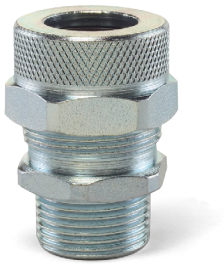


# RSRS SERIES STEEL CORD GRIPS

## RSRS SERIES STEEL CORD CONNECTORS

The Tuff-Seal™ RSRS series of corrosion-resistant cord connectors features a body and compression nut made of zinc-chromium plated steel for added strength and durability, enhanced resistance to rust and a better physical appearance. These connectors are ideally suited for use in washdowns or high moisture environments in food processing plants, petrochemical facilities, wastewater treatment plants, pulp & paper mills and chemical manufacturing factories.

RSRS cord connectors have been designed to withstand the extremes of water, caustic materials, detergents or surfactants.

RSRS Corrosion-Resistant Connectors can be ordered with or without wire mesh and accommodate 3/8", 1/2", 3/4" and 1" conduit. The combination tightening surface on these connectors is a unique Remke design that provides a large wrenching area for easy installation. And the knurl section offers users an extra gripping surface for initial hand tightening.

## NOTES

SPECIAL CONFIGURATIONS
Special configurations and materials are available. Consult factory.

All wire mesh is stainless steel.

Dimension & certification information on in Tuff-Seal Technical Reference. Dimensions are the same as those for RSR Straight Cord Grips.

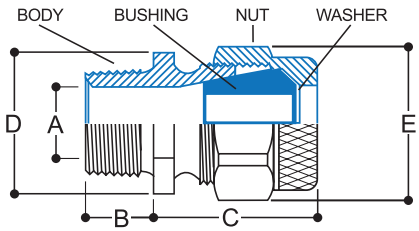
## COMPLETE ASSEMBLY PART NUMBERS

RSRS SERIES STEEL CORD GRIPS

| Conduit Size (NPT) | Cable Range | Cord Grip | Cord Grip With Mesh |
|---|---|---|---|
| 3/8" | .125 – .188 | RSRS-003 | — |
| | .188 – .250 | RSRS-004 | RSRS-004-E |
| | .250 – .312 | RSRS-005 | RSRS-005-E |
| | .312 – .375 | RSRS-006 | RSRS-006-E |
| | .375 – .438 | RSRS-007 | RSRS-007-E |
| 1/2" | .125 – .188 | RSRS-103 | — |
| | .188 – .250 | RSRS-104 | RSRS-104-E |
| | .250 – .312 | RSRS-105 | RSRS-105-E |
| | .312 – .375 | RSRS-106 | RSRS-106-E |
| | .375 – .438 | RSRS-107 | RSRS-107-E |
| | .438 – .500 | RSRS-108 | RSRS-108-E |
| | .500 – .562 | RSRS-109 | RSRS-109-E |
| | .562 – .625 | RSRS-110 | RSRS-110-E |
| 3/4" | .438 – .500 | RSRS-208 | RSRS-208-E |
| | .500 – .562 | RSRS-209 | RSRS-209-E |
| | .500 – .625 | RSRS-210 | RSRS-210-E |
| | .562 – .688 | RSRS-211 | RSRS-211-E |
| | .625 – .750 | RSRS-212 | RSRS-212-E |
| | .688 – .812 | RSRS-213* | RSRS-213-E |
| 1" | .500 – .562 | RSRS-309 | RSRS-309-E |
| | .500 – .625 | RSRS-310 | RSRS-310-E |
| | .562 – .688 | RSRS-311 | RSRS-311-E |
| | .625 – .750 | RSRS-312 | RSRS-312-E |
| | .688 – .812 | RSRS-313 | RSRS-313-E |
| | .750 – .875 | RSRS-314 | RSRS-314-E |
| | .812 – .938 | RSRS-315 | RSRS-315-E |
| | .875 – 1.000 | RSRS-316 | RSRS-316-E |
| 1 1/4" | .875 – 1.000 | RSRS-416 | — |
| | 1.125 - 1.250 | RSRS-418 | — |
| | 1.125 – 1.250 | RSRS-420 | — |
| | 1.250 - 1.375 | RSRS-422 | — |
| 1 1/2" | 875 - 1.000 | RSRS-516 | — |
| | 1.000 – 1.125 | RSRS-518 | — |
| | 1.125 – 1.250 | RSRS-520 | — |
| | 1.250 – 1.375 | RSRS-522 | — |

