwood. Bormax®-geometry for coated boards and limited for plastic coated chipboards or MDF. Carbide tipped version can be used without problems for plastic coated materials
倒	Tool steel or carbide tipped		Only the BORMAX - Geometry tools are suitable for freehand drilling. When using Bormax® on coated boards let the power drill run very slowly so that the teeth can tear the coating open and the drill won to damaged by too much heat
UPM	1000 min-1 for Tool steel-types. 2500 min-1 for TCT-types. Also find details at the speed-diagrams		Packing unit = 1. Rose-tube. EAN

### Spiral Slot Miling Cutter with Spiral Flute





	0-Ø	S-Ø	OAL	Spiral I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1607.106	6	13	120	40	24,10
1607.108	8	13	130	40	25,00
1607.110	10	13	140	45	27,30
1607.112	12	13	150	50	28,30
1607.114	14	13	160	55	29,70
1607.116	16	13	170	65	33,00
	O-Ø	S-Ø	OAL	Spiral I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1607.206	6	16	120	40	24,10
1607.208	8	16	130	40	25,00
1607.210	10	16	140	45	27,30
1607.212	12	16	150	50	28,30
1607.214	14	16	160	55	29,70
1607.216	16	16	170	65	33,00
Sets					
Order No.	Description				€
1607.606	6 pcs. Set in wood	en case RH version	. Ø 6. 8. 10. 12. 14	4 and 16 mm	150.40



	Two spiraled main edges with stepped parallel shank Ø 13 or 16 mm		Milling of slots in softwood and limited in European hardwood with a slot boring machine. Higher cutting rate and ideal removal of chips due to the convoluted geometry of the main edges
倒	Alloyed tool steel		Thanks to the wound spiral this drill runs particulary smoothly and without incommodious chattering
(UPM)	2500 - 5000 min-1. e.g. Ø 16 mm 2500 min-1 in softwood. Also find details at the speed-diagrams	S	Packing unit = 1. Rose-tube. EAN





	0-Ø	S-Ø	OAL	Spiral I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1601.105	5	13	115	35	19,70
1601.106	6	13	120	35	18,10
1601.107	7	13	125	35	17,95
1601.108	8	13	130	40	17,95
1601.109	9	13	135	40	17,95
1601.110	10	13	140	45	17,10
1601.111	11	13	145	48	17,45
1601.112	12	13	150	50	16,70
1601.113	13	13	155	53	17,60
1601.114	14	13	160	55	17,95
1601.115	15	13	165	58	19,20
	16	13	170	60	
1601.116					20,40
1601.118	18	13	180	68	23,90
1601.120	20	13	185	70	30,30
1601.122	22	13	190	75 	43,65
1601.124	24	13	195	77	49,55
version LH with sh					
	O-Ø	S-Ø	OAL	Spiral I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1601.405	5	13	115	35	19,70
1601.406	6	13	120	35	18,10
1601.407	7	13	125	35	17,95
1601.408	8	13	130	40	17,95
1601.409	9	13	135	40	17,95
1601.410	10	13	140	45	17,10
1601.411	11	13	145	48	17,45
1601.412	12	13	150	50	16,70
1601.413	13	13	155	53	17,60
1601.414	14	13	160	55	17,95
1601.415	15	13	165	58	19,20
1601.416	16	13	170	60	
		13	180	68	20,40
1601.418	18				23,90
1601.420	20	13	185	70	30,30
1601.422	22	13	190	75	43,65
1601.424	24	13	195	77	49,55
version RH with sl	hank dia 16mm				
	O-Ø	S-Ø	OAL	Spiral I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1601.205	5	16	115	35	19,70
1601.206	6	16	120	35	18,10
1601.207	7	16	125	35	17,95
1601.208	8	16	130	40	17,95
1601.209	9	16	135	40	17,95
1601.210	10	16	140	45	17,10
1601.211	11	16	145	48	17,45
1601.212	12	16	150	50	16,70
1601.212	13	16	155	53	17,60
1601.214	14	16	160	55	17,95
1601.215	15	16	165	58	
					19,20
1601.216	16	16	170	60	20,40
1601.218	18	16	180	68	23,90
1601.220	20	16	185	70	30,30
1601.222	22	16	190	75	43,65
1601.224	24	16	195	77	49,55

version LH w	vith shank dia 16mm 0-Ø	S-Ø	OAL	Spiral I.		
Order No.	[mm]	[mm]	[mm]	[mm]	€	
1601.505	5	16	112	35	19,70	
1601.506	6	16	120	35	18,10	
1601.507	7	16	125	35	17,95	
1601.508	8	16	130	40	17,95	
1601.509	9	16	135	40	17,95	
1601.510	10	16	140	45	17,10	
1601.511	11	16	145	48	17,45	
1601.512	12	16	150	50	16,70	
1601.513	13	16	155	53	17,60	
1601.514	14	16	160	55	17,95	
1601.515	15	16	165	58	19,20	
1601.516	16	16	170	60	20,40	
1601.518	18	16	180	68	23,90	
1601.520	20	16	185	70	30,30	
1601.522	22	16	190	75	43,65	
1601.524	24	16	195	77	49,55	
slot mortise	bit RH with long cutters					
	0-ø	S-Ø	OAL	Cutting I.		
Order No.	[mm]	[mm]	[mm]	[mm]	€	
1603.216	16	16	200	130	67,55	
Sets						
Order No.	Description				€	
1601.606		sion. Ø 6, 8, 10, 12, 14 and 16 mm			97,10	
N Good	Two straight main edges with chip breaking flutes. With stepped shank Ø 13 or 16 mm					

	Two straight main edges with chip breaking flutes. With stepped shank Ø 13 or 16 mm	Milling of slots in softwood with a slot boring machine. Due to the special geometry of the head piercing use is possible
倒	Alloyed tool steel	Not appropriate for hardwood. Limited fit for hardwood is our product line 1607
UPM	2200 - 4000 min-1. e.g. Ø 16 mm 2200 min-1 in softwood. Also find details at the speed-diagrams	Packing unit = 1. Rose-tube. EAN

OOO Profi

Auger hit Lewis pattern









041.005					
OAL 235mm	0-Ø	S-Ø	OAL	Spiral I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1410.205	5	4,5	235	160	12,00
1410.206	6	5,5	235	160	12,00
1410.207	7	6,5	235	160	12,00
1410.208	8	7,8	235	160	12,00
1410.209	9	8	235	160	12,00
1410.210	10	9,8	235	160	12,00
1410.211	11	9,8	235	160	12,50
1410.212	12	11,8	235	160	12,50
1410.212	13	12,8	235	160	13,70
1410.214	14	13	235	160	13,70
1410.215	15	13	235	160	14,60
1410.216	16	13	235	160	14,60
1410.217	17	13	235	160	16,05
1410.218	18	13	235	160	16,05
1410.219	19	13	235	160	17,75
1410.220	20	13	235	160	17,75
1410.222	22	13	235	160	21,15
1410.224	24	13	235	160	22,90
1410.225	25	13	235	160	26,35
1410.226	26	13	235	160	26,35
1410.228	28	13	235	160	29,45
1410.228	30	13	235	160	32,35
1410.232	32	13	235	160	41,80
1410.232	34	13	235	160	60,90
1410.234	35	13	235	160	
1410.236	36	13	235	160	68,10
	38	13	235	160	66,60
1410.238	40	13	235	160	80,95
1410.240	40 45	13	235	160	90,65 122,00
1410.245 1410.250	50	13	235	160	160,80
	30	13	233	100	100,80
0AL 320mm	0-Ø	S-Ø	OAL	Spiral I.	
Order No.	[mm]	ريات [mm]	[mm]	[mm]	€
1410.305	5	4,5	320	255	15,45
1410.306	6	5,5	320	255	15,45
1410.307	7	6,5	320	255	15,45
1410.308	8	7,8	320	255	15,45
1410.309	9	8	320	255	15,45
1410.310	10		320		
1410.311	11	0.8	320		
1410.311		9,8	320	255	15,45
1410.312		9,8	320	255 255	15,45 16,95
	12	9,8 11,8	320 320	255 <mark>255</mark> 255	15,45 16,95 16,95
	12 13	9,8 11,8 12,8	320 320 320	255 255 255 255 255	15,45 16,95 16,95 18,25
1410.314	12 13 14	9,8 11,8 12,8 13	320 320 320 320 320	255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25
1410.314 1410.315	12 13 14 15	9,8 11,8 12,8 13 13	320 320 320 320 320 320	255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75
1410.314 1410.315 1410.316	12 13 14 15 16	9,8 11,8 12,8 13 13	320 320 320 320 320 320 320	255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75
1410.314 1410.315 1410.316 1410.317	12 13 14 15 16 17	9,8 11,8 12,8 13 13 13	320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75 21,85
1410.314 1410.315 1410.316 1410.317 1410.318	12 13 14 15 16 17 18	9,8 11,8 12,8 13 13 13 13	320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75 21,85 21,85
1410.314 1410.315 1410.316 1410.317 1410.318 1410.319	12 13 14 15 16 17 18	9,8 11,8 12,8 13 13 13 13 13 13	320 320 320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75 21,85 21,85 25,40
1410.314 1410.315 1410.316 1410.317 1410.318 1410.319 1410.320	12 13 14 15 16 17 18 19 20	9,8 11,8 12,8 13 13 13 13 13 13 13	320 320 320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75 21,85 21,85 25,40 25,40
1410.314 1410.315 1410.316 1410.317 1410.318 1410.319 1410.320 1410.322	12 13 14 15 16 17 18 19 20 22	9,8 11,8 12,8 13 13 13 13 13 13 13	320 320 320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75 21,85 21,85 25,40 25,40 30,50
1410.314 1410.315 1410.316 1410.317 1410.318 1410.319 1410.320 1410.322 1410.324	12 13 14 15 16 17 18 19 20 22 24	9,8 11,8 12,8 13 13 13 13 13 13 13 13	320 320 320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75 21,85 21,85 25,40 25,40 30,50 31,30
1410.314 1410.315 1410.316 1410.317 1410.318 1410.319 1410.320 1410.322 1410.324 1410.325	12 13 14 15 16 17 18 19 20 22 24	9,8 11,8 12,8 13 13 13 13 13 13 13 13 13	320 320 320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75 21,85 21,85 25,40 25,40 30,50 31,30 35,30
1410.314 1410.315 1410.316 1410.317 1410.318 1410.319 1410.320 1410.322 1410.324 1410.325 1410.326	12 13 14 15 16 17 18 19 20 22 24 25 26	9,8 11,8 12,8 13 13 13 13 13 13 13 13 13 13	320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75 21,85 21,85 25,40 25,40 30,50 31,30 35,30 35,30
1410.314 1410.315 1410.316 1410.317 1410.318 1410.319 1410.320 1410.322 1410.324 1410.325 1410.326 1410.328	12 13 14 15 16 17 18 19 20 22 24 25 26 28	9,8 11,8 12,8 13 13 13 13 13 13 13 13 13 13 13 13	320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 18,25 18,25 20,75 20,75 21,85 21,85 25,40 25,40 30,50 31,30 35,30 39,25
1410.314 1410.315 1410.316 1410.317 1410.318 1410.319 1410.320 1410.322 1410.324 1410.325 1410.326 1410.328 1410.330	12 13 14 15 16 17 18 19 20 22 24 25 26 28 30	9,8 11,8 12,8 13 13 13 13 13 13 13 13 13 13 13 13 13	320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75 21,85 21,85 25,40 25,40 30,50 31,30 35,30 35,30 39,25 42,30
1410.314 1410.315 1410.316 1410.317 1410.318 1410.320 1410.322 1410.322 1410.325 1410.326 1410.328 1410.330 1410.332	12 13 14 15 16 17 18 19 20 22 24 25 26 28 30 32	9,8 11,8 12,8 13 13 13 13 13 13 13 13 13 13 13 13 13	320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75 21,85 21,85 25,40 25,40 30,50 31,30 35,30 35,30 39,25 42,30 58,45
1410.314 1410.315 1410.316 1410.317 1410.318 1410.329 1410.322 1410.324 1410.325 1410.326 1410.328 1410.328 1410.330 1410.332 1410.332	12 13 14 15 16 17 18 19 20 22 24 25 26 28 30 32 34	9,8 11,8 12,8 13 13 13 13 13 13 13 13 13 13 13 13 13	320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75 21,85 21,85 25,40 30,50 31,30 35,30 35,30 35,30 39,25 42,30 58,45 82,90
1410.314 1410.315 1410.316 1410.317 1410.318 1410.320 1410.322 1410.322 1410.325 1410.326 1410.328 1410.330 1410.332 1410.332 1410.332	12 13 14 15 16 17 18 19 20 22 24 25 26 28 30 32 34	9,8 11,8 12,8 13 13 13 13 13 13 13 13 13 13 13 13 13	320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 21,85 21,85 25,40 30,50 31,30 35,30 35,30 35,30 35,30 35,30 39,25 42,30 58,45 82,90 92,40
1410.314 1410.315 1410.316 1410.317 1410.318 1410.319 1410.320 1410.322 1410.325 1410.325 1410.326 1410.328 1410.330 1410.332 1410.332 1410.335 1410.335	12 13 14 15 16 17 18 19 20 22 24 25 26 28 30 32 34 35 36	9,8 11,8 12,8 13 13 13 13 13 13 13 13 13 13 13 13 13	320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75 21,85 21,85 25,40 25,40 30,50 31,30 35,30 35,30 39,25 42,30 58,45 82,90 92,40 92,40
1410.314 1410.315 1410.316 1410.317 1410.318 1410.320 1410.322 1410.324 1410.325 1410.326 1410.328 1410.330 1410.332 1410.332 1410.335 1410.335 1410.336	12 13 14 15 16 17 18 19 20 22 24 25 26 28 30 32 34 35 36 38	9,8 11,8 12,8 13 13 13 13 13 13 13 13 13 13 13 13 13	320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75 21,85 21,85 25,40 25,40 30,50 31,30 35,30 35,30 39,25 42,30 58,45 82,90 92,40 92,40
1410.314 1410.315 1410.316 1410.317 1410.318 1410.320 1410.322 1410.324 1410.325 1410.326 1410.328 1410.330 1410.332 1410.334 1410.335 1410.335 1410.336 1410.338 1410.338	12 13 14 15 16 17 18 19 20 22 24 25 26 28 30 32 34 35 36 38 40	9,8 11,8 12,8 13 13 13 13 13 13 13 13 13 13 13 13 13	320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75 21,85 21,85 25,40 25,40 30,50 31,30 35,30 35,30 39,25 42,30 58,45 82,90 92,40 92,40 92,40 122,00 139,05
1410.314 1410.315 1410.316 1410.317 1410.318 1410.320 1410.322 1410.324 1410.325 1410.326 1410.328 1410.330 1410.332 1410.334 1410.335 1410.335 1410.336 1410.338 1410.338 1410.340 1410.345	12 13 14 15 16 17 18 19 20 22 24 25 26 28 30 32 34 35 36 38 40 45	9,8 11,8 12,8 13 13 13 13 13 13 13 13 13 13 13 13 13	320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75 21,85 21,85 25,40 25,40 30,50 31,30 35,30 35,30 35,30 35,30 35,30 42,30 58,45 82,90 92,40 92,40 92,40 122,00 139,05 182,55
1410.314 1410.315 1410.316 1410.317 1410.318 1410.319 1410.320 1410.322 1410.324 1410.325 1410.326 1410.328 1410.330 1410.332 1410.334 1410.335 1410.336 1410.338 1410.338	12 13 14 15 16 17 18 19 20 22 24 25 26 28 30 32 34 35 36 38 40	9,8 11,8 12,8 13 13 13 13 13 13 13 13 13 13 13 13 13	320 320 320 320 320 320 320 320	255 255 255 255 255 255 255 255 255 255	15,45 16,95 16,95 18,25 18,25 20,75 20,75 21,85 21,85 25,40 25,40 30,50 31,30 35,30 35,30 39,25 42,30 58,45 82,90 92,40 92,40 92,40 122,00 139,05

	0-Ø	S-Ø	OAL	Spiral I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1410.405	5	4,5	460	380	20,45
1410.406	6	5,5	460	380	20,45
1410.407	7	6,5	460	380	20,45
1410.408	8	7,8	460	380	20,45
1410.409	9	8	460	380	20,45
1410.410	10	9,8	460	380	20,45
1410.411	11	9,8	460	380	21,00
1410.412	12	11,8	460	380	21,00
1410.413	13	12,8	460	380	24,75
1410.414	14	13	460	380	24,75
1410.415	15	13	460	380	27,85
1410.416	16	13	460	380	27,85
1410.417	17	13	460	380	29,60
1410.418	18	13	460	380	29,60
1410.419	19	13	460	380	32,35
1410.420	20	13	460	380	32,35
L410.421	21	13	460	380	40,40
L410.422	22	13	460	380	40,40
1410.423	23	13	460	380	43,10
1410.424	24	13	460	380	43,10
1410.425	25	13	460	380	49,80
1410.426	26	13	460	380	49,80
1410.427	27	13	460	380	55,30
1410.428	28	13	460	380	55,30
1410.430	30	13	460	380	56,60
1410.432	32	13	460	380	73,35
1410.434	34	13	450	380	112,15
1410.435	35	13	450	380	116,95
1410.436	36	13	450	380	114,90
1410.438	38	13	450	380	158,25
1410.440	40	13	450	380	182,55
1410.445	45	13	450	380	240,40
1410.450	50	13	450	380	310,40
OAL 650mm					
JAL 030IIIII	0-Ø	S-Ø	OAL	Spiral I.	
Order No.				-	€
	[mm]	[mm]	[mm]	[mm]	
1410.608	8	7,8	650	535	27,95
1410.609	9	8	650	535	27,95
1410.610	10	9,8	650	535	27,95
1410.611	11	9,8	650	535	28,85
1410.612	12	11,8	650	535	28,85
1410.613	13	12,8	650	535	35,00
1410.614	14	13	650	535	35,00
1410.615	15	13	650	535	39,20
1410.616	16	13	650	535	39,20
1410.617	17	13	650	535	41,90
1410.618	18	13	650	535	41,90
1410.619	19	13	650	535	47,80
1410.620	20	13	650	535	47,80
1410.621	21	13	650	535	56,40
1410.622	22	13	650	535	56,40
1410.624	24	13	650	535	59,80
1410.625	25	13	650	535	67,35
1410.626	26	13	650	535	67,35
1410.628	28	13	650	535	74,85
1410.630	30 32	13	650	535 535	82,95
1410.632		13	650		102,65
1410.634	34	13	650	535	144,15
1410.635	35	13	650	535	151,35
1410.636	36	13	650	535	148,70
1410.638	38	13	650	535	204,15
1410.640	40	13	650	535	235,70
1410.645	45	13	650	535	310,40
1410.650	50	13	650	535	399,80
0AL 1080 mm. Sp	iral length 1010 mm:				
	0-Ø	SØ	OAL	Spiral I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1410.014	14	13	1080	1010	113,10
1410.014	16	13	1080	1010	123,80
		13	1080		
1410.018	18			1010	136,20
1410.020	20	13	1080	1010	144,85
1410.022	22	13	1080	1010	163,70
1410.024	24	13	1080	1010	179,25
1410.026	26	13	1080	1010	198,10
1410.028	28	13	1080	1010	212,60
1410.030	30	13	1080	1010	239,55
1410.032	32	13	1080	1010	256,25
OAL 1.000mm					
	0-Ø	S-Ø	OAL	Spiral I.	
	[mm]	[mm]	[mm]	[mm]	€
order No	111111111	[111111]	11111111	[11111]	
				380	26 05
1410.112	12	12	1000	380	86,95 86,95
Order No. 1410.112 1410.114 1410.115				380 380 380	86,95 86,95 89,85

OAL 1.000mm							
	0-Ø	S-Ø	OAL	Spiral I.			
Order No.	[mm]	[mm]	[mm]	[mm]	€		
1410.116	16	13	1000	380	89,85		
1410.118	18	13	1000	380	91,40		
1410.120	20	13	1000	380	94,15		
1410.122	22	13	1000	380	100,40		
1410.124	24	13	1000	380	103,60		
1410.125	25	13	1000	380	113,15		
1410.126	26	13	1000	380	113,00		
1410.128	28	13	1000	380	119,55		
1410.130	30 32	13 13	1000	380	119,55		
1410.132 1410.134	34	13	1000 1000	380 535	133,90 159,30		
1410.134	35	13	1000	535	166.50		
1410.135	36	13	1000	535	166,50		
1410.138	38	13	1000	535	227.95		
1410.138	40	13	1000	535	264.10		
1410.145	45	13	1000	535	347,35		
1410.150	50	13	1000	535	452,10		
Sets	00	10	1000	200	102,20		
	escription				€		
	•	OAL 235 mm. Ø 6, 8, 10, 12, 14	1 16 18 and 20 mm		99,25		
		OAL 235 mm. Ø 10, 12, 14, 16,			77,70		
		OAL 320 mm. Ø 10, 12, 14, 16,			106.65		
		OAL 460 mm. Ø 10, 12, 14, 16,			140,20		
		OAL 650 mm. Ø 10, 12, 14, 16,			198.65		
	•	OAL 320 mm. Ø 10, 12, 14, 16,			161,80		
	•	OAL 460 mm. Ø 10, 12, 14, 16,			216,10		
B ~~ (				oles in softwood and European			
"Lewis" pattern, milled version relief ground by robots, screw threading centre point, main edge and cutting lips of premium quality. HEX shank from Ø 8mm			with power drill a	nd joinery machine. < Ø 24 mn lless screw driver	I .		
倒	Alloyed tool steel		also be used for b	Due to the precise production of the auger bits they can also be used for boring exact holes for stud bolts. For hardwood we recommend our profi product line 1493			
	500 - 2800 min-1. e.g. Ø 12 m Also find details at the speed-o			Packing unit = 1. Rose-tube up to Ø 36 mm and whole length 650 mm. EAN			

OOO Profi 1410 4

Auger bit, Lewis pattern





	O-Ø	S-Ø	OAL	Spiral I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1410.461	11,5	11,5	460	400	26,40
1410.463	13,5	12	460	400	33,85
1410.465	15,5	12	460	400	36,50
1410.467	17,5	12	460	400	42,10
1410.469	19,5	12	460	400	47,05
1410.471	21,5	12	460	400	55,75
1410.473	23,5	12	460	400	64,35

	"Lewis" pattern, milled version relief ground by robots, screw threading centre point, main edge and cutting lips of premium quality. Shank with 3 clamping surfaces	For boring perfectly fitting holes which are slightly smaller than the nominal diameter. Thus tight fit of the stud bolt in wood is guaranteed
例	Alloyed tool steel	When an especially tight fit is required
UPM	1500 - 2500 min-1. e.g. Ø 13,5 mm 2000 min-1 in softwood. Also find details at the speed-diagrams	Packing unit = 1. Rose-tube. EAN

1411

OOO Profi

Countersink for Auger bits 180°









	0-Ø	IØ	OAL		
Order No.	[mm]	[Inch]	[mm]	NL	€
1411.040	40	13	30	30	67,50
1411.050	50	13	30	30	78,60
1411.060	60	13	30	30	100,50
1411.070	70	13	30	30	131,70
Sets					
Order No.	Description				€
1411.200		ugerbit/ countersir nks Ø 40-50-60 mr	nk, OAL 235mm, A n	ugerbits 14-16-18	260,50
1411.300		ugerbit/ countersir nks Ø 40-50-60 mr	nk, OAL 320mm, A n	ugerbits 14-16-18	275,65
1411.400		ugerbit/ countersir nks Ø 40-50-60 mr	nk, OAL 460mm, A n	ugerbits 14-16-18	294,30

	Versions with 2 roughing taps and 2 main edges and center hole Ø 13 mm. With lateral attachment screw for fixing on the shanks of FAMAG auger bits	and a second	To fit on FAMAG auger bits with shank Ø 13 mm. Boring and counterboring in a single operation. Recommended for softwood
倒	Alloyed tool steel		Can be used universally on all FAMAG auger bits with shank Ø 13 mm
UPM	500 - 800 min-1. e.g. Ø 40 mm 800 min-1 in softwood. Also find details at the speed-diagrams	A	Packing unit = 1. Rose-box. EAN

OOO Profi

Special auger hit for joinery machines













	O-Ø	S-Ø	OAL	Spiral I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1420.412	12	12	460	400	30,55
1420.413	13	13	460	400	36,20
1420.414	14	13	460	400	36,20
1420.415	15	13	460	400	40,10
1420.416	16	13	460	400	40,10
1420.417	17	13	460	400	41,95
1420.418	18	13	460	400	41,95
1420.419	19	13	460	400	45,80
1420.420	20	13	460	400	45,80
1420.421	21	13	460	400	58,10
1420.422	22	13	460	400	58,10
1420.424	24	13	460	400	61,85
1420.425	25	13	460	400	70,40
1420.426	26	13	460	400	70,40
1420.428	28	13	460	400	76,15
1420.430	30	13	460	400	78,10
1420.432	32	13	460	400	99,05

Sets

Order No. Description

1420.400 6 pcs. set in wooden case. Ø 12 ,14 ,16 ,18, 20 and 22 mm

€ 227,15

	Premium one edged auger bit with special ground bevelled tip and very dimensionally stable spirals. Premium coating to ensure minimal friction		For boring into all softwoods at joinery machines. Due to the spiral 's especially stable geometry it is also possible to bore exactly to thick joists. Tight fit of stud bolts by permissible minimum dimension of the Ø of the auger bit
倒	Alloyed tool steel		Due to the head's special geometry it is especially applicable for boring in planed or finished glued laminated timber. Entry and exit of the borer are considerably cleaner than with an usual auger bit
UPM	2800 - 3600 min-1. e.g. Ø 18 mm 2800 min-1 in construction wood	T T	Packing unit = 1. Rose-tube. EAN







