



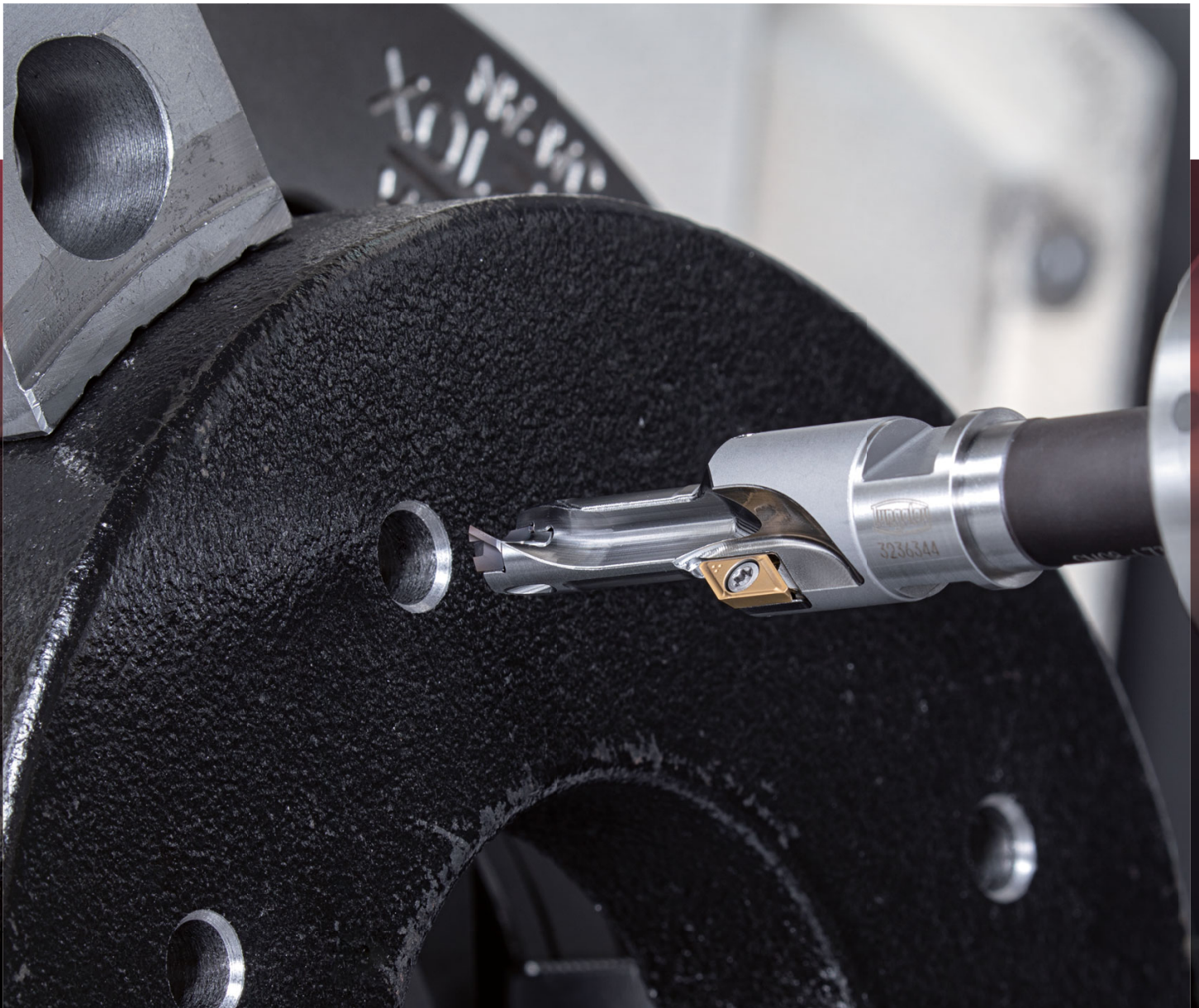
For more information

Exchangeable head drill

**DRILLMEISTER**

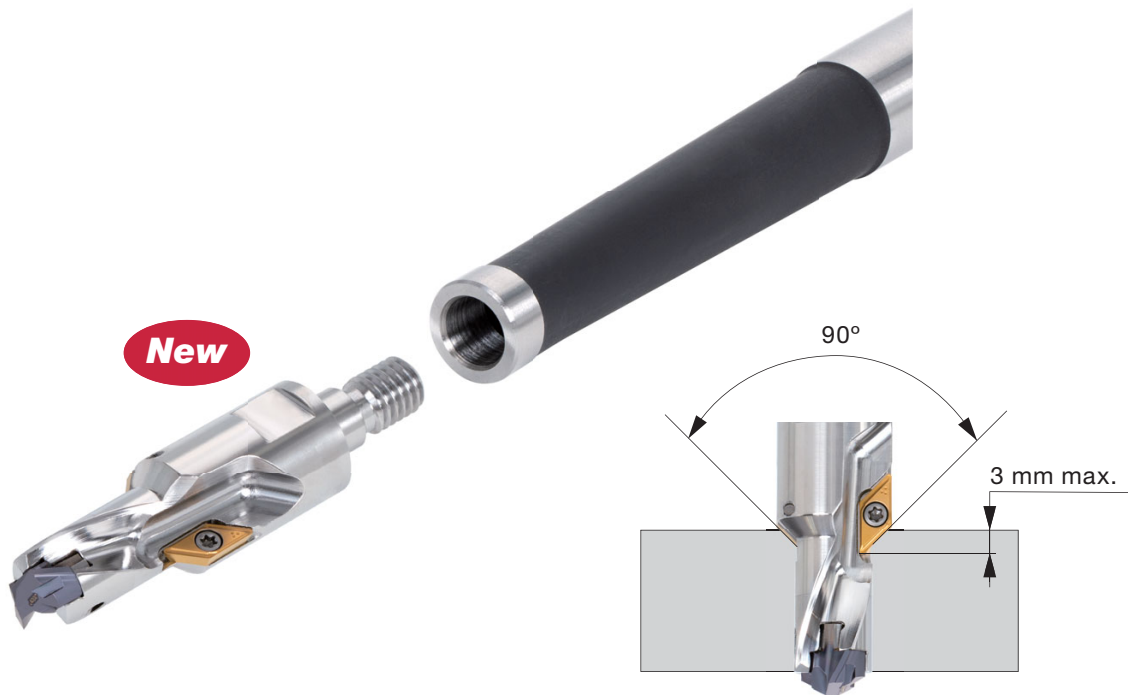
Tungaloy Report No. 412S12-G

## New TID modular drill bodies with chamfering inserts



## ■ Drill body with chamfering insert with a TungFlex connection

- Drilling and chamfering can be done by one tool
- Dedicated line up for pre-thread drilling of metric and UNF threads
- Stable chamfering capability with less chattering due to dedicate insert design for chamfering
- Easy to extend tool overhang by combination with existing TungFlex shanks



## Tools line up per relative thread size

Designation	Thread		
TID065L25A90M08	M7X0.5	M8X1.25	5/16 - 18UNF
TID085L25A90M08	M10X1.5	M10X1.25	3/8 - 24UNF
