

freud.

**New
Solid Carbide
CNC Bits Range**



Longer lifetime & outstanding performance

Product benefits

• Outstanding longer lifetime:

New micrograin carbide (H05MG), specifically formulated to achieve a high level of hardness and tenacity. The formula guarantees the **greatest resistance to wear and impact**.

• Flawless finishing in high demanding applications:

The range delivers a **perfect finishing**, as a result of the newly developed helix design and geometries.

• Superior cutting performance:

Tight mechanical tolerances, special flute design and best-in-class manufacturing machines ensure the **highest cutting performance**, with reduced eccentricity and no vibrations.

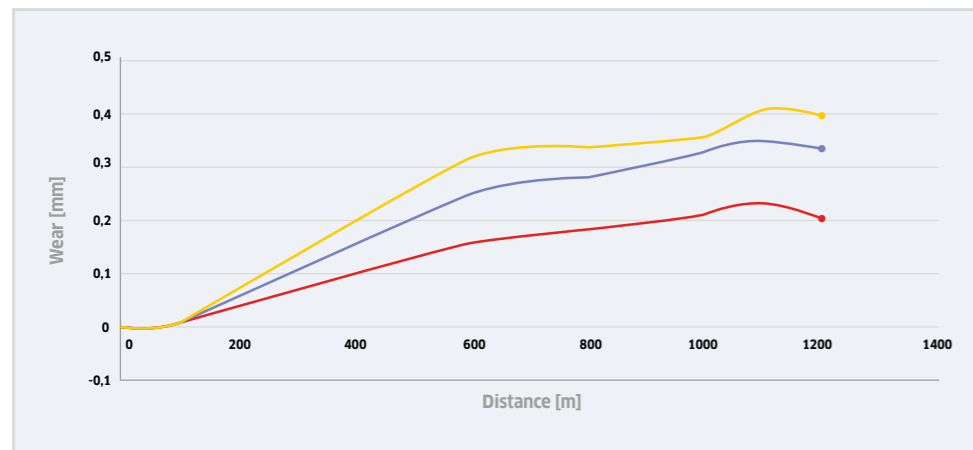
Applications

To be used on all CNC routers for:

- Nesting
- Sizing
- Rabbeting
- Grooving
- Dividing cuts of raw material.

Materials

Wood and derivatives.



Wear results test: freud SCH cutters deliver 50% longer lifetime than competitors.

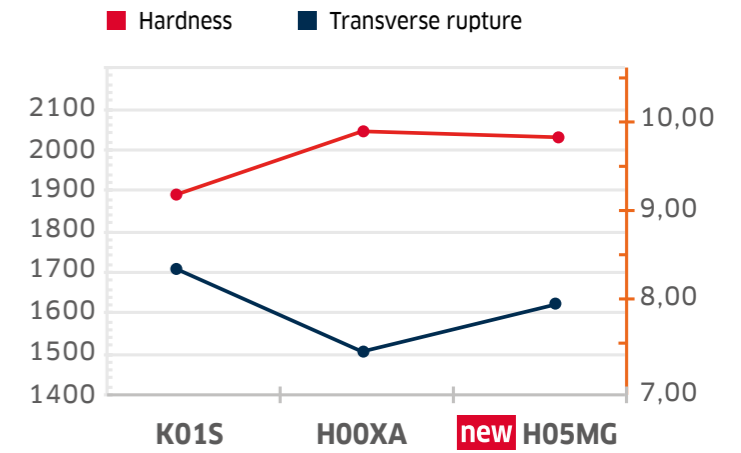


- freud SCH
- Competitor 1
- Competitor 2

Advanced research for innovative solutions

New carbide grade H05MG

- Micrograin hard metal (0.8mm).
- Hardness comparable to H00XA (2000 HV10).
- Tenacity comparable to K01S (but with 150 HV10 in excess).



New packaging - protective and durable TwistPack

- Enhanced product visibility thanks to a transparent propylene tube.
- The telescopic protective packaging protects the bit from shocks, holding it tight also during twist lock actions.
- The hexagon base prevents from rolling.



NEW SAFETY PICTOS



The tools are compliant with the European regulation EN847.

SCH1UF

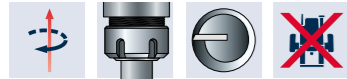
Router cutter right-hand upcut finishing Z1

Designed for: CNC routing with large gullet space for chips removal.
Suitable for: sizing and plunging with perfect finish.
SCH1U: upcut helix, upward chip removal for a panel best finish on the lower side.



D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Code	SAP
3	13	60	6	1	30.000	SCH1UFN110R	F03FR03639
4	15	50	4	1	30.000	SCH1UFN210R	F03FR03645
4	16	60	6	1	30.000	SCH1UFN120R	F03FR03640
5	17	50	5	1	30.000	SCH1UFN215R	F03FR03646
5	17	60	6	1	30.000	SCH1UFN130R	F03FR03641
5	17	60	8	1	30.000	SCH1UFN160R	F03FR03644
6	19	50	6	1	30.000	SCH1UFN220R	F03FR03647
6	25	60	6	1	30.000	SCH1UFN225R	F03FR03648
8	22	70	8	1	30.000	SCH1UFN235R	F03FR03650
8	32	80	8	1	30.000	SCH1UFN240R	F03FR03651
8	42	90	8	1	30.000	SCH1UFN245R	F03FR03652
10	32	80	10	1	30.000	SCH1UFN255R	F03FR03654
10	42	100	10	1	30.000	SCH1UFN260R	F03FR03655
10	52	100	10	1	30.000	SCH1UFN265R	F03FR03656
12	32	80	12	1	30.000	SCH1UFN270R	F03FR03657
12	52	100	12	1	30.000	SCH1UFN275R	F03FR03658

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Code	SAP
1/8"	1/2"	2-1/2"	1/4"	1	30.000	SCH1UFN140R	F03FR03642
3/16"	3/4"	2-1/2"	1/4"	1	30.000	SCH1UFN150R	F03FR03643
1/4"	1"	2-1/2"	1/4"	1	30.000	SCH1UFN230R	F03FR03649
3/8"	1-1/8"	3"	3/8"	1	30.000	SCH1UFN250R	F03FR03653
1/2"	1-5/16"	3"	1/2"	1	30.000	SCH1UFN280R	F03FR03659



To find suggested feeding speeds see the tables below and apply the following correction factors:

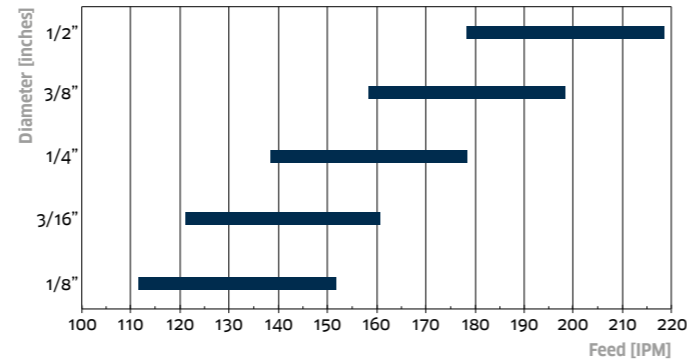
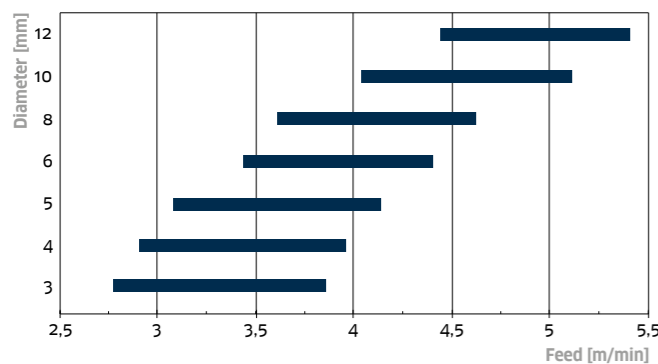
Material:
 Hardwood 0,9
 MDF/Chipboard 1,1
Depth of cut:
 From 1xD to 2xD 0,75
 From 2xD to 3xD 0,5
 Over 3xD 0,4

Rotation speed:
 Suggested speeds are proportional to RPM.