0AL 480 mm						
	O-Ø	Shank type	0	AL	Spiral I.	
Order No.	[mm]	[mm]	[m	nm]	[mm]	€
1492.410	10	MK 2	4	80	380	60,60
1492.412	12	MK 2		80	380	60,60
1492.414	14	MK 2		80	380	67,60
1492.416	16	MK 2		80	380	69,3
1492.418	18	MK 2		80	380	69,3
1492.420	20	MK 2		80	380	69,3
1492.422	22	MK 2		80	380	78,80
1492.424	24	MK 2	4	80	380	87,50
0AL 680 mm						
	0-Ø	Shank type	0	AL	Spiral I.	
Order No.	[mm]	[mm]	[m	nm]	[mm]	€
1492.610	10	MK 2		80	550	88,40
1492.612	12	MK 2	6	80	550	88,40
1492.614	14	MK 2	6	80	550	92,3
1492.616	16	MK 2	6	80	550	101,9
1492.618	18	MK 2	6	80	550	101,9
1492.620	20	MK 2	6	80	550	108,6
1492.622	22	MK 2	6	80	550	113,99
1492.624	24	MK 2	6	80	550	122,2
1492.626	26	MK 2	6	80	550	135,4
"Lewis" pattern with brad point, main edge and roughing tap, morse taper shank no. 2					ly fitting holes into all Europear machines taking up MK 2	n solid
倒	Alloyed tool steel	For hard wood and exotic hard wood like Bongossi we recommend the auger bit with knife (type 1493) of our product line. Greater diameters can be combined with our product line 1410/1493 and MK2-fix adapter (type 1488)			of our with our	
	1250 - 2500 min-1. e.g. Ø 22 mm 1500 min-1 in softwood. Also find details at the speed-diagrams		Pa	acking unit = 1. F	Rose-tube. EAN	

494 Premium

Auger bit carbide tipped





	O-Ø	SØ	OAL	Spiral I.	
Order No.	[mm]	[Ø]	[mm]	[mm]	€
1494.414	14	12	460	400	59,00
1494.416	16	12	460	400	66,70
1494.418	18	12	460	400	70,60
1494.419	19	12	460	400	76,95
1494.420	20	12	460	400	76,95
1494.424	24	12	460	400	104,75
1494.425	25	12	460	400	104,75

Spare part: crest of thread or triangular

		O-Ø	
Order No.	Description	[mm]	€
1494.903	crest of thread for Ø 7 - 14 mm	3	6,65
1494.901	crest of thread for Ø 16 - 18 mm	4	6,65
1494.902	crest of thread for Ø 20 - 24 mm	5	6,65
1494.906	Triangual for Ø 7 - 14 mm	3	6,65
1494.905	Triangual for Ø 16 - 18 mm	4	6,65
1494.904	Triangual for Ø 20 - 24 mm	5	6,65



	Specially formed channel for removing chips, teflon-coated, changeable loadscrew HSS, two carbide tipped main edges, protruding cutting edges and parallel shank with 3 clamping surfaces. Ground by diamond wheels on CNC-machines	For boring precisely fitting holes to hardwood. For exotic hardwood like Bongossi we recommend auger bit 1493. Also applicable with a powerful joinery machine for boring cross-grained hardwood
倒	High quality carbide tipping, changeable crest of thread HSS	Unbelievably endurant to hardwood. For boring in cross- grained hardwood (Ø 20 mm) the machine should have a turning moment of 50 NM
UPM	1750 - 3000 min-1. e.g. Ø 18 mm 2250 min-1 in Europe hardwood. Also find details at the speed-diagrams	Packing unit = 1. Rose-tube. EAN

OOO Profi

Auger hit for hardwood





	O-Ø	S-Ø	OAL	Spiral I.		
Order No.	[mm]	[mm]	[mm]	[mm]	€	
1493.408	8	8	460	380	32,65	
1493.410	10	10	460	380	32,65	
1493.412	12	12	460	380	33,60	
1493.414	14	13	460	380	39,55	
1493.416	16	13	460	380	44,70	
1493.418	18	13	460	380	47,35	
1493.420	20	13	460	380	51,75	
1493.422	22	13	460	380	64,45	
1493.424	24	13	460	380	70,35	
1493.426	26	13	460	380	79,70	
1493.428	28	13	460	380	88,40	
1493.430	30	13	460	380	90,45	
Sets						
Order No.	Description				€	
1493.400						





	"Lewis" pattern with rough brad point, main edge and bottom blade	For boring deep holes into all hardwoods and also into Bongossi
倒	Alloyed tool steel	Low heat development and therefore long endurance due to the special knife. For boring into softwood we recommend version 1410
(UPM)	700 - 2250 min-1. e.g. Ø 12 mm 1500 min-1 in Europe hardwood. Also find details at the speed-diagrams	Packing unit = 1. Rose-tube. EAN

1488/89







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Profi

Kombifix version								
	I-Ø	Shank type	OAL	UL				
Order No.	[mm]	[mm]	[mm]	[mm]	€			
1489.001	MK 1	10	110	90	55,85			
1489.002	MK 2	13	130	100	59,00			
ZB-fix version								
	I-Ø	Shank type	OAL	UL				
Order No.	[mm]	[mm]	[mm]	[mm]	€			
1489.613	13	ZB	120	60	60,80			
MK 2-fix version	on							
	I-Ø	Shank type	OAL	UL				
Order No.	[mm]	[mm]	[mm]	[mm]	€			
1488.210	10	MK 2	120	40	42,80			
1488.213	13	MK 2	120	40	42,80			
Adapter, external MK2 or Mafell-ZB (inside cylindrical) with two attachment screws. Kombi-Fix inside MK, external cylindrical hexagon								







With this adapter it is possible to use low-price borers with parallel shank for machines using MK2/Mafell-ZB  $\,$ 



find recommended r.p.m. at the corresponding tools



Packing unit = 1. Rose-tube. EAN

Alloyed tool steel

UPM



Screw Auger Lewis nattern



		0-Ø	OAL	Cutting I.	<u>-</u>
	Order No.	[mm]	[mm]	[mm]	€
	1014.608	8	600	550	21,50
	1014.610	10	600	550	21,50
	1014.612	12	600	550	23,15
	1014.614	14	600	550	24,35
	1014.616	16	600	550	26,40
	1014.618	18	600	550	29,30
	1014.620	20	600	550	32,25
7999	1014.622	22	600	550	35,40
	1014.624	24	600	550	38,95
	1014.626	26	600	550	42,75
	1014.628	28	600	550	46,70
	1014.630	30	600	550	51,50
	1014.632	32	600	550	56,35
	1014.634	34	600	550	71,25
	1014.636	36	600	550	80,45
	1014.638	38	600	550	92,00
	1014.640	40	600	550	103,20
"Lewis" pattern, with threaded one roughing tap. With lug for			For boring deep holes in s diameter) and also limited		
Alloyed tool steel			Use beech handles.		
show what you can			Packing unit = 1. Yellow c	ardboard tube. EAN	









rigidly coupled version

				max. clamping	g Foot measure	Foot measure		
	Drill bushing	for drill length	Drilling depth	width	outside	inside	OAL	
Fixture	plate	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	€
-	inkl.	320	190	-	200 x 150	155 x 100	~490	288,00
inkl.	inkl.	320	190	0 - 90	200 x 150	155 x 100	~490	361,05
-	inkl.	460	310	-	200 x 150	155 x 100	~630	288,00
inkl.	inkl.	460	310	0 - 90	200 x 150	155 x 100	~630	361,05
-	inkl.	650	460	-	200 x 150	155 x 100	~810	288,00
inkl.	inkl.	650	460	0 - 90	200 x 150	155 x 100	~810	361,05
						_		
	inkl. - inkl. -	Fixture plate - inkl. inkl. inkl inkl. inkl. inkl inkl.	Fixture plate [mm] - inkl. 320 inkl. inkl. 320 - inkl. 460 inkl. inkl. 460 - inkl. 650	Drill bushing for drill length   Drilling depth   Fixture   plate   [mm]   [mm]	Drill bushing for drill length   Drilling depth   Fixture   plate   [mm]   [mm]   [mm]     [mm]     [mm]     [mm]     [mm]     [mm]     [mm]     [mm]     [mm]     [mm]     [mm]     [mm]	Drill bushing for drill length   Drilling depth   width   plate   [mm]   [mm]   [mm]     [mm]	Drill bushing for drill length   Drilling depth   width   mm   mm   mm   mm   mm   mm   mm	Fixture         plate inkl.         [mm]         490         200 x 150         155 x 100         20

					max. clampin	g Foot measure	Foot measure		
		Drill bushing	for drill length	Drilling depth	width	outside	inside	OAL	
Order No.	Fixture	plate	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	€
D 1404.320	-	inkl.	320	160	-	200 x 150	155 x 100	~490	452,10
D 1404.322	inkl.	inkl.	320	160	0 - 90	200 x 150	155 x 100	~490	524,45
D 1404.460	-	inkl.	460	250	-	200 x 150	155 x 100	~630	452,10
D 1404.462	inkl.	inkl.	460	250	0 - 90	200 x 150	155 x 100	~630	524,45
D 1404.650	-	inkl.	650	430	-	200 x 150	155 x 100	~810	452,10
D 1404.652	inkl.	inkl.	650	430	0 - 90	200 x 150	155 x 100	~810	524,45

rigidly coupled small version

				max. clamping Foot measure Foot measure					
		Drill bushing	for drill length	Drilling depth	width	outside	inside	OAL	
Order No.	Fixture	plate	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	€
D 1405.210	-	-	max. 240	210	-	Ø 150	Ø 90	~330	172,95
D 1405.320	-	-	max. 350	320	-	200 x 150	155 x 100	~490	224,35

	With additional handle, two continously adjustable bit stops, two spiral springs for drawing back the power drill and with adjustable plate for the drill bush so that precise boring is possible		Precise drilling in set angle 90° (fix model). The pivoted version can pivot through to 45°. Additional guidance by drill bushing plates. Easy drawing back of the power drill by spiral springs
倒	Tool holder of aluminium cast		For power drills 43 mm. For borers Ø 8, 10, 12, 14, 16, 18, 20, 22, 24, 26 mm. Version with two solid guide rods
(UPM)		A	Packing unit = 1. Cardboard. EAN

1402/ Premium

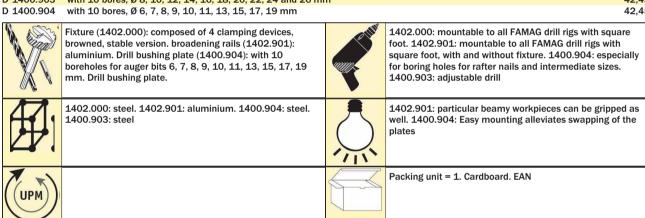
Accessories for Drill Rigs





Δ	CC	25	SO	rv

Accessory				
			max. clamping width	
Order No.	Description		[mm]	€
D 1402.000	Fixture		0 - 90	76,15
D 1402.901	Tails for broadening		200	40,00
D 1400.932	Spring set for drill stand 320mm			18,70
D 1400.946	Spring set for drill stand 460mm			18,70
D 1400.965	Spring set for drill stand 650mm			18,70
Bohrbuchsent	eller			
Order No.	Description			€
D 1400.903	with 10 bores, Ø 8, 10, 12, 14, 16, 18, 20, 22, 24 and 26 mm	1		42,45
D 1400.904	with 10 bores, Ø 6, 7, 8, 9, 10, 11, 13, 15, 17, 19 mm			42,45
Wall of the second	Fixture (1402.000): composed of 4 clamping devices, browned, stable version. broadening rails (1402.901): aluminium. Drill bushing plate (1400.904): with 10	Consession of the last of the	1402.000: mountable to all FAMAG drill rig foot. 1402.901: mountable to all FAMAG drill square foot, with and without fixture. 1400.	rill rigs with



OOOO Premium

Drill Rig for stairs building





				max.	Foot	Foot		
		for drill	Drilling	clamping	measure	measure		
		length	depth	width	outside	inside	OAL	
Order No.	Fixture	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	€
D 1406.320		max. 350	320		200 x	155 x	~490	288,00
					150	100		
D 1406.322	inkl.	max. 350	320	0 - 90	200 x	155 x	~490	361,05
					150	100		

		With additional handle, continously adjustable bit stop and pivoting range up to 45°. Easy locking by clamping lever	Precise drilling in set angle 90° - 45° especially for the construction of stairs. Accurate holes through stable guidance of the drill
	到	Tool holder of cast aluminium	By pivoting fixture also for curved cheeks applicable. For staircase > 45° please use a shim.
(	UPM		Packing unit = 1. Cardboard. EAN

1575



**Machine Drill for construction of stairs** 





	0-Ø	S-Ø	OAL	Spiral I.	CPL	
Order No.	[mm]	[mm]	[mm]	[mm]	[mm]	€
1575.010	10	13×50	160	85	11	58,50
1575.012	12	13×50	170	100	12	58,50
1575.013	13	13×50	180	110	13	61,35
1575.014	14	13×50	180	105	13	61,35
1575.015	15	13×50	190	120	14	67,75
1575.016	16	13×50	190	120	14	67,75
1575.018	18	13×50	200	130	15	74,05
1575.020	20	13×50	210	135	16	83,95
1575.022	22	13×50	220	140	18	115,15
1575.024	24	13×50	240	160	19	143,45
1575.025	25	13×50	240	170	19	161,20
1575.026	26	13×50	240	160	20	178,15
1575.028	28	13×50	250	180	21	190,85
1575.030	30	13×50	250	180	23	209,35

	Drill bit with extra long brad point (ground three-edged), two main edges, two roughing taps, four spiral grooves		For boring paling fences into stringers or handrails of staircases. Only limitedly recommended for hardwood
倒	Tool steel		Better results with the three-edged than by using the four- edged brad point. For hardwood we recommend the TCT- Bormax <sup>3</sup> 1663 combined with a drill rig
UPM	800 - 2500 min-1. e.g. Ø 16 mm 2000 min-1 in softwood	A	Packing unit = 1. Rose-tube. EAN







0000 Premium







	O-Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1594.020	2,0	2,0	49	22	6,95
1594.025	2,5	2,5	57	25	6,95
1594.030	3,0	3,0	60	33	5,55
1594.035	3,5	3,5	70	39	6,00
1594.040	4,0	4,0	75	43	6,00
1594.045	4,5	4,5	80	47	6,30
1594.050	5,0	5,0	85	52	6,30
1594.055	5,5	5,5	92	57	6,60
1594.060	6,0	6,0	92	57	6,60
1594.065	6,5	6,5	100	63	7,75
1594.070	7,0	7,0	108	69	8,10
1594.075	7,5	7,5	108	69	9,25
1594.080	8,0	8,0	115	75	8,95
1594.085	8,5	8,5	115	75	9,95
1594.090	9,0	9,0	125	81	10,85
1594.095	9,5	9,5	125	81	12,15
1594.100	10,0	10,0	130	87	12,35
1594.105	10,5	10,5	130	87	17,55
1594.110	11,0	11,0	140	94	16,05
1594.115	11,5	11,5	140	94	20,60
1594.120	12,0	12,0	150	101	19,15
1594.125	12,5	12,5	150	101	23,25
1594.130	13,0	13,0	150	101	20,60
1594.135	13,5	13,0	160	108	29,90
1594.140	14,0	13,0	160	108	28,35
1594.145	14,5	13,0	168	114	32,90
1594.150	15,0	13,0	168	114	32,20
1594.155	15,5	13,0	176	120	39,90
1594.160	16,0	13,0	176	120	35,45
1594.162	16,2	13,0	200	140	46,45
1594.165	16,5	13,0	180	120	46,45
1594.180	18,0	13,0	190	130	43,60
1594.190	19,0	13,0	192	132	48,05
1594.200	20,0	13,0	200	140	50,80
Sets					
Order No.	Description				€
1594.805	5 pcs. in an blister.				30,20
3575.505	6 pcs. Set in woode countersink 2202 (		.594 Ø 3, 4, 5, 6, 8	3 mm &	61,10
1594.507	7 pcs. in wooden ca	ase: Ø 3, 4, 5, 6, 8,	, 10, 12 mm		67,65
1594.510	10 pcs. in wooden	case. Ø 3, 4, 5, 6,	8, 10, 12, 13, 14 a	and 16 mm	144,50
1594.819	19 pcs. in Rose pla				127,70
1594.825	25-pcs. in Rose plastic-box Ø 1 - 13 mm, 0,5 mm steps				



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Premium version of fully ground quality with two main edges and two cutting lips. Special internally ground spiral  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ for very good chip removal. Ground by robots on CNCmachines



For exact drilling into all wooden materials, hardwood and laminated boards. Shank constructed for drill chuck Ø 13

HSS-G



Premium quality at a fair price. Specially designed chip flutes guarantee good chip removal



2400 - 8000 min-1. e.g. Ø 4 mm 5000 min-1 in Europe hardwood. Also find details at the speed-diagrams











	O-Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1595.020	2,0	2,0	49	22	12,45
1595.025	2,5	2,5	57	25	12,45
1595.030	3,0	3,0	60	33	10,50
1595.035	3,5	3,5	70	39	11,20
1595.040	4,0	4,0	75	43	11,20
1595.045	4,5	4,5	80	47	11,95
1595.050	5,0	5,0	85	52	11,95
1595.060	6,0	6,0	92	57	12,65
1595.070	7,0	7,0	108	69	14,50
1595.080	8,0	8,0	115	75	15,60
1595.090	9,0	9,0	125	81	19,50
1595.100	10.0	10.0	130	87	21.00



First class version left hand cut, fully ground quality with
two main edges and two cutting lips. Internally ground
special spiral for very good chip removal, ground by robots
on CNC-machines



For exact drilling into all wooden materials, hardwood and laminated boards. Shank constructed for drill chuck Ø 13 mm. Left hand cut



HSS-G



Premium quality at a fair price. Specially designed chip flutes guarantee good chip removal



3000 - 8000 min-1. e.g. Ø 5 mm 4500 min-1 in Europe hardwood. Also find details at the speed-diagrams











	First class version extra long, fully ground quality with two main edges and two cutting lips. Internally ground special spiral for very good chip removal, ground by robots on CNC-machines
The state of the s	For exact drilling in all wooden materials, hardwood and laminated boards. Special designed chip flutes guarantee good chip removal.
倒	HSS-G
	Premium quality at a fair price. Due to the specially designed chip flutes it is ideal for drilling deep holes
UPM	2500 - 4000 min-1. e.g. Ø 5 mm 4000 min-1 in Europe hardwood. small Ø with long OAL use with less speed
	Packing unit = 1. Rose-tube. EAN

					•
OAL 150 m	m				
07.12 200 111	 0-ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1599.103	3	3	150	100	12,00
1599.104	4	4	150	100	12,00
1599.105	5	5	150	100	12.65
1599.106	6	6	150	100	13,45
1599.107	7	7	150	100	17,45
1599.108	8	8	150	100	17,45
1599.109	9	9	150	100	18,50
1599.110	10	10	150	100	20,25
	11	11	150	100	
1599.111		11	130	100	22,95
0AL 250 m					
	0-Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1599.203	3	3	250	200	17,25
1599.204	4	4	250	200	17,25
1599.205	5	5	250	200	19,70
1599.206	6	6	250	200	22,05
1599.207	7	7	250	200	28,45
1599.208	8	8	250	200	28,45
1599.209	9	9	250	200	31,75
1599.210	10	10	250	200	34,55
1599.211	11	11	250	200	39,85
1599.212	12	12	250	200	43,85
1599.213	13	13	250	200	46,55
1599.214	14	13	250	200	50,40
1599.215	15	13	250	200	57,85
1599.216	16	13	250	200	63,75
		10	200	200	00,10
OAL 315 m					
	.O-Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1599.303	3	3	315	250	22,50
1599.304	4	4	315	250	22,50
1599.305	5	5	315	250	25,65
1599.306	6	6	315	250	28,70
1599.307	7	7	315	250	37,00
1599.308	8	8	315	250	37,00
1599.309	9	9	315	250	41,25
1599.310	10	10	315	250	44,95
1599.311	11	11	315	250	51,70
1599.312	12	12	315	250	57,05
1599.313	13	13	315	250	60,50
1599.314	14	13	315	250	66,60
1599.315	15	13	315	250	77,50
1599.316	16	13	315	250	90,30
OAL 400 m	m				
	0-Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1599.403	3	3	400	300	29,25
1599.404	4	4	400	300	29,25
1599.405	5	5	400	300	33,30
1599.406	6	6	400	300	37,30
1599.407	7	7	400	300	48,05
1599.408	8	8	400	300	48,05
1599.409	9	9	400	300	53,65
	10	10	400	300	,
1599.410	11		400		58,40
1599.411		11		300	67,15
1599.412	12	12	400	300	74,15
1599.413	13	13	400	300	78,65
1599.414	14	13	400	300	86,55
1599.415	15	13	400	300	100,75
1599.416	16	13	400	300	117,30
Sets					
Order No.	Description				€
1599.507	7 pcs. Set in wood	en case: GL 250 mr	m, NL 200 mm. Ø	3, 4, 5, 6, 7, 8, 9,	162,25
	10, 11, 12 mm				
1599.510		den case: GL 150 n	nm, NL 100 mm.	Ø 3, 4, 5, 6, 8, 10,	145,15
4	12 mm				



Special drill for wood and metal HSS-G





	Ø	S-Ø	OAL	Spiral I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
2470.308	8	8	300	240	89,35
2470.310	10	10	300	240	95,05
2470.312	12	12	300	240	125,80
2470.316	16	13	340	280	153,70
2470.320	20	13	340	280	195,60

bra	oiral drill for wood and metal, fully ground and with special ad point. Special ground spiral for very good chip removal Id high rigidity. Ground by CNC-machines.	For extremely dimensionally accurate holes in metal-wood connections. Thanks to the specially designed spiral it is possible to receive a good chip removal and the best results in deep holes.
HS	SS-G	For very good results, use the recommended speed. Please do not work at low speeds because the spiral form can cause a forward spin, which can easily reach the breaking point.
UPM 100	000 - 1500 min-1, e.g. Ø 8 mm, 2000 min-1	Packing unit = 1. PE tube. EAN

1591



Mashine Drill with brad point, HSS







	O-Ø	SØ	OAL	NL	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1591.030	3	3	61	33	4,40
1591.040	4	4	75	43	4,50
1591.050	5	5	86	52	4,75
1591.060	6	6	93	57	4,95
1591.070	7	7	109	69	5,55
1591.080	8	8	117	75	5,80
1591.090	9	9	125	80	6,45
1591.100	10	10	133	87	6,80
1591.110	11	10	142	89	8,50
1591.120	12	10	151	96	10,30
1591.130	13	10	151	96	11,90
1591.140	14	10	151	96	14,50
1591.150	15	10	160	100	16,80
1591.160	16	10	160	100	19,35
1591.180	18	10	180	130	27,85
1591.200	20	10	200	140	32,65
Sets					
Order No.	Description				€
1591.805	5 pcs. In an blister	: Ø 3, 4, 5, 6, 8 mm	l		21,90
1591.507	7 pcs. In wooden o	ase: Ø 3, 4, 5, 6, 8,	10, 12 mm		39,95
1591.511	11 pcs. In wooden	case: Ø 3, 4, 5, 6, 8	3, 10, 12, 13, 14, 1	15. 16 mm	99.95

	With center point, 2 main cutters and 2 roughing taps. Cylindrical shank up to Ø 10 mm, ≥ Ø 10 mm with Shank-Ø 10 mm.	For accurate borings in soft wood, European hard woods, chipboards as well as MDF panels. Ideal use in cordless screwdriver in softwood
倒	HSS	The cost-effective wood spiral drill with roughing taps. For higher standards we recommend our line 1594 in HSS-G with roughing taps.
UPM	2400-8000 min-1 e.g. Ø 4 mm 5000 min-1 in European hardwood. Please see speed diagrams in "information".	VE = 1 SB in rose tube. EAN



OOO Profi

Machine Drill with brad point and cutting lips carbide tipped











	O-Ø	SØ	OAL	NL	
Order No.	[mm]	[Ø]	[mm]	[mm]	€
1593.030	3	3	58	30	17,40
1593.040	4	4	72	40	17,40
1593.050	5	5	83	49	18,10
1593.060	6	6	90	54	19,45
1593.070	7	7	106	66	21,30
1593.080	8	8	114	72	21,30
1593.090	9	9	122	78	26,80
1593.100	10	10	130	84	26,80
1593.110	11	11	139	91	30,15
1593.120	12	12	148	98	30,15
Sets					
Order No.	Description				€
1593.805	5 pcs. Set in an blister: Ø 3, 4, 5	, 6, 8 mm			84,25
3575.507	7 pcs. Set in wooden case 1593	Ø 3, 4, 5, 6, 8 mm + 2202 VARI	0 countersink 90°		115,25
1593.507	7 pcs. Set in wooden case: Ø 3,	4, 5, 6, 8, 10, 12 mm			135,45
1593.510	10 pcs. Set in wooden case: Ø 3	, 4, 5, 6, 7, 8, 9, 10, 11, 12 mm			205,85

	o pos. set iii wooden case. 9 o, 4, 0, 0, 1, 0, 5, 10, 11, 12 iiiii	•	200,00
	Cylindrical carbide tipped machine drill with brad point, two main edges, two cutting lips	and a little	For exact drilling into hardwood (European and exotic), laminated chipboards and plastics
倒	High quality carbide tipping		Professional tool at a fair price with an unbelievably endurance. Top for freehand drilling and also stationary use. Boring and countersinking can be used in combination with countersink VARIO 2202.
	4.000 - $10.000$ min-1. e.g. Ø 5 mm 8.000 min-1 in europ. hardwood. Also find details at the speed-diagrams		Packing unit = 1. Rose-tube. EAN







