



## TYPHOON GA-HGA

HIGH PERFORMANCE - GENERAL APPLICATION

🇬🇧 3xD, 5xD and 8xD with Weldon shank for general application on ISO P, M, K

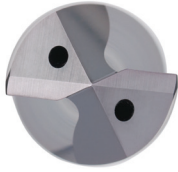
🇮🇹 3xD, 5xD e 8xD con gambo weldon per applicazioni generali su ISO P, M, K.

🇩🇪 3xD, 5xD und 8xD mit Weldon Schaft für allgemeine Anwendung auf ISO P, M, K

🇫🇷 3xD, 5xD et 8xD avec tige Weldon pour application générale sur ISO P, M, K

🇪🇸 3XD, 5xD y 8xD con mango Weldon para aplicación general en ISO P, M, K

🇷🇺 3xD, 5xD и 8xD с хвостовиком Weldon для общего применения по ISO P, M, K.



- Self-centering geometry: accurate holes
- Made of sub-micron grain carbide and new PV400 coating for better wear resistance (lower cost per hole).
- Straight cutting edge design and unique edge treatment technology allow higher reliability.
- Optimized core diameter guarantees the straightness of the hole and wide flutes design allows smooth chip ejection



- Géométrie auto-centrée pour trous précis
- Fabriqué en carbure à grains submicroniques et nouveau revêtement PV400 pour une meilleure résistance à l'usure (coût inférieur par trou).
- La conception du bord droit et la technologie unique de traitement des bords permettent une plus grande fiabilité.
- Le diamètre optimisé du noyau garantit la rectitude du trou et la conception de cannelures larges permet une éjection en douceur des copeaux.



- Affilatura autocentrante per fori precisi
- In metallo duro con grano sub-micron e nuovo rivestimento PV400 per migliore resistenza all'usura (inferiore costo per foro)
- Tagliente diritto e esclusivo processo di onatura del bordo per elevata affidabilità
- Il diametro del nocciolo ottimizzato assicura la realizzazione di fori dritti; le scanalature ampie, garantiscono migliore evacuazione dei trucioli



- Afilado autocentrante para agujeros precisos
- Hecho de carburo de grano submicrónico y nuevo recubrimiento PV400 para una mayor resistencia al desgaste (menor costo por agujero).
- El diseño de filo de corte recto y la tecnología única de tratamiento de filo dan una mayor estabilidad.
- El diámetro del núcleo optimizado garantiza la rectitud del agujero y el diseño de ranuras anchas permiten una expulsión suave de la viruta.



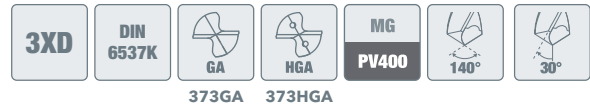
- Selbstzentrierender Schliff für präzise Bohrungen
- Aus VHM Mikrokörnung und neue PV400 Beschichtung um bessere Verschleissbeständigkeit zu ermöglichen.
- Gerades Schnittkantendesign und optimaler Schliff für eine hohe Zuverlässigkeit des Werkzeugs.
- Optimierter Kerndurchmesser für gerade Bohrungen, breite Spannuten zur Verbesserung der Spanabfuhr.



- Самоцентрирующаяся заточка для получения точных отверстий
- Изготовлены из твёрдого сплава с субмикронным зерном и новым покрытием PV400 для лучшей износостойкости (более низкая стоимость отверстия).
- Прямая режущая кромка и уникальная технология обработки кромок обеспечивают более высокую надежность.
- Оптимизированный диаметр сердцевины гарантирует прямолинейность отверстия, а конструкция с широкими канавками обеспечивает беспрепятственный выброс стружки.

# 373GA-HGA

General application, Weldon shank



373GA



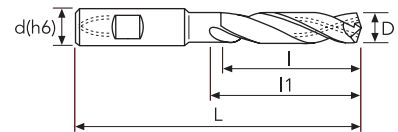
373HGA

P	M	K	N	S	H
★	☆	★			
★	★	★			

373GA

373HGA

★ 1st choice ☆ suitable

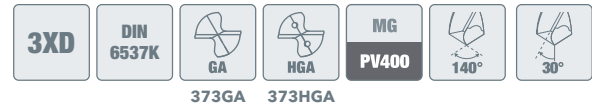


D(m7)	D Tol.	d(h6)	l	l1	L	373GA EDP No.	Stock	373HGA EDP No.	Stock
3.0	+0.004/+0.016	6	14	20	62	373GA0300	●	373HGA0300	●
3.1	+0.004/+0.016	6	14	20	62	373GA0310	●	373HGA0310	●
3.2	+0.004/+0.016	6	14	20	62	373GA0320	●	373HGA0320	●
3.3	+0.004/+0.016	6	14	20	62	373GA0330	●	373HGA0330	●
3.4	+0.004/+0.016	6	14	20	62	373GA0340	●	373HGA0340	●
3.5	+0.004/+0.016	6	14	20	62	373GA0350	●	373HGA0350	●
3.6	+0.004/+0.016	6	14	20	62	373GA0360	●	373HGA0360	●
3.7	+0.004/+0.016	6	14	20	62	373GA0370	●	373HGA0370	●
3.8	+0.004/+0.016	6	17	24	66	373GA0380	●	373HGA0380	●
3.9	+0.004/+0.016	6	17	24	66	373GA0390	●	373HGA0390	●
4.0	+0.004/+0.016	6	17	24	66	373GA0400	●	373HGA0400	●
4.1	+0.004/+0.016	6	17	24	66	373GA0410	●	373HGA0410	●
4.2	+0.004/+0.016	6	17	24	66	373GA0420	●	373HGA0420	●
4.3	+0.004/+0.016	6	17	24	66	373GA0430	●	373HGA0430	●
4.4	+0.004/+0.016	6	17	24	66	373GA0440	●	373HGA0440	●
4.5	+0.004/+0.016	6	17	24	66	373GA0450	●	373HGA0450	●
4.6	+0.004/+0.016	6	17	24	66	373GA0460	●	373HGA0460	●
4.7	+0.004/+0.016	6	17	24	66	373GA0470	●	373HGA0470	●
4.8	+0.004/+0.016	6	20	28	66	373GA0480	●	373HGA0480	●
4.9	+0.004/+0.016	6	20	28	66	373GA0490	●	373HGA0490	●
5.0	+0.004/+0.016	6	20	28	66	373GA0500	●	373HGA0500	●
5.1	+0.004/+0.016	6	20	28	66	373GA0510	●	373HGA0510	●
5.2	+0.004/+0.016	6	20	28	66	373GA0520	●	373HGA0520	●
5.3	+0.004/+0.016	6	20	28	66	373GA0530	●	373HGA0530	●
5.4	+0.004/+0.016	6	20	28	66	373GA0540	●	373HGA0540	●
5.5	+0.004/+0.016	6	20	28	66	373GA0550	●	373HGA0550	●
5.6	+0.004/+0.016	6	20	28	66	373GA0560	●	373HGA0560	●
5.7	+0.004/+0.016	6	20	28	66	373GA0570	●	373HGA0570	●
5.8	+0.004/+0.016	6	20	28	66	373GA0580	●	373HGA0580	●
5.9	+0.004/+0.016	6	20	28	66	373GA0590	●	373HGA0590	●
6.0	+0.004/+0.016	6	20	28	66	373GA0600	●	373HGA0600	●
6.1	+0.006/+0.021	8	24	34	79	373GA0610	●	373HGA0610	●
6.2	+0.006/+0.021	8	24	34	79	373GA0620	●	373HGA0620	●
6.3	+0.006/+0.021	8	24	34	79	373GA0630	●	373HGA0630	●
6.4	+0.006/+0.021	8	24	34	79	373GA0640	●	373HGA0640	●
6.5	+0.006/+0.021	8	24	34	79	373GA0650	●	373HGA0650	●
6.6	+0.006/+0.021	8	24	34	79	373GA0660	●	373HGA0660	●
6.7	+0.006/+0.021	8	24	34	79	373GA0670	●	373HGA0670	●
6.8	+0.006/+0.021	8	24	34	79	373GA0680	●	373HGA0680	●

