



# HY-PRO® CARB VGM

High Performance Variable Geometry End Mills

## List VGM5-LN



SPEED FEED  
1390

CARBIDE

EXO

5 FLUTE

40°



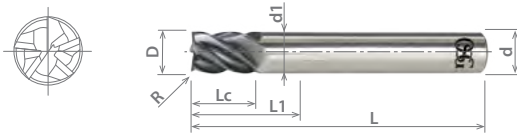
SHANK  
h6

STUB

PACKED  
1 PIECE

HY-PRO® CARB VGM5-LN, Long Neck

Cutting Diameter Tolerance	
1/8" ≤ D ≤ 1"	+0 / -0.0015"



EDP Number	Diameter	Corner Radius	Length of Cut	Neck Length	Neck Diameter	Overall Length	Shank Diameter	L/D Ratio	
									D (Fractional Size)
VGM5-1001	●	1/8	-	0.156	0.375	0.118	2.250	0.125	3
VGM5-1002	●	1/8	0.010	0.156	0.375	0.118	2.250	0.125	3
VGM5-1003	●	1/8	0.015	0.156	0.375	0.118	2.250	0.125	3
VGM5-1004	●	1/8	0.030	0.156	0.375	0.118	2.250	0.125	3
VGM5-1005	●	1/8	-	0.156	0.500	0.118	2.250	0.125	4
VGM5-1006	●	1/8	0.010	0.156	0.500	0.118	2.250	0.125	4
VGM5-1007	○	1/8	0.015	0.156	0.500	0.118	2.250	0.125	4
VGM5-1008	●	1/8	0.030	0.156	0.500	0.118	2.250	0.125	4
VGM5-1009	●	1/8	-	0.156	0.750	0.118	3.000	0.125	6
VGM5-1010	●	1/8	0.010	0.156	0.750	0.118	3.000	0.125	6
VGM5-1011	○	1/8	0.015	0.156	0.750	0.118	3.000	0.125	6
VGM5-1012	●	1/8	0.030	0.156	0.750	0.118	3.000	0.125	6
VGM5-1013	●	1/8	-	0.156	1.000	0.118	3.000	0.125	8
VGM5-1014	●	1/8	0.010	0.156	1.000	0.118	3.000	0.125	8
VGM5-1015	●	1/8	0.015	0.156	1.000	0.118	3.000	0.125	8
VGM5-1016	●	1/8	0.030	0.156	1.000	0.118	3.000	0.125	8
VGM5-1017	●	3/16	-	0.234	0.563	0.178	2.000	0.188	3
VGM5-1018	●	3/16	0.010	0.234	0.563	0.178	2.000	0.188	3
VGM5-1019	●	3/16	0.015	0.234	0.563	0.178	2.000	0.188	3
VGM5-1020	●	3/16	0.030	0.234	0.563	0.178	2.000	0.188	3
VGM5-1021	●	3/16	-	0.234	0.750	0.178	2.000	0.188	4
VGM5-1022	●	3/16	0.010	0.234	0.750	0.178	2.000	0.188	4
VGM5-1023	●	3/16	0.030	0.234	0.750	0.178	3.000	0.188	4
