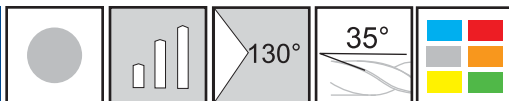


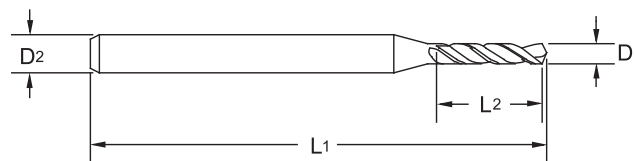
Twister® GP Series 302



Micro drills are manufactured in up to 3 different flute lengths, depending on diameter.



- Drills available with color coded depth setting rings upon request.



| Tool No. | EDP | Diameter | | | | Shank | | OAL | | Flute Length | |
|----------|-------|----------|-------------|------|---------|-------|-------|-------|----|--------------|------|
| | | D1 | | | | D2 | | L1 | | L2 | |
| | | Inch | Letter/Wire | mm | Decimal | Inch | mm | Inch | mm | Inch | mm |
| 30200390 | 32001 | | 102 | 0.10 | .0039 | 1/8 | 3.175 | 1-1/2 | 38 | .065 | 1.70 |
| 30200430 | 32005 | | 101 | | .0043 | 1/8 | | 1-1/2 | | .065 | |
| 30200470 | 32009 | | 100 | | .0047 | 1/8 | | 1-1/2 | | .065 | |
| 30200510 | 32013 | | 99 | | .0051 | 1/8 | | 1-1/2 | | .065 | |
| 30200550 | 32017 | | 98 | | .0055 | 1/8 | | 1-1/2 | | .065 | |
| 30200590 | 32021 | | 97 | 0.15 | .0059 | 1/8 | 3.175 | 1-1/2 | 38 | .100 | 2.50 |
| 30200600 | 32025 | | | | .0060 | 1/8 | | 1-1/2 | | .100 | |
| 30200630 | 32029 | | 96 | | .0063 | 1/8 | | 1-1/2 | | .100 | |
| 30200670 | 32033 | | 95 | | .0067 | 1/8 | | 1-1/2 | | .100 | |
| 30200700 | 32037 | | | | .0070 | 1/8 | | 1-1/2 | | .100 | |
| 30200710 | 32041 | | 94 | | .0071 | 1/8 | | 1-1/2 | | .100 | |
| 30200750 | 32045 | | 93 | | .0075 | 1/8 | | 1-1/2 | | .100 | |
| 30200780 | 32049 | | | 0.20 | .0078 | | 3.175 | | 38 | | 3.20 |
| 30200790 | 32053 | | 92 | | .0079 | 1/8 | | 1-1/2 | | .125 | |
| 30200800 | 32057 | | | | .0080 | 1/8 | | 1-1/2 | | .125 | |
| 30200830 | 32061 | | 91 | | .0083 | 1/8 | | 1-1/2 | | .125 | |
| 30200870 | 32065 | | 90 | | .0087 | 1/8 | | 1-1/2 | | .125 | |
| 30200900 | 32069 | | | | .0090 | 1/8 | | 1-1/2 | | .125 | |
| 30200910 | 32073 | | 89 | | .0091 | 1/8 | | 1-1/2 | | .125 | |
| 30200950 | 32077 | | 88 | | .0095 | 1/8 | | 1-1/2 | | .125 | |
| 30200980 | 32081 | | | 0.25 | .0098 | | 3.175 | | 38 | | 3.80 |
| 30201000 | 32085 | | 87 | | .0100 | 1/8 | | 1-1/2 | | .150 | |
| 30201050 | 32089 | | 86 | | .0105 | 1/8 | | 1-1/2 | | .150 | |
| 30201100 | 32093 | | 85 | | .0110 | 1/8 | | 1-1/2 | | .150 | |
| 30201150 | 32097 | | 84 | | .0115 | 1/8 | | 1-1/2 | | .150 | |
| 30201180 | 32101 | | | 0.30 | .0118 | | 3.175 | | 38 | | 4.80 |
| 30201200 | 32105 | | 83 | | .0120 | 1/8 | | 1-1/2 | | .190 | |
| 30201250 | 32109 | | 82 | | .0125 | 1/8 | | 1-1/2 | | .190 | |
| 30201300 | 32113 | | 81 | | .0130 | 1/8 | | 1-1/2 | | .190 | |
| 30201350 | 32117 | | 80 | | .0135 | 1/8 | | 1-1/2 | | .190 | |
| 30201351 | 32119 | | 80 | | .0135 | 1/8 | | 1-1/2 | | .250 | |
| 30201380 | 32121 | | | 0.35 | .0138 | | 3.175 | | 38 | | 4.80 |
| 30201381 | 32123 | | | 0.35 | .0138 | | 3.175 | | 38 | | 6.35 |
| 30201450 | 32125 | | 79 | | .0145 | 1/8 | | 1-1/2 | | .190 | |