● stock standard ○ non-standard stock

# 373GA-HGA

General application, Weldon shank



373GA



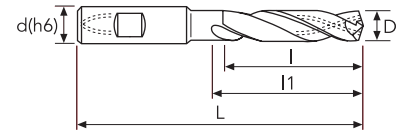
373HGA

P	M	K	N	S	H
★	☆	★			
★	★	★			

373GA

373HGA

★ 1st choice ☆ suitable

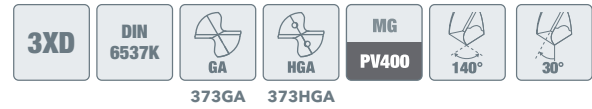


D(m7)	D Tol.	d(h6)	l	l1	L	373GA EDP No.	Stock	373HGA EDP No.	Stock
6.9	+0.006/+0.021	8	24	34	79	373GA0690	●	373HGA0690	●
7.0	+0.006/+0.021	8	24	34	79	373GA0700	●	373HGA0700	●
7.1	+0.006/+0.021	8	29	41	79	373GA0710	●	373HGA0710	●
7.2	+0.006/+0.021	8	29	41	79	373GA0720	●	373HGA0720	●
7.3	+0.006/+0.021	8	29	41	79	373GA0730	●	373HGA0730	●
7.4	+0.006/+0.021	8	29	41	79	373GA0740	●	373HGA0740	●
7.5	+0.006/+0.021	8	29	41	79	373GA0750	●	373HGA0750	●
7.6	+0.006/+0.021	8	29	41	79	373GA0760	●	373HGA0760	●
7.7	+0.006/+0.021	8	29	41	79	373GA0770	●	373HGA0770	●
7.8	+0.006/+0.021	8	29	41	79	373GA0780	●	373HGA0780	●
7.9	+0.006/+0.021	8	29	41	79	373GA0790	●	373HGA0790	●
8.0	+0.006/+0.021	8	29	41	79	373GA0800	●	373HGA0800	●
8.1	+0.006/+0.021	10	35	47	89	373GA0810	●	373HGA0810	●
8.2	+0.006/+0.021	10	35	47	89	373GA0820	●	373HGA0820	●
8.3	+0.006/+0.021	10	35	47	89	373GA0830	●	373HGA0830	●
8.4	+0.006/+0.021	10	35	47	89	373GA0840	●	373HGA0840	●
8.5	+0.006/+0.021	10	35	47	89	373GA0850	●	373HGA0850	●
8.6	+0.006/+0.021	10	35	47	89	373GA0860	●	373HGA0860	●
8.7	+0.006/+0.021	10	35	47	89	373GA0870	●	373HGA0870	●
8.8	+0.006/+0.021	10	35	47	89	373GA0880	●	373HGA0880	●
8.9	+0.006/+0.021	10	35	47	89	373GA0890	●	373HGA0890	●
9.0	+0.006/+0.021	10	35	47	89	373GA0900	●	373HGA0900	●
9.1	+0.006/+0.021	10	35	47	89	373GA0910	●	373HGA0910	●
9.2	+0.006/+0.021	10	35	47	89	373GA0920	●	373HGA0920	●
9.3	+0.006/+0.021	10	35	47	89	373GA0930	●	373HGA0930	●
9.4	+0.006/+0.021	10	35	47	89	373GA0940	●	373HGA0940	●
9.5	+0.006/+0.021	10	35	47	89	373GA0950	●	373HGA0950	●
9.6	+0.006/+0.021	10	35	47	89	373GA0960	●	373HGA0960	●
9.7	+0.006/+0.021	10	35	47	89	373GA0970	●	373HGA0970	●
9.8	+0.006/+0.021	10	35	47	89	373GA0980	●	373HGA0980	●
9.9	+0.006/+0.021	10	35	47	89	373GA0990	●	373HGA0990	●
10.0	+0.006/+0.021	10	35	47	89	373GA1000	●	373HGA1000	●
10.1	+0.007/+0.025	12	40	55	102	373GA1010	●	373HGA1010	●
10.2	+0.007/+0.025	12	40	55	102	373GA1020	●	373HGA1020	●
10.3	+0.007/+0.025	12	40	55	102	373GA1030	●	373HGA1030	●
10.4	+0.007/+0.025	12	40	55	102	373GA1040	●	373HGA1040	●
10.5	+0.007/+0.025	12	40	55	102	373GA1050	●	373HGA1050	●
10.6	+0.007/+0.025	12	40	55	102	373GA1060	●	373HGA1060	●
10.7	+0.007/+0.025	12	40	55	102	373GA1070	●	373HGA1070	●