Examples:
 For 12.000 RPM factor $12.000/18.000 = 0,66$
 For 24.000 RPM factor $24.000/18.000 = 1,33$

To maximize the tool lifetime, always set the maximum speed that delivers needed quality of cut.

Suggested speeds for: softwood - 18.000 RPM. Depth of cut equal to cutting diameter



SCH1DF

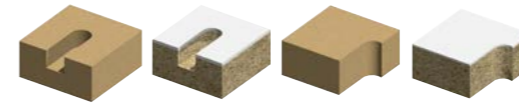
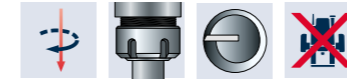
Router cutter right-hand downcut finishing Z1

Designed for: CNC routing with large gullet space for chips removal.
Suitable for: sizing and plunging with perfect finish.
SCH1D: downcut helix, downward chip removal for a panel best finish on the upper side.



D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Code	SAP
3	13	60	6	1	30.000	SCH1UFN110R	F03FR03639
4	15	50	4	1	30.000	SCH1UFN210R	F03FR03645
4	16	60	6	1	30.000	SCH1UFN120R	F03FR03640
5	17	50	5	1	30.000	SCH1UFN215R	F03FR03646
5	17	60	6	1	30.000	SCH1UFN130R	F03FR03641
5	17	60	8	1	30.000	SCH1UFN160R	F03FR03644
6	19	50	6	1	30.000	SCH1UFN220R	F03FR03647
6	25	60	6	1	30.000	SCH1UFN225R	F03FR03648
8	22	70	8	1	30.000	SCH1UFN235R	F03FR03650
8	32	80	8	1	30.000	SCH1UFN240R	F03FR03651
8	42	90	8	1	30.000	SCH1UFN245R	F03FR03652
10	32	80	10	1	30.000	SCH1UFN255R	F03FR03654

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Code	SAP
1/8"	1/2"	2-1/2"	1/4"	1	30.000	SCH1UFN140R	F03FR03642
3/16"	3/4"	2-1/2"	1/4"	1	30.000	SCH1UFN150R	F03FR03643
1/4"	1"	2-1/2"	1/4"	1	30.000	SCH1UFN230R	F03FR03649
3/8"	1-1/8"	3"	3/8"	1	30.000	SCH1UFN250R	F03FR03653



To find suggested feeding speeds see the tables below and apply the following correction factors:

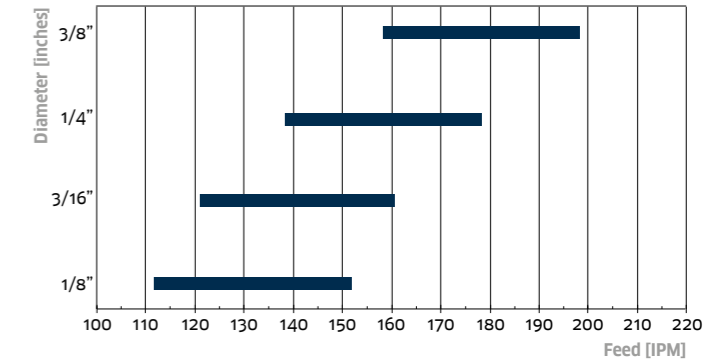
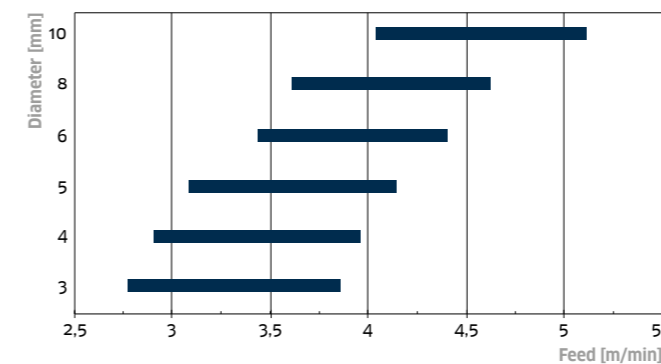
Material:
 Hardwood 0,9
 MDF/Chipboard 1,1
Depth of cut:
 From 1xD to 2xD 0,75
 From 2xD to 3xD 0,5
 Over 3xD 0,4

Rotation speed:
 Suggested speeds are proportional to RPM.

Examples:
 For 12.000 RPM factor $12.000/18.000 = 0,66$
 For 24.000 RPM factor $24.000/18.000 = 1,33$

To maximize the tool lifetime, always set the maximum speed that delivers needed quality of cut.

Suggested speeds for: softwood - 18.000 RPM. Depth of cut equal to cutting diameter



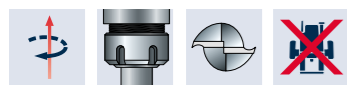
SCH2UF

Router cutter right-hand upcut finishing Z2

Designed for: CNC routing with general purpose and perfect finish.
Suitable for: sizing and plunging.
SCH2U: upcut helix, upward chip removal for a panel best finish on the lower side.



D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Code	SAP
3	13	50	6	2	30.000	SCH2UFN110R	F03FR03696
3	13	50	8	2	30.000	SCH2UFN135R	F03FR03701
4	15	50	4	2	30.000	SCH2UFN204R	F03FR03709
4	16	50	6	2	30.000	SCH2UFN115R	F03FR03697
4	16	50	8	2	30.000	SCH2UFN140R	F03FR03702
5	17	50	5	2	30.000	SCH2UFN208R	F03FR03710
5	17	60	6	2	30.000	SCH2UFN120R	F03FR03698
5	17	50	8	2	30.000	SCH2UFN145R	F03FR03703
6	17	60	6	2	30.000	SCH2UFN212R	F03FR03711
6	22	60	6	2	30.000	SCH2UFN216R	F03FR03712
6	25	60	8	2	30.000	SCH2UFN150R	F03FR03704
7	32	80	8	2	30.000	SCH2UFN155R	F03FR03705
8	22	70	8	2	30.000	SCH2UFN224R	F03FR03714
8	32	80	8	2	30.000	SCH2UFN228R	F03FR03715
8	42	90	8	2	30.000	SCH2UFN232R	F03FR03716
8	25	70	12	2	30.000	SCH2UFN160R	F03FR03706
10	32	80	10	2	30.000	SCH2UFN240R	F03FR03718
10	42	100	10	2	30.000	SCH2UFN244R	F03FR03719
10	52	100	10	2	30.000	SCH2UFN248R	F03FR03720
10	32	80	12	2	30.000	SCH2UFN170R	F03FR03708
11	37	80	11	2	30.000	SCH2UFN252R	F03FR03721
12	32	80	12	2	30.000	SCH2UFN256R	F03FR03722
12	42	90	12	2	30.000	SCH2UFN260R	F03FR03723
12	52	100	12	2	30.000	SCH2UFN264R	F03FR03724
14	52	100	14	2	25.000	SCH2UFN276R	F03FR03727
16	52	100	16	2	25.000	SCH2UFN280R	F03FR03728
18	52	110	18	2	25.000	SCH2UFN284R	F03FR03729
20	52	120	20	2	25.000	SCH2UFN288R	F03FR03730
20	72	130	20	2	25.000	SCH2UFN292R	F03FR03731