TID100L25A90M10	M11X1.0	M11X0.75	M12X1.75
TID105L25A90M10	M12X1.5	M12X1.25	1/2 - 13UNF
TID120L25A90M10, TID120L40A90M10	M14X2.0	9/16 - 12UNF	-
TID125L25A90M10, TID125L40A90M10	M14X1.5	9/16 - 18UNF	-
TID140L25A90M12, TID140L40A90M12	M16X2.0	-	-
TID145L25A90M12, TID145L40A90M12	M16X1.5	5/8 - 18UNF	-
TID150L25A90M12, TID150L40A90M12	M16X1.0	M17X1.5	-
TID160L25A90M12, TID160L40A90M12	M18X1.5	3/4 - 10UNF	M17X1.0

## Designation

**TID** **100** **L** **25** **A** **90** **M10**

1 Drill diameter: 100, ø10

2 Step length: 25, 25 mm

3 Chamfer angle: 90, 90°

4 Modular thread size

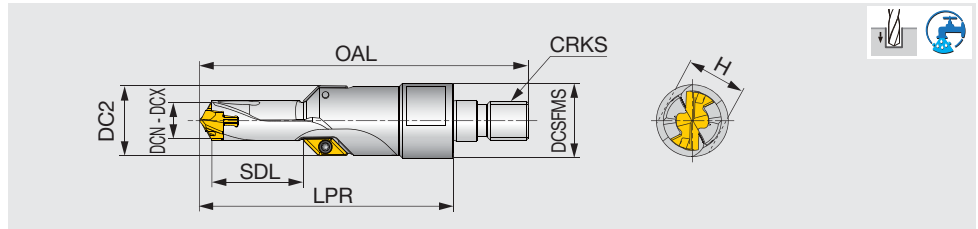
Note: Drill head diameter can be changed within the same pocket size. Please check the dimension table.

