



# WCIS

# TOTALSEAL™

*West Coast Industrial Supplies Pty Ltd*

SEALING PRODUCT SPECIALISTS | ACN 105 345 051 | ABN 88 105 345 051



Hydraulic Seals  
Pneumatic Seals  
Industrial Packings  
O rings (Individually & Kits)  
Seal Kits (OEM & Custom)  
Custom Made Seals

Rubber Extrusions  
Moulded Elastomers  
Engineering Plastics

New & Refurbished Mechanical Seals  
New & Refurbished Valves & Actuators

Gasket Materials & Cut Gaskets  
Pump & Valve Packing  
Die Formed Graphite Rings  
Metallic & Non Metallic Bellows Joints

Thermal Expansion Joints  
Filtration (wet & dry)  
Dust Suppression  
Dust Excluders  
Safety Spray Shields

Loctite Sealants  
Specialised Greases  
High Duty Synthetic Lubricants

[www.wcis.com.au](http://www.wcis.com.au) | [sales@wcis.com.au](mailto:sales@wcis.com.au)

2/17 Blue Eagle Dr Meadowbrook QLD 4131

**P:** 61 7 3200 9211 | **F:** 61 7 3200 3453 | **Email:** [gasketsales@wcis.com.au](mailto:gasketsales@wcis.com.au)

16 Irwin Street Bellevue WA 6056 | PO Box 2034 Midland WA 6936

**P:** 61 8 9374 0355 | **F:** 61 8 9374 0366 | **Email:** [wasales@wcis.com.au](mailto:wasales@wcis.com.au)



**We Care In Service.**

## QUICK REFERENCE O'RING LIST - IMPERIAL (BS SERIES)

| ID      | CROSS SECTION |      |     |      |
|---------|---------------|------|-----|------|
|         | 1/16          | 3/32 | 1/8 | 3/16 |
|         | PART NUMBERS  |      |     |      |
| 1/32    | 001           |      |     |      |
| 3/64    | 002           |      |     |      |
| 1/16    | 003           | 102  |     |      |
| 5/64    | 004           |      |     |      |
| 3/32    | 005           | 103  |     |      |
| 1/8     | 006           | 104  |     |      |
| 5/32    | 007           | 105  |     |      |
| 3/16    | 008           | 106  | 201 |      |
| 7/32    | 009           | 107  |     |      |
| 1/4     | 010           | 108  | 202 |      |
| 5/16    | 011           | 109  | 203 |      |
| 3/8     | 012           | 110  | 204 |      |
| 7/16    | 013           | 111  | 205 | 309  |
| 1/2     | 014           | 112  | 206 | 310  |
| 9/16    | 015           | 113  | 207 | 311  |
| 5/8     | 016           | 114  | 208 | 312  |
| 11/16   | 017           | 115  | 209 | 313  |
| 3/4     | 018           | 116  | 210 | 314  |
| 13/16   | 019           | 117  | 211 | 315  |
| 7/8     | 020           | 118  | 212 | 316  |
| 15/16   | 021           | 119  | 213 | 317  |
| 1       | 022           | 120  | 214 | 318  |
| 1.1/16  | 023           | 121  | 215 | 319  |
| 1.1/8   | 024           | 122  | 216 | 320  |
| 1.3/16  | 025           | 123  | 217 | 321  |
| 1.1/4   | 026           | 124  | 218 | 322  |
| 1.5/16  | 027           | 125  | 219 | 323  |
| 1.3/8   | 028           | 126  | 220 | 324  |
| 1.7/16  |               | 127  | 221 |      |
| 1.1/2   | 029           | 128  | 222 | 325  |
| 1.9/16  |               | 129  |     |      |
| 1.5/8   | 030           | 130  | 223 | 326  |
| 1.11/16 |               | 131  |     |      |
| 1.3/4   | 031           | 132  | 224 | 327  |
| 1.13/16 |               | 133  |     |      |
| 1.7/8   | 032           | 134  | 225 | 328  |
| 1.15/16 |               | 135  |     |      |
| 2       | 033           | 136  | 226 | 329  |
| 2.1/16  |               | 137  |     |      |
| 2.1/8   | 034           | 138  | 227 | 330  |
| 2.3/16  |               | 139  |     |      |

| ID      | CROSS SECTION |      |     |      |     |
|---------|---------------|------|-----|------|-----|
|         | 1/16          | 3/32 | 1/8 | 3/16 | 1/4 |
|         | PART NUMBERS  |      |     |      |     |
| 2.1/4   | 035           | 140  | 228 | 331  | 407 |
| 2.5/16  |               | 141  |     |      |     |
| 2.3/8   | 036           | 142  | 229 | 332  | 408 |
| 2.7/16  |               | 143  |     |      |     |
| 2.1/2   | 037           | 144  | 230 | 333  | 409 |
| 2.9/16  |               | 145  |     |      |     |
| 2.5/8   | 038           | 146  | 231 | 334  | 410 |
| 2.11/16 |               | 147  |     |      |     |
| 2.3/4   | 039           | 148  | 232 | 335  | 411 |
| 2.13/16 |               | 149  |     |      |     |
| 2.7/8   | 040           | 150  | 233 | 336  | 412 |
| 3       | 041           | 151  | 234 | 337  | 413 |
| 3.1/8   |               |      | 235 | 338  | 414 |
| 3.1/4   | 042           | 152  | 236 | 339  | 415 |
| 3.3/8   |               |      | 237 | 340  | 416 |
| 3.1/2   | 043           | 153  | 238 | 341  | 417 |
| 3.5/8   |               |      | 239 | 342  | 418 |
| 3.3/4   | 044           | 154  | 240 | 343  | 419 |
| 3.7/8   |               |      | 241 | 344  | 420 |
| 4       | 045           | 155  | 242 | 345  | 421 |
| 4.1/8   |               |      | 243 | 346  | 422 |
| 4.1/4   | 046           | 156  | 244 | 347  | 423 |
| 4.3/8   |               |      | 245 | 348  | 424 |
| 4.1/2   | 047           | 157  | 246 | 349  | 425 |
| 4.5/8   |               |      | 247 | 350  | 426 |
| 4.3/4   | 048           | 158  | 248 | 351  | 427 |
| 4.7/8   |               |      | 249 | 352  | 428 |
| 5       | 049           | 159  | 250 | 353  | 429 |
| 5.1/8   |               |      | 251 | 354  | 430 |
| 5.1/4   | 050           | 160  | 252 | 355  | 431 |
| 5.3/8   |               |      | 253 | 356  | 432 |
| 5.1/2   |               | 161  | 254 | 357  | 433 |
| 5.5/8   |               |      | 255 | 358  | 434 |
| 5.3/4   |               | 162  | 256 | 359  | 435 |
| 5.7/8   |               |      | 257 | 360  | 436 |
| 6       |               | 163  | 258 | 361  | 437 |
| 6.1/4   |               | 164  | 259 | 362  | 438 |
| 6.1/2   |               | 165  | 260 | 363  | 439 |
| 6.3/4   |               | 166  | 261 | 364  | 440 |
| 7       |               | 167  | 262 | 365  | 441 |
| 7.1/4   |               | 168  | 263 | 366  | 442 |

