

Cutting Tools

2FLUTE SINGLE END MILLS

H.S.S

- Use for milling slots, pockets and plunge cuts.
- 2 Flutes allows maximum space for chip ejection.
- Suitable for use in a wide range of ferrous and non-ferrous materials.

Regular Length

- Tin coating improves tool life and allows elevated speeds and feeds.



| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2Al Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|--------------|----------------|----------------------|
| 1/8 | 3/8 | 3/8 | 2-5/16 | 720-1001 | 721-1001 | 722-1001 |
| 9/64 | 3/8 | 3/8 | 2-5/16 | 720-1003 | 721-1003 | 722-1003 |
| 5/32 | 3/8 | 7/16 | 2-5/16 | 720-1005 | 721-1005 | 722-1005 |
| 11/64 | 3/8 | 7/16 | 2-5/16 | 720-1007 | 721-1007 | 722-1007 |
| 3/16 | 3/8 | 7/16 | 2-5/16 | 720-1009 | 721-1009 | 722-1009 |
| 13/64 | 3/8 | 7/16 | 2-5/16 | 720-1011 | 721-1011 | 722-1011 |
| 7/32 | 3/8 | 1/2 | 2-5/16 | 720-1012 | 721-1012 | 722-1012 |
| 7/32 | 3/8 | 1/2 | 2-3/8 | 720-1013 | 721-1013 | 722-1013 |
| 15/64 | 3/8 | 1/2 | 2-3/8 | 720-1015 | 721-1015 | 722-1015 |
| 1/4 | 3/8 | 3/8 | 2-1/4 | 720-1016 | 721-1016 | 722-1016 |
| 1/4 | 3/8 | 1/2 | 2-5/16 | 720-1017 | 721-1017 | 722-1017 |
| 17/64 | 3/8 | 9/16 | 2-3/8 | 720-1019 | 721-1019 | 722-1019 |
| 9/32 | 3/8 | 1/2 | 2-5/16 | 720-1020 | 721-1020 | 722-1020 |
| 9/32 | 3/8 | 9/16 | 2-3/8 | 720-1021 | 721-1021 | 722-1021 |
| 19/64 | 3/8 | 9/16 | 2-3/8 | 720-1023 | 721-1023 | 722-1023 |
| 5/16 | 3/8 | 9/16 | 2-5/16 | 720-1025 | 721-1025 | 722-1025 |
| 21/64 | 3/8 | 9/16 | 2-3/8 | 720-1027 | 721-1027 | 722-1027 |
| 11/32 | 3/8 | 9/16 | 2-5/16 | 720-1028 | 721-1028 | 722-1028 |
| 11/32 | 3/8 | 9/16 | 2-3/8 | 720-1029 | 721-1029 | 722-1029 |
| 23/64 | 3/8 | 9/16 | 2-3/8 | 720-1031 | 721-1031 | 722-1031 |
| 3/8 | 3/8 | 9/16 | 2-5/16 | 720-1033 | 721-1033 | 722-1033 |
| 13/32 | 3/8 | 13/16 | 2-1/2 | 720-1035 | 721-1035 | 722-1035 |
| 7/16 | 3/8 | 13/16 | 2-1/2 | 720-1037 | 721-1037 | 722-1037 |
| 15/32 | 3/8 | 13/16 | 2-1/2 | 720-1036 | 721-1036 | 722-1036 |
| 15/32 | 1/2 | 7/8 | 2-1/2 | 720-1038 | 721-1038 | 722-1038 |
| 15/32 | 1/2 | 1" | 3" | 720-1039 | 721-1039 | 722-1039 |
| 1/2 | 3/8 | 13/16 | 2-1/2 | 720-1041 | 721-1041 | 722-1041 |
| 1/2 | 3/8 | 1" | 3" | 720-1042 | 721-1042 | 722-1042 |
| 1/2 | 1/2 | 1" | 3" | 720-1043 | 721-1043 | 722-1043 |
| 1/2 | 1/2 | 1-1/8 | 3-1/8 | 720-1044 | 721-1044 | 722-1044 |
| 17/32 | 1/2 | 1-1/8 | 3-1/8 | 720-1045 | 721-1045 | 722-1045 |
| 9/16 | 1/2 | 1-1/8 | 3-1/8 | 720-1047 | 721-1047 | 722-1047 |
| 19/32 | 1/2 | 1-1/8 | 3-1/8 | 720-1049 | 721-1049 | 722-1049 |
| 5/8 | 1/2 | 1-1/8 | 3-1/8 | 720-1051 | 721-1051 | 722-1051 |
| 5/8 | 5/8 | 1-5/16 | 3-7/16 | 720-1053 | 721-1053 | 722-1053 |
| 21/32 | 1/2 | 1-5/16 | 3-5/16 | 720-1055 | 721-1055 | 722-1055 |
| 11/16 | 1/2 | 1-5/16 | 3-5/16 | 720-1057 | 721-1057 | 722-1057 |
| 11/16 | 5/8 | 1-5/16 | 3-7/16 | 720-1059 | 721-1059 | 722-1059 |
| 23/32 | 1/2 | 1-5/16 | 3-5/16 | 720-1061 | 721-1061 | 722-1061 |
| 3/4 | 1/2 | 1-5/16 | 3-5/16 | 720-1063 | 721-1063 | 722-1063 |
| 3/4 | 5/8 | 1-5/16 | 3-7/16 | 720-1065 | 721-1065 | 722-1065 |
| 3/4 | 3/4 | 1-5/16 | 3-7/16 | 720-1066 | 721-1066 | 722-1066 |
| 3/4 | 3/4 | 1-5/16 | 3-9/16 | 720-1067 | 721-1067 | 722-1067 |
| 3/4 | 3/4 | 1-3/4 | 4" | 720-1069 | 721-1069 | 722-1069 |
| 25/32 | 1/2 | 1-1/2 | 3-1/2 | 720-1071 | 721-1071 | 722-1071 |
| 13/16 | 1/2 | 1-1/2 | 3-5/16 | 720-1077 | 721-1077 | 722-1077 |
| 13/16 | 1/2 | 1-1/2 | 3-5/8 | 720-1072 | 721-1072 | 722-1072 |
| 13/16 | 5/8 | 1-1/2 | 3-5/8 | 720-1073 | 721-1073 | 722-1073 |
| 13/16 | 3/4 | 1-1/2 | 3-3/4 | 720-1075 | 721-1075 | 722-1075 |
| 27/32 | 1/2 | 1-1/2 | 3-1/2 | 720-1079 | 721-1079 | 722-1079 |
| 7/8 | 1/2 | 1-1/2 | 3-1/2 | 720-1081 | 721-1081 | 722-1081 |
| 7/8 | 1/2 | 1-1/2 | 3-5/8 | 720-1082 | 721-1082 | 722-1082 |
| 7/8 | 5/8 | 1-1/2 | 3-5/8 | 720-1083 | 721-1083 | 722-1083 |
| 7/8 | 3/4 | 1-1/2 | 3-3/4 | 720-1085 | 721-1085 | 722-1085 |
| 7/8 | 7/8 | 1-1/2 | 3-3/4 | 720-1087 | 721-1087 | 722-1087 |

| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2Al Model No. | Tin-Coated Model No. |
|--------|------------|--------------|----------------|--------------|----------------|----------------------|
| 29/32 | 1/2 | 1-1/2 | 3-1/2 | 720-1089 | 721-1089 | 722-1089 |
| 15/16 | 1/2 | 1-1/2 | 3-5/8 | 720-1090 | 721-1090 | 722-1090 |
| 15/16 | 5/8 | 1-1/2 | 3-5/8 | 720-1091 | 721-1091 | 722-1091 |
| 15/16 | 3/4 | 1-1/2 | 3-3/4 | 720-1093 | 721-1093 | 722-1093 |
| 15/16 | 7/8 | 1-1/2 | 3-3/4 | 720-1095 | 721-1095 | 722-1095 |
| 31/32 | 1/2 | 1-1/2 | 3-1/2 | 720-1097 | 721-1097 | 722-1097 |
| 1" | 1/2 | 1-1/2 | 3-1/2 | 720-1099 | 721-1099 | 722-1099 |
| 1" | 1/2 | 1-1/2 | 3-5/8 | 720-1102 | 721-1102 | 722-1102 |
| 1" | 5/8 | 1-1/2 | 3-5/8 | 720-1101 | 721-1101 | 722-1101 |
| 1" | 3/4 | 1-1/2 | 3-3/4 | 720-1103 | 721-1103 | 722-1103 |
| 1" | 7/8 | 1-1/2 | 3-3/4 | 720-1105 | 721-1105 | 722-1105 |
| 1" | 1" | 1-5/8 | 4-1/8 | 720-1107 | 721-1107 | 722-1107 |
| 1-1/16 | 3/4 | 1-5/8 | 3-3/4 | 720-1109 | 721-1109 | 722-1109 |
| 1-1/16 | 5/8 | 1-5/8 | 3-7/8 | 720-1100 | 721-1100 | 722-1100 |
| 1-1/16 | 3/4 | 1-5/8 | 3-7/8 | 720-1108 | 721-1108 | 722-1108 |
| 1-1/16 | 7/8 | 1-5/8 | 3-7/8 | 720-1110 | 721-1110 | 722-1110 |
| 1-1/8 | 3/4 | 1-5/8 | 3-7/8 | 720-1111 | 721-1111 | 722-1111 |
| 1-1/8 | 7/8 | 1-5/8 | 3-7/8 | 720-1113 | 721-1113 | 722-1113 |
| 1-1/8 | 1" | 1-5/8 | 4-1/8 | 720-1115 | 721-1115 | 722-1115 |
| 1-3/16 | 3/4 | 1-5/8 | 3-7/8 | 720-1117 | 721-1117 | 722-1117 |
| 1-3/16 | 1" | 1-5/8 | 4-1/8 | 720-1098 | 721-1098 | 722-1098 |
| 1-3/16 | 1" | 1-5/8 | 4-1/8 | 720-1118 | 721-1118 | 722-1118 |
| 1-1/4 | 3/4 | 1-5/8 | 3-7/8 | 720-1119 | 721-1119 | 722-1119 |
| 1-1/4 | 7/8 | 1-5/8 | 3-7/8 | 720-1121 | 721-1121 | 722-1121 |
| 1-1/4 | 1" | 1-5/8 | 4-1/8 | 720-1123 | 721-1123 | 722-1123 |
| 1-1/4 | 1-1/4 | 1-5/8 | 4-1/8 | 720-1125 | 721-1125 | 722-1125 |
| 1-5/16 | 3/4 | 1-5/8 | 3-7/8 | 720-1127 | 721-1127 | 722-1127 |
| 1-3/8 | 3/4 | 1-5/8 | 3-7/8 | 720-1129 | 721-1129 | 722-1129 |
| 1-3/8 | 1" | 1-5/8 | 4-1/8 | 720-1131 | 721-1131 | 722-1131 |
| 1-7/16 | 3/4 | 1-5/8 | 3-7/8 | 720-1133 | 721-1133 | 722-1133 |
| 1-1/2 | 3/4 | 1-5/8 | 3-7/8 | 720-1135 | 721-1135 | 722-1135 |
| 1-1/2 | 3/4 | 1-5/8 | 4-1/8 | 720-1136 | 721-1136 | 722-1136 |
| 1-1/2 | 1" | 1-5/8 | 4-1/8 | 720-1137 | 721-1137 | 722-1137 |
| 1-1/2 | 1-1/4 | 1-5/8 | 4-1/8 | 720-1139 | 721-1139 | 722-1139 |
| 1-5/8 | 3/4 | 1-5/8 | 3-7/8 | 720-1141 | 721-1141 | 722-1141 |
| 1-5/8 | 3/4 | 1-5/8 | 4-1/8 | 720-1142 | 721-1142 | 722-1142 |
| 1-5/8 | 1-1/4 | 1-5/8 | 4-1/8 | 720-1143 | 721-1143 | 722-1143 |
| 1-3/4 | 3/4 | 1-5/8 | 3-7/8 | 720-1145 | 721-1145 | 722-1145 |
| 1-3/4 | 3/4 | 1-5/8 | 4-1/8 | 720-1146 | 721-1146 | 722-1146 |
| 1-3/4 | 1-1/4 | 1-5/8 | 4-1/8 | 720-1147 | 721-1147 | 722-1147 |
| 1-7/8 | 3/4 | 1-5/8 | 3-7/8 | 720-1149 | 721-1149 | 722-1149 |
| 1-7/8 | 1-1/4 | 1-5/8 | 4-1/8 | 720-1151 | 721-1151 | 722-1151 |
| 2" | 3/4 | 1-5/8 | 3-7/8 | 720-1153 | 721-1153 | 722-1153 |
| 2" | 3/4 | 1-5/8 | 4-1/8 | 720-1154 | 721-1154 | 722-1154 |
| 2" | 1-1/4 | 1-5/8 | 4-1/8 | 720-1155 | 721-1155 | 722-1155 |
| 2" | 1-1/4 | 2-1/2 | 5" | 720-1156 | 721-1156 | 722-1156 |
| 2" | 2" | 2" | 5-3/4 | 720-1157 | 721-1157 | 722-1157 |
| 2" | 2" | 3" | 6-3/4 | 720-1159 | 721-1159 | 722-1159 |
| 2" | 2" | 4" | 7-3/4 | 720-1160 | 721-1160 | 722-1160 |
| 2-1/4 | 1-1/4 | 1-5/8 | 4-1/8 | 720-1161 | 721-1161 | 722-1161 |
| 2-1/2 | 2" | 4" | 7-5/8 | 720-1162 | 721-1162 | 722-1162 |
| 2-1/2 | 2" | 4" | 7-3/4 | 720-1163 | 721-1163 | 722-1163 |
| 2-1/2 | 2" | 6" | 9-5/8 | 720-1164 | 721-1164 | 722-1164 |
| 2-1/2 | 2" | 6" | 9-3/4 | 720-1165 | 721-1165 | 722-1165 |
| 3" | 2-1/2 | 4" | 7-3/4 | 720-1167 | 721-1167 | 722-1167 |

Extended Shank



| Size | Shank Dia. | Below Shank Length | Flute Length | Overall Length | M2 Model No. | M2Al Model No. | Tin-Coated Model No. |
|------|------------|--------------------|--------------|----------------|--------------|----------------|----------------------|
| 1/8 | 3/8 | 13/16 | 3/8 | 2-3/8 | 720-1171 | 721-1171 | 722-1171 |
| 3/16 | 3/8 | 1-1/8 | 1/2 | 2-11/16 | 720-1173 | 721-1173 | 722-1173 |
| 3/16 | 3/8 | 1-1/2 | 5/8 | 3-1/16 | 720-1172 | 721-1172 | 722-1172 |
| 1/4 | 3/8 | 1" | 5/8 | 3-1/16 | 720-1174 | 721-1174 | 722-1174 |
| 1/4 | 3/8 | 1-1/2 | 5/8 | 3-1/16 | 720-1175 | 721-1175 | 722-1175 |
| 5/16 | 3/8 | 1-3/4 | 3/4 | 3-5/16 | 720-1177 | 721-1177 | 722-1177 |
| 5/16 | 3/8 | 1-1/2 | 3/4 | 3-1/4" | 720-1178 | 721-1178 | 722-1178 |
| 3/8 | 3/8 | 1-3/4 | 3/4 | 3-5/16 | 720-1179 | 721-1179 | 722-1179 |
| 3/8 | 3/8 | 1-3/4 | 1-7/8 | 3-5/16 | 720-1180 | 721-1180 | 722-1180 |
| 1/2 | 1/2 | 2-1/4 | 1" | 4" | 720-1181 | 721-1181 | 722-1181 |

| Size | Shank Dia. | Below Shank Length | Flute Length | Overall Length | M2 Model No. | M2Al Model No. | Tin-Coated Model No. |
|-------|------------|--------------------|--------------|----------------|--------------|----------------|----------------------|
| 1/2 | 1/2 | 2-1/4 | 1-7/8 | 4" | 720-1182 | 721-1182 | 722-1182 |
| 5/8 | 1/2 | 2-3/4 | 1-3/8 | 4-5/8 | 720-1184 | 721-1184 | 722-1184 |
| 5/8 | 5/8 | 2-3/4 | 1-3/8 | 4-5/8 | 720-1183 | 721-1183 | 722-1183 |
| 5/8 | 5/8 | 2-3/4 | 2" | 4-5/8 | 720-1188 | 721-1188 | 722-1188 |
| 3/4 | 1/2 | 3-3/8 | 1-5/8 | 5-3/8 | 720-1186 | 721-1186 | 722-1186 |
| 3/4 | 3/4 | 3-3/8 | 1-5/8 | 5-3/8 | 720-1185 | 721-1185 | 722-1185 |
| 7/8 | 7/8 | 4" | 2" | 6" | 720-1187 | 721-1187 | 722-1187 |
| 1" | 1" | 5" | 2-1/2 | 7-1/4 | 720-1189 | 721-1189 | 722-1189 |
| 1-1/4 | 1-1/4 | 5" | 3" | 7-1/4 | 720-1191 | 721-1191 | 722-1191 |



2FLUTE SINGLE END MILLS

H.S.S

- Use for milling slots, pockets and plunge cuts.
- Tin coating facilitates chip flow and allows elevated feeds.



