

Wiper YD Profile



YD Profile, Premium Snap-in Wiper with O.D. Exclusion Technology

The YD wiper is the premier design among high performance, snap-in excluders. Featuring a secondary O.D. lip which seals against the shoulder region of the gland, the YD prevents water and other contaminants from entering around the static side of the wiper. For ultimate performance, the YD also incorporates an aggressive, knife-trimmed wiping lip to ensure maximum exclusion along the rod. A true zero-radius lip provides the most effective wiping action available.

Technical Data

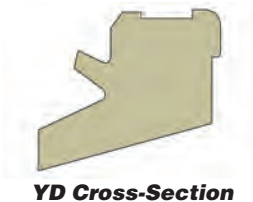
| Standard Materials* | Temperature Range | Surface Speed |
|---------------------|-----------------------------------|------------------------|
| P4300A90 | -65°F to 275°F (-54° to 135°C) | <1.6 ft/s (0.5 m/s) |

***Alternate Materials:** For applications that may require an alternate material, please contact your local Parker Seal representative.

Part Number Nomenclature —YD Profile

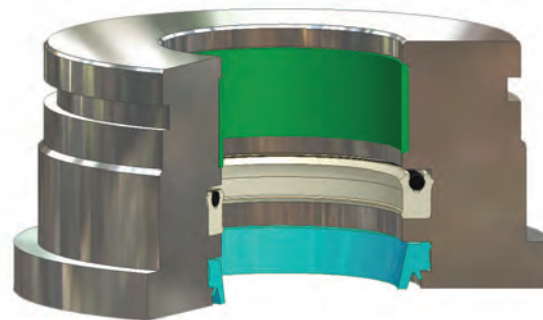
Table 8-2. YD Profile — Inch

| | | | | | | | | | |
|--|----------|----------|----------|-----------|---|----------|----------|----------|----------|
| 4 | 3 | 0 | 0 | YD | 0 | 1 | 5 | 0 | 0 |
| Seal Compound 4-Digit Material Code Example: 4300 = 90A Resilon® 4300 Polyurethane | | | | Profile | Nominal Rod Diameter (x1000) Example: 1.500 x 1000 = 01500 | | | | |



Gland Dimensions — YD Profile

YD gland dimensions are provided in Table 8-5 on page 8-8.



YD installed in Rod Gland



Wiper SHD Profile



SHD Profile, Industrial Snap-In Wiper

Parker SHD wipers are an outstanding choice for light and medium duty hydraulic and pneumatic applications. The slotted heel design prevents pressure traps from forming between the rod seal and wiper. Broad tooling availability, up to 30", makes the SHD a good choice for large rod diameters. The snap-in design is oversized for a snug fit and excellent stability. This makes the SHD a great all-round wiper in an economical package.

Technical Data

| Standard Materials* | Temperature Range | Surface Speed |
|---------------------|------------------------------------|-----------------------|
| P4615A90 | -65°F to 200°F (-54°C to 93°C) | <1.6 f/s (0.5 m/s) |
| P5065A88 | -70°F to 200°F (-57°C to 93°C) | <1.6 f/s (0.5 m/s) |
| N4263A90 | -20°F to 275°F (-29°C to 135°C) | <3.3 f/s (1.0 m/s) |
| V4208A90 | -5°F to 400°F (-21°C to 204°C) | <3.3 f/s (1.0 m/s) |
| E4207A90 | -65°F to 300°F (-54°F to 149°C) | <3.3 f/s (1.0 m/s) |

***Alternate Materials:** For applications that may require an alternate material, please contact your local Parker Seal representative.