| ID     | CROSS SECTION |     |      |      |
|--------|---------------|-----|------|------|
|        | 3/32          | 1/8 | 3/16 | 1/4  |
|        | PART NUMBERS  |     |      |      |
| 7.1/2  | 169           | 264 | 367  | 443  |
| 7.3/4  | 170           | 265 | 368  | 444  |
| 8      | 171           | 266 | 369  | 445  |
| 8.1/4  | 172           | 267 | 370  | 445A |
| 8.1/2  | 173           | 268 | 371  | 446  |
| 8.3/4  | 174           | 269 | 372  | 446A |
| 9      | 175           | 270 | 373  | 447  |
| 9.1/4  | 176           | 271 | 374  | 447A |
| 9.1/2  | 177           | 272 | 375  | 448  |
| 9.3/4  | 178           | 273 | 376  | 448A |
| 10     |               | 274 | 377  | 449  |
| 10.1/4 |               |     |      | 449A |
| 10.1/2 |               | 275 | 378  | 450  |
| 10.3/4 |               |     |      | 450A |
| 11     |               | 276 | 379  | 451  |
| 11.1/4 |               |     |      | 451A |
| 11.1/2 |               | 277 | 380  | 452  |
| 11.3/4 |               |     |      | 452A |
| 12     |               | 278 | 381  | 453  |
| 12.1/2 |               |     |      | 454  |
| 13     |               | 279 | 382  | 455  |
| 13.1/2 |               |     |      | 456  |
| 14     |               | 280 | 383  | 457  |
| 14.1/2 |               |     |      | 458  |
| 15     |               | 281 | 384  | 459  |
| 15.1/2 |               |     |      | 460  |
| 16     |               | 282 | 385  | 461  |
| 16.1/2 |               |     |      | 462  |
| 17     |               | 283 | 386  | 463  |
| 17.1/2 |               |     |      | 464  |
| 18     |               | 284 | 387  | 465  |
| 18.1/2 |               |     |      | 466  |
| 19     |               | 285 | 388  | 467  |
| 19.1/2 |               |     |      | 468  |
| 20     |               |     | 389  | 469  |
| 21     |               |     | 390  | 470  |
| 22     |               |     | 391  | 471  |
| 23     |               |     | 392  | 472  |
| 24     |               |     | 393  | 473  |
| 25     |               |     | 394  | 474  |
| 26     |               |     | 395  | 475  |

## BOSS O'RINGS (900 SERIES UNF)

| PART # | TUBE OD | ACTUAL SIZE |      |        |       |
|--------|---------|-------------|------|--------|-------|
|        |         | MM          |      | INCHES |       |
|        |         | ID          | CS   | ID     | CS    |
| 901    | 3/32    | 4.7         | 1.42 | 0.185  | 0.056 |
| 902    | 1/8     | 6.07        | 1.63 | 0.239  | 0.064 |
| 903    | 3/16    | 7.65        | 1.63 | 0.301  | 0.064 |
| 904    | 1/4     | 8.92        | 1.83 | 0.351  | 0.072 |
| 905    | 5/16    | 10.52       | 1.83 | 0.414  | 0.072 |
| 906    | 3/8     | 11.89       | 1.98 | 0.468  | 0.078 |
| 907    | 7/16    | 13.46       | 2.08 | 0.530  | 0.082 |
| 908    | 1/2     | 16.36       | 2.21 | 0.644  | 0.087 |
| 909    | 9/16    | 17.93       | 2.46 | 0.706  | 0.097 |
| 910    | 5/8     | 19.18       | 2.46 | 0.755  | 0.097 |

| PART # | TUBE OD | ACTUAL SIZE |      |        |       |
|--------|---------|-------------|------|--------|-------|
|        |         | MM          |      | INCHES |       |
|        |         | ID          | CS   | ID     | CS    |
| 911    | 11/16   | 21.92       | 2.95 | 0.863  | 0.116 |
| 912    | 3/4     | 23.47       | 2.95 | 0.924  | 0.116 |
| 913    | 13/16   | 25.04       | 2.95 | 0.986  | 0.116 |
| 914    | 7/8     | 26.59       | 2.95 | 1.048  | 0.116 |
| 916    | 1       | 29.74       | 2.95 | 1.171  | 0.116 |
| 918    | 1.1/8   | 34.42       | 2.95 | 1.355  | 0.116 |
| 920    | 1.1/4   | 37.47       | 3    | 1.475  | 0.118 |
| 924    | 1.1/2   | 43.69       | 3    | 1.72   | 0.118 |
| 928    | 1.3/4   | 53.09       | 3    | 2.09   | 0.118 |
| 932    | 2       | 59.36       | 3    | 2.337  | 0.118 |