Medium Length.

| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|--------------|----------------|----------------------|
| 3/16 | 3/8 | 3/4 | 2-5/8 | 720-1201 | 721-1201 | 722-1201 |
| 7/32 | 3/8 | 1-1/4 | 3-1/8 | 720-1203 | 721-1203 | 722-1203 |
| 1/4 | 3/8 | 1" | 2-3/4 | 720-1204 | 721-1204 | 722-1204 |
| 1/4 | 3/8 | 1" | 3-1/16 | 720-1205 | 721-1205 | 722-1205 |
| 1/4 | 3/8 | 1-1/4 | 3-1/8 | 720-1207 | 721-1207 | 722-1207 |
| 9/32 | 3/8 | 1-3/8 | 3-1/8 | 720-1209 | 721-1209 | 722-1209 |
| 5/16 | 3/8 | 1-1/4 | 3" | 720-1210 | 721-1210 | 722-1210 |
| 5/16 | 3/8 | 1-1/4 | 3-5/16 | 720-1211 | 721-1211 | 722-1211 |
| 5/16 | 3/8 | 1-3/8 | 3-1/8 | 720-1213 | 721-1213 | 722-1213 |
| 11/32 | 3/8 | 1-1/2 | 3-1/4 | 720-1215 | 721-1215 | 722-1215 |
| 3/8 | 3/8 | 1" | 2-3/4 | 720-1217 | 721-1217 | 722-1217 |
| 3/8 | 3/8 | 1-1/2 | 3-1/4 | 720-1219 | 721-1219 | 722-1219 |
| 7/16 | 1/2 | 1-3/4 | 3-3/4 | 720-1221 | 721-1221 | 722-1221 |
| 1/2 | 1/2 | 1-1/2 | 3-1/2 | 720-1223 | 721-1223 | 722-1223 |
| 1/2 | 1/2 | 2" | 4" | 720-1225 | 721-1225 | 722-1225 |
| 1/2 | 1/2 | 3" | 5" | 720-1226 | 721-1226 | 722-1226 |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 720-1227 | 721-1227 | 722-1227 |
| 5/8 | 5/8 | 2" | 4-1/8 | 720-1229 | 721-1229 | 722-1229 |
| 5/8 | 5/8 | 2-3/8 | 4-1/2 | 720-1230 | 721-1230 | 722-1230 |
| 5/8 | 5/8 | 2-1/2 | 4-5/8 | 720-1231 | 721-1231 | 722-1231 |
| 5/8 | 5/8 | 3" | 5-1/8 | 720-1233 | 721-1233 | 722-1233 |
| 5/8 | 5/8 | 4" | 6-1/8 | 720-1234 | 721-1234 | 722-1234 |
| 3/4 | 3/4 | 1-3/4 | 4" | 720-1235 | 721-1235 | 722-1235 |
| 3/4 | 3/4 | 2-1/4 | 4-1/2 | 720-1237 | 721-1237 | 722-1237 |
| 3/4 | 3/4 | 2-1/2 | 4-3/4 | 720-1239 | 721-1239 | 722-1239 |
| 3/4 | 3/4 | 3" | 5-1/4 | 720-1241 | 721-1241 | 722-1241 |
| 3/4 | 3/4 | 3-1/2 | 5-3/4 | 720-1243 | 721-1243 | 722-1243 |
| 3/4 | 3/4 | 4" | 6-1/4 | 720-1244 | 721-1244 | 722-1244 |
| 7/8 | 7/8 | 2" | 4-1/4 | 720-1245 | 721-1245 | 722-1245 |
| 7/8 | 7/8 | 2-1/2 | 4-3/4 | 720-1247 | 721-1247 | 722-1247 |
| 7/8 | 7/8 | 3-1/2 | 5-3/4 | 720-1248 | 721-1248 | 722-1248 |

| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|--------------|----------------|----------------------|
| 1" | 1" | 2" | 4-1/2 | 720-1249 | 721-1249 | 722-1249 |
| 1" | 1" | 2-1/4 | 4-3/4 | 720-1251 | 721-1251 | 722-1251 |
| 1" | 1" | 2-1/2 | 5" | 720-1253 | 721-1253 | 722-1253 |
| 1" | 1" | 3" | 5-1/2 | 720-1255 | 721-1255 | 722-1255 |
| 1" | 1" | 3-1/2 | 6" | 720-1257 | 721-1257 | 722-1257 |
| 1" | 1" | 4" | 6-1/2 | 720-1259 | 721-1259 | 722-1259 |
| 1" | 1" | 4-5/8 | 7" | 720-1261 | 721-1261 | 722-1261 |
| 1-1/8 | 1" | 2-1/4 | 4-3/4 | 720-1263 | 721-1263 | 722-1263 |
| 1-1/8 | 1" | 3" | 4-3/4 | 720-1265 | 721-1265 | 722-1265 |
| 1-1/8 | 1" | 3" | 5-1/2" | 720-1266 | 721-1266 | 722-1266 |
| 1-1/4 | 1" | 2-1/4 | 4-3/4 | 720-1267 | 721-1267 | 722-1267 |
| 1-1/4 | 1-1/4 | 2-1/4 | 5-1/2 | 720-1269 | 721-1269 | 722-1269 |
| 1-1/4 | 1" | 3" | 5-1/2 | 720-1271 | 721-1271 | 722-1271 |
| 1-1/4 | 1-1/4 | 3" | 5-1/2 | 720-1273 | 721-1273 | 722-1273 |
| 1-1/4 | 1-1/4 | 3-1/2 | 6" | 720-1274 | 721-1274 | 722-1274 |
| 1-1/4 | 1-1/4 | 4-3/4 | 7-1/4 | 720-1275 | 721-1275 | 722-1275 |
| 1-3/8 | 1" | 2-1/4 | 4-3/4 | 720-1277 | 721-1277 | 722-1277 |
| 1-3/8 | 1" | 3" | 5-1/2 | 720-1279 | 721-1279 | 722-1279 |
| 1-1/2 | 1-1/4 | 6" | 8-1/2 | 720-1280 | 721-1280 | 722-1280 |
| 1-1/2 | 1-1/4 | 2-1/4 | 4-3/4 | 720-1281 | 721-1281 | 722-1281 |
| 1-1/2 | 1-1/4 | 3" | 5-1/2 | 720-1283 | 721-1283 | 722-1283 |
| 1-1/2 | 1-1/4 | 4" | 6-1/2 | 720-1284 | 721-1284 | 722-1284 |
| 1-5/8 | 1-1/4 | 2-1/4 | 4-3/4 | 720-1285 | 721-1285 | 722-1285 |
| 1-5/8 | 1-1/4 | 3" | 5-1/2 | 720-1287 | 721-1287 | 722-1287 |
| 1-3/4 | 1-1/4 | 2-1/4 | 4-3/4 | 720-1289 | 721-1289 | 722-1289 |
| 1-3/4 | 1-1/4 | 3" | 5-1/2 | 720-1291 | 721-1291 | 722-1291 |
| 1-7/8 | 1-1/4 | 2-1/4 | 4-3/4 | 720-1293 | 721-1293 | 722-1293 |
| 1-7/8 | 1-1/4 | 3" | 5-1/2 | 720-1295 | 721-1295 | 722-1295 |
| 2" | 1-1/4 | 2-1/4 | 4-3/4 | 720-1297 | 721-1297 | 722-1297 |
| 2" | 1-1/4 | 3" | 5-1/2 | 720-1299 | 721-1299 | 722-1299 |
| 2" | 1-1/4 | 4" | 6-1/2" | 720-1300 | 721-1300 | 722-1300 |

2FLUTE SINGLE END MILLS FOR ALUMINUM

Regular Long & Extra Long Flute Length



| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|------|------------|--------------|----------------|--------------|----------------|----------------------|
| 1/4 | 3/8 | 5/8 | 2-1/2 | 720-1501 | 721-1501 | 722-1501 |
| 1/4 | 3/8 | 1-1/4 | 3-1/8 | 720-1503 | 721-1503 | 722-1503 |
| 1/4 | 3/8 | 1-3/4 | 3-1/2 | 720-1505 | 721-1505 | 722-1505 |
| 5/16 | 3/8 | 3/4 | 2-1/2 | 720-1507 | 721-1507 | 722-1507 |
| 5/16 | 3/8 | 1-3/8 | 3-1/8 | 720-1509 | 721-1509 | 722-1509 |
| 5/16 | 3/8 | 2" | 3-3/4 | 720-1511 | 721-1511 | 722-1511 |
| 3/8 | 3/8 | 3/4 | 2-1/2 | 720-1513 | 721-1513 | 722-1513 |
| 3/8 | 3/8 | 1-1/2 | 3-1/4 | 720-1515 | 721-1515 | 722-1515 |
| 3/8 | 3/8 | 2-1/2 | 4-1/4 | 720-1517 | 721-1517 | 722-1517 |
| 7/16 | 3/8 | 1" | 2-11/16 | 720-1519 | 721-1519 | 722-1519 |
| 7/16 | 1/2 | 1-3/4 | 3-3/4 | 720-1521 | 721-1521 | 722-1521 |
| 7/16 | 1/2 | 2-3/4 | 4-3/4 | 720-1523 | 721-1523 | 722-1523 |
| 1/2 | 1/2 | 1" | 3-1/4 | 720-1525 | 721-1525 | 722-1525 |
| 1/2 | 1/2 | 2" | 4" | 720-1527 | 721-1527 | 722-1527 |
| 1/2 | 1/2 | 3" | 5" | 720-1529 | 721-1529 | 722-1529 |
| 5/8 | 1/2 | 1-3/8 | 3-3/8 | 720-1530 | 721-1530 | 722-1530 |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 720-1531 | 721-1531 | 722-1531 |
| 5/8 | 5/8 | 2-1/2 | 4-5/8 | 720-1533 | 721-1533 | 722-1533 |
| 5/8 | 5/8 | 4" | 6-1/8 | 720-1535 | 721-1535 | 722-1535 |
| 3/4 | 1/2 | 1-5/8 | 3-5/8 | 720-1536 | 721-1536 | 722-1536 |

| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|--------------|----------------|----------------------|
| 3/4 | 3/4 | 1-5/8 | 3-7/8 | 720-1537 | 721-1537 | 722-1537 |
| 3/4 | 3/4 | 3" | 5-1/4 | 720-1539 | 721-1539 | 722-1539 |
| 3/4 | 3/4 | 4" | 6-1/4 | 720-1541 | 721-1541 | 722-1541 |
| 7/8 | 7/8 | 1-7/8 | 4-1/8 | 720-1543 | 721-1543 | 722-1543 |
| 7/8 | 7/8 | 3-1/2 | 5-3/4 | 720-1545 | 721-1545 | 722-1545 |
| 7/8 | 7/8 | 5" | 7-1/4 | 720-1547 | 721-1547 | 722-1547 |
| 1" | 3/4 | 1-7/8 | 4-1/8 | 720-1551 | 721-1551 | 722-1551 |
| 1" | 1" | 2" | 4-1/2 | 720-1553 | 721-1553 | 722-1553 |
| 1" | 1" | 4" | 6-1/2 | 720-1555 | 721-1555 | 722-1555 |
| 1" | 1" | 6" | 8-1/2 | 720-1557 | 721-1557 | 722-1557 |
| 1-1/4 | 1-1/4 | 2" | 4-1/2 | 720-1559 | 721-1559 | 722-1559 |
| 1-1/4 | 1-1/4 | 4" | 6-1/2 | 720-1561 | 721-1561 | 722-1561 |
| 1-1/4 | 1-1/4 | 6" | 8-1/2 | 720-1563 | 721-1563 | 722-1563 |
| 1-1/2 | 1-1/4 | 2" | 4-1/2 | 720-1565 | 721-1565 | 722-1565 |
| 1-1/2 | 1-1/4 | 4" | 6-1/2 | 720-1567 | 721-1567 | 722-1567 |
| 1-1/2 | 1-1/4 | 8" | 10-1/2 | 720-1569 | 721-1569 | 722-1569 |
| 1-3/4 | 1-1/4 | 2" | 4-1/2 | 720-1571 | 721-1571 | 722-1571 |
| 1-3/4 | 1-1/4 | 4" | 6-1/2 | 720-1573 | 721-1573 | 722-1573 |
| 2" | 1-1/4 | 2" | 4-1/2 | 720-1575 | 721-1575 | 722-1575 |
| 2" | 1-1/4 | 4" | 6-1/2 | 720-1577 | 721-1577 | 722-1577 |



Cutting Tools

STRAIGHT SHANK 3 FLUTE SINGLE END MILLS

- Center cutting allows for plunge milling.
- Combines the chip carrying ability of 2 flute end mills and the excellent finish produced by 4flute end mills..
- Use in a wide range of ferrous and non-ferrous materials.
- Tin coating improves tool life and allows to elevate speeds and feeds.



| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|--------------|----------------|----------------------|
| 3/32 | 3/8 | 5/16 | 2-5/16 | 720-3801 | 721-3801 | 722-3801 |
| 1/8 | 3/8 | 3/8 | 2-5/16 | 720-3803 | 721-3803 | 722-3803 |
| 3/16 | 3/8 | 1/2 | 2-3/8 | 720-3805 | 721-3805 | 722-3805 |
| 1/4 | 3/8 | 5/8 | 2-7/16 | 720-3807 | 721-3807 | 722-3807 |
| 5/16 | 3/8 | 3/4 | 2-1/2 | 720-3809 | 721-3809 | 722-3809 |
| 3/8 | 3/8 | 3/4 | 2-1/2 | 720-3811 | 721-3811 | 722-3811 |
| 7/16 | 3/8 | 1" | 2-11/16 | 720-3813 | 721-3813 | 722-3813 |
| 7/16 | 1/2 | 1" | 2-15/16 | 720-3815 | 721-3815 | 722-3815 |
| 1/2 | 3/8 | 1" | 2-11/16 | 720-3817 | 721-3817 | 722-3817 |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 720-3819 | 721-3819 | 722-3819 |
| 9/16 | 1/2 | 1-3/8 | 3-3/8 | 720-3821 | 721-3821 | 722-3821 |
| 5/8 | 1/2 | 1-3/8 | 3-3/8 | 720-3823 | 721-3823 | 722-3823 |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 720-3825 | 721-3825 | 722-3825 |
| 11/16 | 1/2 | 1-5/8 | 3-5/8 | 720-3827 | 721-3827 | 722-3827 |
| 11/16 | 5/8 | 1-5/8 | 3-3/4 | 720-3829 | 721-3829 | 722-3829 |
| 3/4 | 5/8 | 1-5/8 | 3-3/4 | 720-3831 | 721-3831 | 722-3831 |
| 3/4 | 1/2 | 1-5/8 | 3-5/8 | 720-3833 | 721-3833 | 722-3833 |
| 3/4 | 3/4 | 1-5/8 | 3-7/8 | 720-3835 | 721-3835 | 722-3835 |
| 13/16 | 5/8 | 1-5/8 | 3-3/4 | 720-3837 | 721-3837 | 722-3837 |
| 13/16 | 3/4 | 1-5/8 | 3-7/8 | 720-3839 | 721-3839 | 722-3839 |
| 7/8 | 5/8 | 1-7/8 | 4" | 720-3841 | 721-3841 | 722-3841 |

| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|--------------|----------------|----------------------|
| 7/8 | 3/4 | 1-7/8 | 4-1/8 | 720-3843 | 721-3843 | 722-3843 |
| 7/8 | 7/8 | 1-7/8 | 4-7/8 | 720-3845 | 721-3845 | 722-3845 |
| 7/8 | 1/2 | 1-5/8 | 3-5/8 | 720-3847 | 721-3847 | 722-3847 |
| 15/16 | 7/8 | 1-7/8 | 4-1/8 | 720-3849 | 721-3849 | 722-3849 |
| 15/16 | 5/8 | 1-7/8 | 4" | 720-3851 | 721-3851 | 722-3851 |
| 1" | 5/8 | 1-7/8 | 4" | 720-3853 | 721-3853 | 722-3853 |
| 1" | 3/4 | 1-7/8 | 4-1/8 | 720-3855 | 721-3855 | 722-3855 |
| 1" | 7/8 | 1-7/8 | 4-1/8 | 720-3857 | 721-3857 | 722-3857 |
| 1" | 1" | 2" | 4-1/2 | 720-3859 | 721-3859 | 722-3859 |
| 1-1/8 | 1" | 2" | 4-1/2 | 720-3861 | 721-3861 | 722-3861 |
| 1-1/4 | 1" | 2" | 4-1/2 | 720-3863 | 721-3863 | 722-3863 |
| 1-1/4 | 1-1/4 | 2" | 4-1/2 | 720-3865 | 721-3865 | 722-3865 |
| 1-3/8 | 1" | 2" | 4-1/2 | 720-3867 | 721-3867 | 722-3867 |
| 1-3/8 | 1-1/4 | 2" | 4-1/2 | 720-3869 | 721-3869 | 722-3869 |
| 1-1/2 | 1" | 2" | 4-1/2 | 720-3871 | 721-3871 | 722-3871 |
| 1-1/2 | 1-1/4 | 2" | 4-1/2 | 720-3873 | 721-3873 | 722-3873 |
| 1-3/4 | 1-1/4 | 2" | 4-1/2 | 720-3875 | 721-3875 | 722-3875 |
| 2" | 1-1/4 | 2" | 4-1/2 | 720-3877 | 721-3877 | 722-3877 |
| 2" | 2" | 3" | 5-3/4 | 720-3879 | 721-3879 | 722-3879 |
| 2-1/2 | 2" | 4" | 7-5/8 | 720-3881 | 721-3881 | 722-3881 |
| 2-1/2 | 2-1/2 | 4" | 8" | 720-3883 | 721-3883 | 722-3883 |

1/4" SHANK 3 FLUTE SINGLE END MILLS H.S.S



STUD LENGTH

| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|--------------|----------------|----------------------|
| 1/16" | 1/4" | 3/32" | 31/32" | 720-3700 | 721-3700 | 722-3700 |
| 3/32 | 1/4 | 5/32 | 1-1/64 | 720-3702 | 721-3702 | 722-3702 |
| 1/8 | 1/4 | 3/16 | 1-3/32 | 720-3704 | 721-3704 | 722-3704 |
| 5/32 | 1/4 | 1/4 | 1-9/32 | 720-3706 | 721-3706 | 722-3706 |
| 3/16 | 1/4 | 9/32 | 1-11/32 | 720-3708 | 721-3708 | 722-3708 |
| 7/32 | 1/4 | 5/16 | 1-13/32 | 720-3710 | 721-3710 | 722-3710 |
| 1/4 | 1/4 | 3/8 | 1-13/32 | 720-3712 | 721-3712 | 722-3712 |

LONG LENGTH

| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|--------------|----------------|----------------------|
| 1/16" | 1/4" | 5/32" | 1-3/32" | 720-3714 | 721-3714 | 722-3714 |
| 3/32 | 1/4 | 1/4 | 1-1/4 | 720-3716 | 721-3716 | 722-3716 |
| 1/8 | 1/4 | 5/16 | 1-11/32 | 720-3718 | 721-3718 | 722-3718 |
| 5/32 | 1/4 | 3/8 | 1-17/32 | 720-3720 | 721-3720 | 722-3720 |
| 3/16 | 1/4 | 7/16 | 1-21/32 | 720-3722 | 721-3722 | 722-3722 |
| 7/32 | 1/4 | 1/2 | 1-3/4 | 720-3724 | 721-3724 | 722-3724 |
| 1/4 | 1/4 | 5/8 | 1-3/4 | 720-3726 | 721-3726 | 722-3726 |