	O-Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
3500.030	3	3	61	33	2,40
3500.040	4	4	75	43	2,70
3500.050	5	5	86	52	2,95
3500.060	6	6	93	57	3,05
3500.070	7	7	109	69	3,15
3500.080	8	8	117	75	3,50
3500.090	9	9	120	80	4,05
3500.100	10	10	129	87	4,20
3500.110	11	10	142	89	5,30
3500.120	12	10	151	96	5,65
3500.130	13	10	151	96	6,65
3500.140	14	10	151	96	7,05
3500.150	15	10	160	100	7,75
3500.160	16	10	160	100	8,25
3500.180	18	10	180	130	14,60
3500.200	20	10	200	140	19,40
3500.220	22	13	210	140	21,30
3500.240	24	13	215	140	23,45
3500.250	25	13	215	140	25,65
3500.260	26	13	215	145	25,65
3500.280	28	13	220	145	27,45
3500.300	30	13	220	145	29,90
Sets					
Order No.	Description				€
3501.505					
3501.508	8 pcs. Set in plastic box. Ø 3, 4, 5				11,35 16,50
3500.515	15 pcs. Set in wooden case. Ø 3		n adjusting collar+ 16 mm HSS n	nachine countersink	51,65

		With brad point, two main edges and protruding cutting edges		For exact drilling into softwood and some European hardwood
6	到	Chrome vanadium steel		The low-cost machine drill . For higher demands we recommend our product line 1594 HSS-G
(	UPM	1000 - 5000 min-1. e.g. Ø 5 mm 5000 min-1 in softwood. Also find details at the speed-diagrams	A	Packing unit = 1. PE bag. EAN

O Hobby



	O-Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
3491.006	6	6	250	190	8,25
3491.008	8	8	250	190	8,80
3491.010	10	10	250	190	10,60
3491.012	12	10	250	190	12,55
3491.014	14	10	250	190	15,20
3491.016	16	10	250	190	18,10
3491.018	18	10	250	190	20,60
3491.020	20	10	250	190	22,20
	ith brad point, two main e ges	edges and protruding cutting	For exact drilling i hardwood	into softwood and some Europea	in

	With brad point, two main edges and protruding cutting edges	Sally Sally	For exact drilling into softwood and some European hardwood
倒	Chrome vanadium steel		The low-cost long machine drill . For high demands we recommend our product line 1594 HSS-G
UPM	1500 - 4000 min-1. e.g. Ø 5 mm 4000 min-1 in softwood. Also find details at the speed-diagrams		Packing unit = 1. Rose-tube. EAN







	0-ø	Shank type	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1596.030	3	C 6,3	38	16	6,85
1596.035	3,5	C 6,3	40	18	6,85
1596.040	4	C 6,3	44	20	6,85
1596.045	4,5	C 6,3	46	24	7,05
1596.050	5	C 6,3	50	26	7,05
1596.055	5,5	C 6,3	50	26	7,55
1596.060	6	C 6,3	50	26	7,55
1596.065	6,5	C 6,3	50	30	7,55
1596.070	7	C 6,3	50	30	7,55
1596.075	7,5	C 6,3	51	32	9,45
1596.080	8	C 6,3	51	32	9,45
1596.085	8,5	C 6,3	53	33	10,25
1596.090	9	C 6,3	53	33	11,60
1596.100	10	C 6,3	54	38	11,60
Sets					
Order No.	Description				€
1596.508	9 pcs. set in wood	den case. Ø 3, 4, 5, 6,	7, 8, 9 and 10 n	nm and bitholder	64,70
1596 805	5 ncs nacked in l	nlister Ø3 4 5 6 an	d 8 mm		33.80



	One-pieced twist drill-bit (C6,3) with brad point, two main edges, two cutting lips and hex shank for bit holder (1/4"; C 6,3)	Sally Sally	For predrilling, boring in all wooden materials and many plastics
倒	HSS-G		Good handling with cordless screwdriver. The specially smooth chip flutes result in good chip removing. Also deliverable as twist drill version 2596
UPM	Maximum rotational speed of the cordless screwdriver: recommended 3000 min-1		Packing unit = 1. Rose-tube. EAN









	O-Ø	Shank type	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1597.030	3	C 6,3	70	45	8,10
1597.035	3,5	C 6,3	70	45	8,10
1597.040	4	C 6,3	75	50	7,90
1597.045	4,5	C 6,3	80	55	7,90
1597.050	5	C 6,3	86	61	7,80
1597.055	5,5	C 6,3	93	68	7,60
1597.060	6	C 6,3	93	68	7,60
1597.065	6,5	C 6,3	101	76	7,55
1597.070	7	C 6,3	109	84	8,15
1597.075	7,5	C 6,3	109	84	9,45
1597.080	8	C 6,3	117	92	9,45
1597.085	8,5	C 6,3	117	92	10,25
1597.090	9	C 6,3	125	100	11,60
1597.100	10	C 6,3	133	108	11,60
1597.110	11	C 6,3	142	117	14,65
1597.120	12	C 6,3	151	126	16,05
1597.130	13	C 6,3	151	126	17,20
Sets					
Order No	Description				£

Sets		
Order No.	Description	€
1597.805	5 pcs. packed in blister. Ø 3, 4, 5, 6 and 8 mm	36,65
1597.507	7 pcs. set in wooden case: Ø 3, 4, 5, 6, 8, 10, 12 mm	56,75
1597.511	11 pcs. set in wooden case: Ø 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 mm	107,55

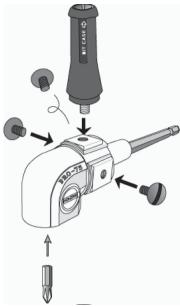
1097.011 1	.1 pcs. set iii woodeii case. 9 3, 4, 3, 6, 7, 6, 9, 10, 11, 12, 13	107,55	
	One-pieced twist drill-bit (E 6,3) with brad point, two main edges, two cutting lips and hex shank for bit holder (1/4"; E 6,3)		For fast predrilling and countersinking of screw connections with flat head. Boring and countersinking in all wooden materials and many plastics
倒	HSS-G		Good handling with cordless screwdriver. Also available as twist drill version 2596
(UPM)	Maximum rotational speed for the cordless screwdriver: recommended 3000 min-1		Packing unit = 1. Rose-tube. EAN

I-Shaped Driver PR075





OOO Profi





	· ·			
	Bit		Height	
Order No.	[mm]	Angle	[mm]	€
1597.750	6,3	90°	40	92,00
Sets				
Order No.	Description			€
	Pro75 set in wooden case in version wood working. 1596 Ø 3			117,40
	Pro75 set in wooden case in version metal working. 2596 Ø 3		ountersink, cuck and bits	117,40
	13 pcs. set in bag. Type 1596 Ø 3, 4, 5, 6, 8, 10 mm, 3532 at			141,90
1597.613	13 pcs. set in bag. Type 1597 Ø 3, 4, 5, 6, 8, 10 mm, 3532 at	nd cuck		145,00
	Stable L-shaped driver with casing made of aluminium and bevel toothed metal gear wheels (ideal transmission). Take up for all 1/4" bits and boring tools (e.g. 1596) with hex shank. Angle of screwing 90°, exchangeable plastic handle		Professional screwing and drilling also in deep cordless screwdriver	angles with
倒	Aluminium casing		It's ideal for making screwed connections with screwdriver even when there is little space. W 1596/2596	
UPM	Rotational speed of cordless screwdriver max 2000 min-1		Packing unit = 1, Blister. EAN	





Ø 3 and 4 mm bits with depth ring mounted; it should be

single bits

used with lower rpm than the recommended speed for the



0-Ø

Packing unit = 10. Rose-tube. EAN

Order No.	[mm]	[pcs]	[mm]	€
2108.003	3	10	7	15,30
2108.004	4	10	8	15,30
2108.005	5	10	10	14,55
2108.006	6	10	12	14,55
2108.007	7	10	12	14,55
2108.008	8	10	16	15,30
2108.009	9	10	18	16,85
2108.010	10	10	20	17,45
2108.011	11	10	20	18,95
2108.012	12	10	22	19,75
Sets				
Order No.	Description			€
2108.505	5 pcs. Set in plastic tube. Ø 4, 5, 6, 8 and 10 r	mm		7,00
2108.507	7 pcs. Set in plastic tube. Ø 3, 4, 5, 6, 8, 10 a			10,10
	ter single for countersinks with Ø 16mm outsid			,
Order No.	Description	ue		€
2108.216	depth adjuster for countersinks type 2100 Ø 3	2 7 mm		5,35
2106.210	depth adjuster for countersinks type 2100 Ø S	3-7		5,55
	Clamp ring to put on twist drills with lateral screw	attachment For fixing	g on drill bits to adjust the drilling dep	oth
倒	Tool steel	If you do	n't need 10 pcs. in one size we recom	nmend 2108.2

ΡU





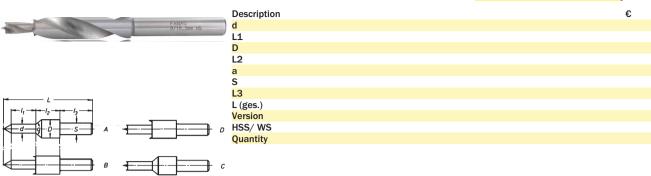
Order No.	Description	Ø1 [mm]	L 1 [mm]	Ø2 [mm]	L 2 [mm]	Ø3 [mm]	L 3 [mm]	S-Ø [mm]	Shank length [mm]	€
1886.050	with depth stop	5	36	7	20	10	20	8	25	49,35
1886.150	without depth stop	5	36	7	20	10	20	8	25	47,60
	Three-stepped cutting edges	l machine dr	ill with brad po	nt and protrudin	g	For pre operat	_	untersinking	holes in a single	

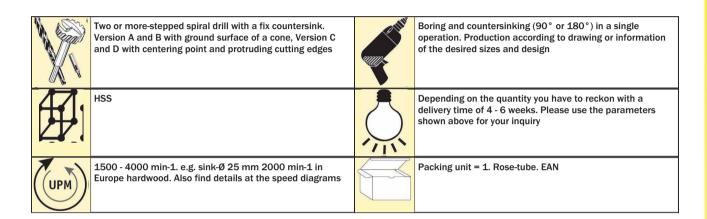
	Three-stepped machine drill with brad point and protruding cutting edges	Control of the second	For pre-drilling and countersinking holes in a single operation
倒	HSS		Of course the clamp ring can be used with this drill
UPM	Ø 5 mm 5000 min-1 in chipboard. Less speed at laminated plates		Packing unit = 1. Rose-tube. EAN

Name of the last o

Stepped machine Drill custom made





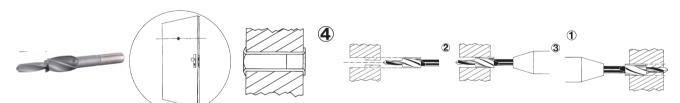


1880



**Drill for door viewer** 





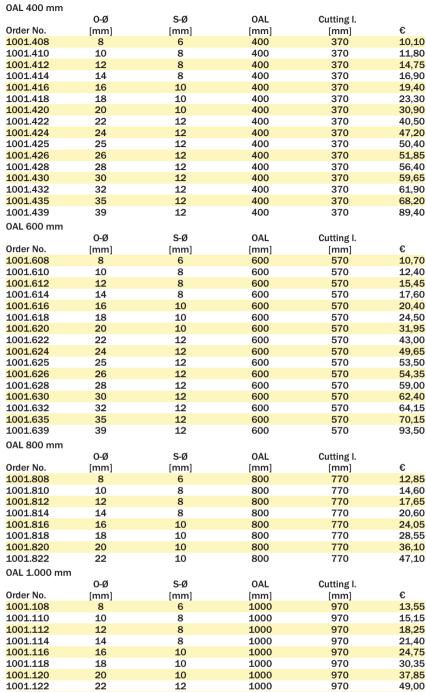
		Ø1	L1	Ø2	L 2	Stem Ø	S-Ø	
Order No.	~D	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	€
1880.001	12 mm	8	25	13	25	10	10 x 30	50,60
1880.002	14 mm	8	25	15	25	10	10 x 30	53,60

	Two-stepped machine drill. First bit with point angle, core drill with two cutting lips	September 1	For boring tear free and exact holes for inserting a door viewer. For details please see drawing
倒	Alloyed tool steel		If the door leaf has an aluminium core, best results are achieved with the stepped machine drills HSS 3692
UPM	free hand application: max speed from cordless screwdriver. Also find details at the speed-diagrams	S	Packing unit = 1. Rose-tube. EAN









	Twist drill with long shank and specially ground roof-like tip which can easily be regrounded. Construction according to DIN 7490 and the applicable safety
	For boring external and internal form boards in a single operation and boring in wooden ceilings and floors of old buildings
倒	Chrome vanadium steel
	For boring into metal we recommend our version 1002 HSS
17 1	800 - 2500 min-1. e.g. Ø 10 mm 2500 min-1 in formwork panel

Packing unit = 1. PE bag. EAN OAL 1000mm in tube

UPM)

1001.124

1001.126

1001.128

1001.130

24

26

28

30

12

12

12

12

1000

1000

1000

1000

970

970

970

970

53,70

57,95

62,45

65,30

OOO Profi

1002

## Roarding and Plumbing Auger HSS





0AL 400 mm					
	O-Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1002.406	6	5	400	370	11,65
1002.408	8	6	400	370	10,90
1002.410	10	8	400	370	12,95
1002.412	12	8	400	370	16,20
1002.414	14	8	400	370	19,75
1002.416	16	10	400	370	24,45
1002.418	18	10	400	370	28,85
1002.420	20	10	400	370	32,75
1002.422	22	10	400	370	47,80
OAL 600 mm					
	O-Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1002.608	8	8	600	570	11,95
1002.610	10	8	600	570	13,85
1002.612	12	8	600	570	17,20
1002.614	14	8	600	570	20,75
1002.616	16	10	600	570	26,00
1002.618	18	10	600	570	30,55
1002.620	20	10	600	570	34,35

	Twist drill with long shank and specially ground roof-like tip which can easily be regrounded. Construction according to DIN 7490 and the applicable safety regulations	For boring external and internal form boards in a single operation and boring in wooden ceilings and floors of old buildings
倒	HSS	For the hardest application or for boring into metal
UPM	1600 - 3000 min-1. e.g. Ø 14 mm 2200 min-1 in formwork panel	Packing unit = 1. PE bag. EAN



## Boarding and Plumbing Auger, SDS-plus shank





0AL 400mm					
	O-Ø	Shank type	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1005.410	10	SDS	400	370	22,30
1005.412	12	SDS	400	370	25,00
1005.414	14	SDS	400	370	26,85
1005.416	16	SDS	400	370	30,55
1005.418	18	SDS	400	370	40,90
1005.420	20	SDS	400	370	44,60
1005.422	22	SDS	400	370	55,05
1005.424	24	SDS	400	370	62,70
1005.425	25	SDS	400	370	74,35
0AL 600mm					
	O-Ø	Shank type	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1005.610	10	SDS	600	570	23,20
1005.612	12	SDS	600	570	26,10
1005.614	14	SDS	600	570	28,80
1005.616	16	SDS	600	570	31,95
1005.618	18	SDS	600	570	42,30
1005.620	20	SDS	600	570	45,85
1005.622	22	SDS	600	570	56,90
1005.624	24	SDS	600	570	66,60
1005.625	25	SDS	600	570	79,85
	23	ODO			
1005.626	26	SDS	600	570	84,35
1005.626 1005.628 1005.630				570 570 570	84,35 89,20 96,75

	•	
	Twist drill with long shank (SDS-plus) and specially ground roof-like tip which can easily be regrounded. Construction according to DIN 7490 and the applicable safety regulations	For boring external and internal form boards in a single operation and boring in wooden ceilings and floors of old buildings
倒	Chrome vanadium steel	These drills are not allowed to be used with a hammer or impact drill
UPM	1200 - 2500 min-1. e.g. Ø 22 mm 1200 min-1 in formwork panel	Packing unit = 1. PE clip. EAN











	O-Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
1775.010	10	8	90	60	15,05
1775.013	13	8	90	60	16,20
1775.016	16	8	90	60	16,85
1775.020	20	8	90	60	18,80
1775.025	25	8	90	60	22,75
1775.030	30	8	90	60	26,85
Sets					
Order No.	Description				€
1775.505	5 pcs. Set in wood	en case. Ø 10, 13,	16, 20 and 25 mn	n	80,55



	Countersink with 7 edges and acute angle 90°, irregular pitch and parallel shank. Now with fully ground tool head	Selling.	Countersinking into all sorts of wood, for veneered, laminated panels and many plastics
倒	Alloyed tool steel		Due to the specially designed pitch it is possible to countersink without chattering in softwood. For all nonferrous metals, hard plastics etc. we recommend the carbide tipped adjustable countersink VARIO 2202 or the countersinks version 3540
UPM	1000 - 2500 min-1. e.g. Ø 16 mm 1800 min-1 in softwood. Also find details at the speed-diagrams	S	Packing unit = 1. Rose-tube. EAN

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## Machine Countersink with bored hole 90°





	O-Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
2115.013	13	8	80	50	19,70
2115.016	16	8	90	60	22,60
2115.020	20	8	90	60	26,45

	Machine countersink with bored hole with one edge and countersinking angle of 90°	Collin Collins	Countersinking into all sorts of wood, for veneered, laminated panels (for plastic laminated panels we recommend VARIO 2202)
	Alloyed tool steel		Thanks to the tool head´s geometry good guidance and countersinking without chattering is possible.
UPM	600 - 1000 min-1. e.g. Ø 16 mm 800 min-1 in softwood		Packing unit = 1. Rose-tube. EAN

3532

O Hobby

Countersink





	0-Ø	S-Ø	OAL	
Order No.	[mm]	[mm]	[mm]	€
3532.010	10	E 6,3	50	4,00
3532.012	12	E 6,3	50	4,20
3532.014	14	E 6,3	50	4,30
3532.016	16	E 6,3	50	4,35
3532.020	20	E 6,3	50	4,85



-	A.	No.		3
			The state of the s	
_	1		7	_

Countersink with 5 edges and point angle  $90\,^\circ$  and bit shank E 6,3



Countersinking into softwood and veneered panels (for plastic laminated panels we recommend VARIO 2202). The low-price countersink for do-it-yourself people

田

Alloyed tool steel



For hard plastics etc. we recommend the carbide tipped VARIO 2202 or the version 3540



500 - 2500 min-1. e.g. Ø 12 mm 2000 min-1 in softwood. Also find details at the speed-diagrams





Classic





	I-Ø	O-Ø	OAL	
Order No.	[mm]	[mm]	[mm]	€
2100.030	3,0	16	25	12,60
2100.035	3,5	16	25	12,60
2100.040	4,0	16	25	12,60
2100.045	4,5	16	25	12,60
2100.050	5,0	16	25	12,60
2100.055	5,5	16	25	12,60
2100.060	6,0	16	25	12,60
2100.065	6,5	16	25	15,70
2100.070	7,0	16	25	15,70
2100.080	8,0	20	25	15,70
2100.100	10,0	20	25	15,70
Accessory				

Order No. Description
2108.216 depth adjusting collar for countersinks 3 - 7 mm

€ 5,35



Shell drill countersink with 5 edges and point angle 90° to clip on machine drills incl. fixed spanner without drill



Boring and countersinking in a single operation. For clipping on machine drills with the appropriate Ø. Very good for softwood, veneered panels but limited for European hardwood



Tool steel



Countersinking screw heads and boring in a single operation to softwood. We recommend drills of version 3500 or 1591. For higher demands we recommend 1594 (HSS-G) with VARIO 2202



1500 - 2200 min-1. e.g. all countersinks with A-Ø 16 mm 1500 min-1 in softwood



3537 Hobby

Shell Drill-Countersink Hobby, Fconomy





	I-Ø	O-Ø	OAL	
Order No.	[mm]	[mm]	[mm]	€
3537.003	3	12	20	6,60
3537.004	4	12	20	6,60
3537.005	5	12	20	6,60
3537.006	6	12	20	6,60

	Shell drill countersink with 5 edges and point angle 90° to clip on machine drills. For do-it-yourself people. Without fixed spanner	Boring and countersinking in a single operation. For fitting machine drills with the appropriate Ø. Very good for softwood
例	Tool steel	Countersinking screw heads and boring in a single operation into softwood. We recommend drills of version 3500 or 1590. For higher demands we recommend 2100 with VARIO 2202
UPM	2000 - 2200 min-1. e.g. all counter sinks with A-Ø 12 mm 2000 min-1 in softwood. Also find details at the speed-diagrams	Packing unit = 1. Rose-tube. EAN











	I-10	0-Ø	OAL	>	
Order No.	[mm]	[mm]	[mm]	[°]	€
2202.000	3-8	10,5 - 14,5	34	90	34,50
2204.000	3-8	10,5 - 14,5	35	180	34,50
Sets					
Order No.	Description				€
3575.505	6 pcs. Set in woo	den case. Drill bits 15	94 Ø 3, 4, 5, 6, 8	3 mm &	61,10
	countersink 2202	2 (90°)			
3575.504	6 pcs. In wooden	case.Type 1594 Ø 3,	4, 5, 6, 8 mm an	d VARIO	61,10
	Countersink 220	4 (180°)			
3575.507	7 pcs. Set in woo	den case 1593 Ø 3, 4	, 5, 6, 8 mm + 2	202 VARIO	115,25
	countersink 90°				







	Professional carbide tipped adjustable countersink, countersinking angle 90° or 180°, two-part version. Can be clipped on all machine drills Ø 3-8 mm	Boring and countersinking in a single operation by fitting machine drills (also intermediate sizes e.g. 5.5 mm). Fits all sorts of wood, laminated panels and many plastics
倒	High quality carbide tipping	For simultanously boring and countersinking screw heads. You get the following dimensions by using: (Ødrill/countersink size): 3/10,5, 4/11,5, 5/12,5, 6/13,5, 8/14,5
UPM	3000 - 5000 min-1. e.g. Drill-Ø 4 mm 4000 min-1 in euro. hardwood, also possible with less speed in cordless screwdrivers	Packing unit = 1. Rose-tube. EAN



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Order No.	Description			€	
3577.040	Drill-Countersink-Set 4 mm with depth stop			30,95	
3577.050	Drill-Countersink-Set 5 mm with depth stop			30,95	
3577.060	Drill-Countersink-Set 6 mm with depth stop			30,95	
Sets					
Order No.	Description			€	
3577.504	Drill-Countersink-Set of 4 pcs. Ø 4, 5 and 6 mm + Depth Stop in	n wooden case	e	73,00	
Accessory					
Order No.	Description			€	
3577.104	Countersink single Ø 4 mm			15,25	
3577.105	Countersink single Ø 5 mm			15,25	
3577.106	Countersink single Ø 6 mm			15,25	
3577.140	Pre-drill Ø 4 mm			4,35	
3577.150	.150 Pre-drill Ø 5 mm				
3577.160	Pre-drill Ø 6 mm			5,60	
3577.212	Depth stop single, rotationally supported			17,40	
	High quality drill-countersink-set with brass rotating depth stop. Depth adjustable pre-drill. Countersink angle 60°	and a second	This set is particularly well suited for screwing holes in terraces boards which we have to drill, sink clean and accurate. The depth stop is rotatably mounted and stowhen it touches the workpiece, this prevents that the stop leaves imprints on the terrace boards.	ops	
倒	Countersink/Pre-drill: alloyed tool steel. Depth Stop: brass		Adjust the depth so that floor board is just transpierce (Board thickness). Thus, the self-tapping terrace screperfect fit.		
UPM	1500 - 2200 min-1 e.g. recommended value aprox. 1800 min-1 in hardwood		Packing unit = 1 Rose-tube. EAN		

1500 - 2200 min-1. e.g. standard value ca. 1800 min-1 in softwood

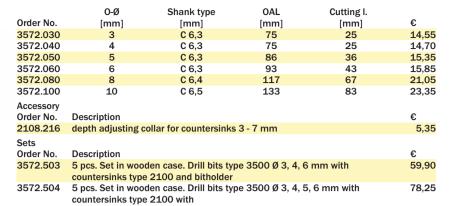






	I-Ø	O-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
3573.030	3	16	60	15	13,50
3573.040	4	16	75	30	13,50
3573.050	5	16	85	40	13,50
3573.060	6	16	95	50	13,50
3573.080	8	20	115	70	14,60
3573.100	10	20	130	85	15,20
Accessory					
Order No.	Description				€
2108.216	depth adjusting collar for counter	sinks 3 - 7 mm			5,35
Sets	aopan aajasang senan rer seames				0,00
Order No.	Description				6
	Description	ita tuma 2500 Ø 2 .4 5 6 mm	with countersinks type 2400 I	double adjusting calley	€
3574.504	5 pcs. Set in wooden case. Drill b	its type 3500 Ø 3, 4, 5, 6 mm	with countersinks type 2100 4	depth adjusting conar	51,60
	Machine drills version 3500 (CV) with clipped on countersinks 2100 (tool steel) and hexagon socket wrench for soft wood and limited fit for European hardwood.				
田田	Tool steel		drills 1594 (HSS) Put the depth a	d. For hardwood we recommend 5-G) and adjustable countersink : djusting collar 2108.216 directly d set lowering depth	2202









Warm!	Bit (E 6,3) with brad point, two main edges, two cutting lips and hex shank for bit holder ( $1/4$ "; E 6,3). With clipped on countersink 2100 (tool steel)		Fast tool change in the bit holders. Boring into all wooden materials and many plastics
倒	HSS		Boring and countersinking in a single operation. For predrilling without countersinking we recommend version 1596 (HSS-G)
	1500 - 2200 min-1. e.g. standard value ca. 1800 min-1 in softwood	A	Packing unit = 1. Rose-tube. EAN





	I-Ø	0-Ø	OAL	
Order No.	[mm]	[mm]	[mm]	€
2101.030	3,0	16	16	40,30
2101.035	3,5	16	16	40,30
2101.040	4,0	16	16	40,30
2101.045	4,5	16	16	40,30
2101.050	5,0	16	16	40,30
2101.060	6,0	16	16	40,30
2101.070	7,0	16	16	40,30
2101.080	8,0	18	16	43,40
2101.100	10,0	20	16	44,30