*West Coast Industrial Supplies Pty Ltd*

## JAPANESE METRIC O'RINGS (P & G SERIES)

| PART # | SIZE (MM) |     | PART # | SIZE (MM) |     | PART # | SIZE (MM) |     | PART # | SIZE (MM) |     |
|--------|-----------|-----|--------|-----------|-----|--------|-----------|-----|--------|-----------|-----|
|        | ID        | CS  |        | ID        | CS  |        | ID        | CS  |        | ID        | CS  |
| G25    | 24.4      | 3.1 | G330   | 329.3     | 5.7 | P38    | 37.7      | 3.5 | P170   | 169.5     | 8.4 |
| G30    | 29.4      | 3.1 | G340   | 339.3     | 5.7 | P39    | 38.7      | 3.5 | P175   | 174.5     | 8.4 |
| G35    | 34.4      | 3.1 | G350   | 349.3     | 5.7 | P40    | 39.7      | 3.5 | P180   | 179.5     | 8.4 |
| G40    | 39.4      | 3.1 | G360   | 359.3     | 5.7 | P41    | 40.7      | 3.5 | P185   | 184.5     | 8.4 |
| G45    | 44.4      | 3.1 | G370   | 369.3     | 5.7 | P42    | 41.7      | 3.5 | P190   | 189.5     | 8.4 |
| G50    | 49.4      | 3.1 | G380   | 379.3     | 5.7 | P44    | 43.7      | 3.5 | P195   | 194.5     | 8.4 |
| G55    | 54.4      | 3.1 | G390   | 389.3     | 5.7 | P45    | 44.7      | 3.5 | P200   | 199.5     | 8.4 |
| G60    | 59.4      | 3.1 | G400   | 399.3     | 5.7 | P46    | 45.7      | 3.5 | P205   | 204.5     | 8.4 |
| G65    | 64.4      | 3.1 |        |           |     | P48    | 47.7      | 3.5 | P209   | 208.5     | 8.4 |
| G70    | 69.4      | 3.1 | P3     | 2.8       | 1.9 | P49    | 48.7      | 3.5 | P210   | 209.5     | 8.4 |
| G75    | 74.4      | 3.1 | P4     | 3.8       | 1.9 | P50    | 49.7      | 3.5 | P215   | 214.5     | 8.4 |
| G80    | 79.4      | 3.1 | P5     | 4.8       | 1.9 | P48A   | 47.6      | 5.7 | P220   | 219.5     | 8.4 |
| G85    | 84.4      | 3.1 | P6     | 5.8       | 1.9 | P50A   | 49.6      | 5.7 | P225   | 224.5     | 8.4 |
| G90    | 89.4      | 3.1 | P7     | 6.8       | 1.9 | P52    | 51.6      | 5.7 | P230   | 229.5     | 8.4 |
| G95    | 94.4      | 3.1 | P8     | 7.8       | 1.9 | P53    | 52.6      | 5.7 | P235   | 234.5     | 8.4 |
| G100   | 99.4      | 3.1 | P9     | 8.8       | 1.9 | P55    | 54.6      | 5.7 | P240   | 239.5     | 8.4 |
| G105   | 104.4     | 3.1 | P10    | 9.8       | 1.9 | P56    | 55.6      | 5.7 | P245   | 244.5     | 8.4 |
| G110   | 109.4     | 3.1 | P10A   | 9.8       | 2.4 | P58    | 57.6      | 5.7 | P250   | 249.5     | 8.4 |
| G115   | 114.4     | 3.1 | P11    | 10.8      | 2.4 | P60    | 59.6      | 5.7 | P255   | 254.5     | 8.4 |
| G120   | 119.4     | 3.1 | P11.2  | 11        | 2.4 | P62    | 61.6      | 5.7 | P260   | 259.5     | 8.4 |
| G125   | 124.4     | 3.1 | P12    | 11.8      | 2.4 | P63    | 62.6      | 5.7 | P265   | 264.5     | 8.4 |
| G130   | 129.4     | 3.1 | P12.5  | 12.3      | 2.4 | P65    | 64.6      | 5.7 | P270   | 269.5     | 8.4 |
| G135   | 134.4     | 3.1 | P14    | 13.8      | 2.4 | P67    | 66.6      | 5.7 | P275   | 274.5     | 8.4 |
| G140   | 139.4     | 3.1 | P15    | 14.8      | 2.4 | P70    | 69.6      | 5.7 | P280   | 279.5     | 8.4 |
| G145   | 144.4     | 3.1 | P16    | 15.8      | 2.4 | P71    | 70.6      | 5.7 | P285   | 284.5     | 8.4 |
| G150   | 149.3     | 5.7 | P17    | 16.8      | 2.4 | P75    | 74.6      | 5.7 | P290   | 289.5     | 8.4 |
| G155   | 154.3     | 5.7 | P18    | 17.8      | 2.4 | P80    | 79.6      | 5.7 | P295   | 294.5     | 8.4 |
| G160   | 159.3     | 5.7 | P19    | 18.8      | 2.4 | P85    | 84.6      | 5.7 | P300   | 299.5     | 8.4 |
| G165   | 164.3     | 5.7 | P20    | 19.8      | 2.4 | P90    | 89.6      | 5.7 | P305   | 304.5     | 8.4 |
| G170   | 169.3     | 5.7 | P21    | 20.8      | 2.4 | P95    | 94.6      | 5.7 | P310   | 309.5     | 8.4 |
| G175   | 174.3     | 5.7 | P22    | 21.8      | 2.4 | P100   | 99.6      | 5.7 | P315   | 314.5     | 8.4 |
| G180   | 179.3     | 5.7 | P22A   | 21.7      | 3.5 | P102   | 101.6     | 5.7 | P320   | 319.5     | 8.4 |
| G185   | 184.3     | 5.7 | P22.4  | 22.1      | 3.5 | P105   | 104.6     | 5.7 | P325   | 324.5     | 8.4 |
| G190   | 189.3     | 5.7 | P24    | 23.7      | 3.5 | P110   | 109.6     | 5.7 | P330   | 329.5     | 8.4 |
| G195   | 194.3     | 5.7 | P25    | 24.7      | 3.5 | P112   | 111.6     | 5.7 | P335   | 334.5     | 8.4 |
| G200   | 199.3     | 5.7 | P25.5  | 25.2      | 3.5 | P115   | 114.6     | 5.7 | P340   | 339.5     | 8.4 |
| G210   | 209.3     | 5.7 | P26    | 25.7      | 3.5 | P120   | 119.6     | 5.7 | P345   | 344.5     | 8.4 |
| G220   | 219.3     | 5.7 | P28    | 27.7      | 3.5 | P125   | 124.6     | 5.7 | P350   | 349.5     | 8.4 |
| G230   | 229.3     | 5.7 | P29    | 28.7      | 3.5 | P130   | 129.6     | 5.7 | P355   | 354.5     | 8.4 |
| G240   | 239.3     | 5.7 | P29.5  | 29.2      | 3.5 | P132   | 131.6     | 5.7 | P360   | 359.5     | 8.4 |
| G250   | 249.3     | 5.7 | P30    | 29.7      | 3.5 | P135   | 134.6     | 5.7 | P365   | 364.5     | 8.4 |
| G260   | 259.3     | 5.7 | P31    | 30.7      | 3.5 | P140   | 139.6     | 5.7 | P370   | 369.5     | 8.4 |
| G270   | 269.3     | 5.7 | P31.5  | 31.2      | 3.5 | P145   | 144.6     | 5.7 | P375   | 374.5     | 8.4 |
| G280   | 279.3     | 5.7 | P32    | 31.7      | 3.5 | P150   | 149.6     | 5.7 | P380   | 379.5     | 8.4 |
| G290   | 289.3     | 5.7 | P34    | 33.7      | 3.5 | P150A  | 149.5     | 8.4 | P385   | 384.5     | 8.4 |
| G300   | 299.3     | 5.7 | P35    | 34.7      | 3.5 | P155   | 154.5     | 8.4 | P390   | 389.5     | 8.4 |
| G310   | 309.3     | 5.7 | P35.5  | 35.2      | 3.5 | P160   | 159.5     | 8.4 | P395   | 394.5     | 8.4 |
| G320   | 319.3     | 5.7 | P36    | 35.7      | 3.5 | P165   | 164.5     | 8.4 | P400   | 399.5     | 8.4 |

### STANDARD METRIC O'RINGS

Available in the following cross sections:

1mm 1.5mm 1.6mm 1.78mm 1.9mm 2mm 2.4mm 2.5mm 2.62mm 2.7mm  
 3mm 3.5mm 3.53mm 3.6mm 4mm 4.5mm 5mm 5.33mm 5.5mm 5.7mm  
 6mm 6.5mm 6.99mm 7mm 7.5mm 8mm 8.4mm 8.5mm 9mm 9.5mm 10mm

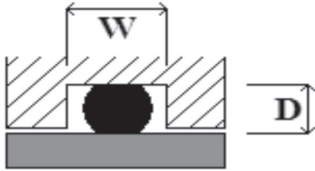
***O'rings are always measured by inside diameter (ID) by cross section (CS).***

***Non standard size o'rings can be manufactured by machining, hot vulcanising, cold jointing, semi moulded or fully moulded.***

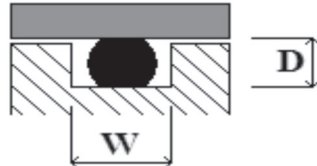
*West Coast Industrial Supplies Pty Ltd*