VGM5-1024	●	3/16	-	0.234	1.125	0.178	3.000	0.188	6
VGM5-1025	●	3/16	0.010	0.234	1.125	0.178	3.000	0.188	6
VGM5-1026	●	3/16	0.015	0.234	1.125	0.178	3.000	0.188	6
VGM5-1027	●	3/16	0.030	0.234	1.125	0.178	3.000	0.188	6
VGM5-1028	●	3/16	-	0.234	1.313	0.178	3.000	0.188	7
VGM5-1029	●	3/16	0.010	0.234	1.313	0.178	3.000	0.188	7
VGM5-1030	●	3/16	0.030	0.234	1.313	0.178	3.000	0.188	7
VGM5-1031	●	1/4	-	0.313	0.750	0.237	4.000	0.250	3
VGM5-1032	●	1/4	0.010	0.313	0.750	0.237	4.000	0.250	3
VGM5-1033	●	1/4	0.015	0.313	0.750	0.237	4.000	0.250	3
VGM5-1034	●	1/4	0.020	0.313	0.750	0.237	4.000	0.250	3
VGM5-1035	●	1/4	0.030	0.313	0.750	0.237	4.000	0.250	3
VGM5-1036	●	1/4	0.060	0.313	0.750	0.237	4.000	0.250	3
VGM5-1037	●	1/4	-	0.313	1.000	0.237	4.000	0.250	4
VGM5-1038	●	1/4	0.010	0.313	1.000	0.237	4.000	0.250	4
VGM5-1039	●	1/4	0.015	0.313	1.000	0.237	4.000	0.250	4
VGM5-1040	●	1/4	0.020	0.313	1.000	0.237	4.000	0.250	4
VGM5-1041	●	1/4	0.030	0.313	1.000	0.237	4.000	0.250	4
VGM5-1042	●	1/4	0.060	0.313	1.000	0.237	4.000	0.250	4
VGM5-1043	●	1/4	-	0.313	1.250	0.237	4.000	0.250	5
VGM5-1044	●	1/4	0.010	0.313	1.250	0.237	4.000	0.250	5
VGM5-1045	●	1/4	0.015	0.313	1.250	0.237	4.000	0.250	5
VGM5-1046	●	1/4	0.020	0.313	1.250	0.237	4.000	0.250	5
VGM5-1047	●	1/4	0.030	0.313	1.250	0.237	4.000	0.250	5
VGM5-1048	●	1/4	0.060	0.313	1.250	0.237	4.000	0.250	5
VGM5-1049	●	1/4	-	0.313	1.500	0.237	4.000	0.250	6
VGM5-1050	●	1/4	0.010	0.313	1.500	0.237	4.000	0.250	6
VGM5-1051	●	1/4	0.015	0.313	1.500	0.237	4.000	0.250	6
VGM5-1052	●	1/4	0.020	0.313	1.500	0.237	4.000	0.250	6
VGM5-1053	●	1/4	0.030	0.313	1.500	0.237	4.000	0.250	6
VGM5-1054	●	1/4	0.060	0.313	1.500	0.237	4.000	0.250	6
VGM5-1055	●	1/4	-	0.313	2.000	0.237	4.000	0.250	8