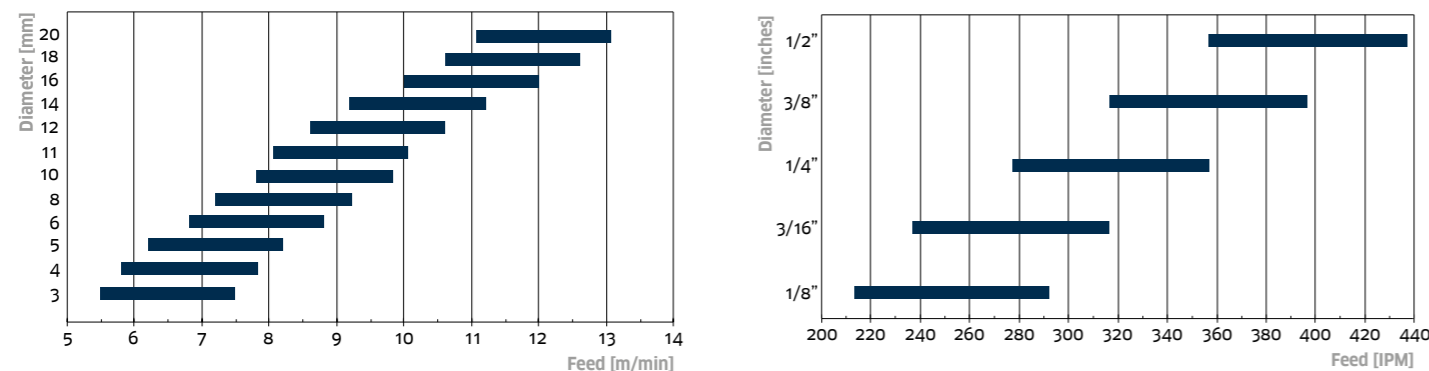
To find suggested feeding speeds see the tables below and apply the following correction factors:

Material:
 Hardwood 0,9
 MDF/Chipboard 1,1
Depth of cut:
 From 1xD to 2xD 0,75
 From 2xD to 3xD 0,5
 Over 3xD 0,4
Rotation speed:
 Suggested speeds are proportional to RPM.

Examples:
 For 12.000 RPM factor $12.000/18.000 = 0,66$
 For 24.000 RPM factor $24.000/18.000 = 1,33$

To maximize the tool lifetime, always set the maximum speed that delivers needed quality of cut.

Suggested speeds for: softwood - 18.000 RPM. Depth of cut equal to cutting diameter



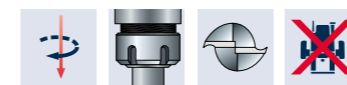
SCH2DF

Router cutter right-hand downcut finishing Z2

Designed for: CNC routing with general purpose and perfect finish.
Suitable for: sizing and plunging.
SCH2D: downcut helix, downward chip removal for a panel best finish on the upper side.



D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Code	SAP
3	13	50	6	2	30.000	SCH2DFN110R	F03FR03660
3	13	50	8	2	30.000	SCH2DFN135R	F03FR03665
4	15	50	4	2	30.000	SCH2DFN204R	F03FR03673
4	16	50	6	2	30.000	SCH2DFN115R	F03FR03661
4	16	50	8	2	30.000	SCH2DFN140R	F03FR03666
5	17	50	5	2	30.000	SCH2DFN208R	F03FR03674
5	17	60	6	2	30.000	SCH2DFN120R	F03FR03662
5	17	50	8	2	30.000	SCH2DFN145R	F03FR03667
6	17	60	6	2	30.000	SCH2DFN212R	F03FR03675
6	22	60	6	2	30.000	SCH2DFN216R	F03FR03676
6	25	60	8	2	30.000	SCH2DFN150R	F03FR03668
7	32	80	8	2	30.000	SCH2DFN155R	F03FR03669
8	22	70	8	2	30.000	SCH2DFN224R	F03FR03678
8	32	80	8	2	30.000	SCH2DFN228R	F03FR03679
8	42	90	8	2	30.000	SCH2DFN232R	F03FR03680
8	25	70	12	2	30.000	SCH2DFN160R	F03FR03670
10	32	80	10	2	30.000	SCH2DFN240R	F03FR03682
10	42	90	10	2	30.000	SCH2DFN244R	F03FR03683
10	52	100	10	2	30.000	SCH2DFN248R	F03FR03684
10	32	80	12	2	30.000	SCH2DFN170R	F03FR03672
11	37	80	11	2	30.000	SCH2DFN252R	F03FR03685
12	32	80	12	2	30.000	SCH2DFN256R	F03FR03686
12	42	90	12	2	30.000	SCH2DFN260R	F03FR03687
12	52	100	12	2	30.000	SCH2DFN264R	F03FR03688
14	52	100	14	2	25.000	SCH2DFN276R	F03FR03691
16	52	100	16	2	25.000	SCH2DFN280R	F03FR03692
18	52	110	18	2	25.000	SCH2DFN284R	F03FR03693
20	52	120	20	2	25.000	SCH2DFN288R	F03FR03694
20	72	130	20	2	25.000	SCH2DFN292R	F03FR03695



