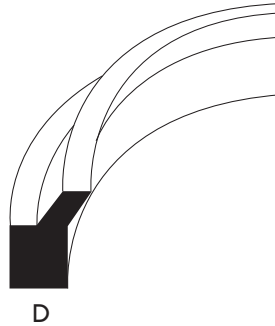


Wipers

D

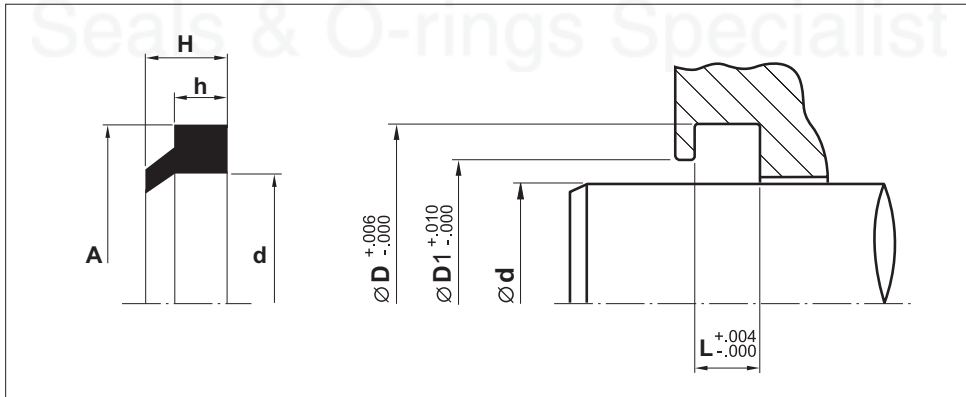
(Inch Size)



| Material | Temp. (°C) | Speed (m/s) |
|----------|------------|-------------|
| PU       | -35<br>+95 | 0.5         |

- Simple groove designed.
- Good scraping effect.
- Easy installation.
- Fit "Universal" style housing.

Installation Recommendation



Surface roughness

µin CLA

|                    |         |
|--------------------|---------|
| Sliding surface    | 4 to 16 |
| Surface of housing | 63 max  |
| Sides of housing   | 125 max |

# Wiper - D



(Inch Size)

