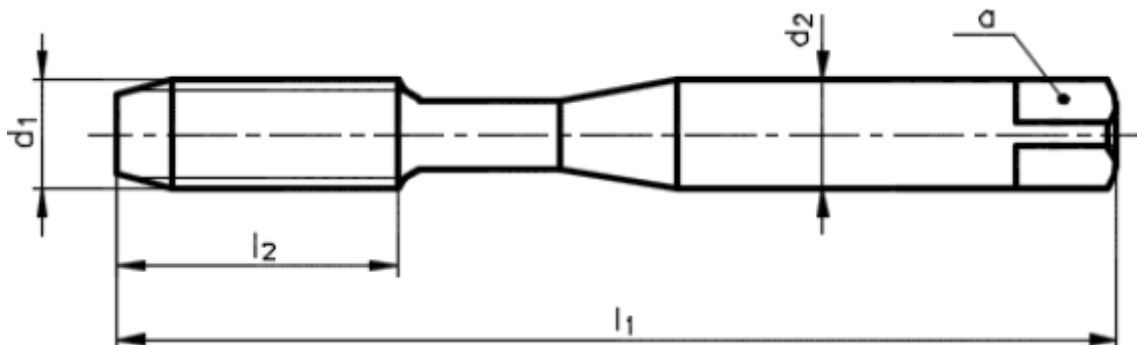


# Forming tap with oil grooves

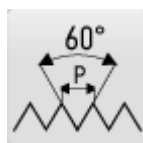


## CATALOGUE NUMBER: 2980NX

High precision forming tap with oil grooves, metric, DIN 2174, TiCN coated, for alloyed steels, possible to use in structural steels, plain cast steels, free cutting steels, aluminium alloys with Si<10 % and alloyed copper.



**THREAD M**  
ISO Metric coarse thread



**PROFILE SKETCH**  
60°



**TAP STANDARD**  
DIN 2174



**TYPE H**  
Tap for steels up to 1100 N/mm<sup>2</sup>



**TAP MATERIAL**  
Cobalt extra high speed steel HSSE Co8%



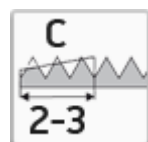
**COATING**  
Titanium carbonitridenitride coating



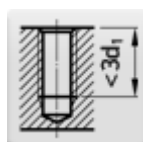
**THREAD TOLERANCE**  
ISO 1 - 4HX



**THREAD TOLERANCE**  
ISO 2 - 6HX



**CHAMFER C**  
Length 2-3 pitch



**HOLE TYPE**  
Blind hole (thread length <math>< 3 d\_1</math>)

# Select product model

ID	D1	P	Tolerance	l1	l2	d2	a	Price excl. VAT	Price incl. VAT
042038192010000	M1	0,25	4HX	40	5,5	2,5	2,1	115.28 EUR	139.49 EUR
042038192012000	M1,2	0,25	4HX	40	5,5	2,5	2,1	110.77 EUR	134.03 EUR
042038192014000	M1,4	0,3	4HX	40	7	2,5	2,1	109.41 EUR	132.39 EUR
042038192016000	M1,6	0,35	6HX	40	8	2,5	2,1	107.37 EUR	129.92 EUR
042038192020000	M2	0,4	6HX	45	8	2,8	2,1	85.46 EUR	103.41 EUR
042038192025000	M2,5	0,45	6HX	50	9	2,8	2,1	83.63 EUR	101.19 EUR
042038192030000	M3	0,5	6HX	56	8	3,5	2,7	80.22 EUR	97.07 EUR
042038192040000	M4	0,7	6HX	63	11	4,5	3,4	81.22 EUR	98.28 EUR
042038192050000	M5	0,8	6HX	70	12	6	4,9	82.32 EUR	99.61 EUR
042038192060000	M6	1	6HX	80	10	6	4,9	83.63 EUR	101.19 EUR
042038192080000	M8	1,25	6HX	90	12	8	6,2	92.75 EUR	112.23 EUR
042038192100000	M10	1,5	6HX	100	15	10	8	110.77 EUR	134.03 EUR
042038192120000	M12	1,75	6HX	110	17	9	7	131.10 EUR	158.63 EUR
042038192140000	M14	2	6HX	110	20	11	9	163.17 EUR	197.44 EUR
042038192160000	M16	2	6HX	110	20	12	9	224.43 EUR	271.56 EUR
042038192200000	M20	2,5	6HX	140	20	16	12	294.38 EUR	356.20 EUR
042038192240000	M24	3	6HX	160	24	18	14,5	416.00 EUR	503.36 EUR
042038192270000	M27	3	6HX	160	18	20	16	481.08 EUR	582.11 EUR
042038192300000	M30	3,5	6HX	180	21	22	18	516.45 EUR	624.90 EUR

