Solid carbide threading tools Product overview

Products	Solid carbide threading tools	Ø	Application						Type	Page
			P	M	K	N	S	H		
4122A		M1-M2.5				✔			Solid carbide thread formers	C177
4222A		M3-M16				✔			Solid carbide thread formers	C178
4122M		M1-M2.5	✔	✔					Solid carbide thread formers	C180
4222M		M3-M16	✔	✔					Solid carbide thread formers	C181
4201C		M3-M16			✔				Solid carbide tap, right-hand twist	C183
4202C		M3-M16			✔				Solid carbide tap, straight flute	C185
4201A		M3-M16				✔			Solid carbide tap, right-hand twist	C187
4202A		M3-M16				✔			Solid carbide tap, straight flute	C189
4111		M3-M20	✔		✔	✔			Solid carbide thread milling cutters	C191

✔ Very suitable ✔ Suitable

Coated cemented carbide PVD

Grade	Grade description
KTG402	PVD coated P20–P30/M20–M30 carbide substrate for steel and stainless steel. Especially for thread forming tools.
KTG4015	PVD coated P20–P30/K20–K30 carbide substrate for steel and cast iron. Especially for thread forming tools.

Uncoated cemented carbide

Grade	Grade description
YK40F	Uncoated K20–K30/N20–N30 carbide substrate for cast iron and non ferrous materials.

Solid carbide threading tools

System code – solid carbide threading tools

4	2	0	1	A	(C)	(S)	– M5x0.8 –	6H
1	2	3	4	5	6	7	8	9

Type	
Code	Description
4	Threading tool

1

Shank type	
Code	Description
1	Straight shank
2	Straight shank DIN10
5	Straight shank DIN 6535 HA
9	Conical shank

2

Tool type	
Code	Description
0	Tap
1	Thread milling cutter
2	Thread former

3

Flute	
Code	Description
1	Right-hand twist
2	Straight
3	Left-hand twist

4

Material	
Code	Description
A	Aluminum alloy
C	Cast iron
M	Stainless steel
P	Steel
H	Hardened steel

5

Coolant supply	
Code	Description
C	Internal

6

Blind hole	
Code	Description
S	Blind hole

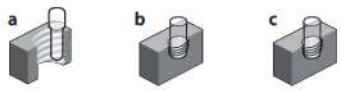
7

Thread type	
Code	Description
M5x0.8	Standard production tolerance
...	Fine production tolerance

8

Precision class	
Code	Description
6H	Nominal diameter x pitch
6HX	Fine production tolerance

9

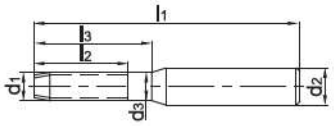


a Thread milling **b** Thread drilling **c** Thread forming

Thread former — Non-ferrous metals

4122A

– Factory standard



Article	✻	Dimensions [mm]								Teeth	Coredrill	Grade
			d_1	P	d_2	d_3	l_1	l_2	l_3		d	YK40F
4122AS-M1*0.25-6H		1.5P	M1	0.25	3	1	40	5	6	3	0.9	○
4122AS-M1.2*0.25-6H		1.5P	M1.2	0.25	3	1.2	40	5	6	3	1.1	○
4122A-M1.6*0.35-6H		3P	M1.6	0.35	3	1.1	40	5	11	3	1.47	●
4122AS-M1.6*0.35-6H		1.5P	M1.6	0.35	3	1.1	40	5	11	3	1.47	●
4122A-M2*0.4-6H		3P	M2	0.4	3	1.5	45	6	12	3	1.85	●
4122AS-M2*0.4-6H		1.5P	M2	0.4	3	1.5	45	6	12	3	1.85	●
4122A-M2.5*0.45-6H		3P	M2.5	0.45	3	1.9	50	6	14	3	2.33	○
4122AS-M2.5*0.45-6H		1.5P	M2.5	0.45	3	1.9	50	6	14	3	2.33	●

● Ex stock ○ On demand

✻ With internal cooling

Application field

P	M	K	N	S	H
			✔		

✔ Very suitable

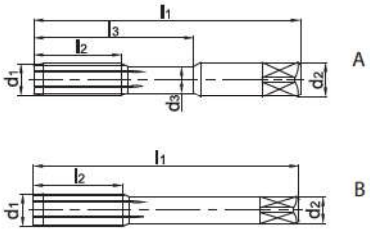
✔ Suitable

System code C176 | Machining instructions C201 | Cutting data C192 | Nonstandard order C198

Thread former Non-ferrous metals

4222A

– Type of shank DIN 10
– Coolant exit, axial concentric



Article	*	Dimensions [mm]								Teeth	Geometry	Coredrill	Grade
			d_1	P	d_2	d_3	l_1	l_2	l_3			d	YK40F
4222A-M3*0.5-6H		3P	M3	0.5	3.5	2.3	56	6	18	4	A	2.8	○
4222AS-M3*0.5-6H		1.5P	M3	0.5	3.5	2.3	56	6	18	4	A	2.8	●
4222A-M4*0.5-6H		3P	M4	0.5	4.5	3.1	63	8	21	4	A	3.8	○
4222AS-M4*0.5-6H		1.5P	M4	0.5	4.5	3.1	63	8	21	4	A	3.8	○
4222A-M4*0.7-6H		3P	M4	0.7	4.5	3.1	63	8	21	4	A	3.7	○
4222AS-M4*0.7-6H		1.5P	M4	0.7	4.5	3.1	63	8	21	4	A	3.7	○
4222A-M5*0.5-6H		3P	M5	0.5	6	4.3	70	10	25	4	A	4.8	○
4222AS-M5*0.5-6H		1.5P	M5	0.5	6	4.3	70	10	25	4	A	4.8	○
4222A-M5*0.8-6H		3P	M5	0.8	6	4	70	10	25	4	A	4.65	○
4222AS-M5*0.8-6H		1.5P	M5	0.8	6	4	70	10	25	4	A	4.65	○
4222A-M6*0.75-6H		3P	M6	0.75	6	5	80	12	30	4	A	5.7	○
4222AS-M6*0.75-6H		1.5P	M6	0.75	6	5	80	12	30	4	A	5.7	○
4222A-M6*1-6H		3P	M6	1	6	4.7	80	12	30	4	A	5.6	○
4222AS-M6*1-6H		1.5P	M6	1	6	4.7	80	12	30	4	A	5.6	○
4222A-M7*1.0-6H		3P	M7	1	7	5.7	80	14	30	4	A	6.6	○
4222AS-M7*1.0-6H		1.5P	M7	1	7	5.7	80	14	30	4	A	6.6	○
4222A-M8*1.0-6H		3P	M8	1	8	6.7	90	16	35	4	A	7.6	○
4222AS-M8*1-6H		1.5P	M8	1	8	6.7	90	16	35	4	A	7.6	○
4222A-M8*1.25-6H		3P	M8	1.25	8	6.4	90	16	35	4	A	7.45	○
4222AS-M8*1.25-6H		1.5P	M8	1.25	8	6.4	90	16	35	4	A	7.45	○
4222A-M10*1-6H		3P	M10	1	10	8.7	100	20	39	5	A	9.6	○
4222AS-M10*1-6H		1.5P	M10	1	10	8.7	100	20	39	5	A	9.6	○
4222A-M10*1.25-6H		3P	M10	1.25	10	8.4	100	20	39	5	A	9.45	○
4222AS-M10*1.25-6H		1.5P	M10	1.25	10	8.4	100	20	39	5	A	9.45	○
4222A-M10*1.5-6H		3P	M10	1.5	10	8.1	100	20	39	5	A	9.35	○
4222AC-M10*1.5-6H	*	3P	M10	1.5	10	8.1	100	20	39	5	A	9.35	○
4222AS-M10*1.5-6H		1.5P	M10	1.5	10	8.1	100	20	39	5	A	9.35	○
4222ACS-M10*1.5-6H	*	1.5P	M10	1.5	10	8.1	100	20	39	5	A	9.35	○
4222A-M12*1.25-6H		3P	M12	1.25	9		110	24		5	B	11.45	○
4222AS-M12*1.25-6H		1.5P	M12	1.25	9		110	24		5	B	11.45	○
4222A-M12*1.5-6H		3P	M12	1.5	9		110	24		5	B	11.35	○
4222AS-M12*1.5-6H		1.5P	M12	1.5	9		110	24		5	B	11.35	○
4222A-M12*1.75-6H		3P	M12	1.75	9		110	24		5	B	11.25	○