● stock standard ○ non-standard stock

# 373GA-HGA

General application, Weldon shank

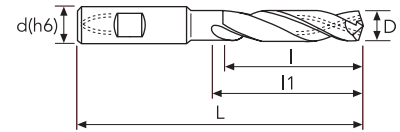


P	M	K	N	S	H
★	☆	★			
★	★	★			

373GA

373HGA

★ 1st choice ☆ suitable



D(m7)	D Tol.	d(h6)	l	l1	L	373GA EDP No.	Stock	373HGA EDP No.	Stock
10.8	+0.007/+0.025	12	40	55	102	373GA1080	●	373HGA1080	●
10.9	+0.007/+0.025	12	40	55	102	373GA1090	●	373HGA1090	●
11.0	+0.007/+0.025	12	40	55	102	373GA1100	●	373HGA1100	●
11.1	+0.007/+0.025	12	40	55	102	373GA1110	●	373HGA1110	●
11.2	+0.007/+0.025	12	40	55	102	373GA1120	●	373HGA1120	●
11.3	+0.007/+0.025	12	40	55	102	373GA1130	●	373HGA1130	●
11.4	+0.007/+0.025	12	40	55	102	373GA1140	●	373HGA1140	●
11.5	+0.007/+0.025	12	40	55	102	373GA1150	●	373HGA1150	●
11.6	+0.007/+0.025	12	40	55	102	373GA1160	●	373HGA1160	●
11.7	+0.007/+0.025	12	40	55	102	373GA1170	●	373HGA1170	●
11.8	+0.007/+0.025	12	40	55	102	373GA1180	●	373HGA1180	●
11.9	+0.007/+0.025	12	40	55	102	373GA1190	●	373HGA1190	●
12.0	+0.007/+0.025	12	40	55	102	373GA1200	●	373HGA1200	●
12.1	+0.007/+0.025	14	43	60	107	373GA1210	○	373HGA1210	●
12.2	+0.007/+0.025	14	43	60	107	373GA1220	●	373HGA1220	●
12.3	+0.007/+0.025	14	43	60	107	373GA1230	○		
12.4	+0.007/+0.025	14	43	60	107	373GA1240	○		
12.5	+0.007/+0.025	14	43	60	107	373GA1250	●	373HGA1250	●
12.6	+0.007/+0.025	14	43	60	107	373GA1260	○		
12.7	+0.007/+0.025	14	43	60	107	373GA1270	●	373HGA1270	●
12.8	+0.007/+0.025	14	43	60	107	373GA1280	●	373HGA1280	●
12.9	+0.007/+0.025	14	43	60	107	373GA1290	○		
13.0	+0.007/+0.025	14	43	60	107	373GA1300	●	373HGA1300	●
13.5	+0.007/+0.025	14	43	60	107	373GA1350	●	373HGA1350	●
13.7	+0.007/+0.025	14	43	60	107	373GA1370	●	373HGA1370	○
13.8	+0.007/+0.025	14	43	60	107	373GA1380	●	373HGA1380	○
14.0	+0.007/+0.025	14	43	60	107	373GA1400	●	373HGA1400	●
14.2	+0.007/+0.025	16	45	65	115	373GA1420	●	373HGA1420	●
14.5	+0.007/+0.025	16	45	65	115	373GA1450	●	373HGA1450	●
14.7	+0.007/+0.025	16	45	65	115	373GA1470	●	373HGA1470	○
14.8	+0.007/+0.025	16	45	65	115	373GA1480	●	373HGA1480	●
15.0	+0.007/+0.025	16	49	65	115	373GA1500	●	373HGA1500	●
15.2	+0.007/+0.025	16	49	65	115	373GA1520	●	373HGA1520	●
15.3	+0.007/+0.025	16	49	65	115	373GA1530	●	373HGA1530	●
15.5	+0.007/+0.025	16	49	65	115	373GA1550	●	373HGA1550	●
15.7	+0.007/+0.025	16	49	65	115	373GA1570	●	373HGA1570	○
15.8	+0.007/+0.025	16	49	65	115	373GA1580	●	373HGA1580	●
16.0	+0.007/+0.025	16	49	65	115	373GA1600	●	373HGA1600	●
16.5	+0.007/+0.025	18	52	73	123	373GA1650	●	373HGA1650	●

● stock standard ○ non-standard stock





### 373GA

	Material Group ISO 513	P1	P2	P3 P4	P5 P6	P7	P8
	Hardness/Rm	<500 N/mm <sup>2</sup>	500÷700 N/mm <sup>2</sup>	600÷1000 N/mm <sup>2</sup>	900÷1480 N/mm <sup>2</sup>	<750 N/mm <sup>2</sup>	850÷1200 N/mm <sup>2</sup>
	Vc (m/min)	<b>70÷90</b>	<b>60÷80</b>	<b>60÷80</b>	<b>50÷70</b>	<b>40÷60</b>	<b>35÷55</b>
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)
<b>3</b>	0.143	0.143	0.124	0.105	0.076	0.057	
<b>4</b>	0.143	0.143	0.124	0.105	0.076	0.057	
<b>6</b>	0.181	0.181	0.162	0.133	0.114	0.095	
<b>8</b>	0.209	0.209	0.190	0.152	0.133	0.124	
<b>10</b>	0.209	0.209	0.190	0.152	0.133	0.124	
<b>12</b>	0.266	0.266	0.219	0.181	0.171	0.171	
<b>14</b>	0.304	0.304	0.238	0.209	0.190	0.190	
<b>16</b>	0.304	0.304	0.238	0.209	0.190	0.190	
<b>18</b>	0.361	0.361	0.285	0.228	0.228	0.228	
<b>20</b>	0.361	0.361	0.285	0.228	0.228	0.228	


### 373HGA

	Material Group ISO 513	P1	P2	P3 P4	P5 P6	P7	P8
	Hardness/Rm	<500 N/mm <sup>2</sup>	500÷700 N/mm <sup>2</sup>	600÷1000 N/mm <sup>2</sup>	900÷1480 N/mm <sup>2</sup>	<750 N/mm <sup>2</sup>	850÷1200 N/mm <sup>2</sup>
	Vc (m/min)	<b>90÷110</b>	<b>70÷90</b>	<b>70÷90</b>	<b>50÷70</b>	<b>50÷70</b>	<b>40÷60</b>
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)
<b>3</b>	0.150	0.150	0.130	0.110	0.080	0.060	
<b>4</b>	0.150	0.150	0.130	0.110	0.080	0.060	
<b>6</b>	0.190	0.190	0.170	0.140	0.120	0.100	
<b>8</b>	0.220	0.220	0.200	0.160	0.140	0.130	
<b>10</b>	0.220	0.220	0.200	0.160	0.140	0.130	
<b>12</b>	0.280	0.280	0.230	0.190	0.180	0.180	
<b>14</b>	0.320	0.320	0.250	0.220	0.200	0.200	
<b>16</b>	0.320	0.320	0.250	0.220	0.200	0.200	
<b>18</b>	0.380	0.380	0.300	0.240	0.240	0.240	
<b>20</b>	0.380	0.380	0.300	0.240	0.240	0.240	


### 373HGA

	Material Group ISO 513	M1	M2	M3			
	Hardness/Rm	<750 N/mm <sup>2</sup>	550÷850 N/mm <sup>2</sup>	650÷950 N/mm <sup>2</sup>			
	Vc (m/min)	<b>50÷70</b>	<b>50÷70</b>	<b>35÷55</b>			
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)			
<b>3</b>	0.080	0.060	0.060				
<b>4</b>	0.100	0.080	0.080				
<b>6</b>	0.120	0.080	0.080				
<b>8</b>	0.130	0.100	0.100				
<b>10</b>	0.150	0.110	0.110				
<b>12</b>	0.170	0.130	0.130				
<b>14</b>	0.180	0.130	0.130				
<b>16</b>	0.200	0.140	0.140				
<b>18</b>	0.220	0.140	0.140				
<b>20</b>	0.240	0.160	0.160				