Use

<b>MACHINED MATERIAL</b>	<b>HOLE TYPE</b>	<b>CUTTING SPEED</b>	<b>LUBRICATION</b>	<b>USE</b>
Aluminium alloys si content < 10%	blind hole (thread length $L > 2,5d_1$ )	20-40	Cutting Oil	Recommended use
Aluminium alloys si content < 10%	through hole (thread length $L < 1,5d_1$ )	20-40	Cutting Oil	Recommended use
Aluminium alloys si content < 10%	blind hole (thread length $L < 2xd_1$ )	20-40	Cutting Oil	Recommended use
Aluminium alloys si content < 10%	through hole (thread length $L < 0,8xd_1$ )	20-40	Cutting Oil	Recommended use
Aluminium alloys si content < 10%	blind hole (thread length $< 1,5 d_1$ , pilot drilling depth $\geq L+d_1$ )	20-40	Cutting Oil	Recommended use
Aluminium alloys si content < 10%	blind hole (thread length $L < 2,5xd_1$ )	20-40	Cutting Oil	Recommended use
Aluminium alloys si content < 10%	through hole (thread length $L > 1,5xd_1$ )	20-40	Cutting Oil	Recommended use
Aluminium alloys si content < 10%	blind hole (thread length $L < 1,5xd_1$ )	20-40	Cutting Oil	Recommended use
Aluminium alloys si content > 10%	blind hole (thread length $L > 2,5xd_1$ )	20-40	Cutting Oil	Recommended use
Aluminium alloys si content > 10%	through hole (thread length $L < 1,5xd_1$ )	20-40	Cutting Oil	Recommended use
Aluminium alloys si content > 10%	blind hole (thread length $L < 2xd_1$ )	20-40	Cutting Oil	Recommended use
Aluminium alloys si content > 10%	through hole (thread length $L < 0,8xd_1$ )	20-40	Cutting Oil	Recommended use
Aluminium alloys si content > 10%	blind hole (thread length $< 1,5 d_1$ , pilot drilling depth $\geq L+d_1$ )	20-40	Cutting Oil	Recommended use
Aluminium alloys si content > 10%	blind hole (thread length $L < 2,5xd_1$ )	20-40	Cutting Oil	Recommended use
Aluminium alloys si content > 10%	through hole (thread length $L > 1,5xd_1$ )	20-40	Cutting Oil	Recommended use
Aluminium alloys si content > 10%	blind hole (thread length $L < 1,5xd_1$ )	20-40	Cutting Oil	Recommended use
Case hardened steels and nitriding steels up to 1100 N/mm <sup>2</sup>	blind hole (thread length $< 1,5 d_1$ , pilot drilling depth $\geq L+d_1$ )	8-14	Cutting Oil	Recommended use
Case hardened steels and nitriding steels up to 1100 N/mm <sup>2</sup>	blind hole (thread length $L < 2,5xd_1$ )	8-14	Cutting Oil	Recommended use
Case hardened steels and nitriding steels up to 1100 N/mm <sup>2</sup>	through hole (thread length $L > 1,5xd_1$ )	8-14	Cutting Oil	Recommended use
Case hardened steels and nitriding steels up to 1100 N/mm <sup>2</sup>	blind hole (thread length $L < 1,5xd_1$ )	8-14	Cutting Oil	Recommended use

