

GUHRING

NC Spot Drills

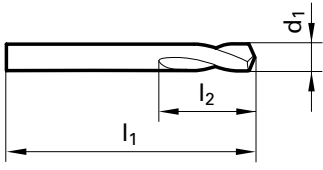





Expanded offering!

Now in HSS, HSCO and Carbide

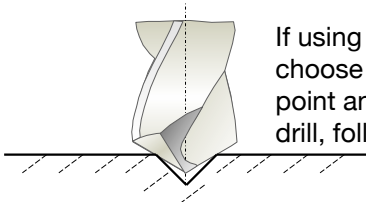


NC Spot Drill - 90°

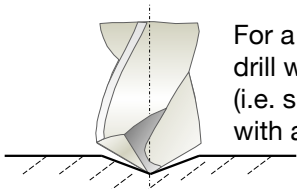
Right-hand helix, standard length
Cut / Shank Dia. = h6 tolerance range; point angle tolerance +0°/-1°

Standard length 90° Point Angle							NEW	NEW	GUHRING Select																				
																													
Series					557					568					1136					1133					723				
Substrate					HSS					HSS					HSCO					HSCO					Carbide				
Surface Finish					Bright					TiN					Bright					nano-FIREX®					Bright				
Diameter d1			EDP #		EDP #		EDP #		EDP #		EDP #		EDP #		EDP #														
dec.	fract.	mm	l1	l2	EDP #		EDP #		EDP #		EDP #		EDP #		EDP #														
0.1181		3.00	46.00	12.00	9005570030000		9005680030000		9011360030000		9011330030000		9007230030000		9007230030000														
0.1575		4.00	55.00	12.00	9005570040000		9005680040000		9011360040000		9011330040000		9007230040000		9007230040000														
0.1969		5.00	62.00	14.00	9005570050000		9005680050000		9011360050000		9011330050000		9007230050000		9007230050000														
0.2362		6.00	66.00	16.00	9005570060000		9005680060000		9011360060000		9011330060000		9007230060000		9007230060000														
0.2500	1/4	6.35	70.00	17.00	9005570063500		9005680063500		9011360063500		9011330063500		9007230063500		9007230063500														
0.3150		8.00	79.00	21.00	9005570080000		9005680080000		9011360080000		9011330080000		9007230080000		9007230080000														
0.3748	3/8	9.52	89.00	25.00	9005570095200		9005680095200		9011360095200		9011330095200		9007230095200		9007230095200														
0.3937		10.00	89.00	25.00	9005570100000		9005680100000		9011360100000		9011330100000		9007230100000		9007230100000														
0.4724		12.00	102.00	30.00	9005570120000		9005680120000		9011360120000		9011330120000		9007230120000		9007230120000														
0.5000	1/2	12.70	102.00	30.00	9005570127000		9005680127000		9011360127000		9011330127000		9007230127000		9007230127000														
0.6248	5/8	15.87	115.00	37.50	9005570158700		9005680158700		9011360158700		9011330158700		9007230158700		9007230158700														
0.6299		16.00	115.00	37.50	9005570160000		9005680160000		9011360160000		9011330160000		9007230160000		9007230160000														
0.7500	3/4	19.05	131.00	45.00	9005570190500		9005680190500		9011360190500		9011330190500		9007230190500		9007230190500														
0.7874		20.00	131.00	45.00	9005570200000		9005680200000		9011360200000		9011330200000		9007230200000		9007230200000														
0.9843		25.00	151.00	53.00	9005570250000		9005680250000		9011360250000		9011330250000		9007230250000		9007230250000														
1.0000	1	25.40	156.00	53.00	9005570254000		9005680254000		9011360254000		9011330254000		9007230254000		9007230254000														


* Weldon flat on drills ≥ 6mm diameter



If using a HSS or HSCO drill, choose a spot drill with a smaller point angle (i.e. spot with a 90° drill, follow with a 130° drill)


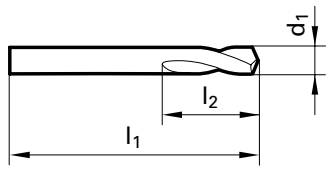







For a carbide drill, choose a spot drill with a larger point angle (i.e. spot with a 142° drill, follow with a 140° carbide drill)