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



ABOUT OSG

DRILLING

THREADING

MILLING

HOLDERS

INDEX





## List VGM5-LN (Cont.)



SPEED FEED  
1390

CARBIDE

EXO®

5 FLUTE

40°



SHANK  
h6

STUB

PACKED  
1 PIECE

HY-PRO® CARB VGM5-LN, Long Neck

EDP Number		Diameter	Corner Radius	Length of Cut	Neck Length	Neck Diameter	Overall Length	Shank Diameter	L/D Ratio
		D (Fractional Size)	R (Inch)	Lc (Inch)	L1 (Inch)	d1 (Inch)	L (Inch)	d (Inch)	
VGM5-1056	●	1/4	0.020	0.313	2.000	0.237	4.000	0.250	8
VGM5-1057	●	1/4	-	0.313	2.500	0.237	4.000	0.250	10
VGM5-1058	●	1/4	0.020	0.313	2.500	0.237	4.000	0.250	10
VGM5-1059	●	3/8	-	0.469	1.125	0.356	4.000	0.375	3
VGM5-1060	●	3/8	0.010	0.469	1.125	0.356	4.000	0.375	3
VGM5-1061	●	3/8	0.015	0.469	1.125	0.356	4.000	0.375	3
VGM5-1062	●	3/8	0.020	0.469	1.125	0.356	4.000	0.375	3
VGM5-1063	●	3/8	0.030	0.469	1.125	0.356	4.000	0.375	3
VGM5-1064	●	3/8	0.060	0.469	1.125	0.356	4.000	0.375	3
VGM5-1065	●	3/8	0.090	0.469	1.125	0.356	4.000	0.375	3
VGM5-1066	●	3/8	-	0.469	1.500	0.356	4.000	0.375	4
VGM5-1067	●	3/8	0.010	0.469	1.500	0.356	4.000	0.375	4
VGM5-1068	●	3/8	0.020	0.469	1.500	0.356	4.000	0.375	4
VGM5-1069	●	3/8	0.030	0.469	1.500	0.356	4.000	0.375	4
VGM5-1070	●	3/8	0.060	0.469	1.500	0.356	4.000	0.375	4
VGM5-1071	●	3/8	0.090	0.469	1.500	0.356	4.000	0.375	4
VGM5-1072	●	3/8	-	0.469	1.875	0.356	4.000	0.375	5
VGM5-1073	●	3/8	0.010	0.469	1.875	0.356	4.000	0.375	5
VGM5-1074	●	3/8	0.015	0.469	1.875	0.356	4.000	0.375	5
VGM5-1075	●	3/8	0.020	0.469	1.875	0.356	4.000	0.375	5
VGM5-1076	●	3/8	0.030	0.469	1.875	0.356	4.000	0.375	5
VGM5-1077	●	3/8	0.060	0.469	1.875	0.356	4.000	0.375	5
VGM5-1078	●	3/8	0.090	0.469	1.875	0.356	4.000	0.375	5
VGM5-1079	●	3/8	-	0.469	2.250	0.356	5.000	0.375	6
VGM5-1080	●	3/8	0.010	0.469	2.250	0.356	5.000	0.375	6
VGM5-1081	●	3/8	0.020	0.469	2.250	0.356	5.000	0.375	6
VGM5-1082	●	3/8	0.030	0.469	2.250	0.356	5.000	0.375	6
VGM5-1083	●	3/8	0.060	0.469	2.250	0.356	5.000	0.375	6
VGM5-1084	●	3/8	0.090	0.469	2.250	0.356	5.000	0.375	6
VGM5-1085	●	3/8	-	0.469	3.000	0.356	6.000	0.375	8
VGM5-1086	●	3/8	0.010	0.469	3.000	0.356	6.000	0.375	8
VGM5-1087	●	3/8	0.020	0.469	3.000	0.356	6.000	0.375	8
VGM5-1088	●	3/8	0.030	0.469	3.000	0.356	6.000	0.375	8
VGM5-1089	○	3/8	0.060	0.469	3.000	0.356	6.000	0.375	8
VGM5-1090	○	3/8	0.090	0.469	3.000	0.356	6.000	0.375	8
VGM5-1091	●	1/2	-	0.625	1.500	0.475	4.000	0.500	3
VGM5-1092	●	1/2	0.010	0.625	1.500	0.475	4.000	0.500	3
VGM5-1093	●	1/2	0.015	0.625	1.500	0.475	4.000	0.500	3
VGM5-1094	●	1/2	0.020	0.625	1.500	0.475	4.000	0.500	3
VGM5-1095	●	1/2	0.030	0.625	1.500	0.475	4.000	0.500	3
VGM5-1096	○	1/2	0.060	0.625	1.500	0.475	4.000	0.500	3
VGM5-1097	○	1/2	0.090	0.625	1.500	0.475	4.000	0.500	3
VGM5-1098	○	1/2	0.120	0.625	1.500	0.475	4.000	0.500	3
VGM5-1099	○	1/2	0.125	0.625	1.500	0.475	4.000	0.500	3
VGM5-1100	●	1/2	-	0.625	2.000	0.475	4.000	0.500	4
VGM5-1101	●	1/2	0.010	0.625	2.000	0.475	4.000	0.500	4
VGM5-1102	●	1/2	0.015	0.625	2.000	0.475	4.000	0.500	4
VGM5-1103	●	1/2	0.020	0.625	2.000	0.475	4.000	0.500	4
VGM5-1104	●	1/2	0.030	0.625	2.000	0.475	4.000	0.500	4
VGM5-1105	○	1/2	0.060	0.625	2.000	0.475	4.000	0.500	4
VGM5-1106	○	1/2	0.090	0.625	2.000	0.475	4.000	0.500	4

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



CONTINUED ➔

P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium	Hardened Steel			
Low	Medium	High							6061	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC
1010	1035	1065	4140	4340	300	400	17-4 PH	6061	7075	Casting	Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC	45-50 HRC	50-70 HRC
○	○	○	○	○	○	○	○	○			○	○	○	○		