## MODULAR BODIES

New

### TID-L-A-M

Drill with chamfer and "TungFlex" connection



Designation	DCX	DCN	DC2	SDL	DCSFMS	LPR	OAL	CRKS	H	Pocket size
TID065L25A90M08	6.9	6.5	13.84	24.91	15.5	58.18	75.18	M8	10	6.5
TID085L25A90M08	8.9	8.5	15.84	25	15.5	58.29	75.29	M8	10	8
TID100L25A90M10	10.4	10	17.34	25	19	64.47	83.47	M10	15	10
TID105L25A90M10	10.9	10.5	19.34	25	19	64.56	83.56	M10	15	10
TID120L25A90M10	12.4	12	19.34	25	19	64.82	83.82	M10	15	12
TID120L40A90M10	12.4	12	19.34	40	19	79.82	98.82	M10	15	12
TID125L25A90M10	12.9	12.5	19.84	25	19	64.91	83.91	M10	15	12
TID125L40A90M10	12.9	12.5	19.84	40	19	79.91	98.91	M10	15	12
TID140L25A90M12	14.4	14	21.34	25	23.5	70.12	92.12	M12	17	14
TID140L40A90M12	14.4	14	21.34	40	23.5	85.12	107.12	M12	17	14
TID145L25A90M12	14.9	14.5	21.84	25	23.5	70.21	92.21	M12	17	14
TID145L40A90M12	14.9	14.5	21.84	40	23.5	85.21	107.21	M12	17	14
TID150L25A90M12	15.9	15	22.34	25	23.5	70.27	92.27	M12	17	15
TID150L40A90M12	15.9	15	22.34	40	23.5	85.27	107.27	M12	17	15
TID160L25A90M12	16.9	16	23.34	25	23.5	70.42	92.42	M12	17	16
TID160L40A90M12	16.9	16	23.34	40	23.5	85.42	107.42	M12	17	16

Tool diameter	Hole diameter tolerance*
ø6.5 - ø16.9	+0.04 / 0

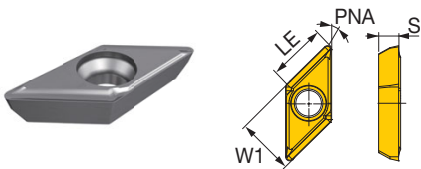
\*Just for reference

### SPARE PARTS

Designation	Clamping key	Wrench	Clamping screw
TID065L... - TID085L...	K-TID6-9.99	T-7D	SR 34-508
TID100L... - TID160L...	K-TID10-19.99	T-7D	SR 34-508

## INSERT FOR CHAMFERING

### AOMT...



<b>P</b> Steel	★				
<b>M</b> Stainless	★				
<b>K</b> Cast iron	★				
<b>N</b> Non-ferrous	☆				
<b>S</b> Superalloys	★				
<b>H</b> Hard materials	★				

★ : First choice  
☆ : Second choice

Designation	LE	Chamfering angle PNA	Coated		W1	S
			GH730			
AOMT060204-C45	4.5	45°	●		5.66	1.96

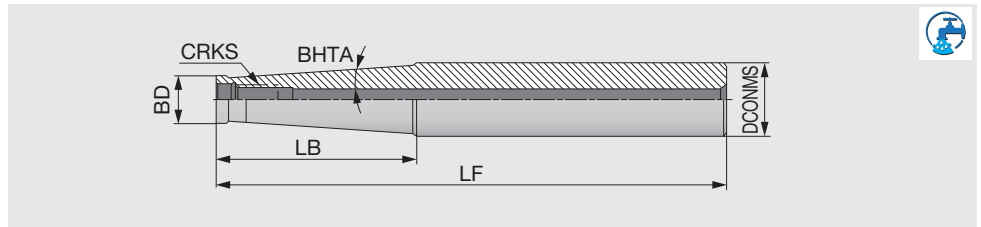
● : Line up

## SHANKS

### SM

Steel modular shank

# TUNGFLEX



Designation	CRKS	DCONMS	LF	LB	BD	BHTA
SM08-L73C16	M8	16	73	25	13	0°
SM08-L128-C16	M8	16	128	80	13	0.9°
SM08-L170-C20	M8	20	170	66.8	13	3.3°
SM10-L80C20	M10	20	80	30	18	0°
SM10-L130-C20	M10	20	130	80	18	0.6°
SM10-L200-C25	M10	25	200	57.2	19	3.3°
SM12-L86-C25	M12	25	86	30	21	5.1°
SM12-L200-C32	M12	32	200	78	21	4.4°