QLD: P: 61 7 3200 9211 | F: 61 7 3200 3453 | WA: P: 61 8 9374 0355 | F: 61 8 9374 0366

## O'RING MACHINING DIMENSIONS



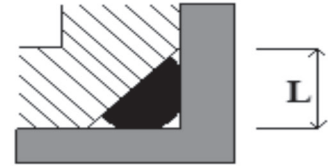
**DYNAMIC  
GLAND**



**DYNAMIC  
PISTON**



**STATIC  
FACE**



**CONICAL  
GROOVE**

| CROSS SECTION |                  |
|---------------|------------------|
| ACTUAL (MM)   | NOMINAL (INCHES) |
| 1             |                  |
| 1.5           |                  |
| 1.6           |                  |
| 1.78          | 1/16             |
| 1.9           |                  |
| 2             |                  |
| 2.4           |                  |
| 2.5           |                  |
| 2.62          | 3/32             |
| 2.7           |                  |
| 3             |                  |
| 3.1           |                  |
| 3.5           |                  |
| 3.53          | 1/8              |
| 4             |                  |
| 4.5           |                  |
| 5             |                  |
| 5.33          | 3/16             |
| 5.7           |                  |
| 6             |                  |
| 6.99          | 1/4              |
| 8.4           |                  |

| GROOVE DEPTH (D) |      |        |      |
|------------------|------|--------|------|
| DYNAMIC          |      | STATIC |      |
| MIN              | MAX  | MIN    | MAX  |
| 0.80             | 0.85 | 0.70   | 0.75 |
| 1.25             | 1.30 | 1.15   | 1.20 |
| 1.33             | 1.38 | 1.23   | 1.28 |
| 1.47             | 1.53 | 1.33   | 1.38 |
| 1.59             | 1.64 | 1.48   | 1.53 |
| 1.69             | 1.74 | 1.55   | 1.60 |
| 2.07             | 2.13 | 1.87   | 1.92 |
| 2.18             | 2.23 | 1.95   | 2.00 |
| 2.25             | 2.34 | 2.03   | 2.08 |
| 2.41             | 2.48 | 2.13   | 2.20 |
| 2.64             | 2.71 | 2.30   | 2.50 |
| 2.69             | 2.81 | 2.32   | 2.52 |
| 3.09             | 3.21 | 2.70   | 2.90 |
| 3.09             | 3.21 | 2.70   | 2.90 |
| 3.54             | 3.66 | 3.10   | 3.30 |
| 3.97             | 4.13 | 3.47   | 3.73 |
| 4.40             | 4.60 | 3.85   | 4.15 |
| 4.70             | 4.86 | 4.12   | 4.42 |
| 5.08             | 5.28 | 4.45   | 4.75 |
| 5.30             | 5.50 | 4.65   | 4.95 |
| 6.11             | 6.31 | 5.45   | 5.78 |
| 7.55             | 7.75 | 6.65   | 6.95 |

| GROOVE WIDTH (W) |       |       |
|------------------|-------|-------|
| NO. OF BACK UPS  |       |       |
| NIL              | ONE   | TWO   |
| 1.30             | -     | -     |
| 1.95             | -     | -     |
| 2.08             | -     | -     |
| 2.34             | 4.10  | 6.10  |
| 2.57             | 4.10  | 6.10  |
| 2.60             | 4.10  | 6.10  |
| 3.12             | 4.60  | 6.50  |
| 3.25             | 4.60  | 6.50  |
| 3.38             | 4.60  | 6.50  |
| 3.50             | 4.80  | 6.50  |
| 3.90             | 5.40  | 6.90  |
| 4.00             | 5.40  | 6.90  |
| 4.55             | 5.50  | 7.40  |
| 4.55             | 5.50  | 7.40  |
| 5.20             | 6.70  | 8.10  |
| 6.10             | 7.55  | 9.15  |
| 6.50             | 8.40  | 10.20 |
| 6.95             | 8.40  | 10.20 |
| 7.47             | 9.30  | 11.10 |
| 7.80             | 9.90  | 12.30 |
| 9.10             | 10.05 | 13.50 |
| 11.05            | 13.20 | 15.40 |

| CONICAL GROOVE (L) |
|--------------------|
| 1.40               |
| 2.00               |
| 2.20               |
| 2.40               |
| 2.65               |
| 2.70               |
| 3.20               |
| 3.40               |
| 3.50               |
| 3.65               |
| 4.00               |
| 4.10               |
| 4.80               |
| 4.80               |
| 5.40               |
| 6.05               |
| 6.70               |
| 7.15               |
| 7.70               |
| 8.00               |
| 9.4                |
| 11.40              |

### EXTRUSION GAP

| PRESSURE (PSI)  | 100  | 200  | 300  | 400  | 600  | 800  | 1000 | 1500 | 2000 | 3000 | 4000 | 5000 | 6000 |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| WITH BACK UP    | .036 | .032 | .028 | .026 | .024 | .021 | .018 | .014 | .010 | .006 | .004 | .003 | .002 |
| WITHOUT BACK UP | .031 | .025 | .022 | .018 | .014 | .010 | .007 | .004 | .002 |      |      |      |      |

## ENGINEERING PLASTICS

### APPROXIMATE SERVICE TEMPERATURE RANGES FOR COMMONLY USED ENGINEERING PLASTICS.

|        |   |                 |
|--------|---|-----------------|
| PVC    | Poly Vinyl Chloride                       | -30°C to 60°C   |
| HDPE   | High Density Poly Ethylene                | -30°C to 90°C   |
| PP     | Poly Propylene                            | -160°C to 90°C  |
| UHMWPE | Ultra High Molecular Weight Poly Ethylene | -260°C to 90°C  |
| POM    | Poly Oxy Methylene (Acetal / Delrin)      | -40°C to 100°C  |
| PA     | Poly Amide (Nylon)                        | -40°C to 100°C  |
| PPS    | Poly Phenylene Sulphide (Ryton)           | -170°C to 230°C |
| PTFE   | Poly Tetra Fluoro Ethylene (Teflon)       | -100°C to 260°C |
| PEEK   | Poly Ether Ether Ketone (Vicatex)         | -65°C to 300°C  |

*Most of the above engineering plastics are available with the following additives:*

*Glass, Graphite, Carbon, Molybdenum or Bronze.*

*For more detailed information or further technical assistance, please do not hesitate to contact our sales team.*

*West Coast Industrial Supplies Pty Ltd*

# ELASTOMER COMPATABILITY

## APPROXIMATE SERVICE TEMPERATURE RANGES FOR COMMONLY USED ELASTOMERS.

|         |                               |                 |
|---------|-------------------------------|-----------------|
| NBR     | Nitrile                       | -34°C to 121°C  |
| SBR     | Low Temp. Nitrile             | -55°C to 107°C  |
| HNBR    | High Temp. Nitrile            | -32°C to 149°C  |
| VITON   | Fluorocarbon                  | -26°C to 205°C  |
| ETP     | Viton Extreme                 | 0°C to 200°C    |
| TEFLEX  | Teflon Encapsulated Viton     | -20°C to 204°C  |
| VMQ     | Silicone                      | -54°C to 232°C  |
| FVMQ    | Fluorosilicone                | -73°C to 177°C  |
| EPR     | Ethylene Rubber               | -57°C to 121°C  |
| CR      | Neoprene                      | -37°C to 107°C  |
| NR      | Natural Rubber                | -55°C to 80°C   |
| HYPALON | Chlorosulfonated Polyethelene | -60°C to 120°C  |
| POLY    | Polyurethane                  | -40°C to 82°C   |
| PTFE    | Poly Tetra Fluoro Ethylene    | -100°C to 260°C |
| AFLAS   | TFE Propylene                 | -4°C to 232°C   |
| KALREZ  | Perfluorelastomer             | -26°C to 260°C  |