	Shell drill countersink with 2 edges and point angle 90° to clip on machine drills	Boring and countersinking in a single operation. For fitting on machine drills. Very good for softwood, European hardwood, veneered panels and plastics
倒	HSS	Countersinking screw heads and boring in a single operation. Long endurance due to HSS. We recommend the drills 1594 and 1599 HSS-G of our product range. Unsuitable for depth adjusting collar 2106.216
UPM	2000 - 3500 min-1. e.g. standard value ca. 3000 min-1 in euro. hardwood, also possible with less speed in cordless screwdrivers	Packing unit = 1. Rose-tube. EAN

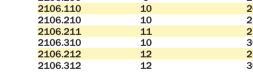
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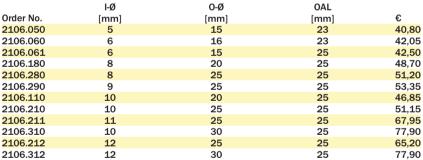
000 Profi

Shell Drill-Countersink rectangular 180°











Shell drill countersink for right-angled countersinks with two main edges and two roughing taps to clip on machine drills



Boring and countersinking in a single operation. For fitting on machine drills. Very good for softwood, European hardwood, veneered panels and plastics



HSS



For countersinking washers/screw nuts and boring in a single operation. We recommend machine drill 1594 and 1599 HSS-G



1700 - 3000 min-1. e.g. Ø 12 mm 2000 min-1 in euro. hardwood, also possible with less speed in cordless screwdrivers







	O-Ø	S-Ø	OAL	
Order No.	[mm]	[mm]	[mm]	€
1540.001	15 - 45	12	150	46,30
1540.002	22 - 76	13	150	57,85
1540.003	22 - 100	13	150	126,15
spare blades		0-Ø		
Order No.		[mm]		€
1540.101		15 - 25		13,40
1540.102		25 - 45		13,90
1540.201		22 - 40		13,90
1540.202		40 - 76		17,35
1540.203		70 - 100		63,75
	Version with brad point, one fixed main e knife with roughing tap. Expansive bit wit shank 13 x 50 mm		For boring into softwood, universal for all diame intermediate sizes	eters and
倒	Tool steel	5	Only for stationary use. This tool is a compromi professional use we recommend our cylinder be	
(UPM)	300 - 1500 min-1. e.g. for Ø 50 mm 600 stationary	min-1 in softwood	 Packing unit = 1. Rose-tube. EAN	



			-		
	0-ø	S-Ø	OAL	Cutting I.	-
Order No.	[mm]	[mm]	[mm]	[mm]	€
3510.008	8	E 6,3	150	120	3,35
3510.010	10	E 6,3	150	120	3,35
3510.011	11	E 6,3	150	120	3,40
3510.012	12	E 6,3	150	120	3,40
3510.013	13	E 6,3	150	120	3,60
3510.014	14	E 6,3	150	120	3,60
3510.015	15	E 6,3	150	120	3,65
3510.016	16	E 6,3	150	120	3,65
3510.017	17	E 6,3	150	120	4,00
3510.018	18	E 6,3	150	120	4,00
3510.019	19	E 6,3	150	120	4,10
3510.020	20	E 6,3	150	120	4,10
3510.021	21	E 6,3	150	120	4,15
3510.022	22	E 6,3	150	120	4,15
3510.025	25	E 6,3	150	120	4,40
3510.028	28	E 6,3	150	120	4,60
3510.032	32	E 6,3	150	120	5,45
3510.034	34	E 6,3	150	120	6,15
3510.036	36	E 6,3	150	120	7,15
3510.038	38	E 6,3	150	120	7,25
3510.040	40	E 6,3	150	120	7,90
Extension					
	0-Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
3511.000	14	E 6,3	330	300	9,90
3511.305	16	E 6,3	305	280	12,40
Sets		•			,
Order No.	Description				€
3510.506	6 pcs. Set in plasti	c box. Ø 12, 16, 18,	20, 22, 25 mm		21,10

Classical centre bit with brad point. Polished face with two roughing taps and bit shank E 6,3. The extension shank 3511.305 has a chuck which permits fast exchange	Sold Services	For boring into softwood without precision and quality. Due to the roughing taps results are clearly better than the usual versions
Tool steel		In our opinion flat centre bits are principally no tools for professional use and are not a good fit for hardwood. It is better to use FAMAG cylinder boring bits, especially Bormax®
800 - 3000 min-1. e.g. Ø 18 mm 1600 min-1 in softwood. Also find details at the speed-diagrams		Packing unit = 1. On Rose-card. EAN











OOO Profi







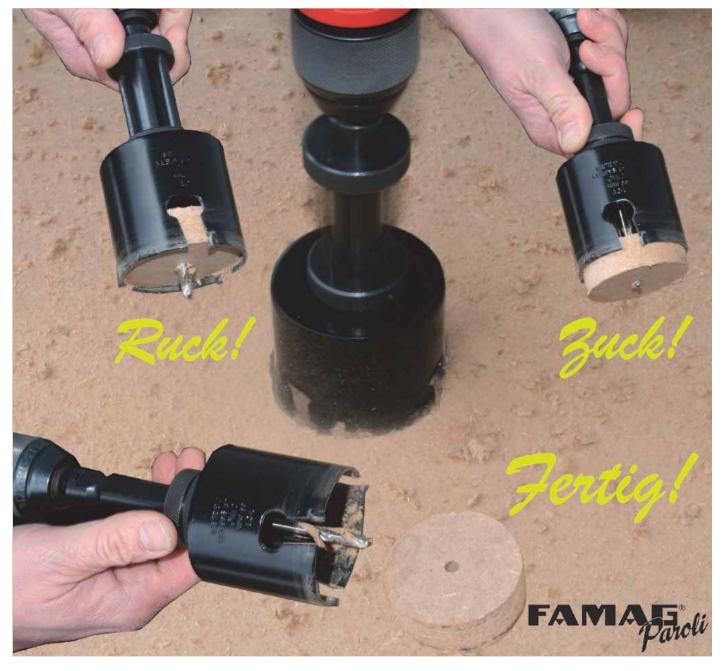
	0-Ø	AØ	Cutting I.	
Order No.	[mm]	[Inch]	[mm]	€
2166.035	35	13/8	50	16,75
2166.040	40	19/16	50	16,75
2166.045	45	<u>-</u>	50	17,35
2166.050	50	-	50	21,75
2166.051	51	2	50	21,75
2166.054	54	2 1/8	50	22,20
2166.057	57	2 1/4	50	22,45
2166.060	60	2 3/8	50	23,75
2166.064	64	2 1/2	50	27,30
2166.065	65	2 9/16	50	27,30
2166.068	68	2 11/16	50	28,85
2166.070	70	2 3/4	50	29,30
2166.073	73	2 7/8	50	29,30
2166.074	74	= :, =	50	29,30
2166.076	76	3	50	31,00
2166.080	80	=	50	30,40
2166.082	82	-	50	30,40
2166.086	86	3 3/8	50	31,90
2166.092	92	3 5/8	50	31,90
2166.102	102	4	50	40,55
2166.105	105	4 1/8	50	40,55
2166.111	111	4 3/8	50	43,85
2166.114	114	4 1/2	50	45,50
2166.121	121	4 3/4	50	59,00
2166.125	125		50	62,90
2166.133	133	5 1/2	50	70,00
2166.140	140	5 1/2	50	70,00
2166.152	152	6	50	79,70
2166.160	160	6 5/16	50	91,20
2166.165	165	-	50	95,45
2166.177	177	7	50	104,35
2166.185	185		50	114,35
2166.210	210	8 1/4	50	124,15
		O ±/ +	30	124,10
Ejector-shank system				
Order No.	Description	L. A. III C. DADOLLEO		€
2166.309	•	centre drill for PAROLI 50		25,80
2166.313	•	centre drill for PAROLI 50		28,35
2166.319	single HSS centre drill f			4,10
2166.323	single HM centre drill fo	or PAROLI 50		6,85
Edge countersink cap				
Order No.	Description			€
2166.468	Edge countersink cap @	68mm for PAROLI 50		26,90
Sets				
Order No.	Description			€
2166.805		, 60, 68, 80 mm + Ejector-sh	nank and HSS centre	148,20
	drill for PAROLI 50	, , , , , , , , , , , , , , , , , , , ,		, _ •
2166.807		, 60, 68, 80 + Edge counters	sink cap for Ø 68 mm	177,10
		S centre drill for PAROLI 50		, -

	Carbide tipped hole saw, the saw body is made of steel, cutting depth 50 mm		Drilling in all kinds of woods and boards, MDF, aerated concrete, plaster board, plastics and tile
倒	Carbide tipped		By using the utmost clever ejector-shank system, you can easily remove the core and save a lot of time and trouble. Perfect concentricity thanks to massive ground and one-pieced saw body
UPM	A great torque is required at big diameters. Speed according to the diagram	T T	packing unit: 1 at Rose Clip. EAN

















	0-Ø	Cutting I.	
Order No.	[mm]	[mm]	€
2169.051	51	165	67,80
2169.060	60	165	76,20
2169.070	70	165	89,90
2169.080	80	165	101,15
2169.102	102	165	114,10
2169.111	111	165	127,60
2169.121	121	165	148,35
2169.130	130	165	171,75
2169.152	152	165	196,95
2169.160	160	165	250,30
Ejector shar	nk system		
Order No.	Description		€
2169.309	Ejector-shank for PAROLI 165		26,25
2169.310	Ejector-shank incl. guiding spike for PAROLI 165		34,00
2169.320	single guiding spike for PAROLI 165		7,85

	Carbide tipped hole saw, the saw body is made of steel, cutting depth 165 mm	Drilling in all kinds of woods and boards (also solid wood), MDF, aerated concrete, plaster board and plastics.The large length is ideal for drilling holes in solid wood for ventilation, drainage and flue pipes
倒	Carbide tipped	By using the utmost clever ejector-shank system, you can easily remove the core and save a lot of time and trouble
UPM	A great torque is required at big diameters. Speed according to the diagram	packing unit: 1 at Rose Clip. EAN











		O-Ø	Cutting I.	
Order No.	Description	[mm]	[mm]	€
2155.035	Wall lamp junction boxes	35	105	61,90
2155.065	Facade dowels	65	105	86,05
2155.068	hollow wall box, junction box	68	105	96,85
2155.074	hollow wall box, junction box	74	105	107,60
2155.106	blow-in opening insulation	106,5	105	160,35
2155.121	fire protection – halogen lamp – casing	121	105	172,20
Ejector sha	nk system			
Order No.	Description			€
2155.311	Ejector-shank for 2155			21,50

2155.311 E	jector-shank for 2155	21,50
	First hole saw with serrated edge for actually all insulation materials such as: Wood insulation boards, polystyrene, mineral wool, PU- foam etc. Very clean cuts	Fast, very clean and circular cuts in mineral wool, polyurethane foam, polystyrene foam, deather, rubber, paper, carpet and especially in wood fiber insulation boards
倒	Alloyed tool steel	The drill core is removed by the ejector in a heartbeat. Due to the thin-walled cutting, the core can be used again f.e. to close the blow-in opening
UPM	According to corresponding diagrams	packing unit = 1. in Yellow cardboard tube. Ø 106 + 121 in Carton. EAN

Order No.

റ-മ

[mm]





00 Classic



€

Cutting I.

[mm]

35

35

129,05

135.45

15,55

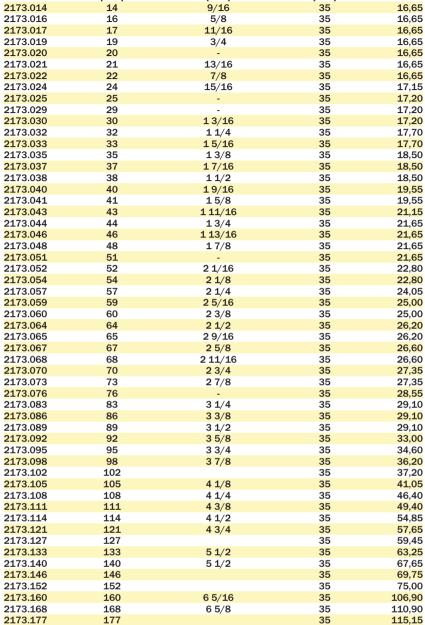
18,45

18,45

25,80

4.10

€ 9,90



ΔØ

[Inch]



	Yellow painted bimetal hole saw with HSS teeth, variable pitch; weld on a cylindrical tool head of steel. Cutting depth 38 mm
	For boring in steel and nonferrous metal as copper, bronze and aluminium, plasterboards such wooden and laminated materials with column drilling machine or power drill. Due to the high quality of cobalt alloy and the special polished section you obtain a better cutting performance and a longer life
倒	Bimetal HSS M42, 8% Co
	It is recommended to cool the hole saw with oil when cutting metal.
UPM	According to corresponding diagrams
3	packing unit = 1. Folded box EAN

8 1/4

2173,200

2173,210

2173.901

2173.905

2173.907

2173.908

2166.309

2166.319

Adapter PAROLI Order No.

200

210

Adaptor 14 - 30 mm SW 9,5 mm

Adaptor 32-210 mm SW 11,0 mm

Adaptor 14 - 30 mm mit SDS-shank

Adaptor 32-210 mm mit SDS-shank

single HSS centre drill for PAROLI 50

Ejector-shank incl. HSS centre drill for PAROLI 50

Description











				191		
	0-Ø				Cutting I.	
Order No.	[mm]		ΑZ		[mm]	€
2160.030	30		3		60	45,55
2160.040	40		3		60	55,40
2160.050	50		3		60	65,35
2160.055	55		3		60	66,40
2160.060	60		5		60	67,35
2160.065	65		5		60	75,35
2160.068	68		5		60	74,15
2160.080	80		5		60	113,95
2160.090	90		5		60	124,60
2160.105	105		6		60	155,25
Edge countersink						
· ·	0-0	)				
Order No.	[mn	n]			AZ	€
2160.468	68				3	47,45
Shanks						
	0-Ø	I-Ø		OAL	S-Ø	
Order No.	[mm]	[mm]		[mm]	[mm]	€
2160.201	M16	8		70	13	25,80
2160.203	M16	8		70	SDS	30,95
Centre drill						
ochic ann	0-Ø			OAL	S-Ø	
Order No.	[mm]	Mat.		[mm]	[mm]	€
2160.307	10	HM		133	8	9,20
2160.301	0	ncc		120	0	0.70

2160.30	8	HSS		120	8	9,70
		saw body is made of tempered hold the shank. Max. cutting	College Colleg	· .	oards, aerated concrete, plas ood. Please order shanks and	′ .
<b>A</b>	Carbide tipped			With the edge counterable to countersink a	ersink and hole saw 2160.06 flush box.	68 you are
UPM	A great torque is required at details at the speed diamete			packing unit = 1. Plas	stic sleeve. EAN	







Holesaw Incl. Sna	nk and pre-drill:				
	O-Ø	S-Ø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
2174.017	17	12	220	100	64,45
2174.022	22	12	220	100	64,45
2174.025	25	12	220	100	64,45
Holesaw without	shank and pre-drill:				

TOTOGRAF THE TOTAL CONTROL OF THE TOTAL CONTROL OT THE TOTAL CONTROL OF THE TOTAL CONTROL OF THE TOTAL CONTROL OT THE TOTAL CONTROL OF THE TOTAL CONTROL OF THE TOTAL CONTROL OT THE TOTAL CONTROL OT THE TOTAL CONTROL OT THE TOTAL CONTROL OT						
O-Ø	OAL	Cutting I.				
[mm]	[mm]	[mm]	€			
17	140	100	43,05			
22	140	100	43,05			
25	140	100	43,05			
	0-Ø [mm] 17 22	0-Ø OAL [mm] [mm] 17 140 22 140	0-Ø     OAL     Cutting I.       [mm]     [mm]     [mm]       17     140     100       22     140     100			

Accessory		
Order No.	Description	€
2174.301	Hex shank complete with pre-drill Ø 7 mm	21,50
2174.307	Pre-drill Ø 7 mm for holesaw ref. 2174	5.95

21/4.30/	re-urili Ø 7 mm for noiesaw ref. 2174		5,95
	Special hole saw to install roller blinds on window frames. Incl. Hex shank and pre-drill bit to place the hole saw in position		During the installation of the roller blinds you have to drill holes in the window frames for the cords. This was always an issue, but now it is finally solved.
倒	HSS Bi-metal		Remove the pre-drill bit from the hole saw after the first cut. This reduces the cutting forces and it can work much easier
UPM	500 - 750 min-1	S	packing unit = 1. PE tube. EAN











	0-Ø	SØ	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
2170.086	86	SW12	420	300	219,45
2170.111	111	SW12	420	300	275,70
2170.130	130	SW12	420	300	325,90
2170.152	152	SW12	420	300	407,30
2170.170	170	SW12	420	300	451,20
2170.200	200	SW12	420	300	532,60
Guiding spike and	d drill head.				
3.1	O-Ø	SØ	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
2170.030	19,5	12	460	410	75,25
Guiding spike sin	gle				
	0-Ø	SØ	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
2170.010	19,5	12	430	380	53,90
Drill head single					
	0-Ø	sø	OAL	Cutting I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
3690.002	8 - 20	8	70	44	28,45
Hex shank:					
	cription				€

2170.005 Hexagonal shank for carpentry keyhole saw SW12

> Special hole saw bi-metal with variable pitch of teeth. The teeth HSS are welded on the cylindrical carrier which has a

usable length of 300 mm. Incl. exchangeable hexagon

shank (SW 12). Please order guiding spike and drill head



For drilling holes with great diameters in one work step e.g. the lead through of exhaust gases and air pipes in roof construction. The high quality hole saw cuts all sorts of insulating materials (fibreglass, rockwool, styrofoam etc.) wood and chipboards and gypsum plaster boards



Bimetal HSS M42, 8% Co

separately.



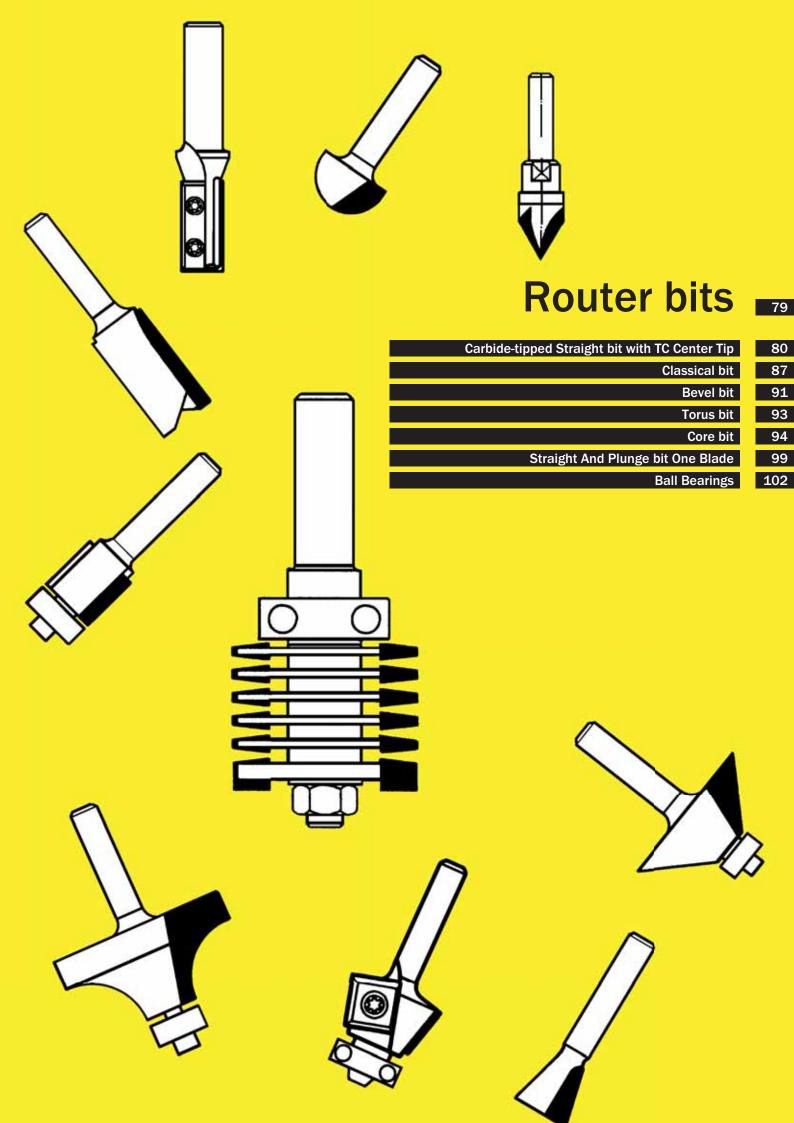
Cutting of solid wood thicker than 30 mm, stone and metal is not possible. The hole saw for carpentry can be used freehand with a strong power drill



great diameters ca. 500 min-1



packing unit = 1. Yellow cardboard tube. EAN







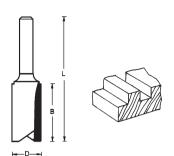




	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3167.808	8	19	57				8	26.000	37,40
3167.810	10	19	51				8	24.000	38,45
3167.812	12	19	51				8	22.000	40,35
3167.842	12	32	63				8	22.000	48,70
3167.814	14	19	51				8	22.000	42,10
3167.844	14	25	57				8	22.000	44,95
3167.816	16	19	51				8	21.000	43,95
3167.846	16	25	57				8	21.000	46,80
3167.818	18	19	51				8	21.000	46,50
3167.820	20	19	51				8	20.000	48,85
3167.908	8	19	63				12	26.000	39,65
3167.910	10	19	63				12	24.000	40,65
3167.912	12	19	61				12	22.000	42,45
3167.942	12	32	73				12	22.000	48,70
3167.944	14	25	67				12	22.000	47,40
3167.916	16	25	67				12	21.000	49,35
3167.946	16	32	73				12	21.000	51,25
3167.848	18	25	57				12	21.000	49,15
3167.918	18	25	67				12	21.000	52,05
3167.920	20	25	67				12	20.000	55,00
3167.922	22	32	73				12	20.000	62,20

	wo carbide tipped edges, side cutting and plunging. With round carbide tipped center tip	A STATE OF THE STA	For grooving, producing finger jointers, tongue and groove joints. Can be plunged without restrictions due to the carbide tipped center tip. Suitable for all kinds of solid wood, wooden and laminated materials and some plastics. Manual and mechanical feed is allowed
HI HI	igh quality carbide tipping		Due to the carbide tipped centre tip it is ideal for boring slots and continious countersinkings up to a depth of 32 mm. Also very good for cutting the cut-outs of worktops in kitchens (e.g. hob and sink)
UPM Inc	dividual for every router bit, see parameters of product		packing unit = 1. Self service. EAN





	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3107.603	3	11	51				6	26.000	24,35
3107.604	4	11	51				6	25.000	24,50
3107.605	5	11	51				6	24.000	24,70
3107.606	6	19	51				6	23.000	25,00
3107.608	8	20	51				6	22.000	30,30
3107.610	10	20	51				6	22.000	31,05
3107.651	10	32	63				6	22.000	36,35
3107.612	12	20	51				6	20.000	32,70
3107.661	12	32	63				6	20.000	37,75
3107.614	14	20	51				6	20.000	33,55
3107.616	16	20	51				6	19.000	35,55
3107.618	18	20	51				6	19.000	37,75
3107.620	20	20	51				6	18.000	40,30
3107.803	3	11	51				8	26.000	24,35
3107.804	4	11	51				8	25.000	24,50
3107.805	5	11	51				8	24.000	24,70
3107.806	6	19	51				8	23.000	25,00
3107.808	8	20	51				8	22.000	30,30
3107.810	10	20	51				8	22.000	31,05
3107.851	10	32	63				8	22.000	36,35
3107.812	12	20	51				8	20.000	32,70
3107.861	12	32	63				8	20.000	37,75
3107.814	14	20	51				8	20.000	33,55
3107.816	16	20	51				8	19.000	35,55
3107.818	18	20	51				8	19.000	37,75
3107.820	20	20	51				8	18.000	40,30
3107.822	22	20	51				8	18.000	41,00
3107.825	25	20	51				8	17.000	43,90
3107.908	8	25	70				12	26.000	36,95
3107.910	10	32	76				12	24.000	39,40
3107.912	12	32	73				12	22.000	40,35
3107.962	12	50	108				12	22.000	58,65
3107.914	14	25	73				12	22.000	40,95
3107.916	16	32	73				12	21.000	41,70
3107.918	18	32	73				12	21.000	45,50
3107.920	20	32	73				12	20.000	47,90
3107.922	22	25	67				12	20.000	48,40
3107.925	25	32	73				12	19.000	58,10
3107.930	30	25	67				12	18.000	74,10
3107.935	35	25	67				12	18.000	79,90
3107.940	40	32	73				12	17.000	111,60
3107.950	51	32	73				12	17.000	133.65

3107.950 51	32	13 12 17.000 133,65
Two carbide tipped edges parallel to the axis, side cutting and plunging. With ground (non carbide tipped) center tip		For grooving, producing finger joints, tongue and groove joints. Suitable for all kinds of solid wood, wooden and laminated materials and some plastics. Manual and mechanical feed is allowed
High quality carbide tipping		For professional plunging we recommend our product line 3167 with carbide tipped centre tip
Individual for every router bit, see parameters of product		packing unit = 1. Self service. EAN





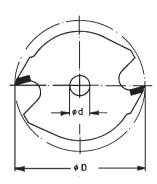


	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3157.625	15,9	25,4	63				6	19.000	46,00

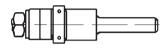
	Two carbide tipped edges parallel to the axis, circumferential cutting construction. With ball bearing guide (Ø 15.9 mm) at the shank	For grooving any profile with a template. Suitable for all kinds of solid wood, wooden and laminated materials and some plastics. Manual and mechanical feed is allowed
倒	High quality carbide tipping	After producing a template you can groove the same profile in any workpiece with the straight bit.
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN