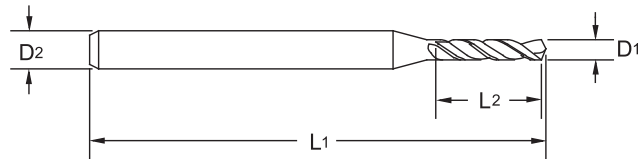
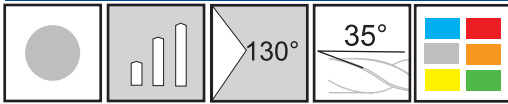
| Inch | |
|---------|----------------|
| D1 | Tolerance |
| ≤ 0.010 | +0.000/-0.0003 |
| > 0.010 | +0.000/-0.0005 |
| L1 | Tolerance |
| ≤ 0.010 | +/-0.005 |
| > 0.010 | +/-0.005 |
| D2 | Tolerance |
| ≤ .125 | +0.000/-0.0002 |

| Metric (mm) | |
|-------------|---------------|
| D1 | Tolerance |
| ≤ 0.25 | +0.000/-0.008 |
| > 0.25 | +0.000/-0.013 |
| L1 | Tolerance |
| ≤ 0.25 | +/-0.130 |
| > 0.25 | +/-0.130 |
| D2 | Tolerance |
| ≤ 3.18 | +0.000/-0.005 |

For our High Performance Micro Drill see page 81 for the 305 Series.