## COMPARISON OF PROPERTIES OF COMMONLY USED ELASTOMERS.

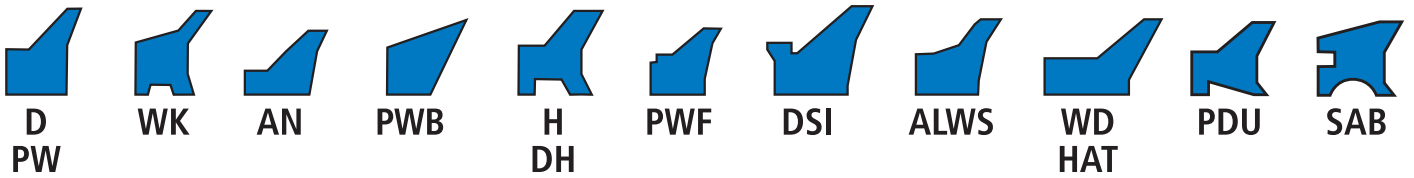
| 1 = Excellent<br>2 = Good<br>3 = Fair<br>4 = Poor<br>5 = Insufficient<br>Data<br>Elastomer<br>Type<br>(Polymer) | Abrasion Resistance | Acid Resistance | Chemical Resistance | Cold Resistance | Dynamic Properties | Electrical Properties | Flame Resistance | Heat Resistance | Impermeability | Oil Resistance | Ozone Resistance | Set Resistance | Tear Resistance | Tensile Strength | Water/Steam Resistance | Weather Resistance |
|---|---------------------|-----------------|---------------------|-----------------|--------------------|-----------------------|------------------|-----------------|----------------|----------------|------------------|----------------|-----------------|------------------|------------------------|--------------------|
|   | NBR                 | 2               | 3                   | 2/3             | 2                  | 1/2                   | 3                | 4               | 2              | 2              | 1                | 4              | 1/2             | 2/3              | 1/2                    | 2/3                |
| SBR   | 2                   | 3               | 2/3                 | 2               | 2                  | 2                     | 4                | 2/3             | 3              | 4              | 4                | 2              | 2/3             | 1/2              | 2/3                    | 3                  |
| HNBR  | 2                   | 1               | 2/3                 | 2               | 1/2                | 3                     | 4                | 1               | 2              | 1              | 2                | 1/2            | 2/3             | 1                | 1                      | 2                  |
| VITON   | 2                   | 1               | 1                   | 3/4             | 1/2                | 3                     | 1                | 1               | 2              | 1              | 1                | 1/2            | 3               | 1/2              | 2/3                    | 1                  |
| ETP   | 3                   | 3               | 2                   | 3               | 1                  | 5                     | 1                | 1               | 1              | 1              | 1                | 2              | 3/4             | 2/3              | 2                      | 1                  |
| TEFLEX  | 4                   | 1               | 1                   | 3/4             | 2                  | 2                     | 1                | 1               | 2              | 1/2            | 1                | 2              | 2/3             | 1/2              | 1                      | 1                  |
| VMQ   | 4                   | 2/3             | 1/2                 | 1               | 4                  | 1                     | 3                | 1               | 4              | 2/3            | 1                | 1/2            | 4               | 4                | 3                      | 1                  |
| FVMQ  | 4                   | 2/3             | 1                   | 1/2             | 4                  | 1                     | 2                | 1               | 4              | 2              | 1                | 1/2            | 4               | 3                | 3                      | 1                  |
| EPR   | 1/2                 | 2               | 1                   | 1/2             | 1/2                | 2                     | 4                | 1               | 2              | 4              | 1                | 1/2            | 1/2             | 1/2              | 1                      | 1                  |
| CR  | 2                   | 2/3             | 2/3                 | 2/3             | 3                  | 3                     | 2                | 2               | 2              | 2/3            | 1/2              | 3              | 2/3             | 2                | 3                      | 1                  |
| NR  | 1                   | 2/3             | 2/3                 | 2               | 1                  | 2                     | 4                | 3               | 3              | 4              | 4                | 2              | 1/2             | 1                | 2/3                    | 3                  |
| HYPALON   | 2                   | 2               | 1                   | 2/3             | 3                  | 3                     | 2                | 2               | 2              | 3              | 1                | 3              | 2               | 3                | 3                      | 1                  |
| POLY  | 1                   | 4               | 2/3                 | 2               | 1                  | 2/3                   | 4                | 3               | 2              | 2              | 1                | 3              | 1/2             | 1                | 4                      | 1                  |
| PTFE  | 4                   | 1               | 1                   | 1               | 2                  | 2                     | 1                | 1               | 2              | 1/2            | 1                | 2              | 1               | 1                | 1                      | 1                  |
| AFLAS   | 1/2                 | 1               | 1                   | 4               | 2                  | 1                     | 1                | 1               | 2              | 1              | 1                | 2              | 3/4             | 2/3              | 1/2                    | 1                  |
| KALREZ  | 4                   | 1               | 1                   | 3/4             | 3                  | 1                     | 1                | 1               | 2              | 1              | 1                | 2              | 3/4             | 2/3              | 1/2                    | 1                  |

*This is a general guide for the common elastomers used in everyday applications.*

*Should you require further technical assistance please do not hesitate to contact us.*