<b>MACHINED MATERIAL</b>	<b>HOLE TYPE</b>	<b>CUTTING SPEED</b>	<b>LUBRICATION</b>	<b>USE</b>
Case hardened steels and nitriding steels up to 1100 N/mm2	blind hole (thread length $L > 2,5 \times d1$ )	8-14	Cutting Oil	Recommended use
Case hardened steels and nitriding steels up to 1100 N/mm2	through hole (thread length $L < 1,5 \times d1$ )	8-14	Cutting Oil	Recommended use
Case hardened steels and nitriding steels up to 1100 N/mm2	blind hole (thread length $L < 2 \times d1$ )	8-14	Cutting Oil	Recommended use
Case hardened steels and nitriding steels up to 1100 N/mm2	through hole (thread length $L < 0,8 \times d1$ )	8-14	Cutting Oil	Recommended use
Copper alloys (long chipping)	blind hole (thread length $L > 2,5 \times d1$ )	15-25	Cutting Oil	Recommended use
Copper alloys (long chipping)	through hole (thread length $L < 1,5 \times d1$ )	15-25	Cutting Oil	Recommended use
Copper alloys (long chipping)	blind hole (thread length $L < 2 \times d1$ )	15-25	Cutting Oil	Recommended use
Copper alloys (long chipping)	through hole (thread length $L < 0,8 \times d1$ )	15-25	Cutting Oil	Recommended use
Copper alloys (long chipping)	blind hole (thread length $< 1,5 d1$ , pilot drilling depth $\geq L+d1$ )	15-25	Cutting Oil	Recommended use
Copper alloys (long chipping)	blind hole (thread length $L < 2,5 \times d1$ )	15-25	Cutting Oil	Recommended use
Copper alloys (long chipping)	through hole (thread length $L > 1,5 \times d1$ )	15-25	Cutting Oil	Recommended use
Copper alloys (long chipping)	blind hole (thread length $L < 1,5 \times d1$ )	15-25	Cutting Oil	Recommended use
Copper alloys (short chipping)	blind hole (thread length $L > 2,5 \times d1$ )	15-25	Cutting Oil	Recommended use
Copper alloys (short chipping)	through hole (thread length $L < 1,5 \times d1$ )	15-25	Cutting Oil	Recommended use
Copper alloys (short chipping)	blind hole (thread length $L < 2 \times d1$ )	15-25	Cutting Oil	Recommended use
Copper alloys (short chipping)	through hole (thread length $L < 0,8 \times d1$ )	15-25	Cutting Oil	Recommended use
Copper alloys (short chipping)	blind hole (thread length $< 1,5 d1$ , pilot drilling depth $\geq L+d1$ )	15-25	Cutting Oil	Recommended use
Copper alloys (short chipping)	blind hole (thread length $L < 2,5 \times d1$ )	15-25	Cutting Oil	Recommended use
Copper alloys (short chipping)	through hole (thread length $L > 1,5 \times d1$ )	15-25	Cutting Oil	Recommended use
Copper alloys (short chipping)	blind hole (thread length $L < 1,5 \times d1$ )	15-25	Cutting Oil	Recommended use

<b>MACHINED MATERIAL</b>	<b>HOLE TYPE</b>	<b>CUTTING SPEED</b>	<b>LUBRICATION</b>	<b>USE</b>
Free cutting steels up to 800 N/mm <sup>2</sup>	blind hole (thread length < 1,5 d <sub>1</sub> , pilot drilling depth ≥ L+d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Free cutting steels up to 800 N/mm <sup>2</sup>	blind hole (thread length L < 2,5d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Free cutting steels up to 800 N/mm <sup>2</sup>	through hole (thread length L > 1,5d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Free cutting steels up to 800 N/mm <sup>2</sup>	blind hole (thread length L < 1,5d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Free cutting steels up to 800 N/mm <sup>2</sup>	blind hole (thread length L > 2,5d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Free cutting steels up to 800 N/mm <sup>2</sup>	through hole (thread length L < 1,5d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Free cutting steels up to 800 N/mm <sup>2</sup>	blind hole (thread length L < 2xd <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Free cutting steels up to 800 N/mm <sup>2</sup>	through hole (thread length L < 0,8xd <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Heat-treated steels up to 1100 N/mm <sup>2</sup>	blind hole (thread length < 1,5 d <sub>1</sub> , pilot drilling depth ≥ L+d <sub>1</sub> )	8-14	Cutting Oil	Recommended use
Heat-treated steels up to 1100 N/mm <sup>2</sup>	blind hole (thread length L < 2,5xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
Heat-treated steels up to 1100 N/mm <sup>2</sup>	through hole (thread length L > 1,5xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
Heat-treated steels up to 1100 N/mm <sup>2</sup>	blind hole (thread length L < 1,5d <sub>1</sub> )	8-14	Cutting Oil	Recommended use
Heat-treated steels up to 1100 N/mm <sup>2</sup>	blind hole (thread length L > 2,5xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
Heat-treated steels up to 1100 N/mm <sup>2</sup>	through hole (thread length L < 1,5xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
Heat-treated steels up to 1100 N/mm <sup>2</sup>	blind hole (thread length L < 2xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
Heat-treated steels up to 1100 N/mm <sup>2</sup>	through hole (thread length L < 0,8xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
Heat-treated steels up to 1400 N/mm <sup>2</sup>	blind hole (thread length L > 2,5xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
Heat-treated steels up to 1400 N/mm <sup>2</sup>	through hole (thread length L < 1,5xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
Heat-treated steels up to 1400 N/mm <sup>2</sup>	blind hole (thread length L < 2xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
Heat-treated steels up to 1400 N/mm <sup>2</sup>	through hole (thread length L < 0,8xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use