Series 302 Continued



| Tool No. | EDP | Diameter | | | | Shank | | OAL | | Flute Length | |
|----------|-------|----------|-------------|------|---------|-------|-------|-------|----|--------------|------|
| | | D1 | | | | D2 | | L1 | | L2 | |
| | | Inch | Letter/Wire | mm | Decimal | Inch | mm | Inch | mm | Inch | mm |
| 30201451 | 32127 | | 79 | | .0145 | 1/8 | | 1-1/2 | | .250 | |
| 30201560 | 32129 | 1/64 | | | .0156 | 1/8 | | 1-1/2 | | .190 | |
| 30201561 | 32131 | 1/64 | | | .0156 | 1/8 | | 1-1/2 | | .250 | |
| 30201570 | 32133 | | | 0.40 | .0157 | | 3.175 | | 38 | | 4.80 |
| 30201571 | 32135 | | | 0.40 | .0157 | | 3.175 | | 38 | | 6.35 |
| 30201600 | 32137 | | 78 | | .0160 | 1/8 | | 1-1/2 | | .190 | |
| 30201601 | 32139 | | 78 | | .0160 | 1/8 | | 1-1/2 | | .250 | |
| 30201770 | 32141 | | | 0.45 | .0177 | | 3.175 | | 38 | | 4.80 |
| 30201771 | 32143 | | | 0.45 | .0177 | | 3.175 | | 38 | | 6.35 |
| 30201772 | 32144 | | | 0.45 | .0177 | | 3.175 | | 38 | | 8.13 |
| 30201800 | 32145 | | 77 | | .0180 | 1/8 | | 1-1/2 | | .190 | |
| 30201801 | 32147 | | 77 | | .0180 | 1/8 | | 1-1/2 | | .250 | |
| 30201802 | 32148 | | 77 | | .0180 | 1/8 | | 1-1/2 | | .320 | |
| 30201970 | 32149 | | | 0.50 | .0197 | | 3.175 | | 38 | | 4.80 |
| 30201971 | 32151 | | | 0.50 | .0197 | | 3.175 | | 38 | | 6.35 |
| 30201972 | 32152 | | | 0.50 | .0197 | | 3.175 | | 38 | | 8.13 |
| 30202000 | 32153 | | 76 | | .0200 | 1/8 | | 1-1/2 | | .190 | |
| 30202001 | 32155 | | 76 | | .0200 | 1/8 | | 1-1/2 | | .250 | |
| 30202002 | 32156 | | 76 | | .0200 | 1/8 | | 1-1/2 | | .320 | |
| 30202100 | 32157 | | 75 | | .0210 | 1/8 | | 1-1/2 | | .190 | |
| 30202101 | 32159 | | 75 | | .0210 | 1/8 | | 1-1/2 | | .250 | |
| 30202102 | 32160 | | 75 | | .0210 | 1/8 | | 1-1/2 | | .320 | |
| 30202170 | 32161 | | | 0.55 | .0217 | | 3.175 | | 38 | | 4.80 |
| 30202171 | 32163 | | | 0.55 | .0217 | | 3.175 | | 38 | | 6.35 |
| 30202172 | 32164 | | | 0.55 | .0217 | | 3.175 | | 38 | | 8.13 |
| 30202250 | 32165 | | 74 | | .0225 | 1/8 | | 1-1/2 | | .190 | |
| 30202251 | 32167 | | 74 | | .0225 | 1/8 | | 1-1/2 | | .250 | |
| 30202252 | 32168 | | 74 | | .0225 | 1/8 | | 1-1/2 | | .320 | |
| 30202360 | 32169 | | | 0.60 | .0236 | | 3.175 | | 38 | | 4.80 |
| 30202361 | 32171 | | | 0.60 | .0236 | | 3.175 | | 38 | | 6.35 |
| 30202362 | 32172 | | | 0.60 | .0236 | | 3.175 | | 38 | | 8.13 |
| 30202400 | 32173 | | 73 | | .0240 | 1/8 | | 1-1/2 | | .190 | |
| 30202401 | 32175 | | 73 | | .0240 | 1/8 | | 1-1/2 | | .250 | |
| 30202402 | 32176 | | 73 | | .0240 | 1/8 | | 1-1/2 | | .320 | |
| 30202500 | 32177 | | 72 | | .0250 | 1/8 | | 1-1/2 | | .190 | |
| 30202501 | 32179 | | 72 | | .0250 | 1/8 | | 1-1/2 | | .250 | |
| 30202502 | 32180 | | 72 | | .0250 | 1/8 | | 1-1/2 | | .320 | |
| 30202560 | 32181 | | | 0.65 | .0256 | | 3.175 | | 38 | | 4.80 |
| 30202561 | 32183 | | | 0.65 | .0256 | | 3.175 | | 38 | | 6.35 |
| 30202562 | 32184 | | | 0.65 | .0256 | | 3.175 | | 38 | | 8.13 |
| 30202600 | 32185 | | 71 | | .0260 | 1/8 | | 1-1/2 | | .190 | |
| 30202601 | 32187 | | 71 | | .0260 | 1/8 | | 1-1/2 | | .250 | |

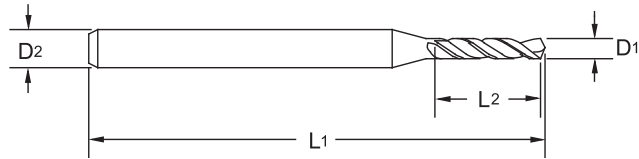
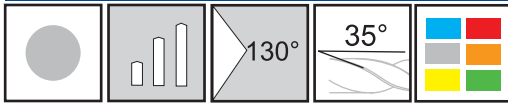