○ Good ○ Best



ABOUT OSG

DRILLING

THREADING

MILLING

HOLDERS

INDEX



## List VGM5-LN (Cont.)



SPEED FEED  
1390

CARBIDE

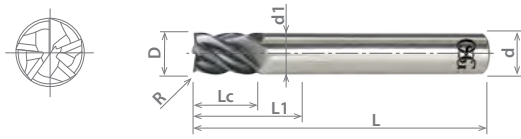
EXO®



HY-PRO® CARB VGM5-LN, Long Neck

Cutting Diameter Tolerance

1/8" ≤ D ≤ 1" +0/-0.0015"



EDP Number	Diameter	Corner Radius	Length of Cut	Neck Length	Neck Diameter	Overall Length	Shank Diameter	L/D Ratio	
									D (Fractional Size)
VGM5-1107	●	1/2	0.120	0.625	2.000	0.475	4.000	0.500	4
VGM5-1108	○	1/2	0.125	0.625	2.000	0.475	4.000	0.500	4
VGM5-1109	●	1/2	-	0.625	2.500	0.475	5.000	0.500	5
VGM5-1110	●	1/2	0.010	0.625	2.500	0.475	5.000	0.500	5
VGM5-1111	●	1/2	0.015	0.625	2.500	0.475	5.000	0.500	5
VGM5-1112	●	1/2	0.020	0.625	2.500	0.475	5.000	0.500	5
VGM5-1113	●	1/2	0.030	0.625	2.500	0.475	5.000	0.500	5
VGM5-1114	●	1/2	0.060	0.625	2.500	0.475	5.000	0.500	5
VGM5-1115	○	1/2	0.090	0.625	2.500	0.475	5.000	0.500	5
VGM5-1116	○	1/2	0.120	0.625	2.500	0.475	5.000	0.500	5
VGM5-1117	○	1/2	0.125	0.625	2.500	0.475	5.000	0.500	5
VGM5-1118	●	1/2	-	0.625	3.000	0.475	6.000	0.500	6
VGM5-1119	●	1/2	0.010	0.625	3.000	0.475	6.000	0.500	6
VGM5-1120	●	1/2	0.030	0.625	3.000	0.475	6.000	0.500	6
VGM5-1121	●	1/2	0.060	0.625	3.000	0.475	6.000	0.500	6
VGM5-1122	●	1/2	0.090	0.625	3.000	0.475	6.000	0.500	6
VGM5-1123	○	1/2	0.120	0.625	3.000	0.475	6.000	0.500	6
VGM5-1124	○	1/2	0.125	0.625	3.000	0.475	6.000	0.500	6
VGM5-1125	●	1/2	-	0.625	4.000	0.475	6.000	0.500	8
VGM5-1126	●	1/2	0.010	0.625	4.000	0.475	6.000	0.500	8
VGM5-1127	○	1/2	0.030	0.625	4.000	0.475	6.000	0.500	8
VGM5-1128	○	1/2	0.060	0.625	4.000	0.475	6.000	0.500	8
VGM5-1129	○	1/2	0.120	0.625	4.000	0.475	6.000	0.500	8
VGM5-1130	●	1/2	-	0.625	5.000	0.475	7.000	0.500	10