<b>MACHINED MATERIAL</b>	<b>HOLE TYPE</b>	<b>CUTTING SPEED</b>	<b>LUBRICATION</b>	<b>USE</b>
Heat-treated steels up to 1400 N/mm <sup>2</sup>	blind hole (thread length < 1,5 d <sub>1</sub> , pilot drilling depth ≥ L+d <sub>1</sub> )	8-14	Cutting Oil	Recommended use
Heat-treated steels up to 1400 N/mm <sup>2</sup>	blind hole (thread length L < 2,5xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
Heat-treated steels up to 1400 N/mm <sup>2</sup>	through hole (thread length L > 1,5xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
Heat-treated steels up to 1400 N/mm <sup>2</sup>	blind hole (thread length L < 1,5xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
High-alloyed steels up to 1400 N/mm <sup>2</sup>	blind hole (thread length L > 2,5xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
High-alloyed steels up to 1400 N/mm <sup>2</sup>	through hole (thread length L < 1,5xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
High-alloyed steels up to 1400 N/mm <sup>2</sup>	blind hole (thread length L < 2xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
High-alloyed steels up to 1400 N/mm <sup>2</sup>	through hole (thread length L < 0,8xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
High-alloyed steels up to 1400 N/mm <sup>2</sup>	blind hole (thread length < 1,5 d <sub>1</sub> , pilot drilling depth ≥ L+d <sub>1</sub> )	8-14	Cutting Oil	Recommended use
High-alloyed steels up to 1400 N/mm <sup>2</sup>	blind hole (thread length L < 2,5xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
High-alloyed steels up to 1400 N/mm <sup>2</sup>	through hole (thread length L > 1,5xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
High-alloyed steels up to 1400 N/mm <sup>2</sup>	blind hole (thread length L < 1,5xd <sub>1</sub> )	8-14	Cutting Oil	Recommended use
Plain cast steels up to 500 N/mm <sup>2</sup>	blind hole (thread length < 1,5 d <sub>1</sub> , pilot drilling depth ≥ L+d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Possible use
Plain cast steels up to 500 N/mm <sup>2</sup>	blind hole (thread length L < 2,5xd <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Possible use
Plain cast steels up to 500 N/mm <sup>2</sup>	through hole (thread length L > 1,5xd <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Possible use
Plain cast steels up to 500 N/mm <sup>2</sup>	blind hole (thread length L < 1,5xd <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Possible use
Plain cast steels up to 500 N/mm <sup>2</sup>	blind hole (thread length L > 2,5xd <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Possible use
Plain cast steels up to 500 N/mm <sup>2</sup>	through hole (thread length L < 1,5xd <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Possible use
Plain cast steels up to 500 N/mm <sup>2</sup>	blind hole (thread length L < 2xd <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Possible use
Plain cast steels up to 500 N/mm <sup>2</sup>	through hole (thread length L < 0,8xd <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Possible use