*Cable may have to be stripped to pass through the bore of the body

# RSR STRAIGHT CORD GRIP DIMENSIONS




## ALUMINUM AND NICKEL-PLATED ALUMINUM

| Conduit Size | RSR Series | Form Size | A Inside Body Dia. | B | C | D Body Hex | E Nut |
|---|---|---|---|---|---|---|---|
| 1/4" | 0000 | 1 | 0.34 | 0.44 | 0.96 | 0.88 | 0.96 |
| 3/8" | 000 | 1 | 0.47 | 0.44 | 0.96 | 0.88 | 0.96 |
| 1/2" | 1000 | 1 | 0.47 | 0.44 | 0.95 | 0.88 | 0.96 |
| 1/2" | 100 | 2 | 0.61 | 0.56 | 1.12 | 1.00 | 1.25 |
| 1/2" | 1200 | 3 | 0.62 | 0.54 | 1.40 | 1.25 | 1.53 |
| 3/4" | 2100 | 2 | 0.61 | 0.56 | 1.20 | 1.12 | 1.25 |
| 3/4" | 200 | 3 | 0.80 | 0.57 | 1.42 | 1.25 | 1.53 |
| 3/4" | 2300 | 4 | 0.81 | 0.57 | 1.49 | 1.37 | 1.72 |
| 1" | 300 | 4 | 0.99 | 0.62 | 1.46 | 1.44 | 1.72 |
| 1" | 3500 | 5 | 1.06 | 0.69 | 1.91 | 2.00 | 2.47 |
| 1 1/4" | 400 | 5 | 1.32 | 0.69 | 1.80 | 2.00 | 2.00 |
| 1 1/2" | 500 | 5 | 1.43 | 0.69 | 1.84 | 2.25 | 2.47 |
| 1 1/2" | 5600 | 6 | 1.50 | 0.80 | 2.39 | 2.62 | 2.97 |
| 2" | 600 | 6 | 2.00 | 0.80 | 2.39 | 2.83 | 2.97 |
| 2" | 6700 | 7 | 1.90 | 0.80 | 3.32 | 4.00 | 4.20 |
| 2 1/2" | 700 | 7 | 2.36 | 1.28 | 3.19 | 4.00 | 4.20 |
| 3" | 8700 | 7 | 2.35 | 1.31 | 3.07 | 4.00 | 4.20 |
| 3" | 900 | 9 | 3.05 | 1.39 | 3.14 | 4.75 | 4.00 |
| 3 1/2" | 1150 | 8 | 3.25 | 1.47 | 4.65 | 5.36 | 6.22 |
| 4" | 1250 | 9 | 3.60 | 1.47 | 4.86 | 5.82 | 6.66 |

Dimension A is the minimum Inside Body Diameter. Other dimensions are nominal.

Dimension E is cross corners of the nut.

## NYLON AND VALOX

| Conduit Size | Form Size | A Inside Body Dia. | B | C | D Body Hex | E Nut |
|---|---|---|---|---|---|---|
| 3/8" | 1 | 0.44 | 0.49 | 0.70 | 0.94 | 0.94 |
| 1/2" | 2 | 0.50 | 0.88 | 1.12 | 1.25 | 1.25 |
| 3/4" | 3 | 0.56 | 0.88 | 1.38 | 1.50 | 1.50 |

## STEEL

| Conduit Size | Form Size | A Inside Body Dia. | B | C | D Body Hex | E Nut |
|---|---|---|---|---|---|---|
| 3/8" | 1 | 0.47 | 0.44 | 0.56 | 0.88 | 0.88 |
| 1/2" | 2 | 0.62 | 0.56 | 0.69 | 1.00 | 1.26 |
| 3/4" | 3 | 0.81 | 0.56 | 0.85 | 1.25 | 1.37 |
| 1" | 4 | 0.99 | 0.63 | 0.94 | 1.43 | 1.56 |

## STAINLESS STEEL

| Conduit Size | RSSS SERIES | Form Size | A Inside Body Dia. | B | C | D Body Hex | E Nut |
|---|---|---|---|---|---|---|---|
| 3/8" | 000 | 1 | 0.47 | 0.44 | 0.88 | 0.94 | 0.96 |
| 1/2" | 100 | 2 | 0.61 | 0.56 | 1.18 | 1.12 | 1.25 |
| 3/4" | 200 | 3 | 0.81 | 0.57 | 1.44 | 1.37 | 1.50 |
| 1" | 300 | 4 | 0.99 | 0.62 | 1.49 | 1.56 | 1.72 |
| 1 1/4" | 400 | 5 | 1.32 | 0.69 | 2.04 | 2.00 | 2.48 |
| 1 1/2" | 500 | 5 | 1.44 | 0.69 | 1.93 | 2.25 | 2.48 |
| 2" | 600 | 6 | 2.00 | 0.80 | 2.43 | 2.83 | 2.97 |
| 2 1/2" | 700 | 7 | 2.36 | 1.25 | 2.96 | 3.75 | 3.95 |
| 3" | 900 | 9 | 3.05 | 1.39 | 3.01 | 4.75 | 5.00 |
| 3/12" | 1150 | 11 | 3.00 | 1,47 | 4.41 | 5.36 | 6.22 |
| 4" | 1250 | 12 | 3.60 | 1.47 | 4.53 | 5.82 | 6.66 |

