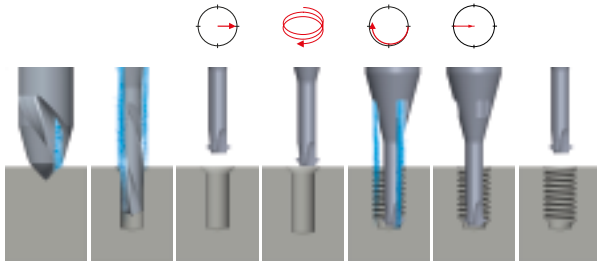


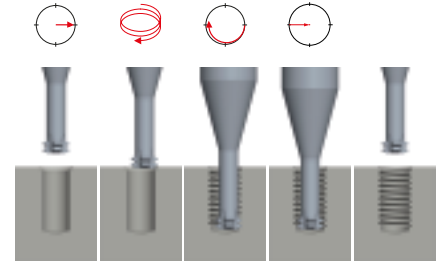
# ANWENDUNGSTABELLE GWi - GWH — APPLICATION CHART GWi - GWH

Programmierzklus für Gewindewirbler GWi5000 - GWH3000  
 Programming cycle for thread whirling GWi5000 - GWH3000

## GWi5000



## GWH3000



## DC Anwendungstabelle für Gewindewirbler DC Application chart for thread whirling

Werkstoff-Gruppen Material groups	Werkstoffbezeichnung Material designation	Härte Hardness (HB)	Festigkeit Tensile strength Rm (N/mm <sup>2</sup> )	Kühlung Lubricant		
				Standard Standard	Beschichtet Coated	
<b>10</b> Stahl Steels	11 Automatenstahl	Free-cutting steels	< 200	< 700		
	12 Baustahl, Einsatzstahl	Structural, cementation steels	< 200	< 700		
	13 Kohlenstoffstahl	Carbon steels	< 300	< 1000		
	14 Stahl legiert < 850 N/mm <sup>2</sup>	Alloy steels < 850 N/mm <sup>2</sup>	< 250	< 850		
	15 Stahl legiert / vergütet > 850 - < 1150 N/mm <sup>2</sup>	Alloy steels hard. / temp. > 850 - < 1150 N/mm <sup>2</sup>	> 250	> 850		
	16 Hochfester Stahl ≤ 44 HRC	High tensile alloy steels ≤ 44 HRC	> 250	> 850		
	17 Stahl vergütet > 44 - ≤ 54 HRC	Alloy steels tempered > 44 - ≤ 54 HRC	> 410	> 1400		
	18 Stahl gehärtet > 54 - ≤ 63 HRC	Alloy steels hardened > 54 - ≤ 63 HRC	> 560	> 1980		
<b>20</b> Rostfreier Stahl Stainless steels	21 Rostfreier Stahl, geschwefelt	Free machining stainless steels	< 250	< 850		
	22 Austenitisch	Austenitic stainless steels	< 250	< 850		
	23 Ferritisch, martensitisch < 850 N/mm <sup>2</sup>	Ferritic and martensitic < 850 N/mm <sup>2</sup>	< 250	< 850		
	24 Ferritisch, martensitisch > 850 - < 1150 N/mm <sup>2</sup>	Ferritic and martensitic > 850 - < 1150 N/mm <sup>2</sup>	> 250	> 850		
<b>30</b> Guss Cast iron	31 Grauguss	Cast iron	< 250	< 850		
	32 Kugelgraphitguss, Temporguss	Spheroidal graphite + malleable cast iron	< 250	< 850		
<b>40</b> Titan Titanium	41 Reintitan	Pure titanium	< 250	< 850		
	42 Titanlegierung	Titanium alloys	> 250	> 850		
<b>50</b> Nickel Nickel	51 Nickellegierung 1 ≤ 850 N/mm <sup>2</sup>	Nickel alloys 1 ≤ 850 N/mm <sup>2</sup>	< 250	< 850		
	52 Nickellegierung 2 > 850 - ≤ 1150 N/mm <sup>2</sup>	Nickel alloys 2 > 850 - ≤ 1150 N/mm <sup>2</sup>	> 250	> 850		
	53 Nickellegierung 3 > 1150 - ≤ 1600 N/mm <sup>2</sup>	Nickel alloys 3 > 1150 - ≤ 1600 N/mm <sup>2</sup>	> 340	> 1150		
<b>60</b> Kupfer Copper	61 Reinkupfer (Elektrolytkupfer)	Pure copper (electrolytic copper)	< 120	< 400		
	62 Messing, Bronze, Rotguss (kurzspanend)	Short chip brass, phosphor bronze, gun metal	< 200	< 700		
	63 Messing (langspanend)	Long chip brass	< 200	< 700		
<b>70</b> Aluminium Magnesium Aluminium Magnesium	71 Al unlegiert	Al unalloyed	< 100	< 350		
	72 Al legiert Si < 1.5 %	Al alloyed Si < 1.5 %	< 150	< 500		
	73 Al legiert Si > 1.5 % - < 10 %	Al alloyed Si > 1.5 % - < 10 %	< 120	< 400		
	74 Al legiert Si > 10 %, Mg-Legierungen	Al alloyed Si > 10 %, Mg-alloys	< 120	< 400		
<b>80</b> Kunststoff Plastic compounds	81 Thermoplaste	Thermoplastics	-	-		
	82 Duroplaste	Duroplastics	-	-		
	83 Faserverstärkte Kunststoffe	Glass fibre reinforced plastics	-	-		
<b>90</b> Edelmetalle Precious metals	91 Gelbgold	Yellow gold	-	-		
	92 Rotgold	Red gold	-	-		
	93 Weissgold	White gold	-	-		
	94 Silber	Silver	-	-		