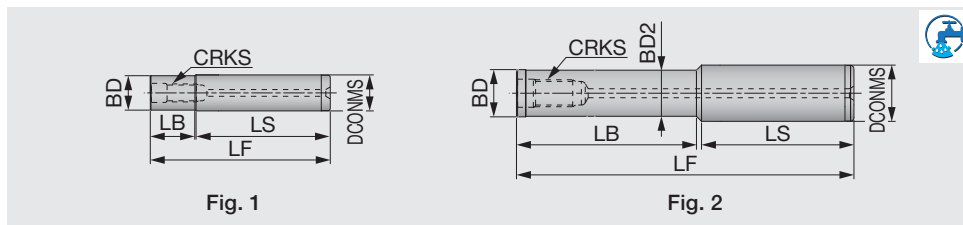
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## SM-C-H

Carbide modular shank

# TUNGFLEX



Designation	CRKS	DCONMS	LF	LB	LS	BD	BD2	Fig.
SM08-L80-20-C16-C-H	M8	16	80	20	59.6	15.3	-	1
SM08-L100-40-C16-C-H	M8	16	100	40	59.6	15.3	-	1
SM08-L150-80-C16-C-H	M8	16	150	80	69.6	15.3	-	1
SM08-L200-100-C16-C-H	M8	16	200	100	98.2	13	12.5	2
SM08-L200-140-C16-C-H	M8	16	200	140	59.6	15.3	-	1
SM08-L250-180-C16-C-H	M8	16	250	180	69.6	15.3	-	1
SM10-L80-20-C20-C-H	M10	20	80	20	59.2	18.5	-	1
SM10-L100-40-C20-C-H	M10	20	100	40	59.2	18.5	-	1
SM10-L150-80-C20-C-H	M10	20	150	80	69.2	18.5	-	1
SM10-L200-100-C20-C-H	M10	20	200	100	99.2	18.5	-	1
SM10-L200-140-C20-C-H	M10	20	200	140	58.7	18	17.5	2
SM10-L200-140-C20-C-H-N	M10	20	200	140	59.2	18.5	-	1
SM10-L250-130-C20-C-H	M10	20	250	130	118.7	18	17.5	2
SM10-L250-180-C20-C-H	M10	20	250	180	68.7	18	17.5	2
SM10-L250-180-C20-C-H-N	M10	20	250	180	69.2	18.5	-	1
SM10-L300-180-C20-C-H	M10	20	300	180	118.7	18	17.5	2
SM10-L300-230-C20-C-H	M10	20	300	230	68.7	18	17.5	2
SM12-L100-40-C25-C-H	M12	25	100	40	59.5	24	-	1
SM12-L150-80-C25-C-H	M12	25	150	80	67.7	21	20.5	2
SM12-L150-80-C25-C-H-N	M12	25	150	80	69.5	24	-	1
SM12-L200-100-C25-C-H	M12	25	200	100	97.7	21	20.5	2
SM12-L200-100-C25-C-H-N	M12	25	200	100	99.5	24	-	1
SM12-L200-140-C25-C-H	M12	25	200	140	57.7	21	20.5	2
SM12-L250-130-C25-C-H	M12	25	250	130	117.7	21	20.5	2
SM12-L250-180-C25-C-H	M12	25	250	180	69.5	24	-	1
SM12-L300-180-C25-C-H	M12	25	300	180	117.7	21	20.5	2
SM12-L300-180-C25-C-H-N	M12	25	300	180	119.5	24	-	1
SM12-L300-230-C25-C-H	M12	25	300	230	67.7	21	20.5	2

