# Draft Angles

| DEPTH | 1/2° | 1° | 2° | 3° | 4° | 5° | 6° | 7° | 8°° | 9 | 10° | 11° | 12° | 15° | 20° | 25° | 30° | DEPTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/32 | .0003 | .0005 | .001 | .0016 | .002 | .0027 | .003 | .0038 | .004 | .005 | .0055 | .006 | .0066 | .008 | .011 | .014 | .018 | 1/32 |
| 1/16 | .0005 | .0011 | .002 | .0033 | .004 | .0055 | .007 | .0077 | .009 | .010 | .011 | .012 | .013 | .017 | .023 | .029 | .036 | 1/16 |
| 3/32 | .0008 | .0017 | .003 | .0049 | .006 | .008 | .010 | .0115 | .013 | .015 | .0165 | .018 | .020 | .025 | .034 | .044 | .054 | 3/32 |
| 1/8 | .0011 | .0022 | .004 | .0066 | .009 | .0109 | .013 | .015 | .018 | .020 | .022 | .024 | .027 | .033 | .045 | .058 | .072 | 1/8 |
| 5/32 | .0014 | .0028 | .005 | .008 | .011 | .014 | .016 | .019 | .022 | .025 | .027 | .030 | .033 | .042 | .057 | .073 | .089 | 5/32 |
| 3/16 | .0016 | .0033 | .006 | .0098 | .013 | .016 | .019 | .023 | .027 | .030 | .033 | .036 | .040 | .050 | .068 | .087 | .108 | 3/16 |
| 7/32 | .0019 | .0039 | .008 | .011 | .015 | .019 | .023 | .027 | .031 | .035 | .039 | .042 | .047 | .059 | .080 | .102 | .126 | 7/32 |
| 1/4 | .0022 | .0043 | .009 | .013 | .018 | .022 | .026 | .031 | .035 | .040 | .044 | .049 | .053 | .067 | .091 | .117 | .144 | 1/4 |
| 9/32 | .0025 | .005 | .010 | .014 | .020 | .024 | .030 | .034 | .040 | .045 | .049 | .055 | .060 | .075 | .102 | .131 | .162 | 9/32 |
| 5/16 | .0027 | .0055 | .011 | .016 | .022 | .027 | .033 | .038 | .044 | .050 | .055 | .061 | .066 | .084 | .114 | .146 | .180 | 5/16 |
| 11/32 | .003 | .006 | .012 | .018 | .024 | .030 | .036 | .042 | .049 | .055 | .061 | .067 | .073 | .092 | .125 | .160 | .197 | 11/32 |
| 3/8 | .0032 | .0066 | .013 | .020 | .026 | .033 | .039 | .046 | .053 | .060 | .066 | .073 | .080 | .100 | .136 | .175 | .217 | 3/8 |
| 13/32 | .0035 | .007 | .014 | .021 | .028 | .035 | .043 | .050 | .057 | .064 | .071 | .079 | .086 | .108 | .148 | .189 | .234 | 13/32 |
| 7/16 | .0038 | .0077 | .015 | .023 | .031 | .038 | .046 | .054 | .062 | .069 | .077 | .085 | .093 | .117 | .159 | .204 | .253 | 7/16 |
| 15/32 | .0041 | .008 | .016 | .024 | .033 | .041 | .049 | .058 | .066 | .074 | .083 | .091 | .100 | .126 | .171 | .219 | .270 | 15/32 |
| 1/2 | .0044 | .0088 | .018 | .026 | .035 | .044 | .053 | .061 | .071 | .079 | .088 | .097 | .106 | .134 | .182 | .233 | .289 | 1/2 |
| 17/32 | .0046 | .009 | .019 | .028 | .037 | .046 | .056 | .065 | .075 | .084 | .093 | .103 | .113 | .142 | .193 | .247 | .306 | 17/32 |
| 9/16 | .0049 | .0099 | .020 | .030 | .039 | .049 | .059 | .069 | .079 | .088 | .099 | .109 | .120 | .151 | .205 | .262 | .325 | 9/16 |
| 19/32 | .0052 | .010 | .021 | .031 | .042 | .052 | .062 | .073 | .084 | .094 | .105 | .115 | .127 | .159 | .216 | .277 | .343 | 19/32 |