Series 302 Continued

| Tool No. | EDP | Diameter | | | | Shank | | OAL | | Flute Length | |
|----------|-------|----------|-------------|------|---------|-------|-------|-------|----|--------------|-------|
| | | D1 | | | | D2 | | L1 | | L2 | |
| | | Inch | Letter/Wire | mm | Decimal | Inch | mm | Inch | mm | Inch | mm |
| 30202602 | 32188 | | 71 | | .0260 | 1/8 | | 1-1/2 | | .320 | |
| 30202760 | 32189 | | | 0.70 | .0276 | | 3.175 | | 38 | | 6.35 |
| 30202761 | 32191 | | | 0.70 | .0276 | | 3.175 | | 38 | | 8.13 |
| 30202762 | 32192 | | | 0.70 | .0276 | | 3.175 | | 38 | | 10.16 |
| 30202800 | 32193 | | 70 | | .0280 | 1/8 | | 1-1/2 | | .250 | |
| 30202801 | 32195 | | 70 | | .0280 | 1/8 | | 1-1/2 | | .320 | |
| 30202802 | 32196 | | 70 | | .0280 | 1/8 | | 1-1/2 | | .400 | |
| 30202920 | 32197 | | 69 | | .0292 | 1/8 | | 1-1/2 | | .250 | |
| 30202921 | 32199 | | 69 | | .0292 | 1/8 | | 1-1/2 | | .320 | |
| 30202922 | 32200 | | 69 | | .0292 | 1/8 | | 1-1/2 | | .400 | |
| 30202950 | 32201 | | | 0.75 | .0295 | | 3.175 | | 38 | | 6.35 |
| 30202951 | 32203 | | | 0.75 | .0295 | | 3.175 | | 38 | | 8.13 |
| 30202952 | 32204 | | | 0.75 | .0295 | | 3.175 | | 38 | | 10.16 |
| 30203100 | 32205 | | 68 | | .0310 | 1/8 | | 1-1/2 | | .250 | |
| 30203101 | 32207 | | 68 | | .0310 | 1/8 | | 1-1/2 | | .400 | |
| 30203120 | 32209 | 1/32 | | | .0312 | 1/8 | | 1-1/2 | | .250 | |
| 30203121 | 32211 | 1/32 | | | .0312 | 1/8 | | 1-1/2 | | .400 | |
| 30203150 | 32213 | | | 0.80 | .0315 | | 3.175 | | 38 | | 6.35 |
| 30203151 | 32215 | | | 0.80 | .0315 | | 3.175 | | 38 | | 10.16 |
| 30203200 | 32217 | | 67 | | .0320 | 1/8 | | 1-1/2 | | .250 | |
| 30203201 | 32219 | | 67 | | .0320 | 1/8 | | 1-1/2 | | .400 | |
| 30203300 | 32221 | | 66 | | .0330 | 1/8 | | 1-1/2 | | .250 | |
| 30203301 | 32223 | | 66 | | .0330 | 1/8 | | 1-1/2 | | .400 | |
| 30203350 | 32225 | | | 0.85 | .0335 | | 3.175 | | 38 | | 6.35 |
| 30203351 | 32227 | | | 0.85 | .0335 | | 3.175 | | 38 | | 10.16 |
| 30203500 | 32229 | | 65 | | .0350 | 1/8 | | 1-1/2 | | .400 | |
| 30203540 | 32233 | | | 0.90 | .0354 | | 3.175 | | 38 | | 10.16 |
| 30203600 | 32237 | | 64 | | .0360 | 1/8 | | 1-1/2 | | .400 | |
| 30203700 | 32241 | | 63 | | .0370 | 1/8 | | 1-1/2 | | .400 | |
| 30203740 | 32245 | | | 0.95 | .0374 | | 3.175 | | 38 | | 10.16 |
| 30203800 | 32249 | | 62 | | .0380 | 1/8 | | 1-1/2 | | .400 | |
| 30203900 | 32253 | | 61 | | .0390 | 1/8 | | 1-1/2 | | .400 | |
| 30203940 | 32257 | | | 1.00 | .0394 | | 3.175 | | 38 | | 10.16 |
| 30204000 | 32261 | | 60 | | .0400 | 1/8 | | 1-1/2 | | .400 | |
| 30204100 | 32265 | | 59 | | .0410 | 1/8 | | 1-1/2 | | .400 | |
| 30204130 | 32269 | | | 1.05 | .0413 | | 3.175 | | 38 | | 10.16 |
| 30204200 | 32273 | | 58 | | .0420 | 1/8 | | 1-1/2 | | .400 | |
| 30204300 | 32277 | | 57 | | .0430 | 1/8 | | 1-1/2 | | .400 | |
| 30204330 | 32281 | | | 1.10 | .0433 | | 3.175 | | 38 | | 10.16 |
| 30204520 | 32285 | | | 1.15 | .0452 | | 3.175 | | 38 | | 10.16 |
| 30204650 | 32289 | | 56 | | .0465 | 1/8 | | 1-1/2 | | .400 | |
| 30204690 | 32293 | 3/64 | | | .0469 | 1/8 | | 1-1/2 | | .400 | |
| 30204720 | 32297 | | | 1.20 | .0472 | | 3.175 | | 38 | | 10.16 |
| 30204920 | 32301 | | | 1.25 | .0492 | | 3.175 | | 38 | | 10.16 |