● Ex stock ○ On demand
* With internal cooling

Application field

P	M	K	N	S	H
			✔		

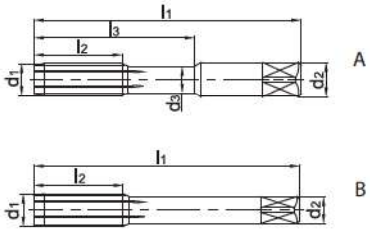
✔ Very suitable
✔ Suitable

System code > C176 Machining instructions > C201 Cutting data > C192 Nonstandard order > C198

Thread former — Non-ferrous metals

4222A

– Type of shank DIN 10
– Coolant exit, axial concentric



Article	✻	Dimensions [mm]								Teeth	Geometry	Coredrill	Grade
			d_1	P	d_2	d_3	l_1	l_2	l_3			d	YK40F
4222AC-M12*1.75-6H	✻	3P	M12	1.75	9		110	24		5	B	11.25	○
4222AS-M12*1.75-6H		1.5P	M12	1.75	9		110	24		5	B	11.25	○
4222ACS-M12*1.75-6H	✻	1.5P	M12	1.75	9		110	24		5	B	11.25	○
4222A-M14*1.5-6H		3P	M14	1.5	11		110	26		6	B	13.35	○
4222AS-M14*1.5-6H		1.5P	M14	1.5	11		110	26		6	B	13.35	○
4222A-M14*2-6H		3P	M14	2	11		110	26		6	B	13.1	○
4222A-M16*1.5-6H		3P	M16	1.5	12		110	27		6	B	15.35	○
4222AS-M16*1.5-6H		1.5P	M16	1.5	12		110	27		6	B	15.35	○
4222A-M16*2-6H		3P	M16	2	12		110	27		6	B	15.1	○
4222AC-M16*2.0-6H	✻	3P	M16	2	12		110	27		6	B	15.1	○
4222AS-M16*2.0-6H		1.5P	M16	2	12		110	27		6	B	15.1	○
4222ACS-M16*2.0-6H	✻	1.5P	M16	2	12		110	27		6	B	15.1	○

● Ex stock ○ On demand
✻ With internal cooling

Application field

P	M	K	N	S	H
			✔		

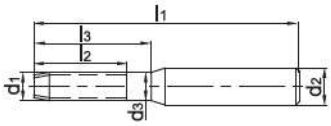
✔ Very suitable
✔ Suitable

System code C176 | Machining instructions C201 | Cutting data C192 | Nonstandard order C198

Thread former Steel, stainless steel

4122M

– Factory standard



Article	✲	Dimensions [mm]								Teeth	Coredrill	Grade	
			d_1	P	d_2	d_3	l_1	l_2	l_3		d	KTG402	YK40F
4122M-M1*0.25-6H		3P	M1	0.25	3		40	5	6	4	0.9	●	○
4122MS-M1*0.25-6H		2P	M1	0.25	3		40	5	6	4	0.9	●	○
4122M-M1.2*0.25-6H		3P	M1.2	0.25	3		40	5	6	4	1.1	○	○
4122MS-M1.2*0.25-6H		2P	M1.2	0.25	3		40	5	6	4	1.1	○	○
4122M-M1.6*0.35-6H		3P	M1.6	0.35	3	1.1	40	5	11	4	1.47	○	○
4122MS-M1.6*0.35-6H		2P	M1.6	0.35	3	1.1	40	5	11	4	1.47	○	○
4122M-M2*0.4-6H		3P	M2	0.4	3	1.5	45	6	12	4	1.85	●	○
4122MS-M2*0.4-6H		2P	M2	0.4	3	1.5	45	6	12	4	1.85	●	○
4122M-M2.5*0.45-6H		3P	M2.5	0.45	3	1.9	50	6	14	4	2.33	○	○
4122MS-M2.5*0.45-6H		2P	M2.5	0.45	3	1.9	50	6	14	4	2.33	●	○

● Ex stock ○ On demand

✲ With internal cooling

Application field

P	M	K	N	S	H
✔	✔				

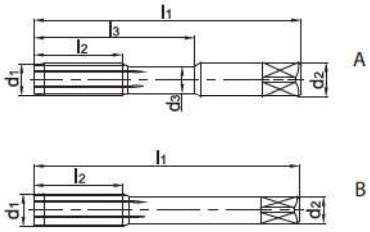
✔ Very suitable
✔ Suitable

System code > C176 Machining instructions > C201 Cutting data > C192 Nonstandard order > C198

Thread former — Steel, stainless steel

4222M

– Type of shank DIN 10
– Coolant exit, axial concentric



Article	*	Dimensions [mm]								Teeth	Geometry	Coredrill	Grade	
			d_1	P	d_2	d_3	l_1	l_2	l_3			d	KTG402	YK40F
4222M-M3*0.5-6H		3P	M3	0.5	3.5	2.3	56	6	18	4	A	2.8	●	○
4222MS-M3*0.5-6H		2P	M3	0.5	3.5	2.3	56	6	18	4	A	2.8	○	○
4222M-M4*0.5-6H		3P	M4	0.5	4.5	3.1	63	8	21	4	A	3.8	●	○
4222MS-M4*0.5-6H		2P	M4	0.5	4.5	3.1	63	8	21	4	A	3.8	○	○
4222M-M4*0.7-6H		3P	M4	0.7	4.5	3.1	63	8	21	4	A	3.7	●	○
4222MS-M4*0.7-6H		2P	M4	0.7	4.5	3.1	63	8	21	4	A	3.7	●	○
4222M-M5*0.5-6H		3P	M5	0.5	6	4.3	70	10	25	4	A	4.8	●	○
4222MS-M5*0.5-6H		2P	M5	0.5	6	4.3	70	10	25	4	A	4.8	●	○
4222M-M5*0.8-6H		3P	M5	0.8	6	4	70	10	25	4	A	4.65	●	○
4222MS-M5*0.8-6H		2P	M5	0.8	6	4	70	10	25	4	A	4.65	●	○
4222M-M6*0.75-6H		3P	M6	0.75	6	5	80	12	30	4	A	5.7	●	○
4222MS-M6*0.75-6H		2P	M6	0.75	6	5	80	12	30	4	A	5.7	●	○
4222M-M6*1.0-6H		3P	M6	1	6	4.7	80	12	30	4	A	5.6	●	○
4222MS-M6*1.0-6H		2P	M6	1	6	4.7	80	12	30	4	A	5.6	●	○
4222M-M7*1.0-6H		3P	M7	1	7	5.7	80	14	30	4	A	6.6	○	○
4222MS-M7*1.0-6H		2P	M7	1	7	5.7	80	14	30	4	A	6.6	○	○
4222M-M8*1.0-6H		3P	M8	1	8	6.7	90	16	35	4	A	7.6	●	○
4222MS-M8*1.0-6H		2P	M8	1	8	6.7	90	16	35	4	A	7.6	○	○
4222M-M8*1.25-6H		3P	M8	1.25	8	6.4	90	16	35	4	A	7.45	●	○
4222MS-M8*1.25-6H		2P	M8	1.25	8	6.4	90	16	35	4	A	7.45	●	○
4222M-M10*1.0-6H		3P	M10	1	10	8.7	100	20	39	5	A	9.6	○	○
4222MS-M10*1.0-6H		2P	M10	1	10	8.7	100	20	39	5	A	9.6	○	○
4222M-M10*1.25-6H		3P	M10	1.25	10	8.4	100	20	39	5	A	9.45	○	○
4222MS-M10*1.25-6H		2P	M10	1.25	10	8.4	100	20	39	5	A	9.45	●	○
4222M-M10*1.5-6H		3P	M10	1.5	10	8.1	100	20	39	5	A	9.35	●	○
4222MC-M10*1.5-6H	✻	3P	M10	1.5	10	8.1	100	20	39	5	A	9.35	●	○
4222MS-M10*1.5-6H		2P	M10	1.5	10	8.1	100	20	39	5	A	9.35	●	○
4222MCS-M10*1.5-6H	✻	2P	M10	1.5	10	8.1	100	20	39	5	A	9.35	●	○
4222M-M12*1.25-6H		3P	M12	1.25	9		110	24		5	B	11.45	●	○
4222MS-M12*1.25-6H		2P	M12	1.25	9		110	24		5	B	11.45	●	○
4222M-M12*1.5-6H		3P	M12	1.5	9		110	24		5	B	11.35	○	○
4222MS-M12*1.5-6H		2P	M12	1.5	9		110	24		5	B	11.35	○	○
4222M-M12*1.75-6H		3P	M12	1.75	9		110	24		5	B	11.25	○	○