VGM5-1131	○	1/2	0.010	0.625	5.000	0.475	7.000	0.500	10
VGM5-1132	●	1/2	0.030	0.625	5.000	0.475	7.000	0.500	10
VGM5-1133	●	1/2	0.060	0.625	5.000	0.475	7.000	0.500	10
VGM5-1134	●	1/2	0.120	0.625	5.000	0.475	7.000	0.500	10
VGM5-1135	●	5/8	-	0.781	1.875	0.593	5.000	0.625	3
VGM5-1136	●	5/8	0.020	0.781	1.875	0.593	5.000	0.625	3
VGM5-1137	○	5/8	0.030	0.781	1.875	0.593	5.000	0.625	3
VGM5-1138	○	5/8	0.060	0.781	1.875	0.593	5.000	0.625	3
VGM5-1139	○	5/8	0.090	0.781	1.875	0.593	5.000	0.625	3
VGM5-1140	○	5/8	0.120	0.781	1.875	0.593	5.000	0.625	3
VGM5-1141	●	5/8	-	0.781	2.500	0.593	6.000	0.625	4
VGM5-1142	●	5/8	0.020	0.781	2.500	0.593	6.000	0.625	4
VGM5-1143	●	5/8	0.030	0.781	2.500	0.593	6.000	0.625	4
VGM5-1144	○	5/8	0.060	0.781	2.500	0.593	6.000	0.625	4
VGM5-1145	○	5/8	0.090	0.781	2.500	0.593	6.000	0.625	4
VGM5-1146	○	5/8	0.120	0.781	2.500	0.593	6.000	0.625	4
VGM5-1147	●	5/8	-	0.781	3.125	0.593	6.000	0.625	5
VGM5-1148	●	5/8	0.020	0.781	3.125	0.593	6.000	0.625	5
VGM5-1149	○	5/8	0.030	0.781	3.125	0.593	6.000	0.625	5
VGM5-1150	○	5/8	0.060	0.781	3.125	0.593	6.000	0.625	5
VGM5-1151	○	5/8	0.090	0.781	3.125	0.593	6.000	0.625	5
VGM5-1152	○	5/8	0.120	0.781	3.125	0.593	6.000	0.625	5
VGM5-1153	○	5/8	-	0.781	3.750	0.593	6.000	0.625	6
VGM5-1154	●	5/8	0.020	0.781	3.750	0.593	6.000	0.625	6
VGM5-1155	○	5/8	0.030	0.781	3.750	0.593	6.000	0.625	6
VGM5-1156	○	5/8	0.060	0.781	3.750	0.593	6.000	0.625	6
VGM5-1157	○	5/8	0.090	0.781	3.750	0.593	6.000	0.625	6
VGM5-1158	○	5/8	0.120	0.781	3.750	0.593	6.000	0.625	6
VGM5-1159	●	3/4	-	0.938	2.250	0.712	4.000	0.750	3
VGM5-1160	●	3/4	0.020	0.938	2.250	0.712	4.000	0.750	3
VGM5-1161	●	3/4	0.030	0.938	2.250	0.712	4.000	0.750	3