SHD Cross-Section

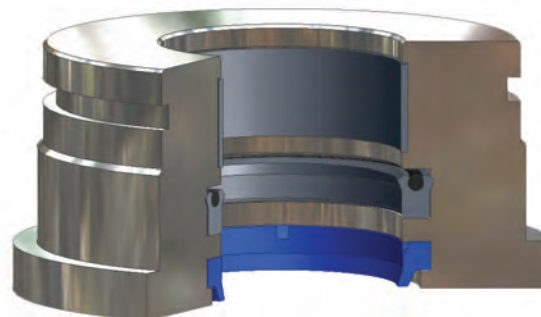
Part Number Nomenclature — SHD Profile

Table 8-3. SHD Profile — Inch

| | | | | | | | | | |
|----------------------------|---|---|---|---------|-------------------------------|---|---|---|---|
| 4 | 2 | 6 | 3 | SHD | 0 | 1 | 0 | 0 | 0 |
| └──────────┘ | | | | └──┘ | └──────────┘ | | | | |
| Seal Compound | | | | Profile | Nominal Rod Diameter (x1000) | | | | |
| 4-Digit Material Code | | | | | Example: 1.000 x 1000 = 01000 | | | | |
| Example: 4263 = Nitroxile® | | | | | | | | | |

Gland Dimensions — SHD Profile

SHD gland dimensions are provided in Table 8-5 on page 8-8.



SHD installed in Rod Gland

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Wiper SHX Profile

Catalog EPS 5370/USA



SHX Profile, Performance Snap-In Wiper with O.D. exclusion technology

Parker SHX wipers offer an improvement over standard D-style wipers by adding O.D. exclusion technology that prevents water and other contamination from entering the system from the static side of the groove. This profile is ideal for applications where the rod is positioned vertically and could allow moisture to collect in the wiper gland. SHX wipers retrofit industry standard D wiper grooves, making the upgrade process simple and economical.

Technical Data

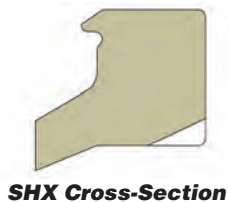
| Standard Materials* | Temperature Range | Surface Speed |
|---------------------|-----------------------------------|------------------------|
| P4615A90 | -65°F to 200°F (-54°C to 93°C) | <1.6 ft/s (0.5 m/s) |
| P5065A88 | -70°F to 200°F (-57°C to 93°C) | <1.6 ft/s (0.5 m/s) |

***Alternate Materials:** For applications that may require an alternate material, please contact your local Parker Seal representative.

Part Number Nomenclature — SHX Profile

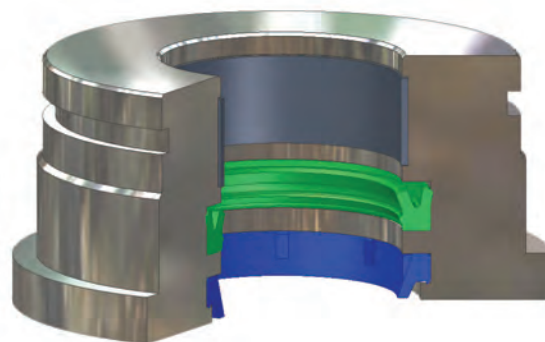
Table 8-4. SHX Profile — Inch

| | | | | | | | | | |
|--|---|---|---|---------|---|---|---|---|---|
| 5 | 0 | 6 | 5 | SHX | 0 | 1 | 3 | 7 | 5 |
| └──────────────────┘ | | | | └──┘ | └──────────────────┘ | | | | |
| Seal Compound 4-Digit Material Code Example: 5065 = Polyurethane (Low Temperature Urethane) | | | | Profile | Nominal Rod Diameter (x1000) Example: 1.375 x 1000 = 01375 | | | | |



Gland Dimensions — SHX Profile

SHX gland dimensions are provided in Table 8-5 on page 8-8.