## 373GA

 Ø RUN OUT <0.02mm	Material Group ISO 513	<b>K1</b>	<b>K2</b>	<b>K3</b>			
	Hardness/Rm	150÷250 HB	150÷350 HB	120÷260 HB			
	Vc (m/min)	<b>90÷110</b>	<b>70÷90</b>	<b>60÷80</b>			
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)			
	<b>3</b>	0.162	0.143	0.086			
	<b>4</b>	0.190	0.162	0.095			
	<b>6</b>	0.238	0.190	0.124			
	<b>8</b>	0.257	0.238	0.152			
	<b>10</b>	0.285	0.266	0.190			
	<b>12</b>	0.314	0.285	0.209			
<b>14</b>	0.342	0.314	0.228				
<b>16</b>	0.380	0.333	0.247				
<b>18</b>	0.399	0.361	0.266				
<b>20</b>	0.428	0.380	0.266				

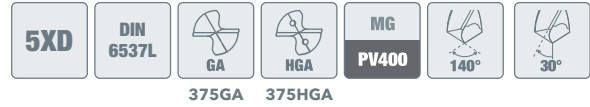
## 373HGA

 Ø RUN OUT <0.02mm	Material Group ISO 513	<b>K1</b>	<b>K2</b>	<b>K3</b>			
	Hardness/Rm	150÷250 HB	150÷350 HB	120÷260 HB			
	Vc (m/min)	<b>110÷130</b>	<b>90÷110</b>	<b>70÷90</b>			
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)			
	<b>3</b>	0.170	0.150	0.090			
	<b>4</b>	0.200	0.170	0.100			
	<b>6</b>	0.250	0.200	0.130			
	<b>8</b>	0.270	0.250	0.160			
	<b>10</b>	0.300	0.280	0.200			
	<b>12</b>	0.330	0.300	0.220			
<b>14</b>	0.360	0.330	0.240				
<b>16</b>	0.400	0.350	0.260				
<b>18</b>	0.420	0.380	0.280				
<b>20</b>	0.450	0.400	0.280				



# 375GA-HGA

General application, Weldon shank



375GA



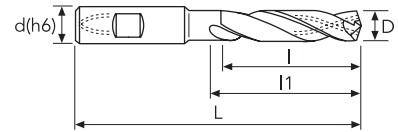
375HGA

P	M	K	N	S	H
★	☆	★			
★	★	★			

375GA

375HGA

★ 1st choice ☆ suitable

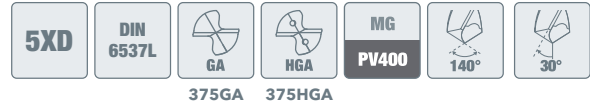


D(m7)	D Tol.	d(h6)	l	l1	L	375GA EDP No.	Stock	375HGA EDP No.	Stock
3.0	+0.004/+0.016	6	23,5	28	66	375GA0300	●	375HGA0300	●
3.1	+0.004/+0.016	6	23,4	28	66	375GA0310	●	375HGA0310	●
3.2	+0.004/+0.016	6	23,2	28	66	375GA0320	●	375HGA0320	●
3.3	+0.004/+0.016	6	23,1	28	66	375GA0330	●	375HGA0330	●
3.4	+0.004/+0.016	6	22,9	28	66	375GA0340	●	375HGA0340	●
3.5	+0.004/+0.016	6	22,8	28	66	375GA0350	●	375HGA0350	●
3.6	+0.004/+0.016	6	22,6	28	66	375GA0360	●	375HGA0360	●
3.7	+0.004/+0.016	6	22,5	28	66	375GA0370	●	375HGA0370	●
3.8	+0.004/+0.016	6	30,3	36	74	375GA0380	●	375HGA0380	●
3.9	+0.004/+0.016	6	30,2	36	74	375GA0390	●	375HGA0390	●
4.0	+0.004/+0.016	6	30,0	36	74	375GA0400	●	375HGA0400	●
4.1	+0.004/+0.016	6	29,9	36	74	375GA0410	●	375HGA0410	●
4.2	+0.004/+0.016	6	29,7	36	74	375GA0420	●	375HGA0420	●
4.3	+0.004/+0.016	6	29,6	36	74	375GA0430	●	375HGA0430	●
4.4	+0.004/+0.016	6	29,4	36	74	375GA0440	●	375HGA0440	●
4.5	+0.004/+0.016	6	29,3	36	74	375GA0450	●	375HGA0450	●
4.6	+0.004/+0.016	6	29,1	36	74	375GA0460	●	375HGA0460	●
4.65	+0.004/+0.016	6	29,0	36	74			375HGA0465	●
4.7	+0.004/+0.016	6	29,0	36	74	375GA0470	●	375HGA0470	●
4.8	+0.004/+0.016	6	36,8	44	82	375GA0480	●	375HGA0480	●
4.9	+0.004/+0.016	6	36,7	44	82	375GA0490	●	375HGA0490	●
5.0	+0.004/+0.016	6	36,5	44	82	375GA0500	●	375HGA0500	●
5.1	+0.004/+0.016	6	36,4	44	82	375GA0510	●	375HGA0510	●
5.2	+0.004/+0.016	6	36,2	44	82	375GA0520	●	375HGA0520	●
5.3	+0.004/+0.016	6	36,1	44	82	375GA0530	●	375HGA0530	●
5.4	+0.004/+0.016	6	35,9	44	82	375GA0540	●	375HGA0540	●
5.5	+0.004/+0.016	6	35,8	44	82	375GA0550	●	375HGA0550	●
5.55	+0.004/+0.016	6	35,7	44	82			375HGA0555	●
5.6	+0.004/+0.016	6	35,6	44	82	375GA0560	●	375HGA0560	●
5.7	+0.004/+0.016	6	35,5	44	82	375GA0570	●	375HGA0570	●
5.8	+0.004/+0.016	6	35,3	44	82	375GA0580	●	375HGA0580	●
5.9	+0.004/+0.016	6	35,2	44	82	375GA0590	●	375HGA0590	●
6.0	+0.004/+0.016	6	35,0	44	82	375GA0600	●	375HGA0600	●
6.1	+0.006/+0.021	8	43,9	53	91	375GA0610	●	375HGA0610	●
6.2	+0.006/+0.021	8	43,7	53	91	375GA0620	●	375HGA0620	●
6.3	+0.006/+0.021	8	43,6	53	91	375GA0630	●	375HGA0630	●
6.4	+0.006/+0.021	8	43,4	53	91	375GA0640	●	375HGA0640	●
6.5	+0.006/+0.021	8	43,3	53	91	375GA0650	●	375HGA0650	●
6.6	+0.006/+0.021	8	43,1	53	91	375GA0660	●	375HGA0660	●