3 FLUTE DOUBLE END MILLS

H.S.S

- Use in a wide range of ferrous and non-ferrous materials.
- Tin coating improves tool life and allows elevated speeds and feeds.



| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|--------------|----------------|----------------------|
| 3/32" | 3/8" | 5/16" | 3-1/16" | 720-3002 | 721-3002 | 722-3002 |
| 1/8 | 3/8 | 3/8 | 3-1/16 | 720-3004 | 721-3004 | 722-3004 |
| 5/32 | 3/8 | 7/16 | 3-1/8 | 720-3006 | 721-3006 | 722-3006 |
| 3/16 | 3/8 | 1/2 | 3-1/4 | 720-3008 | 721-3008 | 722-3008 |
| 7/32 | 3/8 | 9/16 | 3-1/4 | 720-3010 | 721-3010 | 722-3010 |
| 1/4 | 3/8 | 5/8 | 3-3/8 | 720-3012 | 721-3012 | 722-3012 |
| 9/32 | 3/8 | 11/16 | 3-3/8 | 720-3014 | 721-3014 | 722-3014 |
| 5/16 | 3/8 | 3/4 | 3-1/2 | 720-3016 | 721-3016 | 722-3016 |
| 11/32 | 3/8 | 3/4 | 3-1/2 | 720-3018 | 721-3018 | 722-3018 |
| 3/8 | 3/8 | 3/4 | 3-1/2 | 720-3020 | 721-3020 | 722-3020 |

| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|--------------|----------------|----------------------|
| 7/16 | 1/2 | 1" | 4-1/8" | 720-3022 | 721-3022 | 722-3022 |
| 1/2 | 1/2 | 1" | 4-1/8 | 720-3024 | 721-3024 | 722-3024 |
| 9/16 | 5/8 | 1-3/8 | 5" | 720-3026 | 721-3026 | 722-3026 |
| 5/8 | 5/8 | 1-3/8 | 5" | 720-3028 | 721-3028 | 722-3028 |
| 11/16 | 3/4 | 1-1/2 | 5-3/8 | 720-3030 | 721-3030 | 722-3030 |
| 3/4 | 3/4 | 1-1/2 | 5-3/8 | 720-3032 | 721-3032 | 722-3032 |
| 13/16 | 7/8 | 1-3/4 | 5-7/8 | 720-3034 | 721-3034 | 722-3034 |
| 7/8 | 7/8 | 1-3/4 | 5-7/8 | 720-3036 | 721-3036 | 722-3036 |
| 15/16 | 1" | 1-3/4 | 6-1/8 | 720-3038 | 721-3038 | 722-3038 |
| 1" | 1" | 1-3/4 | 6-1/8 | 720-3040 | 721-3040 | 722-3040 |



2 FLUTE BALL NOSE SINGLE END MILLS

H.S.S., REGULAR LENGTH



- Designed for milling radius bottom slots, fillets and special contours.
- Center cutting design is used to plunge into solid material at the beginning of a slotting cut.
- 2 Flute design provides excellent chip evacuation.

| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|--------------|----------------|----------------------|
| 1/8" | 3/8" | 3/8" | 2-5/16" | 720-1401 | 721-1401 | 722-1401 |
| 5/32 | 3/8" | 7/16" | 2-5/16" | 720-1402 | 721-1402 | 722-1402 |
| 3/16 | 3/8" | 1/2" | 2-3/8" | 720-1403 | 721-1403 | 722-1403 |
| 7/32 | 3/8" | 1/2" | 2-3/8" | 720-1404 | 721-1404 | 722-1404 |
| 1/4 | 3/8" | 5/8" | 2-7/16" | 720-1405 | 721-1405 | 722-1405 |
| 9/32 | 3/8" | 9/16" | 2-3/8" | 720-1406 | 721-1406 | 722-1406 |
| 5/16 | 3/8" | 3/4" | 2-1/2" | 720-1407 | 721-1407 | 722-1407 |
| 11/32 | 3/8" | 3/4" | 2-1/2" | 720-1408 | 721-1408 | 722-1408 |
| 3/8 | 3/8" | 3/4" | 2-1/2" | 720-1409 | 721-1409 | 722-1409 |
| 7/16 | 1/2" | 1" | 3" | 720-1411 | 721-1411 | 722-1411 |
| 1/2 | 1/2" | 1" | 3" | 720-1413 | 721-1413 | 722-1413 |
| 9/16 | 1/2" | 1" | 3" | 720-1415 | 721-1415 | 722-1415 |
| 5/8 | 1/2" | 1-1/8" | 3-1/8" | 720-1417 | 721-1417 | 722-1417 |
| 5/8 | 5/8" | 1-3/8" | 3-3/8" | 720-1419 | 721-1419 | 722-1419 |

| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|--------------|----------------|----------------------|
| 3/4" | 1/2" | 1-5/8" | 3-5/8" | 720-1421 | 721-1421 | 722-1421 |
| 3/4 | 3/4" | 1-5/8" | 3-7/8" | 720-1423 | 721-1423 | 722-1423 |
| 13/16 | 3/4" | 2" | 4-1/4" | 720-1425 | 721-1425 | 722-1425 |
| 7/8 | 3/4" | 2" | 4-1/4" | 720-1427 | 721-1427 | 722-1427 |
| 7/8 | 7/8" | 2" | 4-1/4" | 720-1429 | 721-1429 | 722-1429 |
| 15/16 | 3/4" | 2-1/4" | 4-1/2" | 720-1431 | 721-1431 | 722-1431 |
| 1" | 3/4" | 2-1/4" | 4-9/16" | 720-1433 | 721-1433 | 722-1433 |
| 1" | 1" | 2-1/4" | 4-3/4" | 720-1435 | 721-1435 | 722-1435 |
| 1-1/8 | 1" | 2-1/4" | 4-3/4" | 720-1437 | 721-1437 | 722-1437 |
| 1-1/4 | 1-1/4" | 2-1/2" | 5" | 720-1439 | 721-1439 | 722-1439 |
| 1-3/8 | 1-1/4" | 2-1/2" | 5" | 720-1441 | 721-1441 | 722-1441 |
| 1-1/2 | 1-1/4" | 2-1/2" | 5" | 720-1443 | 721-1443 | 722-1443 |
| 2" | 1-1/4" | 2-1/2" | 5" | 720-1445 | 721-1445 | 722-1445 |

2 FLUTE BALL NOSE SINGLE END MILLS for ALUMINUM

REGULAR LONG & EXTRA LONG FLUTE LENGTH

- Recommended for mill radius bottom slots and special contours in aluminum and other non-ferrous materials.
- The high helix angle shears the material cleanly and helps eliminate chatter.
- Tin coating add lubricity to minimize chip packing in th flutes.



| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|------|------------|--------------|----------------|--------------|----------------|----------------------|
| 1/4" | 3/8" | 5/8" | 2-1/2" | 720-1601 | 721-1601 | 722-1601 |
| 1/4 | 3/8" | 1-1/4" | 3-1/8" | 720-1603 | 721-1603 | 722-1603 |
| 1/4 | 3/8" | 1-3/4" | 3-1/2" | 720-1605 | 721-1605 | 722-1605 |
| 5/16 | 3/8" | 3/4" | 2-1/2" | 720-1607 | 721-1607 | 722-1607 |
| 5/16 | 3/8" | 1-3/8" | 3-1/8" | 720-1609 | 721-1609 | 722-1609 |
| 5/16 | 3/8" | 2" | 3-3/4" | 720-1611 | 721-1611 | 722-1611 |
| 3/8 | 3/8" | 3/4" | 2-1/2" | 720-1613 | 721-1613 | 722-1613 |
| 3/8 | 3/8" | 1-1/2" | 3-1/4" | 720-1615 | 721-1615 | 722-1615 |
| 3/8 | 3/8" | 2-1/2" | 4-1/4" | 720-1617 | 721-1617 | 722-1617 |
| 7/16 | 3/8" | 1" | 2-11/16" | 720-1619 | 721-1619 | 722-1619 |
| 7/16 | 1/2" | 1-3/4" | 3-3/4" | 720-1621 | 721-1621 | 722-1621 |
| 7/16 | 1/2" | 2-3/4" | 4-3/4" | 720-1623 | 721-1623 | 722-1623 |
| 1/2 | 1/2" | 1" | 3-1/4" | 720-1625 | 721-1625 | 722-1625 |
| 1/2 | 1/2" | 2" | 4" | 720-1627 | 721-1627 | 722-1627 |

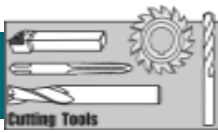
| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|------|------------|--------------|----------------|--------------|----------------|----------------------|
| 1/2" | 1/2" | 3" | 5" | 720-1629 | 721-1629 | 722-1629 |
| 5/8 | 5/8" | 1-5/8" | 3-3/4" | 720-1631 | 721-1631 | 722-1631 |
| 5/8 | 5/8" | 2-1/2" | 4-5/8" | 720-1633 | 721-1633 | 722-1633 |
| 5/8 | 5/8" | 4" | 6-1/8" | 720-1635 | 721-1635 | 722-1635 |
| 3/4 | 3/4" | 1-5/8" | 3-7/8" | 720-1637 | 721-1637 | 722-1637 |
| 3/4 | 3/4" | 3" | 5-1/4" | 720-1639 | 721-1639 | 722-1639 |
| 3/4 | 3/4" | 4" | 6-1/4" | 720-1641 | 721-1641 | 722-1641 |
| 7/8 | 1-7/8" | 1-7/8" | 4-1/8" | 720-1643 | 721-1643 | 722-1643 |
| 7/8 | 7/8" | 3-1/2" | 5-3/4" | 720-1645 | 721-1645 | 722-1645 |
| 7/8 | 7/8" | 5" | 7-1/4" | 720-1647 | 721-1647 | 722-1647 |
| 1" | 3/4" | 1-7/8" | 4-1/8" | 720-1651 | 721-1651 | 722-1651 |
| 1" | 1" | 2" | 4-1/2" | 720-1653 | 721-1653 | 722-1653 |
| 1" | 1" | 4" | 6-1/2" | 720-1655 | 721-1655 | 722-1655 |
| 1" | 1" | 6" | 8-1/2" | 720-1657 | 721-1657 | 722-1657 |

2 FLUTE BALL NOSE SINGLE END MILLS

EXTENDED SHANK



| Size | Shank Dia. | Shank Length | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|------|------------|--------------|--------------|----------------|--------------|----------------|----------------------|
| 1/8" | 3/8" | 13/16" | 3/8" | 2-3/8" | 720-1451 | 721-1451 | 722-1451 |
| 3/16 | 3/8" | 1-1/8" | 1/2" | 2-11/16" | 720-1453 | 721-1453 | 722-1453 |
| 1/4 | 3/8" | 1-1/2" | 5/8" | 3-1/16" | 720-1455 | 721-1455 | 722-1455 |
| 5/16 | 3/8" | 1-3/4" | 3/4" | 3-5/16" | 720-1457 | 721-1457 | 722-1457 |
| 3/8 | 3/8" | 1-3/4" | 3/4" | 3-5/16" | 720-1459 | 721-1459 | 722-1459 |
| 7/16 | 1/2" | 1-7/8" | 1" | 3-11/16" | 720-1461 | 721-1461 | 722-1461 |
| 1/2 | 1/2" | 2-1/4" | 1" | 4" | 720-1463 | 721-1463 | 722-1463 |
| 5/8 | 5/8" | 2-3/4" | 1-3/8" | 4-5/8" | 720-1465 | 721-1465 | 722-1465 |
| 3/4 | 3/4" | 3-3/8" | 1-5/8" | 5-3/8" | 720-1467 | 721-1467 | 722-1467 |
| 1" | 1" | 5" | 2-1/2" | 7-1/4" | 720-1469 | 721-1469 | 722-1469 |



Cutting Tools

2 FLUTE DOUBLE END MILLS

- Use for milling slots, pockets and for plunge cutting in a wide variety of materials.
- More economical in production milling than single end mills.



REGULAR LENGTH H.S.S.

| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|--------------|----------------|----------------------|
| 5/64" | 3/8" | 5/16" | 3-1/16" | 720-2000 | 721-2000 | 722-2000 |
| 3/32 | 3/8 | 5/16 | 3-1/16 | 720-2002 | 721-2002 | 722-2002 |
| 7/64 | 3/8 | 5/16 | 3-1/16 | 720-2004 | 721-2004 | 722-2004 |
| 1/8 | 3/8 | 3/8 | 3-1/16 | 720-2008 | 721-2008 | 722-2008 |
| 9/64 | 3/8 | 7/16 | 3-1/8 | 720-2010 | 721-2010 | 722-2010 |
| 5/32 | 3/8 | 7/16 | 3-1/8 | 720-2012 | 721-2012 | 722-2012 |
| 11/64 | 3/8 | 7/16 | 3-1/8 | 720-2014 | 721-2014 | 722-2014 |
| 3/16 | 3/8 | 7/16 | 3-1/8 | 720-2016 | 721-2016 | 722-2016 |
| 13/64 | 3/8 | 1/2 | 3-1/8 | 720-2018 | 721-2018 | 722-2018 |
| 7/32 | 3/8 | 1/2 | 3-1/8 | 720-2020 | 721-2020 | 722-2020 |
| 15/64 | 3/8 | 1/2 | 3-1/8 | 720-2022 | 721-2022 | 722-2022 |
| 1/4 | 3/8 | 1/2 | 3-1/8 | 720-2024 | 721-2024 | 722-2024 |
| 17/64 | 3/8 | 9/16 | 3-1/8 | 720-2026 | 721-2026 | 722-2026 |
| 9/32 | 3/8 | 9/16 | 3-1/8 | 720-2028 | 721-2028 | 722-2028 |
| 19/64 | 3/8 | 9/16 | 3-1/8 | 720-2030 | 721-2030 | 722-2030 |
| 5/16 | 3/8 | 9/16 | 3-1/8 | 720-2032 | 721-2032 | 722-2032 |
| 21/64 | 3/8 | 9/16 | 3-1/8 | 720-2034 | 721-2034 | 722-2034 |
| 11/32 | 3/8 | 9/16 | 3-1/8 | 720-2036 | 721-2036 | 722-2036 |
| 23/64 | 3/8 | 9/16 | 3-1/8 | 720-2038 | 721-2038 | 722-2038 |
| 3/8 | 3/8 | 9/16 | 3-1/16 | 720-2039 | 721-2039 | 722-2039 |
| 3/8 | 3/8 | 9/16 | 3-1/8 | 720-2040 | 721-2040 | 722-2040 |
| 25/64 | 1/2 | 13/16 | 3-3/4 | 720-2042 | 721-2042 | 722-2042 |
| 13/32 | 1/2 | 13/16 | 3-3/4 | 720-2044 | 721-2044 | 722-2044 |
| 13/32 | 1/2 | 13/16 | 3-13/16 | 720-2045 | 721-2045 | 722-2045 |

| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|--------------|----------------|----------------------|
| 27/64 | 1/2 | 13/16 | 3-3/4 | 720-2046 | 721-2046 | 722-2046 |
| 7/16 | 1/2 | 13/16 | 3-3/4 | 720-2048 | 721-2048 | 722-2048 |
| 29/64 | 1/2 | 13/16 | 3-3/4 | 720-2050 | 721-2050 | 722-2050 |
| 15/32 | 1/2 | 13/16 | 3-3/4 | 720-2052 | 721-2052 | 722-2052 |
| 31/64 | 1/2 | 13/16 | 3-3/4 | 720-2054 | 721-2054 | 722-2054 |
| 1/2 | 1/2 | 13/16 | 3-3/4 | 720-2056 | 721-2056 | 722-2056 |
| 17/32 | 5/8 | 1-1/8 | 4-1/2 | 720-2058 | 721-2058 | 722-2058 |
| 9/16 | 5/8 | 1-1/8 | 4-1/2 | 720-2060 | 721-2060 | 722-2060 |
| 19/32 | 5/8 | 1-1/8 | 4-1/2 | 720-2062 | 721-2062 | 722-2062 |
| 5/8 | 5/8 | 1-1/8 | 4-1/2 | 720-2064 | 721-2064 | 722-2064 |
| 5/8 | 1/2 | 1-1/8 | 4-1/2 | 720-2065 | 721-2065 | 722-2065 |
| 21/32 | 3/4 | 1-5/16 | 5" | 720-2066 | 721-2066 | 722-2066 |
| 11/16 | 3/4 | 1-5/16 | 5" | 720-2068 | 721-2068 | 722-2068 |
| 23/32 | 3/4 | 1-5/16 | 5" | 720-2070 | 721-2070 | 722-2070 |
| 3/4 | 3/4 | 1-5/16 | 5" | 720-2072 | 721-2072 | 722-2072 |
| 25/32 | 7/8 | 1-9/16 | 5-1/2 | 720-2074 | 721-2074 | 722-2074 |
| 13/16 | 7/8 | 1-9/16 | 5-1/2 | 720-2076 | 721-2076 | 722-2076 |
| 27/32 | 7/8 | 1-9/16 | 5-1/2 | 720-2078 | 721-2078 | 722-2078 |
| 7/8 | 7/8 | 1-9/16 | 5-1/2 | 720-2080 | 721-2080 | 722-2080 |
| 7/8 | 3/4 | 1-9/16 | 5-1/2 | 720-2081 | 721-2081 | 722-2081 |
| 29/32 | 1" | 1-5/8 | 5-7/8 | 720-2082 | 721-2082 | 722-2082 |
| 15/16 | 1" | 1-5/8 | 5-7/8 | 720-2084 | 721-2084 | 722-2084 |
| 31/32 | 1" | 1-5/8 | 5-7/8 | 720-2086 | 721-2086 | 722-2086 |
| 1" | 1" | 1-5/8 | 5-7/8 | 720-2088 | 721-2088 | 722-2088 |

2 FLUTE BALL NOSE DOUBLE END MILLS

- Designed for milling radius bottom slots, fillets and special contours.
- Center cutting design is used to plunge into solid material at the beginning of a slotting cut.
- 2 Flute design provides excellent chip evacuation.