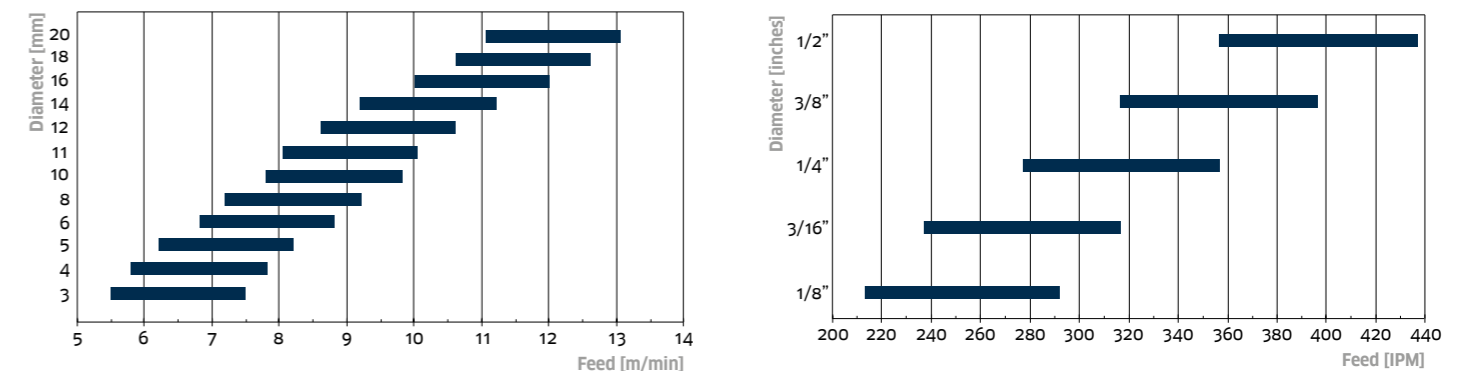
To find suggested feeding speeds see the tables below and apply the following correction factors:

Material:
 Hardwood 0,9
 MDF/Chipboard 1,1
Depth of cut:
 From 1xD to 2xD 0,75
 From 2xD to 3xD 0,5
 Over 3xD 0,4
Rotation speed:
 Suggested speeds are proportional to RPM.

Examples:
 For 12.000 RPM factor $12.000/18.000 = 0,66$
 For 24.000 RPM factor $24.000/18.000 = 1,33$

To maximize the tool lifetime, always set the maximum speed that delivers needed quality of cut.

Suggested speeds for: softwood - 18.000 RPM. Depth of cut equal to cutting diameter



SCH3UF

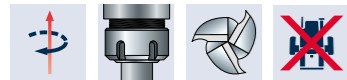
Router cutter right-hand upcut finishing Z3

Designed for: CNC routing for demanding applications and high speed.
Suitable for: sizing and plunging with perfect finish.
SCH3U: upcut helix, upward chip removal for a panel best finish on the lower side.



D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Code	SAP
8	22	70	8	3	30.000	SCH3UFN208R	F03FR03807
8	32	80	8	3	30.000	SCH3UFN212R	F03FR03808
10	32	80	10	3	30.000	SCH3UFN220R	F03FR03810
10	42	90	10	3	30.000	SCH3UFN224R	F03FR03811
10	52	100	10	3	30.000	SCH3UFN228R	F03FR03812
12	32	80	12	3	30.000	SCH3UFN232R	F03FR03813
12	42	90	12	3	30.000	SCH3UFN236R	F03FR03814
12	52	100	12	3	30.000	SCH3UFN240R	F03FR03815
14	42	90	14	3	25.000	SCH3UFN248R	F03FR03817
14	52	100	14	3	25.000	SCH3UFN252R	F03FR03818
16	42	90	16	3	25.000	SCH3UFN256R	F03FR03819
16	52	100	16	3	25.000	SCH3UFN260R	F03FR03820
16	62	120	16	3	25.000	SCH3UFN264R	F03FR03821
18	52	110	18	3	25.000	SCH3UFN268R	F03FR03822
18	72	130	18	3	25.000	SCH3UFN272R	F03FR03823
20	52	110	20	3	25.000	SCH3UFN276R	F03FR03824
20	72	130	20	3	25.000	SCH3UFN280R	F03FR03825
20	102	150	20	3	25.000	SCH3UFN284R	F03FR03826

D inch	h inch	H inch	A inch	Z	Max RPM 1/min.	Code	SAP
1/4"	3/4"	2-1/2"	1/4"	3	30.000	SCH3UFN204R	F03FR03806
3/8"	1-1/8"	3"	3/8"	3	30.000	SCH3UFN216R	F03FR03809
1/2"	2"	4"	1/2"	3	30.000	SCH3UFN244R	F03FR03816



To find suggested feeding speeds see the tables below and apply the following correction factors:

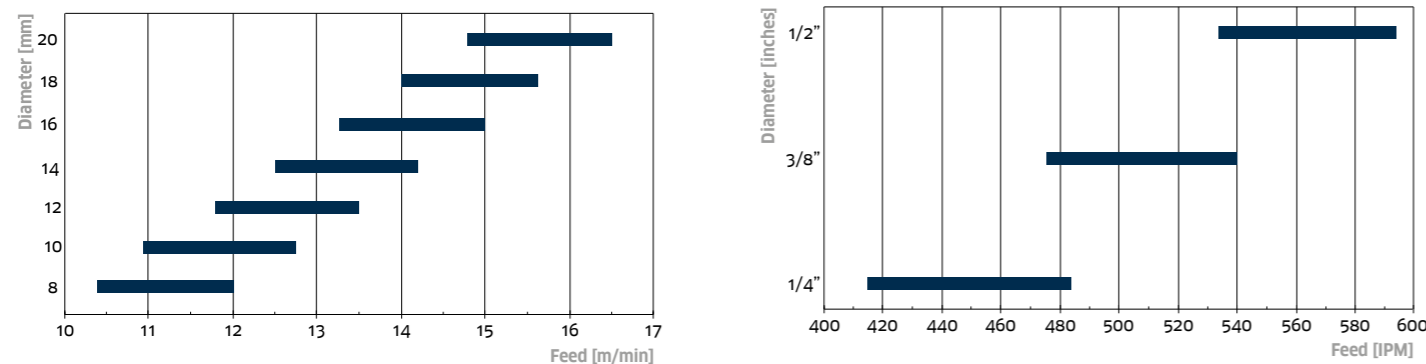
Material:
 Hardwood 0,9
 MDF/Chipboard 1,1
Depth of cut:
 From 1xD to 2xD 0,75
 From 2xD to 3xD 0,5
 Over 3xD 0,4

Rotation speed:
 Suggested speeds are proportional to RPM.

Examples:
 For 12.000 RPM factor $12.000/18.000 = 0,66$
 For 24.000 RPM factor $24.000/18.000 = 1,33$

To maximize the tool lifetime, always set the maximum speed that delivers needed quality of cut.

Suggested speeds for: softwood - 18.000 RPM. Depth of cut equal to cutting diameter



SCH3DF

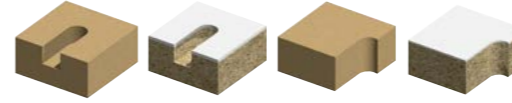
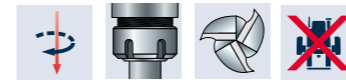
Router cutter right-hand downcut finishing Z3

Designed for: CNC routing for demanding applications and high speed.
Suitable for: sizing and plunging with perfect finish.
SCH3D: downcut helix, downward chip removal for a panel best finish on the upper side.