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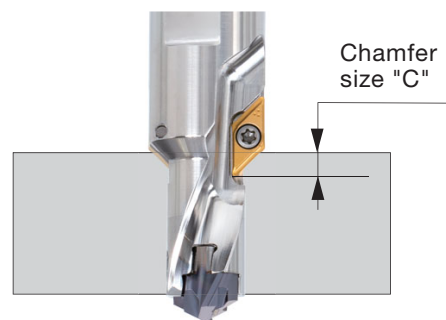
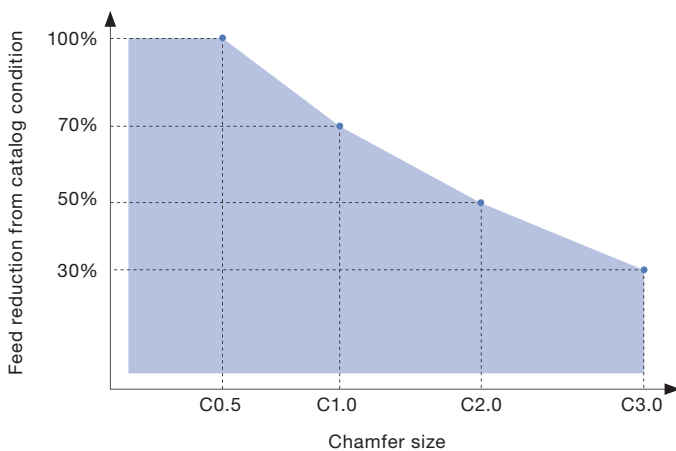
## STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Cutting speed Vc (m/min)	Feed: f (mm/rev)					
			Tool diameter: DC (mm)					
			ø6 - 7.9	ø8 - 9.9	ø10 - ø11.9	ø12 - ø13.9	ø14 - ø15.9	ø16 - ø16.9
<b>P</b>	Low carbon steels (C < 0.3) SS400, SM490, S25C, etc. C15E4, E275A, E355D, etc.	80 - 140	0.09 - 0.13	0.12 - 0.25	0.15 - 0.28	0.18 - 0.3	0.2 - 0.35	0.25 - 0.45
	High carbon steels (C > 0.3) S45C, S55C, etc. C45, C55, etc.	70 - 120	0.09 - 0.13	0.12 - 0.25	0.15 - 0.28	0.18 - 0.3	0.2 - 0.35	0.25 - 0.45
	Low alloy steels SCM415, etc. 18CrMo4, etc.	70 - 120	0.08 - 0.13	0.11 - 0.25	0.14 - 0.28	0.16 - 0.32	0.18 - 0.35	0.23 - 0.4
	Alloy steels SCM440, SCr420, etc. 42CrMo4, 20Cr4, etc.	40 - 90	0.08 - 0.13	0.11 - 0.25	0.14 - 0.28	0.16 - 0.32	0.18 - 0.35	0.23 - 0.4
<b>M</b>	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	30 - 70	0.08 - 0.1	0.1 - 0.15	0.12 - 0.18	0.14 - 0.2	0.16 - 0.24	0.16 - 0.26
<b>K</b>	Grey cast irons FC250, etc. GG25, etc.	80 - 180	0.12 - 0.18	0.15 - 0.3	0.20 - 0.35	0.25 - 0.4	0.3 - 0.45	0.35 - 0.55
	Ductile cast irons FCD700, etc. GGG70, etc.	80 - 140	0.12 - 0.18	0.15 - 0.3	0.20 - 0.35	0.25 - 0.4	0.3 - 0.45	0.35 - 0.55
<b>N</b>	Aluminium alloys ADC12, etc. AlSi11Cu3, etc.	80 - 220	0.1 - 0.2	0.2 - 0.35	0.25 - 0.4	0.3 - 0.45	0.35 - 0.5	0.4 - 0.6
<b>S</b>	Titanium alloys Ti-6Al-4V, etc.	20 - 50	0.05 - 0.07	0.06 - 0.12	0.08 - 0.15	0.1 - 0.28	0.12 - 0.2	0.14 - 0.22
	Nickel-based alloys	20 - 50	0.05 - 0.07	0.06 - 0.11	0.08 - 0.13	0.1 - 0.15	0.12 - 0.18	0.12 - 0.22
<b>H</b>	Hardened steel	20 - 50	0.05 - 0.07	0.06 - 0.12	0.08 - 0.15	0.1 - 0.18	0.12 - 0.2	0.14 - 0.22

- Use the above cutting data for reference. Adjust the data according to the machine rigidity, capability, and the workpiece material being machined.  
 - Machine tool rigidity and/or cutting parameters being used in the operation may influence the accuracy of the hole sizes and quality.