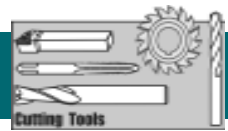


| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|--------------|----------------|----------------------|
| 1/8 | 3/8 | 3/8 | 3-3/16 | 720-2100 | 721-2100 | 722-2100 |
| 9/64 | 3/8 | 7/16 | 3-1/8 | 720-2105 | 721-2105 | 722-2105 |
| 5/32 | 3/8 | 1/2 | 3-1/8 | 720-2110 | 721-2110 | 722-2110 |
| 11/64 | 3/8 | 7/16 | 3-1/8 | 720-2115 | 721-2115 | 722-2115 |
| 3/16 | 3/8 | 7/16 | 3-1/8 | 720-2120 | 721-2120 | 722-2120 |
| 13/64 | 3/8 | 1/2 | 3-1/8 | 720-2125 | 721-2125 | 722-2125 |
| 7/32 | 3/8 | 1/2 | 3-1/8 | 720-2130 | 721-2130 | 722-2130 |
| 15/64 | 3/8 | 1/2 | 3-1/8 | 720-2135 | 721-2135 | 722-2135 |
| 1/4 | 3/8 | 1/2 | 3-1/8 | 720-2140 | 721-2140 | 722-2140 |
| 17/64 | 3/8 | 9/16 | 3-1/8 | 720-2145 | 721-2145 | 722-2145 |
| 9/32 | 3/8 | 9/16 | 3-1/8 | 720-2150 | 721-2150 | 722-2150 |
| 19/64 | 3/8 | 9/16 | 3-1/8 | 720-2155 | 721-2155 | 722-2155 |
| 5/16 | 3/8 | 9/16 | 3-1/8 | 720-2160 | 721-2160 | 722-2160 |
| 21/64 | 3/8 | 9/16 | 3-1/8 | 720-2161 | 721-2161 | 722-2161 |
| 11/32 | 3/8 | 9/16 | 3-1/8 | 720-2162 | 721-2162 | 722-2162 |
| 23/64 | 1/2 | 9/16 | 3-1/8 | 720-2163 | 721-2163 | 722-2163 |
| 3/8 | 3/8 | 9/16 | 3-1/8 | 720-2165 | 721-2165 | 722-2165 |
| 13/32 | 1/2 | 13/16 | 3-3/4 | 720-2168 | 721-2168 | 722-2168 |
| 7/16 | 1/2 | 13/16 | 3-3/4 | 720-2170 | 721-2170 | 722-2170 |
| 1/2 | 1/2 | 13/16 | 3-3/4 | 720-2174 | 721-2174 | 722-2174 |
| 5/8 | 5/8 | 1-1/8 | 4-1/2 | 720-2185 | 721-2185 | 722-2185 |
| 3/4 | 3/4 | 1-5/16 | 5" | 720-2188 | 721-2188 | 722-2188 |
| 7/8 | 7/8 | 1-9/16 | 5-1/2 | 720-2190 | 721-2190 | 722-2190 |
| 1" | 1" | 1-5/8 | 5-7/8 | 720-2192 | 721-2192 | 722-2192 |

2 FLUTE BALL NOSE HIGH HELIX DOUBLE END MILLS FOR ALIUMINUM



| Size | Shank Dia.3/ | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|--------------|--------------|----------------|--------------|----------------|----------------------|
| 1/8 | 8" | 3/8 | 3-1/16 | 720-2202 | 721-2202 | 722-2202 |
| 3/16 | 3/8 | 7/16 | 3-1/4 | 720-2204 | 721-2204 | 722-2204 |
| 1/4 | 3/8 | 1/2 | 3-3/8 | 720-2206 | 721-2206 | 722-2206 |
| 5/16 | 3/8 | 9/16 | 3-1/2 | 720-2208 | 721-2208 | 722-2208 |
| 3/8 | 3/8 | 9/16 | 3-1/2 | 720-2210 | 721-2210 | 722-2210 |
| 7/16 | 1/2 | 13/16 | 4-1/8 | 720-2212 | 721-2212 | 722-2212 |
| 1/2 | 1/2 | 13/16 | 4-1/8 | 720-2214 | 721-2214 | 722-2214 |
| 9/16 | 5/8 | 1-1/8 | 5" | 720-2216 | 721-2216 | 722-2216 |
| 5/8 | 5/8 | 1-1/8 | 5" | 720-2218 | 721-2218 | 722-2218 |
| 11/16 | 3/4 | 1-5/16 | 5-5/8 | 720-2220 | 721-2220 | 722-2220 |
| 3/4 | 3/4 | 1-5/16 | 5-5/8 | 720-2222 | 721-2222 | 722-2222 |
| 13/16 | 7/8 | 1-9/16 | 6-1/8 | 720-2224 | 721-2224 | 722-2224 |
| 7/8 | 7/8 | 1-9/16 | 6-1/8 | 720-2226 | 721-2226 | 722-2226 |
| 15/16 | 1" | 1-5/8 | 6-3/8 | 720-2228 | 721-2228 | 722-2228 |
| 1" | 1" | 1-5/8 | 6-3/8 | 720-2230 | 721-2230 | 722-2230 |



MULTIPLE FLUTE SINGLE END MILLS

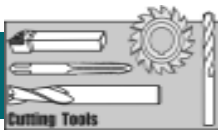
REGULAR LENGTH

- Designed for general purpose work including cam milling, die sinking and slot milling.
- Suitable for use in a wide range of ferrous and non-ferrous materials.
- Excellent for use in finishing operations.
- Multi-flute design allows for higher feed rates.



| Shank Size | Flute Dia. | Flute Length | Overall Length | No. of Flute | M2 Model No. | M2 AI Model No. | Tin-Coated Model No. |
|------------|------------|--------------|----------------|--------------|--------------|-----------------|----------------------|
| 7/64 | 3/8 | 3/8 | 2-5/16 | 4 | 720-3001 | 721-3001 | 722-3001 |
| 1/8 | 3/8 | 3/8 | 2-5/16 | 4 | 720-3003 | 721-3003 | 722-3003 |
| 9/64 | 3/8 | 3/8 | 2-5/16 | 4 | 720-3005 | 721-3005 | 722-3005 |
| 5/32 | 3/8 | 3/8 | 2-5/16 | 4 | 720-3420 | 721-3420 | 722-3420 |
| 5/32 | 3/8 | 7/16 | 2-3/8 | 4 | 720-3007 | 721-3007 | 722-3007 |
| 11/64 | 3/8 | 1/2 | 2-5/16 | 4 | 720-3422 | 721-3422 | 722-3422 |
| 11/64 | 3/8 | 7/16 | 2-3/8 | 4 | 720-3009 | 721-3009 | 722-3009 |
| 3/16 | 3/8 | 1/2 | 2-3/8 | 4 | 720-3011 | 721-3011 | 722-3011 |
| 13/64 | 3/8 | 1/2 | 2-3/8 | 4 | 720-3013 | 721-3013 | 722-3013 |
| 7/32 | 3/8 | 5/8 | 2-7/16 | 4 | 720-3424 | 721-3424 | 722-3424 |
| 7/32 | 3/8 | 9/16 | 2-1/2 | 4 | 720-3015 | 721-3015 | 722-3015 |
| 15/64 | 3/8 | 9/16 | 2-1/2 | 4 | 720-3017 | 721-3017 | 722-3017 |
| 1/4 | 3/8 | 5/8 | 2-7/16 | 4 | 720-3426 | 721-3426 | 722-3426 |
| 1/4 | 3/8 | 5/8 | 2-1/2 | 4 | 720-3019 | 721-3019 | 722-3019 |
| 17/64 | 3/8 | 5/8 | 2-1/2 | 4 | 720-3021 | 721-3021 | 722-3021 |
| 9/32 | 3/8 | 11/16 | 2-1/2 | 4 | 720-3023 | 721-3023 | 722-3023 |
| 19/64 | 3/8 | 11/16 | 2-1/2 | 4 | 720-3025 | 721-3025 | 722-3025 |
| 5/16 | 3/8 | 3/4 | 2-1/2 | 4 | 720-3027 | 721-3027 | 722-3027 |
| 21/64 | 3/8 | 3/4 | 2-1/2 | 4 | 720-3029 | 721-3029 | 722-3029 |
| 11/32 | 3/8 | 3/4 | 2-1/2 | 4 | 720-3031 | 721-3031 | 722-3031 |
| 23/64 | 3/8 | 3/4 | 2-1/2 | 4 | 720-3033 | 721-3033 | 722-3033 |
| 3/8 | 3/8 | 3/4 | 2-1/2 | 4 | 720-3035 | 721-3035 | 722-3035 |
| 13/32 | 3/8 | 1" | 2-11/16 | 4 | 720-3037 | 721-3037 | 722-3037 |
| 7/16 | 3/8 | 1" | 2-11/16 | 4 | 720-3039 | 721-3039 | 722-3039 |
| 15/32 | 3/8 | 1" | 2-11/16 | 4 | 720-3042 | 721-3042 | 722-3042 |
| 15/32 | 1/2 | 1-1/4 | 3-1/4 | 4 | 720-3041 | 721-3041 | 722-3041 |
| 1/2 | 3/8 | 1" | 2-11/16 | 4 | 720-3043 | 721-3043 | 722-3043 |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 4 | 720-3045 | 721-3045 | 722-3045 |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 6 | 720-3046 | 721-3046 | 722-3046 |
| 17/32 | 1/2 | 1-3/8 | 3-3/8 | 4 | 720-3047 | 721-3047 | 722-3047 |
| 9/16 | 1/2 | 1-3/8 | 3-3/8 | 4 | 720-3049 | 721-3049 | 722-3049 |
| 19/32 | 1/2 | 1-3/8 | 3-3/8 | 4 | 720-3051 | 721-3051 | 722-3051 |
| 5/8 | 1/2 | 1-3/8 | 3-3/8 | 4 | 720-3053 | 721-3053 | 722-3053 |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 4 | 720-3055 | 721-3055 | 722-3055 |
| 5/8 | 5/8 | 1-5/8 | 3-1/4 | 6 | 720-3056 | 721-3056 | 722-3056 |
| 21/32 | 1/2 | 1-5/8 | 3-5/8 | 4 | 720-3057 | 721-3057 | 722-3057 |
| 11/16 | 1/2 | 1-5/8 | 3-5/8 | 4 | 720-3059 | 721-3059 | 722-3059 |
| 11/16 | 5/8 | 1-5/8 | 3-3/4 | 4 | 720-3061 | 721-3061 | 722-3061 |
| 23/32 | 1/2 | 1-5/8 | 3-5/8 | 4 | 720-3063 | 721-3063 | 722-3063 |
| 3/4 | 1/2 | 1-5/8 | 3-5/8 | 4 | 720-3065 | 721-3065 | 722-3065 |
| 3/4 | 5/8 | 1-5/8 | 3-5/8 | 4 | 720-3066 | 721-3066 | 722-3066 |
| 3/4 | 5/8 | 1-5/8 | 3-3/4 | 4 | 720-3067 | 721-3067 | 722-3067 |
| 3/4 | 3/4 | 1-5/8 | 3-3/4 | 4 | 720-3069 | 721-3069 | 722-3069 |
| 3/4 | 3/4 | 1-5/8 | 3-3/4 | 6 | 720-3070 | 721-3070 | 722-3070 |
| 25/32 | 1/2 | 1-5/8 | 3-5/8 | 4 | 720-3071 | 721-3071 | 722-3071 |
| 13/16 | 5/8 | 1-7/8 | 4" | 4 | 720-3074 | 721-3074 | 722-3074 |
| 13/16 | 3/4 | 1-7/8 | 4-1/8 | 4 | 720-3075 | 721-3075 | 722-3075 |
| 13/16 | 5/8 | 1-7/8 | 4" | 6 | 720-3073 | 721-3073 | 722-3073 |
| 27/32 | 1/2 | 1-5/8 | 3-5/8 | 4 | 720-3077 | 721-3077 | 722-3077 |
| 7/8 | 1/2 | 1-5/8 | 3-5/8 | 4 | 720-3079 | 721-3079 | 722-3079 |
| 7/8 | 1/2 | 1-7/8 | 4" | 4 | 720-3080 | 721-3080 | 722-3080 |
| 7/8 | 3/4 | 1-7/8 | 4-1/8 | 4 | 720-3085 | 721-3085 | 722-3085 |
| 7/8 | 7/8 | 1-7/8 | 4-1/8 | 4 | 720-3087 | 721-3087 | 722-3087 |
| 7/8 | 1/2 | 1-5/8 | 3-5/8 | 6 | 720-3081 | 721-3081 | 722-3081 |
| 7/8 | 5/8 | 1-7/8 | 4" | 6 | 720-3083 | 721-3083 | 722-3083 |
| 7/8 | 1/2 | 1-7/8 | 4" | 6 | 720-3082 | 721-3082 | 722-3082 |
| 7/8 | 3/4 | 1-7/8 | 4-1/8 | 6 | 720-3086 | 721-3086 | 722-3086 |
| 29/32 | 1/2 | 1-7/8 | 3-7/8 | 4 | 720-3089 | 721-3089 | 722-3089 |
| 15/16 | 1/2 | 1-7/8 | 4" | 4 | 720-3090 | 721-3090 | 722-3090 |
| 15/16 | 3/4 | 1-7/8 | 4-1/8 | 4 | 720-3093 | 721-3093 | 722-3093 |
| 15/16 | 7/8 | 1-7/8 | 4-1/8 | 4 | 720-3095 | 721-3095 | 722-3095 |
| 15/16 | 5/8 | 1-7/8 | 4" | 6 | 720-3091 | 721-3091 | 722-3091 |
| 15/16 | 7/8 | 1-7/8 | 4-1/8 | 6 | 720-3096 | 721-3096 | 722-3096 |
| 15/16 | 3/4 | 1-7/8 | 4-1/8 | 6 | 720-3170 | 721-3170 | 722-3170 |

| Shank Size | Flute Dia. | Flute Length | Overall Length | No. of Flute | M2 Model No. | M2 AI Model No. | Tin-Coated Model No. |
|------------|------------|--------------|----------------|--------------|--------------|-----------------|----------------------|
| 31/32 | 1/2 | 1-7/8 | 3-7/8 | 4 | 720-3097 | 721-3097 | 722-3097 |
| 1" | 1/2 | 1-7/8 | 4" | 4 | 720-3099 | 721-3099 | 722-3099 |
| 1" | 5/8 | 1-7/8 | 4" | 4 | 720-3102 | 721-3102 | 722-3102 |
| 1" | 3/4 | 1-7/8 | 4-1/8 | 4 | 720-3103 | 721-3103 | 722-3103 |
| 1" | 7/8 | 1-7/8 | 4-1/8 | 4 | 720-3105 | 721-3105 | 722-3105 |
| 1" | 1" | 2" | 4-1/2 | 4 | 720-3107 | 721-3107 | 722-3107 |
| 1" | 3/4 | 2" | 4-1/2 | 4 | 720-3104 | 721-3104 | 722-3104 |
| 1" | 1/2 | 1-7/8 | 4" | 6 | 720-3100 | 721-3100 | 722-3100 |
| 1" | 5/8 | 1-7/8 | 4" | 6 | 720-3101 | 721-3101 | 722-3101 |
| 1" | 3/4 | 1-7/8 | 4-1/8 | 6 | 720-3106 | 721-3106 | 722-3106 |
| 1" | 1" | 2" | 4-1/2 | 6 | 720-3108 | 721-3108 | 722-3108 |
| 1-1/16 | 3/4 | 2" | 4-1/4 | 6 | 720-3109 | 721-3109 | 722-3109 |
| 1-1/8 | 3/4 | 2" | 4-1/4 | 4 | 720-3112 | 721-3112 | 722-3112 |
| 1-1/8 | 1" | 2" | 4-1/4 | 4 | 720-3114 | 721-3114 | 722-3114 |
| 1-1/8 | 1" | 2-5/8 | 4-1/2 | 4 | 720-3116 | 721-3116 | 722-3116 |
| 1-1/8 | 3/4 | 1-1/2 | 3-7/8 | 6 | 720-3171 | 721-3171 | 722-3171 |
| 1-1/8 | 3/4 | 2" | 4-1/8 | 6 | 720-3110 | 721-3110 | 722-3110 |
| 1-1/8 | 3/4 | 2" | 4-1/4 | 6 | 720-3111 | 721-3111 | 722-3111 |
| 1-1/8 | 7/8 | 2" | 4-1/4 | 6 | 720-3113 | 721-3113 | 722-3113 |
| 1-1/8 | 1" | 2" | 4-1/2 | 6 | 720-3115 | 721-3115 | 722-3115 |
| 1-3/16 | 3/4 | 2" | 4-1/4 | 6 | 720-3117 | 721-3117 | 722-3117 |
| 1-3/16 | 1" | 2" | 4-1/4 | 6 | 720-3118 | 721-3118 | 722-3118 |
| 1-1/4 | 7/8 | 2" | 4-1/4 | 4 | 720-3120 | 721-3120 | 722-3120 |
| 1-1/4 | 1-1/4 | 2" | 4-1/2 | 4 | 720-3124 | 721-3124 | 722-3124 |
| 1-1/4 | 1-1/4 | 2" | 4-1/2 | 4 | 720-3126 | 721-3126 | 722-3126 |
| 1-1/4 | 3/4 | 2" | 4-1/4 | 6 | 720-3119 | 721-3119 | 722-3119 |
| 1-1/4 | 7/8 | 2" | 4-1/4 | 6 | 720-3121 | 721-3121 | 722-3121 |
| 1-1/4 | 1" | 2" | 4-1/2 | 6 | 720-3123 | 721-3123 | 722-3123 |
| 1-1/4 | 1-1/4 | 2" | 4-1/2 | 6 | 720-3125 | 721-3125 | 722-3125 |
| 1-1/4 | 1" | 4" | 6-1/2 | 6 | 720-3122 | 721-3122 | 722-3122 |
| 1-5/16 | 3/4 | 2" | 4-1/2 | 6 | 720-3127 | 721-3127 | 722-3127 |
| 1-3/8 | 3/4 | 2" | 4-1/4 | 6 | 720-3128 | 721-3128 | 722-3128 |
| 1-3/8 | 3/4 | 2" | 4-1/2 | 6 | 720-3129 | 721-3129 | 722-3129 |
| 1-3/8 | 1" | 2" | 4-1/2 | 6 | 720-3131 | 721-3131 | 722-3131 |
| 1-3/8 | 1-1/4 | 2" | 4-1/2 | 6 | 720-3130 | 721-3130 | 722-3130 |
| 1-7/16 | 3/4 | 2" | 4-1/2 | 6 | 720-3133 | 721-3133 | 722-3133 |
| 1-1/2 | 1-1/4 | 2" | 4-1/2 | 4 | 720-3141 | 721-3141 | 722-3141 |
| 1-1/2 | 1" | 2" | 4-1/2 | 4 | 720-3136 | 721-3136 | 722-3136 |
| 1-1/2 | 3/4 | 2" | 4-1/2 | 6 | 720-3135 | 721-3135 | 722-3135 |
| 1-1/2 | 1" | 2" | 4-1/2 | 6 | 720-3137 | 721-3137 | 722-3137 |
| 1-1/2 | 1-1/4 | 2" | 4-1/2 | 6 | 720-3139 | 721-3139 | 722-3139 |
| 1-5/8 | 1-1/4 | 2" | 4-1/2 | 4 | 720-3144 | 721-3144 | 722-3144 |
| 1-5/8 | 3/4 | 1-5/8 | 3-7/8 | 6 | 720-3142 | 721-3142 | 722-3142 |
| 1-5/8 | 3/4 | 2" | 4-1/2 | 6 | 720-3143 | 721-3143 | 722-3143 |
| 1-5/8 | 1-1/4 | 2" | 4-1/2 | 6 | 720-3145 | 721-3145 | 722-3145 |
| 1-3/4 | 3/4 | 2" | 4-1/2 | 4 | 720-3146 | 721-3146 | 722-3146 |
| 1-3/4 | 1-1/4 | 2" | 4-1/2 | 4 | 720-3151 | 721-3151 | 722-3151 |
| 1-3/4 | 3/4 | 1-1/2 | 3-7/8 | 6 | 720-3172 | 721-3172 | 722-3172 |
| 1-3/4 | 3/4 | 2" | 4-1/2 | 6 | 720-3147 | 721-3147 | 722-3147 |
| 1-3/4 | 1-1/4 | 2" | 4-1/2 | 6 | 720-3149 | 721-3149 | 722-3149 |
| 1-13/16 | 3/4 | 2" | 4-1/4 | 4 | 720-3152 | 721-3152 | 722-3152 |
| 1-7/8 | 3/4 | 2" | 4-1/2 | 6 | 720-3153 | 721-3153 | 722-3153 |
| 1-7/8 | 1-1/4 | 2" | 4-1/2 | 6 | 720-3154 | 721-3154 | 722-3154 |
| 1-7/8 | 1-1/4 | 2" | 4-1/2 | 8 | 720-3155 | 721-3155 | 722-3155 |
| 2" | 1-1/4 | 2" | 4-1/2 | 4 | 720-3161 | 721-3161 | 722-3161 |
| 2" | 3/4 | 2" | 4-1/2 | 6 | 720-3157 | 721-3157 | 722-3157 |
| 2" | 1-1/4 | 2" | 4-1/2 | 6 | 720-3163 | 721-3163 | 722-3163 |
| 2" | 1-1/4 | 2" | 5-1/2 | 6 | 720-3165 | 721-3165 | 722-3165 |
| 2" | 2" | 2" | 5-3/4 | 6 | 720-3166 | 721-3166 | 722-3166 |
| 2" | 3/4 | 2" | 4-1/2 | 8 | 720-3158 | 721-3158 | 722-3158 |
| 2" | 1-1/4 | 2" | 4-1/2 | 8 | 720-3159 | 721-3159 | 722-3159 |
| 2-1/4 | 1-1/4 | 2" | 4-1/2 | 6 | 720-3167 | 721-3167 | 722-3167 |
| 2-1/4 | 1-1/4 | 3" | 5-1/2 | 8 | 720-3169 | 721-3169 | 722-3169 |
| 2-1/2 | 2" | 4" | 7-5/8 | 6 | 720-3168 | 721-3168 | 722-3168 |