D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Code	SAP
8	22	70	8	3	30.000	SCH3DFN208R	F03FR03755
8	32	80	8	3	30.000	SCH3DFN212R	F03FR03756
10	32	70	10	3	30.000	SCH3DFN220R	F03FR03758
10	42	90	10	3	30.000	SCH3DFN224R	F03FR03759
10	52	100	10	3	30.000	SCH3DFN228R	F03FR03760
12	32	80	12	3	30.000	SCH3DFN232R	F03FR03761
12	42	90	12	3	30.000	SCH3DFN236R	F03FR03762
12	52	100	12	3	30.000	SCH3DFN240R	F03FR03763
14	42	90	14	3	30.000	SCH3DFN248R	F03FR03765
14	52	100	14	3	30.000	SCH3DFN252R	F03FR03766
16	42	90	16	3	30.000	SCH3DFN256R	F03FR03767
16	52	100	16	3	30.000	SCH3DFN260R	F03FR03768
16	62	120	16	3	30.000	SCH3DFN264R	F03FR03769
18	52	110	18	3	30.000	SCH3DFN268R	F03FR03770
18	72	130	18	3	30.000	SCH3DFN272R	F03FR03771
20	52	110	20	3	30.000	SCH3DFN276R	F03FR03772
20	72	130	20	3	30.000	SCH3DFN280R	F03FR03773
20	102	150	20	3	30.000	SCH3DFN284R	F03FR03774

D inch	h inch	H inch	A inch	Z	Max RPM 1/min.	Code	SAP
1/4"	3/4"	2-1/2"	1/4"	3	30.000	SCH3DFN204R	F03FR03754
3/8"	1-1/8"	3"	3/8"	3	30.000	SCH3DFN216R	F03FR03757
1/2"	2"	4"	1/2"	3	30.000	SCH3DFN244R	F03FR03764



To find suggested feeding speeds see the tables below and apply the following correction factors:

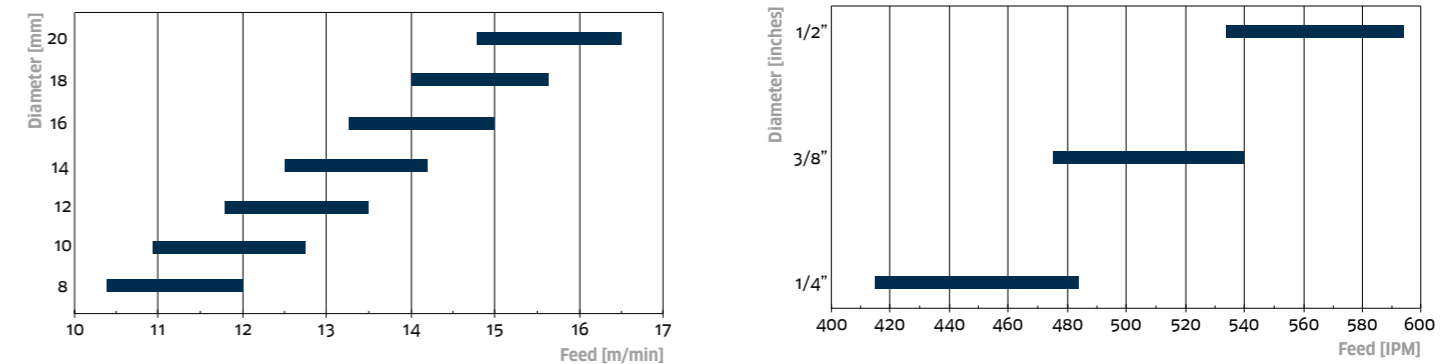
Material:
 Hardwood 0,9
 MDF/Chipboard 1,1
Depth of cut:
 From 1xD to 2xD 0,75
 From 2xD to 3xD 0,5
 Over 3xD 0,4

Rotation speed:
 Suggested speeds are proportional to RPM.

Examples:
 For 12.000 RPM factor $12.000/18.000 = 0,66$
 For 24.000 RPM factor $24.000/18.000 = 1,33$

To maximize the tool lifetime, always set the maximum speed that delivers needed quality of cut.

Suggested speeds for: softwood - 18.000 RPM. Depth of cut equal to cutting diameter



SCH3UR

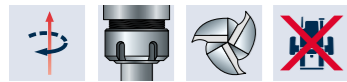
Router cutter right-hand upcut roughing Z3

Designed for: CNC routing with chip breakers for extremely fast machining.

Suitable for: sizing and plunging with rough finish.
SCH3U: upcut helix, upward chip removal.

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Code	SAP
8	22	70	8	3	30.000	SCH3URN504R	F03FR03830
8	32	80	8	3	30.000	SCH3URN506R	F03FR03831
8	42	90	8	3	30.000	SCH3URN508R	F03FR03832
10	32	80	10	3	30.000	SCH3URN512R	F03FR03834
10	42	90	10	3	30.000	SCH3URN514R	F03FR03835
10	52	100	10	3	30.000	SCH3URN516R	F03FR03836
12	32	80	12	3	30.000	SCH3URN518R	F03FR03837
12	42	90	12	3	30.000	SCH3URN520R	F03FR03838
12	52	100	12	3	30.000	SCH3URN522R	F03FR03839
14	42	90	14	3	25.000	SCH3URN528R	F03FR03842
14	52	100	14	3	25.000	SCH3URN530R	F03FR03843
14	60	130	14	3	25.000	SCH3URN531R	F03FR03844
16	42	90	16	3	25.000	SCH3URN534R	F03FR03846
16	52	100	16	3	25.000	SCH3URN536R	F03FR03847
16	72	120	16	3	25.000	SCH3URN538R	F03FR03848
18	52	100	18	3	25.000	SCH3URN540R	F03FR03849
18	72	130	18	3	25.000	SCH3URN542R	F03FR03850
20	52	100	20	3	25.000	SCH3URN546R	F03FR03852
20	72	130	20	3	25.000	SCH3URN548R	F03FR03853
20	85	150	20	3	25.000	SCH3URN550R	F03FR03854
20	102	160	20	3	25.000	SCH3URN552R	F03FR03855

D inch	h inch	H inch	A inch	Z	Max RPM 1/min.	Code	SAP
3/8"	1-1/8"	3-1/2"	3/8"	3	30.000	SCH3URN510R	F03FR03833
1/2"	1-1/8"	3-1/2"	1/2"	3	30.000	SCH3URN524R	F03FR03840
1/2"	1-5/8"	4"	1/2"	3	30.000	SCH3URN526R	F03FR03841
5/8"	2-1/8"	5"	5/8"	3	25.000	SCH3URN532R	F03FR03845
3/4"	2-1/8"	5"	3/4"	3	25.000	SCH3URN544R	F03FR03851



To find suggested feeding speeds see the tables below and apply the following correction factors:

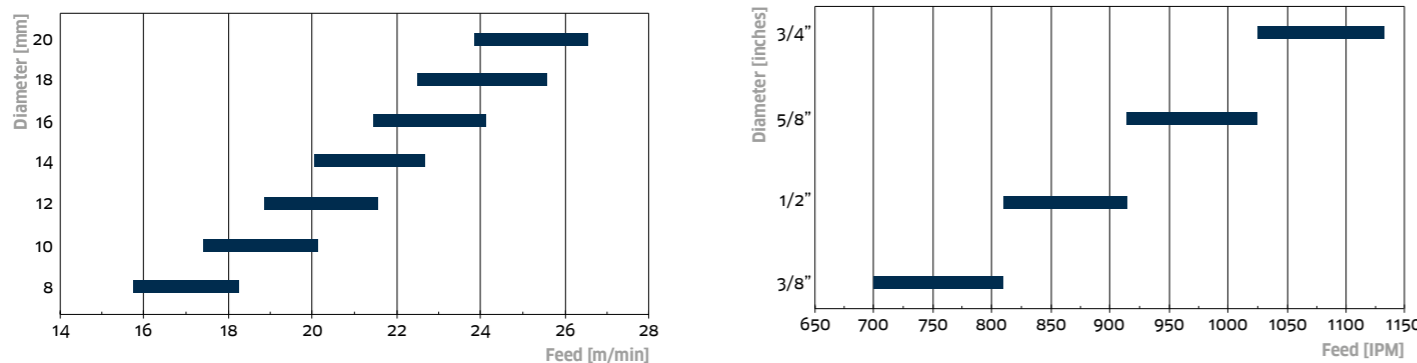
Material:
 Hardwood 0,9
 MDF/Chipboard 1,1
Depth of cut:
 From 1xD to 2xD 0,75
 From 2xD to 3xD 0,5
 Over 3xD 0,4

Rotation speed:
 Suggested speeds are proportional to RPM.