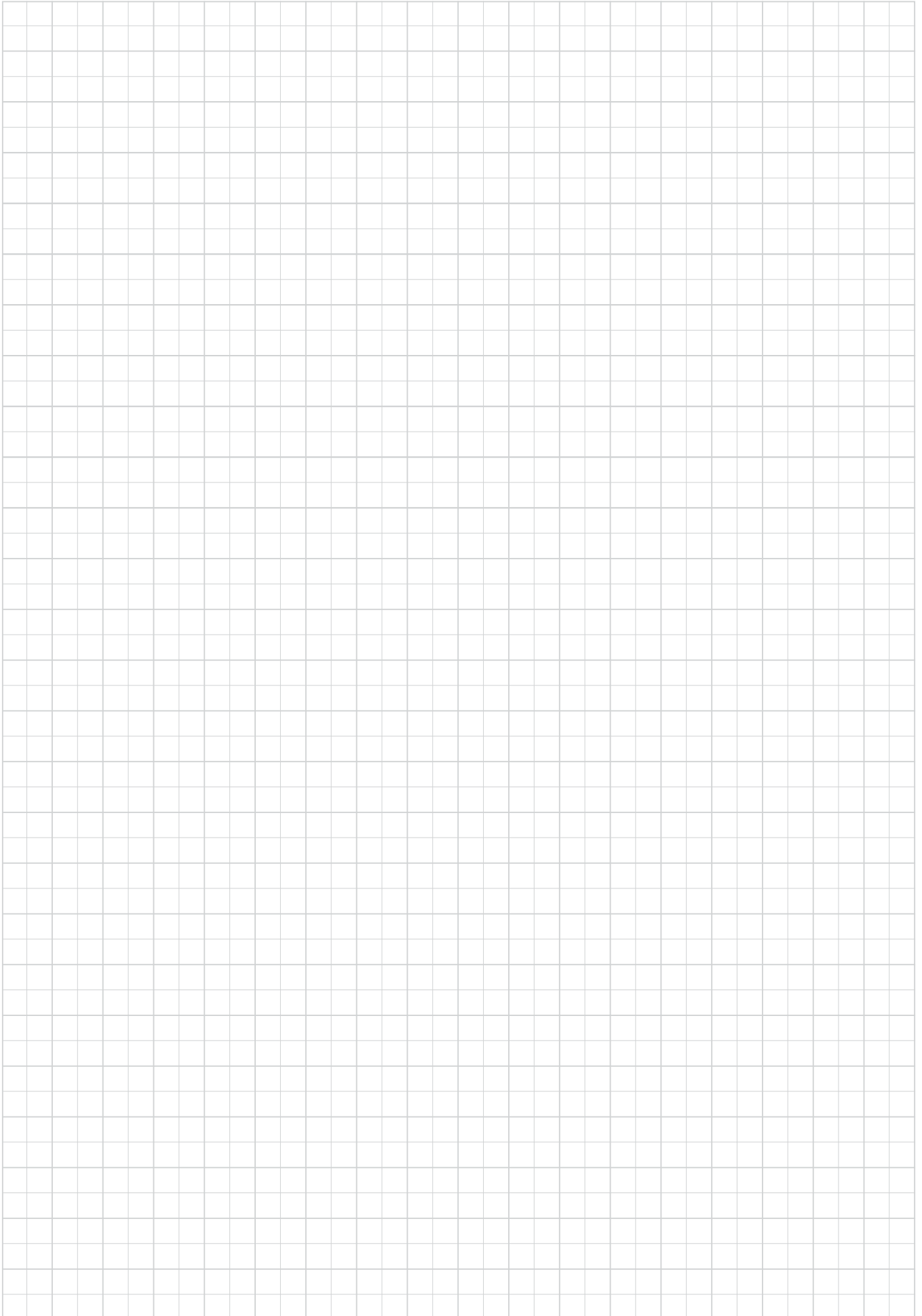
Machining stability changes depending on the amount of chamfering.

Adjust the cutting feed based on the table below during chamfer edge contact to work piece.





# MEMO

A large grid of graph paper, consisting of 30 columns and 40 rows of small squares, intended for writing notes or taking a memo.

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