*West Coast Industrial Supplies Pty Ltd*

## WIPERS : Flexible



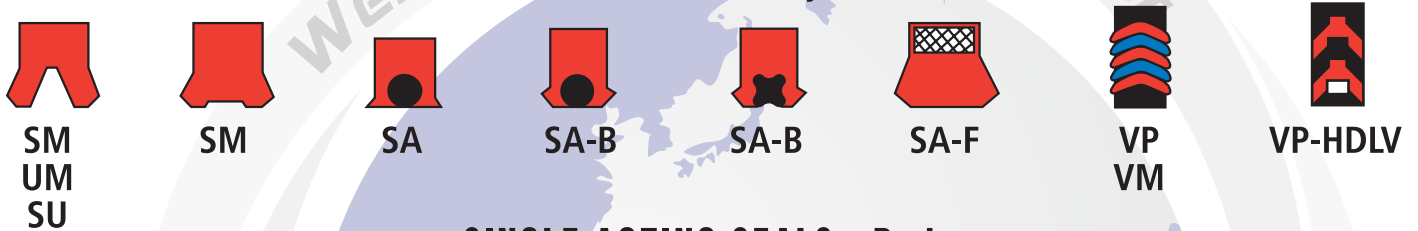
## WIPERS : Snap In



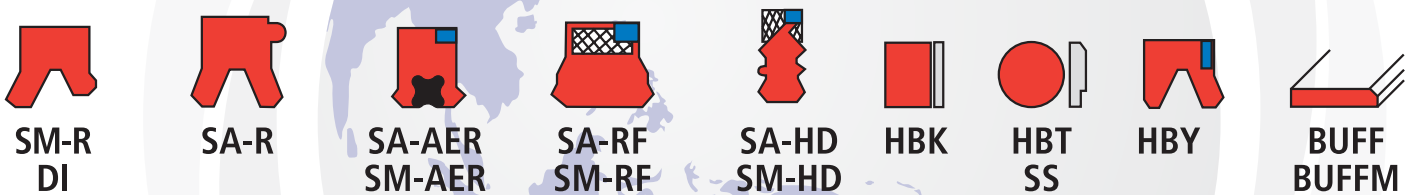
## WIPERS : Press Fit



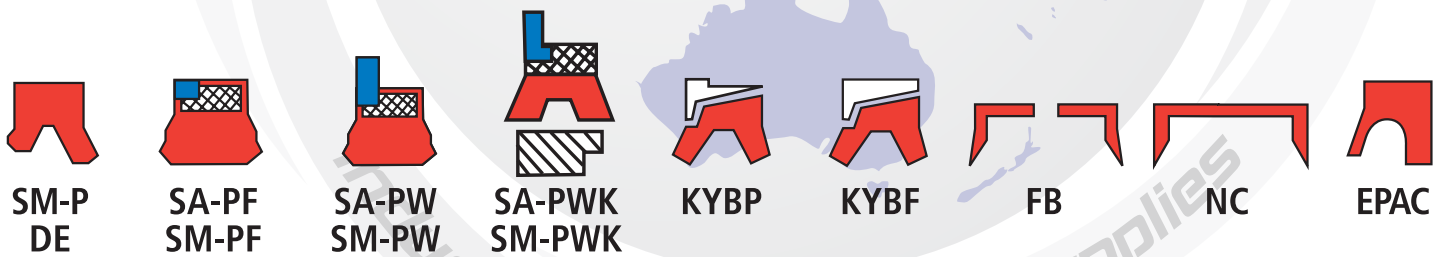
## SINGLE ACTING SEALS : Symmetrical



## SINGLE ACTING SEALS : Rod



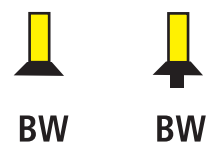
## SINGLE ACTING SEALS : Piston



## O'RINGS & BACK UPS



## BONDED WASHERS

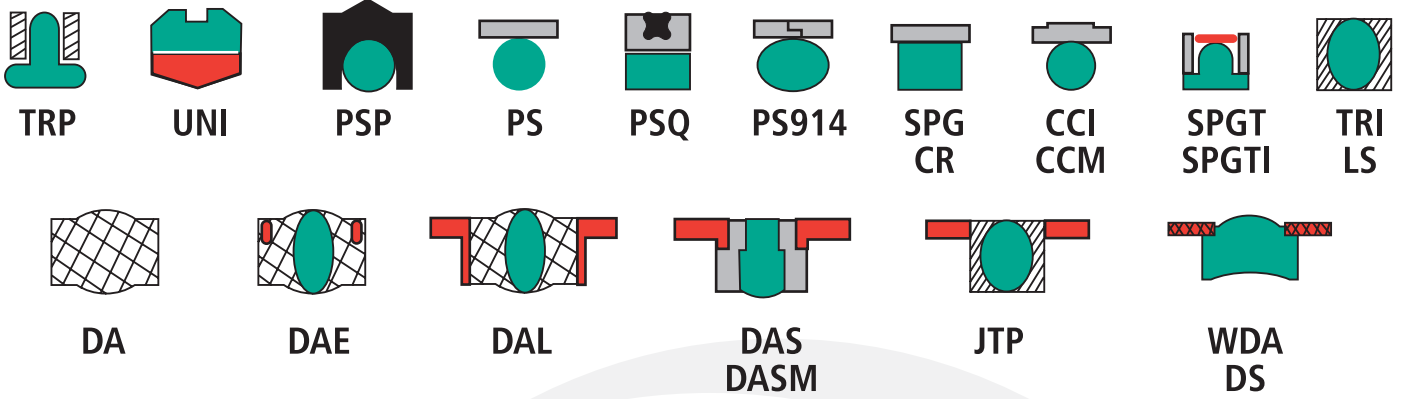


## HOIST SEALS & WIPERS

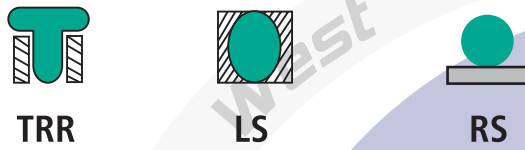


If your seal is not obtainable, we can have standard and

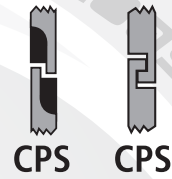
## DOUBLE ACTING SEALS : Piston



## DOUBLE ACTING SEALS : Rod



## CAST IRON PISTON RINGS



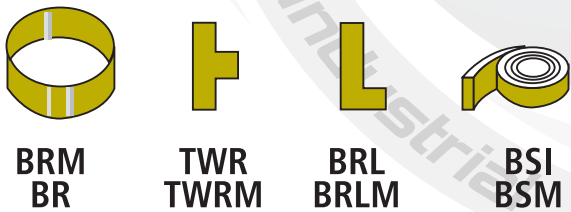
## PNEUMATIC SEALS : Wipers & Rod Seals



## PNEUMATIC SEALS: Piston Seals



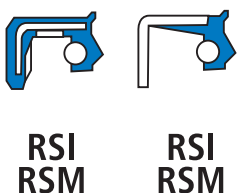
## GUIDING RINGS



## GLACIERS



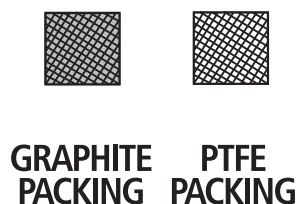
## ROTARY SEALS



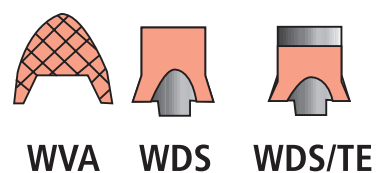
## VEE RINGS



## PACKINGS



## WATER PUMP SEALS



special profiles manufactured in a variety of materials.