● Ex stock ○ On demand
✻ With internal cooling

Application field

P	M	K	N	S	H
✔	✔				

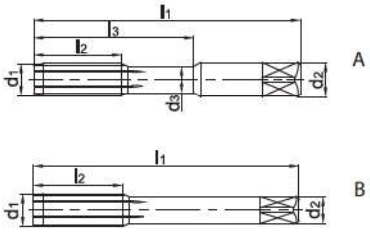
✔ Very suitable
✔ Suitable

System code > C176 | Machining instructions > C201 | Cutting data > C192 | Nonstandard order > C198

Thread former **Steel, stainless steel**

4222M

– Type of shank DIN 10
– Coolant exit, axial concentric



Article	*	Dimensions [mm]								Teeth	Geometry	Coredrill	Grade	
			d_1	P	d_2	d_3	l_1	l_2	l_3			d	KTG402	YK40F
4222MC-M12*1.75-6H	✻	3P	M12	1.75	9		110	24		5	B	11.25	○	○
4222MS-M12*1.75-6H		2P	M12	1.75	9		110	24		5	B	11.25	●	○
4222MCS-M12*1.75-6H	✻	2P	M12	1.75	9		110	24		5	B	11.25	○	○
4222M-M14*1.5-6H		3P	M14	1.5	11		110	26		6	B	13.35	●	○
4222MS-M14*1.5-6H		2P	M14	1.5	11		110	26		6	B	13.35	○	○
4222M-M14*2.0-6H		3P	M14	2	11		110	26		6	B	13.1	○	
4222MS-M14*2.0-6H		2P	M14	2	11		110	26		6	B	13.1	○	○
4222M-M16*1.5-6H		3P	M16	1.5	12		110	27		6	B	15.35	●	○
4222MS-M16*1.5-6H		2P	M16	1.5	12		110	27		6	B	15.35	○	○
4222M-M16*2.0-6H		3P	M16	2	12		110	27		6	B	15.1	○	○
4222MC-M16*2.0-6H	✻	3P	M16	2	12		110	27		6	B	15.1	○	○
4222MS-M16*2.0-6H		2P	M16	2	12		110	27		6	B	15.1	○	○
4222MCS-M16*2.0-6H	✻	2P	M16	2	12		110	27		6	B	15.1	●	○

● Ex stock ○ On demand
✻ With internal cooling

Application field

P	M	K	N	S	H
✔	✔				

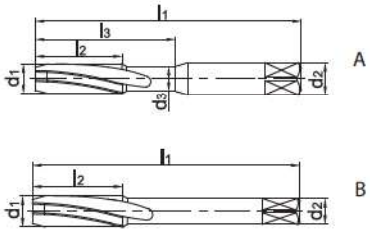
✔ Very suitable
✔ Suitable

System code > C176 Machining instructions > C201 Cutting data > C192 Nonstandard order > C198

Tap, right-hand twist — Cast iron

4201C

– Type of shank DIN 10
– Coolant exit, axial concentric



Article	✻	Dimensions [mm]								Teeth	Geometry	Coredrill	Grade
			d_1	P	d_2	d_3	l_1	l_2	l_3			d	YK40F
4201C-M3*0.5-6H		3P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	●
4201C-M3*0.5-6HX		3P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	●
4201CS-M3*0.5-6H		1.5P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	●
4201CS-M3*0.5-6HX		1.5P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	●
4201C-M4*0.7-6H		3P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	●
4201C-M4*0.7-6HX		3P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	●
4201CS-M4*0.7-6H		1.5P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	●
4201CS-M4*0.7-6HX		1.5P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	●
4201C-M5*0.8-6H		3P	M5	0.8	6	4	70	16	25	3	A	4.2	●
4201C-M5*0.8-6HX		3P	M5	0.8	6	4	70	16	25	3	A	4.2	●
4201CS-M5*0.8-6H		1.5P	M5	0.8	6	4	70	16	25	3	A	4.2	●
4201CS-M5*0.8-6HX		1.5P	M5	0.8	6	4	70	16	25	3	A	4.2	●
4201C-M6*0.75-6H		3P	M6	0.75	6	5	80	19	30	3	A	5.25	●
4201C-M6*0.75-6HX		3P	M6	0.75	6	5	80	19	30	3	A	5.25	●
4201CS-M6*0.75-6H		1.5P	M6	0.75	6	5	80	19	30	3	A	5.25	●
4201CS-M6*0.75-6HX		1.5P	M6	0.75	6	5	80	19	30	3	A	5.25	●
4201C-M6*1-6H		3P	M6	1	6	4.7	80	19	30	3	A	5	○
4201CC-M6*1-6H	✻	3P	M6	1	6	4.7	80	19	30	3	A	5	○
4201C-M6*1-6HX		3P	M6	1	6	4.7	80	19	30	3	A	5	○
4201CS-M6*1.0-6H		1.5P	M6	1	6	4.7	80	19	30	3	A	5	●
4201CCS-M6*1-6H	✻	1.5P	M6	1	6	4.7	80	19	30	3	A	5	●
4201CS-M6*1.0-6HX		1.5P	M6	1	6	4.7	80	19	30	3	A	5	●
4201C-M7*1-6H		3P	M7	1	7	5.7	80	19	30	3	A	6	○
4201CS-M7*1.0-6H		1.5P	M7	1	7	5.7	80	19	30	3	A	6	●
4201C-M8*1-6H		3P	M8	1	8	6.7	90	20	35	3	A	7	○
4201CS-M8*1.0-6H		1.5P	M8	1	8	6.7	90	20	35	3	A	7	●
4201C-M8*1.25-6H		3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	●
4201CC-M8*1.25-6H	✻	3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	●
4201C-M8*1.25-6HX		3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	●
4201CS-M8*1.25-6H		1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4201CCS-M8*1.25-6H	✻	1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4201CS-M8*1.25-6HX		1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4201C-M10*1-6H		3P	M10	1	10	8.7	100	20	39	4	A	9	○

● Ex stock ○ On demand
✻ With internal cooling

Application field

P	M	K	N	S	H
		✔			

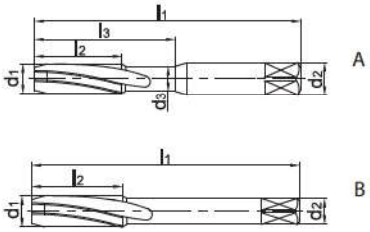
✔ Very suitable
✔ Suitable

System code > C176 Machining instructions > C201 Cutting data > C192 Nonstandard order > C198

Tap, right-hand twist — Cast iron

4201C

– Type of shank DIN 10
– Coolant exit, axial concentric



Article	*	Dimensions [mm]								Teeth	Geometry	Coredrill	Grade
			d_1	P	d_2	d_3	l_1	l_2	l_3			d	YK40F
4201CS-M10*1-6H		1.5P	M10	1	10	8.7	100	20	39	4	A	9	○
4201C-M10*1.25-6H		3P	M10	1.25	10	8.4	100	24	39	4	A	8.75	○
4201CS-M10*1.25-6H		1.5P	M10	1.25	10	8.4	100	24	39	4	A	8.75	○
4201C-M10*1.5-6H		3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4201CC-M10*1.5-6H	✲	3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4201C-M10*1.5-6HX		3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4201CS-M10*1.5-6H		1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4201CCS-M10*1.5-6H	✲	1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	●
4201CS-M10*1.5-6HX		1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4201C-M12*1.25-6H		3P	M12	1.25	9		110	29		4	B	10.75	○
4201CS-M12*1.25-6H		1.5P	M12	1.25	9		110	29		4	B	10.75	○
4201C-M12*1.5-6H		3P	M12	1.5	9		110	29		4	B	10.5	○
4201CS-M12*1.5-6H		1.5P	M12	1.5	9		110	29		4	B	10.5	○
4201C-M12*1.75-6H		3P	M12	1.75	9		110	29		4	B	10.25	○
4201CC-M12*1.75-6H	✲	3P	M12	1.75	9		110	29		4	B	10.25	●
4201C-M12*1.75-6HX		3P	M12	1.75	9		110	29		4	B	10.25	○
4201CS-M12*1.75-6H		1.5P	M12	1.75	9		110	29		4	B	10.25	○
4201CCS-M12*1.75-6H	✲	1.5P	M12	1.75	9		110	29		4	B	10.25	○
4201CS-M12*1.75-6HX		1.5P	M12	1.75	9		110	29		4	B	10.25	○
4201C-M14*1.5-6H		3P	M14	1.5	11		110	30		4	B	12.5	○
4201CS-M14*1.5-6H		1.5P	M14	1.5	11		110	30		4	B	12.5	○
4201C-M14*2-6H		3P	M14	2	11		110	30		4	B	12	○
4201CS-M14*2-6H		1.5P	M14	2	11		110	30		4	B	12	○
4201C-M16*1.5-6H		3P	M16	1.5	12		110	32		4	B	14.5	○
4201CS-M16*1.5-6H		1.5P	M16	1.5	12		110	32		4	B	14.5	○
4201C-M16*2-6H		3P	M16	2	12		110	32		4	B	14	○
4201C-M16*2-6HX		3P	M16	2	12		110	32		4	B	14	○
4201CS-M16*2-6H		1.5P	M16	2	12		110	32		4	B	14	○
4201CS-M16*2.0-6HX		1.5P	M16	2	12		110	32		4	B	14	●