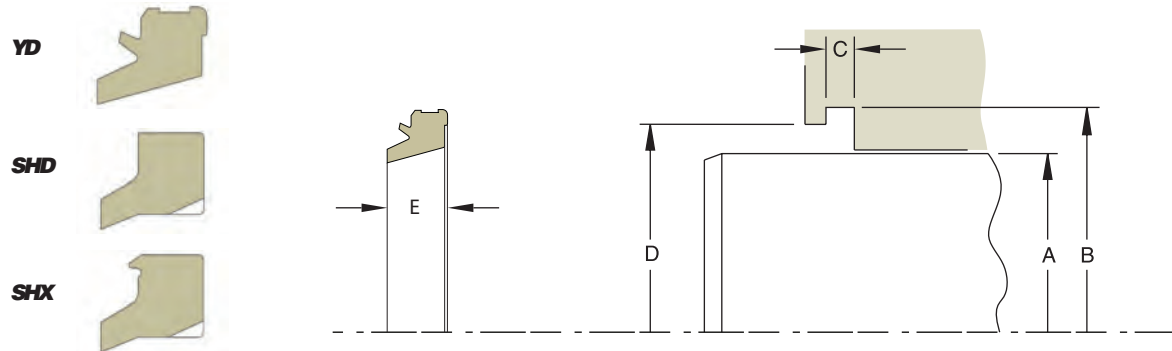
SHX installed in Rod Gland

09/01/07

Wiper YD, SHD and SHX Gland Dimensions

Catalog EPS 5370/USA

Gland Dimensions — YD, SHD and SHX Profiles



Please refer to Engineering Section 2, page 2-8 for surface finish and additional hardware considerations.

Table 8-5. YD, SHD and SHX Gland Dimensions — Inch

| A Rod Diameter | B Groove Diameter | C Groove Width | D Shoulder Diameter | E Max. Wiper Axial Width | Compound Codes (X = Standard Offering) | | | | | | | | | Part Number | | | | |
|----------------------|-------------------------|----------------------|---------------------------|--------------------------------------|---|------|------|------|------|------|------|------|------------------|-------------|-------------|--|-------|--|
| | | | | | SHD | | | | | SHX | | YD | Compound Code | Profile | Rod Size | | | |
| | | | | | 4615 | 5065 | 4263 | 4208 | 4207 | 4615 | 5065 | 4300 | | | | | | |
| +0.000/-0.002 | +0.006/-0.000 | +0.004/-0.000 | +0.005/-0.000 | | | | | | | | | | | | | | | |
| 0.250 | 0.497 | 0.124 | 0.410 | 0.210 | x | x | | | x | | | | | XXXX | xxx | | 00250 | |
| 0.312 | 0.560 | 0.124 | 0.475 | 0.210 | x | x | x | | x | | | | | XXXX | xxx | | 00312 | |
| 0.375 | 0.622 | 0.124 | 0.535 | 0.210 | x | x | | | x | | | | | XXXX | xxx | | 00375 | |
| 0.437 | 0.685 | 0.124 | 0.600 | 0.210 | x | x | | | | | | | | XXXX | xxx | | 00437 | |
| 0.500 | 0.747 | 0.124 | 0.660 | 0.210 | x | x | x | x | | x | x | | | XXXX | xxx | | 00500 | |
| 0.562 | 0.810 | 0.124 | 0.725 | 0.210 | x | x | | x | | | | | | XXXX | xxx | | 00562 | |
| 0.625 | 0.872 | 0.124 | 0.785 | 0.210 | x | x | | x | | x | x | | | XXXX | xxx | | 00625 | |
| 0.687 | 0.935 | 0.124 | 0.850 | 0.210 | x | x | | | | | | | | XXXX | xxx | | 00687 | |
| 0.750 | 1.122 | 0.187 | 0.995 | 0.305 | x | x | x | x | x | x | x | x | | XXXX | xxx | | 00750 | |
| 0.875 | 1.247 | 0.187 | 1.120 | 0.305 | x | x | | | | x | x | | | XXXX | xxx | | 00875 | |
| 1.000 | 1.372 | 0.187 | 1.245 | 0.305 | x | x | | x | | x | x | x | | XXXX | xxx | | 01000 | |
| 1.125 | 1.497 | 0.187 | 1.370 | 0.305 | x | x | | | | x | x | x | | XXXX | xxx | | 01125 | |
| 1.187 | 1.560 | 0.187 | 1.435 | 0.305 | x | x | | | | | | | | XXXX | xxx | | 01187 | |
| 1.250 | 1.622 | 0.187 | 1.495 | 0.305 | x | x | | | | x | x | x | | XXXX | xxx | | 01250 | |
| 1.375 | 1.747 | 0.187 | 1.620 | 0.305 | x | x | x | | | x | x | x | | XXXX | xxx | | 01375 | |
| 1.500 | 1.872 | 0.187 | 1.745 | 0.305 | x | x | | | | x | x | x | | XXXX | xxx | | 01500 | |
| 1.625 | 1.997 | 0.187 | 1.870 | 0.305 | x | x | x | | | x | x | x | | XXXX | xxx | | 01625 | |
| 1.750 | 2.122 | 0.187 | 1.995 | 0.305 | x | x | x | x | x | x | x | x | | XXXX | xxx | | 01750 | |
| 1.875 | 2.247 | 0.187 | 2.120 | 0.305 | x | x | x | | | x | x | x | | XXXX | xxx | | 01875 | |
| 2.000 | 2.497 | 0.249 | 2.327 | 0.395 | x | x | x | | x | x | x | x | | XXXX | xxx | | 02000 | |
| +0.000/-0.003 | +0.006/-0.000 | +0.004/-0.000 | +0.005/-0.000 | | | | | | | | | | | | | | | |
| 2.125 | 2.622 | 0.249 | 2.452 | 0.395 | x | x | | x | | x | x | | | XXXX | xxx | | 02125 | |
| 2.250 | 2.747 | 0.249 | 2.577 | 0.395 | x | x | x | x | | x | x | x | | XXXX | xxx | | 02250 | |
| 2.375 | 2.872 | 0.249 | 2.702 | 0.395 | x | x | | x | | | | | | XXXX | xxx | | 02375 | |
| 2.500 | 2.997 | 0.249 | 2.827 | 0.395 | x | x | x | | | x | x | x | | XXXX | xxx | | 02500 | |
| 2.625 | 3.122 | 0.249 | 2.952 | 0.395 | x | x | x | x | | | | x | | XXXX | xxx | | 02625 | |

