# SIP™

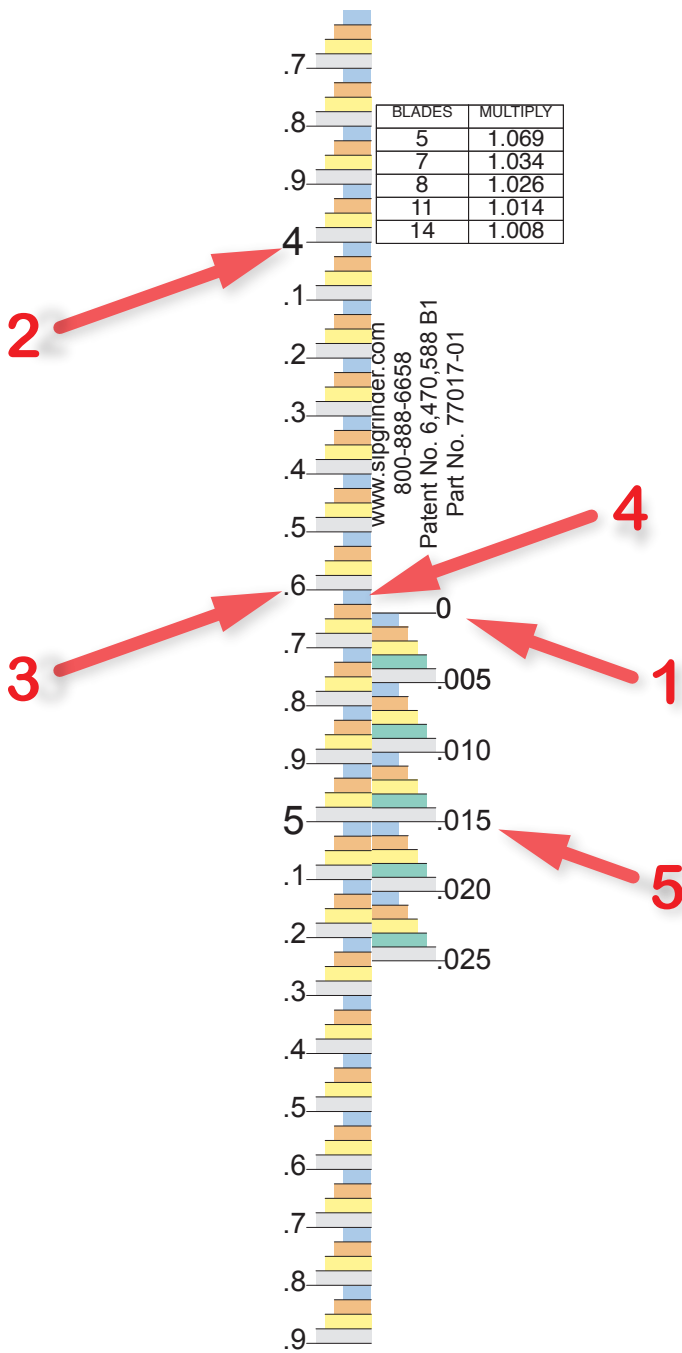## SIMPLEX IDEAL PEERLESS

# Reel Diameter Tape™ Instructions

Place the magnet of the Reel Diameter Tape™ on a blade reel.

Make sure that the magnet does not extend beyond theoretical line drawn between two blades.

Keep tension on the Reel Diameter Tape™ as you rotate the reel and wrap the Reel Diameter Tape™ around the reel.

Make sure that you wrap it in a straight line so that the end of the tape lines up with the beginning of the tape and that the edge of the tape lines up with the vernier line.

| BLADES | MULTIPLY |
|--------|----------|
| 5 | 1.069 |
| 7 | 1.034 |
| 8 | 1.026 |
| 11 | 1.014 |
| 14 | 1.008 |

www.slpgrinder.com
800-888-6658
Patent No. 6,470,588 B1
Part No. 77017-01

**Reading the Reel Diameter Tape™**

The Reel Diameter Tape™ measures the diameter of a reel by wrapping around the circumference. It is calibrated so that each inch is 3.142 inches long or pi (π) inches long. This will automatically convert the circumference into a diameter.

The Reel Diameter Tape™ also has a vernier, which makes it capable of measuring the diameter of the reel to .001 inches.

Make sure that the Reel Diameter Tape™ is tight and straight.

**1**  Locate the zero (0) on the right side or vernier side of the Reel Diameter Tape™. Read the measurement just above the zero.

**2**  Each large numbered line is 1 inch. Here the last large number before the zero is 4 inches.

**3**  Each small numbered line is .1 inches. Here the last small number before the zero is .6 inches.

**4**  Each small line without numbers is .025 inches. Here the the last line before the zero is .025 inches. The basic reading at the left would then be 4.625.

**5**  To read the vernier, find the two lines that best line up and read the number on the right side or the vernier side. This would be .015 inches in the illustration on the left.