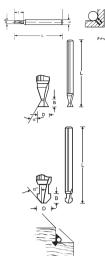


	D	Cutting I.		<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	d.	[°]	[mm]	[mm]	[mm]	[RPM]	€
3108.015	40	1,5	6,35					16.000	23,35
3108.020	40	2,0	6,35					16.000	23,35
3108.025	40	2,5	6,35					16.000	24,10
3108.030	40	3,0	6,35					16.000	25,75
3108.035	40	3,5	6,35					16.000	26,20
3108.040	40	4,0	6,35					16.000	26,20
3108.050	40	5,0	6,35					16.000	26,20
3108.060	40	6,0	6,35					16.000	26,20
shank with ball bearing									
shank with b	all beari	ng							
shank with b	all beari	ng Cutting I.	L	S-Ø	R1	n max.	R2	n max.	
Order No.		_	L [mm]	S-Ø [mm]	R1 [mm]	n max. [RPM]	R2 [mm]	n max. [RPM]	€
	D	Cutting I.	L [mm]						€ 23,10
Order No.	D [mm]	Cutting I. [mm]	L [mm]	[mm]		[RPM]			
Order No. 3108.690	D [mm] 15,9 15,9	Cutting I. [mm] 58 58	L [mm]	[mm] 6		[RPM] 16.000			23,10
Order No. 3108.690 3108.890	D [mm] 15,9 15,9	Cutting I. [mm] 58 58	L [mm]	[mm] 6		[RPM] 16.000			23,10
Order No. 3108.690 3108.890	D [mm] 15,9 15,9 It ball be	Cutting I. [mm] 58 58 earing	L [mm]	[mm] 6 8	[mm]	[RPM] 16.000 16.000	[mm]	[RPM]	23,10
Order No. 3108.690 3108.890 shank withou	D [mm] 15,9 15,9 ut ball be D	Cutting I. [mm] 58 58 earing Cutting I.	L	[mm] 6 8 S-Ø	[mm]	[RPM] 16.000 16.000 n max.	[mm]	[RPM]	23,10 23,10



	Two carbide tipped straight edges, circumferential cutting construction	For cutting grooves and slots. Suitable for all kinds of solid wood, wooden and laminated materials and some plastics. Manual and mechanical feed is allowed
倒	High quality carbide tipping	Specially for tongue and groove joints, production of plugs, cutting slots in general and special slots for the application of Lamello joints (B = 4,0 mm). When slots need to have of constant depth we recommend the version with ball bearing guide
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN





OOOO Premium

One-sided									
	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3107.663	3	11	60				6	30.000	30,30
3107.763	3	11	60				6,35	30.000	30,30
Double-sided									
	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3107.673	3	8	70				6	30.000	50,10
3107.773	3	8	65				6,35	30.000	50,10
Dovetailed pr	ofile								
	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3104.665	5,1	8	60	18			6	30.000	53,35
3104.765	5,1	8	60	18			6,35	30.000	53,35
Studded anch	nor profi	le							
	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3104.685	5,1	8	60	38			6	30.000	62,55
3104.785	5,5	8	65	38			6,35	30.000	62,55

Two-edge	ed, fully ground, side cutting and plunging	For milling straight or molded lining grooves at windows or doors. Suitable for all kinds of solid wood, wooden and laminated materials and some plastics. Manual and mechanical feed is allowed
Solid car	bide, 3104 with head of solid carbide	By using fine grained carbide the straight bits of FAMAG have a very high endurance. With appropriate feed it is possible to make the lining groove in a single operation
UPM Individua	I for every router bit, see parameters of product	packing unit = 1. Self service. EAN





	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3104.612	12,7	12,7	44,5	14			6	21.000	30,75
3104.812	12,7	12,7	44,5	14			8	21.000	30,75

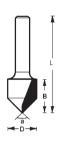
	Two carbide tipped edges, side cutting and plunging	For milling groove joints, e.g. teeth for corner joints or edges and grooves for longitudinal joints. Suitable for all kinds of solid wood, wooden and laminated materials and some plastics. Manual and mechanical feed is allowed
团	High quality carbide tipping	To elongate tool life we recommend beginning with a straight bit (e.g. 3107), for producing tear free corner joints we recommend clamping a piece of wood under the workpiece. Before unclamping your workpiece make sure that all teeth are exactly milled out
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN

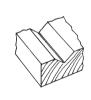
3105

OOOO Premium

V Groove bit







	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3105.660	12,7	16	44,5	60			6	21.000	30,75
3105.690	12,7	12,7	51	90			6	21.000	30,75
3105.860	12,7	16	44,5	60			8	21.000	30,75
3105.890	12.7	12.7	51	90			8	21.000	30.75

	Two carbide tipped edges, side cutting and plunging. Edges with an angle of $60^\circ$ or $90^\circ$ available		For milling v-shaped grooves, ornamental grooves or for chamfering edges. Suitable for all kinds of solid wood, wooden and laminated materials and some plastics.  Manual and mechanical feed is allowed
倒	High quality carbide tipping		The perfect router bit for exact and sharp ornamental grooves at doors and fronts of drawers
UPM	Individual for every router bit, see parameters of product	A	packing unit = 1. Self service. EAN









	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3155.660	14	22	57	60			6	21.000	76,60
3155.860	14	22	57	60			8	23.000	76,60

Head with three edges of solid carbide. Angle of edges 60°, plunging version	Collins of the second	For engraving letters of different width and milling of v-shaped grooves at an angle of 60°
Head of solid carbide		Cutting depth up to 13 mm max and groove width up to 14 mm
Individual for every router bit, see parameters of product		packing unit = 1. Self service. EAN

0000 Premium

**Keyhole Slot Cutter - Single Fluted** 



n max.

€

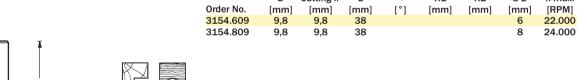
24,00

24,00

S-Ø

R1

R2



D

Cutting I.

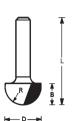




	One carbide tipped edge parallel to the axis, side cutting and plunging	and a little	For cutting slots for hanging pictures, mirrors, shelves, etc. Suitable for all kinds of solid wood, wooden and laminated materials and some plastics. Manual and mechanical feed is allowed
倒	High quality carbide tipping		If you only want to fix an object at one point, cut the slot vertically so that you can exactly balance the object
(UPM)	Individual for every router bit, see parameters of product	A	packing unit = 1. Self service. EAN









	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3106.609	9,5	6,4	38		4,8		6	22.000	36,35
3106.612	12,7	9,5	38		6,4		6	21.000	39,05
3106.615	15,9	9,5	40		7,9		6	19.000	41,10
3106.809	9,5	6,4	38		4,8		8	22.000	36,35
3106.812	12,7	9,5	38		6,4		8	21.000	39,05
3106.815	15,9	9,5	40		7,9		8	19.000	41,10
3106.819	19,1	12,7	40		9,5		8	18.000	47,60
3106.825	25,4	16	46,5		12,7		8	17.000	51,85

(°]

R1

[mm] 2,5 2,5 R2

[mm] 3,5

3,5

Two carbide tips	ned edges, side cutting and plunging	For milling chamfers, ornamental grooves and inner radii at the front of drawers and other surfaces. Suitable for all kinds of solid wood, wooden and laminated materials and some plastics. Manual feed is allowed
High quality carl	bide tipping	For exact and tear free chamfers we recommend a first flat run and a second run to finish the chamfer tear free
Individual for ev	ery router bit, see parameters of product	packing unit = 1. Self service. EAN

D

[mm] 12,7

12,7

Order No. 3131.612

3131.812

Cutting I.

[mm] 10,5

10,5

L

[mm] 51

51

3131

OOOO Premium

Classical bit

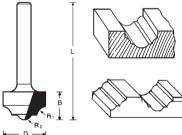


S-Ø

[mm] 6 8 n max. [RPM] 20.000

20.000

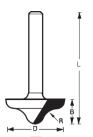
€ 66,95 66,95



F- D →	· · · · · · · · · · · · · · · · · · ·		
	Two carbide tipped edges, with inner radius. Side cutting and plunging		For milling moulded grooves and edges. Suitable for all kinds of solid wood, wooden and laminated materials and some plastics. Manual feed is allowed
倒	High quality carbide tipping		Perfect for ornamenting the fronts of wardrobes and drawers. Due to the bit 's detailed configuration a specially delicate moulding is possible
(UPM)	Individual for every router bit, see parameters of product	F F	packing unit = 1. Self service. EAN







	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3137.827	27	11,2	51		6		8	17.000	71,05



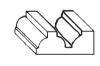
Two carbide tipped edges. Side cutting and plunging	For milling moulded grooves. Suitable for all kinds of solid wood, wooden and laminated materials and some plastics. Manual feed is allowed
High quality carbide tipping	Very fine for ornamenting the fronts of wardrobes and drawers. Due to the two radii without edges it is possible to cut specially pleasant curves without grooves
Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN

OOOO Premium

**Beading bit** 







	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3127.609	9,5	7	51		2,5		6	24.000	42,60
3127.809	9,5	7	51		2,5		8	24.000	42,60

	Two carbide tipped edges, with inner radius. Side cutting and plunging	For milling moulded grooves. Suitable for all kinds of solid wood, wooden and laminated materials and some plastics. Manual feed is allowed
倒	High quality carbide tipping	Perfect for ornamenting the fronts of wardrobes and drawers. Due to the small inner radius special filigree curves can be milled
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN





	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3101.612	12,7	12,7	60				6	21.000	25,75
3101.625	12,7	25,4	70				6	21.000	32,00
3101.812	12,7	12,7	60				8	21.000	25,75
3101.825	12,7	25,4	70				8	21.000	32,00

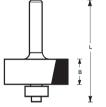
	Two carbide tipped edges parallel to the axis, only side cutting. With ball bearing (Ø 12.7 mm) guide at the head	For flush trimming and coatings of workpiece edges. Suitable for all kinds of solid wood, laminated materials and some plastics. Manual feed is allowed
倒	High quality carbide tipping	Optimal for cutting continous holes in thicker boards. Mill the desired outline with a plunging router bit underneath the bord. Bore through the board (min Ø 14 mm) and trim the outline at the upper surface flush
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN

3114

OOOO Premium

Rabbeting bit

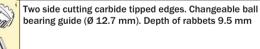






Order No.	D [mm]	Cutting I.		ا°ا ا	R2 [mm]	S-Ø [mm]	n max. [RPM]	€
3114.631 3114.831	31,7 31,7	12,7 12,7	51 51		 	6 8	16.000 18.000	57,85 57,85

Two side





For producing rabbetted joints of frames, fitting of frames and drawers and rabbetting old wooden windows for embedding insulated glass. Suitable for all kinds of solid wood, laminated materials and some plastics. Manual feed is allowed



High quality carbide tipping



Due to the ground front side of the edge very good surfaces of the rabbets are achieved. A rabbet depth of 11.1 mm can be achieved by mounting the ball bearing guide 3119.004 (please order seperately)



Individual for every router bit, see parameters of product



packing unit = 1. Self service. EAN

Router bits

90







	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3110.612	12,7	12,7	41	30			6	20.000	28,95
3110.812	12,7	12,7	41	30			8	22.000	28,95

	Two carbide tipped side cutting egdes. Angle of chamfering 30°	For separating, trimming flush and chamfering with a router bit: separating and trimming flush with the edge which is parallel to the shank and then chamfering in an angle of 30° by adjusting the milling depth. Suitable for all kinds of solid wood, laminated materials and some plastics. Manual feed is allowed
倒	High quality carbide tipping	By combining several worksteps you can save time
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN

3115

OOOO Premium

Panel Pilot bit

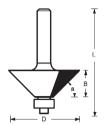






	D	Cutting I.	L	<	R1	R2	5-0	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3115.606	6,4	19	63,5				6	28.000	27,75
3115.806	6,4	19	63,5				8	30.000	27,75

		With a carbide tipped circumferential edge and a non carbide tipped drilling edge	For trimming flush veneers and edges lamination of a workpiece. Suitable for all kinds of solid wood, laminated materials and some plastics. Manual and mechanical feed is allowed
	田田	High quality carbide tipping	With a simple template you can easily produce openings for e.g. wall sockets, switches and lamps in wooden ceilings and panels
(	UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN





	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3118.645	31,8	12,7	53	45			6	15.000	44,95
3118.845	31,8	12,7	53	45			8	16.000	44,95

	Two axially carbide tipped side cutting in circomferention execution. Angle of cutting 45°. Changeable ball bearing guide (Ø 9.5 mm) at the head	For chamfering and milling edges in different strenghts. Suitable for all kinds of solid wood, laminated materials and some plastics. Manual feed is allowed
倒	High quality carbide tipping	For cutting bevels of an angle of 15° we recommend bevel bit 3102
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN

3102

OOOO Premium

Bevel bit



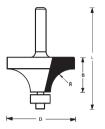




	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3102.615	15,9	6,4	52,4	15			6	19.000	26,40
3102.815	15,9	6,4	52,4	15			8	19.000	26,40

	Two axially carbide tipped side cutting edges only circumferential execution. Changeable ball bearing guide (Ø 12.7 mm) at the head		For professional chamfering and milling edges. Suitable for all kinds of solid wood, laminated materials and some plastics. Manual feed is allowed
倒	High quality carbide tipping		Provides edges for furniture which abrades easily (e.g. table and chair legs) with an exact and inured bevel
(UPM)	Individual for every router bit, see parameters of product	A	packing unit = 1. Self service. EAN







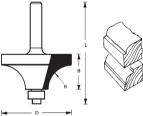
	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3109.618	18,7	9,5	49		3		6	19.000	55,65
3109.625	25,4	12,7	51		6,4		6	17.000	57,60
3109.628	28,6	12,7	51		8		6	17.000	59,05
3109.631	31,8	15,9	55,5		9,5		6	16.000	64,35
3109.818	18,7	9,5	49		3		8	19.000	55,65
3109.819	20,7	9,5	49		4		8	18.000	55,65
3109.825	25,4	12,7	51		6,4		8	17.000	57,60
3109.828	28,6	12,7	51		8		8	17.000	59,05
3109.831	31,8	15,9	55,5		9,5		8	16.000	64,35
3109.838	38,1	19,1	57		12,7		8	16.000	68,95

	Two carbide tipped circumferential execution cutting edges. Changeable ball bearing guide (Ø 12.7 mm) at the head	For milling outer radii at edges of workpieces. Suitable for all kinds of solid wood, wooden and laminated materials and some plastics. Manual feed is allowed
倒	High quality carbide tipping	To mill covings we recommend our product line 3119
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN

0000 Premium

Ovolo bit

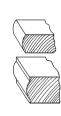




	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3119.625	25,4	12,7	51		6,4		6	17.000	57,60
3119.628	28,6	12,7	51		7,9		6	16.000	59,05
3119.631	31,8	15,9	55,5		9,5		6	16.000	64,35
3119.819	19,1	9,5	47,5		4		8	18.000	55,65
3119.825	25,4	12,7	51		6,4		8	17.000	57,60
3119.828	28,6	12,7	51		7,9		8	16.000	59,05
3119.831	31,8	15,9	55,5		9,5		8	16.000	64,35
3119.838	38,1	19,1	57		12,7		8	15.000	68,95

-	D	3119.636	36,1	19,1	Э	1 12,1	0	15.000	68,95
	Two carbide tipped side cutting edges circumferential execution. Changeabl 9.5 mm) at the head				*	For milling covings or profiles witl for all kinds of solid wood, woode and some plastics. Manual feed i	n and la	aminated m	
倒	High quality carbide tipping					If you want to mill a coving withou the router bit 3109. Furthermore bearing guide from Ø 9.5 mm to :	you car	change the	
UPM	Individual for every router bit, see par	ameters of pro	duct			packing unit = 1. Self service. EAI	N		





	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3125.820	20,2	32	62,6		18		8	18.000	98,65

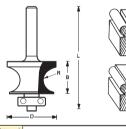
	Two axially carbide tipped side cutting edges in circumferential execution	For milling flat curves at mouldings, edges and front of boards. Suitable for all kinds of solid wood, laminated materials and some plastics. Manual feed is allowed
倒	High quality carbide tipping	Boards thinner than 20 mm will have curves without rabbets. If the boards are thicker than 20 mm (max. 30 mm) a rabbet is formed at the bottom and at the top. All boards under 20mm will have a curve without rabbets.
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN

3123

OOOO Premium

Torus bit







D Cutting I. R1 R2 S-Ø n max. Order No. [mm] [mm] [mm] [°] [mm] [mm] [mm] [RPM] 3123.828 4,8 8 17.000 68,30 28,2 16

Two carbide tipped side cutting edges with an inner radius of 4,8 mm in circumferential execution. Changeable ball bearing guide (Ø 16 mm) at the head



For milling corners and edges. Suitable for all kinds of solid wood, laminated materials and some plastics. Manual feed is allowed

倒

High quality carbide tipping



In two worksteps you can produce a whole handle strip

UPM

Individual for every router bit, see parameters of product



packing unit = 1. Self service. EAN







	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3124.822	22,2	19,1	47,6		5,2		8	18.000	84,60

	Two carbide tipped side cutting edges parallel to the shank with an inner radius of 5.2 mm in circumferential execution	For milling rounded edges at sills, frames and stairrails. Suitable for all kinds of solid wood, wooden and laminated materials and some plastics. Manual feed is allowed
倒	High quality carbide tipping	Beads should be at least 10.4 mm thick. If you want to mill an edge with two rabbets you should use ledges up to 19 mm thick
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN

3112

OOOO Premium

Core bit

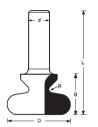






	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3112.625	25,4	14,3	55		7,9		6	17.000	59,05
3112.822	22,2	14,3	55		6,4		8	18.000	57,60
3112.825	25,5	14,4	55		8		8	17.000	59,05
3112.834	34,9	16	54		12,7		8	16.000	68,90

	Two axially carbide tipped side cutting edges in circumferential executions. Changeable ball bearing guide (Ø 9.5 mm) at the head	For milling end strips, fronts of drawers, cabinet doors and all ornamental strips with an inner radius. Suitable for all kinds of solid wood, laminated materials and some plastics. Manual feed is allowed
倒	High quality carbide tipping	Can be combined with rounding over bit 3109 with respective radii 6, 4, 8 and 12.7 mm
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN





	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3148.819	19.1	19	55.6		4.8		8	19.000	86.85

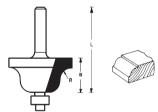
	Two carbide tipped side cutting edges in circumferential execution	For milling profiles, grooves and handle strips
倒	High quality carbide tipping	For all standard routers with chuck. Manual feed is allowed
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN

3113

OOOO Premium

Roman Ogee bit

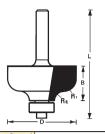




	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3113.625	25,4	16	54		4		6	17.000	61,00
3113.634	34,9	20	57		6,4		6	16.000	67,50
3113.825	25,4	16	54		4		8	17.000	61,00
3113.834	34,9	20	57		6,4		8	16.000	67,45

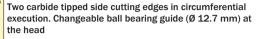
	Two carbide tipped side cutting edges in circumferential execution. Changeable ball bearing guide (Ø 9.5 mm) at the head	For milling ornamental strips at picture frames, table edges, fronts of wardrobes, drawers, baseboards etc. Suitable for all kinds of solid wood, laminated materials and some plastics. Manual feed is allowed
倒	High quality carbide tipping	To get good results we recommend milling in repeated worksteps
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN







	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3138.834	34.9	17.5	55.6		6	5	8	16.000	87.65





For milling ornamental strips at picture frames, table edges, fronts of wardrobes, drawers, baseboards etc. Suitable for all kinds of solid wood, laminated materials and some plastics. Manual feed is allowed



High quality carbide tipping



Specially for ornamenting the fronts of wardrobes and drawers. Due to the two ground radii without edges it is possible to produce curves without rabbets



Individual for every router bit, see parameters of product



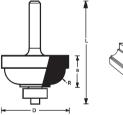
packing unit = 1. Self service. EAN

3139

OOOO Premium

**Classic Cove bit** 







	υ	Cutting I.	L	<	K1	R2	5-0	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3139.628	28,6	12,7	51		4,8		6	16.000	75,50
3139.828	28,6	12,7	51		4,8		8	16.000	75,50

Wh &	age of

Two carbide tipped side cutting edges in circumferential execution. Changeable ball bearing guide (Ø 12.7 mm) at the head



For milling ornamental strips at picture frames, table edges, fronts of wardrobes, drawers, baseboards etc. Suitable for all kinds of solid wood, laminated materials and some plastics. Manual feed is allowed



High quality carbide tipping



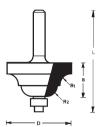
If you want to cut a chamfer without rabbets we recommend the core bit 3112



Individual for every router bit, see parameters of product



packing unit = 1. Self service. EAN





	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3134.625	25,4	16	54		4		6	17.000	67,55
3134.634	34,9	20	57		6,35		6	16.000	68,95
3134.825	25,4	16	54		4		8	17.000	67,55
3134.834	34,9	20	57		6,35		8	16.000	68,95

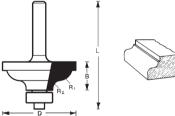
	Two carbide tipped side cutting edges in circumferential execution. Changeable ball bearing guide (Ø 9.5 mm) at the head	For milling ornamental strips at picture frames, table edges, fronts of wardrobes, drawers, baseboards etc. Suitable for all kinds of solid wood, laminated materials and some plastics. Manual feed is allowed
M)	High quality carbide tipping	To get good results we recommend milling in repeated worksteps
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN

3121

OOOO Premium

Ogee Fillet bit





D Cutting I. L < R1 R2		
Order No. [mm] [mm] [mm] [°] [mm] [mm] [i	mm] [RPM]	€
3121.634 34,9 13,5 52,4 4 4	6 16.000	98,75
3121.834 34,9 13,5 52,4 4 4	8 17.000	98,75

	Two carbide tipped side cutting edges with two radii and circumferential execution Changeable ball bearing guide (Ø 12.7 mm) at the head		For milling decorative profiles at ornaments, fronts of furniture and drawers and tabletops. Suitable for all kinds of solid wood laminated materials and some plastics.  Manual feed is allowed
<b>B</b>	High quality carbide tipping		To get smooth surfaces we recommend milling in repeated worksteps
UPM	Individual for every router bit, see parameters of product	T T	packing unit = 1. Self service. EAN





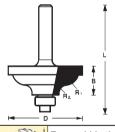
	D	Cutting I.	L	<	R1	R2	S-Ø	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3135.834	34.9	17.5	56		6.4	5	8	16.000	98.90

	Two carbide tipped side cutting edges in circumferential execution. Changeable ball bearing guide (Ø 9.5 mm) at the head	For milling ornamental strips at picture frames, table edges, fronts of wardrobes, drawers, baseboards etc. Suitable for all kinds of solid wood, laminated materials and some plastics. Manual feed is allowed
倒	High quality carbide tipping	To get good results we recommend milling in repeated worksteps
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN

3122 Premium

Ogee Fillet bit





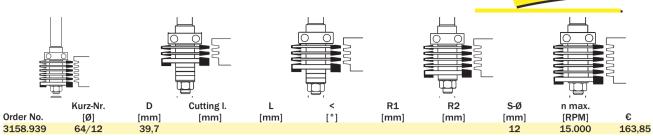


	D	Cutting I.	L	<	R1	R2	5-0	n max.	
Order No.	[mm]	[mm]	[mm]	[°]	[mm]	[mm]	[mm]	[RPM]	€
3122.634	34,9	13,5	52,4		4	4	6	16.000	98,75
3122.834	34,9	13,5	52,4		4	4	8	17.000	98,75

	<b>1</b>		
	Two carbide tipped side cutting edges with two radii in circumferential execution Changeable ball bearing guide (Ø 9.5 mm) at the head	and a second	For milling decorative profiles with rabbets at ornaments, fronts of furniture and drawers and tabletops. Manual feed is allowed
倒	High quality carbide tipping		To get smooth surfaces we recommend milling in repeated worksteps. If you want to cut a profile without rabbet we recommend the ogee fillet bit 3121 with ball bearing guide Ø 12.7 mm
UPM	Individual for every router bit, see parameters of product	A	packing unit = 1. Self service. EAN



## Finger Jointer Set



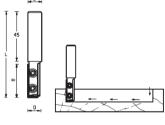
	Composed of shank with ball bearing guide (Ø 28 mm), spacers, washer, mounting nut and 6 slotting cutters, carbide tipped for plunging	Produce a geometry of slots with this router bit at the front surface of the connecting workpiece. The milled matching part can be glued firmly. Manual feed is allowed.
倒	High quality carbide tipping	The produced connections are especially stable and nearly invisible due to the greater glue line.
UPM	Individual for every router bit, see product parameters	packing unit = 1. Self service. EAN

3217

OOOO Premium

Straight And Plunge bit One Blade





	D	Cutting I.	OAL	S-Ø	TCT blade	n max.	
Order No.	[mm]	[mm]	[mm]	[mm]	[Order no. ]	[RPM]	€
3217.932	12	30	77	12	3290.930	22.000	93,10
3217.934	14	30	77	12	3290.930	20.000	112,70
3217.936	16	30	88	12	3290.130	18.000	93,55
3217.956	16	50	107	12	3290.050	18.000	111,50
3217.938	18	30	88	12	3290.130	18.000	94,85
3217.958	18	50	107	12	3290.050	18.000	112,10
3217.940	20	30	88	12	3290.130	16.000	97,65
3217.960	20	50	107	12	3290.050	16.000	118,25
3217.942	22	30	88	12	3290.130	16.000	100,90

		3217.942	22	30	88	12	3290.130	16.000	100,90
	A carbide tipped changeable blade pa side and end cutting. The blade can b		,		For grooving, o to the carbide without restric laminated ma	tipped he	ad of the blade able for all kin	plunging is ds of solid w	possible
倒	High quality carbide reversing blade				Long enduran are changed o don't want to version 3227	quickly and	l regrinding is i	not necessai	ry. If you
UPM	Individual for every router bit, see par	ameters of produ	ıct		packing unit =	= 1. Self se	rvice. EAN		









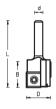
		D	Cutting I.	OAL	S-Ø	TCT blade	n max.	
(	Order No.	[mm]	[mm]	[mm]	[mm]	[Order no. ]	[RPM]	€
3	3227.934	14	30	86	12	3290.930	20.000	112,70
3	3227.936	16	30	88	12	3290.930	20.000	114,65
3	3227.956	16	50	107	12	3290.050	18.000	134,90
3	3227.938	18	30	88	12	3290.130	18.000	116,90
3	3227.958	18	50	107	12	3290.050	18.000	138,30
3	3227.960	20	50	107	12	3290.050	16.000	143,45
3	3227.942	22	30	88	12	3290.130	16.000	123,30

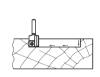
Two carbide tipped, changeable side cutting blades parall to the shank	For grooving, cutting finger joints and matched joints. Suitable for all kinds of solid wood, laminated materials and some plastics. Manual and mechanical feed is allowed
High quality carbide reversing blade	Long endurance and little downtime, because the blades are changed quickly and regrinding is not necessary. If you want to use the bit for plunging we recommend version 3217
Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN



Staggered Straight And Plunge bit Two Blade







Order No.	D [mm]	Cutting I.	OAL [mm]	S-Ø [mm]	TCT blade [Order no. ]	n max. [RPM]	€
3207.618	18	20	52	6	3290.012	22.000	99,65
3207.620	20	20	52	6	3290.012	22.000	105,40
3207.622	22	20	52	6	3290.012	20.000	108,20
3207.818	18	20	52	8	3290.012	24.000	99,65
3207.820	20	20	52	8	3290.012	22.000	105,40
3207.822	22	20	52	8	3290.012	22.000	108,20



Two carbide tipped, changeable side and end cutting blades parallel to the shank. The blades are constructed in an 90  $^{\circ}\,$ angle and one blade can be used as cutting bit



For grooving, cutting finger joints and matched joints. Due to the carbide tipped blade head plunging is possible without restrictions. Suitable for all kinds of solid wood, laminated materials and some plastics.