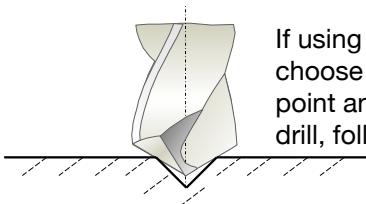
Long length - 90°					Series	559
					Substrate	HSS
					Surface Finish	Bright
Diameter d1			EDP #		EDP #	
dec.	fract.	mm	l1	l2	EDP #	
0.2500	1/4	6.35	105.0	17.0	9005590063500	
0.3150		8.00	118.0	21.0	9005590080000	
0.3748	3/8	9.52	132.0	25.0	9005590095200	
0.5000	1/2	12.70	159.0	30.0	9005590127000	
0.6248	5/8	15.87	186.0	37.5	9005590158700	
0.7500	3/4	19.05	213.0	45.0	9005590190500	
1.0000	1	25.40	216.0	53.0	9005590254000	

NC Spot Drill - 120°

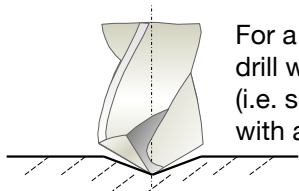
Right-hand helix, standard length
Cut / Shank Dia. = h6 tolerance range; point angle tolerance ±2°

Standard length 120° Point Angle							NEW		NEW				
													
Series					556	567	1134	1135	724				
Substrate					HSS	HSS	HSCO	HSCO	Carbide				
Surface Finish					Bright	TiN	Bright	nano-FIREX®	Bright				
Diameter d1													
			l1	l2	EDP #	EDP #	EDP #	EDP #					
dec.	fract.	mm											
0.1181		3.00	46.00	12.00	9005560030000	9005670030000	9011340030000	9011350030000					
0.1575		4.00	55.00	12.00	9005560040000	9005670040000	9011340040000	9011350040000					
0.1969		5.00	62.00	14.00	9005560050000	9005670050000	9011340050000	9011350050000	9007240050000				
0.2362		6.00	66.00	16.00	9005560060000	9005670060000	9011340060000	9011350060000	9007240060000				
0.2500	1/4	6.35	70.00	17.00	9005560063500	9005670063500			9007240063500				
0.3150		8.00	79.00	21.00	9005560080000	9005670080000	9011340080000	9011350080000	9007240080000				
0.3748	3/8	9.52	89.00	25.00	9005560095200	9005670095200			9007240095200				
0.3937		10.00	89.00	25.00	9005560100000	9005670100000	9011340100000	9011350100000	9007240100000				
0.4724		12.00	102.00	30.00	9005560120000	9005670120000	9011340120000	9011350120000	9007240120000				
0.5000	1/2	12.70	102.00	30.00	9005560127000	9005670127000			9007240127000				
0.6248	5/8	15.87	115.00	37.50	9005560158700	9005670158700			9007240158700				
0.6299		16.00	115.00	37.50	9005560160000	9005670160000	9011340160000	9011350160000	9007240160000				
0.7500	3/4	19.05	131.00	45.00	9005560190500	9005670190500			9007240190500				
0.7874		20.00	131.00	45.00	9005560200000	9005670200000	9011340200000	9011350200000	9007240200000				
0.9843		25.00	151.00	53.00	9005560250000	9005670250000							
1.0000	1	25.40	156.00	53.00	9005560254000	9005670254000							


* Weldon flat on drills ≥ 6mm diameter



If using a HSS or HSCO drill, choose a spot drill with a smaller point angle (i.e. spot with a 90° drill, follow with a 130° drill)



For a carbide drill, choose a spot drill with a larger point angle (i.e. spot with a 142° drill, follow with a 140° carbide drill)