● stock standard ○ non-standard stock

# 375GA-HGA

General application, Weldon shank



375GA



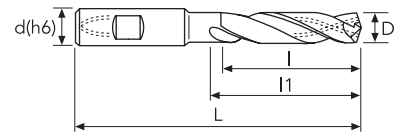
375HGA

P	M	K	N	S	H
★	☆	★			
★	★	★			

375GA

375HGA

★ 1st choice ☆ suitable

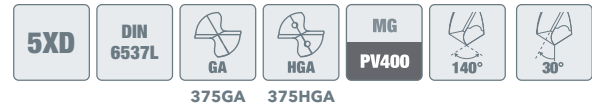


D(m7)	D Tol.	d(h6)	l	l1	L	375GA EDP No.	Stock	375HGA EDP No.	Stock
6.7	+0.006/+0.021	8	43,0	53	91	375GA0670	●	375HGA0670	●
6.8	+0.006/+0.021	8	42,8	53	91	375GA0680	●	375HGA0680	●
6.9	+0.006/+0.021	8	42,7	53	91	375GA0690	●	375HGA0690	●
7.0	+0.006/+0.021	8	42,5	53	91	375GA0700	●	375HGA0700	●
7.1	+0.006/+0.021	8	42,4	53	91	375GA0710	●	375HGA0710	●
7.2	+0.006/+0.021	8	42,2	53	91	375GA0720	●	375HGA0720	●
7.3	+0.006/+0.021	8	42,1	53	91	375GA0730	●	375HGA0730	●
7.4	+0.006/+0.021	8	41,9	53	91	375GA0740	●	375HGA0740	●
7.45	+0.006/+0.021	8	41,8	53	91			375HGA0745	●
7.5	+0.006/+0.021	8	41,8	53	91	375GA0750	●	375HGA0750	●
7.6	+0.006/+0.021	8	41,6	53	91	375GA0760	●	375HGA0760	●
7.7	+0.006/+0.021	8	41,5	53	91	375GA0770	●	375HGA0770	●
7.8	+0.006/+0.021	8	41,3	53	91	375GA0780	●	375HGA0780	●
7.9	+0.006/+0.021	8	41,2	53	91	375GA0790	●	375HGA0790	●
8.0	+0.006/+0.021	8	41,0	53	91	375GA0800	●	375HGA0800	●
8.1	+0.006/+0.021	10	48,9	61	103	375GA0810	●	375HGA0810	●
8.2	+0.006/+0.021	10	48,7	61	103	375GA0820	●	375HGA0820	●
8.3	+0.006/+0.021	10	48,6	61	103	375GA0830	●	375HGA0830	●
8.4	+0.006/+0.021	10	48,4	61	103	375GA0840	●	375HGA0840	●
8.5	+0.006/+0.021	10	48,3	61	103	375GA0850	●	375HGA0850	●
8.6	+0.006/+0.021	10	48,1	61	103	375GA0860	●	375HGA0860	●
8.7	+0.006/+0.021	10	48,0	61	103	375GA0870	●	375HGA0870	●
8.8	+0.006/+0.021	10	47,8	61	103	375GA0880	●	375HGA0880	●
8.9	+0.006/+0.021	10	47,7	61	103	375GA0890	●	375HGA0890	●
9.0	+0.006/+0.021	10	47,5	61	103	375GA0900	●	375HGA0900	●
9.1	+0.006/+0.021	10	47,4	61	103	375GA0910	●	375HGA0910	●
9.2	+0.006/+0.021	10	47,2	61	103	375GA0920	●	375HGA0920	●
9.3	+0.006/+0.021	10	47,1	61	103	375GA0930	●	375HGA0930	●
9.35	+0.006/+0.021	10	47,0	61	103			375HGA0935	●
9.4	+0.006/+0.021	10	46,9	61	103	375GA0940	●	375HGA0940	●
9.5	+0.006/+0.021	10	46,8	61	103	375GA0950	●	375HGA0950	●
9.6	+0.006/+0.021	10	46,6	61	103	375GA0960	●	375HGA0960	●
9.7	+0.006/+0.021	10	46,5	61	103	375GA0970	●	375HGA0970	●
9.8	+0.006/+0.021	10	46,3	61	103	375GA0980	●	375HGA0980	●
9.9	+0.006/+0.021	10	46,2	61	103	375GA0990	●	375HGA0990	●
10.0	+0.006/+0.021	10	46,0	61	103	375GA1000	●	375HGA1000	●
10.1	+0.007/+0.025	12	55,9	71	118	375GA1010	●	375HGA1010	●
10.2	+0.007/+0.025	12	55,7	71	118	375GA1020	●	375HGA1020	●
10.3	+0.007/+0.025	12	55,6	71	118	375GA1030	●	375HGA1030	●

● stock standard ○ non-standard stock

# 375GA-HGA

General application, Weldon shank



375GA



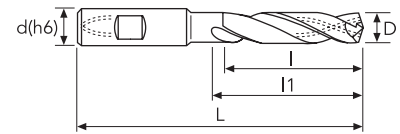
375HGA

P	M	K	N	S	H
★	☆	★			
★	★	★			

375GA

375HGA

★ 1st choice ☆ suitable



D(m7)	D Tol.	d(h6)	l	l1	L	375GA EDP No.	Stock	375HGA EDP No.	Stock
10.4	+0.007/+0.025	12	55,4	71	118	375GA1040	●	375HGA1040	●
10.5	+0.007/+0.025	12	55,3	71	118	375GA1050	●	375HGA1050	●
10.6	+0.007/+0.025	12	55,1	71	118	375GA1060	●	375HGA1060	●
10.7	+0.007/+0.025	12	55,0	71	118	375GA1070	●	375HGA1070	●
10.8	+0.007/+0.025	12	54,8	71	118	375GA1080	●	375HGA1080	●
10.9	+0.007/+0.025	12	54,7	71	118	375GA1090	●	375HGA1090	●
11.0	+0.007/+0.025	12	54,5	71	118	375GA1100	●	375HGA1100	●
11.1	+0.007/+0.025	12	54,4	71	118	375GA1110	●	375HGA1110	●
11.2	+0.007/+0.025	12	54,2	71	118	375GA1120	●	375HGA1120	●
11.3	+0.007/+0.025	12	54,1	71	118	375GA1130	●	375HGA1130	●
11.4	+0.007/+0.025	12	53,9	71	118	375GA1140	●	375HGA1140	●
11.5	+0.007/+0.025	12	53,8	71	118	375GA1150	●	375HGA1150	●
11.6	+0.007/+0.025	12	53,6	71	118	375GA1160	●	375HGA1160	●
11.7	+0.007/+0.025	12	53,5	71	118	375GA1170	●	375HGA1170	●
11.8	+0.007/+0.025	12	53,3	71	118	375GA1180	●	375HGA1180	●
11.9	+0.007/+0.025	12	53,2	71	118	375GA1190	●	375HGA1190	●
12.0	+0.007/+0.025	12	53,0	71	118	375GA1200	●	375HGA1200	●
12.1	+0.007/+0.025	14	58,9	77	124			375HGA1210	●
12.2	+0.007/+0.025	14	58,7	77	124			375HGA1220	●
12.3	+0.007/+0.025	14	58,6	77	124			375HGA1230	●
12.4	+0.007/+0.025	14	58,4	77	124			375HGA1240	●
12.5	+0.007/+0.025	14	58,3	77	124	375GA1250	●	375HGA1250	●
12.6	+0.007/+0.025	14	58,1	77	124			375HGA1260	●
12.7	+0.007/+0.025	14	58,0	77	124			375HGA1270	●
12.8	+0.007/+0.025	14	57,8	77	124			375HGA1280	●
13.0	+0.007/+0.025	14	57,5	77	124	375GA1300	●	375HGA1300	●
13.5	+0.007/+0.025	14	56,8	77	124	375GA1350	●	375HGA1350	●
13.7	+0.007/+0.025	14	56,5	77	124			375HGA1370	●
13.8	+0.007/+0.025	14	56,3	77	124			375HGA1380	●
13.9	+0.007/+0.025	14	56,2	77	124			375HGA1390	●
14.0	+0.007/+0.025	14	56,0	77	124	375GA1400	●	375HGA1400	●
14.1	+0.007/+0.025	16	61,9	83	133			375HGA1410	●
14.2	+0.007/+0.025	16	61,7	83	133			375HGA1420	●
14.5	+0.007/+0.025	16	61,3	83	133	375GA1450	●	375HGA1450	●
14.7	+0.007/+0.025	16	61,0	83	133			375HGA1470	●
14.8	+0.007/+0.025	16	60,8	83	133			375HGA1480	●
15.0	+0.007/+0.025	16	60,5	83	133	375GA1500	●	375HGA1500	●
15.1	+0.007/+0.025	16	60,4	83	133			375HGA1510	●
15.2	+0.007/+0.025	16	60,2	83	133			375HGA1520	●