High quality carbide reversing blade



Long endurance and little downtime, because the blades can be changed quickly and regrinding is not necessary. If you don't want to use the bit for plunging we recommend version 3203



Individual for every router bit, see parameters of product



packing unit = 1. Self service. EAN





	D	Cutting I.	OAL	S-Ø	TCT blade	n max.	
Order No.	[mm]	[mm]	[mm]	[mm]	[Order no. ]	[RPM]	€
3203.620	20	12	44	6	3290.012	22.000	86,70
3203.622	22	12	44	6	3290.012	20.000	91,55
3203.818	18	12	44	8	3290.012	24.000	84,35
3203.820	20	12	44	8	3290.012	24.000	86,70

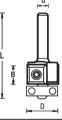


	Two axially carbide tipped, changeable side cutting blades parallel to the shank, circumferential execution	For grooving, cutting finger joints and matched joints. Suitable for all kinds of solid wood, laminated materials and some plastics. Manual and mechanical feed is allowed
倒	High quality carbide reversing blade	Long endurance and little downtime, because the blades are changed quickly and regrinding is not necessary. If you want to use the bit for plunging we recommend version 3207
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN

OOOO Premium

Flush Trimming bit







	D	Cutting I.	OAL	S-Ø	TCT blade	n max.	
Order No.	[mm]	[mm]	[mm]	[mm]	[Order no. ]	[RPM]	€
3201.612	19	12	52	6	3290.012	22.000	91,55
3201.630	19	30	70	6	3290.030	22.000	108,20
3201.812	19	12	54	8	3290.012	24.000	91,55
3201.830	19	30	72	8	3290.030	24.000	108,20

		Two axially carbide tipped, changeable side cutting blades parallel to the shank in circumferential execution.  Changeable ball bearing guide (Ø 19 mm) at the head	and a little	For chamfering and milling edges at all kinds of solid wood, laminated materials and some plastics. Manual feed is allowed
	倒	High quality carbide reversing blade		Long endurance and little downtime, because the blades are quickly changed and regrinding is not necessary
(	UPM	Individual for every router bit, see parameters of product		packing unit = 1. Self service. EAN







					TCT blade		
D	Cutting I.	OAL	<	S-Ø	[Order	n max.	
[mm]	[mm]	[mm]	[°]	[mm]	no. ]	[RPM]	€
20	12	55	15	6	3290.012	22.000	101,00
26	12	54	30	6	3290.012	18.000	113,05
27	12	57	45	6	3290.012	16.000	114,70
20	12	55	15	8	3290.012	24.000	101,00
27	12	57	45	8	3290.012	18.000	114,70
	[mm] 20 26 27 20	[mm] [mm]  20 12  26 12  27 12  20 12	[mm] [mm] [mm] 20 12 55 26 12 54 27 12 57 20 12 55	[mm]         [mm]         [mm]         [°]           20         12         55         15           26         12         54         30           27         12         57         45           20         12         55         15	[mm]         [mm]         [mm]         [°]         [mm]           20         12         55         15         6           26         12         54         30         6           27         12         57         45         6           20         12         55         15         8	D         Cutting I. [mm]         OAL (°) [mm]         S-Ø [Order [mm] no.]           20         12         55         15         6         3290.012           26         12         54         30         6         3290.012           27         12         57         45         6         3290.012           20         12         55         15         8         3290.012	D         Cutting I. [mm]         OAL [order mm]          S-Ø [order mm]         [order mm]         n max. [nm]           20         12         55         15         6         3290.012         22.000           26         12         54         30         6         3290.012         18.000           27         12         57         45         6         3290.012         16.000           20         12         55         15         8         3290.012         24.000

	Two carbide tipped, changeable side cutting blades parallel to the shank only circumferential execution. Changeable ball bearing guide (Ø 15.9 mm) at the head	For milling profiles, grooves and chamfers at nearly all kinds of solid wood, laminated materials and plastics also CORIAN etc.
倒	High quality carbide reversing blade	Long endurance and little downtime, because the blades can be changed quickly and regrinding is not necessary
UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN

3191	OOO Premium	Ball Bearings			F	AYA fiir Besserb	ohrer»
		0-Ø	AØ	I-Ø	IØ	Height	
Order No.	Description	[mm]	[Inch]	[mm	] [Inch]	[mm]	€
3191.001	For item: 3112, 3113, 3118, 3134	9,5	3/8	3,2	1/8	4,0	12,10
	For item: 3119, 3122, 3135	9,5	3/8	4,8	,	3,0	13,40
3191.005	For item: 3157, 3202.615/630/815 /830	15,9	5/8	6,4	1/4	5,0	13,40
3191.007	For item: 3101, 3102, 3109, 3114, 3121, 3138, 3139	12,7	1/2	4,8	3/16	5,0	13,40
3191.010	For item: 3123	16,0		5,0		5,0	13,40
3191.114	For item: 3202.645/845	12,7	1/2	6,4	1/4	5,8	15,55
3191.113	For item: 3201	19		6		6	14,00
Premium ball bearing with attachment screw and spacer (not for bevel trimming bits)  Applicable to all FAMAG row with ball bearing guide. Plorder the bearing for using bit					ease pay attention whe	ther you	
团	1				Only use FAMAG ball beari	ngs for the FAMAG rou	ter bits
UPM	Individual for every r	outer bit, see parame	ters of product		packing unit = 1. Self servi	ce. EAN	

## (suitable to 3191) Wrenches and Bolts for 3191



Hexagon key serie 3195 for router bits

		SW	Wrench Size	
Order No.	Description	[Inch]	[mm]	€
3195.064	appropriate for item number: 3191.001	5/64"	1,98	4,60
3195.332	appropriate for item number: 3191.004,	3/32"	2,38	5,45
	3191 007			

Torx key for Flush trimming bits

TOTA NOT TO	Thus thinning site	Wrench size	
Order No.	Description	[mm]	€
3295.015	appropriate for al mentioned item numbers	T15	7,30

Torx screw for Flush trimming bits

	Wrench size			
Order No.	[mm]	€		
3291.035	M 3,5	3,80		
3291.040	M 4	2,85		

Wrenches		Applicable to all FAMAG ball bearings 3191
Chrome var	adium steel	Only the wrench 3195.332 fits the hexagon socket (5/64")
Dependig o	n the skills	packing unit = 1. Self service. EAN

3290

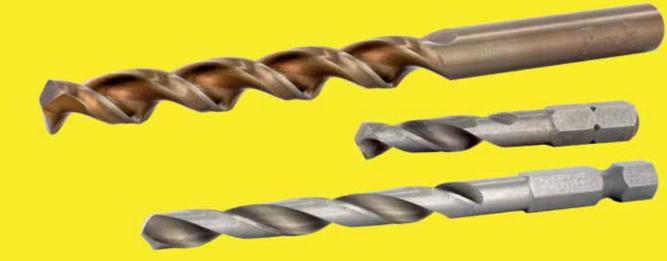


Reversing blade carbide



		Cutting I.	Height	thicknes	s	
Order No.	Description	[mm]	[mm]	[mm]	Torx-Schr.	€
3290.012	four-toothed	12	12	1,5	3291.040	5,45
3290.030	two-toothed	12	30	1,5	3291.040	7,05
3290.050	four-toothed	12	50	1,5	3291.035	13,50
3290.130	four-toothed	12	30	1,5	3291.035	13,25
3290.930	four-toothed	9	30	1,5	3291.035	6,95

V		High quality reversing blades of carbide for the exchange of FAMAG insert cutters	Use only the orginal inserts for the FAMAG-insert cutters, that 'Il save time and trouble.
		High quality reversing blades of carbide	These reversing blades are specifically designed for the FAMAG cutters with indexable inserts and are simply the best fit
	UPM	Individual for every router bit, see parameters of product	packing unit = 1. Self service. EAN



## Twist drills and countersinks for metal 105









	0-Ø	Shank type	OAL	Spiral I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
2596.030	3	C 6,3	38	16	6,85
2596.033	3,3	C 6,3	40	18	6,85
2596.035	3,5	C 6,3	40	18	6,85
2596.040	4	C 6,3	44	20	6,85
2596.042	4,2	C 6,3	46	24	7,05
2596.045	4,5	C 6,3	46	24	7,05
2596.050	5	C 6,3	50	26	7,05
2596.055	5,5	C 6,3	50	26	7,55
2596.060	6	C 6,3	50	26	7,55
2596.065	6,5	C 6,3	50	30	7,55
2596.068	6,8	C 6,3	50	30	7,55
2596.070	7	C 6,3	50	30	7,55
2596.075	7,5	C 6,3	51	32	9,45
2596.080	8	C 6,3	51	32	9,45
2596.085	8,5	C 6,3	53	33	10,25
2596.090	9	C 6,3	53	33	11,60
2596.100	10	C 6,3	54	38	11,60

 Sets
 Order No.
 Description
 €

 2596.805
 Set of 5 pieces in plastic box. Ø 3, 4, 5, 6, 8 mm
 33,80

 2596.508
 Set of 9 pieces in wooden case. Ø 3, 4, 5, 6, 7, 8, 9, 10 mm and bitholder
 64,70

	One-pieced twist drill ground from the solid, short version with hexagon drive (1/4"; E 6,3), polished section of the envelope of cone 118°, bright		For boring in alloyed and non-alloyed steel and cast steel up to 900 N/mm², grey and malleable iron, etc. with a cordless screwdriver. The ground chip flutes guarantee good chip removal
倒	HSS-G		It is recommended to use a lockable bit holder to avoid the drill bit getting jammed in the drill hole
UPM	Corresponding diagrams or cordless screwdriver	S	packing unit = 1. PE tube. EAN

33,80

2597.805 Set of 5 pieces in plastic box. Ø 3, 4, 5, 6, 8 mm





	O-Ø	SØ	OAL	Spiral I.	
Order No.	[mm]	[Ø]	[mm]	[mm]	€
2597.030	3	E 6,3	70	35	6,85
2597.033	3,3	E 6,3	70	35	6,85
2597.035	3,5	E 6,3	70	35	6,85
2597.040	4	E 6,3	75	40	6,85
2597.042	4,2	E 6,3	80	45	7,05
2597.045	4,5	E 6,3	80	45	7,05
2597.050	5	E 6,3	86	51	7,05
2597.055	5,5	E 6,3	93	57	7,55
2597.060	6	E 6,3	93	57	7,55
2597.065	6,5	E 6,3	101	63	7,55
2597.068	6,8	E 6,3	101	63	7,55
2597.070	7	E 6,3	109	69	7,55
2597.075	7,5	E 6,3	109	69	9,45
2597.080	8	E 6,3	117	75	9,45
2597.085	8,5	E 6,3	117	75	10,25
2597.090	9	E 6,3	125	81	11,60
2597.100	10	E 6,3	133	87	11,60
2597.110	11	E 6,3	142	94	14,65
2597.120	12	E 6,3	151	101	16,05
2597.130	13	E 6,3	151	101	17,20
Sets					
Order No.	Description				€

	One-pieced twist drill ground from the solid, long version with hexagon drive (1/4"; E 6,3), polished section of the envelope of cone 118 $^\circ$		For boring in alloyed and non-alloyed steel and cast steel up to 900 N/mm², grey and malleable iron, etc. with a cordless srewdriver
倒	HSS-G		It is recommended to use a lockable bit holder to avoid the drill bit getting jammed in the drill hole
UPM	Corresponding diagrams or cordless screwdriver	S	packing unit = 1. PE tube. EAN









	¥			
	Bit		Height	
Order No.	[mm]	Angle	[mm]	€
1597.750	6,3	90°	40	92,00
Sets				
Order No.	Description			€
1597.757	Pro75 set in wooden case in version wood working. 1596 Ø	3, 4, 5, 6 mm, c	ountersink, chuck and bits	117,40
1597.758	Pro75 set in wooden case in version metal working. 2596 Ø	3, 4, 5, 6 mm, c	countersink, cuck and bits	117,40
2597.612	Set 13 pcs. in bag. Type 1596 Ø 3, 4, 5, 6, 8, 10 mm, coute			141,90
2597.613	Set 13 pcs. in bag. Type 1597 Ø 3, 4, 5, 6, 8, 10 mm, coute	rsink and cuck		145,00
	Stable L-shaped driver with casing made of aluminium an aslant toothed metal gear wheels (ideal transmission). Ta up for all 1/4" bits and boring tools (e.g. 1596) with hex shank. Angle of screwing 90°, exchangeable plastic hand	ke	Professional screwing and drilling also in de cordless screwdriver	eep angles with
田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田田	Casing made of aluminium		It's ideal for making screwed connections w screwdriver even when there is little space. combination with 1596/2596	
(UPM)	Rotational speed of cordless screwdriver max 2000 min-1		Packing unit = 1, Blister. EAN	







	0-Ø	OAL	Cutting I.	PU	
Order No.	[mm]	[mm]	[mm]	[pcs]	€
2410.010	1,0	34	12	10	1,20
2410.011	1,1	36	14	10	1,20
2410.012	1,2	38	16	10	1,20
2410.013	1,3	38 40	16 18	10 10	1,20
2410.014 2410.015	1,4 1,5	40	18	10	1,20 1,20
2410.015	1,6	43	20	10	1,20
2410.017	1,7	43	20	10	1,20
2410.018	1,8	46	22	10	1,20
2410.019	1,9	46	22	10	1,20
2410.020	2,0	49	24	10	1,20
2410.021	2,1	49	24	10	1,20
2410.022	2,2	53	27	10	1,20
2410.023	2,3	53	27	10	1,20
2410.024	2,4	57	30	10	1,20
2410.025	2,5	57	30	10	1,20
2410.026	2,6	57	30	10	1,25
2410.027	2,7	61	33	10	1,25
2410.028 2410.029	2,8	61	33 33	10 10	1,25
2410.029	2,9 3,0	61 61	33	10	1,25 1,25
2410.030	3,1	65	36	10	1,25
2410.031	3,2	65	36	10	1,25
2410.033	3,3	65	36	10	1,25
2410.034	3,4	70	39	10	1,25
2410.035	3,5	70	39	10	1,25
2410.036	3,6	70	39	10	1,35
2410.037	3,7	70	39	10	1,40
2410.038	3,8	75	43	10	1,45
2410.039	3,9	75	43	10	1,45
2410.040	4,0	75	43	10	1,45
2410.041	4,1	75	43	10	1,55
2410.042	4,2	75	43	10	1,55
2410.043	4,3	80	47	10	1,55
2410.044	4,4	80	47	10	1,55
2410.045 2410.046	4,5 4,6	80 80	47 47	10 10	1,65 1,65
2410.046	4,7	80	47	10	1,65
2410.047	4,8	86	52	10	1,65
2410.049	4,9	86	52	10	1,70
2410.050	5,0	86	52	10	1,70
2410.051	5,1	86	52	10	1,75
2410.052	5,2	86	52	10	1,75
2410.053	5,3	86	52	10	2,05
2410.054	5,4	93	57	10	2,05
2410.055	5,5	93	57	10	2,05
2410.056	5,6	93	57	10	2,05
2410.057	5,7	93	57	10	2,05
2410.058	5,8 5,9	93 93	57	10 10	2,15
2410.059 2410.060	6,0	93	57 57	10	2,15 2,05
2410.061	6,1	101	63	10	2,03
2410.062	6,2	101	63	10	2,30
2410.063	6,3	101	63	10	2,35
2410.064	6,4	101	63	10	2,35
2410.065	6,5	101	63	10	2,35
2410.066	6,6	101	63	10	2,70
2410.067	6,7	101	63	10	2,70
2410.068	6,8	109	69	10	2,65
2410.069	6,9	109	69	10	3,00
2410.070	7,0	109	69	10	2,80
2410.071	7,1	109	69	10	3,15
2410.072	7,2	109	69	10	3,15
2410.073	7,3	109 109	69 69	10	3,15
2410.074 2410.075	7,4 7.5	109	69	10 10	3,15
2410.013	7,5	103	09	10	3,05

	0-Ø	OAL	Cutting I.	PU	
Order No.	[mm]	[mm]	[mm]	[pcs]	€
2410.076	7,6	117	75	10	3,50
2410.077	7,7	117	75	10	3,50
2410.078	7,8	117	75	10	3,50
2410.079	7,9	117	75	10	3,50
2410.080	8,0	117	75	10	3,50
2410.081	8,1	117	75	10	3,75
2410.082	8,2	117	75	10	3,75
2410.083	8,3	117	75	10	4,10
2410.084	8,4	117	75	10	4,10
2410.085	8,5	117	75	5	3,95
2410.086	8,6	125	81	5	4,50
2410.087	8,7	125	81	5	4,50
2410.088	8,8	125	81	5	4,50
2410.089	8,9	125	81	5	4,50
2410.090	9,0	125	81	5	4,30
2410.091	9,1	125	81	5	4,75
2410.092	9,2	125	81	5	4,75
2410.093	9,3	125	81	5	4,75
2410.094	9,4	125	81	5	4,75
2410.095	9,5	125	81	5	4,90
2410.096	9,6	133	87	5	5,50
2410.097	9,7	133	87	5	5,50
2410.098	9,8	133	87	5	5,50
2410.099	9,9	133	87	5	5,50
2410.100	10,0	133	87	5	5,30
2410.102	10.2	133	87	5	6,70
2410.105	10,5	133	87	5	6,70
2410.110	11,0	142	94	5	7,50
2410.115	11,5	142	94	5	8,25
2410.120	12,0	151	101	5	9,20
2410.125	12,5	151	101	5	10,30
2410.130	13,0	151	101	5	11,35
Sets				_	
	escription				€
2410.805 Se	t of 5 pieces, HSS-G. Ø 3, 4, 5,	6, 8 mm DIN 338			11,20
2410.519 HS	SS-G drill box 19 pieces, 1-10mı	m 0,5 mm upwards DIN 338			52,65
2410.525 HS	SS-G drill box 25 pieces, 1-13mi	m 0,5 mm upwards DIN 338			78,80
	Twist drill HSS-G DIN 338, grour cylindrical, right-hand cutting, s diameter h 8. Polished section of 118°, bright	piral type N, tolerance of	For boring in to 900 N/mn	nighest quality demands of industry alloyed and non alloyed steel and c n², grey, ductile, sintered and malle and graphite, etc.	ast steel up
倒	HSS-G		quality dema	quality for high quality demands. Fo nds e.g. high-grade steel V2A we re 420 of cobalt alloyed HSS, with a s e grinding	commend
(UPM)	Corresponding diagrams			= 10 pcs in PE box., from Ø 8,5 mm . Price for each drill in a packing un	





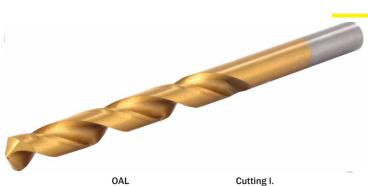


	O-Ø	OAL	Cutting I.	PU	
Order No.	[mm]	[mm]	[mm]	[pcs]	€
2420.015	1,5	40	18	10	2,10
2420.016	1,6	43	20	10	2,15
2420.017	1,7	43	20	10	2,15
2420.018	1,8	46	22	10	2,15
2420.019	1,9	46	22	10	2,15
2420.020	2,0	49	24	10	2,20
2420.021	2,1	49	24	10	2,20
2420.022	2,2	53	27	10	2,20
2420.022	2,3	53	27	10	
		57			2,20
2420.024	2,4		30	10	2,20
2420.025	2,5	57	30	10	2,20
2420.026	2,6	57	30	10	2,35
2420.027	2,7	61	33	10	2,35
2420.028	2,8	61	33	10	2,35
2420.029	2,9	61	33	10	2,35
2420.030	3,0	61	33	10	2,35
2420.031	3,1	65	36	10	2,65
2420.032	3,2	65	36	10	2,65
2420.033	3,3	65	36	10	2,65
2420.034	3,4	70	39	10	2,65
2420.035	3,5	70	39	10	2,80
2420.036	3,6	70	39	10	2,80
2420.037	3,7	70	39	10	2,80
2420.038	3,8	75	43	10	2,80
2420.039	3,9	75	43	10	2,80
2420.040	4,0	75	43	10	3,10
2420.040	4,1	75	43	10	3,10
2420.042	4,2	75	43	10	3,10
2420.043	4,3	80	47	10	3,10
2420.044	4,4	80	47	10	3,10
2420.045	4,5	80	47	10	3,50
2420.046	4,6	80	47	10	3,60
2420.047	4,7	80	47	10	3,60
2420.048	4,8	86	52	10	3,60
2420.049	4,9	86	52	10	3,60
2420.050	5,0	86	52	10	3,80
2420.051	5,1	86	52	10	4,05
2420.052	5,2	86	52	10	4,05
2420.053	5,3	86	52	10	4,05
2420.054	5,4	93	57	10	4,05
2420.055	5,5	93	57	10	4,10
2420.056	5,6	93	57	10	4,60
2420.057	5,7	93	57	10	4,60
2420.058	5,8	93	57	10	4,60
2420.059	5,9	93	57	10	4,60
2420.060	6,0	93	57	10	4,75
2420.061	6,1	101	63	10	5,05
2420.062	6,2	101	63	10	5,05
2420.063	6,3	101	63	10	5,05
2420.064	6,4	101	63	10	5,05
2420.065	6,5	101	63	10	5,05
2420.066	6,6	101	63	10	6,00
2420.067	6,7	101	63	10	6,00
2420.068	6,8	109	69	10	6,00
2420.069	6,9	109	69	10	6,00
2420.070	7,0	109	69	10	6,00
2420.071	7,1	109	69	10	6,30
2420.072	7,2	109	69	10	6,30
2420.073	7,3	109	69	10	6,30
2420.073	7,4	109	69	10	6,30
2420.074	7,4 7,5	109	69	10	6,30
2420.076	7,6	117	75	10	7,15
2420.077	7,7	117	75	10	7,15
2420.078	7,8	117	75	10	7,15
2420.079	7,9	117	75	10	7,15
2420.080	8,0	117	75	10	7,35

	0-Ø	OAL	С	utting I.	PU	
Order No.	[mm]	[mm]		[mm]	[pcs]	€
2420.081	8,1	117		75	10	8,15
2420.082	8,2	117		75	10	8,15
2420.083	8,3	117		75	10	8,15
2420.084	8,4	117		75	10	8,15
2420.085	8,5	117		75	5	8,15
2420.086	8,6	125		81	5	8,80
2420.087	8,7	125		81	5	8,80
2420.088	8,8	125		81	5	8,80
2420.089	8,9	125		81	5	8,80
2420.090	9,0	125		81	5	8,80
2420.091	9,1	125		81	5	9,90
2420.092	9,2	125		81	5	9,90
2420.093	9,3	125		81	5	9,90
2420.094	9,4	125		81	5	9,90
2420.095	9,5	125		81	5	9,90
2420.096	9,6	133		87	5	10,85
2420.097	9,7	133		87	5	10,85
2420.098	9,8	133		87	5	10,85
2420.099	9,9	133		87	5	10,85
2420.100	10,0	133		87	5	10,85
2420.102	10,2	133		87	5	17,05
2420.105	10,5	133		87	5	17,05
2420.110	11,0	142		94	5	17,05
2420.115	11,5	142		94	5	20,15
2420.120	12,0	151		101	5	20,15
2420.125	12,5	151		101	5	23,75
2420.130	13,0	151		101	5	23,75
Sets						
Order No.	Description					€
2420.805	Set of 5 pieces, HSS-G. Ø 3, 4, 5,	6, 8 mm DIN 338				24,25
	HSS-G drill box 19 pieces, 1-10mi					95,55
	HSS-G drill box 25 pieces, 1-13mi	•				179,00
T0.		.,,				.,
M A Salva	Twist drill of cobalt alloyed HSS	-G DIN 338, ground from the	CHIEF.	For extraordinar	y demands of industry, craft and ho	usehold.
W. Camil	solid, short, cylindrical, special s	spiral for good chip removal		Very good for bo	ring stainless steel V2A; V4A and st	teel with
	and for greasy materials. Cross	wise grinding DIN 1412C,		higher alloy cont	ent and/or strength over 1300 N/r	nm².
	point angle 135°, tolerance of o	diameter h8. Polished		Furthermore suit	table for heat resistent, non-corrodi	ing and
	section of point angle 118°, sui	rface: bronze		acid resisting ste	eel, special alloy, malleable and cas	st iron,
@ # .				bronze, weld sea	ıms, chromium-nickel steel, alumin	ium,
				brass and all sor	ts of plastics	
RR	HSS-G Co			Vary good for ha	rdest demands. We also offer a lon	ď
44	1133-4 60		一一		IN 340). For sheet metal working v	-
				,	sion 2440 with spiral type N	•
				rocommona vois	on 2 110 mar spirar type it	
			1			
			111,			
1 -1	Corresponding diagrams			packing unit = 1	0 pcs in PE box., from Ø 8,5 mm pa	acking
((,,,,,))	. 54454		Purple		ice for each drill in a packing unit	٦