| Wiper Dimensions |            |                  |             | Groove Dimensions |             |              |           | Reference<br>(For order processing) |
|------------------|------------|------------------|-------------|-------------------|-------------|--------------|-----------|-------------------------------------|
| Rod Dia.         | Outer Dia. | Seal Step Height | Seal Height | Rod Dia.          | Groove Dia. | Groove Width | Bore Dia. |                                     |
| d                | A          | h                | H           | d                 | D           | L            | D1        |                                     |
| 1/4              | 1/2        | 1/8              | .210        | 250               | .497        | .124         | .410      | WP-00250 D                          |
| 5/16             | 9/16       | 1/8              | .210        | 312               | .560        | .124         | .475      | WP-00312 D                          |
| 3/8              | 5/8        | 1/8              | .210        | 375               | .622        | .124         | .535      | WP-00375 D                          |
| 7/16             | 11/16      | 1/8              | .210        | 437               | .685        | .124         | .600      | WP-00437 D                          |
| 1/2              | 3/4        | 1/8              | .210        | 500               | .747        | .124         | .660      | WP-00500 D                          |
| 9/16             | 13/16      | 1/8              | .210        | 562               | .810        | .124         | .725      | WP-00562 D                          |
| 5/8              | 7/8        | 1/8              | .210        | 625               | .872        | .124         | .785      | WP-00625 D                          |
| 11/16            | 15/16      | 1/8              | .210        | 687               | .935        | .124         | .850      | WP-00687 D                          |
| 3/4              | 1-1/8      | 3/16             | .305        | 750               | 1.122       | .187         | .995      | WP-00750 D                          |
| 13/16            | 1-3/16     | 3/16             | .305        | 812               | 1.185       | .187         | 1.060     | WP-00812 D                          |
| 7/8              | 1-1/4      | 3/16             | .305        | 875               | 1.247       | .187         | 1.120     | WP-00875 D                          |
| 15/16            | 1-5/16     | 3/16             | .305        | 937               | 1.310       | .187         | 1.185     | WP-00937 D                          |
| 1                | 1-3/8      | 3/16             | .305        | 1000              | 1.372       | .187         | 1.245     | WP-01000 D                          |
| 1-1/16           | 1-7/16     | 3/16             | .305        | 1062              | 1.435       | .187         | 1.310     | WP-01062 D                          |
| 1-1/8            | 1-1/2      | 3/16             | .305        | 1125              | 1.497       | .187         | 1.370     | WP-01125 D                          |
| 1-3/16           | 1-9/16     | 3/16             | .305        | 1187              | 1.560       | .187         | 1.435     | WP-01187 D                          |
| 1-1/4            | 1-5/8      | 3/16             | .305        | 1250              | 1.622       | .187         | 1.495     | WP-01250 D                          |
| 1-5/16           | 1-11/16    | 3/16             | .305        | 1312              | 1.685       | .187         | 1.560     | WP-01312 D                          |
| 1-3/8            | 1-3/4      | 3/16             | .305        | 1375              | 1.747       | .187         | 1.620     | WP-01375 D                          |
| 1-7/16           | 1-13/16    | 3/16             | .305        | 1437              | 1.810       | .187         | 1.685     | WP-01437 D                          |
| 1-1/2            | 1-7/8      | 3/16             | .305        | 1500              | 1.872       | .187         | 1.745     | WP-01500 D                          |
| 1-9/16           | 1-15/16    | 3/16             | .305        | 1562              | 1.935       | .187         | 1.810     | WP-01562 D                          |
| 1-5/8            | 2          | 3/16             | .305        | 1625              | 1.997       | .187         | 1.870     | WP-01625 D                          |
| 1-11/16          | 2-1/16     | 3/16             | .305        | 1687              | 2.060       | .187         | 1.935     | WP-01687 D                          |
| 1-3/4            | 2-1/8      | 3/16             | .305        | 1750              | 2.122       | .187         | 1.995     | WP-01750 D                          |
| 1-13/16          | 2-3/16     | 3/16             | .305        | 1812              | 2.185       | .187         | 2.060     | WP-01812 D                          |
| 1-7/8            | 2-1/4      | 3/16             | .305        | 1875              | 2.247       | .187         | 2.120     | WP-01875 D                          |
| 1-15/16          | 2-5/16     | 3/16             | .305        | 1937              | 2.310       | .187         | 2.185     | WP-01937 D                          |
| 2                | 2-1/2      | 1/4              | .395        | 2000              | 2.497       | .249         | 2.327     | WP-02000 D                          |
| 2-1/16           | 2-9/16     | 1/4              | .395        | 2062              | 2.560       | .249         | 2.390     | WP-02062 D                          |
| 2-1/8            | 2-5/8      | 1/4              | .395        | 2125              | 2.622       | .249         | 2.452     | WP-02125 D                          |
| 2-3/16           | 2-11/16    | 1/4              | .395        | 2187              | 2.685       | .249         | 2.515     | WP-02187 D                          |
| 2-1/4            | 2-3/4      | 1/4              | .395        | 2250              | 2.747       | .249         | 2.577     | WP-02250 D                          |
| 2-5/16           | 2-13/16    | 1/4              | .395        | 2312              | 2.810       | .249         | 2.640     | WP-02312 D                          |
| 2-3/8            | 2-7/8      | 1/4              | .395        | 2375              | 2.872       | .249         | 2.702     | WP-02375 D                          |
| 2-7/16           | 2-15/16    | 1/4              | .395        | 2437              | 2.935       | .249         | 2.765     | WP-02437 D                          |
| 2-1/2            | 3          | 1/4              | .395        | 2500              | 2.997       | .249         | 2.827     | WP-02500 D                          |
| 2-9/16           | 3-1/16     | 1/4              | .395        | 2562              | 3.060       | .249         | 2.890     | WP-02562 D                          |
| 2-5/8            | 3-1/8      | 1/4              | .395        | 2625              | 3.122       | .249         | 2.952     | WP-02625 D                          |
| 2-11/16          | 3-3/16     | 1/4              | .395        | 2687              | 3.185       | .249         | 3.015     | WP-02687 D                          |

## Wiper - D

(Inch Size)