Examples:
 For 12.000 RPM factor $12.000/18.000 = 0,66$
 For 24.000 RPM factor $24.000/18.000 = 1,33$

To maximize the tool lifetime, always set the maximum speed that delivers needed quality of cut.

Suggested speeds for: softwood - 18.000 RPM. Depth of cut equal to cutting diameter



SCH3DR

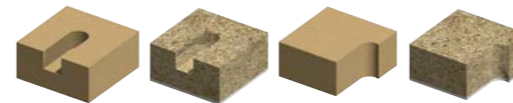
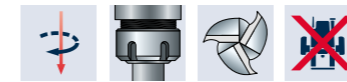
Router cutter right-hand downcut roughing Z3

Designed for: CNC routing with chip breakers for extremely fast machining.

Suitable for: sizing and plunging with rough finish.
SCH3D: downcut helix, downward chip removal.

D mm	h mm	H mm	A mm	Z	Max RPM 1/min.	Code	SAP
8	22	70	8	3	30.000	SCH3DRN504R	F03FR03778
8	32	80	8	3	30.000	SCH3DRN506R	F03FR03779
8	42	90	8	3	30.000	SCH3DRN508R	F03FR03780
10	32	70	10	3	30.000	SCH3DRN512R	F03FR03782
10	42	90	10	3	30.000	SCH3DRN514R	F03FR03783
10	42	100	10	3	30.000	SCH3DRN516R	F03FR03784
12	32	80	12	3	30.000	SCH3DRN518R	F03FR03785
12	42	90	12	3	30.000	SCH3DRN520R	F03FR03786
12	52	100	12	3	30.000	SCH3DRN522R	F03FR03787
14	42	90	14	3	25.000	SCH3DRN528R	F03FR03790
14	52	100	14	3	25.000	SCH3DRN530R	F03FR03791
16	42	90	16	3	25.000	SCH3DRN534R	F03FR03793
16	52	100	16	3	25.000	SCH3DRN536R	F03FR03794
16	62	120	16	3	25.000	SCH3DRN538R	F03FR03795
18	52	100	18	3	25.000	SCH3DRN540R	F03FR03796
18	72	130	18	3	25.000	SCH3DRN542R	F03FR03797
20	52	100	20	3	25.000	SCH3DRN546R	F03FR03799
20	72	130	20	3	25.000	SCH3DRN548R	F03FR03800
20	85	150	20	3	25.000	SCH3DRN550R	F03FR03801
20	102	160	20	3	25.000	SCH3DRN552R	F03FR03802

D inch	h inch	H inch	A inch	Z	Max RPM 1/min.	Code	SAP
3/8"	1-1/8"	3-1/2"	3/8"	3	30.000	SCH3DRN510R	F03FR03781
1/2"	1-1/8"	3-1/2"	1/2"	3	30.000	SCH3DRN524R	F03FR03788
1/2"	1-5/8"	4"	1/2"	3	30.000	SCH3DRN526R	F03FR03789
5/8"	2-1/8"	5"	5/8"	3	30.000	SCH3DRN532R	F03FR03792
3/4"	2-1/8"	5"	3/4"	3	30.000	SCH3DRN544R	F03FR03798



To find suggested feeding speeds see the tables below and apply the following correction factors:

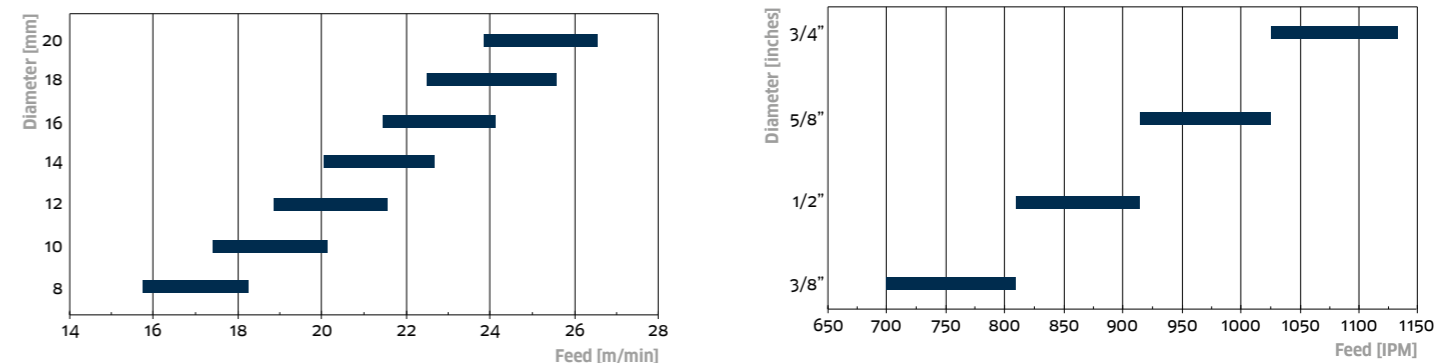
Material:
 Hardwood 0,9
 MDF/Chipboard 1,1
Depth of cut:
 From 1xD to 2xD 0,75
 From 2xD to 3xD 0,5
 Over 3xD 0,4

Rotation speed:
 Suggested speeds are proportional to RPM.

Examples:
 For 12.000 RPM factor $12.000/18.000 = 0,66$
 For 24.000 RPM factor $24.000/18.000 = 1,33$

To maximize the tool lifetime, always set the maximum speed that delivers needed quality of cut.

Suggested speeds for: softwood - 18.000 RPM. Depth of cut equal to cutting diameter



SCH2XF

Router cutter right-hand compression finishing Z2

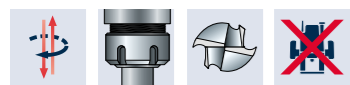
Designed for: high feed rates and perfect edge finishing on both sides of bilaminated materials.

Suitable for: sizing and nesting on most common panels, double sided melamine or laminated, veneered, natural wood, wood composites and engineered wood.

Short up-cut allows for mortising cut.