Cutting Tools

MULTIPLE FLUTE SINGLE END MILLS

Long Flute



| Size | Shank Flute | | Overall Length | No. of Flutes | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|-------------|--------|----------------|---------------|--------------|----------------|----------------------|
| | Dia. | Length | | | | | |
| 1/4 | 3/8 | 1-1/4 | 3-1/16 | 4 | 720-3501 | 721-3501 | 722-3501 |
| 5/16 | 3/8 | 1-3/8 | 3-1/8 | 4 | 720-3503 | 721-3503 | 722-3503 |
| 3/8 | 3/8 | 1-1/2 | 3-1/4 | 4 | 720-3505 | 721-3505 | 722-3505 |
| 7/16 | 1/2 | 1-3/4 | 3-3/4 | 4 | 720-3507 | 721-3507 | 722-3507 |
| 1/2 | 1/2 | 2" | 4" | 4 | 720-3509 | 721-3509 | 722-3509 |
| 5/8 | 5/8 | 2-1/2 | 4-5/8 | 4 | 720-3511 | 721-3511 | 722-3511 |
| 5/8 | 1/2 | 2-1/2 | 4-5/8 | 4 | 720-3512 | 721-3512 | 722-3512 |
| 3/4 | 3/4 | 3" | 5-1/4 | 4 | 720-3513 | 721-3513 | 722-3513 |
| 3/4 | 1/2 | 3" | 5-1/4 | 4 | 720-3514 | 721-3514 | 722-3514 |
| 7/8 | 7/8 | 3-1/2 | 5-3/4 | 4 | 720-3515 | 721-3515 | 722-3515 |
| 7/8 | 3/4 | 3-1/2 | 5-3/4 | 4 | 720-3516 | 721-3516 | 722-3516 |
| 1" | 1" | 4" | 6-1/2 | 4 | 720-3517 | 721-3517 | 722-3517 |
| 1-1/8 | 1" | 4" | 6-1/2 | 6 | 720-3519 | 721-3519 | 722-3519 |
| 1-1/4 | 3/4 | 4" | 6-1/2 | 6 | 720-3520 | 721-3520 | 722-3520 |

| Size | Shank Flute | | Overall Length | No. of Flutes | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|-------------|--------|----------------|---------------|--------------|----------------|----------------------|
| | Dia. | Length | | | | | |
| 1-1/4 | 1" | 4" | 6-1/2 | 6 | 720-3521 | 721-3521 | 722-3521 |
| 1-1/4 | 1-1/4 | 4" | 6-1/2 | 4 | 720-3523 | 721-3523 | 722-3523 |
| 1-1/4 | 1-1/4 | 4" | 6-1/2 | 6 | 720-3525 | 721-3525 | 722-3525 |
| 1-3/8 | 1" | 4" | 6-1/2 | 6 | 720-3527 | 721-3527 | 722-3527 |
| 1-1/2 | 1" | 4" | 6-1/2 | 6 | 720-3529 | 721-3529 | 722-3529 |
| 1-1/2 | 1-1/4 | 4" | 6-1/2 | 4 | 720-3531 | 721-3531 | 722-3531 |
| 1-1/2 | 1-1/4 | 4" | 6-1/2 | 6 | 720-3533 | 721-3533 | 722-3533 |
| 1-3/4 | 1-1/4 | 4" | 6-1/2 | 4 | 720-3534 | 721-3534 | 722-3534 |
| 1-3/4 | 1-1/4 | 4" | 6-1/2 | 6 | 720-3535 | 721-3535 | 722-3535 |
| 2" | 1-1/4 | 4" | 6-1/2 | 4 | 720-3537 | 721-3537 | 722-3537 |
| 2" | 1-1/4 | 4" | 6-1/2 | 6 | 720-3539 | 721-3539 | 722-3539 |
| 2" | 1-1/4 | 4" | 6-1/2 | 8 | 720-3541 | 721-3541 | 722-3541 |
| 2-1/2 | 2" | 4" | 7-5/8 | 6 | 720-3542 | 721-3542 | 722-3542 |

MULTIPLE FLUTE SINGLE END MILLS

EXTRA LONG FLUTE



| Size | Shank Flute | | Overall Length | No. of Flutes | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|------|-------------|--------|----------------|---------------|--------------|----------------|----------------------|
| | Dia. | Length | | | | | |
| 1/4 | 3/8 | 1-3/4 | 3-9/16 | 4 | 720-3601 | 721-3601 | 722-3601 |
| 5/16 | 3/8 | 2" | 3-3/4 | 4 | 720-3603 | 721-3603 | 722-3603 |
| 3/8 | 3/8 | 2-1/2 | 4-1/4 | 4 | 720-3605 | 721-3605 | 722-3605 |
| 1/2 | 1/2 | 3" | 5" | 4 | 720-3607 | 721-3607 | 722-3607 |
| 5/8 | 5/8 | 4" | 6-1/8 | 4 | 720-3609 | 721-3609 | 722-3609 |
| 5/8 | 1/2 | 4" | 6-1/8 | 4 | 720-3610 | 721-3610 | 722-3610 |
| 3/4 | 3/4 | 4" | 6-1/4 | 4 | 720-3611 | 721-3611 | 722-3611 |
| 3/4 | 1/2 | 4" | 6-1/4 | 4 | 720-3612 | 721-3612 | 722-3612 |

| Size | Shank Flute | | Overall Length | No. of Flutes | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|-------------|--------|----------------|---------------|--------------|----------------|----------------------|
| | Dia. | Length | | | | | |
| 7/8 | 7/8 | 5" | 7-1/4 | 4 | 720-3613 | 721-3613 | 722-3613 |
| 1" | 1" | 6" | 8-1/2 | 4 | 720-3615 | 721-3615 | 722-3615 |
| 1-1/4 | 1-1/4 | 6" | 8-1/2 | 6 | 720-3617 | 721-3617 | 722-3617 |
| 1-1/4 | 1-1/4 | 6" | 8-1/2 | 4 | 720-3618 | 721-3618 | 722-3618 |
| 1-1/2 | 1-1/4 | 6" | 8-1/2 | 6 | 720-3619 | 721-3619 | 722-3619 |
| 1-1/2 | 1-1/4 | 6" | 8-1/2 | 4 | 720-3620 | 721-3620 | 722-3620 |
| 1-1/2 | 1-1/4 | 8" | 10-9/16 | 6 | 720-3621 | 721-3621 | 722-3621 |

MULTIPLE FLUTE HEAVY DUTY END MILLS

LARGE DIAMETER, POSITIVE LOCK.

- Designed for rough cutting applications in a wide range of materials.
- Positive lock shank provides the grip needed to withstand the high torque generated.



| Size | Shank Flute | | Overall Length | No. of Flutes | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|-------------|--------|----------------|---------------|--------------|----------------|----------------------|
| | Dia. | Length | | | | | |
| 2" | 2" | 2" | 5-3/4 | 4 | 720-3910 | 721-3910 | 722-3910 |
| 2" | 2" | 3" | 6-3/4 | 4 | 720-3912 | 721-3912 | 722-3912 |
| 2" | 2" | 4" | 7-3/4 | 4 | 720-3914 | 721-3914 | 722-3914 |
| 2" | 2" | 4" | 7-3/4 | 6 | 720-3916 | 721-3916 | 722-3916 |
| 2" | 2" | 6" | 9-3/4 | 4 | 720-3918 | 721-3918 | 722-3918 |
| 2" | 2" | 6" | 9-3/4 | 6 | 720-3920 | 721-3920 | 722-3920 |
| 2" | 2" | 8" | 11-3/4 | 4 | 720-3921 | 721-3921 | 722-3921 |
| 2" | 2" | 8" | 11-3/4 | 6 | 720-3922 | 721-3922 | 722-3922 |
| 2" | 2" | 10" | 13-3/4 | 4 | 720-3923 | 721-3923 | 722-3923 |
| 2" | 2" | 10" | 13-3/4 | 6 | 720-3924 | 721-3924 | 722-3924 |
| 2" | 2" | 12" | 15-3/4 | 4 | 720-3925 | 721-3925 | 722-3925 |
| 2" | 2" | 12" | 15-3/4 | 6 | 720-3926 | 721-3926 | 722-3926 |
| 2-1/2 | 2-1/2 | 4" | 7-3/4 | 4 | 720-3927 | 721-3927 | 722-3927 |
| 2-1/2 | 2-1/2 | 4" | 7-3/4 | 6 | 720-3928 | 721-3928 | 722-3928 |

| Size | Shank Flute | | Overall Length | No. of Flutes | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|-------------|--------|----------------|---------------|--------------|----------------|----------------------|
| | Dia. | Length | | | | | |
| 2-1/2 | 2-1/2 | 6" | 9-3/4 | 4 | 720-3929 | 721-3929 | 722-3929 |
| 2-1/2 | 2-1/2 | 6" | 9-3/4 | 6 | 720-3930 | 721-3930 | 722-3930 |
| 2-1/2 | 2-1/2 | 8" | 11-3/4 | 4 | 720-3931 | 721-3931 | 722-3931 |
| 2-1/2 | 2-1/2 | 8" | 11-3/4 | 6 | 720-3932 | 721-3932 | 722-3932 |
| 2-1/2 | 2-1/2 | 10" | 13-3/4 | 4 | 720-3933 | 721-3933 | 722-3933 |
| 2-1/2 | 2-1/2 | 10" | 13-3/4 | 6 | 720-3934 | 721-3934 | 722-3934 |
| 3" | 2-1/2 | 4" | 8" | 4 | 720-3935 | 721-3935 | 722-3935 |
| 3" | 2-1/2 | 4" | 8" | 6 | 720-3936 | 721-3936 | 722-3936 |
| 3" | 2-1/2 | 6" | 10" | 4 | 720-3937 | 721-3937 | 722-3937 |
| 3" | 2-1/2 | 6" | 10" | 6 | 720-3938 | 721-3938 | 722-3938 |
| 3" | 2-1/2 | 8" | 12" | 4 | 720-3939 | 721-3939 | 722-3939 |
| 3" | 2-1/2 | 8" | 12" | 6 | 720-3940 | 721-3940 | 722-3940 |
| 3" | 2-1/2 | 10" | 14" | 4 | 720-3941 | 721-3941 | 722-3941 |
| 3" | 2-1/2 | 10" | 14" | 6 | 720-3942 | 721-3942 | 722-3942 |



MULTIPLE FLUTE CENTERCUTTING SINGLE END MILLS

REGULAR LENGTH

H.S.S.

- Recommended for finishing operations in a wide range of ferrous and non-ferrous materials.
- Center cutting design allows for plunge milling into solid material at the beginning of a slotting operation.
- Tin coating increases surface hardness and resists abrasive wear.



| Size | Shank Dia. | Flute Length | Overall Length | No. of Flutes | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|---------------|--------------|----------------|----------------------|
| 1/8 | 3/8 | 3/8 | 2-5/16 | 4 | 720-3201 | 721-3201 | 722-3201 |
| 3/16 | 3/8 | 1/2 | 2-3/8 | 4 | 720-3203 | 721-3203 | 722-3203 |
| 1/4 | 3/8 | 5/8 | 2-7/16 | 4 | 720-3204 | 721-3204 | 722-3204 |
| 1/4 | 3/8 | 5/8 | 2-1/2 | 4 | 720-3205 | 721-3205 | 722-3205 |
| 5/16 | 3/8 | 3/4 | 2-1/2 | 4 | 720-3207 | 721-3207 | 722-3207 |
| 3/8 | 3/8 | 3/4 | 2-1/2 | 4 | 720-3209 | 721-3209 | 722-3209 |
| 7/16 | 3/8 | 13/16 | 2-1/2 | 4 | 720-3208 | 721-3208 | 722-3208 |
| 1/2 | 3/8 | 13/16 | 2-1/2 | 4 | 720-3210 | 721-3210 | 722-3210 |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 4 | 720-3211 | 721-3211 | 722-3211 |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 4 | 720-3213 | 721-3213 | 722-3213 |
| 9/16 | 1/2 | 1-1/8 | 3-3/8 | 4 | 720-3214 | 721-3214 | 722-3214 |
| 11/16 | 5/8 | 1-5/8 | 3-3/4 | 4 | 720-3215 | 721-3215 | 722-3215 |
| 3/4 | 5/8 | 1-5/8 | 3-3/4 | 4 | 720-3216 | 721-3216 | 722-3216 |
| 3/4 | 3/4 | 1-5/8 | 3-7/8 | 4 | 720-3217 | 721-3217 | 722-3217 |
| 7/8 | 3/4 | 1-7/8 | 4-1/8 | 4 | 720-3218 | 721-3218 | 722-3218 |
| 7/8 | 7/8 | 1-7/8 | 4-1/8 | 4 | 720-3219 | 721-3219 | 722-3219 |
| 1" | 3/4 | 1-7/8 | 4-1/8 | 4 | 720-3220 | 721-3220 | 722-3220 |
| 1" | 1" | 2" | 4-1/2 | 4 | 720-3221 | 721-3221 | 722-3221 |
| 1-1/8 | 1" | 2" | 4-1/2 | 4 | 720-3223 | 721-3223 | 722-3223 |
| 1-1/8 | 1" | 2" | 4-1/2 | 6 | 720-3225 | 721-3225 | 722-3225 |
| 1-1/4 | 1-1/4 | 2" | 4-1/2 | 4 | 720-3227 | 721-3227 | 722-3227 |
| 1-1/4 | 1-1/4 | 3" | 5-1/2 | 4 | 720-3226 | 721-3226 | 722-3226 |
| 1-1/4 | 1-1/4 | 2" | 4-1/2 | 6 | 720-3228 | 721-3228 | 722-3228 |
| 1-1/2 | 1-1/4 | 2" | 4-1/2 | 4 | 720-3229 | 721-3229 | 722-3229 |
| 1-1/2 | 1-1/4 | 2" | 4-1/2 | 6 | 720-3230 | 721-3230 | 722-3230 |