| Wiper Dimensions |            |                  |             | Groove Dimensions |             |              |           | Reference<br>(For order processing) |
|------------------|------------|------------------|-------------|-------------------|-------------|--------------|-----------|-------------------------------------|
| Rod Dia.         | Outer Dia. | Seal Step Height | Seal Height | Rod Dia.          | Groove Dia. | Groove Width | Bore Dia. |                                     |
| d                | A          | h                | H           | d                 | D           | L            | D1        |                                     |
| 2-3/4            | 3-1/4      | 1/4              | .395        | 2750              | 3.247       | .249         | 3.077     | WP-02750 D                          |
| 2-13/16          | 3-5/16     | 1/4              | .395        | 2812              | 3.310       | .249         | 3.140     | WP-02812 D                          |
| 2-7/8            | 3-3/8      | 1/4              | .395        | 2875              | 3.372       | .249         | 3.202     | WP-02875 D                          |
| 2-15/16          | 3-7/16     | 1/4              | .395        | 2937              | 3.435       | .249         | 3.265     | WP-02937 D                          |
| 3                | 3-1/2      | 1/4              | .395        | 3000              | 3.497       | .249         | 3.327     | WP-03000 D                          |
| 3-1/8            | 3-5/8      | 1/4              | .395        | 3125              | 3.622       | .249         | 3.452     | WP-03125 D                          |
| 3-1/4            | 3-3/4      | 1/4              | .395        | 3250              | 3.747       | .249         | 3.577     | WP-03250 D                          |
| 3-3/8            | 3-7/8      | 1/4              | .395        | 3375              | 3.872       | .249         | 3.702     | WP-03375 D                          |
| 3-1/2            | 4          | 1/4              | .395        | 3500              | 3.997       | .249         | 3.827     | WP-03500 D                          |
| 3-5/8            | 4-1/8      | 1/4              | .395        | 3625              | 4.122       | .249         | 3.952     | WP-03625 D                          |
| 3-3/4            | 4-1/4      | 1/4              | .395        | 3750              | 4.247       | .249         | 4.077     | WP-03750 D                          |
| 3-7/8            | 4-3/8      | 1/4              | .395        | 3875              | 4.372       | .249         | 4.202     | WP-03875 D                          |
| 4                | 4-1/2      | 1/4              | .395        | 4000              | 4.497       | .249         | 4.327     | WP-04000 D                          |
| 4-1/8            | 4-5/8      | 1/4              | .395        | 4125              | 4.622       | .249         | 4.452     | WP-04125 D                          |
| 4-1/4            | 4-3/4      | 1/4              | .395        | 4250              | 4.747       | .249         | 4.577     | WP-04250 D                          |
| 4-3/8            | 4-7/8      | 1/4              | .395        | 4375              | 4.872       | .249         | 4.702     | WP-04375 D                          |
| 4-1/2            | 5-1/4      | 3/8              | .585        | 4500              | 5.247       | .374         | 4.993     | WP-04500 D                          |
| 4-5/8            | 5-3/8      | 3/8              | .585        | 4625              | 5.372       | .374         | 5.118     | WP-04625 D                          |
| 4-3/4            | 5-1/2      | 3/8              | .585        | 4750              | 5.497       | .374         | 5.243     | WP-04750 D                          |
| 4-7/8            | 5-5/8      | 3/8              | .585        | 4875              | 5.622       | .374         | 5.368     | WP-04875 D                          |
| 5                | 5-3/4      | 3/8              | .585        | 5000              | 5.747       | .374         | 5.493     | WP-05000 D                          |
| 5-1/8            | 5-7/8      | 3/8              | .585        | 5125              | 5.872       | .374         | 5.618     | WP-05125 D                          |
| 5-1/4            | 6          | 3/8              | .585        | 5250              | 5.997       | .374         | 5.743     | WP-05250 D                          |
| 5-3/8            | 6-1/8      | 3/8              | .585        | 5375              | 6.122       | .374         | 5.868     | WP-05375 D                          |
| 5-1/2            | 6-1/4      | 3/8              | .585        | 5500              | 6.247       | .374         | 5.993     | WP-05500 D                          |
| 5-5/8            | 6-3/8      | 3/8              | .585        | 5625              | 6.372       | .374         | 6.118     | WP-05625 D                          |
| 5-3/4            | 6-1/2      | 3/8              | .585        | 5750              | 6.497       | .374         | 6.243     | WP-05750 D                          |
| 5-7/8            | 6-5/8      | 3/8              | .585        | 5875              | 6.622       | .374         | 6.368     | WP-05875 D                          |
| 6                | 6-3/4      | 3/8              | .585        | 6000              | 6.747       | .374         | 6.493     | WP-06000 D                          |
| 6-1/4            | 7          | 3/8              | .585        | 6250              | 6.997       | .374         | 6.743     | WP-06250 D                          |
| 6-1/2            | 7-1/4      | 3/8              | .585        | 6500              | 7.247       | .374         | 6.993     | WP-06500 D                          |
| 6-3/4            | 7-1/2      | 3/8              | .585        | 6750              | 7.497       | .374         | 7.243     | WP-06750 D                          |
| 7                | 7-3/4      | 3/8              | .585        | 7000              | 7.747       | .374         | 7.493     | WP-07000 D                          |
| 7-1/4            | 8          | 3/8              | .585        | 7250              | 7.997       | .374         | 7.743     | WP-07250 D                          |
| 7-1/2            | 8-1/4      | 3/8              | .585        | 7500              | 8.247       | .374         | 7.993     | WP-07500 D                          |
| 7-3/4            | 8-1/2      | 3/8              | .585        | 7750              | 8.497       | .374         | 8.243     | WP-07750 D                          |
| 8                | 8-3/4      | 3/8              | .585        | 8000              | 8.747       | .374         | 8.493     | WP-08000 D                          |
| 8-1/4            | 9          | 3/8              | .585        | 8250              | 8.997       | .374         | 8.743     | WP-08250 D                          |
| 8-1/2            | 9-1/4      | 3/8              | .585        | 8500              | 9.247       | .374         | 8.993     | WP-08500 D                          |
| 8-3/4            | 9-1/2      | 3/8              | .585        | 8750              | 9.497       | .374         | 9.243     | WP-08750 D                          |