| 5/8 | .0055 | .011 | .022 | .033 | .044 | .055 | .066 | .077 | .088 | .100 | .110 | .120 | .133 | .167 | .227 | .291 | .361 | 5/8 |
| 21/32 | .0057 | .011 | .023 | .035 | .046 | .057 | .069 | .082 | .092 | .104 | .115 | .127 | .140 | .176 | .239 | .306 | .379 | 21/32 |
| 11/16 | .006 | .012 | .024 | .036 | .048 | .060 | .072 | .085 | .096 | .109 | .121 | .133 | .147 | .183 | .250 | .321 | .397 | 11/16 |
| 23/32 | .0063 | .013 | .025 | .038 | .050 | .063 | .075 | .088 | .101 | .114 | .126 | .139 | .153 | .193 | .261 | .335 | .415 | 23/32 |
| 3/4 | .0065 | .013 | .027 | .039 | .053 | .066 | .079 | .092 | .106 | .119 | .132 | .146 | .159 | .201 | .273 | .350 | .433 | 3/4 |
| 25/32 | .0068 | .014 | .028 | .040 | .055 | .068 | .081 | .096 | .110 | .124 | .137 | .152 | .166 | .209 | .284 | .364 | .451 | 25/32 |
| 13/16 | .0071 | .014 | .029 | .043 | .057 | .071 | .085 | .100 | .115 | .129 | .143 | .158 | .173 | .218 | .296 | .379 | .469 | 13/16 |
| 27/32 | .0074 | .015 | .030 | .045 | .059 | .074 | .089 | .104 | .119 | .134 | .149 | .163 | .180 | .226 | .307 | .393 | .487 | 27/32 |
| 7/8 | .0076 | .015 | .031 | .046 | .061 | .077 | .092 | .107 | .123 | .139 | .154 | .171 | .186 | .234 | .318 | .408 | .505 | 7/8 |
| 29/32 | .0079 | .016 | .032 | .048 | .063 | .079 | .095 | .111 | .128 | .144 | .159 | .176 | .193 | .243 | .329 | .422 | .523 | 29/32 |
| 15/16 | .0082 | .017 | .033 | .050 | .066 | .082 | .098 | .115 | .132 | .149 | .165 | .182 | .200 | .251 | .341 | .437 | .541 | 15/16 |
| 31/32 | .0085 | .017 | .034 | .051 | .068 | .084 | .101 | .119 | .137 | .153 | .170 | .188 | .206 | .260 | .353 | .452 | .559 | 31/32 |
| 1 | .0087 | .0175 | .035 | .052 | .070 | .087 | .105 | .123 | .141 | .158 | .176 | .194 | .213 | .268 | .364 | .466 | .577 | 1 |
| DEPTH | 1/2° | 1° | 2° | 3° | 4° | 5° | 6° | 7° | 8° | 9° | 10° | 11° | 12° | 15° | 20° | 25° | 30° | DEPTH |

The depth columns represent cavities from 1/32" to 1" in increments of 1/32". The most commonly used draft angles are noted in degrees at the top and bottom of the table. The measurement listed in any block represents the amount of draft obtained with the corresponding angle and cavity depth.

EXAMPLE: The difference between the diameter of the top and the diameter of the bottom of a 1/2" inch cavity with a draft angle of 8° is found by noting the figure in the table opposite the 1/2" depth and corresponding to the 8° draft angle (.071°) and multiplying by two (1.420").

Draft Angle
.071" Draft
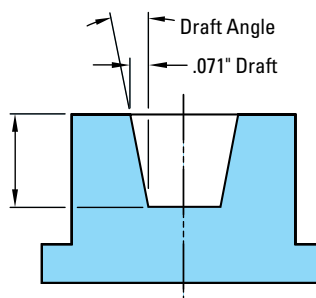
The length and necessary angle for cam pins used in actuating core pulls can also be calculated with this table.

EXAMPLE: The length of a pin set at a 15° angle required to pull a core 1". Since 20° and 1" of length allow .364" travel, a 4" pin permits four times the travel (1.456").

**Technical Reference | Draft Angles**