LONG LENGTH



| Size | Shank Dia. | Flute Length | Overall Length | No. of Flutes | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|---------------|--------------|----------------|----------------------|
| 1/4 | 3/8 | 1-1/4 | 3-1/16 | 4 | 720-3301 | 721-3301 | 722-3301 |
| 5/16 | 3/8 | 1-3/8 | 3-1/8 | 4 | 720-3303 | 721-3303 | 722-3303 |
| 3/8 | 3/8 | 1-1/2 | 3-1/4 | 4 | 720-3305 | 721-3305 | 722-3305 |
| 7/16 | 1/2 | 1-3/4 | 3-3/4" | 4 | 720-3306 | 721-3306 | 722-3306 |
| 1/2 | 1/2 | 2" | 4" | 4 | 720-3307 | 721-3307 | 722-3307 |
| 5/8 | 1/2 | 2-1/2 | 4-5/8 | 4 | 720-3308 | 721-3308 | 722-3308 |
| 5/8 | 5/8 | 2-1/2 | 4-5/8 | 4 | 720-3309 | 721-3309 | 722-3309 |
| 5/8 | 5/8 | 3" | 5-1/8 | 4 | 720-3311 | 721-3311 | 722-3311 |
| 3/4 | 3/4 | 2" | 4-1/4 | 4 | 720-3315 | 721-3315 | 722-3315 |
| 3/4 | 3/4 | 3" | 5-1/4 | 4 | 720-3313 | 721-3313 | 722-3313 |
| 3/4 | 1/2 | 3" | 5-1/4 | 4 | 720-3318 | 721-3318 | 722-3318 |
| 3/4 | 3/4 | 2" | 4-1/4 | 6 | 720-3317 | 721-3317 | 722-3317 |
| 7/8 | 7/8 | 3-1/2 | 5-3/4 | 4 | 720-3319 | 721-3319 | 722-3319 |
| 1" | 1" | 3" | 5-1/2 | 4 | 720-3321 | 721-3321 | 722-3321 |
| 1" | 3/4 | 4" | 6-1/2 | 4 | 720-3322 | 721-3322 | 722-3322 |
| 1" | 1" | 4" | 6-1/2 | 4 | 720-3325 | 721-3325 | 722-3325 |
| 1" | 1" | 3" | 5-1/2 | 6 | 720-3323 | 721-3323 | 722-3323 |
| 1-1/8 | 1" | 4" | 6-1/2 | 6 | 720-3324 | 721-3324 | 722-3324 |

| Size | Shank Dia. | Flute Length | Overall Length | No. of Flutes | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|---------------|--------------|----------------|----------------------|
| 1-1/8 | 3/4 | 4" | 6-1/2 | 6 | 720-3326 | 721-3326 | 722-3326 |
| 1-1/4 | 1-1/4 | 3" | 5-1/2 | 4 | 720-3327 | 721-3327 | 722-3327 |
| 1-1/4 | 1-1/4 | 4" | 6-1/2 | 4 | 720-3331 | 721-3331 | 722-3331 |
| 1-1/4 | 1-1/4 | 3" | 5-1/2 | 6 | 720-3329 | 721-3329 | 722-3329 |
| 1-1/4 | 1" | 4" | 6-1/2 | 6 | 720-3328 | 721-3328 | 722-3328 |
| 1-1/4 | 3/4 | 4" | 6-1/2 | 6 | 720-3330 | 721-3330 | 722-3330 |
| 1-1/4 | 1-1/4 | 4" | 6-1/2 | 6 | 720-3332 | 721-3332 | 722-3332 |
| 1-3/8 | 1" | 4" | 6-1/2 | 6 | 720-3334 | 721-3334 | 722-3334 |
| 1-1/2 | 1-1/4 | 3" | 5-1/2 | 4 | 720-3333 | 721-3333 | 722-3333 |
| 1-1/2 | 1-1/4 | 4" | 6-1/2 | 4 | 720-3338 | 721-3338 | 722-3338 |
| 1-1/2 | 1-1/4 | 3" | 5-1/2 | 6 | 720-3335 | 721-3335 | 722-3335 |
| 1-1/2 | 1-1/4 | 4" | 6-1/2 | 6 | 720-3336 | 721-3336 | 722-3336 |
| 1-1/2 | 1" | 4" | 6-1/2 | 6 | 720-3339 | 721-3339 | 722-3339 |
| 1-3/4 | 1-1/4 | 3" | 5-1/2 | 4 | 720-3337 | 721-3337 | 722-3337 |
| 1-3/4 | 1-1/4 | 4" | 6-1/2 | 6 | 720-3340 | 721-3340 | 722-3340 |
| 2" | 1-1/4 | 4" | 6-1/2 | 4 | 720-3342 | 721-3342 | 722-3342 |
| 2" | 1-1/4 | 4" | 6-1/2 | 6 | 720-3344 | 721-3344 | 722-3344 |
| 2" | 1-1/4 | 4" | 6-1/2 | 8 | 720-3346 | 721-3346 | 722-3346 |
| 2-1/2 | 2" | 4" | 7-5/8 | 6 | 720-3348 | 721-3348 | 722-3348 |

EXTRA LONG LENGTH



| Size | Shank Dia. | Flute Length | Overall Length | No. of Flutes | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|------|------------|--------------|----------------|---------------|--------------|----------------|----------------------|
| 1/4 | 3/8 | 1-3/4 | 3-1/2 | 4 | 720-3401 | 721-3401 | 722-3401 |
| 1/4 | 3/8 | 1-3/4 | 3-9/16 | 4 | 720-3402 | 721-3402 | 722-3402 |
| 5/16 | 3/8 | 2" | 3-3/4 | 4 | 720-3403 | 721-3403 | 722-3403 |
| 3/8 | 3/8 | 2-1/2 | 4-1/4 | 4 | 720-3405 | 721-3405 | 722-3405 |
| 1/2 | 1/2 | 3" | 5" | 4 | 720-3407 | 721-3407 | 722-3407 |
| 5/8 | 1/2 | 4" | 6-1/8 | 4 | 720-3410 | 721-3410 | 722-3410 |
| 5/8 | 5/8 | 4" | 6-1/8 | 4 | 720-3409 | 721-3409 | 722-3409 |
| 3/4 | 3/4 | 4" | 6-1/4 | 4 | 720-3411 | 721-3411 | 722-3411 |

| Size | Shank Dia. | Flute Length | Overall Length | No. of Flutes | M2 Model No. | M2AI Model No. | Tin-Coated Model No. |
|-------|------------|--------------|----------------|---------------|--------------|----------------|----------------------|
| 3/4 | 1/2 | 4" | 6-1/4 | 4 | 720-3412 | 721-3412 | 722-3412 |
| 7/8 | 7/8 | 5" | 7-1/4 | 4 | 720-3413 | 721-3413 | 722-3413 |
| 1 | 1 | 6" | 8-1/2 | 4 | 720-3415 | 721-3415 | 722-3415 |
| 1-1/4 | 1-1/4 | 6" | 8-1/2 | 4 | 720-3417 | 721-3417 | 722-3417 |
| 1-1/4 | 1-1/4 | 6" | 8-1/2 | 6 | 720-3418 | 721-3418 | 722-3418 |
| 1-1/2 | 1-1/4 | 6" | 8-1/2 | 4 | 720-3419 | 721-3419 | 722-3419 |
| 1-1/2 | 1-1/4 | 8" | 10-9/16 | 6 | 720-3400 | 721-3400 | 722-3400 |



Cutting Tools

4FLUTE CENTERCUTTING DOUBLE END MILLS

High Speed Steel

- Center cutting design allows for plunge milling into solid material at the beginning of a slotting operation.



| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | TiN-COATED Model No. |
|------|------------|--------------|----------------|--------------|----------------|----------------------|
| 1/8 | 3/8 | 3/8 | 3-1/16 | 720-4102 | 721-4102 | 722-4102 |
| 3/16 | 3/8 | 1/2 | 3-1/4 | 720-4104 | 721-4104 | 722-4104 |
| 1/4 | 3/8 | 5/8 | 3-3/8 | 720-4106 | 721-4106 | 722-4106 |
| 5/16 | 3/8 | 3/4 | 3-1/2 | 720-4108 | 721-4108 | 722-4108 |
| 3/8 | 3/8 | 3/4 | 3-1/2 | 720-4110 | 721-4110 | 722-4110 |
| 1/2 | 1/2 | 1" | 4-1/8 | 720-4112 | 721-4112 | 722-4112 |
| 5/8 | 5/8 | 1-3/8 | 5" | 720-4114 | 721-4114 | 722-4114 |
| 3/4 | 3/4 | 1-5/8 | 5-5/8 | 720-4116 | 721-4116 | 722-4116 |
| 7/8 | 7/8 | 1-7/8 | 6-1/8 | 720-4118 | 721-4118 | 722-4118 |
| 1" | 1" | 1-7/8 | 6-3/8 | 720-4120 | 721-4120 | 722-4120 |

4FLUTE DOUBLE END MILLS

High Speed Steel

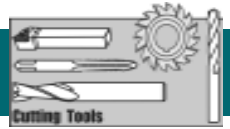
- Recommended for finishing operations in a wide range of ferrous and non-ferrous materials.
- Multiple flutes generate higher surface finish than 2 flute end mills.
- More economical in production milling than single end mills.



| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. | TiN-COATED Model No. |
|-------|------------|--------------|----------------|--------------|----------------|----------------------|
| 7/64 | 3/8 | 3/8 | 3-1/16 | 720-4002 | 721-4002 | 722-4002 |
| 1/8 | 3/8 | 3/8 | 3-1/16 | 720-4004 | 721-4004 | 722-4004 |
| 9/64 | 3/8 | 7/16 | 3-1/8 | 720-4006 | 721-4006 | 722-4006 |
| 5/32 | 3/8 | 7/16 | 3-1/8 | 720-4008 | 721-4008 | 722-4008 |
| 11/64 | 3/8 | 7/16 | 3-1/8 | 720-4011 | 721-4011 | 722-4011 |
| 11/64 | 3/8 | 1/2 | 3-1/4 | 720-4010 | 721-4010 | 722-4010 |
| 3/16 | 3/8 | 1/2 | 3-1/4 | 720-4012 | 721-4012 | 722-4012 |
| 13/64 | 3/8 | 1/2 | 3-1/4 | 720-4013 | 721-4013 | 722-4013 |
| 13/64 | 3/8 | 9/16 | 3-1/4 | 720-4014 | 721-4014 | 722-4014 |
| 7/32 | 3/8 | 9/16 | 3-1/4 | 720-4016 | 721-4016 | 722-4016 |
| 15/64 | 3/8 | 9/16 | 3-1/4 | 720-4017 | 721-4017 | 722-4017 |
| 15/64 | 3/8 | 5/8 | 3-3/8 | 720-4018 | 721-4018 | 722-4018 |
| 1/4 | 3/8 | 5/8 | 3-3/8 | 720-4020 | 721-4020 | 722-4020 |
| 17/64 | 3/8 | 11/16 | 3-3/8 | 720-4022 | 721-4022 | 722-4022 |
| 9/32 | 3/8 | 11/16 | 3-3/8 | 720-4024 | 721-4024 | 722-4024 |
| 19/64 | 3/8 | 11/16 | 3-3/8 | 720-4025 | 720-4025 | 720-4025 |
| 19/64 | 3/8 | 3/4 | 3-1/2 | 720-4026 | 721-4026 | 722-4026 |
| 5/16 | 3/8 | 3/4 | 3-1/2 | 720-4028 | 721-4028 | 722-4028 |
| 21/64 | 3/8 | 3/4 | 3-1/2 | 720-4030 | 721-4030 | 722-4030 |
| 11/32 | 3/8 | 3/4 | 3-1/2 | 720-4032 | 721-4032 | 722-4032 |
| 23/64 | 3/8 | 3/4 | 3-1/2 | 720-4034 | 721-4034 | 722-4034 |
| 3/8 | 3/8 | 3/4 | 3-1/2 | 720-4036 | 721-4036 | 722-4036 |
| 25/64 | 1/2 | 1" | 4-1/8 | 720-4038 | 721-4038 | 722-4038 |
| 13/32 | 1/2 | 1" | 4-1/8 | 720-4040 | 721-4040 | 722-4040 |
| 13/32 | 1/2 | 1" | 4-3/16 | 720-4039 | 721-4039 | 722-4039 |
| 27/64 | 1/2 | 1" | 4-1/8 | 720-4042 | 721-4042 | 722-4042 |
| 7/16 | 1/2 | 1" | 4-1/8 | 720-4044 | 721-4044 | 722-4044 |
| 29/64 | 1/2 | 1" | 4-1/8 | 720-4046 | 721-4046 | 722-4046 |
| 15/32 | 1/2 | 1" | 4-1/8 | 720-4048 | 721-4048 | 722-4048 |
| 31/64 | 1/2 | 1" | 4-1/8 | 720-4050 | 721-4050 | 722-4050 |
| 1/2 | 1/2 | 1" | 4-1/8 | 720-4052 | 721-4052 | 722-4052 |
| 17/32 | 5/8 | 1-3/8 | 5" | 720-4054 | 721-4054 | 722-4054 |
| 9/16 | 5/8 | 1-3/8 | 5" | 720-4056 | 721-4056 | 722-4056 |
| 19/32 | 5/8 | 1-3/8 | 5" | 720-4058 | 721-4058 | 722-4058 |
| 5/8 | 5/8 | 1-3/8 | 5" | 720-4060 | 721-4060 | 722-4060 |
| 21/32 | 3/4 | 1-5/8 | 5-5/8 | 720-4062 | 721-4062 | 722-4062 |
| 11/16 | 3/4 | 1-5/8 | 5-5/8 | 720-4064 | 721-4064 | 722-4064 |
| 23/32 | 3/4 | 1-5/8 | 5-5/8 | 720-4066 | 721-4066 | 722-4066 |
| 3/4 | 3/4 | 1-5/8 | 5-5/8 | 720-4068 | 721-4068 | 722-4068 |
| 25/32 | 7/8 | 1-7/8 | 6-1/8 | 720-4070 | 721-4070 | 722-4070 |
| 13/16 | 7/8 | 1-7/8 | 6 | 720-4072 | 721-4072 | 722-4072 |
| 27/32 | 7/8 | 1-7/8 | 6-1/8 | 720-4074 | 721-4074 | 722-4074 |
| 7/8 | 7/8 | 1-7/8 | 6-1/8 | 720-4076 | 721-4076 | 722-4076 |
| 29/32 | 1" | 1-7/8 | 6-3/8 | 720-4078 | 721-4078 | 722-4078 |
| 15/16 | 1" | 1-7/8 | 6-3/8 | 720-4080 | 721-4080 | 722-4080 |
| 31/32 | 1" | 1-7/8 | 6-3/8 | 720-4082 | 721-4082 | 722-4082 |
| 1" | 1" | 1-7/8 | 6-3/8 | 720-4084 | 721-4084 | 722-4084 |

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Cutting Tools



ROUGHING END MILLS

High Speed Steel

Regular Length



| Size | Shank Dia. | Flute Length | Overall Length | No. Of Flutes | M2 Model No. | M2AI Model No. |
|-------|------------|--------------|----------------|---------------|--------------|----------------|
| 1/4 | 3/8 | 3/4 | 2-1/2 | 4 | 720-5001 | 721-5001 |
| 1/4 | 3/8 | 5/8 | 2-7/16 | 4 | 720-5002 | 721-5002 |
| 1/4 | 3/8 | 1-1/4 | 3-1/16 | 4 | 720-5003 | 721-5003 |
| 5/16 | 3/8 | 3/4 | 2-1/2 | 4 | 720-5005 | 721-5005 |
| 5/16 | 3/8 | 1-3/8 | 3-1/8 | 4 | 720-5007 | 721-5007 |
| 3/8 | 3/8 | 3/4 | 2-1/2 | 4 | 720-5008 | 721-5008 |
| 3/8 | 3/8 | 7/8 | 2-5/8 | 4 | 720-5009 | 721-5009 |
| 3/8 | 3/8 | 1-1/2 | 3-1/4 | 4 | 720-5011 | 721-5011 |
| 7/16 | 3/8 | 1" | 2-11/16 | 4 | 720-5012 | 721-5012 |
| 1/2 | 1/2 | 1-1/4 | 3-1/4 | 4 | 720-5013 | 721-5013 |
| 5/8 | 5/8 | 1-5/8 | 3-3/4 | 4 | 720-5017 | 721-5017 |
| 11/16 | 5/8 | 1-5/8 | 3-3/4 | 4 | 720-5019 | 721-5019 |
| 3/4 | 5/8 | 1-5/8 | 3-3/4 | 4 | 720-5020 | 721-5020 |
| 3/4 | 5/8 | 1-5/8 | 3-7/8 | 4 | 720-5021 | 721-5021 |
| 3/4 | 3/4 | 1-5/8 | 3-3/4 | 4 | 720-5025 | 721-5025 |
| 7/8 | 3/4 | 1-5/8 | 4-1/8 | 4 | 720-5027 | 721-5027 |
| 7/8 | 7/8 | 1-7/8 | 4-1/8 | 4 | 720-5029 | 721-5029 |
| 15/16 | 3/4 | 1-7/8 | 4-1/8 | 4 | 720-5031 | 721-5031 |
| 1" | 3/4 | 2" | 4-1/2 | 6 | 720-5033 | 721-5033 |
| 1" | 1" | 2" | 4-1/2 | 6 | 720-5035 | 721-5035 |

| Size | Shank Dia. | Flute Length | Overall Length | No. Of Flute | M2 Model No. | M2AI Model No. |
|-------|------------|--------------|----------------|--------------|--------------|----------------|
| 1-1/8 | 3/4 | 2" | 4-1/2 | 6 | 720-5037 | 721-5037 |
| 1-1/8 | 1 | 2" | 4-1/2 | 6 | 720-5039 | 721-5039 |
| 1-1/4 | 3/4 | 2" | 4-1/2 | 6 | 720-5041 | 721-5041 |
| 1-1/4 | 1-1/4 | 2" | 4-1/2 | 6 | 720-5043 | 721-5043 |
| 1-1/2 | 3/4 | 2" | 4-1/2 | 6 | 720-5045 | 721-5045 |
| 1-1/2 | 1-1/4 | 2" | 4-1/2 | 6 | 720-5047 | 721-5047 |
| 1-3/4 | 3/4 | 2" | 4-1/2 | 6 | 720-5049 | 721-5049 |
| 1-3/4 | 1-1/4 | 2" | 4-1/2 | 6 | 720-5051 | 721-5051 |
| 2" | 3/4 | 2" | 4-1/2 | 8 | 720-5053 | 721-5053 |
| 2" | 1-1/4 | 2" | 4-1/2 | 6 | 720-5054 | 721-5054 |
| 2" | 1-1/4 | 2" | 4-1/2 | 8 | 720-5055 | 721-5055 |
| 2" | 1-1/4 | 2" | 6-1/2 | 8 | 720-5056 | 721-5056 |
| 2" | 2" | 2" | 5-3/4 | 8 | 720-5057 | 721-5057 |
| 2" | 2" | 3" | 6-3/4 | 6 | 720-5058 | 721-5058 |
| 2" | 2" | 4" | 7-3/4 | 8 | 720-5059 | 721-5059 |
| 2" | 2" | 4" | 7-3/4 | 6 | 720-5060 | 721-5060 |
| 2-1/2 | 2" | 4" | 7-3/4 | 8 | 720-5061 | 721-5061 |
| 2-1/2 | 2-1/2 | 4" | 7-3/4 | 8 | 720-5063 | 721-5063 |
| 2" | 2" | 3" | 6-3/4 | 8 | 720-5065 | 721-5065 |