<b>MACHINED MATERIAL</b>	<b>HOLE TYPE</b>	<b>CUTTING SPEED</b>	<b>LUBRICATION</b>	<b>USE</b>
Plain cast steels up to 800 N/mm <sup>2</sup>	blind hole (thread length < 1,5 d <sub>1</sub> , pilot drilling depth ≥ L+d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Plain cast steels up to 800 N/mm <sup>2</sup>	blind hole (thread length L < 2,5d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Plain cast steels up to 800 N/mm <sup>2</sup>	through hole (thread length L > 1,5d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Plain cast steels up to 800 N/mm <sup>2</sup>	blind hole (thread length L < 1,5d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Plain cast steels up to 800 N/mm <sup>2</sup>	blind hole (thread length L > 2,5d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Plain cast steels up to 800 N/mm <sup>2</sup>	through hole (thread length L < 1,5d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Plain cast steels up to 800 N/mm <sup>2</sup>	blind hole (thread length L < 2xd <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Plain cast steels up to 800 N/mm <sup>2</sup>	through hole (thread length L < 0,8xd <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Structural steels and heat-treated steels up to 800 N/mm <sup>2</sup>	blind hole (thread length < 1,5 d <sub>1</sub> , pilot drilling depth ≥ L+d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Structural steels and heat-treated steels up to 800 N/mm <sup>2</sup>	blind hole (thread length L < 2,5xd <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Structural steels and heat-treated steels up to 800 N/mm <sup>2</sup>	through hole (thread length L > 1,5d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Structural steels and heat-treated steels up to 800 N/mm <sup>2</sup>	blind hole (thread length L < 1,5d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Structural steels and heat-treated steels up to 800 N/mm <sup>2</sup>	blind hole (thread length L > 2,5xd <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Structural steels and heat-treated steels up to 800 N/mm <sup>2</sup>	through hole (thread length L < 1,5d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Structural steels and heat-treated steels up to 800 N/mm <sup>2</sup>	blind hole (thread length L < 2xd <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Structural steels and heat-treated steels up to 800 N/mm <sup>2</sup>	through hole (thread length L < 0,8xd <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Recommended use
Structural steels up to 500 N/mm <sup>2</sup>	blind hole (thread length < 1,5 d <sub>1</sub> , pilot drilling depth ≥ L+d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Possible use
Structural steels up to 500 N/mm <sup>2</sup>	blind hole (thread length L < 2,5xd <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Possible use
Structural steels up to 500 N/mm <sup>2</sup>	through hole (thread length L > 1,5d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Possible use
Structural steels up to 500 N/mm <sup>2</sup>	blind hole (thread length L < 1,5d <sub>1</sub> )	15-30	Cutting Oil/Emulsion	Possible use

<b>MACHINED MATERIAL</b>	<b>HOLE TYPE</b>	<b>CUTTING SPEED</b>	<b>LUBRICATION</b>	<b>USE</b>
Structural steels up to 500 N/mm <sup>2</sup>	blind hole (thread length $L > 2,5d_1$ )	15-30	Cutting Oil/Emulsion	Possible use
Structural steels up to 500 N/mm <sup>2</sup>	through hole (thread length $L < 1,5d_1$ )	15-30	Cutting Oil/Emulsion	Possible use
Structural steels up to 500 N/mm <sup>2</sup>	blind hole (thread length $L < 2xd_1$ )	15-30	Cutting Oil/Emulsion	Possible use
Structural steels up to 500 N/mm <sup>2</sup>	through hole (thread length $L < 0,8xd_1$ )	15-30	Cutting Oil/Emulsion	Possible use
Tool steels up to 1100 N/mm <sup>2</sup>	blind hole (thread length $L > 2,5xd_1$ )	8-14	Cutting Oil	Recommended use
Tool steels up to 1100 N/mm <sup>2</sup>	blind hole (thread length $< 1,5 d_1$ , pilot drilling depth $\geq L+d_1$ )	8-14	Cutting Oil	Recommended use
Tool steels up to 1100 N/mm <sup>2</sup>	blind hole (thread length $L < 2xd_1$ )	8-14	Cutting Oil	Recommended use
Tool steels up to 1100 N/mm <sup>2</sup>	through hole (thread length $L > 1,5xd_1$ )	8-14	Cutting Oil	Recommended use
Tool steels up to 1100 N/mm <sup>2</sup>	through hole (thread length $L < 0,8xd_1$ )	8-14	Cutting Oil	Recommended use
Tool steels up to 1100 N/mm <sup>2</sup>	blind hole (thread length $L < 1,5xd_1$ )	8-14	Cutting Oil	Recommended use
Tool steels up to 1100 N/mm <sup>2</sup>	blind hole (thread length $L < 2,5xd_1$ )	8-14	Cutting Oil	Recommended use
Tool steels up to 1100 N/mm <sup>2</sup>	through hole (thread length $L < 1,5xd_1$ )	8-14	Cutting Oil	Recommended use

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