Add them together and get your final measurement of 4.640 inches.
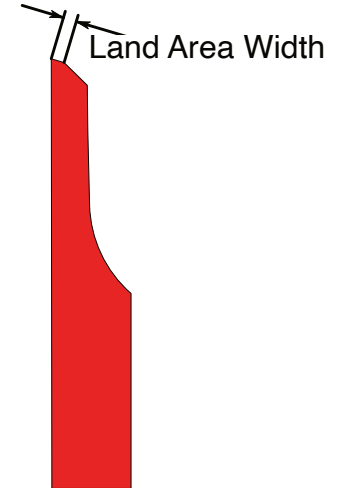
To measure the cone shape of the reel, you would measure each end of the reel and subtract the difference.

To find the actual diameter of the reel, scan the QR code and follow the instructions on that sheet.

| | |
|---|---|
| **2** | 4.000 |
| **3** | .600 |
| **4** | .025 |
| **5** | +   .015 |
| | 4.640 |

# SIP™
## SIMPLEX IDEAL PEERLESS

# Reel Diameter Tape™ Conversion Table



Land Area Width

It is not necessary to use the multiplier when checking variations in a reel, ie cone shaped, or variations from cutting unit to cutting unit. Just use the difference of the Reel Diameter Tape readings.

If you want the actual diameter of the reel, for instance, when determining reel end of life, you will use the multipliers below. First, using calipers, measure the land area width as shown. Then, refer to the table for your reel nominal size, number of blades, and land area width. Then, multiply your Reel Diameter Tape reading by that multiplier. For example: a 5 inch reel with 11 blades and a .050 inches land area width has a multiplier of 1.0123. If your Reel Diameter Tape reading is 4.853 you get 4.853 x 1.0123 = Ø4.912 .

### 5 Inch Reels Multiplier by Land Area Width

| Number of Blades | 0.000 in / 0.0 mm | 0.025 in / 0.6 mm | 0.050 in / 1.3 mm | 0.075 in / 1.9 mm | 0.100 in / 2.5 mm | 0.150 in / 3.8 mm | 0.200 in / 5.1 mm | 0.300 in / 7.6 mm |
|---|---|---|---|---|---|---|---|---|
| 5 | 1.0690 | 1.0672 | 1.0655 | 1.0639 | 1.0623 | 1.0591 | 1.0559 | 1.0499 |
| 7 | 1.0344 | 1.0332 | 1.0321 | 1.0310 | 1.0299 | 1.0277 | 1.0256 | 1.0215 |
| 8 | 1.0262 | 1.0252 | 1.0242 | 1.0232 | 1.0223 | 1.0204 | 1.0186 | 1.0151 |
| 9 | 1.0206 | 1.0197 | 1.0189 | 1.0180 | 1.0172 | 1.0156 | 1.0140 | 1.0108 |
| 10 | 1.0166 | 1.0158 | 1.0151 | 1.0143 | 1.0136 | 1.0122 | 1.0107 | 1.0079 |
| 11 | 1.0137 | 1.0130 | 1.0123 | 1.0116 | 1.0110 | 1.0097 | 1.0084 | 1.0057 |
| 14 | 1.0084 | 1.0079 | 1.0074 | 1.0068 | 1.0063 | 1.0053 | 1.0043 | 1.0020 |
| 15 | 1.0073 | 1.0068 | 1.0063 | 1.0059 | 1.0054 | 1.0044 | 1.0035 | 1.0013 |

### 7 Inch Reels Multiplier by Land Area Width

| Number of Blades | 0.000 in / 0.0 mm | 0.025 in / 0.6 mm | 0.050 in / 1.3 mm | 0.075 in / 1.9 mm | 0.100 in / 2.5 mm | 0.150 in / 3.8 mm | 0.200 in / 5.1 mm | 0.300 in / 7.6 mm |
|---|---|---|---|---|---|---|---|---|
| 5 | 1.0690 | 1.0677 | 1.0665 | 1.0653 | 1.0641 | 1.0618 | 1.0595 | 1.0551 |
| 7 | 1.0344 | 1.0335 | 1.0327 | 1.0319 | 1.0311 | 1.0295 | 1.0280 | 1.0250 |
| 8 | 1.0262 | 1.0255 | 1.0247 | 1.0240 | 1.0234 | 1.0220 | 1.0207 | 1.0181 |
| 9 | 1.0206 | 1.0200 | 1.0193 | 1.0187 | 1.0181 | 1.0169 | 1.0158 | 1.0135 |
| 10 | 1.0166 | 1.0161 | 1.0155 | 1.0150 | 1.0144 | 1.0134 | 1.0124 | 1.0103 |
| 11 | 1.0137 | 1.0132 | 1.0127 | 1.0122 | 1.0117 | 1.0108 | 1.0099 | 1.0080 |
| 14 | 1.0084 | 1.0080 | 1.0077 | 1.0073 | 1.0069 | 1.0062 | 1.0055 | 1.0040 |
| 15 | 1.0073 | 1.0070 | 1.0066 | 1.0063 | 1.0059 | 1.0052 | 1.0046 | 1.0032 |