Optimal mit Schneidöl  
Optimal with cutting oil

Geeignet mit Schneidöl  
Suitable with cutting oil

Optimal mit Emulsion  
Optimal with emulsion

Geeignet mit Emulsion  
Suitable with emulsion

### GW5000



VS

VS

Vc (m/min)		Vorschub fz (mm/Zahn)	Milling fz (mm/tooth)
Standard Standard	Beschichtet Coated	Ø 0.80 - 2.74	Ø 2.75 - 6.00
	80-100	0.007-0.05	0.04-0.10
	80-100	0.007-0.05	0.04-0.10
	70-90	0.007-0.05	0.02-0.10
	70-90	0.007-0.05	0.02-0.10
	30-50	0.007-0.05	0.02-0.08
	15-40	0.004-0.03	0.008-0.05
	15-30	0.004-0.025	0.008-0.04
	40-60	0.007-0.05	0.02-0.10
	30-50	0.007-0.03	0.02-0.05
	30-50	0.007-0.03	0.02-0.05
	30-50	0.007-0.03	0.02-0.05
	90-120	0.007-0.05	0.04-0.10
	70-90	0.007-0.05	0.02-0.10
	20-40	0.007-0.03	0.02-0.05
	15-35	0.007-0.03	0.02-0.05
	20-40	0.007-0.03	0.02-0.06
	20-40	0.007-0.03	0.02-0.06
	20-30	0.004-0.03	0.008-0.05
	200-250	0.007-0.05	0.02-0.10
	150-200	0.007-0.05	0.04-0.10
	150-200	0.007-0.05	0.02-0.10
	200-300	0.007-0.05	0.05-0.10
	200-300	0.007-0.05	0.05-0.10
	200-300	0.007-0.05	0.05-0.10
	200-300	0.007-0.05	0.04-0.10
	200-300	0.007-0.05	0.05-0.10
	100-200	0.007-0.05	0.04-0.10
	80-100	0.007-0.05	0.04-0.10
	150-200	0.007-0.05	0.04-0.10
	90-120	0.007-0.05	0.02-0.10
	30-50	0.007-0.05	0.02-0.05
	90-120	0.007-0.05	0.02-0.10

### GW3000



VH

VH

Kühlung Lubricant		Vc (m/min)	Vorschub fz (mm/Zahn)	Milling fz (mm/tooth)		
Standard Standard	Beschichtet Coated	Standard Standard	Beschichtet Coated	Ø 2.75 - 6.00	Ø 6.01 - 12.70	
					11	
					12	
					13	
					14	
					15	
		15-40		0.008-0.05	0.01-0.08	16
		15-30		0.008-0.04	0.01-0.06	17
		25-50		0.01-0.025	0.015-0.035	18
						21
						22
						23
						24
		90-120		0.04-0.10	0.08-0.15	31
						32
						41
						42
						51
						52
						53
						61
		150-200		0.04-0.10	0.08-0.15	62
						63
						71
						72
						73
		200-300		0.04-0.10	0.08-0.15	74
						81
		80-100		0.04-0.10	0.08-0.15	82
						83
						91
						92
						93
						94

Optimal mit Luft  
Optimal with air

Geeignet mit Luft  
Suitable with air

Bei den oben aufgeführten Daten handelt es sich um Richtwerte.  
The indicated values are a guideline.