● Ex stock ○ On demand
✲ With internal cooling

Application field

P	M	K	N	S	H
		✔			

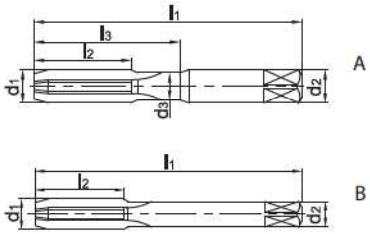
✔ Very suitable
✔ Suitable

System code > C176 Machining instructions > C201 Cutting data > C192 Nonstandard order > C198

Tap, straight flute — Cast iron

4202C

– Type of shank DIN 10
– Coolant exit, axial concentric



Article	*	Dimensions [mm]								Teeth	Geometry	Coredrill	Grade
			d_1	P	d_2	d_3	l_1	l_2	l_3			d	YK40F
4202C-M3*0.5-6H		3P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○
4202C-M3*0.5-6HX		3P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○
4202CS-M3*0.5-6H		1.5P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○
4202CS-M3*0.5-6HX		1.5P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○
4202C-M4*0.7-6H		3P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	●
4202C-M4*0.7-6HX		3P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○
4202CS-M4*0.7-6H		1.5P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○
4202CS-M4*0.7-6HX		1.5P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○
4202C-M5*0.8-6H		3P	M5	0.8	6	4	70	16	25	3	A	4.2	○
4202C-M5*0.8-6HX		3P	M5	0.8	6	4	70	16	25	3	A	4.2	○
4202CS-M5*0.8-6H		1.5P	M5	0.8	6	4	70	16	25	3	A	4.2	○
4202CS-M5*0.8-6HX		1.5P	M5	0.8	6	4	70	16	25	3	A	4.2	○
4202C-M6*0.75-6H		3P	M6	0.75	6	5	80	19	30	3	A	5.25	○
4202C-M6*0.75-6HX		3P	M6	0.75	6	5	80	19	30	3	A	5.25	○
4202CS-M6*0.75-6H		1.5P	M6	0.75	6	5	80	19	30	3	A	5.25	○
4202CS-M6*0.75-6HX		1.5P	M6	0.75	6	5	80	19	30	3	A	5.25	○
4202C-M6*1.0-6H		3P	M6	1	6	4.7	80	19	30	3	A	5	○
4202CC-M6*1.0-6H	*	3P	M6	1	6	4.7	80	19	30	3	A	5	○
4202C-M6*1.0-6HX		3P	M6	1	6	4.7	80	19	30	3	A	5	○
4202CS-M6*1.0-6H		1.5P	M6	1	6	4.7	80	19	30	3	A	5	○
4202CCS-M6*1.0-6H	*	1.5P	M6	1	6	4.7	80	19	30	3	A	5	○
4202CS-M6*1.0-6HX		1.5P	M6	1	6	4.7	80	19	30	3	A	5	○
4202C-M7*1.0-6H		3P	M7	1	7	5.7	80	19	30	3	A	6	○
4202CS-M7*1.0-6H		1.5P	M7	1	7	5.7	80	19	30	3	A	6	○
4202C-M8*1-6H		3P	M8	1	8	6.7	90	20	35	3	A	7	○
4202CS-M8*1.0-6H		1.5P	M8	1	8	6.7	90	20	35	3	A	7	○
4202C-M8*1.25-6H		3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4202CC-M8*1.25-6H	*	3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4202C-M8*1.25-6HX		3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4202CS-M8*1.25-6H		1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4202CCS-M8*1.25-6H	*	1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4202CS-M8*1.25-6HX		1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4202C-M10*1.0-6H		3P	M10	1	10	8.7	100	20	39	4	A	9	○

● Ex stock ○ On demand
* With internal cooling

Application field

P	M	K	N	S	H
		✔			

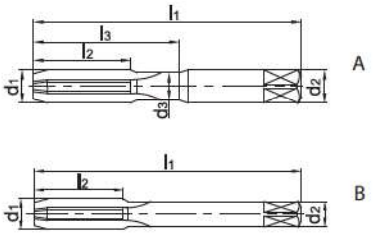
✔ Very suitable
✔ Suitable

System code > C176 Machining instructions > C201 Cutting data > C192 Nonstandard order > C198

Tap, straight flute — Cast iron

4202C

- Type of shank DIN 10
- Coolant exit, axial concentric



Article	*	Dimensions [mm]								Teeth	Geometry	Coredrill	Grade
			d_1	P	d_2	d_3	l_1	l_2	l_3			d	YK40F
4202CS-M10*1.0-6H		1.5P	M10	1	10	8.7	100	20	39	4	A	9	○
4202C-M10*1.25-6H		3P	M10	1.25	10	8.4	100	24	39	4	A	8.75	○
4202CS-M10*1.25-6H		1.5P	M10	1.25	10	8.4	100	24	39	4	A	8.75	○
4202C-M10*1.5-6H		3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4202CC-M10*1.5-6H	✲	3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4202C-M10*1.5-6HX		3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4202CS-M10*1.5-6H		1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4202CCS-M10*1.5-6H	✲	1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4202CS-M10*1.5-6HX		1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4202C-M12*1.25-6H		3P	M12	1.25	9		110	29		4	B	10.75	○
4202CS-M12*1.25-6H		1.5P	M12	1.25	9		110	29		4	B	10.75	○
4202C-M12*1.5-6H		3P	M12	1.5	9		110	29		4	B	10.5	○
4202CS-M12*1.5-6H		1.5P	M12	1.5	9		110	29		4	B	10.5	○
4202C-M12*1.75-6H		3P	M12	1.75	9		110	29		4	B	10.25	○
4202CC-M12*1.75-6H	✲	3P	M12	1.75	9		110	29		4	B	10.25	○
4202C-M12*1.75-6HX		3P	M12	1.75	9		110	29		4	B	10.25	○
4202CS-M12*1.75-6H		1.5P	M12	1.75	9		110	29		4	B	10.25	○
4202CCS-M12*1.75-6H	✲	1.5P	M12	1.75	9		110	29		4	B	10.25	○
4202CS-M12*1.75-6HX		1.5P	M12	1.75	9		110	29		4	B	10.25	○
4202C-M14*1.5-6H		3P	M14	1.5	11		110	30		4	B	12.5	○
4202CS-M14*1.5-6H		1.5P	M14	1.5	11		110	30		4	B	12.5	○
4202C-M14*2.0-6H		3P	M14	2	11		110	30		4	B	12	○
4202CS-M14*2.0-6H		1.5P	M14	2	11		110	30		4	B	12	○
4202C-M16*1.5-6H		3P	M16	1.5	12		110	32		4	B	14.5	○
4202CS-M16*1.5-6H		1.5P	M16	1.5	12		110	32		4	B	14.5	○
4202C-M16*2-6H		3P	M16	2	12		110	32		4	B	14	○
4202C-M16*2-6HX		3P	M16	2	12		110	32		4	B	14	○
4202CS-M16*2-6H		1.5P	M16	2	12		110	32		4	B	14	○
4202CS-M16*2.0-6HX		1.5P	M16	2	12		110	32		4	B	14	○