# TUFF-SEAL™ TECHNICAL REFERENCE SECTION

## RoHS STATEMENT

Remke Industries supports the European Union's efforts to remove harmful chemicals from electrical products. In compliance with Directive 2011/65/EU of the European Parliament and the Council of the European Union regarding the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS), Remke Industries certifies either:

1. The maximum concentration values of weight in homogenous materials for the substances referred to in Article 4(1) of directive 2002/95/EC that are contained in the Products do not exceed the maximum concentration values of 0.1% in respect of lead, mercury, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers, and 0.01% in respect of cadmium. OR

2. The product supplied is exempt from this directive.

Remke Industries certifies that all products of our manufacture are fully compliant to the current RoHS Directive.

### ISO CERTIFICATION

On July 1st, 2003 Remke Industries received ISO 9001 : 2000 certification which certifies that Remke is compliant with current ISO standards.

### KNOCKOUT DIMENSIONS

| N.P.T. Hub Size | Knockout Hole Recommended (Min to Max/Inches) |
|---|---|
| 1/4" | .540 to .570 |
| 3/8" | .671 to .701 |
| 1/2" | .859 to .906 |
| 3/4" | 1.094 to 1.141 |
| 1" | 1.359 to 1.406 |
| 1 1/4" | 1.719 to 1.766 |
| 1 1/2" | 1.969 to 2.016 |
| 2" | 2.453 to 2.500 |
| 2 1/2" | 2.953 to 3.000 |
| 3" | 3.578 to 3.625 |
| 3 1/2" | 3.570 TO 4.040 |
| 4" | 4.550 TO 4.630 |

### OPERATING TEMPERATURES

| Material | Temperature range |
|---|---|
| Aluminum | -40°F to +300°F (-40°C to +149°C) |
| Buna-N | -40°F to +250°F (-40°C to +121°C) |
| Nylon | -40°F to +225°F (-40°C to +107°C) |
| Steel | -60°F to +1000°F (-51°C to +537°C) |
| Stainless Steel | -60°F to +1000°F (-51°C to +537°C) |
| Neoprene (bushings) | -40°F to +250°F (-40°C to +121°C) |
| Silicone (bushings) | -150°F to + 390°F (-101°C to +199°C) |
| Valox | -40°F to +250°F (-40°C to +121°C) |
| Dome-Cap Connectors: | |
| Non-Metallic | -22°F to +176°F (-30°C to +80°C) |
| Metallic | -40°F to +212°F (-40°C to +100°C) |

### FLAMMABILITY

| Component | Rating |
|---|---|
| Mesh Grip | UL 94HB |
| Fitting | UL 94V-2 |
| Note: Non-metallic cord connectors will not support combustion. | |

### APPROVALS, CERTIFICATION & COMPLIANCES

| AGENCY | FILE NUMBER | PRODUCT OR COMPONENT |
|---|---|---|
| Underwriters Laboratories Inc. (UL) | E53599 | RSR Series (Straight, 90°, 45°)<br>RSP Series (Straight, 90°) RSM Cord Grips RSRS Cord Grips<br>RSRF Series |
| | E52002 | Liqua-Seal Connectors |
| | E52002(N) | WH Series Watertight Conduit Hubs |
| | E157356(N) | WH Series Watertight Conduit Hubs |
| Canadian Standards Association (CSA) | 28985 | RSR Series (Straight, 90°, 45°)<br>RSP Series (Straight, 90°)<br>RSRS Cord Grips<br>RSRF Series<br>RSSS Series<br>RSPV Series<br>RTK Series<br>MC Cable Connectors<br>Watertight Conduit Hubs |
| National Electrical Code (NEC) | Articles 400-10 | RSR Series (Straight, 90°, 45°) |
| | Articles 400-14 | RSP Series (Straight, 90°)<br>RSM Cord Grips<br>RSRS Cord Grips<br>RSRF Series |
| | Articles 501-4(B) | WH Series Watertight Conduit Hubs |
| | Articles 502-4(A) | WH Series Watertight Conduit Hubs |
| | Articles 503-3(A) | WH Series Watertight Conduit Hubs |
| ROHS & WEE | All Tuff-Seal and Tuff-Link Products are Compliant | |