Standard length - 142°						Series	
						Substrate	
						Surface Finish	
						546	
						Carbide	
						Bright	
Diameter d1							
			l1	l2	EDP #		
dec.	fract.	mm					
0.1575		4.00	55.0	12.0	9005460040000		
0.1969		5.00	62.0	14.0	9005460050000		
0.2362		6.00	66.0	16.0	9005460060000		
0.3150		8.00	79.0	21.0	9005460080000		
0.3937		10.00	89.0	25.0	9005460100000		
0.4724		12.00	102.0	30.0	9005460120000		
0.6299		16.00	115.0	37.5	9005460160000		
0.7874		20.00	131.0	45.0	9005460200000		

Series 556-557-559

Material group	Hardness	SFM	Feed Rate - IPR									
			1/16 in. 1.590 mm	1/8 in. 3.170 mm	1/4 in. 6.350 mm	3/8 in. 9.520 mm	1/2 in. 12.700mm	5/8 in. 15.870mm	3/4 in. 19.050mm	1 in. 25.400mm	1 1/4 in. 31.75mm	1 1/2 in. 38.10mm
Common structural steels	≤ 20 HRC	100		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 32 HRC	80		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
Free-cutting steels	≤ 25 HRC	105		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 32 HRC	100		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
Unalloyed heat-treatable steels	≤ 20 HRC	80		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
	≤ 25 HRC	80		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
	≤ 32 HRC	65		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
Alloyed heat-treatable steels	≤ 32 HRC	50		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 43 HRC	40		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Unalloyed case hardened steels	≤ 25 HRC	100		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Alloyed case hardened steels	≤ 32 HRC	50		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 43 HRC	25		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Nitriding steels	≤ 32 HRC											
	≤ 43 HRC											
Tool steels	≤ 25 HRC ≤ 43 HRC	50		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
High speed steels	≤ 43 HRC											
Spring steels	≤ 38 HRC											
Stainless steels	≤ 28 HRC	35		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
	≤ 36 HRC	20		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
	≤ 46 HRC	25		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Hardened steels	≤ 48 HRC											
	≤ 66 HRC											
Special alloys	≤ 54 HRC											
Cast iron	≤ 23 HRC	100		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 38 HRC	100		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Spheroidal graphite iron and malleable cast iron	≤ 23 HRC	80		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 38 HRC	65		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Chilled cast iron	≤ 38 HRC											
Ti and Ti-alloys	≤ 25 HRC ≤ 43 HRC											
Aluminum and Al-alloys	≤120HB	230		0.0049	0.0079	0.0124	0.0124	0.0157	0.0197	0.0248		
Al wrought alloys	≤200HB	230		0.0049	0.0079	0.0124	0.0124	0.0157	0.0197	0.0248		
Al cast alloys	≤ 10% Si	≤180HB	165		0.0049	0.0079	0.0124	0.0124	0.0157	0.0197	0.0248	
	≤ 24% Si	≤180HB	165		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197	
Magnesium alloys	≤120HB	230		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Copper	low-alloyed	≤ 80 HB	195		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157	
	short-chipping	≤180HB	195		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157	
Brass	long-chipping	≤180HB	130		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157	
	short-chipping	≤180HB	100		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124	
Bronze	long-chipping	≤ 25 HRC	50		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124	
		≤ 32 HRC	40		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124	
Duroplastics	-	60		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
Thermoplastics	-	90		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		