For custom groove calculations, see Appendix C.

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Table 8-5. YD, SHD and SHX Gland Dimensions — Inch (Continued)

| A Rod Diameter | B Groove Diameter | C Groove Width | D Shoulder Diameter | E Max. Wiper Axial Width | Compound Codes (X = Standard Offering) | | | | | | | | | Part Number | | | |
|----------------------|-------------------------|----------------------|---------------------------|--------------------------------------|---|------|------|------|------|------|------|------|------------------|-------------|-------------|-------|--|
| | | | | | SHD | | | | | SHX | | YD | Compound Code | Profile | Rod Size | | |
| | | | | | 4615 | 5065 | 4263 | 4208 | 4207 | 4615 | 5065 | 4300 | | | | | |
| +0.000/-0.003 | +0.006/-0.000 | +0.004/-0.000 | +0.005/-0.000 | | | | | | | | | | | | | | |
| 2.750 | 3.247 | 0.249 | 3.077 | 0.395 | x | x | x | x | | | | | x | XXXX | xxx | 02750 | |
| 2.875 | 3.372 | 0.249 | 3.202 | 0.395 | x | x | x | x | | | | | x | XXXX | xxx | 02875 | |
| 3.000 | 3.497 | 0.249 | 3.327 | 0.395 | x | x | | x | | x | x | | x | XXXX | xxx | 03000 | |
| 3.125 | 3.622 | 0.249 | 3.452 | 0.395 | x | x | | | | | | | | XXXX | xxx | 03125 | |
| 3.250 | 3.747 | 0.249 | 3.577 | 0.395 | x | x | x | | | | | | x | XXXX | xxx | 03250 | |
| 3.375 | 3.872 | 0.249 | 3.702 | 0.395 | x | x | | x | | | | | | XXXX | xxx | 03375 | |
| 3.500 | 3.997 | 0.249 | 3.827 | 0.395 | x | x | x | x | | | | | x | XXXX | xxx | 03500 | |
| 3.625 | 4.122 | 0.249 | 3.952 | 0.395 | x | x | x | | | | | | | XXXX | xxx | 03625 | |
| 3.750 | 4.247 | 0.249 | 4.077 | 0.395 | x | x | x | x | | | | | | XXXX | xxx | 03750 | |
| 3.875 | 4.372 | 0.249 | 4.202 | 0.395 | x | x | x | x | | | | | | XXXX | xxx | 03875 | |
| 4.000 | 4.497 | 0.249 | 4.327 | 0.395 | x | x | x | x | x | x | x | | | XXXX | xxx | 04000 | |
| 4.125 | 4.622 | 0.249 | 4.452 | 0.395 | | | x | | | | | | | XXXX | xxx | 04125 | |
| 4.250 | 4.747 | 0.249 | 4.577 | 0.395 | x | x | x | x | x | | | | x | XXXX | xxx | 04250 | |
| 4.375 | 4.872 | 0.249 | 4.702 | 0.395 | x | x | | | | | | | | XXXX | xxx | 04375 | |
| 4.500 | 5.247 | 0.374 | 4.993 | 0.585 | x | x | x | x | x | | | | x | XXXX | xxx | 04500 | |
| 4.625 | 5.372 | 0.374 | 5.118 | 0.585 | | | x | x | | | | | | XXXX | xxx | 04625 | |
| 4.750 | 5.497 | 0.374 | 5.243 | 0.585 | x | x | x | | | | | | | XXXX | xxx | 04750 | |
| 4.875 | 5.622 | 0.374 | 5.368 | 0.585 | x | x | x | | | | | | | XXXX | xxx | 04875 | |