● Ex stock ○ On demand

✲ With internal cooling

Application field

P	M	K	N	S	H
		✔			

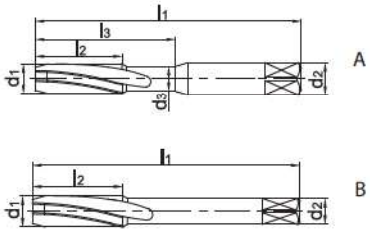
✔ Very suitable
✔ Suitable

System code C176 | Machining instructions C201 | Cutting data C192 | Nonstandard order C198

Tap, right-hand twist — Non-ferrous metals

4201A

– Type of shank DIN 10
– Coolant exit, axial concentric



Article	✻	Dimensions [mm]								Teeth	Geometry	Coredrill	Grade
			d_1	P	d_2	d_3	l_1	l_2	l_3			d	YK40F
4201A-M3*0.5-6H		3P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	●
4201A-M3*0.5-6HX		3P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○
4201AS-M3*0.5-6H		1.5P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	●
4201AS-M3*0.5-6HX		1.5P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○
4201A-M4*0.7-6H		3P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	●
4201A-M4*0.7-6HX		3P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○
4201AS-M4*0.7-6H		1.5P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	●
4201AS-M4*0.7-6HX		1.5P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○
4201A-M5*0.8-6H		3P	M5	0.8	6	4	70	16	25	3	A	4.2	○
4201A-M5*0.8-6HX		3P	M5	0.8	6	4	70	16	25	3	A	4.2	○
4201AS-M5*0.8-6H		1.5P	M5	0.8	6	4	70	16	25	3	A	4.2	●
4201AS-M5*0.8-6HX		1.5P	M5	0.8	6	4	70	16	25	3	A	4.2	○
4201A-M6*0.75-6H		3P	M6	0.75	6	5	80	19	30	3	A	5.25	○
4201A-M6*0.75-6HX		3P	M6	0.75	6	5	80	19	30	3	A	5.25	●
4201AS-M6*0.75-6H		1.5P	M6	0.75	6	5	80	19	30	3	A	5.25	●
4201AS-M6*0.75-6HX		1.5P	M6	0.75	6	5	80	19	30	3	A	5.25	○
4201A-M6*1-6H		3P	M6	1	6	4.7	80	19	30	3	A	5	○
4201AC-M6*1-6H	✻	3P	M6	1	6	4.7	80	19	30	3	A	5	○
4201A-M6*1-6HX		3P	M6	1	6	4.7	80	19	30	3	A	5	○
4201AS-M6*1-6H		1.5P	M6	1	6	4.7	80	19	30	3	A	5	●
4201ACS-M6*1-6H	✻	1.5P	M6	1	6	4.7	80	19	30	3	A	5	●
4201AS-M6*1-6HX		1.5P	M6	1	6	4.7	80	19	30	3	A	5	○
4201A-M7*1-6H		3P	M7	1	7	5.7	80	19	30	3	A	6	○
4201AS-M7*1-6H		1.5P	M7	1	7	5.7	80	19	30	3	A	6	○
4201A-M8*1-6H		3P	M8	1	8	6.7	90	20	35	3	A	7	○
4201AS-M8*1-6H		1.5P	M8	1	8	6.7	90	20	35	3	A	7	●
4201A-M8*1.25-6H		3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4201AC-M8*1.25-6H	✻	3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	●
4201A-M8*1.25-6HX		3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4201AS-M8*1.25-6H		1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	●
4201ACS-M8*1.25-6H	✻	1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	●
4201AS-M8*1.25-6HX		1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4201A-M10*1-6H		3P	M10	1	10	8.7	100	20	39	4	A	9	●

● Ex stock ○ On demand
✻ With internal cooling

Application field

P	M	K	N	S	H
			✔		

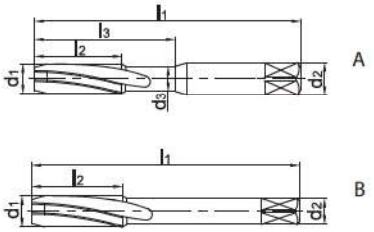
✔ Very suitable
✔ Suitable

System code > C176 Machining instructions > C201 Cutting data > C192 Nonstandard order > C198

Tap, right-hand twist — Non-ferrous metals

4201A

– Type of shank DIN 10
– Coolant exit, axial concentric



Article	*	Dimensions [mm]								Teeth	Geometry	Coredrill	Grade
			d_1	P	d_2	d_3	l_1	l_2	l_3			d	YK40F
4201AS-M10*1-6H		1.5P	M10	1	10	8.7	100	20	39	4	A	9	●
4201A-M10*1.25-6H		3P	M10	1.25	10	8.4	100	24	39	4	A	8.75	○
4201AS-M10*1.25-6H		1.5P	M10	1.25	10	8.4	100	24	39	4	A	8.75	○
4201A-M10*1.5-6H		3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4201AC-M10*1.5-6H	*	3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	●
4201A-M10*1.5-6HX		3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4201AS-M10*1.5-6H		1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	●
4201ACS-M10*1.5-6H	*	1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4201AS-M10*1.5-6HX		1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4201A-M12*1.25-6H		3P	M12	1.25	9		110	29		4	B	10.75	○
4201AS-M12*1.25-6H		1.5P	M12	1.25	9		110	29		4	B	10.75	○
4201A-M12*1.5-6H		3P	M12	1.5	9		110	29		4	B	10.5	○
4201AS-M12*1.5-6H		1.5P	M12	1.5	9		110	29		4	B	10.5	○
4201A-M12*1.75-6H		3P	M12	1.75	9		110	29		4	B	10.25	○
4201AC-M12*1.75-6H	*	3P	M12	1.75	9		110	29		4	B	10.25	○
4201A-M12*1.75-6HX		3P	M12	1.75	9		110	29		4	B	10.25	○
4201AS-M12*1.75-6H		1.5P	M12	1.75	9		110	29		4	B	10.25	●
4201ACS-M12*1.75-6H	*	1.5P	M12	1.75	9		110	29		4	B	10.25	○
4201AS-M12*1.75-6HX		1.5P	M12	1.75	9		110	29		4	B	10.25	○
4201A-M14*1.5-6H		3P	M14	1.5	11		110	30		4	B	12.5	○
4201AS-M14*1.5-6H		1.5P	M14	1.5	11		110	30		4	B	12.5	○
4201A-M14*2-6H		3P	M14	2	11		110	30		4	B	12	○
4201AS-M14*2-6H		1.5P	M14	2	11		110	30		4	B	12	○
4201A-M16*1.5-6H		3P	M16	1.5	12		110	32		4	B	14.5	○
4201AS-M16*1.5-6H		1.5P	M16	1.5	12		110	32		4	B	14.5	○
4201A-M16*2-6H		3P	M16	2	12		110	32		4	B	14	○
4201A-M16*2-6HX		3P	M16	2	12		110	32		4	B	14	○
4201AS-M16*2-6H		1.5P	M16	2	12		110	32		4	B	14	○
4201AS-M16*2-6HX		1.5P	M16	2	12		110	32		4	B	14	○

● Ex stock ○ On demand

* With internal cooling

Application field

P	M	K	N	S	H
			✔		

✔ Very suitable
✔ Suitable

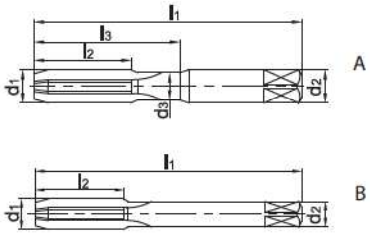
System code > C176 Machining instructions > C201 Cutting data > C192 Nonstandard order > C198