# Wiper - D

(Inch Size)

| Wiper Dimensions |            |                  |             | Groove Dimensions |             |              |           | Reference<br>(For order processing) |
|------------------|------------|------------------|-------------|-------------------|-------------|--------------|-----------|-------------------------------------|
| Rod Dia.         | Outer Dia. | Seal Step Height | Seal Height | Rod Dia.          | Groove Dia. | Groove Width | Bore Dia. |                                     |
| d                | A          | h                | H           | d                 | D           | L            | D1        |                                     |
| 9                | 9-3/4      | 3/8              | .585        | 9000              | 9.747       | .374         | 9.493     | WP-09000 D                          |
| 9-1/4            | 10         | 3/8              | .585        | 9250              | 9.997       | .374         | 9.743     | WP-09250 D                          |
| 9-1/2            | 10-1/4     | 3/8              | .585        | 9500              | 10.247      | .374         | 9.993     | WP-09500 D                          |
| 9-3/4            | 10-1/2     | 3/8              | .585        | 9750              | 10.497      | .374         | 10.243    | WP-09750 D                          |
| 10               | 11         | 1/2              | .775        | 10000             | 10.997      | .499         | 10.659    | WP-10000 D                          |
| 10-1/4           | 11-1/4     | 1/2              | .775        | 10250             | 11.247      | .499         | 10.909    | WP-10250 D                          |
| 10-1/2           | 11-1/2     | 1/2              | .775        | 10500             | 11.497      | .499         | 11.159    | WP-10500 D                          |
| 10-3/4           | 11-3/4     | 1/2              | .775        | 10750             | 11.747      | .499         | 11.409    | WP-10750 D                          |
| 11               | 12         | 1/2              | .775        | 11000             | 11.997      | .499         | 11.659    | WP-11000 D                          |
| 11-1/4           | 12-1/4     | 1/2              | .775        | 11250             | 12.247      | .499         | 11.909    | WP-11250 D                          |
| 11-1/2           | 12-1/2     | 1/2              | .775        | 11500             | 12.497      | .499         | 12.159    | WP-11500 D                          |
| 11-3/4           | 12-3/4     | 1/2              | .775        | 11750             | 12.747      | .499         | 12.409    | WP-11750 D                          |
| 12               | 13         | 1/2              | .775        | 12000             | 12.997      | .499         | 12.659    | WP-12000 D                          |
| 12-1/2           | 13-1/2     | 1/2              | .775        | 12500             | 13.497      | .499         | 13.159    | WP-12500 D                          |
| 13               | 14         | 1/2              | .775        | 13000             | 13.997      | .499         | 13.659    | WP-13000 D                          |
| 13-1/4           | 14-1/4     | 1/2              | .775        | 13250             | 14.247      | .499         | 13.909    | WP-13250 D                          |
| 13-1/2           | 14-1/2     | 1/2              | .775        | 13500             | 14.497      | .499         | 14.159    | WP-13500 D                          |
| 13-3/4           | 14-3/4     | 1/2              | .775        | 13750             | 14.747      | .499         | 14.409    | WP-13750 D                          |
| 14               | 15         | 1/2              | .775        | 14000             | 14.997      | .499         | 14.659    | WP-14000 D                          |
| 14-1/2           | 15-1/2     | 1/2              | .775        | 14500             | 15.447      | .499         | 15.159    | WP-14500 D                          |
| 14-3/4           | 15-3/4     | 1/2              | .775        | 14750             | 15.747      | .499         | 15.409    | WP-14750 D                          |
| 15               | 16         | 1/2              | .775        | 15000             | 15.997      | .499         | 15.659    | WP-15000 D                          |
| 15-1/2           | 16-1/2     | 1/2              | .775        | 15500             | 16.447      | .499         | 16.159    | WP-15500 D                          |
| 16               | 17         | 1/2              | .775        | 16000             | 16.997      | .499         | 16.659    | WP-16000 D                          |
| 16-1/2           | 17-1/2     | 1/2              | .775        | 16500             | 17.447      | .499         | 17.159    | WP-16500 D                          |
| 18               | 19         | 1/2              | .775        | 18000             | 18.997      | .499         | 18.659    | WP-18000 D                          |
| 18-1/2           | 19-1/2     | 1/2              | .775        | 18500             | 19.447      | .499         | 19.159    | WP-18500 D                          |
| 20               | 21         | 1/2              | .775        | 20000             | 20.997      | .499         | 20.659    | WP-20000 D                          |