| 5.000 | 5.747 | 0.374 | 5.493 | 0.585 | x | x | x | x | | | | | x | XXXX | xxx | 05000 | |
| 5.250 | 5.997 | 0.374 | 5.743 | 0.585 | x | x | x | | | | | | | XXXX | xxx | 05250 | |
| 5.375 | 6.122 | 0.374 | 5.868 | 0.585 | x | x | | | | | | | | XXXX | xxx | 05375 | |
| 5.500 | 6.247 | 0.374 | 5.993 | 0.585 | x | x | x | | | | | | x | XXXX | xxx | 05500 | |
| 5.625 | 6.372 | 0.374 | 6.118 | 0.585 | x | x | | | | | | | | XXXX | xxx | 05625 | |
| 5.750 | 6.497 | 0.374 | 6.243 | 0.585 | | | | x | | | | | | XXXX | xxx | 05750 | |
| 5.875 | 6.622 | 0.374 | 6.368 | 0.585 | x | x | | | | | | | | XXXX | xxx | 05875 | |
| 6.000 | 6.747 | 0.374 | 6.493 | 0.585 | x | x | x | x | x | | | | | XXXX | xxx | 06000 | |
| +0.000/-0.004 | +0.006/-0.000 | +0.004/-0.000 | +0.005/-0.000 | | | | | | | | | | | | | | |
| 6.250 | 6.997 | 0.374 | 6.743 | 0.585 | | | x | x | x | | | | | XXXX | xxx | 06250 | |
| 6.500 | 7.247 | 0.374 | 6.993 | 0.585 | x | x | x | | | | | | | XXXX | xxx | 06500 | |
| 6.750 | 7.497 | 0.374 | 7.243 | 0.585 | | | x | | | | | | | XXXX | xxx | 06750 | |
| 7.000 | 7.747 | 0.374 | 7.493 | 0.585 | x | x | | x | | | | | | XXXX | xxx | 07000 | |
| 7.250 | 7.997 | 0.374 | 7.743 | 0.585 | | | x | x | | | | | | XXXX | xxx | 07250 | |
| 7.500 | 8.247 | 0.374 | 7.993 | 0.585 | | | x | x | | | | | | XXXX | xxx | 07500 | |
| 7.750 | 8.497 | 0.374 | 8.243 | 0.585 | | | | | | | | | | XXXX | xxx | 07750 | |
| 8.000 | 8.747 | 0.374 | 8.493 | 0.585 | x | x | x | x | | | | | | XXXX | xxx | 08000 | |
| 8.250 | 8.997 | 0.374 | 8.743 | 0.585 | | | | x | | | | | | XXXX | xxx | 08250 | |
| 8.500 | 9.247 | 0.374 | 8.993 | 0.585 | x | x | | | | | | | | XXXX | xxx | 08500 | |
| +0.000/-0.005 | +0.006/-0.000 | +0.004/-0.000 | +0.005/-0.000 | | | | | | | | | | | | | | |
| 8.750 | 9.497 | 0.374 | 9.243 | 0.585 | | | x | | | | | | | XXXX | xxx | 08750 | |
| 9.000 | 9.747 | 0.374 | 9.493 | 0.585 | x | x | | | | | | | x | XXXX | xxx | 09000 | |
| 10.000 | 10.997 | 0.499 | 10.659 | 0.775 | x | x | | | | | | | | XXXX | xxx | 10000 | |
| 10.750 | 11.747 | 0.499 | 11.409 | 0.775 | | | | | | | | | | XXXX | xxx | 10625 | |
| 11.000 | 11.997 | 0.499 | 11.659 | 0.775 | x | x | | | | | | | | XXXX | xxx | 11000 | |
| 12.000 | 12.997 | 0.499 | 12.659 | 0.775 | x | x | | | | | | | | XXXX | xxx | 12000 | |
| 12.500 | 13.497 | 0.499 | 13.159 | 0.775 | x | x | | | | | | | | XXXX | xxx | 12500 | |
| 14.000 | 14.997 | 0.499 | 14.659 | 0.775 | x | x | | x | | | | | | XXXX | xxx | 14000 | |