QLD: P: 61 7 3200 9211 | F: 61 7 3200 3453 | WA: P: 61 8 9374 0355 | F: 61 8 9374 0366

# SIZE CONVERSION CHART : INCHES TO MILLIMETERS

| INCHES |        |        | INCHES  |        |        | INCHES  |        |         | INCHES  |         |         |
|--------|--------|--------|---------|--------|--------|---------|--------|---------|---------|---------|---------|
| FRAC.  | DEC.   | MM     | FRAC.   | DEC.   | MM     | FRAC.   | DEC.   | MM      | FRAC.   | DEC.    | MM      |
| 1/64   | .0004  | 0.01   | 25/32   | .781   | 19.844 | 2.3/16  | 2.165  | 55      | 3.11/16 | 3.6875  | 93.663  |
|        | .004   | 0.10   |         | .7874  | 20     |         | 2.1875 | 55.563  |         | 3.7008  | 94      |
|        | .01    | 0.25   | 51/64   | .797   | 20.241 |         | 2.2047 | 56      | 3.23/32 | 3.719   | 94.456  |
|        | .0156  | 0.397  | 13/16   | .8125  | 20.638 | 2.7/32  | 2.219  | 56.356  |         | 3.7401  | 95      |
|        | .0197  | 0.50   |         | .8268  | 21     |         | 2.244  | 57      | 3.3/4   | 3.75    | 95.25   |
|        | .0295  | 0.75   | 53/64   | .828   | 21.034 | 2.1/4   | 2.25   | 57.15   |         | 3.7795  | 96      |
| 1/32   | .03125 | 0.794  | 27/32   | .844   | 21.431 | 2.9/32  | 2.281  | 57.944  | 3.25/32 | 3.781   | 96.044  |
|        | .0394  | 1      | 55/64   | .859   | 21.828 |         | 2.283  | 58      | 3.13/16 | 3.8125  | 96.838  |
| 3/64   | .0469  | 1.191  |         | .8661  | 22     | 2.5/16  | 2.3125 | 58.738  |         | 3.8189  | 97      |
|        | .059   | 1.5    | 7/8     | .875   | 22.225 |         | 2.3228 | 59      | 3.27/32 | 3.844   | 97.631  |
| 1/16   | .0625  | 1.588  | 57/64   | .8906  | 22.622 | 2.11/32 | 2.344  | 59.531  | 3.7/8   | 3.8583  | 98      |
| 5/64   | .0781  | 1.984  |         | .9055  | 23     |         | 2.3622 | 60      |         | 3.875   | 98.425  |
|        | .0787  | 2      | 29/32   | .9062  | 23.019 | 2.3/8   | 2.375  | 60.325  |         | 3.8976  | 99      |
| 3/32   | .094   | 2.381  | 59/64   | .922   | 23.416 |         | 2.4016 | 61      | 3.29/32 | 3.9062  | 99.219  |
|        | .0984  | 2.5    | 15/16   | .9375  | 23.813 | 2.13/32 | 2.406  | 61.119  |         | 3.937   | 100     |
| 7/64   | .109   | 2.778  |         | .9449  | 24     | 2.7/16  | 2.4375 | 61.913  | 3.15/16 | 3.9375  | 100.013 |
|        | .1181  | 3      | 61/64   | .953   | 24.209 |         | 2.4409 | 62      | 3.31/32 | 3.969   | 100.806 |
| 1/8    | .125   | 3.175  | 31/32   | .969   | 24.606 | 2.15/32 | 2.469  | 62.706  |         | 3.9764  | 101     |
|        | .1378  | 3.5    |         | .9843  | 25     |         | 2.4803 | 63      | 4       | 4       | 101.6   |
| 9/64   | .141   | 3.572  | 63/64   | .9844  | 25.003 | 2.1/2   | 2.5    | 63.5    | 4.1/16  | 4.0625  | 103.188 |
| 5/32   | .156   | 3.969  | 1       | 1      | 25.4   | 2.17/32 | 2.5197 | 64      | 4.1/8   | 4.125   | 104.775 |
| 11/64  | .172   | 4.366  | 1.1/32  | 1.0236 | 26     |         | 2.531  | 64.294  |         | 4.1338  | 105     |
|        | .177   | 4.5    | 1.1/16  | 1.0312 | 26.194 | 2.9/16  | 2.559  | 65      | 4.3/16  | 4.1875  | 106.363 |
| 3/16   | .1875  | 4.763  |         | 1.0625 | 26.988 | 2.19/32 | 2.5625 | 65.088  | 4.1/4   | 4.25    | 107.95  |
|        | .1969  | 5      | 1.3/32  | 1.063  | 27     |         | 2.594  | 65.881  | 4.5/16  | 4.3125  | 109.538 |
| 13/64  | .203   | 5.159  |         | 1.094  | 27.781 | 2.5/8   | 2.5984 | 66      |         | 4.3307  | 110     |
|        | .2165  | 5.5    | 1.1/8   | 1.1024 | 28     |         | 2.638  | 66.675  | 4.3/8   | 4.375   | 111.125 |
| 7/32   | .219   | 5.556  |         | 1.125  | 28.575 | 2.21/32 | 2.656  | 67.469  | 4.7/16  | 4.4375  | 112.713 |
| 15/64  | .234   | 5.953  | 1.5/32  | 1.1417 | 29     |         | 2.6772 | 68      | 4.1/2   | 4.5     | 114.3   |
|        |        |        |         | 1.156  | 29.369 |         |        |         |         | 4.5275  | 115     |
| 1/4    | .2362  | 6      | 1.3/16  | 1.1811 | 30     | 2.11/16 | 2.6875 | 68.263  | 4.9/16  | 4.5625  | 115.888 |
|        | .250   | 6.35   | 1.7/32  | 1.1875 | 30.163 |         | 2.7165 | 69      | 4.5/8   | 4.625   | 117.475 |
| 17/64  | .2559  | 6.5    |         | 1.219  | 30.956 | 2.23/32 | 2.719  | 69.056  | 4.11/16 | 4.6875  | 119.063 |
|        | .2656  | 6.747  | 1.1/4   | 1.2205 | 31     | 2.3/4   | 2.75   | 69.85   |         | 4.7244  | 120     |
| 9/32   | .2756  | 7      |         | 1.25   | 31.75  |         | 2.7559 | 70      | 4.3/4   | 4.75    | 120.65  |
|        | .281   | 7.144  | 1.9/32  | 1.2598 | 32     | 2.25/32 | 2.781  | 70.644  | 4.13/16 | 4.8125  | 122.238 |
| 19/64  | .2953  | 7.5    |         | 1.281  | 32.544 |         | 2.7953 | 71      | 4.7/8   | 4.875   | 123.825 |
| 5/16   | .297   | 7.541  | 1.5/16  | 1.2992 | 33     | 2.13/16 | 2.8125 | 71.4375 |         | 4.9213  | 125     |
|        | .3125  | 7.938  |         | 1.3125 | 33.338 |         | 2.8346 | 72      | 4.15/16 | 4.9375  | 125.413 |
|        | .315   | 8      |         | 1.3386 | 34     | 2.27/32 | 2.844  | 72.2313 | 5       | 5       | 127     |
| 21/64  | .328   | 8.334  | 1.11/32 | 1.344  | 34.131 | 2.7/8   | 2.874  | 73      | 4.9/16  | 4.5625  | 115.888 |
| 11/32  | .3348  | 8.5    | 1.3/8   | 1.375  | 34.925 | 2.29/32 | 2.875  | 73.025  | 4.5/8   | 4.625   | 117.475 |
|        | .344   | 8.731  |         | 1.3779 | 35     |         | 2.9062 | 73.819  | 4.11/16 | 4.6875  | 119.063 |
| 23/64  | .3543  | 9      | 1.13/32 | 1.406  | 35.719 | 2.3/4   | 2.9134 | 74      |         | 4.7244  | 120     |
|        | .359   | 9.128  |         | 1.4173 | 36     | 2.15/16 | 2.9375 | 74.613  | 4.3/4   | 4.75    | 120.65  |
| 3/8    | .374   | 9.5    | 1.7/16  | 1.4375 | 36.513 |         | 2.9527 | 75      | 4.13/16 | 4.8125  | 122.238 |
| 25/64  | .375   | 9.525  |         | 1.4567 | 37     | 2.21/32 | 2.969  | 75.406  | 4.7/8   | 4.875   | 123.825 |