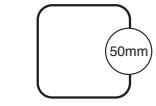
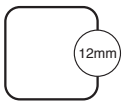
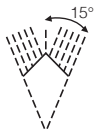
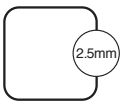
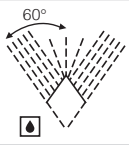
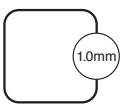
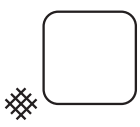
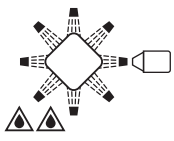
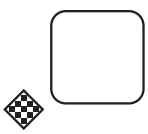
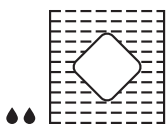
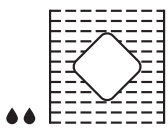
### HAZARDOUS LOCATIONS

| Definition | Remke Products |
|---|---|
| The Remke products listed are suitable for use in hazardous locations per Class I, Div. 2, Class II, Div 1 & 2, and Class III, Div. 1 & 2 | RSR Series (Straight, 90°, 45°)<br>WH Series Watertight Conduit Hubs<br>RSP Series (Straight, 90°)<br>RSM Cord Grips, RSRS Cord Grips<br>RSRF Series |

## RATINGS/MATERIAL OF CONSTRUCTION

| MATERIAL | IP 54 AND NEMA 3 | IP 54 AND NEMA 3R | IP65 AND NEMA 4 | IP 56 AND NEMA 4X | IP67 AND NEMA 6 | IP 52 AND NEMA 12 |
|---|---|---|---|---|---|---|
| Aluminum | X | X | X | — | X | X |
| Nickel-Plated Aluminum | X | X | X | X | X | X |
| Steel | X | X | X | — | X | X |
| Stainless Steel | X | X | X | X | X | X |
| Nylon | X | X | X | — | X | X |
| Valox | X | X | X | X | X | X |

## IP RATINGS DEFINITION

| First Digit | | Protection From Solid Objects | Second Digit | | Protection From Moisture |
|---|---|---|---|---|---|
| 0 | | Non-Protected | 0 | | Non-Protected |
| 1 |   | Protected against solid objects over 50mm e.g hands, large tools | 1 |  | Protection against vertically falling drops of water |
| 2 |   | Protected against solid objects over 12mm e.g hands, large tools | 2 |   | Protection against direct sprays of water up to a 15° angle |
| 3 |   | Protection from entry by solid objects over 2.5mm e.g. wire or small tools | 3 |   | Protection against direct sprays of water up to a 60° angle |
| 4 |   | Protection from entry by solid objects over 1.0mm e.g. wires or tools | 4 |  | Protection against water sprayed from any direction. Limited ingress permitted. |
| 5 |  | Protection against deposits of dust e.g. against equipment damage due to deposits | 5 |  | Protection against low pressure water jets from any direction. Limited ingress permitted |
| 6 |  | Total protection against dust ingress e.g. Dust-Tight | 6 |  | Protection against high pressure water jets from any direction. Limited ingress permitted. |
| | | | 7 |  | Protection against immersion between 15cm and 1M |
| | | | 8 |  | Protection against complete and continuous immersion in water under pressure e.g Water-Tight |

## IP CODE EXAMPLE

IP54 = IP (IP LETTER CODE), 5 (1st Digit), 4 (2nd Digit)

# THREAD SPECIFICATIONS

## PG THREAD SPECIFICATIONS

| Thread Size | Major Diameter (mm) | Pitch (mm) |
|---|---|---|
| Pg 7 | 12.5 | 1.27 |
| Pg 9 | 15.2 | 1.41 |
| Pg 11 | 18.6 | 1.41 |
| Pg 13.5 | 20.4 | 1.41 |
| Pg 16 | 22.5 | 1.41 |
| Pg 21 | 28.3 | 1.56 |
| Pg 29 | 37.0 | 1.56 |
| Pg 36 | 47.0 | 1.56 |
| Pg 42 | 54.0 | 1.56 |
| Pg 48 | 59.3 | 1.56 |

## NPT THREAD SPECIFICATIONS

| Thread Size | Major Diameter (mm) | Pitch (mm) |
|---|---|---|
| NPT 1/4" | 13.7 | 1.41 |
| NPT 3/8" | 17.1 | 1.41 |
| NPT 1/2" | 21.3 | 1.81 |
| NPT 3/4" | 26.7 | 1.81 |
| NPT 1" | 33.4 | 2.21 |
| NPT 1-1/4" | 48.3 | 2.21 |
| NPT 1-1/2" | 47.0 | 2.21 |
| NPT 2" | 60.3 | 2.21 |

## METRIC THREAD SPECIFICATIONS

| Thread Size | Major Diameter (mm) | Pitch (mm) |
|---|---|---|
| M12 X 1.5 | 12 | 1.50 |
| M16 X 1.5 | 16 | 1.50 |
| M20 X 1.5 | 20 | 1.50 |
| M25 X 1.5 | 25 | 1.50 |
| M32 X 1.5 | 32 | 1.50 |
| M40 X 1.5 | 40 | 1.50 |
| M50 X 1.5 | 50 | 1.50 |
| M63 X 1.5 | 63 | 1.50 |