Medium Length

| Size | Shank Dia. | Flute Length | Overall Length | No. of flutes | M2 Model No. | M2AI ModelNo. |
|-------|------------|--------------|----------------|---------------|--------------|---------------|
| 2" | 2" | 5" | 8-3/4 | 8 | 720-5101 | 721-5101 |
| 2" | 2" | 6" | 9-3/4 | 8 | 720-5103 | 721-5103 |
| 2-1/2 | 2" | 6" | 9-3/4 | 8 | 720-5105 | 721-5105 |
| 2-1/2 | 2-1/2 | 6" | 9-3/4 | 8 | 720-5107 | 721-5107 |

Long Length

| Size | Shank Dia. | Flute Length | Overall Length | No. of flutes | M2 Model No. | M2AI Model No. |
|-------|------------|--------------|----------------|---------------|--------------|----------------|
| 1/2 | 1/2 | 2" | 4" | 4 | 720-5201 | 721-5201 |
| 5/8 | 5/8 | 2-1/2 | 4-5/8 | 4 | 720-5203 | 721-5203 |
| 3/4 | 5/8 | 3" | 5-1/4 | 4 | 720-5205 | 721-5205 |
| 3/4 | 5/8 | 3" | 5-1/8 | 4 | 720-5207 | 721-5207 |
| 3/4 | 3/4 | 3" | 5-1/4 | 4 | 720-5209 | 721-5209 |
| 7/8 | 3/4 | 3-1/2 | 5-5/8 | 4 | 720-5211 | 721-5211 |
| 7/8 | 7/8 | 3-1/2 | 5-3/4 | 4 | 720-5213 | 721-5213 |
| 1" | 1" | 4" | 6-1/2 | 6 | 720-5215 | 721-5215 |
| 1" | 1" | 6" | 8-1/2 | 6 | 720-5217 | 721-5217 |
| 1-1/4 | 1-1/4 | 3" | 5-1/2 | 6 | 720-5218 | 721-5218 |
| 1-1/4 | 3/4 | 4" | 6-1/4 | 6 | 720-5219 | 721-5219 |
| 1-1/4 | 1-1/4 | 4" | 6-1/2 | 6 | 720-5221 | 721-5221 |
| 1-1/4 | 1-1/4 | 6" | 8-1/2 | 6 | 720-5223 | 721-5223 |
| 1-1/2 | 1-1/4 | 3" | 5-1/2 | 6 | 720-5224 | 721-5224 |
| 1-1/2 | 3/4 | 4" | 6-1/4 | 6 | 720-5225 | 721-5225 |

| Size | Shank Dia. | Flute Length | Overall Length | No. of flute | M2 Model No. | M2AI Model No. |
|-------|------------|--------------|----------------|--------------|--------------|----------------|
| 1-1/2 | 1-1/4 | 4" | 6-1/2 | 6 | 720-5227 | 721-5227 |
| 1-1/2 | 1-1/4 | 5" | 7-1/2 | 6 | 720-5228 | 721-5228 |
| 1-1/2 | 1-1/4 | 6" | 8-1/2 | 6 | 720-5229 | 721-5229 |
| 1-3/4 | 1-1/4 | 4" | 6-1/2 | 6 | 720-5231 | 721-5231 |
| 2" | 1-1/4 | 4" | 6-1/2 | 6 | 720-5232 | 721-5232 |
| 2" | 1-1/4 | 4" | 6-1/2 | 8 | 720-5233 | 721-5233 |
| 2" | 2" | 6" | 9-3/4 | 6 | 720-5234 | 721-5234 |
| 2" | 2" | 7" | 10-3/4 | 8 | 720-5235 | 721-5235 |
| 2" | 2" | 8" | 11-3/4 | 6 | 720-5236 | 721-5236 |
| 2" | 2" | 8" | 11-3/4 | 8 | 720-5237 | 721-5237 |
| 2" | 2" | 10" | 13-3/4 | 8 | 720-5239 | 721-5239 |
| 2" | 2" | 12" | 15-3/4 | 8 | 720-5241 | 721-5241 |
| 2-1/2 | 2" | 8" | 11-3/4 | 8 | 720-5243 | 721-5243 |
| 2-1/2 | 2-1/2 | 8" | 11-3/4 | 8 | 720-5245 | 721-5245 |
| 2-1/2 | 2-1/2 | 10" | 13-3/4 | 8 | 720-5247 | 721-5247 |
| 2-1/2 | 2-1/2 | 12" | 15-3/4 | 8 | 720-5249 | 721-5249 |

5 FLUTE ROUGHING END MILLS WITH STRAIGHT SHANK.H.S.S.



| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. |
|------|------------|--------------|----------------|--------------|----------------|
| 7/8" | 3/4" | 1-7/8" | 4-1/8" | 720-5701 | 721-5701 |
| 7/8 | 3/8 | 3-1/2 | 5-3/4 | 720-5703 | 721-5703 |
| 7/8 | 7/8 | 1-7/8 | 4-1/8 | 720-5705 | 721-5705 |
| 7/8 | 7/8 | 3-1/2 | 5-3/4 | 720-5707 | 721-5707 |

| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2AI Model No. |
|-------|------------|--------------|----------------|--------------|----------------|
| 1" | 3/4 | 2" | 4-1/2 | 720-5709 | 721-5709 |
| 1" | 1" | 2" | 4-1/2 | 720-5711 | 721-5711 |
| 1" | 1" | 4" | 6-1/2 | 720-5713 | 721-5713 |
| 1-1/8 | 1" | 2" | 4-1/2 | 720-5715 | 721-5715 |



Cutting Tools

INCH SHANK METRIC SIZE

2FLUTE SINGLE END MILLS



| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2Al Model No. | Tin-Coated Model No. |
|------|------------|--------------|----------------|--------------|----------------|----------------------|
| 5mm | 3/8 | 1/2 | 2-5/16 | 720-9050 | 721-9050 | 722-9050 |
| 6mm | 3/8 | 1/2 | 2-5/16 | 720-9060 | 721-9060 | 722-9060 |
| 7mm | 3/8 | 9/16 | 2-5/16 | 720-9070 | 721-9070 | 722-9070 |
| 8mm | 3/8 | 9/16 | 2-5/16 | 720-9080 | 721-9080 | 722-9080 |
| 9mm | 3/8 | 9/16 | 2-5/16 | 720-9090 | 721-9090 | 722-9090 |
| 10mm | 3/8 | 13/16 | 2-1/2 | 720-9100 | 721-9100 | 722-9100 |
| 11mm | 3/8 | 13/16 | 2-1/2 | 720-9110 | 721-9110 | 722-9110 |
| 12mm | 1/2 | 1 | 3" | 720-9120 | 721-9120 | 722-9120 |
| 13mm | 1/2 | 1-1/8 | 3-1/8 | 720-9130 | 721-9130 | 722-9130 |
| 14mm | 1/2 | 1-1/8 | 3-1/8 | 720-9140 | 721-9140 | 722-9140 |
| 15mm | 1/2 | 1-1/8 | 3-1/8 | 720-9150 | 721-9150 | 722-9150 |
| 16mm | 1/2 | 1-5/16 | 3-5/16 | 720-9160 | 721-9160 | 722-9160 |
| 18mm | 1/2 | 1-5/16 | 3-5/16 | 720-9180 | 721-9180 | 722-9180 |
| 20mm | 3/4 | 1-1/2 | 3-3/4 | 720-9200 | 721-9200 | 722-9200 |
| 22mm | 7/8 | 1-1/2 | 3-3/4 | 720-9220 | 721-9220 | 722-9220 |
| 24mm | 7/8 | 1-1/2 | 3-3/4 | 720-9240 | 721-9240 | 722-9240 |
| 25mm | 1" | 1-5/8 | 4-1/8 | 720-9250 | 721-9250 | 722-9250 |

4FLUTE SINGLE END MILLS



| Size | Shank Dia. | Flute Length | Overall Length | M2 Model No. | M2Al Model No. | Tin-Coated Model No. |
|------|------------|--------------|----------------|--------------|----------------|----------------------|
| 5mm | 3/8 | 9/16 | 2-7/16 | 720-8050 | 721-8050 | 722-8050 |
| 6mm | 3/8 | 5/8 | 2-1/2 | 720-8060 | 721-8060 | 722-8060 |
| 7mm | 3/8 | 5/8 | 2-1/2 | 720-8070 | 721-8070 | 722-8070 |
| 8mm | 3/8 | 3/4 | 2-1/2 | 720-8080 | 721-8080 | 722-8080 |
| 9mm | 3/8 | 3/4 | 2-1/2 | 720-8090 | 721-8090 | 722-8090 |
| 10mm | 3/8 | 3/4 | 2-1/2 | 720-8100 | 721-8100 | 722-8100 |
| 11mm | 3/8 | 1" | 2-11/16 | 720-8110 | 721-8110 | 722-8110 |
| 12mm | 3/8 | 1" | 2-11/16 | 720-8120 | 721-8120 | 722-8120 |
| 13mm | 1/2 | 1-1/4 | 3-1/4 | 720-8130 | 721-8130 | 722-8130 |
| 14mm | 1/2 | 1-3/8 | 3-3/8 | 720-8140 | 721-8140 | 722-8140 |
| 15mm | 1/2 | 1-3/8 | 3-3/8 | 720-8150 | 721-8150 | 722-8150 |
| 16mm | 5/8 | 1-5/8 | 3-3/4 | 720-8160 | 721-8160 | 722-8160 |
| 18mm | 3/4 | 1-5/8 | 3-3/4 | 720-8180 | 721-8180 | 722-8180 |
| 20mm | 3/4 | 1-7/8 | 4-1/8 | 720-8200 | 721-8200 | 722-8200 |
| 22mm | 7/8 | 1-7/8 | 4-1/8 | 720-8220 | 721-8220 | 722-8220 |
| 24mm | 7/8 | 1-7/8 | 4-1/8 | 720-8240 | 721-8240 | 722-8240 |
| 25mm | 1" | 2" | 4-1/2 | 720-8250 | 721-8250 | 722-8250 |

2FLUTE END MILLS, DIN327 e8



| Size (mm) | Shank Dia. | Flute Length | Overall Length | M2HSS | | M42HSS | |
|-----------|------------|--------------|----------------|-----------------|----------------------|------------------|----------------------|
| | | | | M2HSS Model No. | Tin-Coated Model No. | M42HSS Model No. | Tin-Coated Model No. |
| 2 | 6 | 4 | 48 | 713-1020 | 713-2020 | 713-5020 | 713-6020 |
| 2.5 | 6 | 5 | 49 | 713-1025 | 713-2025 | 713-5025 | 713-6025 |
| 3 | 6 | 6 | 50 | 713-1030 | 713-2030 | 713-5030 | 713-6030 |
| 3.5 | 6 | 7 | 51 | 713-1035 | 713-2035 | 713-5035 | 713-6035 |
| 4 | 6 | 7 | 51 | 713-1040 | 713-2040 | 713-5040 | 713-6040 |
| 4.5 | 6 | 8 | 52 | 713-1045 | 713-2045 | 713-5045 | 713-6045 |
| 5 | 6 | 8 | 52 | 713-1050 | 713-2050 | 713-5050 | 713-6050 |
| 5.5 | 6 | 8 | 52 | 713-1055 | 713-2055 | 713-5055 | 713-6055 |
| 6 | 6 | 8 | 52 | 713-1060 | 713-2060 | 713-5060 | 713-6060 |
| 6.5 | 10 | 10 | 60 | 713-1065 | 713-2065 | 713-5065 | 713-6065 |
| 7 | 10 | 10 | 60 | 713-1070 | 713-2070 | 713-5070 | 713-6070 |
| 7.5 | 10 | 11 | 61 | 713-1075 | 713-2075 | 713-5075 | 713-6075 |
| 8 | 10 | 11 | 61 | 713-1080 | 713-2080 | 713-5080 | 713-6080 |
| 8.5 | 10 | 13 | 63 | 713-1085 | 713-2085 | 713-5085 | 713-6085 |
| 9 | 10 | 13 | 63 | 713-1090 | 713-2090 | 713-5090 | 713-6090 |
| 10 | 10 | 13 | 63 | 713-1100 | 713-2100 | 713-5100 | 713-6100 |
| 11 | 12 | 16 | 73 | 713-1110 | 713-2110 | 713-5110 | 713-6110 |

| Size (mm) | Shank Dia. | Flute Length | Overall Length | M2HSS | | M42HSS | |
|-----------|------------|--------------|----------------|-----------------|----------------------|------------------|----------------------|
| | | | | M2HSS Model No. | Tin-Coated Model No. | M42HSS Model No. | Tin-Coated Model No. |
| 12 | 12 | 16 | 73 | 713-1120 | 713-2120 | 713-5120 | 713-6120 |
| 13 | 12 | 16 | 73 | 713-1130 | 713-2130 | 713-5130 | 713-6130 |
| 14 | 12 | 16 | 73 | 713-1140 | 713-2140 | 713-5140 | 713-6140 |
| 15 | 12 | 16 | 73 | 713-1150 | 713-2150 | 713-5150 | 713-6150 |
| 16 | 16 | 19 | 79 | 713-1160 | 713-2160 | 713-5160 | 713-6160 |
| 17 | 16 | 19 | 79 | 713-1170 | 713-2170 | 713-5170 | 713-6170 |
| 18 | 16 | 19 | 79 | 713-1180 | 713-2180 | 713-5180 | 713-6180 |
| 19 | 16 | 19 | 79 | 713-1190 | 713-2190 | 713-5190 | 713-6190 |
| 20 | 20 | 22 | 88 | 713-1200 | 713-2200 | 713-5200 | 713-6200 |
| 21 | 20 | 22 | 88 | 713-1210 | 713-2210 | 713-5210 | 713-6210 |
| 22 | 20 | 22 | 88 | 713-1220 | 713-2220 | 713-5220 | 713-6220 |
| 23 | 20 | 22 | 88 | 713-1230 | 713-2230 | 713-5230 | 713-6230 |
| 24 | 25 | 26 | 102 | 713-1240 | 713-2240 | 713-5240 | 713-6240 |
| 25 | 25 | 26 | 102 | 713-1250 | 713-2250 | 713-5250 | 713-6250 |
| 26 | 25 | 26 | 102 | 713-1260 | 713-2260 | 713-5260 | 713-6260 |
| 28 | 25 | 26 | 102 | 713-1280 | 713-2280 | 713-5280 | 713-6280 |

4FLUTE END MILLS, LONG LENGTH, DIN844 h10



| Size (mm) | Shank Dia. | Flute Length | Overall Length | M2HSS | | M42HSS | |
|-----------|------------|--------------|----------------|-----------------|----------------------|------------------|----------------------|
| | | | | M2HSS Model No. | Tin-Coated Model No. | M42HSS Model No. | Tin-Coated Model No. |
| 2 | 6 | 10 | 54 | 715-1020 | 715-2020 | 715-5020 | 715-6020 |
| 3 | 6 | 12 | 56 | 715-1030 | 715-2030 | 715-5030 | 715-6030 |
| 4 | 6 | 19 | 63 | 715-1040 | 715-2040 | 715-5040 | 715-6040 |
| 5 | 6 | 24 | 68 | 715-1050 | 715-2050 | 715-5050 | 715-6050 |
| 6 | 6 | 24 | 68 | 715-1060 | 715-2060 | 715-5060 | 715-6060 |
| 7 | 10 | 30 | 80 | 715-1070 | 715-2070 | 715-5070 | 715-6070 |
| 8 | 10 | 38 | 88 | 715-1080 | 715-2080 | 715-5080 | 715-6080 |
| 10 | 10 | 45 | 95 | 715-1100 | 715-2100 | 715-5100 | 715-6100 |
| 12 | 12 | 53 | 110 | 715-1120 | 715-2120 | 715-5120 | 715-6120 |

| Size (mm) | Shank Dia. | Flute Length | Overall Length | M2HSS | | M42HSS | |
|-----------|------------|--------------|----------------|-----------------|----------------------|------------------|----------------------|
| | | | | M2HSS Model No. | Tin-Coated Model No. | M42HSS Model No. | Tin-Coated Model No. |
| 14 | 12 | 53 | 110 | 715-1140 | 715-2140 | 715-5140 | 715-6140 |
| 16 | 16 | 63 | 123 | 715-1160 | 715-2160 | 715-5160 | 715-6160 |
| 18 | 16 | 63 | 123 | 715-1180 | 715-2180 | 715-5180 | 715-6180 |
| 20 | 20 | 75 | 141 | 715-1200 | 715-2200 | 715-5200 | 715-6200 |
| 22 | 20 | 75 | 141 | 715-1220 | 715-2220 | 715-5220 | 715-6220 |
| 25 | 25 | 90 | 166 | 715-1250 | 715-2250 | 715-5250 | 715-6250 |
| 28 | 25 | 90 | 166 | 715-1280 | 715-2280 | 715-5280 | 715-6280 |
| 30 | 25 | 90 | 166 | 715-1300 | 715-2300 | 715-5300 | 715-6300 |