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## List VGM5-LN (Cont.)



<b>SPEED FEED</b> 1390	<b>CARBIDE</b>	<b>EXO</b>	<b>5 FLUTE</b>	<b>40°</b>				<b>SHANK</b> h6	<b>STUB</b>	<b>PACKED</b> 1 PIECE
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HY-PRO® CARB VGM5-LN, Long Neck

EDP Number		Diameter	Corner Radius	Length of Cut	Neck Length	Neck Diameter	Overall Length	Shank Diameter	L/D Ratio
		D (Fractional Size)	R (Inch)	Lc (Inch)	L1 (Inch)	d1 (Inch)	L (Inch)	d (Inch)	
VGM5-1162	○	3/4	0.060	0.938	2.250	0.712	4.000	0.750	3
VGM5-1163	○	3/4	0.090	0.938	2.250	0.712	4.000	0.750	3
VGM5-1164	○	3/4	0.120	0.938	2.250	0.712	4.000	0.750	3
VGM5-1165	○	3/4	0.190	0.938	2.250	0.712	4.000	0.750	3
VGM5-1166	○	3/4	0.250	0.938	2.250	0.712	4.000	0.750	3
VGM5-1167	●	3/4	-	0.938	3.000	0.712	6.000	0.750	4
VGM5-1168	●	3/4	0.020	0.938	3.000	0.712	6.000	0.750	4
VGM5-1169	●	3/4	0.030	0.938	3.000	0.712	6.000	0.750	4
VGM5-1170	●	3/4	0.060	0.938	3.000	0.712	6.000	0.750	4
VGM5-1171	○	3/4	0.090	0.938	3.000	0.712	6.000	0.750	4
VGM5-1172	●	3/4	0.120	0.938	3.000	0.712	6.000	0.750	4
VGM5-1173	○	3/4	0.190	0.938	3.000	0.712	6.000	0.750	4
VGM5-1174	○	3/4	0.250	0.938	3.000	0.712	6.000	0.750	4
VGM5-1175	●	3/4	-	0.938	3.750	0.712	6.000	0.750	5
VGM5-1176	●	3/4	0.020	0.938	3.750	0.712	6.000	0.750	5
VGM5-1177	●	3/4	0.030	0.938	3.750	0.712	6.000	0.750	5
VGM5-1178	●	3/4	0.060	0.938	3.750	0.712	6.000	0.750	5
VGM5-1179	○	3/4	0.090	0.938	3.750	0.712	6.000	0.750	5
VGM5-1180	○	3/4	0.120	0.938	3.750	0.712	6.000	0.750	5
VGM5-1181	○	3/4	0.190	0.938	3.750	0.712	6.000	0.750	5
VGM5-1182	○	3/4	0.250	0.938	3.750	0.712	6.000	0.750	5
VGM5-1183	●	3/4	-	0.938	4.500	0.712	7.000	0.750	6
VGM5-1184	○	3/4	0.020	0.938	4.500	0.712	7.000	0.750	6
VGM5-1185	●	3/4	0.030	0.938	4.500	0.712	7.000	0.750	6
VGM5-1186	●	3/4	0.060	0.938	4.500	0.712	7.000	0.750	6
VGM5-1187	○	3/4	0.090	0.938	4.500	0.712	7.000	0.750	6
VGM5-1188	○	3/4	0.120	0.938	4.500	0.712	7.000	0.750	6
VGM5-1189	○	3/4	0.190	0.938	4.500	0.712	7.000	0.750	6
VGM5-1190	●	3/4	0.250	0.938	4.500	0.712	7.000	0.750	6
VGM5-1191	○	1	-	1.250	3.000	0.950	6.000	1.000	3
VGM5-1192	●	1	0.030	1.250	3.000	0.950	6.000	1.000	3
VGM5-1193	○	1	0.060	1.250	3.000	0.950	6.000	1.000	3
VGM5-1194	●	1	0.090	1.250	3.000	0.950	6.000	1.000	3
VGM5-1195	○	1	0.120	1.250	3.000	0.950	6.000	1.000	3
VGM5-1196	○	1	0.190	1.250	3.000	0.950	6.000	1.000	3
VGM5-1197	○	1	0.250	1.250	3.000	0.950	6.000	1.000	3
VGM5-1198	○	1	-	1.250	4.000	0.950	6.000	1.000	4
VGM5-1199	○	1	0.030	1.250	4.000	0.950	6.000	1.000	4
VGM5-1200	○	1	0.060	1.250	4.000	0.950	6.000	1.000	4
VGM5-1201	○	1	0.090	1.250	4.000	0.950	6.000	1.000	4
VGM5-1202	○	1	0.120	1.250	4.000	0.950	6.000	1.000	4
VGM5-1203	○	1	0.190	1.250	4.000	0.950	6.000	1.000	4
VGM5-1204	○	1	0.250	1.250	4.000	0.950	6.000	1.000	4
VGM5-1205	●	1	-	1.250	5.000	0.950	7.000	1.000	5
VGM5-1206	○	1	0.030	1.250	5.000	0.950	7.000	1.000	5
VGM5-1207	●	1	0.060	1.250	5.000	0.950	7.000	1.000	5
VGM5-1208	○	1	0.090	1.250	5.000	0.950	7.000	1.000	5
VGM5-1209	○	1	0.120	1.250	5.000	0.950	7.000	1.000	5
VGM5-1210	●	1	0.190	1.250	5.000	0.950	7.000	1.000	5
VGM5-1211	○	1	0.250	1.250	5.000	0.950	7.000	1.000	5

● Stocked ○ Available Upon Request; MOQ May Apply ▲ Globally Stocked



P					M			K	N		S		H			
Steel					Stainless Steel			Cast Iron	Non-Ferrous		HRSA		Hardened Steel			
Carbon Steel			Alloy Steel	Die Steel	300	400	17-4 PH		Aluminum		Nickel Alloy	Titanium				
Low	Medium	High							6061	Casting			Inconel	6Al4V (30 HRC)	~35 HRC	35-45 HRC
1010	1035	1045	1065	4140	4340											
○	○	○	○	○	○	○	○	○			○	○	○	○		

○ Good ○ Best