● stock standard ○ non-standard stock



### 375GA

	Material Group ISO 513	P1	P2	P3 P4	P5 P6	P7	P8
	Hardness/Rm	<500 N/mm <sup>2</sup>	500÷700 N/mm <sup>2</sup>	600÷1000 N/mm <sup>2</sup>	900÷1480 N/mm <sup>2</sup>	<750 N/mm <sup>2</sup>	850÷1200 N/mm <sup>2</sup>
	Vc (m/min)	<b>70÷90</b>	<b>60÷80</b>	<b>60÷80</b>	<b>50÷70</b>	<b>40÷60</b>	<b>35÷55</b>
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)
<b>3</b>	0.143	0.143	0.124	0.105	0.076	0.057	
<b>4</b>	0.143	0.143	0.124	0.105	0.076	0.057	
<b>6</b>	0.181	0.181	0.162	0.133	0.114	0.095	
<b>8</b>	0.209	0.209	0.190	0.152	0.133	0.124	
<b>10</b>	0.209	0.209	0.190	0.152	0.133	0.124	
<b>12</b>	0.266	0.266	0.219	0.181	0.171	0.171	
<b>14</b>	0.304	0.304	0.238	0.209	0.190	0.190	
<b>16</b>	0.304	0.304	0.238	0.209	0.190	0.190	
<b>18</b>	0.361	0.361	0.285	0.228	0.228	0.228	
<b>20</b>	0.361	0.361	0.285	0.228	0.228	0.228	


### 375HGA

	Material Group ISO 513	P1	P2	P3 P4	P5 P6	P7	P8
	Hardness/Rm	<500 N/mm <sup>2</sup>	500÷700 N/mm <sup>2</sup>	600÷1000 N/mm <sup>2</sup>	900÷1480 N/mm <sup>2</sup>	<750 N/mm <sup>2</sup>	850÷1200 N/mm <sup>2</sup>
	Vc (m/min)	<b>90÷110</b>	<b>70÷90</b>	<b>70÷90</b>	<b>50÷70</b>	<b>50÷70</b>	<b>40÷60</b>
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)
<b>3</b>	0.150	0.150	0.130	0.110	0.080	0.060	
<b>4</b>	0.150	0.150	0.130	0.110	0.080	0.060	
<b>6</b>	0.190	0.190	0.170	0.140	0.120	0.100	
<b>8</b>	0.220	0.220	0.200	0.160	0.140	0.130	
<b>10</b>	0.220	0.220	0.200	0.160	0.140	0.130	
<b>12</b>	0.280	0.280	0.230	0.190	0.180	0.180	
<b>14</b>	0.320	0.320	0.250	0.220	0.200	0.200	
<b>16</b>	0.320	0.320	0.250	0.220	0.200	0.200	
<b>18</b>	0.380	0.380	0.300	0.240	0.240	0.240	
<b>20</b>	0.380	0.380	0.300	0.240	0.240	0.240	


### 375HGA

	Material Group ISO 513	M1	M2	M3			
	Hardness/Rm	<750 N/mm <sup>2</sup>	550÷850 N/mm <sup>2</sup>	650÷950 N/mm <sup>2</sup>			
	Vc (m/min)	<b>50÷70</b>	<b>50÷70</b>	<b>35÷55</b>			
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)			
<b>3</b>	0.080	0.060	0.060				
<b>4</b>	0.100	0.080	0.080				
<b>6</b>	0.120	0.080	0.080				
<b>8</b>	0.130	0.100	0.100				
<b>10</b>	0.150	0.110	0.110				
<b>12</b>	0.170	0.130	0.130				
<b>14</b>	0.180	0.130	0.130				
<b>16</b>	0.200	0.140	0.140				
<b>18</b>	0.220	0.140	0.140				
<b>20</b>	0.240	0.160	0.160				

## 375GA

 Ø RUN OUT <0.02mm	Material Group ISO 513	<b>K1</b>	<b>K2</b>	<b>K3</b>				
	Hardness/Rm	150÷250 HB	150÷350 HB	120÷260 HB				
	Vc (m/min)	<b>90÷110</b>	<b>70÷90</b>	<b>60÷80</b>				
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)				
	<b>3</b>	0.162	0.143	0.086				
	<b>4</b>	0.190	0.162	0.095				
	<b>6</b>	0.238	0.190	0.124				
	<b>8</b>	0.257	0.238	0.152				
	<b>10</b>	0.285	0.266	0.190				
	<b>12</b>	0.314	0.285	0.209				
<b>14</b>	0.342	0.314	0.228					
<b>16</b>	0.380	0.333	0.247					
<b>18</b>	0.399	0.361	0.266					
<b>20</b>	0.428	0.380	0.266					

## 375HGA

 Ø RUN OUT <0.02mm	Material Group ISO 513	<b>K1</b>	<b>K2</b>	<b>K3</b>			
	Hardness/Rm	150÷250 HB	150÷350 HB	120÷260 HB			
	Vc (m/min)	<b>110÷130</b>	<b>90÷110</b>	<b>70÷90</b>			
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)			
	<b>3</b>	0.170	0.150	0.090			
	<b>4</b>	0.200	0.170	0.100			
	<b>6</b>	0.250	0.200	0.130			
	<b>8</b>	0.270	0.250	0.160			
	<b>10</b>	0.300	0.280	0.200			
	<b>12</b>	0.330	0.300	0.220			
<b>14</b>	0.360	0.330	0.240				
<b>16</b>	0.400	0.350	0.260				
<b>18</b>	0.420	0.380	0.280				
<b>20</b>	0.450	0.400	0.280				