|        | .391   | 9.922  | 1.15/32 | 1.469  | 37.306 |         | 2.9921 | 76      | 4.15/16 | 4.9375  | 125.413 |
| 13/32  | .3937  | 10     |         | 1.4961 | 38     | 3       | 3      | 76.2    | 5       | 5       | 127     |
|        | .406   | 10.319 | 1.1/2   | 1.5    | 38.1   | 3.1/32  | 3.0312 | 76.994  |         |         |         |
| 27/64  | .4134  | 10.5   | 1.17/32 | 1.531  | 38.894 | 2.7/8   | 2.874  | 73      | 5.1/4   | 5.1181  | 130     |
| 7/16   | .422   | 10.716 |         | 1.5354 | 39     | 2.29/32 | 2.875  | 73.025  | 5.1/2   | 5.25    | 133.35  |
|        | .4331  | 11     | 1.9/16  | 1.5625 | 39.688 |         | 2.9062 | 73.819  |         | 5.5     | 139.7   |
| 29/64  | .4375  | 11.113 |         | 1.5748 | 40     | 3.3/32  | 3.0709 | 78      |         | 5.5118  | 140     |
|        | .453   | 11.5   | 1.19/32 | 1.594  | 40.481 |         | 2.9134 | 74      | 5.3/4   | 5.75    | 146.05  |
| 15/32  | .469   | 11.9   |         | 1.6142 | 41     | 2.15/16 | 2.9375 | 74.613  |         | 5.9055  | 150     |
|        | .4724  | 12     | 1.5/8   | 1.625  | 41.275 |         | 2.9527 | 75      | 6       | 6       | 152.4   |
| 31/64  | .484   | 12.3   |         | 1.6535 | 42     | 2.21/32 | 2.969  | 75.406  | 6.1/4   | 6.25    | 158.75  |
|        | .492   | 12.5   | 1.21/32 | 1.6562 | 42.069 |         | 2.9921 | 76      |         | 6.2992  | 160     |
| 1/2    | .5     | 12.7   | 1.11/16 | 1.6875 | 42.863 | 3.3/16  | 3.1875 | 80.963  | 6.1/2   | 6.5     | 165.1   |
|        |        |        |         | 1.6875 | 42.863 |         | 3.189  | 81      |         |         |         |
| 33/64  | .5118  | 13     | 1.17/32 | 1.531  | 38.894 | 3.1/16  | 3.0315 | 77      | 6.3/4   | 6.6929  | 170     |
| 17/32  | .5156  | 13.097 |         | 1.5354 | 39     |         | 3.0625 | 77.788  | 7       | 7       | 177.8   |
| 35/64  | .531   | 13.494 | 1.9/16  | 1.5625 | 39.688 | 3.3/32  | 3.0709 | 78      |         | 7.0866  | 180     |
|        | .547   | 13.891 |         | 1.5748 | 40     |         | 3.1102 | 79      | 7.1/2   | 7.4803  | 190     |
| 9/16   | .5512  | 14     | 1.19/32 | 1.594  | 40.481 | 3.1/8   | 3.125  | 79.375  |         | 7.5     | 190.5   |
|        | .5625  | 14.288 |         | 1.6142 | 41     |         | 3.1496 | 80      | 8       | 8       | 200.2   |
| 37/64  | .571   | 14.5   | 1.5/8   | 1.625  | 41.275 | 3.5/32  | 3.156  | 80.169  |         | 8.2677  | 210     |
|        | .578   | 14.684 |         | 1.6535 | 42     | 3.3/16  | 3.1875 | 80.963  | 8.1/2   | 8.5     | 215.9   |
| 19/32  | .5906  | 15     | 1.21/32 | 1.6562 | 42.069 |         | 3.189  | 81      |         |         |         |
|        | .594   | 15.081 | 1.11/16 | 1.6875 | 42.863 | 3.7/32  | 3.219  | 81.756  |         |         |         |
|        |        |        |         | 1.6875 | 42.863 |         | 3.2283 | 82      | 9       | 9       | 228.6   |
| 39/64  | .609   | 15.478 | 1.23/32 | 1.6929 | 43     | 3.1/4   | 3.25   | 82.55   |         | 9.0551  | 230     |
| 5/8    | .625   | 15.875 |         | 1.7323 | 44     |         | 3.2677 | 83      | 9.1/2   | 9.4488  | 240     |
|        | .6299  | 16     | 1.3/4   | 1.75   | 44.45  | 3.9/32  | 3.281  | 83.344  |         | 9.5     | 241.3   |
| 41/64  | .6406  | 16.272 |         | 1.7717 | 45     |         | 3.3071 | 84      |         | 9.8425  | 250     |
|        | .6496  | 16.5   | 1.25/32 | 1.781  | 45.244 | 3.5/16  | 3.3125 | 84.1375 | 10      | 10      | 254     |
| 21/32  | .656   | 16.669 |         | 1.811  | 46     | 3.11/32 | 3.344  | 84.9313 |         | 10.2362 | 260     |
|        | .6693  | 17     | 1.13/16 | 1.8125 | 46.038 |         | 3.3464 | 85      | 11      | 10.6299 | 270     |
| 43/64  | .672   | 17.066 | 1.27/32 | 1.844  | 46.831 | 3.3/8   | 3.375  | 85.725  |         | 11      | 279.4   |
| 11/16  | .6875  | 17.463 |         | 1.8504 | 47     |         |        |         |         |         |         |
| 45/64  | .703   | 17.859 | 1.7/8   | 1.875  | 47.625 | 3.13/32 | 3.3858 | 86      |         | 11.0236 | 280     |
|        |        |        |         | 1.8898 | 48     |         | 3.406  | 86.519  |         | 11.4173 | 290     |
| 47/64  | .719   | 18.256 | 1.29/32 | 1.9062 | 48.419 | 3.7/16  | 3.4252 | 87      |         | 11.811  | 300     |
|        | .7283  | 18.5   |         | 1.9291 | 49     |         | 3.4375 | 87.313  | 12      | 12      | 304.8   |
| 22/32  | .7087  | 18     | 1.15/16 | 1.9375 | 49.213 |         | 3.4646 | 88      | 13      | 13      | 330.2   |
|        | .719   | 18.256 |         | 1.9685 | 50     | 3.15/32 | 3.469  | 88.106  |         | 13.7795 | 350     |
| 47/64  | .734   | 18.653 | 1.31/32 | 1.969  | 50.006 | 3.1/2   | 3.5    | 88.9    | 14      | 14      | 355.6   |
|        | .7480  | 19     |         | 2      | 50.8   |         | 3.5039 | 89      | 15      | 15      | 381     |
| 3/4    | .75    | 19.050 | 2       | 2      | 50.8   | 3.17/32 | 3.531  | 89.694  |         | 15.748  | 400     |
| 49/64  | .7656  | 19.447 | 2.1/32  | 2.0312 | 51.594 |         | 3.5433 | 90      | 16      | 16      | 406.4   |
|        |        |        |         | 2.0312 | 51.594 | 3.9/16  | 3.5625 | 90.4875 |         |         |         |
|        |        |        | 2.1/16  | 2.0472 | 52     |         | 3.5827 | 91      | 17      | 17      | 431.8   |
|        |        |        |         | 2.0625 | 52.388 | 3.19/32 | 3.594  | 91.281  |         | 17.7165 | 450     |
|        |        |        | 2.3/32  | 2.094  | 53.181 |         | 3.622  | 92      | 18      | 18      | 457.2   |
|        |        |        | 2.1/8   | 2.125  | 53.975 | 3.5/8   | 3.625  | 92.075  |         | 19.685  | 500     |
|        |        |        |         | 2.126  | 54     | 3.21/32 | 3.656  | 92.869  | 20      | 20      | 508     |
|        |        |        | 2.5/32  | 2.156  | 54.769 |         | 3.6614 | 93      |         |         |         |