Series 567 - 568

Material group	Hardness	SFM	Feed Rate - IPR									
			1/16 in. 1.590 mm	1/8 in. 3.170 mm	1/4 in. 6.350 mm	3/8 in. 9.520 mm	1/2 in. 12.700mm	5/8 in. 15.870mm	3/4 in. 19.050mm	1 in. 25.400mm	1 1/4 in. 31.75mm	1 1/2 in. 38.10mm
Common structural steels	≤ 20 HRC	105		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 32 HRC	85		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
Free-cutting steels	≤ 25 HRC	115		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 32 HRC	110		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
Unalloyed heat-treatable steels	≤ 20 HRC	90		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
	≤ 25 HRC	90		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
	≤ 32 HRC	80		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
Alloyed heat-treatable steels	≤ 32 HRC	70		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 43 HRC	55		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Unalloyed case hardened steels	≤ 25 HRC	110		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Alloyed case hardened steels	≤ 32 HRC	65		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 43 HRC	40		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Nitriding steels	≤ 32 HRC	45		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 43 HRC											
Tool steels	≤ 25 HRC ≤ 43 HRC	60		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
High speed steels	≤ 43 HRC											
Spring steels	≤ 38 HRC											
Stainless steels	≤ 28 HRC	40		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
	≤ 36 HRC	25		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
	≤ 46 HRC	35		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Hardened steels	≤ 48 HRC											
	≤ 66 HRC											
Special alloys	≤ 54 HRC											
Cast iron	≤ 23 HRC	110		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 38 HRC	110		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Spheroidal graphite iron and malleable cast iron	≤ 23 HRC	90		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 38 HRC	70		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Chilled cast iron	≤ 38 HRC											
Ti and Ti-alloys	≤ 25 HRC ≤ 43 HRC											
Aluminum and Al-alloys	≤120HB											
Al wrought alloys	≤200HB											
Al cast alloys	≤ 10% Si	≤180HB	195		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197	
	≤ 24% Si	≤180HB	195		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197	
Magnesium alloys	≤120HB	260		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Copper	low-alloyed	≤ 80 HB	215		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157	
	short-chipping	≤180HB	230		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157	
Brass	long-chipping	≤180HB	150		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157	
	short-chipping	≤180HB	110		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124	
Bronze	long-chipping	≤ 25 HRC	50		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124	
		≤ 32 HRC	50		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124	
Duroplastics	-	70		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
Thermoplastics	-	120		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		

Series 1134 - 1136

Material group	Hardness	SFM	Feed Rate - IPR									
			1/16 in. 1.590 mm	1/8 in. 3.170 mm	1/4 in. 6.350 mm	3/8 in. 9.520 mm	1/2 in. 12.700 mm	5/8 in. 15.870 mm	3/4 in. 19.050 mm	1 in. 25.400 mm	1 1/4 in. 31.75 mm	1 1/2 in. 38.10 mm
Common structural steels	≤ 20 HRC	115		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 32 HRC	100		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
Free-cutting steels	≤ 25 HRC	130		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
	≤ 32 HRC	130		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
Unalloyed heat-treatable steels	≤ 20 HRC	115		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
	≤ 25 HRC	115		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
	≤ 32 HRC	100		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
Alloyed heat-treatable steels	≤ 32 HRC	70		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 43 HRC	55		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Unalloyed case hardened steels	≤ 25 HRC	110		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Alloyed case hardened steels	≤ 32 HRC	65		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 43 HRC	50		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Nitriding steels	≤ 32 HRC	45		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 43 HRC	40		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Tool steels	≤ 25 HRC	60		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 43 HRC	40		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
High speed steels	≤ 43 HRC	25		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Spring steels	≤ 38 HRC	25		0.0016	0.0025	0.0039	0.0039	0.0049	0.0063	0.0079		
Stainless steels	sulphured austenitic martensitic	≤ 28 HRC	40		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098	
		≤ 36 HRC	35		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098	
		≤ 46 HRC	35		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098	
Hardened steels	≤ 48 HRC											
	≤ 66 HRC											
Special alloys	≤ 54 HRC	20		0.0013	0.0020	0.0031	0.0031	0.0039	0.0049	0.0063		
Cast iron	≤ 23 HRC	110		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 38 HRC	110		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Spheroidal graphite iron and malleable cast iron	≤ 23 HRC	100		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 38 HRC	80		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Chilled cast iron	≤ 38 HRC											
Ti and Ti-alloys	≤ 25 HRC	25		0.0016	0.0025	0.0039	0.0039	0.0049	0.0063	0.0079		
	≤ 43 HRC	20		0.0016	0.0025	0.0039	0.0039	0.0049	0.0063	0.0079		
Aluminum and Al-alloys	≤ 120HB	260		0.0049	0.0079	0.0124	0.0124	0.0157	0.0197	0.0248		
Al wrought alloys	≤ 200HB	260		0.0049	0.0079	0.0124	0.0124	0.0157	0.0197	0.0248		
Al cast alloys	≤ 10% Si	195		0.0049	0.0079	0.0124	0.0124	0.0157	0.0197	0.0248		
	≤ 24% Si	195		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Magnesium alloys	≤ 120HB	230		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Copper	low-alloyed	≤ 80 HB	215		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157	
Brass	short-chipping	≤ 180HB	230		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157	
	long-chipping	≤ 180HB	150		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157	
Bronze	short-chipping	≤ 180HB	115		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124	
	long-chipping	≤ 25 HRC	110		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124	
Bronze	long-chipping	≤ 25 HRC	65		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124	
	long-chipping	≤ 32 HRC	50		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124	
Duroplastics	-	70		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
Thermoplastics	-	120		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		