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4FLUTE END MILLS, DIN844 h10



| Size (mm) | Shank Dia. | Flute Length | Overall Length | M2HSS | | M42HSS | |
|-----------|------------|--------------|----------------|-----------|----------------------|-----------|----------------------|
| | | | | Model No. | Tin-Coated Model No. | Model No. | Tin-Coated Model No. |
| 2 | 6 | 7 | 51 | 714-1020 | 714-2020 | 714-5020 | 714-6020 |
| 3 | 6 | 8 | 52 | 714-1030 | 714-2030 | 714-5030 | 714-6030 |
| 4 | 6 | 11 | 55 | 714-1040 | 714-2040 | 714-5040 | 714-6040 |
| 5 | 6 | 13 | 57 | 714-1050 | 714-2050 | 714-5050 | 714-6050 |
| 6 | 6 | 13 | 57 | 714-1060 | 714-2060 | 714-5060 | 714-6060 |
| 7 | 10 | 16 | 66 | 714-1070 | 714-2070 | 714-5070 | 714-6070 |
| 8 | 10 | 19 | 69 | 714-1080 | 714-2080 | 714-5080 | 714-6080 |
| 9 | 10 | 19 | 69 | 714-1090 | 714-2090 | 714-5090 | 714-6090 |
| 10 | 10 | 22 | 72 | 714-1100 | 714-2100 | 714-5100 | 714-6100 |
| 11 | 10 | 22 | 79 | 714-1110 | 714-2110 | 714-5110 | 714-6110 |
| 12 | 10 | 26 | 83 | 714-1120 | 714-2120 | 714-5120 | 714-6120 |
| 13 | 12 | 26 | 83 | 714-1130 | 714-2130 | 714-5130 | 714-6130 |
| 14 | 12 | 26 | 83 | 714-1140 | 714-2140 | 714-5140 | 714-6140 |
| 15 | 12 | 26 | 83 | 714-1150 | 714-2150 | 714-5150 | 714-6150 |
| 16 | 16 | 32 | 92 | 714-1160 | 714-2160 | 714-5160 | 714-6160 |
| 17 | 16 | 32 | 92 | 714-1170 | 714-2170 | 714-5170 | 714-6170 |
| 18 | 16 | 32 | 92 | 714-1180 | 714-2180 | 714-5180 | 714-6180 |
| 19 | 16 | 32 | 92 | 714-1190 | 714-2190 | 714-5190 | 714-6190 |
| 20 | 20 | 38 | 104 | 714-1200 | 714-2200 | 714-5200 | 714-6200 |
| 21 | 20 | 38 | 104 | 714-1210 | 714-2210 | 714-5210 | 714-6210 |
| 22 | 20 | 38 | 104 | 714-1220 | 714-2220 | 714-5220 | 714-6220 |
| 23 | 20 | 38 | 104 | 714-1230 | 714-2230 | 714-5230 | 714-6230 |
| 24 | 25 | 45 | 121 | 714-1240 | 714-2240 | 714-5240 | 714-6240 |
| 25 | 25 | 45 | 121 | 714-1250 | 714-2250 | 714-5250 | 714-6250 |
| 26 | 25 | 45 | 121 | 714-1260 | 714-2260 | 714-5260 | 714-6260 |
| 28 | 25 | 45 | 121 | 714-1280 | 714-2280 | 714-5280 | 714-6280 |
| 30 | 25 | 45 | 121 | 714-1300 | 714-2300 | 714-5300 | 714-6300 |
| 32 | 32 | 53 | 133 | 714-1320 | 714-2320 | 714-5320 | 714-6320 |

ROUGHING END MILLS, DIN STANDARD



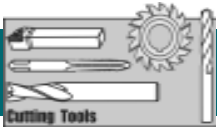
| Size (mm) | Shank Dia. | Flute Length | Overall Length | No.s of Flutes | M2HSS | | M42HSS | |
|-----------|------------|--------------|----------------|----------------|-----------|----------------------|-----------|----------------------|
| | | | | | Model No. | Tin-Coated Model No. | Model No. | Tin-Coated Model No. |
| 6 | 6 | 13 | 57 | 4 | 716-1060 | 716-2060 | 716-5060 | 716-6060 |
| 8 | 10 | 19 | 69 | 4 | 716-1080 | 716-2080 | 716-5080 | 716-6080 |
| 10 | 10 | 22 | 72 | 4 | 716-1100 | 716-2100 | 716-5100 | 716-6100 |
| 11 | 12 | 22 | 79 | 4 | 716-1110 | 716-2110 | 716-5110 | 716-6110 |
| 12 | 12 | 26 | 83 | 4 | 716-1120 | 716-2120 | 716-5120 | 716-6120 |
| 14 | 12 | 26 | 83 | 4 | 716-1140 | 716-2140 | 716-5140 | 716-6140 |
| 16 | 16 | 32 | 92 | 4 | 716-1160 | 716-2160 | 716-5160 | 716-6160 |
| 18 | 16 | 32 | 92 | 4 | 716-1180 | 716-2180 | 716-5180 | 716-6180 |
| 20 | 20 | 38 | 104 | 4 | 716-1200 | 716-2200 | 716-5200 | 716-6200 |
| 22 | 20 | 38 | 104 | 4 | 716-1220 | 716-2220 | 716-5220 | 716-6220 |
| 22 | 20 | 38 | 104 | 5 | 716-1221 | 716-2221 | 716-5221 | 716-6221 |
| 25 | 25 | 45 | 121 | 4 | 716-1250 | 716-2250 | 716-5250 | 716-6250 |
| 25 | 25 | 45 | 121 | 5 | 716-1251 | 716-2251 | 716-5251 | 716-6251 |
| 28 | 25 | 45 | 121 | 6 | 716-1280 | 716-2280 | 716-5280 | 716-6280 |
| 30 | 25 | 45 | 121 | 5 | 716-1300 | 716-2300 | 716-5300 | 716-6300 |
| 30 | 25 | 45 | 121 | 6 | 716-1301 | 716-2301 | 716-5301 | 716-6301 |
| 32 | 32 | 53 | 133 | 5 | 716-1320 | 716-2320 | 716-5320 | 716-6320 |
| 32 | 32 | 53 | 133 | 6 | 716-1321 | 716-2321 | 716-5321 | 716-6321 |
| 38 | 32 | 53 | 133 | 6 | 716-1380 | 716-2380 | 716-5380 | 716-6380 |
| 40 | 40 | 63 | 155 | 6 | 716-1400 | 716-2400 | 716-5400 | 716-6400 |
| 40 | 40 | 63 | 155 | 8 | 716-1401 | 716-2401 | 716-5401 | 716-6401 |
| 45 | 40 | 63 | 155 | 6 | 716-1450 | 716-2450 | 716-5450 | 716-6450 |
| 45 | 40 | 63 | 155 | 8 | 716-1451 | 716-2451 | 716-5451 | 716-6451 |
| 50 | 50 | 75 | 177 | 6 | 716-1500 | 716-2500 | 716-5500 | 716-6500 |
| 50 | 50 | 75 | 177 | 8 | 716-1501 | 716-2501 | 716-5501 | 716-6501 |
| 55 | 50 | 75 | 177 | 6 | 716-1550 | 716-2550 | 716-5550 | 716-6550 |
| 55 | 50 | 75 | 177 | 8 | 716-1551 | 716-2551 | 716-5551 | 716-6551 |
| 63 | 63 | 90 | 202 | 6 | 716-1630 | 716-2630 | 716-5630 | 716-6630 |
| 63 | 63 | 90 | 202 | 8 | 716-1631 | 716-2631 | 716-5631 | 716-6631 |
| 71 | 63 | 90 | 202 | 6 | 716-1710 | 716-2710 | 716-5710 | 716-6710 |
| 71 | 63 | 90 | 202 | 8 | 716-1711 | 716-2711 | 716-5711 | 716-6711 |

4 FLUTE BALL NOSE END MILLS, DIN STANDARD

| Size (mm) | Shank Dia. | Flute Length | Overall Length | M2HSS | | M42HSS | |
|-----------|------------|--------------|----------------|-----------|----------------------|-----------|----------------------|
| | | | | Model No. | Tin-Coated Model No. | Model No. | Tin-Coated Model No. |
| 2 | 6 | 7 | 51 | 719-1020 | 719-2020 | 719-5020 | 719-6020 |
| 3 | 6 | 8 | 52 | 719-1030 | 719-2030 | 719-5030 | 719-6030 |
| 4 | 6 | 11 | 55 | 719-1040 | 719-2040 | 719-5040 | 719-6040 |
| 5 | 6 | 13 | 57 | 719-1050 | 719-2050 | 719-5050 | 719-6050 |
| 6 | 6 | 13 | 57 | 719-1060 | 719-2060 | 719-5060 | 719-6060 |
| 7 | 10 | 16 | 66 | 719-1070 | 719-2070 | 719-5070 | 719-6070 |
| 8 | 10 | 19 | 69 | 719-1080 | 719-2080 | 719-5080 | 719-6080 |
| 9 | 10 | 19 | 69 | 719-1090 | 719-2090 | 719-5090 | 719-6090 |
| 10 | 10 | 22 | 72 | 719-1100 | 719-2100 | 719-5100 | 719-6100 |
| 11 | 10 | 22 | 79 | 719-1110 | 719-2110 | 719-5110 | 719-6110 |
| 12 | 10 | 26 | 83 | 719-1120 | 719-2120 | 719-5120 | 719-6120 |
| 13 | 12 | 26 | 83 | 719-1130 | 719-2130 | 719-5130 | 719-6130 |
| 14 | 12 | 26 | 83 | 719-1140 | 719-2140 | 719-5140 | 719-6140 |
| 15 | 12 | 26 | 83 | 719-1150 | 719-2150 | 719-5150 | 719-6150 |
| 16 | 16 | 32 | 92 | 719-1160 | 719-2160 | 719-5160 | 719-6160 |



| Size (mm) | Shank Dia. | Flute Length | Overall Length | M2HSS | | M42HSS | |
|-----------|------------|--------------|----------------|-----------|----------------------|-----------|----------------------|
| | | | | Model No. | Tin-Coated Model No. | Model No. | Tin-Coated Model No. |
| 17 | 16 | 32 | 92 | 719-1170 | 719-2170 | 719-5170 | 719-6170 |
| 18 | 16 | 32 | 92 | 719-1180 | 719-2180 | 719-5180 | 719-6180 |
| 19 | 16 | 32 | 92 | 719-1190 | 719-2190 | 719-5190 | 719-6190 |
| 20 | 20 | 38 | 104 | 719-1200 | 719-2200 | 719-5200 | 719-6200 |
| 21 | 20 | 38 | 104 | 719-1210 | 719-2210 | 719-5210 | 719-6210 |
| 22 | 20 | 38 | 104 | 719-1220 | 719-2220 | 719-5220 | 719-6220 |
| 23 | 20 | 38 | 104 | 719-1230 | 719-2230 | 719-5230 | 719-6230 |
| 24 | 25 | 26 | 102 | 719-1240 | 719-2240 | 719-5240 | 719-6240 |
| 25 | 25 | 26 | 102 | 719-1250 | 719-2250 | 719-5250 | 719-6250 |



Cutting Tools

ROUGHING END MILLS, LONG LENGTH DIN STANDARD



2 FLUTE BALL NOSE END MILLS DIN STANDARD



WWW.PRECOTOOLS.CN

| Size (mm) | Shank Dia. (mm) | Flute Length | Overall Length | No.s of Flutes | M2HSS | | | M42HSS |
|-----------|-----------------|--------------|----------------|----------------|----------|------------|----------|------------|
| | | | | | M2HSS | Tin-Coated | M42HSS | Tin-Coated |
| 6 | 6 | 24 | 68 | 4 | 717-1060 | 717-2060 | 717-5060 | 717-6060 |
| 8 | 10 | 38 | 88 | 4 | 717-1080 | 717-2080 | 717-5080 | 717-6080 |
| 10 | 10 | 45 | 95 | 4 | 717-1100 | 717-2100 | 717-5100 | 717-6100 |
| 11 | 12 | 45 | 102 | 4 | 717-1110 | 717-2110 | 717-5110 | 717-6110 |
| 12 | 12 | 53 | 110 | 4 | 717-1120 | 717-2120 | 717-5120 | 717-6120 |
| 14 | 12 | 53 | 110 | 4 | 717-1140 | 717-2140 | 717-5140 | 717-6140 |
| 16 | 16 | 63 | 123 | 4 | 717-1160 | 717-2160 | 717-5160 | 717-6160 |
| 18 | 16 | 63 | 123 | 4 | 717-1180 | 717-2180 | 717-5180 | 717-6180 |
| 20 | 20 | 75 | 141 | 4 | 717-1200 | 717-2200 | 717-5200 | 717-6200 |
| 22 | 20 | 75 | 141 | 4 | 717-1220 | 717-2220 | 717-5220 | 717-6220 |
| 22 | 20 | 75 | 141 | 5 | 717-1221 | 717-2221 | 717-5221 | 717-6221 |
| 25 | 25 | 90 | 166 | 4 | 717-1250 | 717-2250 | 717-5250 | 717-6250 |
| 25 | 25 | 90 | 166 | 5 | 717-1251 | 717-2251 | 717-5251 | 717-6251 |
| 28 | 25 | 90 | 166 | 5 | 717-1280 | 717-2280 | 717-5280 | 717-6280 |
| 30 | 25 | 90 | 166 | 5 | 717-1300 | 717-2300 | 717-5300 | 717-6300 |
| 30 | 25 | 90 | 166 | 6 | 717-1301 | 717-2301 | 717-5301 | 717-6301 |
| 32 | 32 | 106 | 186 | 5 | 717-1320 | 717-2320 | 717-5320 | 717-6320 |
| 32 | 32 | 106 | 186 | 6 | 717-1321 | 717-2321 | 717-5321 | 717-6321 |
| 35 | 32 | 106 | 186 | 5 | 717-1350 | 717-2350 | 717-5350 | 717-6350 |
| 40 | 40 | 125 | 217 | 6 | 717-1400 | 717-2400 | 717-5400 | 717-6400 |
| 40 | 40 | 125 | 217 | 8 | 717-1401 | 717-2401 | 717-5401 | 717-6401 |
| 45 | 40 | 125 | 217 | 6 | 717-1450 | 717-2450 | 717-5450 | 717-6450 |
| 45 | 40 | 125 | 217 | 8 | 717-1451 | 717-2451 | 717-5451 | 717-6451 |
| 50 | 50 | 150 | 252 | 6 | 717-1500 | 717-2500 | 717-5500 | 717-6500 |
| 50 | 50 | 150 | 252 | 8 | 717-1501 | 717-2501 | 717-5501 | 717-6501 |
| 55 | 50 | 150 | 252 | 6 | 717-1550 | 717-2550 | 717-5550 | 717-6550 |
| 55 | 50 | 150 | 252 | 8 | 717-1551 | 717-2551 | 717-5551 | 717-6551 |
| 63 | 63 | 180 | 292 | 6 | 717-1630 | 717-2630 | 717-5630 | 717-6630 |
| 63 | 63 | 180 | 292 | 8 | 717-1631 | 717-2631 | 717-5631 | 717-6631 |
| 71 | 63 | 180 | 292 | 6 | 717-1710 | 717-2710 | 717-5710 | 717-6710 |
| 71 | 63 | 180 | 292 | 8 | 717-1711 | 717-2711 | 717-5711 | 717-6711 |

| Size (mm) | Shank Dia. (mm) | Flute Length | Overall Length | M2HSS | | | M42HSS |
|-----------|-----------------|--------------|----------------|----------|------------|----------|------------|
| | | | | M2HSS | Tin-Coated | M42HSS | Tin-Coated |
| 2 | 6 | 4 | 48 | 718-1020 | 718-2020 | 718-5020 | 718-6020 |
| 2.5 | 6 | 5 | 49 | 718-1025 | 718-2025 | 718-5025 | 718-6025 |
| 3 | 6 | 6 | 50 | 718-1030 | 718-2030 | 718-5030 | 718-6030 |
| 3.5 | 6 | 7 | 51 | 718-1035 | 718-2035 | 718-5035 | 718-6035 |
| 4 | 6 | 7 | 51 | 718-1040 | 718-2040 | 718-5040 | 718-6040 |
| 4.5 | 6 | 8 | 52 | 718-1045 | 718-2045 | 718-5045 | 718-6045 |
| 5 | 6 | 8 | 52 | 718-1050 | 718-2050 | 718-5050 | 718-6050 |
| 5.5 | 6 | 8 | 52 | 718-1055 | 718-2055 | 718-5055 | 718-6055 |
| 6 | 8 | 8 | 52 | 718-1060 | 718-2060 | 718-5060 | 718-6060 |
| 6.5 | 10 | 10 | 60 | 718-1065 | 718-2065 | 718-5065 | 718-6065 |
| 7 | 10 | 10 | 60 | 718-1070 | 718-2070 | 718-5070 | 718-6070 |
| 7.5 | 10 | 11 | 61 | 718-1075 | 718-2075 | 718-5075 | 718-6075 |
| 8 | 10 | 11 | 61 | 718-1080 | 718-2080 | 718-5080 | 718-6080 |
| 8.5 | 10 | 13 | 63 | 718-1085 | 718-2085 | 718-5085 | 718-6085 |
| 9 | 10 | 13 | 63 | 718-1090 | 718-2090 | 718-5090 | 718-6090 |
| 10 | 10 | 13 | 63 | 718-1100 | 718-2100 | 718-5100 | 718-6100 |
| 11 | 12 | 16 | 73 | 718-1110 | 718-2110 | 718-5110 | 718-6110 |
| 12 | 12 | 16 | 73 | 718-1120 | 718-2120 | 718-5120 | 718-6120 |
| 13 | 12 | 16 | 73 | 718-1130 | 718-2130 | 718-5130 | 718-6130 |
| 14 | 12 | 16 | 73 | 718-1140 | 718-2140 | 718-5140 | 718-6140 |
| 15 | 12 | 16 | 73 | 718-1150 | 718-2150 | 718-5150 | 718-6150 |
| 16 | 16 | 19 | 79 | 718-1160 | 718-2160 | 718-5160 | 718-6160 |
| 17 | 16 | 19 | 79 | 718-1170 | 718-2170 | 718-5170 | 718-6170 |
| 18 | 16 | 19 | 79 | 718-1180 | 718-2180 | 718-5180 | 718-6180 |
| 19 | 16 | 19 | 79 | 718-1190 | 718-2190 | 718-5190 | 718-6190 |
| 20 | 20 | 22 | 88 | 718-1200 | 718-2200 | 718-5200 | 718-6200 |
| 21 | 20 | 22 | 88 | 718-1210 | 718-2210 | 718-5210 | 718-6210 |
| 22 | 20 | 22 | 88 | 718-1220 | 718-2220 | 718-5220 | 718-6220 |
| 23 | 20 | 22 | 88 | 718-1230 | 718-2230 | 718-5230 | 718-6230 |
| 24 | 25 | 26 | 102 | 718-1240 | 718-2240 | 718-5240 | 718-6240 |
| 25 | 25 | 26 | 102 | 718-1250 | 718-2250 | 718-5250 | 718-6250 |