ZCC·CT

Tap, straight flute — Non-ferrous metals

4202A

– Type of shank DIN 10
– Coolant exit, axial concentric



Article	*	Dimensions [mm]								Teeth	Geometry	Coredrill	Grade
			d_1	P	d_2	d_3	l_1	l_2	l_3			d	YK40F
4202A-M3*0.5-6H		3P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○
4202A-M3*0.5-6HX		3P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○
4202AS-M3*0.5-6H		1.5P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○
4202AS-M3*0.5-6HX		1.5P	M3	0.5	3.5	2.3	56	11	18	3	A	2.5	○
4202A-M4*0.7-6H		3P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○
4202A-M4*0.7-6HX		3P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○
4202AS-M4*0.7-6H		1.5P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○
4202AS-M4*0.7-6HX		1.5P	M4	0.7	4.5	3.1	63	13	21	3	A	3.3	○
4202A-M5*0.8-6H		3P	M5	0.8	6	4	70	16	25	3	A	4.2	○
4202A-M5*0.8-6HX		3P	M5	0.8	6	4	70	16	25	3	A	4.2	○
4202AS-M5*0.8-6H		1.5P	M5	0.8	6	4	70	16	25	3	A	4.2	○
4202AS-M5*0.8-6HX		1.5P	M5	0.8	6	4	70	16	25	3	A	4.2	○
4202A-M6*0.75-6H		3P	M6	0.75	6	5	80	19	30	3	A	5.25	○
4202A-M6*0.75-6HX		3P	M6	0.75	6	5	80	19	30	3	A	5.25	○
4202AS-M6*0.75-6H		1.5P	M6	0.75	6	5	80	19	30	3	A	5.25	○
4202AS-M6*0.75-6HX		1.5P	M6	0.75	6	5	80	19	30	3	A	5.25	○
4202A-M6*1-6H		3P	M6	1	6	4.7	80	19	30	3	A	5	○
4202AC-M6*1.0-6H	✻	3P	M6	1	6	4.7	80	19	30	3	A	5	○
4202A-M6*1-6HX		3P	M6	1	6	4.7	80	19	30	3	A	5	○
4202AS-M6*1.0-6H		1.5P	M6	1	6	4.7	80	19	30	3	A	5	○
4202ACS-M6*1-6H	✻	1.5P	M6	1	6	4.7	80	19	30	3	A	5	○
4202AS-M6*1.0-6HX		1.5P	M6	1	6	4.7	80	19	30	3	A	5	○
4202A-M7*1-6H		3P	M7	1	7	5.7	80	19	30	3	A	6	○
4202AS-M7*1.0-6H		1.5P	M7	1	7	5.7	80	19	30	3	A	6	○
4202A-M8*1-6H		3P	M8	1	8	6.7	90	20	35	3	A	7	○
4202AS-M8*1.0-6H		1.5P	M8	1	8	6.7	90	20	35	3	A	7	○
4202A-M8*1.25-6H		3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4202AC-M8*1.25-6H	✻	3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4202A-M8*1.25-6HX		3P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4202AS-M8*1.25-6H		1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4202ACS-M8*1.25-6H	✻	1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4202AS-M8*1.25-6HX		1.5P	M8	1.25	8	6.4	90	22	35	3	A	6.75	○
4202A-M10*1-6H		3P	M10	1	10	8.7	100	20	39	4	A	9	○

● Ex stock ○ On demand
✻ With internal cooling

Application field

P	M	K	N	S	H
			✔		

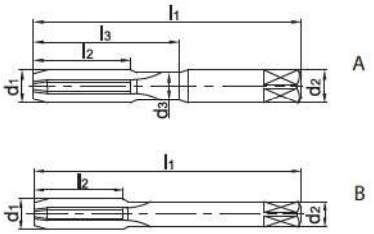
✔ Very suitable
✔ Suitable

System code > C176 Machining instructions > C201 Cutting data > C192 Nonstandard order > C198

Tap, straight flute — Non-ferrous metals

4202A

- Type of shank DIN 10
- Coolant exit, axial concentric



Article	*	Dimensions [mm]								Teeth	Geometry	Coredrill	Grade
			d_1	P	d_2	d_3	l_1	l_2	l_3			d	YK40F
4202AS-M10*1.0-6H		1.5P	M10	1	10	8.7	100	20	39	4	A	9	○
4202A-M10*1.25-6H		3P	M10	1.25	10	8.4	100	24	39	4	A	8.75	○
4202AS-M10*1.25-6H		1.5P	M10	1.25	10	8.4	100	24	39	4	A	8.75	○
4202A-M10*1.5-6H		3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4202AC-M10*1.5-6H	✲	3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4202A-M10*1.5-6HX		3P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4202AS-M10*1.5-6H		1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4202ACS-M10*1.5-6H	✲	1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4202AS-M10*1.5-6HX		1.5P	M10	1.5	10	8.1	100	24	39	4	A	8.5	○
4202A-M12*1.25-6H		3P	M12	1.25	9		110	29		4	B	10.75	○
4202AS-M12*1.25-6H		1.5P	M12	1.25	9		110	29		4	B	10.75	○
4202A-M12*1.5-6H		3P	M12	1.5	9		110	29		4	B	10.5	○
4202AS-M12*1.5-6H		1.5P	M12	1.5	9		110	29		4	B	10.5	○
4202A-M12*1.75-6H		3P	M12	1.75	9		110	29		4	B	10.25	○
4202AC-M12*1.75-6H	✲	3P	M12	1.75	9		110	29		4	B	10.25	○
4202A-M12*1.75-6HX		3P	M12	1.75	9		110	29		4	B	10.25	○
4202AS-M12*1.75-6H		1.5P	M12	1.75	9		110	29		4	B	10.25	●
4202ACS-M12*1.75-6H	✲	1.5P	M12	1.75	9		110	29		4	B	10.25	○
4202AS-M12*1.75-6HX		1.5P	M12	1.75	9		110	29		4	B	10.25	○
4202A-M14*1.5-6H		3P	M14	1.5	11		110	30		4	B	12.5	○
4202AS-M14*1.5-6H		1.5P	M14	1.5	11		110	30		4	B	12.5	○
4202A-M14*2-6H		3P	M14	2	11		110	30		4	B	12	○
4202AS-M14*2.0-6H		1.5P	M14	2	11		110	30		4	B	12	○
4202A-M16*1.5-6H		3P	M16	1.5	12		110	32		4	B	14.5	○
4202AS-M16*1.5-6H		1.5P	M16	1.5	12		110	32		4	B	14.5	○
4202A-M16*2-6H		3P	M16	2	12		110	32		4	B	14	○
4202A-M16*2-6HX		3P	M16	2	12		110	32		4	B	14	○
4202AS-M16*2.0-6H		1.5P	M16	2	12		110	32		4	B	14	○
4202AS-M16*2.0-6HX		1.5P	M16	2	12		110	32		4	B	14	○

● Ex stock ○ On demand

✲ With internal cooling

Application field

P	M	K	N	S	H
			✔		

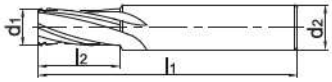
✔ Very suitable
✔ Suitable

System code > C176 | Machining instructions > C201 | Cutting data > C192 | Nonstandard order > C198

Thread milling cutter, coated — Steel, cast iron, non-ferrous metals

4111

– Factory standard



Article	✻	Dimensions [mm]						Teeth	Coredrill	Grade	
		D	d_1	P	d_2	l_1	l_2		d	KTG4015	YK40F
4111-M3*0.5		M3	2.35	0.5	4	50	6	3	2.5	●	●
4111-M4*0.7		M4	3.15	0.7	4	50	8	3	3.3	●	○
4111-M5*0.8		M5	4	0.8	6	50	10	3	4.2	●	○
4111-M5*0.5		M5	4.3	0.5	6	50	10	3	4.5	●	○
4111-M6*1		M6	4.75	1	6	60	12	4	5	●	●
4111-M6*0.75		M6	5	0.75	6	60	12	4	5.25	●	○
4111-M8*1.25		M8	6.45	1.25	8	60	16	4	6.75	●	●
4111-M8*1		M8	6.65	1	8	60	16	4	7	●	○
4111-M10*1.5		M10	8.1	1.5	10	75	20	4	8.5	●	○
4111-M10*1		M10	8.55	1	10	75	20	4	9	●	○
4111-M12*1.75		M12	9.75	1.75	12	75	24	4	10.25	●	○
4111-M12*1.25		M12	10.25	1.25	12	75	24	4	10.75	●	○
4111-M14*2		M14	11.4	2	14	75	28	4	12	●	○
4111-M14*1.5		M14	11.9	1.5	14	75	28	4	12.5	●	○
4111-M14*1		M14	12.35	1	14	75	20	4	13	●	○
4111-M16*2		M16	13.3	2	16	90	32	6	14	●	○
4111-M18*2.5		M18	14.75	2.5	18	90	36	6	15.5	●	○
4111-M18*1		M18	16.15	1	18	90	20	6	17	●	○
4111-M20*2.5		M20	16.65	2.5	18	100	40	6	17.5	●	○
4111-M20*2		M20	17.1	2	18	100	40	6	18	●	○

● Ex stock ○ On demand

✻ With internal cooling

Application field

P	M	K	N	S	H
✔		✔	✔		

✔ Very suitable

✔ Suitable

System code > C176 Machining instructions > C201 Cutting data > C192 Nonstandard order > C198