Series 1133 - 1135

Material group	Hardness	SFM	Feed Rate - IPR									
			1/16 in. 1.590 mm	1/8 in. 3.170 mm	1/4 in. 6.350 mm	3/8 in. 9.520 mm	1/2 in. 12.700 mm	5/8 in. 15.870 mm	3/4 in. 19.050 mm	1 in. 25.400 mm	1 1/4 in. 31.75 mm	1 1/2 in. 38.10 mm
Common structural steels	≤ 20 HRC	140		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 32 HRC	120		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
Free-cutting steels	≤ 25 HRC	155		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 32 HRC	140		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Unalloyed heat-treatable steels	≤ 20 HRC	145		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 25 HRC	145		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 32 HRC	130		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
Alloyed heat-treatable steels	≤ 32 HRC	90		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 43 HRC	70		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Unalloyed case hardened steels	≤ 25 HRC	120		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Alloyed case hardened steels	≤ 32 HRC	70		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 43 HRC	60		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Nitriding steels	≤ 32 HRC	60		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 43 HRC	50		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Tool steels	≤ 25 HRC	70		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 43 HRC	50		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
High speed steels	≤ 43 HRC	40		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Spring steels	≤ 38 HRC	35		0.0016	0.0025	0.0039	0.0039	0.0049	0.0063	0.0079		
Stainless steels	sulphured austenitic martensitic	≤ 28 HRC	60		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098	
		≤ 36 HRC	50		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098	
		≤ 46 HRC	40		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098	
Hardened steels	≤ 48 HRC											
	≤ 66 HRC											
Special alloys	≤ 54 HRC	25		0.0013	0.0020	0.0031	0.0031	0.0039	0.0049	0.0063		
Cast iron	≤ 23 HRC	125		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 38 HRC	115		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Spheroidal graphite iron and malleable cast iron	≤ 23 HRC	110		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Chilled cast iron	≤ 38 HRC	90		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Ti and Ti-alloys	≤ 25 HRC	35		0.0016	0.0025	0.0039	0.0039	0.0049	0.0063	0.0079		
	≤ 43 HRC	25		0.0016	0.0025	0.0039	0.0039	0.0049	0.0063	0.0079		
Aluminum and Al-alloys	≤ 120HB											
Al wrought alloys	≤ 200HB	280		0.0049	0.0079	0.0124	0.0124	0.0157	0.0197	0.0248		
Al cast alloys	≤ 10% Si	215		0.0049	0.0079	0.0124	0.0124	0.0157	0.0197	0.0248		
	≤ 24% Si	215		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Magnesium alloys	≤ 120HB	260		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Copper	low-alloyed	≤ 80 HB	230		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157	
Brass	short-chipping	≤ 180HB	245		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157	
	long-chipping	≤ 180HB	165		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157	
Bronze	short-chipping	≤ 180HB	150		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157	
	long-chipping	≤ 25 HRC	130		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124	
Bronze	long-chipping	≤ 25 HRC	80		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124	
	long-chipping	≤ 32 HRC	65		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124	
Duroplastics	-	80		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
Thermoplastics	-	130		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		