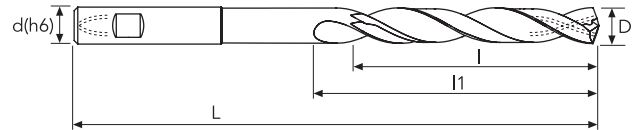
# 358HGA

General application, Weldon shank



P	M	K	N	S	H
★	★	★	☆		

★ 1st choice ☆ suitable



D(m7)	D Tol.	d(h6)	l	l1	L	EDP No.	Stock
3.0	+0.012/+0.002	6	29	34	72	358HGA0300	●
3.1	+0.016/+0.004	6	29	34	72	358HGA0310	●
3.2	+0.016/+0.004	6	29	34	72	358HGA0320	●
3.3	+0.016/+0.004	6	29	34	72	358HGA0330	●
3.4	+0.016/+0.004	6	29	34	72	358HGA0340	●
3.5	+0.016/+0.004	6	29	34	72	358HGA0350	●
3.6	+0.016/+0.004	6	29	34	72	358HGA0360	●
3.7	+0.016/+0.004	6	29	34	72	358HGA0370	●
3.8	+0.016/+0.004	6	36	43	81	358HGA0380	●
3.9	+0.016/+0.004	6	36	43	81	358HGA0390	●
4.0	+0.016/+0.004	6	36	43	81	358HGA0400	●
4.1	+0.016/+0.004	6	36	43	81	358HGA0410	●
4.2	+0.016/+0.004	6	36	43	81	358HGA0420	●
4.3	+0.016/+0.004	6	36	43	81	358HGA0430	●
4.4	+0.016/+0.004	6	36	43	81	358HGA0440	○
4.5	+0.016/+0.004	6	36	43	81	358HGA0450	●
4.6	+0.016/+0.004	6	36	43	81	358HGA0460	●
4.7	+0.016/+0.004	6	36	43	81	358HGA0470	●
4.8	+0.016/+0.004	6	48	57	95	358HGA0480	●
4.9	+0.016/+0.004	6	48	57	95	358HGA0490	●
5.0	+0.016/+0.004	6	48	57	95	358HGA0500	●
5.1	+0.016/+0.004	6	48	57	95	358HGA0510	●
5.2	+0.016/+0.004	6	48	57	95	358HGA0520	●
5.3	+0.016/+0.004	6	48	57	95	358HGA0530	●
5.4	+0.016/+0.004	6	48	57	95	358HGA0540	○
5.5	+0.016/+0.004	6	48	57	95	358HGA0550	●
5.6	+0.016/+0.004	6	48	57	95	358HGA0560	●
5.7	+0.016/+0.004	6	48	57	95	358HGA0570	●
5.8	+0.016/+0.004	6	48	57	95	358HGA0580	●
5.9	+0.016/+0.004	6	48	57	95	358HGA0590	●
6.0	+0.016/+0.004	6	48	57	95	358HGA0600	●
6.1	+0.021/+0.006	8	64	76	114	358HGA0610	●
6.2	+0.021/+0.006	8	64	76	114	358HGA0620	●
6.3	+0.021/+0.006	8	64	76	114	358HGA0630	●
6.4	+0.021/+0.006	8	64	76	114	358HGA0640	●
6.5	+0.021/+0.006	8	64	76	114	358HGA0650	●
6.6	+0.021/+0.006	8	64	76	114	358HGA0660	●
6.7	+0.021/+0.006	8	64	76	114	358HGA0670	●
6.8	+0.021/+0.006	8	64	76	114	358HGA0680	●

● stock standard ○ non-standard stock



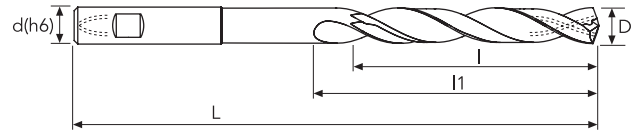
# 358HGA

General application, Weldon shank



P	M	K	N	S	H
★	★	★	☆		

★ 1st choice ☆ suitable



D(m7)	D Tol.	d(h6)	l	l1	L	EDP No.	Stock
6.9	+0.021/+0.006	8	64	76	114	358HGA0690	●
7.0	+0.021/+0.006	8	64	76	114	358HGA0700	●
7.1	+0.021/+0.006	8	64	76	114	358HGA0710	●
7.2	+0.021/+0.006	8	64	76	114	358HGA0720	●
7.3	+0.021/+0.006	8	64	76	114	358HGA0730	●
7.4	+0.021/+0.006	8	64	76	114	358HGA0740	●
7.5	+0.021/+0.006	8	64	76	114	358HGA0750	●
7.6	+0.021/+0.006	8	64	76	114	358HGA0760	●
7.7	+0.021/+0.006	8	64	76	114	358HGA0770	○
7.8	+0.021/+0.006	8	64	76	114	358HGA0780	●
7.9	+0.021/+0.006	8	64	76	114	358HGA0790	○
8.0	+0.021/+0.006	8	64	76	114	358HGA0800	●
8.1	+0.021/+0.006	10	80	95	142	358HGA0810	●
8.2	+0.021/+0.006	10	80	95	142	358HGA0820	●
8.3	+0.021/+0.006	10	80	95	142	358HGA0830	●
8.4	+0.021/+0.006	10	80	95	142	358HGA0840	○
8.5	+0.021/+0.006	10	80	95	142	358HGA0850	●
8.6	+0.021/+0.006	10	80	95	142	358HGA0860	●
8.7	+0.021/+0.006	10	80	95	142	358HGA0870	●
8.8	+0.021/+0.006	10	80	95	142	358HGA0880	●
8.9	+0.021/+0.006	10	80	95	142	358HGA0890	○
9.0	+0.021/+0.006	10	80	95	142	358HGA0900	●
9.1	+0.021/+0.006	10	80	95	142	358HGA0910	●
9.2	+0.021/+0.006	10	80	95	142	358HGA0920	●
9.3	+0.021/+0.006	10	80	95	142	358HGA0930	●
9.4	+0.021/+0.006	10	80	95	142	358HGA0940	○
9.5	+0.021/+0.006	10	80	95	142	358HGA0950	●
9.6	+0.021/+0.006	10	80	95	142	358HGA0960	○
9.7	+0.021/+0.006	10	80	95	142	358HGA0970	○
9.8	+0.021/+0.006	10	80	95	142	358HGA0980	●
9.9	+0.021/+0.006	10	80	95	142	358HGA0990	○
10.0	+0.021/+0.006	10	80	95	142	358HGA1000	●
10.1	+0.025/+0.007	12	96	114	162	358HGA1010	○
10.2	+0.025/+0.007	12	96	114	162	358HGA1020	●
10.3	+0.025/+0.007	12	96	114	162	358HGA1030	○
10.4	+0.025/+0.007	12	96	114	162	358HGA1040	○
10.5	+0.025/+0.007	12	96	114	162	358HGA1050	●
10.6	+0.025/+0.007	12	96	114	162	358HGA1060	○
10.7	+0.025/+0.007	12	96	114	162	358HGA1070	○