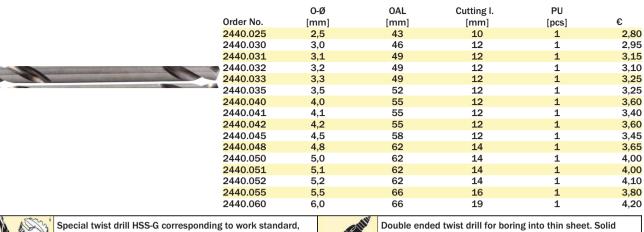


	0-Ø	OAL	Cutting I.	PU	
Order No.	[mm]	[mm]	[mm]	[pcs]	€
2430.010	1,0	34	12	1	3,80
2430.015	1,5	40	18	1	3,80
2430.020	2,0	49	24	1	3,80
2430.025	2,5	57	30	1	3,65
2430.030	3,0	61	33	1	3,95
2430.031	3,1	65	36	1	4,35
2430.032	3,2	65	36	1	4,35
2430.033	3,3	65	36	1	4,35
2430.035	3,5	70	39	1	4,30
2430.040	4,0	75	43	1	4,85
2430.041	4,1	75	43	1	5,70
2430.042	4,2	75	43	1	5,70
2430.045	4,5	80	47	1	5,70
2430.048	4,8	86	52	1	5,75
2430.050	5,0	86	52	1	6,00
2430.051	5,1	86	52	1	6,15
2430.052	5,2	86	52	1	6,15
2430.055	5,5	93	57	1	7,05
2430.060	6,0	93	57	1	7,50
2430.065	6,5	101	63	1	8,25
2430.068	6,8	109	69	1	8,55
2430.070	7,0	109	69	1	9,25
2430.075	7,5	109	69	1	10,25
2430.080	8,0	117	75	1	10,75
2430.085	8,5	117	75	1	12,40
2430.090	9,0	125	81	1	13,25
2430.095	9,5	125	81	1	14,55
2430.100	10,0	133	87	1	15,50
2430.105	10,5	133	87	1	16,45
2430.110	11,0	142	94	1	18,00
2430.115	11,5	142	94	1	18,70
2430.120	12,0	151	101	1	19,80
2430.125	12,5	151	101	1	21,75
2430.130	13,0	151	101	1	22,40

	Titanium nitride twist drill with parallel shank, short, righthand cutting, with spiral type N. Crosswise grinding DIN 1412C (from 3,0 mm) 118° for good centering and fast drilling, tolerance of diameter h8. Professional hardwearing coating which guarantees long endurance	Sally College	Suitable for highest quality demands of industry and craft. For boring in alloyed and non alloyed steel and cast steel up to 1000 N/mm², grey, ductile, sintered and malleable iron, aluminium, copper, bronze
倒	HSS-G titanium nitrided		Unbelievable endurance due to high quality coating-at a fair price. Also regrinding doesn't affect the endurance of the tool
UPM	Corresponding diagrams	T T	packing unit = 1. PE tube. EAN







	Special twist drill HSS-G corresponding to work standard, ground from the solid, extra short, cylindrical, right-hand cutting, spiral type N, tolerance of diameter h8. Polished section of point angle 118°, bright	and a state of the	Double ended twist drill for boring into thin sheet. Solid construction for power drill. For drilling into thin work pieces like sheet steel, sheet brass, sheet zinc, copper sheet, aluminium sheet and plastic sheet
倒	HSS-G		Specially suited for roofers and their sheet metal forming
UPM	ca. 2500 min-1, power drill		packing unit = 1. PE tube. EAN

Standard





Standard					
	0-Ø	OAL	Cutting I.	PU	
Order No.	[mm]	[mm]	[mm]	[pcs]	€
2450.020	2,0	85	56	10	3,35
2450.025	2,5	95	62	10	3,70
2450.030	3,0	100	66	10	3,90
2450.031	3,1	106	69	10	4,50
2450.032	3,2	106	69	10	4,50
2450.033	3,3	112	73	10	4,50
2450.035	3,5	112	73	10	4,50
2450.040	4,0	119	78	10	4,85
2450.041	4,1	119	78	10	6,20
2450.042	4,2	119	78	10	6,20
2450.045	4,5	126	82	10	6,20
2450.048	4,8	132	87	10	7,30
2450.050	5,0	132	87	10	7,30
2450.051	5,1	132	87	10	7,30
2450.052	5,2	132	87	10	8,40
2450.053	5,3	132	87	10	8,40
2450.055	5,5	139	91	10	8,40
2450.057	5,7	139	91	10	9,45
2450.058	5,8	139	91	10	9,45
2450.060	6,0	139	91	10	9,45
2450.065	6,5	148	97	10	11,65
2450.068	6,8	156	102	10	13,50
2450.070	7,0	156	102	10	13,50
2450.075	7,5	156	102	10	14,85
2450.080	8,0	165	109	10	14,85
2450.085	8,5	165	109	5	17,55
2450.090	9,0	175	115	5	18,30
2450.095	9,5	175	115	5	19,45
2450.100	10,0	184	121	5	22,05
2450.102	10,2	184	121	5	29,70
2450.105	10,5	184	121	5	29,70
2450.110	11,0	195	128	5	29,70
2450.115	11,5	195	128	5	34,80
2450.120	12,0	205	134	5	34,80
2450.125	12,5	205	134	5	42,70
2450.130	13,0	205	134	5	42,70

For extraordinary demands of industry, craft and household. Very good for boring in stainless steel V2A; V4A and steel with higher alloy content and/or strength over 1300 N/mm². Furthermore suitable for heat resistent, non-corroding and acid restisting steel, special alloy, malleable and cast iron, bronze, weld seams, chromium-nickel steel, aluminium, brass and all sorts of plastics

DIN 340, ground from the solid, long, cylindrical, special spiral for good chip removal and for greasy materials. Crosswise grinding DIN 1412C, point angle 135°, tolerance of diameter h8. Polished section of point angle 118°, surface: bronze

1	7	
4	V	
	_	_

HSS-G Co



Very good for hardest demands. Here the convenient long version



Corresponding diagrams

packing unit = 1. PE box., from Ø 8,5 mm packing unit = 5. EAN. Price for each drill in a packing unit

	2430.130	13,0	203	104	3	72,10
,	Twist Drills, Co 5%					
		0-Ø	OAL	Cutting I.	PU	
	Order No.	[mm]	[mm]	[mm]	[pcs]	€
	2451.020	2,0	85	56	1	3,60
	2451.025	2,5	95	62	1	4,10
	2451.030	3,0	100	66	1	4,20
	2451.031	3,1	106	69	1	4,75
	2451.032	3,2	106	69	1	4,75
	2451.033	3,3	112	73	1	4,85
	2451.035	3,5	112	73	1	4,85
	2451.040	4,0	119	78	1	5,20
	2451.041	4,1	119	78	1	6,55
_	2451.042	4,2	119	78	1	6,55
	2451.045	4,5	126	82	1	6,55
	2451.048	4,8	132	87	1	11,35
	2451.050	5,0	132	87	1	7,75
	2451.051	5,1	132	87	1	7,75
-	2451.052	5,2	132	87	1	8,60
	2451.053	5,3	132	87	1	8,60
	2451.055	5,5	139	91	1	8,60
	2451.057	5,7	139	91	1	9,70
	2451.058	5,8	139	91	1	9,70
	2451.060	6,0	139	91	1	9,70
-	2451.065	6,5	148	97	1	11,75
	2451.068	6,8	156	102	1	13,55
	2451.070	7,0	156	102	1	13,55
	2451.075	7,5	156	102	1	14,85
	2451.080	8,0	165	109	1	16,60
-	2451.085	8,5	165	109	1	17,70
	2451.090	9,0	175	115	1	18,60
,	2451.095	9,5	175	115	1	19,90
	2451.100	10,0	184	121	1	22,40
_	2451.102	10,2	184	121	1	30,15
	2451.105	10,5	184	121	1	30,15
	2451.110	11,0	195	128	1	30,15
	2451.115	11,5	195	128	1	35,30
	2451.120	12,0	205	134	1	35,30

205

205

134

134

43,25

43,25

2451.125

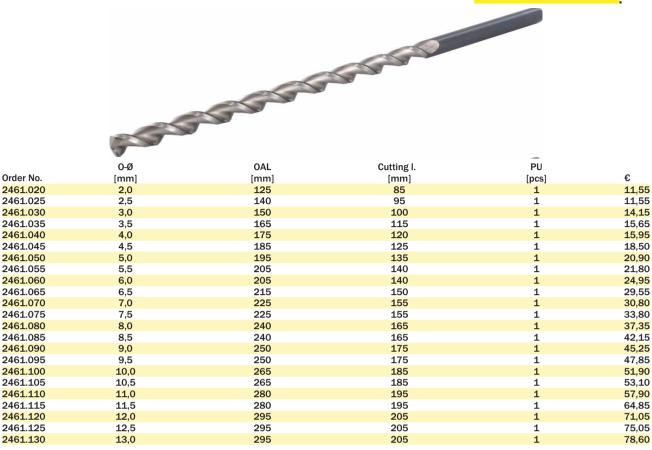
2451.130

12,5

13,0







	Special twist drill HSS-G DIN 1869, extra long, cylinder shank, right-hand cutting. Plunge and crosswise grinding 135°		Solid special drill for boring extremly deep holes under difficult conditions, e.g. bad chip removal. Suitable for drilling cast iron and steel up to 1300 N/mm²
倒	HSS-G		Very good for hardest quality demands. This is the convenient long version. For an even longer version see also series 2599
UPM	Corresponding diagrams	A	packing unit = 1. PE tube. EAN







	0AL 150 mm						
	0/12 200 111111	0-Ø	S-Ø	OAL	NL	PU	
	Order No.	[mm]	[mm]	[mm]	[mm]	[pcs]	€
	2599.103	3	3	150	100	1	10,85
	2599.104	4	4	150	100	1	12,00
	2599.105	5	5	150	100	1	12,65
	2599.106	6	6	150	100	1	13,45
	2599.107	7	7	150	100	1	17,45
	2599.108	8	8	150	100	1	17,45
	2599.109	9	9	150	100	1	18,50
	2599.110	10	10	150	100	1	20,25
	2599.111	11	11	150	100	1	22,95
	0AL 250 mm						
	OAL 200 IIIIII	0-Ø	S-Ø	OAL	NL	PU	
	Order No.	[mm]	[mm]	[mm]	[mm]	[pcs]	€
	2599,203	3	3	250	200	1	14,65
	2599,204	4	4	250	200	1	17,25
	2599.205	5	5	250	200	1	19,70
	2599.206	6	6	250	200	1	22,05
	2599.207	7	7	250	200	1	28,45
	2599.208	8	8	250	200	1	28,45
	2599,209	9	9	250	200	1	31,75
	2599.210	10	10	250	200	1	34,55
	2599,211	11	11	250	200	1	39,85
	2599.212	12	12	250	200	1	43,85
	2599.213	13	13	250	200	1	46,55
_	2599.214	14	13	250	200	1	50,40
١	2599.215	15	13	250	200	1	57,85
١	2599.216	16	13	250	200	1	63,75
- 1				200	200	-	00,10
- 1							
	0AL 315 mm	0.0	c a	041	N.I.	DU	
		0-Ø	S - Ø	OAL	NL [mm]	PU	6
	Order No.	[mm]	[mm]	[mm]	[mm]	[pcs]	€
	Order No. 2599.303	[mm] 3	[mm] 3	[mm] 315	[mm] 250	[pcs]	19,05
	Order No. 2599.303 2599.304	[mm] 3 4	[mm] 3 4	[mm] 315 315	[mm] 250 250	[pcs] 1 1	19,05 22,50
	Order No. 2599.303 2599.304 2599.305	[mm] 3 4 5	[mm] 3 4 5	[mm] 315 315 315	[mm] 250 250 250	[pcs] 1 1 1	19,05 22,50 25,65
	Order No. 2599.303 2599.304 2599.305 2599.306	[mm] 3 4 5 6	[mm] 3 4 5 6	[mm] 315 315 315 315	[mm] 250 250 250 250	[pcs] 1 1 1 1	19,05 22,50 25,65 28,70
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307	[mm] 3 4 5 6 7	[mm] 3 4 5 6 7	[mm] 315 315 315 315 315	[mm] 250 250 250 250 250	[pcs] 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00
	Order No. 2599,303 2599,304 2599,305 2599,306 2599,307 2599,308	[mm] 3 4 5 6 7 8	[mm] 3 4 5 6 7 8	[mm] 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 37,00
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.309	[mm] 3 4 5 6 7 8 9	[mm] 3 4 5 6 7 8	[mm] 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 37,00 41,25
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.309 2599.310	[mm] 3 4 5 6 7 8 9 10	[mm] 3 4 5 6 7 8 9 10	[mm] 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 37,00 41,25 44,95
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.309 2599.310 2599.311	[mm] 3 4 5 6 7 8 9 10 11	[mm] 3 4 5 6 7 8 9 10	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 37,00 41,25 44,95 51,70
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.309 2599.311 2599.312	[mm] 3 4 5 6 7 8 9 10 11 12	[mm] 3 4 5 6 7 8 9 10 11 12	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 37,00 41,25 44,95 51,70 57,05
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.309 2599.311 2599.312 2599.313	[mm] 3 4 5 6 7 8 9 10 11 12 13	[mm] 3 4 5 6 7 8 9 10 11 12 13	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 37,00 41,25 44,95 51,70 57,05 60,50
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.310 2599.311 2599.312 2599.313 2599.314	[mm] 3 4 5 6 7 8 9 10 11 12 13 14	[mm] 3 4 5 6 7 8 9 10 11 12 13 13	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 37,00 41,25 44,95 51,70 57,05 60,50 66,60
	Order No. 2599,303 2599,304 2599,305 2599,306 2599,307 2599,309 2599,310 2599,311 2599,312 2599,313 2599,314 2599,315	[mm] 3 4 5 6 7 8 9 10 11 12 13 14 15	[mm] 3 4 5 6 7 8 9 10 11 12 13 13	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 37,00 41,25 44,95 51,70 57,05 60,50 66,60 77,50
	Order No. 2599,303 2599,304 2599,305 2599,306 2599,307 2599,309 2599,310 2599,311 2599,312 2599,313 2599,314 2599,315 2599,316	[mm] 3 4 5 6 7 8 9 10 11 12 13 14	[mm] 3 4 5 6 7 8 9 10 11 12 13 13	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 37,00 41,25 44,95 51,70 57,05 60,50 66,60
	Order No. 2599,303 2599,304 2599,305 2599,306 2599,307 2599,309 2599,310 2599,311 2599,312 2599,313 2599,314 2599,315	[mm] 3 4 5 6 7 8 9 10 11 12 13 14 15	[mm] 3 4 5 6 7 8 9 10 11 12 13 13 13	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 37,00 41,25 44,95 51,70 57,05 60,50 66,60 77,50
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.310 2599.311 2599.312 2599.313 2599.314 2599.315 2599.316 OAL 400 mm	[mm] 3 4 5 6 7 8 9 10 11 12 13 14 15 16	[mm] 3 4 5 6 7 8 9 10 11 12 13 13 13 13 5-Ø	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 41,25 44,95 51,70 57,05 60,50 77,50 90,30
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.311 2599.311 2599.314 2599.315 2599.316 OAL 400 mm Order No.	[mm] 3 4 5 6 7 8 9 10 11 12 13 14 15 16 0-Ø [mm]	[mm] 3 4 5 6 7 8 9 10 11 12 13 13 13 13 S-Ø [mm]	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 PU [pcs]	19,05 22,50 25,65 28,70 37,00 41,25 44,95 51,70 57,05 60,50 66,60 77,50 90,30
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.311 2599.311 2599.312 2599.314 2599.315 2599.316 OAL 400 mm Order No. 2599.403	[mm] 3 4 5 6 7 8 9 10 11 12 13 14 15 16 0-Ø [mm] 3	[mm] 3 4 5 6 7 8 9 10 11 12 13 13 13 13 13 3 3 3 3 3 3 3 3 3	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 41,25 44,95 51,70 57,05 60,50 66,60 77,50 90,30
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.310 2599.311 2599.312 2599.314 2599.315 2599.316 OAL 400 mm Order No. 2599.403 2599.404	[mm] 3 4 5 6 7 8 9 10 11 12 13 14 15 16 0-Ø [mm] 3 4	[mm] 3 4 5 6 7 8 9 10 11 12 13 13 13 13 13 4	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 37,00 41,25 44,95 51,70 57,05 60,50 66,60 77,50 90,30 €
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.310 2599.311 2599.312 2599.314 2599.315 2599.316 OAL 400 mm  Order No. 2599.403 2599.404 2599.405	[mm] 3 4 5 6 7 8 9 10 11 12 13 14 15 16 0-Ø [mm] 3 4 5	[mm] 3 4 5 6 7 8 9 10 11 12 13 13 13 13 5-Ø [mm] 3 4 5	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 41,25 44,95 51,70 57,05 60,50 66,60 77,50 90,30 € 24,75 29,25 33,30
	Order No. 2599,303 2599,304 2599,305 2599,306 2599,309 2599,310 2599,311 2599,312 2599,314 2599,315 2599,316 OAL 400 mm  Order No. 2599,403 2599,404 2599,405 2599,406	[mm] 3 4 5 6 7 8 9 10 11 12 13 14 15 16 0-Ø [mm] 3 4 5 6	[mm] 3 4 5 6 7 8 9 10 11 12 13 13 13 13 5-Ø [mm] 3 4 5 6	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 41,25 44,95 51,70 57,05 60,50 66,60 77,50 90,30 € 24,75 29,25 33,30 37,30
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.311 2599.311 2599.314 2599.315 2599.316 OAL 400 mm  Order No. 2599.403 2599.404 2599.405 2599.406 2599.407	[mm] 3 4 5 6 7 8 9 10 11 12 13 14 15 16 0-Ø [mm] 3 4 5 6 7	[mm] 3 4 5 6 7 8 9 10 11 12 13 13 13 13 5-Ø [mm] 3 4 5 6 7	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 41,25 44,95 51,70 57,05 60,50 90,30 € 24,75 29,25 33,30 37,30 48,05
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.311 2599.311 2599.314 2599.315 2599.316 OAL 400 mm Order No. 2599.404 2599.404 2599.405 2599.406 2599.407 2599.408	[mm] 3 4 5 6 7 8 9 10 11 12 13 14 15 16 0-Ø [mm] 3 4 5 6 7 8	[mm] 3 4 5 6 7 8 9 10 11 12 13 13 13 13 5-Ø [mm] 3 4 5 6 7	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 41,25 44,95 51,70 57,05 60,50 90,30 € 24,75 29,25 33,30 48,05 48,05
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.311 2599.311 2599.312 2599.315 2599.316 OAL 400 mm Order No. 2599.403 2599.404 2599.405 2599.406 2599.408 2599.408 2599.408	[mm] 3 4 5 6 7 8 9 10 11 12 13 14 15 16 0-Ø [mm] 3 4 5 6 7 8	[mm] 3 4 5 6 7 8 9 10 11 12 13 13 13 13 5 8 9 [mm] 3 4 5 6 7 8	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 41,25 44,95 51,70 60,50 66,60 77,50 90,30 € 24,75 29,25 33,30 37,30 48,05 48,05 53,65
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.311 2599.311 2599.312 2599.315 2599.316 OAL 400 mm Order No. 2599.403 2599.406 2599.406 2599.407 2599.408 2599.409 2599.410	[mm] 3 4 5 6 7 8 9 10 11 12 13 14 15 16 0-Ø [mm] 3 4 5 6 7 8 9 10	[mm] 3 4 5 6 7 8 9 10 11 12 13 13 13 13 5 -Ø [mm] 3 4 5 6 7 8 9 10	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 41,25 44,95 51,70 57,05 60,50 66,60 77,50 90,30 € 24,75 29,25 33,30 37,30 48,05 48,05 53,65 58,40
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.310 2599.311 2599.312 2599.315 2599.316 OAL 400 mm  Order No. 2599.403 2599.406 2599.406 2599.407 2599.408 2599.409 2599.410 2599.411	[mm] 3 4 5 6 7 8 9 10 11 12 13 14 15 16 0-Ø [mm] 3 4 5 6 7 8 9 10 11	[mm] 3 4 5 6 7 8 9 10 11 12 13 13 13 13 5-Ø [mm] 3 4 5 6 7 8 9 10 11	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 41,25 44,95 51,70 57,05 60,50 66,60 77,50 90,30 € 24,75 29,25 33,30 37,30 48,05 53,65 58,40 67,15
	Order No. 2599.303 2599.304 2599.305 2599.306 2599.307 2599.308 2599.311 2599.311 2599.312 2599.315 2599.316 OAL 400 mm Order No. 2599.403 2599.406 2599.406 2599.407 2599.408 2599.409 2599.410	[mm] 3 4 5 6 7 8 9 10 11 12 13 14 15 16 0-Ø [mm] 3 4 5 6 7 8 9 10	[mm] 3 4 5 6 7 8 9 10 11 12 13 13 13 13 5 -Ø [mm] 3 4 5 6 7 8 9 10	[mm] 315 315 315 315 315 315 315 315 315 315	[mm] 250 250 250 250 250 250 250 250 250 250	[pcs] 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19,05 22,50 25,65 28,70 37,00 41,25 44,95 51,70 57,05 60,50 66,60 77,50 90,30 € 24,75 29,25 33,30 37,30 48,05 48,05 53,65 58,40

Twist drill HSS-G, ground from the solid, long, cylindrical, special spiral for good chip removal and for greasy materials. Crosswise grinding DIN 1412C, point angle 135°, tolerance of diameter h8. Polished section of the envelope of cone 118°, surface: bronze Suitable for highest quality demands of industry and craft. For boring in alloyed and non alloyed steel and cast steel up to 900 N/ mm², grey, ductile, sintered and malleable iron, nickel silver and graphite, etc. HSS-G, long Very good for highest quality demands. Here in different length at a fair price. Corresponding diagrams packing unit = 1. PE tube. EAN

2599.414

2599.415

2599.416

14

15

16

13

13 13 400

400

400

300

300

300

86,55

100,75

117,30



	0-Ø	S-Ø	OAL	
Order No.	[mm]	[mm]	[mm]	€
3535.006	6	6	90	13,50
3535.008	8	8	90	19,70

	Milling cutter with twist drill head (ground point angle $118^\circ)$ and chip flutes with rough teeth	For drilling and milling outlines with one tool. Suitable for wood, plasterboard, plastics and (limited) for nonferrous metals
倒	HSS	Especially great for using with a hand drill, unsuitable for boring in steel
UPM	ca. 2500 min-1, wood	packing unit = 1. PE tube. EAN

3540



**Countersink for machine** 





	O-Ø	S-Ø	OAL	
Order No.	[mm]	[mm]	[mm]	€
3540.012	12	8	46	13,45
3540.016	16	8	47	16,90
3540.020	20	8	47	24.95

	Countersink three edged, countersinking angle of 90°		Countersinking and deburring in all metals
倒	HSS		Can easily be reground
UPM	ca. 500 min-1	A	packing unit = 1. PE tube. EAN





	O-Ø	S-Ø	OAL	
Order No.	[mm]	[mm]	[mm]	€
3541.001	2-5	6	45	16,05
3541.002	5-10	8	48	18,65
3541.003	10-15	10	65	32,75
3541.004	15-20	12	85	57,35

	Countersink with bored hole with one edge and countersinking angle of 90°	Countersinking in all metals, specially good results with nonferrous metals and hardwood
M)	HSS	Easy handling due to great contact surface
UPM	ca. 500 min-1	packing unit = 1. PE tube. EAN



Hole enlarger





	O-Ø	S-Ø	OAL	
Order No.	[mm]	[mm]	[mm]	€
3690.001	3 - 14	6	62	24,95
3690.002	6 - 20	8	70	28,45
3690.003	16 - 30	10	75	51,60

Two edged hole cutter	Continous drilling of big holes and boring up holes of thinwalled materials
HSS	Suitable for sheet steel 0,1 - 2 mm, V2A sheet 0,1 - 1 mm, non-ferrous metals 0,1 - 5 mm, plastics up to 10 mm
ca. 1000 min-1, non-ferrous metal	packing unit = 1. PE tube. EAN





	O-Ø	S-Ø	OAL	
Order No.	[mm]	[mm]	[mm]	€
3692.012	4 - 12	6	69	43,60
3692.020	6 - 20	8	73	56,75
3692.030	6 - 30	10	95	83.15

	Two edged hole cutter, cylindrical gradation and scale of diameter	The hole cutter drills and simultaneously deburrs with the following step
倒	HSS	Continous drilling to thinnest sheets without pre-drilling
UPM	ca. 1000 min-1, non-ferrous metal	packing unit = 1. PE tube. EAN

# Hammer drills and Soil auger

Hammer Drills carbide-tipped, SDS-plus shank

Soil Auger (discontinued items )