GUHRING

Series 546 - 723 - 724

Material group	Hardness	SFM	Feed Rate - IPR									
			1/16 in. 1.590 mm	1/8 in. 3.170 mm	1/4 in. 6.350 mm	3/8 in. 9.520 mm	1/2 in. 12.700mm	5/8 in. 15.870mm	3/4 in. 19.050mm	1 in. 25.400mm	1 1/4 in. 31.75mm	1 1/2 in. 38.10mm
Common structural steels	≤ 20 HRC	245		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
	≤ 32 HRC	230		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
Free-cutting steels	≤ 25 HRC	260		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
	≤ 32 HRC	230		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
Unalloyed heat-treatable steels	≤ 20 HRC	260		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 25 HRC	230		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 32 HRC	195		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
Alloyed heat-treatable steels	≤ 32 HRC	195		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 43 HRC	165		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Unalloyed case hardened steels	≤ 25 HRC	260		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
Alloyed case hardened steels	≤ 32 HRC	195		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 43 HRC	165		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Nitriding steels	≤ 32 HRC	165		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 43 HRC	130		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Tool steels	≤ 25 HRC	165		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
	≤ 43 HRC	130		0.0016	0.0025	0.0039	0.0039	0.0049	0.0063	0.0079		
High speed steels	≤ 43 HRC	130		0.0016	0.0025	0.0039	0.0039	0.0049	0.0063	0.0079		
Spring steels	≤ 38 HRC	80		0.0016	0.0025	0.0039	0.0039	0.0049	0.0063	0.0079		
Stainless steels	sulphured austenitic martensitic	≤ 28 HRC	80		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124	
		≤ 36 HRC	80		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098	
		≤ 46 HRC	80		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098	
Hardened steels	≤ 48 HRC	65		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
	≤ 66 HRC											
Special alloys	≤ 54 HRC	50		0.0016	0.0025	0.0039	0.0039	0.0049	0.0063	0.0079		
Cast iron	≤ 23 HRC	295		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 38 HRC	260		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
Spheroidal graphite iron and malleable cast iron	≤ 23 HRC	260		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 38 HRC	230		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
Chilled cast iron	≤ 38 HRC											
Ti and Ti-alloys	≤ 25 HRC	65		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
	≤ 43 HRC	50		0.0016	0.0025	0.0039	0.0039	0.0049	0.0063	0.0079		
Aluminum and Al-alloys	≤120HB	655		0.0049	0.0079	0.0124	0.0124	0.0157	0.0197	0.0248		
Al wrought alloys	≤200HB	655		0.0049	0.0079	0.0124	0.0124	0.0157	0.0197	0.0248		
Al cast alloys	≤ 10% Si	490		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
	≤ 24% Si	395		0.0039	0.0063	0.0098	0.0098	0.0124	0.0157	0.0197		
Magnesium alloys	≤120HB	590		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
Copper	low-alloyed ≤ 80 HB	260		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
Brass	short-chipping ≤180HB	590		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
	long-chipping ≤180HB	590		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
Bronze	short-chipping ≤180HB	395		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
	≤ 25 HRC	395		0.0031	0.0049	0.0079	0.0079	0.0098	0.0124	0.0157		
Bronze	long-chipping ≤ 25 HRC	230		0.0025	0.0039	0.0063	0.0063	0.0079	0.0098	0.0124		
	≤ 32 HRC	165		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Duroplastics	-	130		0.0020	0.0031	0.0049	0.0049	0.0063	0.0079	0.0098		
Thermoplastics	-											

Guhring, Inc. Main Office
P.O. Box 643, Brookfield, WI 53008-0643

Shipping Address
1445 Commerce Avenue
Brookfield, WI 53045
Tel (262) 784-6730 (800) 776-6170
Fax (262) 784-9096

**West Coast Distribution Center and
Reconditioning Facility**
15581 Computer Ln
Huntington Beach, CA 92649

Reconditioning Facility
121 W Dudley Town Rd.
Bloomfield, CT 06002

**Manufacturing and
Reconditioning Facility**
29550 W.K. Smith Rd. Suite B
New Hudson, MI 48165

Guhring Corporation
20 Steckle Place, Unit #14
Kitchener, ON N2E 2C3
Tel (519) 748-9664 (800) 463-5555
Fax (519) 748-2954

Item #400001283