D mm	h mm	H mm	A mm	hUP mm	Z	Max RPM 1/min.	Code	SAP
8	22	70	8	5	2+2	30.000	SCH2XFN310R	F03FR03732
8	32	70	8	10	2+2	30.000	SCH2XFN410R	F03FR03741
10	26	70	10	5	2+2	30.000	SCH2XFN340R	F03FR03735
10	32	80	10	5	2+2	30.000	SCH2XFN350R	F03FR03736
10	26	70	10	10	2+2	30.000	SCH2XFN420R	F03FR03743
12	32	90	12	5	2+2	30.000	SCH2XFN360R	F03FR03737
12	42	100	12	5	2+2	30.000	SCH2XFN370R	F03FR03738
12	32	80	12	12	2+2	30.000	SCH2XFN425R	F03FR03744
12	42	100	12	12	2+2	30.000	SCH2XFN430R	F03FR03745
16	35	90	16	14	2+2	25.000	SCH2XFN444R	F03FR04012
18	55	110	20	24	2+2	25.000	SCH2XFN450R	F03FR03749
20	55	110	20	30	2+2	25.000	SCH2XFN455R	F03FR03750

D inch	h inch	H inch	A inch	hUP inch	Z	Max RPM 1/min.	Code	SAP
3/8"	1"	3"	3/8"	3/16"	2+2	30.000	SCH2XFN320R	F03FR03733
3/8"	1-1/8"	3"	3/8"	7/16"	2+2	30.000	SCH2XFN415R	F03FR03742
3/8"	1-1/4"	3"	3/8"	3/16"	2+2	30.000	SCH2XFN330R	F03FR03734
1/2"	1"	3"	1/2"	3/16"	2+2	30.000	SCH2XFN380R	F03FR03739
1/2"	1-1/2"	3-1/2"	1/2"	3/16"	2+2	30.000	SCH2XFN390R	F03FR03740
1/2"	1"	3"	1/2"	9/16"	2+2	30.000	SCH2XFN435R	F03FR03746
1/2"	1-1/2"	3-1/2"	1/2"	9/16"	2+2	30.000	SCH2XFN440R	F03FR03747



To find suggested feeding speeds see the tables below and apply the following correction factors:

Material:

Softwood	0,9
Hardwood	0,8

Depth of cut:

2x19mm or 2x3/4"	0,75
3x19mm or 2x3/4"	0,50

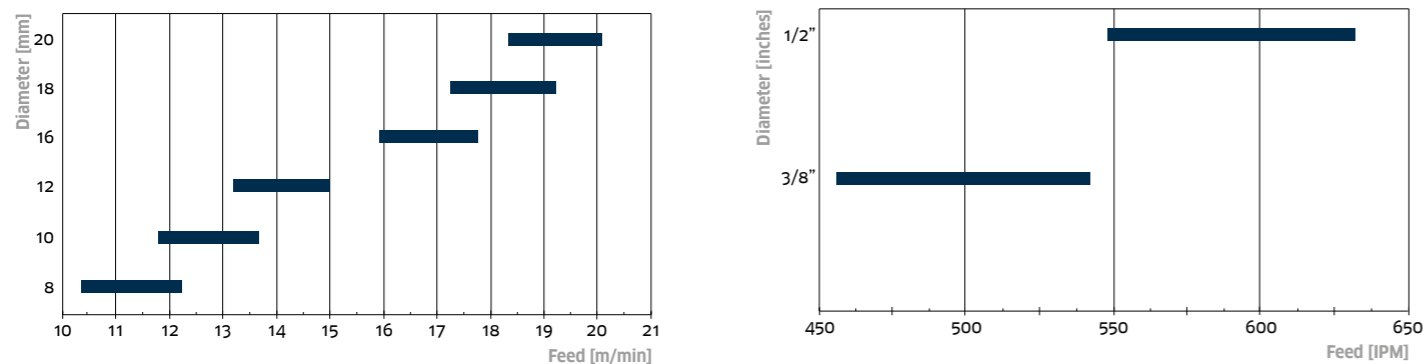
Rotation speed:
Suggested speeds are proportional to RPM.

Examples:

For 12.000 RPM factor	12.000/18.000 = 0,66
For 24.000 RPM factor	24.000/18.000 = 1,33

To maximize the tool lifetime, always set the maximum speed that delivers needed quality of cut.

Suggested speeds for: MDF/chipboard - 18.000 RPM. Depth of cut: 19mm / 3/4"



SCH3XF

Router cutter right-hand compression finishing Z3

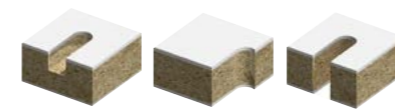
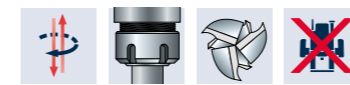
Designed for: very high feed rates with perfect edge finishing on both sides of bilaminated materials.

Suitable for: sizing and nesting on most common panels, double sided melamine or laminated, veneered, natural wood, wood composites and engineered wood.

Short up-cut allows for mortising cut.

D mm	h mm	H mm	A mm	hUP mm	Z	Max RPM 1/min.	Code	SAP
8	22	70	8	5	3+3	30.000	SCH3XFN310R	F03FR03856
8	32	70	8	10	3+3	30.000	SCH3XFN410R	F03FR03866
10	26	70	10	5	3+3	30.000	SCH3XFN340R	F03FR04013
10	32	80	10	5	3+3	30.000	SCH3XFN350R	F03FR03860
10	29	80	10	10	3+3	30.000	SCH3XFN420R	F03FR04014
10	42	90	10	13	3+3	30.000	SCH3XFN422R	F03FR03869
12	22	80	12	5	3+3	30.000	SCH3XFN355R	F03FR03861
12	32	90	12	5	3+3	30.000	SCH3XFN360R	F03FR03862
12	42	100	12	5	3+3	30.000	SCH3XFN370R	F03FR03863
12	32	80	12	12,5	3+3	30.000	SCH3XFN425R	F03FR03870
12	42	100	12	14,5	3+3	30.000	SCH3XFN430R	F03FR03871
12	52	100	12	16,5	3+3	30.000	SCH3XFN432R	F03FR03872

D inch	h inch	H inch	A inch	hUP inch	Z	Max RPM 1/min.	Code	SAP
3/8"	1"	3"	3/8"	13/64"	3+3	30.000	SCH3XFN320R	F03FR03857
3/8"	1-1/8"	3"	3/8"	13/32"	3+3	30.000	SCH3XFN415R	F03FR03867
3/8"	1-1/4"	3"	3/8"	3/16"	3+3	30.000	SCH3XFN330R	F03FR03858
1/2"	1"	3"	1/2"	13/64"	3+3	30.000	SCH3XFN380R	F03FR03864
1/2"	1-1/8"	3"	1/2"	1/2"	3+3	30.000	SCH3XFN436R	F03FR03873
1/2"	1-1/2"	3-1/2"	1/2"	13/64"	3+3	30.000	SCH3XFN390R	F03FR03865
1/2"	1-5/8"	3-1/2"	1/2"	3/4"	3+3	30.000	SCH3XFN438R	F03FR03874
1/2"	2-1/4"	4"	1/2"	3	3+3	30.000	SCH3XFN442R	F03FR03875



To find suggested feeding speeds see the tables below and apply the following correction factors:

Material:

Softwood	0,9
Hardwood	0,8

Depth of cut:

2x19mm or 2x3/4"	0,75
3x19mm or 2x3/4"	0,50

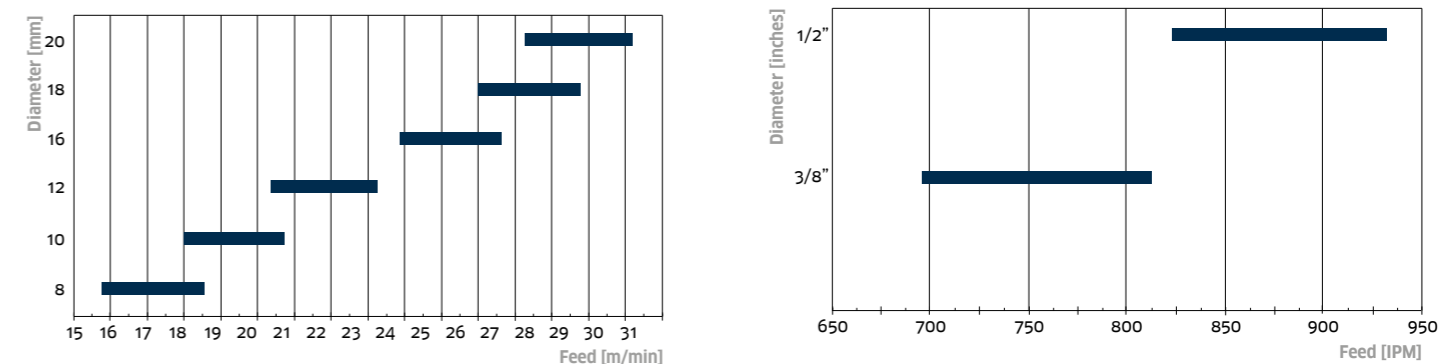
Rotation speed:
Suggested speeds are proportional to RPM.

Examples:

For 12.000 RPM factor	12.000/18.000 = 0,66
For 24.000 RPM factor	24.000/18.000 = 1,33

To maximize the tool lifetime, always set the maximum speed that delivers needed quality of cut.

Suggested speeds for: MDF/chipboard - 18.000 RPM. Depth of cut: 19mm / 3/4"



Router cutter right-hand upcut hardware slots finishing Z3

Designed for: CNC machining centres.
Suitable for: for windows, shutters and all hardware slots laminates or solid wood.

Upcut

D mm	h mm	H mm	A mm	hUP mm	Z	Max RPM 1/min.	Code	SAP
14	95	150	14	45	3	25.000	SCH3UFN102R	F03FR03803
16	95	150	16	45	3	25.000	SCH3UFN104R	F03FR03804
18	95	150	18	45	3	25.000	SCH3UFN106R	F03FR03805

Downcut

D mm	h mm	H mm	A mm	hUP mm	Z	Max RPM 1/min.	Code	SAP
14	95	150	14	45	3	25.000	SCH3DFN102R	F03FR03751
16	95	150	16	45	3	25.000	SCH3DFN104R	F03FR03752
18	95	150	18	45	3	25.000	SCH3DFN106R	F03FR03753

Upcut with chipbreakers

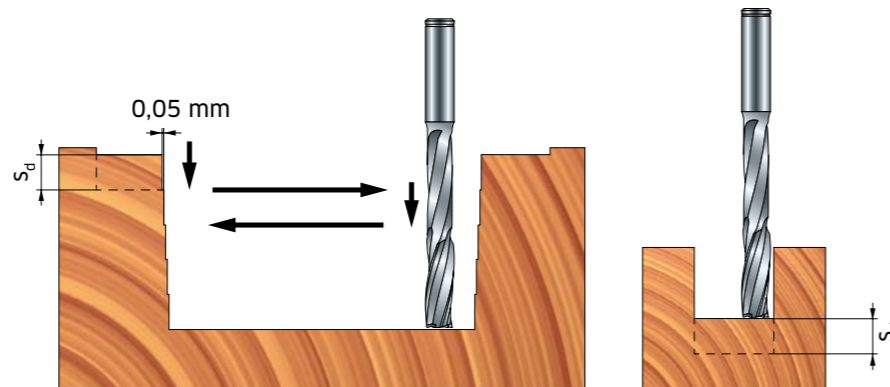
D mm	h mm	H mm	A mm	hUP mm	Z	Max RPM 1/min.	Code	SAP
14	95	150	14	45	3	25.000	SCH3UMN102R	F03FR03827
16	95	150	16	45	3	25.000	SCH3UMN104R	F03FR03828
18	95	150	18	45	3	25.000	SCH3UMN106R	F03FR03829

Downcut with chipbreakers

D mm	h mm	H mm	A mm	hUP mm	Z	Max RPM 1/min.	Code	SAP
14	95	150	14	45	3	25.000	SCH3DMN102R	F03FR03775
16	95	150	16	45	3	25.000	SCH3DMN104R	F03FR03776
18	95	150	18	45	3	25.000	SCH3DMN106R	F03FR03777

Solid wood feed & speeds:
 Maximum depth per stroke s_0 8 mm
 Suggested infeed at 18.000 RPM 15 m/min

Chipboard feed & speeds:
 Maximum depth per stroke s_0 15 mm
 Suggested infeed at 18.000 RPM 12 m/min



Solid wood - Best Upcut



Laminates - Best Downcut

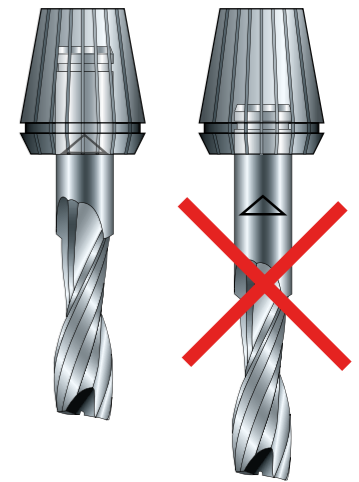
Explanation of symbols and abbreviations

HOW TO READ A CODE

SC	H	1	U	F	N	100	R
	S	2	D	R	C		L
		3	X				

SC = solid cutter
 H = helical
 S = straight
 3 = number of teeth
 U = positive (up)
 D = negative (down)
 X = compression
 F = finishing
 R = roughing
 N = not coated
 C = coated
 100 = progressive number
 R = rotation (right)
 L = rotation (left)

Minimum fixing length
 Insert the shank into the collet at least until the mark.



SYMBOLS TO READ THE PRODUCT TABLES

D Diameter	A Shank	Max RPM Max RPM
h Cutting height	Z Number of teeth	Code Item code
H Overall height	hUP UP cut length	SAP Item code - for SAP users only

OTHER SYMBOLS

TiCo Hi-Density carbide	1 flute	Router cutters for overhead router machines	Sizing - Laminate
Up spiral	2 flutes	Sizing - MDF	Grooving - Laminate
Down spiral	3 flutes	Grooving - MDF	Sizing - Bilaminate
Up spiral and down spiral	Z 2+2	Sizing - Chipboard	Grooving - Bilaminate
Table mounted router only	Z 3+3	Grooving - Chipboard	Nesting - Bilaminate

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