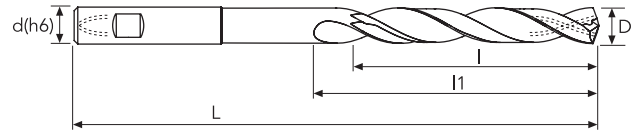
# 358HGA

General application, Weldon shank



P	M	K	N	S	H
★	★	★	☆		

★ 1st choice ☆ suitable



D(m7)	D Tol.	d(h6)	l	l1	L	EDP No.	Stock
10.8	+0.025/+0.007	12	96	114	162	358HGA1080	●
10.9	+0.025/+0.007	12	96	114	162	358HGA1090	○
11.0	+0.025/+0.007	12	96	114	162	358HGA1100	●
11.1	+0.025/+0.007	12	96	114	162	358HGA1110	○
11.2	+0.025/+0.007	12	96	114	162	358HGA1120	●
11.3	+0.025/+0.007	12	96	114	162	358HGA1130	○
11.4	+0.025/+0.007	12	96	114	162	358HGA1140	○
11.5	+0.025/+0.007	12	96	114	162	358HGA1150	●
11.6	+0.025/+0.007	12	96	114	162	358HGA1160	○
11.7	+0.025/+0.007	12	96	114	162	358HGA1170	○
11.8	+0.025/+0.007	12	96	114	162	358HGA1180	●
11.9	+0.025/+0.007	12	96	114	162	358HGA1190	○
12.0	+0.025/+0.007	12	96	114	162	358HGA1200	●
12.2	+0.025/+0.007	14	112	133	182	358HGA1220	●
12.5	+0.025/+0.007	14	112	133	182	358HGA1250	●
12.8	+0.025/+0.007	14	112	133	182	358HGA1280	●
13.0	+0.025/+0.007	14	112	133	182	358HGA1300	●
13.2	+0.025/+0.007	14	112	133	182	358HGA1320	●
13.5	+0.025/+0.007	14	112	133	182	358HGA1350	●
13.8	+0.025/+0.007	14	112	133	182	358HGA1380	○
14.0	+0.025/+0.007	14	112	133	182	358HGA1400	●
14.2	+0.025/+0.007	16	128	152	203	358HGA1420	●
14.5	+0.025/+0.007	16	128	152	203	358HGA1450	●
14.8	+0.025/+0.007	16	128	152	203	358HGA1480	○
15.0	+0.025/+0.007	16	128	152	203	358HGA1500	●
15.5	+0.025/+0.007	16	128	152	203	358HGA1550	●
15.8	+0.025/+0.007	16	128	152	203	358HGA1580	○
16.0	+0.025/+0.007	16	128	152	203	358HGA1600	●
16.5	+0.025/+0.007	18	144	171	222	358HGA1650	●
16.8	+0.025/+0.007	18	144	171	222	358HGA1680	○
17.0	+0.025/+0.007	18	144	171	222	358HGA1700	●
17.5	+0.025/+0.007	18	144	171	222	358HGA1750	●
17.8	+0.025/+0.007	18	144	171	222	358HGA1780	○
18.0	+0.025/+0.007	18	144	171	222	358HGA1800	●
18.5	+0.029/+0.008	20	160	190	243	358HGA1850	●
18.8	+0.029/+0.008	20	160	190	243	358HGA1880	○
19.0	+0.029/+0.008	20	160	190	243	358HGA1900	●
19.5	+0.029/+0.008	20	160	190	243	358HGA1950	●
19.8	+0.029/+0.008	20	160	190	243	358HGA1980	○
20.0	+0.029/+0.008	20	160	190	243	358HGA2000	●

● stock standard ○ non-standard stock

### 358HGA

	Material Group ISO 513	P1	P2	P3 P4	P5 P6	P7	P8
	Hardness/Rm	<500 N/mm <sup>2</sup>	500÷700 N/mm <sup>2</sup>	600÷1000 N/mm <sup>2</sup>	900÷1480 N/mm <sup>2</sup>	<700 N/mm <sup>2</sup>	850÷1200 N/mm <sup>2</sup>
	Vc (m/min)	<b>80÷100</b>	<b>65÷85</b>	<b>65÷85</b>	<b>45÷65</b>	<b>45÷65</b>	<b>35÷55</b>
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)
<b>3</b>	0.150	0.150	0.130	0.105	0.057	0.057	
<b>4</b>	0.150	0.150	0.130	0.105	0.057	0.057	
<b>6</b>	0.190	0.190	0.170	0.133	0.095	0.095	
<b>8</b>	0.220	0.220	0.200	0.152	0.124	0.124	
<b>10</b>	0.220	0.220	0.200	0.152	0.124	0.124	
<b>12</b>	0.280	0.280	0.230	0.181	0.171	0.171	
<b>14</b>	0.320	0.320	0.250	0.209	0.190	0.190	
<b>16</b>	0.320	0.320	0.250	0.209	0.190	0.190	
<b>18</b>	0.380	0.380	0.300	0.228	0.228	0.228	
<b>20</b>	0.380	0.380	0.300	0.228	0.228	0.228	

### 358HGA

	Material Group ISO 513	M1	M2	M3		
	Hardness/Rm	<750 N/mm <sup>2</sup>	550÷850 N/mm <sup>2</sup>	650÷950 N/mm <sup>2</sup>		
	Vc (m/min)	<b>40÷60</b>	<b>40÷60</b>	<b>30÷50</b>		
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)		
<b>3</b>	0.800	0.060	0.060			
<b>4</b>	0.800	0.060	0.060			
<b>6</b>	0.100	0.080	0.080			
<b>8</b>	0.100	0.080	0.080			
<b>10</b>	0.120	0.100	0.100			
<b>12</b>	0.120	0.100	0.100			
<b>14</b>	0.140	0.120	0.120			
<b>16</b>	0.140	0.120	0.120			
<b>18</b>	0.160	0.140	0.140			
<b>20</b>	0.160	0.140	0.140			

### 358HGA

	Material Group ISO 513	K1	K2	K3		
	Hardness/Rm	150÷250 HB	150÷350 HB	250÷500 HB		
	Vc (m/min)	<b>100÷120</b>	<b>80÷100</b>	<b>65÷85</b>		
	D (mm)	fn (mm/rev)	fn (mm/rev)	fn (mm/rev)		
<b>3</b>	0.162	0.143	0.086			
<b>4</b>	0.190	0.162	0.095			
<b>6</b>	0.238	0.190	0.124			
<b>8</b>	0.257	0.238	0.152			
<b>10</b>	0.285	0.266	0.190			
<b>12</b>	0.314	0.285	0.209			
<b>14</b>	0.342	0.314	0.228			
<b>16</b>	0.380	0.333	0.247			
<b>18</b>	0.399	0.361	0.266			
<b>20</b>	0.428	0.380	0.266			