For custom groove calculations, see Appendix C.

YD, SHD and SHX Profiles

Table 8-5. YD, SHD and SHX Gland Dimensions — Inch (Continued)

| A Rod Diameter | B Groove Diameter | C Groove Width | D Shoulder Diameter | E Max. Wiper Axial Width | Compound Codes (X = Standard Offering) | | | | | | | Part Number | | | |
|----------------------|-------------------------|----------------------|---------------------------|--------------------------------------|---|------|------|------|------|------|------|-------------|------------------|---------|-------------|
| | | | | | SHD | | | | | SHX | | YD | Compound Code | Profile | Rod Size |
| | | | | | 4615 | 5065 | 4263 | 4208 | 4207 | 4615 | 5065 | 4300 | | | |
| +.000/-0.005 | +.006/-0.000 | +.004/-0.000 | +.005/-0.000 | | | | | | | | | | | | |
| 14.750 | 15.747 | 0.499 | 15.409 | 0.775 | x | | | | | | | | XXXX | xxx | 14750 |
| 15.000 | 15.997 | 0.499 | 15.659 | 0.775 | x | | | | | | | | XXXX | xxx | 15000 |
| 16.000 | 16.997 | 0.499 | 16.659 | 0.775 | x | x | | | | | | | XXXX | xxx | 16000 |
| 20.000 | 20.997 | 0.499 | 20.659 | 0.775 | x | x | | | | | | | XXXX | xxx | 20000 |
| 30.000 | 30.997 | 0.499 | 30.659 | 0.775 | x | x | | | | | | | XXXX | xxx | 30000 |

For custom groove calculations, see Appendix C.

NOTE: For sizes larger than those shown in the table, please contact your local Parker Seal representative.