Guide for recommended cutting data – Solid carbide threading tools

Solid carbide threading tools

Material group		Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]							
						Thread former		Thread former				Thread former	
						4122A 4222A	4122M 4222M	4201C	4201A	4202C	4202A		
						YK40F	YK40F	YK40F	YK40F	YK40F	YK40F	KTG40115	
						Coolant							
						external	external	external	external	external	external	external	f-group
P	Unalloyed steel	ca. 0,15 % C	annealed	125	1		20					100	1
		ca. 0,45 % C	annealed	190	2		20					90	1
		ca. 0,45 % C	tempered	250	3		20					80	1
		ca. 0,75 % C	annealed	270	4		20					70	1
		ca. 0,75 % C	tempered	300	5		20					70	1
	Low-alloyed steel		annealed	180	6		20					90	1
			tempered	275	7		20					70	1
			tempered	300	8		20					60	1
			tempered	350	9		20					55	1
	High-alloyed steel and high-alloyed tool steel		annealed	200	10		20					80	1
			hardened and tempered	325	11		20					50	1
M	Stainless steel	ferritic/martensitic	annealed	200	12		20						
		martensitic	tempered	240	13		20						
		austenitic	quench hardened	180	14		20						
		austenitic-ferritic		230	15		20						
K	Grey cast iron	perlitic/ferritic		180	16			20		20		80	1
		perlitic (martensitic)		260	17			20		20		60	1
	Cast iron with spheroidal graphite	ferritic		160	18			15		15		80	1
		perlitic		250	19			15		15		60	1
	Malleable cast iron	ferritic		130	20			20		20		60	1
		perlitic		230	21			20		20		80	1
N	Aluminium wrought alloys	cannot be hardened		60	22							180	1
		hardenable	hardened	100	23							150	1
	Cast aluminium alloys	≤ 12% Si, cannot be hardened		75	24	30	30		30		30	150	1
		≤ 12% Si, hardenable	hardened	90	25	25	25		25		25	150	1
		> 12% Si, cannot be hardened		130	26							150	1
	Copper and copper alloys (bronze/brass)	machining steel, PB> 1%		110	27							150	1
		CuZn, CuSnZn		90	28							150	1
		CuSn, Pb-free copper, electrolytic copper		100	29							150	1
S	Heat-resistant alloys	Fe-based alloys	annealed	200	30								
			hardened	280	31								
		Ni or Co bass	annealed	250	32								
			hardened	350	33								
			cast	320	34								
	Titanium alloys	pure titanium		R_m 400	35								
		α and β alloys	hardened	R_m 1050	36								
H	Hardened steel		hardened and tempered	55 HRC	37								
			hardened and tempered	60 HRC	38								
	Hard cast iron		cast	400	39								
	Hardened cast iron		hardened and tempered	55 HRC	40								
X	Non-metallic materials	Thermoplasts			41								
		Thermosetting plastics			42								
		Plastic, glass-fibre reinforced GFRP			43								
		Plastic, carbon fibre reinforced CFRP			44								
		Graphite			45								
		Wood			46								

Note: The given cutting values are guide values, which were determined under ideal conditions.
The values have to be adapted in individual cases.
With hole depths of 5xD adjust the cutting data accordingly to the application.
f-group = feed rate recommendations on page C164.
For examples of material for cutting tool groups view page D22.

Recommend feed rate

Solid carbide threading tools

4

5

f-group	Feed rate [mm]																			
	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Ø17	Ø18	Ø19	Ø20
1	0,01	0,02	0,03	0,04	0,04	0,05	0,05	0,06	0,06	0,06	0,07	0,07	0,08	0,08	0,09	0,09	0,09	0,09	0,10	0,10
2	0,01	0,02	0,03	0,04	0,05	0,06	0,06	0,06	0,07	0,07	0,08	0,09	0,09	0,09	0,10	0,10	0,10	0,11	0,11	0,11
3	0,01	0,02	0,04	0,05	0,06	0,06	0,07	0,07	0,08	0,09	0,09	0,10	0,10	0,11	0,11	0,12	0,12	0,12	0,13	0,13
4	0,02	0,03	0,04	0,06	0,06	0,07	0,08	0,09	0,09	0,10	0,11	0,11	0,12	0,12	0,13	0,13	0,14	0,14	0,15	0,15
5	0,02	0,03	0,05	0,06	0,07	0,09	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,14	0,15	0,15	0,16	0,16	0,17	0,17
6	0,02	0,04	0,06	0,07	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	0,18	0,18	0,19	0,19	0,20
7	0,02	0,04	0,06	0,09	0,10	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,18	0,19	0,20	0,20	0,21	0,22	0,22	0,23
8	0,03	0,05	0,07	0,10	0,11	0,13	0,14	0,15	0,16	0,17	0,18	0,20	0,21	0,22	0,23	0,23	0,24	0,25	0,26	0,26
9	0,03	0,06	0,08	0,11	0,13	0,15	0,16	0,17	0,18	0,20	0,21	0,23	0,24	0,25	0,26	0,27	0,28	0,29	0,29	0,30
10	0,04	0,07	0,10	0,13	0,15	0,17	0,19	0,20	0,21	0,23	0,24	0,26	0,27	0,29	0,30	0,31	0,32	0,33	0,34	0,35
11	0,04	0,07	0,11	0,15	0,17	0,20	0,21	0,23	0,24	0,26	0,28	0,30	0,32	0,33	0,35	0,36	0,37	0,38	0,39	0,40
12	0,05	0,09	0,13	0,17	0,20	0,23	0,25	0,26	0,28	0,30	0,32	0,35	0,36	0,38	0,40	0,41	0,42	0,44	0,45	0,46
13	0,05	0,10	0,15	0,20	0,23	0,26	0,28	0,30	0,32	0,35	0,37	0,40	0,42	0,44	0,46	0,47	0,49	0,50	0,52	0,53
14	0,06	0,11	0,17	0,23	0,26	0,30	0,33	0,35	0,37	0,40	0,43	0,46	0,48	0,50	0,53	0,54	0,56	0,58	0,59	0,61
15	0,07	0,13	0,20	0,26	0,30	0,35	0,37	0,40	0,43	0,46	0,49	0,53	0,55	0,58	0,61	0,62	0,64	0,66	0,68	0,70

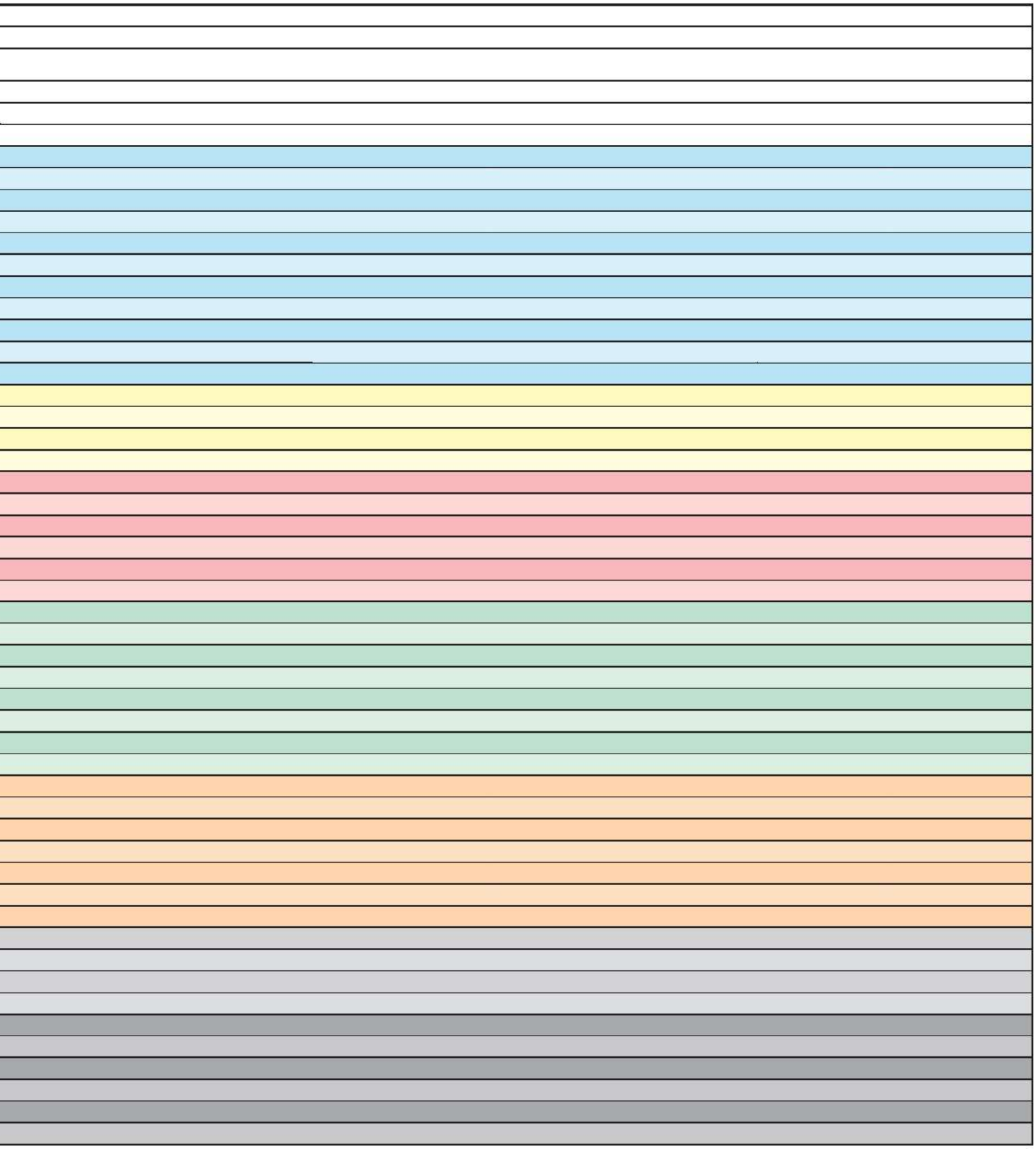
Note: The given cutting values are guide values, which were determined under ideal conditions.
The values have to be adapted in individual cases.