Series 302 Continued



| Tool No. | EDP | Diameter | | | | Shank | | OAL | | Flute Length | |
|----------|-------|----------|-------------|------|---------|-------|-------|-------|----|--------------|-------|
| | | D1 | | | | D2 | | L1 | | L2 | |
| | | Inch | Letter/Wire | mm | Decimal | Inch | mm | Inch | mm | Inch | mm |
| 30205110 | 32305 | | | 1.30 | .0511 | | 3.175 | | 38 | | 10.16 |
| 30205200 | 32309 | | 55 | | .0520 | 1/8 | | 1-1/2 | | .400 | |
| 30205310 | 32313 | | | 1.35 | .0531 | | 3.175 | | 38 | | 10.16 |
| 30205500 | 32317 | | 54 | | .0550 | 1/8 | | 1-1/2 | | .400 | |
| 30205510 | 32321 | | | 1.40 | .0551 | | 3.175 | | 38 | | 10.16 |
| 30205710 | 32325 | | | 1.45 | .0571 | | 3.175 | | 38 | | 10.16 |
| 30205900 | 32329 | | | 1.50 | .0590 | | 3.175 | | 38 | | 10.16 |
| 30205950 | 32333 | | 53 | | .0595 | 1/8 | | 1-1/2 | | .400 | |
| 30206100 | 32341 | | | 1.55 | .0610 | | 3.175 | | 38 | | 10.16 |
| 30206250 | 32345 | 1/16 | | | .0625 | 1/8 | | 1-1/2 | | .480 | |
| 30206300 | 32349 | | | 1.60 | .0630 | | 3.175 | | 38 | | 12.19 |
| 30206350 | 32353 | | 52 | | .0635 | 1/8 | | 1-1/2 | | .480 | |
| 30206490 | 32357 | | | 1.65 | .0649 | | 3.175 | | 38 | | 12.19 |
| 30206690 | 32361 | | | 1.70 | .0669 | | 3.175 | | 38 | | 12.19 |
| 30206700 | 32365 | | 51 | | .0670 | 1/8 | | 1-1/2 | | .480 | |
| 30206890 | 32369 | | | 1.75 | .0689 | | 3.175 | | 38 | | 12.19 |
| 30207000 | 32373 | | 50 | | .0700 | 1/8 | | 1-1/2 | | .480 | |
| 30207080 | 32377 | | | 1.80 | .0708 | | 3.175 | | 38 | | 12.19 |
| 30207280 | 32381 | | | 1.85 | .0728 | | 3.175 | | 38 | | 12.19 |
| 30207300 | 32385 | | 49 | | .0730 | 1/8 | | 1-1/2 | | .480 | |
| 30207480 | 32389 | | | 1.90 | .0748 | | 3.175 | | 38 | | 12.19 |
| 30207600 | 32393 | | 48 | | .0760 | 1/8 | | 1-1/2 | | .480 | |
| 30207670 | 32397 | | | 1.95 | .0767 | | 3.175 | | 38 | | 12.19 |
| 30207810 | 32401 | 5/64 | | | .0781 | 1/8 | | 1-1/2 | | .480 | |
| 30207850 | 32405 | | 47 | | .0785 | 1/8 | | 1-1/2 | | .480 | |
| 30207870 | 32409 | | | 2.00 | .0787 | | 3.175 | | 38 | | 12.19 |
| 30208070 | 32413 | | | 2.05 | .0807 | | 3.175 | | 38 | | 12.19 |
| 30208100 | 32417 | | 46 | | .0810 | 1/8 | | 1-1/2 | | .480 | |
| 30208200 | 32421 | | 45 | | .0820 | 1/8 | | 1-1/2 | | .480 | |
| 30208270 | 32425 | | | 2.10 | .0827 | | 3.175 | | 38 | | 12.19 |
| 30208460 | 32429 | | | 2.15 | .0846 | | 3.175 | | 38 | | 12.19 |
| 30208600 | 32433 | | 44 | | .0860 | 1/8 | | 1-1/2 | | .480 | |
| 30208660 | 32437 | | | 2.20 | .0866 | | 3.175 | | 38 | | 12.19 |
| 30208860 | 32441 | | | 2.25 | .0886 | | 3.175 | | 38 | | 12.19 |
| 30208900 | 32445 | | 43 | | .0890 | 1/8 | | 1-1/2 | | .480 | |
| 30209060 | 32449 | | | 2.30 | .0906 | | 3.175 | | 38 | | 12.19 |
| 30209250 | 32453 | | | 2.35 | .0925 | | 3.175 | | 38 | | 12.19 |
| 30209350 | 32457 | | 42 | | .0935 | 1/8 | | 1-1/2 | | .480 | |
| 30209380 | 32461 | 3/32 | | | .0938 | 1/8 | | 1-1/2 | | .480 | |
| 30209450 | 32465 | | | 2.40 | .0945 | | 3.175 | | 38 | | 12.19 |



