

# RADIAL SHAFT SEAL PART NUMBERING SYSTEM

## INCH SIZE

Radial shaft seals are manufactured in a large range of sizes and styles. To expedite the ordering process a straightforward part numbering system has been developed. Following is a detailed description of this system.

The part number is composed of the seal profile, shaft diameter, bore diameter, width of seal, O.D. treatment (ODT), lip material, case material and spring material. Below is a representation of how the part number is assembled.

Profile - Shaft Bore Width - ODT Lip Case Spring

- Profile: Selected from Profile Matrix, e.g. TB2, UB2
- Shaft: The diameter of shaft where the seal will operate
- Bore: The diameter of bore where the seal will operate
- Width: the width of the seal case
- ODT: Outside Diameter Treatment
  - : OD sealant (standard)
  - G: Ground OD
  - (Sealant and ground are the only options on metal OD radial shaft seals)
- Lip: Material of primary sealing element
  - N: Nitrile
  - T: Polytetrafluoroethylene (Teflon)
  - F: Fluorocarbon (Viton)
  - P: Polyacrylate
  - S: Silicone
  - E: Ethylene Propylene (EPDM)
  - H: High Temperature Nitrile
  - X: Carboxylated Nitrile

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- Case: Case material  
C: Carbon steel (1008-1010)  
S: Stainless steel (30304)
- Spring: Spring material  
C: Carbon steel (1070-1090)  
S: Stainless steel (30304)

EXAMPLES:

Typical Part Number

TB2-087513750313-NCC

This is profile TB2 for a 0.875" shaft, 1.375" bore and 0.313" width with OD sealant, nitrile for the primary sealing lip, carbon steel case and carbon steel spring.

Ground OD

SA2-225032510375-GPSS

This is profile SA2 for a 2.250" shaft, 3.251" bore, and 0.375" width with a ground OD, polyacrylate primary sealing lip, stainless steel case, and stainless steel spring.

Hydrodynamic Aid

HSCJR-125022500250-XCS

An "H" is placed in front of the profile designation when a hydrodynamic aid is molded into the lip. The design of the hydrodynamic aid immediately follows the profile designation.

This is profile SCJ with type "R" hydrodynamic aid for a 1.250" shaft, 2.250" bore, and 0.250" width. The seal has a carboxylated nitrile primary sealing lip, carbon steel case and stainless steel spring.

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## METRIC SIZE LIST

Radial shaft seals are manufactured in a large range of sizes and styles. To expedite the ordering process a straight-forward part numbering system has been developed. Following is a detailed description of this system.

The part number is composed of the seal profile, shaft diameter, bore diameter, width of seal, OD treatment (ODT), lip material, case material and spring material. Below is a representation of how the part number is assembled.

### Profile - Shaft Bore Width - ODT Lip Case Spring

- Profile: Selected from Profile Matrix eg TB2, UB2
- Shaft: The diameter of shaft where the seal will operate.
- Bore: The diameter of bore where the seal will operate.
- Width: The width of the seal case.
- ODT: Outside diameter treatment
  - :OD sealant (standard)
  - G: Ground OD
  - (Sealant and Ground only an option on metal OD radial shaft seals)
- Lip: Material of primary sealing element.
  - N: Nitrile
  - T: Polytetrafluoroethylene (Teflon)
  - F: Fluorocarbon (Viton)
  - P: Polyacrylate
  - S: Silicone
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- Case: Case material  
C: Carbon steel (1008-1010)  
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- Spring: Spring material  
C: Carbon steel (1070-1090)  
S: Stainless steel (30304)

## EXAMPLES

### Typical Part Number

TB2-02102800070-NCC

This is profile TB2 for a 21.0 mm shaft, 28.0 mm bore and 7.0 mm width with OD sealant, nitrile for the primary sealing lip, carbon steel case and carbon steel spring.

### Ground OD

SA2-035006500120-GPSS

This is profile SA2 for a 35.0 mm shaft, 65.0 mm bore, and 12. Mm width with a ground OD, polyacrylate primary sealing lip, stainless steel case, and stainless steel spring.

### Hydrodynamic Aid

HSCJR-080011000100-XCS

An "H" is placed in front of the profile designation when a hydrodynamic aid is molded into the lip. The design of the hydrodynamic aid immediately follows the profile designation.

This is profile SCJ with type "R" hydrodynamic aid for a 80.0 mm shaft, 110.0 mm bore, and 10.0 mm width. The seal has a carboxylated nitrile primary sealing lip, carbon steel case, and stainless steel spring.

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