OAL 110 mm					
OAL IIO IIIII	0-Ø	S-Ø	OAL	Spiral I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
2188.104	4	SDS plus	110	50	7,05
2188.105	5	SDS plus	110	50	5,60
2188.106	6	SDS plus	110	50	5,60
2188.108	8	SDS plus	110	50	6,55
2188.110	10	SDS plus	110	50	7,00
OAL 160 mm					,
OAL 100 IIIII	0-Ø	S-Ø	OAL	Spiral I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
2188.405	5	SDS plus	160	100	6,30
2188.406	6	SDS plus	160	100	6,05
2188.408	8	SDS plus	160	100	6,55
2188.410	10	SDS plus	160	100	7,15
2188.412	12	SDS plus	160	100	9,65
2188.414	14	SDS plus	160	100	13,40
2188.415	15	SDS plus	160	100	16,10
	10	ODO pius	200	100	10,10
0AL 210 mm	0.0	c a	041	Cuival I	
Order No.	0-Ø	S-Ø	OAL	Spiral I.	€
	[mm]	[mm]	[mm]	[mm]	_
2188.505	5 6	SDS plus	210	150	7,00
2188.506		SDS plus	210	150	7,20
2188.508	8 10	SDS plus	210	150	8,60
2188.510	12	SDS plus	210 210	150	10,15
2188.512	14	SDS plus	210	150 150	11,20
2188.514	15	SDS plus			16,20
2188.515 2188.516	16	SDS plus	210 210	150 150	16,75
	10	SDS plus	210	150	20,15
0AL 260 mm					
	0-Ø	S-Ø	OAL	Spiral I.	_
Order No.	[mm]	[mm]	[mm]	[mm]	€
2188.606	6	SDS plus	260	200	12,00
2188.608	8	SDS plus	260	200	12,10
2188.610	10	SDS plus	260	200	10,30
2188.612	12	SDS plus	260	200	13,65
2188.614	14	SDS plus	260	200	17,05
2188.615	15	SDS plus	260	200	18,40
0AL 310 mm					
	O-Ø	S-Ø	OAL	Spiral I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
2188.710	10	SDS plus	310	250	12,15
2188.712	12	SDS plus	310	250	17,20
2188.714	14	SDS plus	310	250	17,45
2188.716	16	SDS plus	310	250	27,55
0AL 460 mm					
	O-Ø	S-Ø	OAL	Spiral I.	
Order No.	[mm]	[mm]	[mm]	[mm]	€
2188.908	8	SDS plus	460	400	23,05
2188.910	10	SDS plus	450	400	33,20
2188.912	12	SDS plus	460	400	29,80
2188.914	14	SDS plus	460	400	30,25
2188.915	15	SDS plus	450	400	32,35
2188.916	16	SDS plus	450	400	35,25

	High quality, robust masonry drill with four grooves, appropriate for hammer drills with SDS chuck. Fast drilling thanks to the lank and chisel formed drill head. High stability is ensured	The state of the s	For all hammer drills with SDS-Plus and HILTI chunk. High quality for the expert
倒	Carbide tipped		Specially suited for drilling dowels holes in fastening technology with SDS-plus hammer
UPM	Hammer Drill		packing unit = 1. PE bag. EAN



OO Classic

	0-Ø	OAL	
Order No.	[mm]	[mm]	€
4191.070	70	1000	98,25
4191.090	90	1000	100,20
4191.110	110	1000	109,40
4191.130	130	1000	121,30
4191.150	150	1000	123,15
4191.200	200	1000	139,85
4191.250	250	1000	153,65
Extension			
		OAL	
Order No.	Description	[mm]	€
4191.001	fit for reference 4191, Ø 70 - 250mm	1100	26,45

har	il Auger with forged welded spiral. The drill has a T- ndle made of metal and with the aid of a plug extending lefinitely prolongable	For drilling holes for garden fence, plants, frames, telephone poles, tree irrigation, etc.
Ster	eel	Before you start working you should have had a good breakfast and with a pair of gloves the work will be child 's play
As a	fast as the arms can handle.	packing unit = 1 piece bulk









Piercer with continious blade								
OAL	Cutting I.							
n] [mm]	[mm]	€						
190	90	9,00						
OAL	Cutting I.							
n] [mm]	[mm]	€						
190	90	10,10						
amfer								
OAL	Cutting I.							
n] [mm]	[mm]	€						
190	90	10,50						
	OAL n] [mm] 190  OAL n] [mm] 190  amfer OAL n] [mm]	OAL Cutting I.    [mm]						

	Piercer with continous blade, lacquered wooden handle and percussion plate. Piercer with round blade, reamer with a blade of 6 mm, square edged, piercer with sharpened chamfer	The state of the s	For piercing into all European solid wood, all boards laminated and uncoated
倒	tool steel		The piercers chamfer allows an especially easy pre-piercing and convenient handling.
UPM			packing unit = 1. in quadropack. EAN



Countersink with handle





Countersink with plastic handle	•	
	Ø	
Order No.	[mm]	€
3533.012	12	6,05
3533.016	16	6,25
Countersink with wooden hand	le	
	Ø	
Order No.	[mm]	€
3533.112	12	6,20
3533.116	16	6,55

		Countersink with 5 edges 90° countersink and either with wooden or plastic handle		For fast countersinking by hand.
4	到	tool steel		The wooden handle is especially hand friendly
	UPM)	By hand	A	packing unit = 1. Welded on cardboard. EAN





	Ø	Ø	Core	lead/1"	
Order No.	[mm]	[Inch]	[mm]	[mm]	€
1894.013	13	1/2	11	8	375,90
1894.016	16	5/8	14	7	375,90
1894.019	19	3/4	16	6	392,75
1894.022	22	7/8	18	5,5	429,05

	Quadripartite set with die stock, screw tap, tap wrench and a core hole drill in high quality wood case	For cutting internal and external threads at wooden workpieces like chair legs, nutcrackers etc.
倒	tool steel	In a stable wooden box with all necessary tools
(UPM)	By hand	packing unit = 1. Wooden box. EAN

1895

000 Profi

**Cutting Tool for wood threads + screws** 





	Ø	Ø	Core	lead/1"	
Order No.	[mm]	[Inch]	[mm]	[mm]	€
1895.013	13	1/2	11	8	321,05
1895.016	16	5/8	14	7	323,85
1895.019	19	3/4	16	6	337,25
1895.022	22	7/8	18	5,5	375,90
1895.025	25	1	21	5	474,20
1895.028	28	1 1/8	23	4,5	543,60
1895.032	32	1 1/4	26	4	618,75



		Set of two parts with die stock and screw tap		For cutting internal and external threads at wooden workpieces like chair legs, nutcrackers etc.
(	到	Tool steel		Suitable for all kinds of solid wood
(	UPM	By hand	A	packing unit = 1. Cardboard. EAN



	Ø	OAL	S-Ø	
Order No.	[mm]	[mm]	[mm]	€
2009.020	20	80	8	49,20
2009.030	30	100	10	75,45

	Dowel sharpener with one edge and parallel shank. Inner angle ca. 55°	For sharpening all dowels so that they can easily be put into the drill holes
倒	Tool steel	Dowels must not be lead by hand to the drilliing machine
UPM	500 - 1000 min-1, beech wood	packing unit = 1. Welded on cardboard. EAN

OO Classic

**Dowel markers** 





	Ø	PU	
Order No.	[mm]	[pcs]	€
3685.006	6	10	6,00
3685.008	8	10	6,10
3685.010	10	10	6,90

	Conventional dowel marker with centre point and exact fitting		For exact marking of blind dowel holes to all kinds of wood and uncoated boards
倒	Steel		Good dimensioned point guarantees perfect working
UPM		A	packing unit = 10 pcs. in one PE tube. EAN





	0,0	OAL	
Order No.	[mm]	[mm]	€
2152.002	2	115	3,15
2152.003	3	125	3,15
2152.004	4	140	3,55
2152.005	5	145	4,00
2152.006	6	155	6,10
Sets on care	d boards		
Order No.	Description		€
2152.503	3 pcs. Set on Rose plastic board. Ø 3, 4, 5 mm		9,50
2152.505	5 pcs. Set on Rose plastic board. Ø 2, 3, 4, 5, 6 mm		16,80
	Classical black painted gimlet with lug Classical gimlet in solid design. With cylintrical shank and crest of thread	For manually predrilling holes into all sorts of wood	

	Classical black painted gimlet with lug Classical gimlet in solid design. With cylintrical shank and crest of thread	For manually predrilling holes into all sorts of wood
倒	Tool steel	For hardwood we recommend piercing with a pricker 2006.100
UPM	show what you can!	Packing unit = 1. On Rose-card. EAN





## **Info's**

Quality products presented in an optimal way
Service and Contact
Custom-made tools
Speed diagram
Quality classification
Article index
General terms and conditions
Notice

#### **Quality products presented in an optimal way**

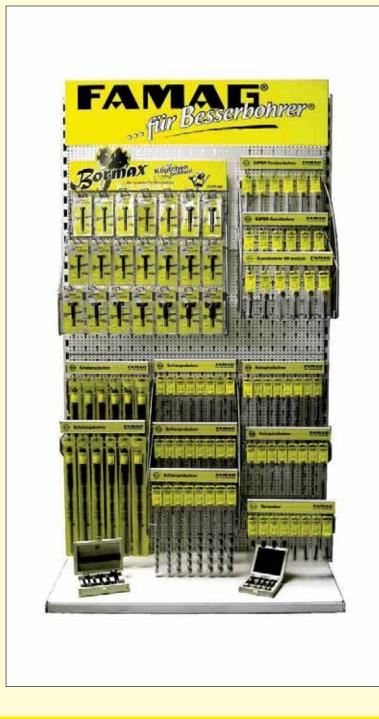
At FAMAG there are no rigidly specified assortments that do not fit to your business. The existence of different your needs. At your disposal there are different flexible target groups alone forbids standardized systems. Tell us about your wishes and target groups and together we

will find the ideal POS sales presentation according to presentation systems that can be arranged clearly and promotionally effective.





Even presentations on a minimal space are possible thanks to the counter carousel and other modules.





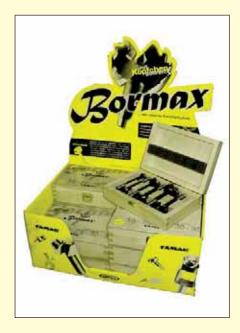


### **Quality products presented in an optimal way**



Do not forget the Bormax-displays as a counter-top presentation. These are often the start for the professional user - your customer - into the FAMAG product world.

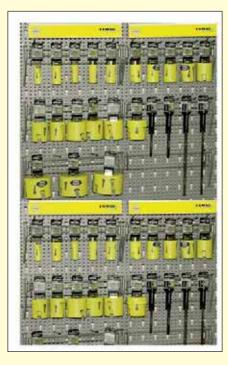
... and if you find out, that an article doesn't sell – no problem. We will replace it without any ifs or buts!













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Custom-made products, special requests, extraordinary requirements or particular, individual tasks? We are at your service!

As an experienced manufacturer and specialist with a long tradition and a philosophy that is committed to customer needs and high quality demands, we offer you a competent and expert support in all application questions that arise.

So if you do not find the appropriate tool among our product range, please contact us!

Go ahead and describe the exact application – together we will come to a solution. This may be either a combination of standard tools or a special custom-made tool, which will be designed according to your individual requirements.

If it is possible to fulfil your task by one of our standard tools, quick help can be provided because most of our 4,500 quality tools are available on stock. If not, we dedicate ourselves with all our competence to the realization of custom-made products, special requests and extraordinary requirements. In this case the delivery will take a little bit longer depending on the extent and effort. A sketch, a pattern or a drawing always leads to a better understanding and facilitates the production process.

An important parameter that determines the price is the quantity. This also applies to the realization of changes in shaft, special shafts and measurements concerning our standard tools.

By the way, augers can be produced up to a diameter of 80 mm on our CNC-machines. With our latest machine a spiral length up to 2,500 mm is even possible.

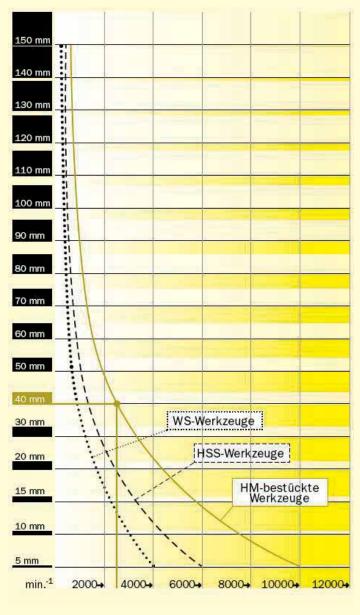
For step drill bits we prepared an enquiry form concerning the series of articles No. 1887 on page 53. Please do not forget to state the desired quantity here as well!

Our specialists support you with regard to all technical questions. Just call us, we will be glad to advise you!

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www.famag.com



We recommend selecting the use of the tools according to the material being worked with. Here are some tips:

#### Drill bits in alloyed tool steel-quality: ••••••

Best application in softwoods like spruce, pine and poplar. An exception is the TS-Bormax® drill bit; it can not only be used for softwood but also for European hardwood and board materials. Good results can also be achieved in soft and medium-hard plastics.

#### Drill bits in high-speed-steel-quality: - - - - -

Good application in all softwoods and many hardwoods as well as MDF.

#### Drill bits carbide-tipped: ———

Less suitable for softwoods (exception CT-Bormax³) but ideal for hardwoods and exotic hardwoods. Very good results in board materials as well as veneer- and plastic coated panels. Furthermore suitable for drilling in hard plastics. Please choose the tool material from the three characteristics. The intersection of the graph with the corresponding diameter of the drill bit shows the recommended rpm. Please do not exceed the recommended rpm, because this will have a negative impact on the drilling quality and the lifetime of the tools.

#### Example:

A TCT-cylindric boring bit drill (e.g. Series 1662), Ø 40 mm, equals a recommended rpm of 2.500 min<sup>1</sup>.



Different applications require different qualities. In order to make it easier for you, we divide our tools into four main quality categories. An amateur with the task to drill three holes in poplar wood certainly needs a different tool than for example the furniture industry with its mass production, where thousands of holes have to be drilled in beech wood. Our aim is to meet both requirements with our product range. Therefore the amateur should be very satisfied with the result of a 30-mm-drill a Forstner bit of the quality level "classic" achieves in softwood.

Please be guided by our quality classification or call us: We will be glad to advise you!

#### O quality level hobby:

reasonable quality tools for the amateur segment

#### OO quality level classic:

for the quality-conscious user

#### OOO quality level profi:

professional tools for the craftsman with high demanding requirements concerning tool and application

#### OOOO quality level premium:

wear-resistant tools of the highest quality level, even for extreme conditions of use

#### Info-blocks



The description of the tool design



Tool material



Recommended r.p.m. and specific example for the most common diameters in the according field of application



Description of application



Practical advice and specialty of the tool



Packaging unit and information on individual packaging

#### **Abbreviations**

OØouter diameterIØinner diameterSØshank diameter

L length of shaft/shank

length

OAL overall length
MC/HS main cutters
EL effective length
SL spiral length
W weight
T teeth
R radius
∠ degrees

Cutting I. cutting length

max.r.p.m. maximum acceptable

r.p.m.

L1 length of first stepL2 length of second step

D1 core diameterLead/1" no. of threadsPU packing unit

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We only make regular deliveries to resellers and/or commercial consumers. The following General Terms and Conditions therefore apply to this group of persons (entrepreneurs) and legal persons under public law or special public assets within the meaning of § 310 (1) of the German Civil Code (BGB). All our offers and purchase and delivery contracts concluded with us are based solely on our General Terms and Conditions. Any deviations from these General Terms and Conditions require our express written approval.

#### I. Scope of supply

The scope of supply shall be based on our written order confirmation. A deviation from the scope of supply (especially for custom-made articles) shall be permitted as long as there is no major difference from the agreed scope of supply and the deviations are reasonable for the customer. Partial deliveries shall be permitted if they do not lead to any disadvantages regarding use of the goods. During the delivery period, we shall reserve the right to make design and shape changes, which are due to an improvement in the state of the art or to legal requirements, provided the changes in the delivery item are minor and they are reasonable for the customer.

#### II. Delivery terms/Passing of risk in the case of shipment

- (1) When the net value of the goods is less than € 250,- we shall deliver ex works, excluding freight, postage and packing. In the case of small orders with a net goods value less than € 50,- we shall reserve the right to calculate a minimum quantity surcharge. When the net value of the goods exceeds € 250,- we shall deliver from Germany free destination (receiving station) or free German frontier, including freight, postage, packing (excluding carriage and local delivery charges, as well as costs for incidental charges such as couriers, express delivery, cash on delivery, etc., which shall be calculated separately). This shall not include drill rigs, soil augers and accessories, which shall always be delivered ex works, excluding freight, postage and packing. This provision shall also apply to other goods with a heavier weight and larger dimensions, which do not form part of our normal drill and tool product range. When the net value of the goods is more than € 1,500,we shall deliver FOB German airport or port.
- (2) In the case of deliveries from our depots, we shall levy a reasonable surcharge for prior carriage charges and warehouse service (maximum 5% of the net goods value). Packaging shall become the property of the customer and shall be charged by our company. Postage and packing costs shall be invoiced separately.
- (3) The dispatch method shall be chosen at our best discretion. When the goods are sent to the customer, but at the latest when they leave the factory/warehouse, risk of accidental loss or accidental deterioration of

the goods shall pass to the customer, irrespective of whether delivery is effected by our company or a third party commissioned by us, and irrespective of who pays the freight costs. Transport insurance shall only be provided at the express request of the customer and in return for payment. Transport damage shall be reported immediately to the carrier.

- (4) In the case of direct delivery to thierd parties (for example to the customer of the customer) we charge a service fee of 7.50 euros per order plus shipping costs.
- (5) In the case of an express delivery, the order must be submitted by 12:30 hrs to guarantee the same day delivery.

#### III. Prices and price changes

- (1) All prices shall be shown in Euro per unit (piece, set, etc.) plus statutory VAT.
- (2) Price changes after conclusion of the contract shall be permitted if a period of more than three months has elapsed between the date of conclusion of the contract and the agreed delivery date. If wages, material costs, sales costs or market cost prices then rise before completion of the delivery, we shall be entitled to increase the price by a reason-able amount based on the cost increases.

#### IV. Payment terms

Our invoices shall become due for payment within 10 days less 2% discount or in 30 days after delivery without any deductions. Invoices under  $\in$  50,– shall become due for payment immediately without any deductions. If the customer fails to pay on time, default interest amounting to 8% above the basic interest rate shall become due in accordance with § 247 of the German Civil Code (BGB). We shall expressly reserve the right to enforce a claim for further damage. Payments made by cheque or bill of exchange shall only be considered as made when honoured.

#### V. Reservation of title

- (1) We shall reserve title to the supplied goods until all claims from the delivery contract have been paid in full. If the customer infringes the contract, in particular by delays in payment, we shall be entitled to recover the goods after issuing a warning. The customer shall be obliged to return the goods in this case. Assertion of the reservation of title and recovery of the delivery items by us shall not be regarded as withdrawal from the contract.
- (2) The customer shall be entitled to resell the delivery items in the ordinary course of business. However, the customer shall now assign to us all claims amounting to the purchase price (including VAT) agreed between our company and the customer, which accrue to the



customer through resale of the goods, i.e. irrespective of whether the delivery items are resold without processing or after processing. The customer shall be empowered to collect this claim after its assignment. Our authority to personally collect the claims shall not be affected as long as the customer duly complies with his payment obligations and is not in default of payment. If this is the case, however, we may request the customer to stipulate the assigned claims and their debtors, provide all the information required for collection, hand over the related documents and inform the debtors (third parties) about assignment.

(3) We shall reserve the right to withdraw from the contract or terminate our obligation to perform if we become aware of a currently existing or future poor financial situation of the customer.

#### **VI. Warranty**

- (1) Warranty claims by the customer shall presuppose that he has duly complied with his obligation to inspect the goods and notify defects in accordance with § 377 of the German Commercial Code (HGB).
- (2) Defect claims by the customer shall become statutebarred in 12 months after acceptance of the delivery item. The above provisions shall not apply if longer periods are legally prescribed in  $\S$  438 (1) No. 2,  $\S$  479 (1) and  $\S$  634a (1) of the German Civil Code (BGB). Our permission shall be obtained before goods are returned at any time.
- (3) If, despite all care being taken by our company, the delivered goods contain a defect which already existed at the time that risk was passed, we shall have the choice of either reworking the goods or delivering replacement goods subject to receiving notification of the defect in good time. We shall always be given the opportunity to effect supplementary performance within a reasonable period of time. Recourse claims shall remain unaffected by the above provision without restriction.
- (4) If we are unable to rectify a defect covered by our warranty obligation or if additional rework attempts are unreasonable for the customer, the customer may request irrespective of any compensation claims withdrawal from the contract or a reduction in the purchase price instead of rework.
- (5) Defect claims shall not arise if there is only a slight deviation from the agreed state of the goods or if their usability is only slightly impaired. Defect claims shall also not arise in the case of natural wear or tear and with damage which occurs after passing of risk due to incorrect or negligent handling, excessive force or special external influences which are not covered by the contract.
- **(6)** Claims by the customer in connection with expenses required for the purpose of supplementary performance, especially transport costs, travelling expenses,

labour costs or material costs, shall be excluded if the expenses increase because the goods supplied by our company were brought later to a place other than the customer's branch, unless the movement of the goods corresponds to their intended use.

- (7) Recourse claims by the customer against our company shall only arise if the customer has not concluded any agreements over and beyond legally compelling defect claims with his customer. Subparagraph 6 shall apply analogously to the amount of the customer's recourse claim.
- **(8)** Unless the claims relate to death, physical injury or damage to health, our liability shall only extend to cases of intent and gross negligence. This provision shall also apply to compensation claims for damages in tort and to actions by our subcontractors and vicarious agents.

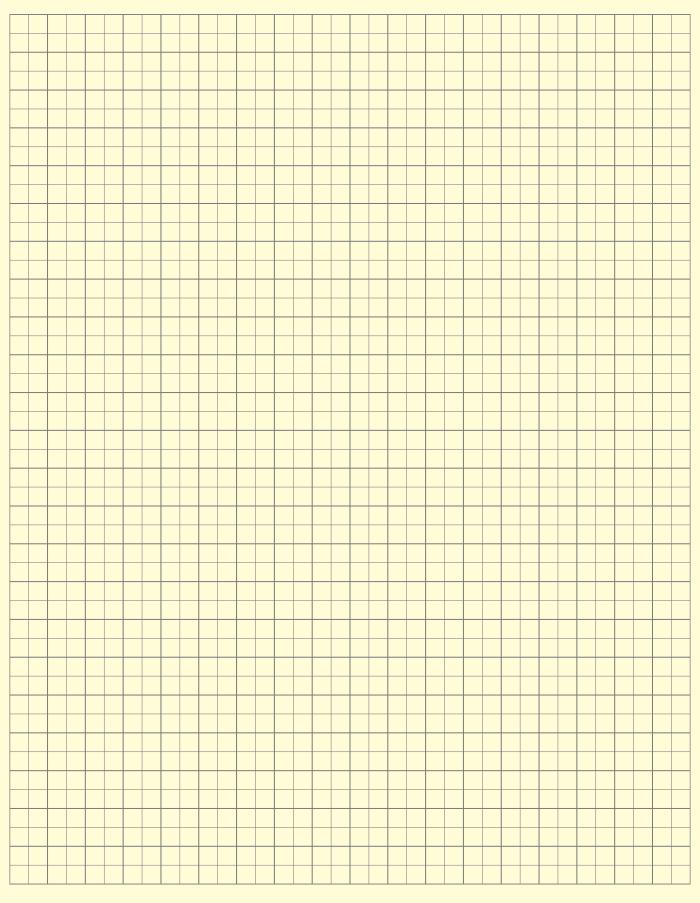
#### VII. Place of performance and place of jurisdiction

The place of performance and place of jurisdiction for all participating contracting parties shall be Remscheid. Ger-man law shall apply to the exclusion of the UN Convention on the International Sale of Goods, even if the customer's head office is outside Germany.

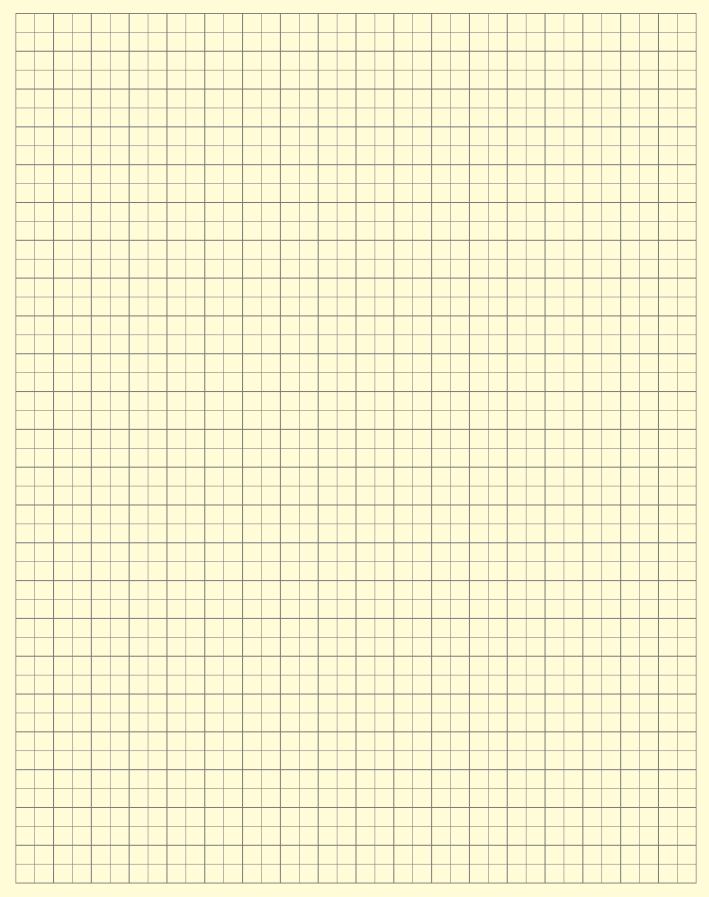
#### VIII. Miscellaneous

If individual clauses of these General Terms and Conditions are or become invalid, or if they contain a loophole, the validity of the other clauses shall not be affected.









#### **Service and Contact**



FAMAG works on an international level and today we sale our "Made in Germany" quality in many European countries. Of course our sales staff speaks English, Spanish and German. Call or write us an email:

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