Series 302 Continued

| Tool No. | EDP | Diameter | | | | Shank | | OAL | | Flute Length | |
|----------|-------|----------|-------------|------|---------|-------|-------|-------|----|--------------|-------|
| | | D1 | | | | D2 | | L1 | | L2 | |
| | | Inch | Letter/Wire | mm | Decimal | Inch | mm | Inch | mm | Inch | mm |
| 30209600 | 32469 | | 41 | | .0960 | 1/8 | | 1-1/2 | | .480 | |
| 30209650 | 32473 | | | 2.45 | .0965 | | 3.175 | | 38 | | 12.19 |
| 30209800 | 32477 | | 40 | | .0980 | 1/8 | | 1-1/2 | | .480 | |
| 30209840 | 32481 | | | 2.50 | .0984 | | 3.175 | | 38 | | 12.19 |
| 30209950 | 32485 | | 39 | | .0995 | 1/8 | | 1-1/2 | | .480 | |
| 30210040 | 32489 | | | 2.55 | .1004 | | 3.175 | | 38 | | 12.19 |
| 30210150 | 32493 | | 38 | | .1015 | 1/8 | | 1-1/2 | | .480 | |
| 30210240 | 32497 | | | 2.60 | .1024 | | 3.175 | | 38 | | 12.19 |
| 30210400 | 32501 | | 37 | | .1040 | 1/8 | | 1-1/2 | | .480 | |
| 30210430 | 32503 | | | 2.65 | .1043 | | 3.175 | | 38 | | 12.19 |
| 30210630 | 32509 | | | 2.70 | .1063 | | 3.175 | | 38 | | 12.19 |
| 30210650 | 32513 | | 36 | | .1065 | 1/8 | | 1-1/2 | | .480 | |
| 30210830 | 32517 | | | 2.75 | .1083 | | 3.175 | | 38 | | 12.19 |
| 30210940 | 32521 | 7/64 | | | .1094 | 1/8 | | 1-1/2 | | .480 | |
| 30211000 | 32525 | | 35 | | .1100 | 1/8 | | 1-1/2 | | .480 | |
| 30211020 | 32529 | | | 2.80 | .1102 | | 3.175 | | 38 | | 12.19 |
| 30211100 | 32533 | | 34 | | .1110 | 1/8 | | 1-1/2 | | .480 | |
| 30211220 | 32537 | | | 2.85 | .1122 | | 3.175 | | 38 | | 12.19 |
| 30211300 | 32541 | | 33 | | .1130 | 1/8 | | 1-1/2 | | .480 | |
| 30211420 | 32545 | | | 2.90 | .1142 | | 3.175 | | 38 | | 12.19 |
| 30211600 | 32549 | | 32 | | .1160 | 1/8 | | 1-1/2 | | .480 | |
| 30211610 | 32551 | | | 2.95 | .1161 | | 3.175 | | 38 | | 12.19 |
| 30211810 | 32553 | | | 3.00 | .1181 | | 3.175 | | 38 | | 12.19 |
| 30212000 | 32557 | | 31 | | .1200 | 1/8 | | 1-1/2 | | .480 | |
| 30212010 | 32559 | | | 3.05 | .1201 | | 3.175 | | 38 | | 12.19 |
| 30212200 | 32561 | | | 3.10 | .1220 | | 3.175 | | 38 | | 12.19 |
| 30212400 | 32565 | | | 3.15 | .1240 | | 3.175 | | 38 | | 12.19 |
| 30212500 | 32569 | 1/8 | | | .1250 | 1/8 | | 1-1/2 | | .480 | |

302

Twister® GP



Page 166



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