1. Select the appropriate product series.
2. Determine the immersion.
3. Select the used material and read the cutting speed.
4. Determine the feed rate group and have a look at the appropriate feed rate recommendations.
5. Select the diameter of tool and determine the immersion.

Solid carbide threading tools

Material group		Composition / structure / heat treatment		Brinell hardness HB	Machining group	Starting values for cutting speed v_c [m/min]							
						Thread former		Thread tap				Thread milling	
						4122A 4222A	4122M 4222M	4201C	4201A	4202C	4202A	4111	
						YK40F	YK40F	YK40F	YK40F	YK40F	YK40F	KTG4015	
						Coolant							
						External	External	External	External	External	External	External	f-group
P	Unalloyed steel	approx. 0,15 % C	annealed	125	1		20					100	1
		approx. 0,45 % C	annealed	190	2		20					90	1
		approx. 0,45 % C	tempered	250	3		20					80	1
		approx. 0,75 % C	annealed	270	4		20					70	1
		approx. 0,75 % C	tempered	300	5		20					70	1
	Low-alloyed steel		annealed	180	6		20					90	1
			tempered	275	7		20					70	1
			tempered	300	8		20					60	1
			tempered	350	9		20					55	1
	High-alloyed steel and high-alloyed tool steel		annealed	200	10		20					80	1
			hardened and tempered	325	11		20					50	1
M	Stainless steel	ferritic/martensitic	annealed	200	12		20						
		martensitic	tempered	240	13		20						
		austenitic	quench hardened	180	14		20						
		austenitic-ferritic		230	15		20						
K	Grey cast iron	perlitic/ferritic		180	16			20		20		80	1
		perlitic (martensitic)		260	17			20		20		60	1
	Cast iron with spheroidal graphite	ferritic		160	18			15		15		80	1
		perlitic		250	19			15		15		60	1
	Malleable cast iron	ferritic		130	20			20		20		60	1
		perlitic		230	21			20		20		80	1
N	Aluminium wrought alloys	cannot be hardened		60	22							180	1
		hardenable	hardened	100	23							150	1
	Cast aluminium alloys	≤ 12% Si, cannot be hardened		75	24	30	30		30		30	150	1
		≤ 12% Si, hardenable	hardened	90	25	25	25		25		25	150	1
		> 12% Si, cannot be hardened		130	26							150	1
	Copper and copper alloys (bronze/brass)	machining steel, PB> 1%		110	27							150	1
		CuZn, CuSnZn		90	28							150	1
		CuSn, Pb-free copper, electrolytic copper		100	29							150	1
S	Heat-resistant alloys	Fe-based alloys	annealed	200	30								
			hardened	280	31								
		Ni or Co bass	annealed	250	32								
			hardened	350	33								
			cast	320	34								
	Titanium alloys	pure titanium		R_m 400	35								
		α and β alloys	hardened	R_m 1050	36								
H	Hardened steel		hardened and tempered	55 HRC	37								
			hardened and tempered	60 HRC	38								
	Hard cast iron		cast	400	39								
	Hardened cast iron		hardened and tempered	55 HRC	40								
X	Non-metallic materials	Thermoplasts			41								
		Thermosetting plastics			42								
		Plastic, glass-fibre reinforced GFRP			43								
		Plastic, carbon fibre reinforced CFRP			44								
		Graphite			45								
		Wood			46								

Note: The given cutting values are guide values, which were determined under ideal conditions.
The values have to be adapted in individual cases.
With hole depths of 5xD adjust the cutting data accordingly to the application.
f-group = feed rate recommendations on page C196.
For examples of material for cutting tool groups view page D11.



Recommended feed rate

Solid carbide threading tools

Groupe f	Feed rate [mm]																			
	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Ø17	Ø18	Ø19	Ø20
1	0,01	0,02	0,03	0,04	0,04	0,05	0,05	0,06	0,06	0,06	0,07	0,07	0,08	0,08	0,09	0,09	0,09	0,09	0,10	0,10
2	0,01	0,02	0,03	0,04	0,05	0,06	0,06	0,06	0,07	0,07	0,08	0,09	0,09	0,09	0,10	0,10	0,10	0,11	0,11	0,11
3	0,01	0,02	0,04	0,05	0,06	0,06	0,07	0,07	0,08	0,09	0,09	0,10	0,10	0,11	0,11	0,12	0,12	0,12	0,13	0,13
4	0,02	0,03	0,04	0,06	0,06	0,07	0,08	0,09	0,09	0,10	0,11	0,11	0,12	0,12	0,13	0,13	0,14	0,14	0,15	0,15
5	0,02	0,03	0,05	0,06	0,07	0,09	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,14	0,15	0,15	0,16	0,16	0,17	0,17
6	0,02	0,04	0,06	0,07	0,09	0,10	0,11	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,17	0,18	0,18	0,19	0,19	0,20
7	0,02	0,04	0,06	0,09	0,10	0,11	0,12	0,13	0,14	0,15	0,16	0,17	0,18	0,19	0,20	0,20	0,21	0,22	0,22	0,23
8	0,03	0,05	0,07	0,10	0,11	0,13	0,14	0,15	0,16	0,17	0,18	0,20	0,21	0,22	0,23	0,23	0,24	0,25	0,26	0,26
9	0,03	0,06	0,08	0,11	0,13	0,15	0,16	0,17	0,18	0,20	0,21	0,23	0,24	0,25	0,26	0,27	0,28	0,29	0,29	0,30
10	0,04	0,07	0,10	0,13	0,15	0,17	0,19	0,20	0,21	0,23	0,24	0,26	0,27	0,29	0,30	0,31	0,32	0,33	0,34	0,35
11	0,04	0,07	0,11	0,15	0,17	0,20	0,21	0,23	0,24	0,26	0,28	0,30	0,32	0,33	0,35	0,36	0,37	0,38	0,39	0,40
12	0,05	0,09	0,13	0,17	0,20	0,23	0,25	0,26	0,28	0,30	0,32	0,35	0,36	0,38	0,40	0,41	0,42	0,44	0,45	0,46
13	0,05	0,10	0,15	0,20	0,23	0,26	0,28	0,30	0,32	0,35	0,37	0,40	0,42	0,44	0,46	0,47	0,49	0,50	0,52	0,53
14	0,06	0,11	0,17	0,23	0,26	0,30	0,33	0,35	0,37	0,40	0,43	0,46	0,48	0,50	0,53	0,54	0,56	0,58	0,59	0,61
15	0,07	0,13	0,20	0,26	0,30	0,35	0,37	0,40	0,43	0,46	0,49	0,53	0,55	0,58	0,61	0,62	0,64	0,66	0,68	0,70

Note: The given cutting values are guide values, which were determined under ideal conditions.
The values have to be adapted in individual cases.

Notes