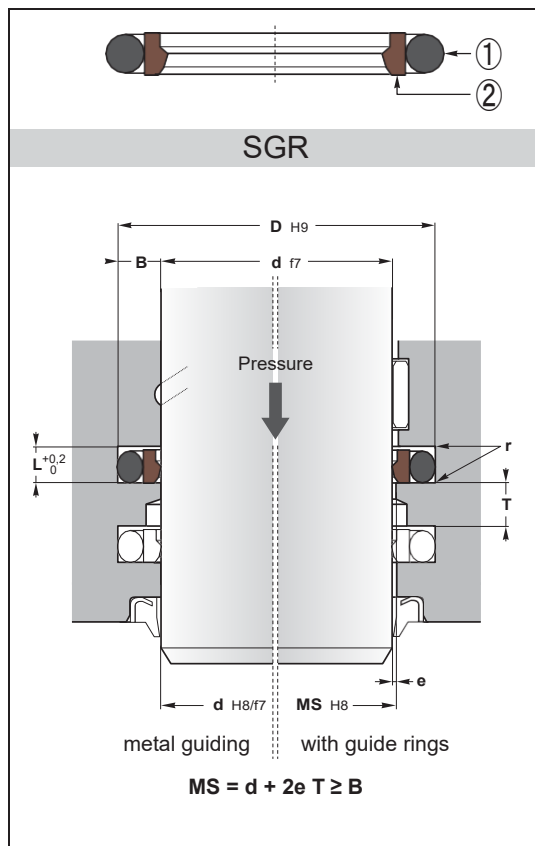
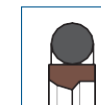




SGR

PTFE single acting rod seal



SGR rod seals are composed of a filled PTFE ring manufactured by machining technique combined with an O-ring that is used as an energising ring.

They are suitable for high sliding speeds due to the low friction force which is among one of the essential properties of PTFE material. Moreover, they can be used for different type of fluids by changing O-ring material.

Operating conditions

| | |
|-------------|----------------|
| Pressure | ≤ 50 MPa |
| Temperature | -30°C to 100°C |
| Speed | ≤ 15 m/s |

Materials

| | |
|---------------------------|-------------|
| Energising element ① | NBR 70 Sh A |
| Dynamic sealing element ② | |
| SGR | PT55 |
| SGR | PT15 |

Assembly

O-ring and PTFE-ring may easily be mounted into the grooved housings (above 12 mm)

Advantages

- Optimal sealing in tandem system
- Suitable as a primary seal (buffer)
- Small sections
- High extrusion resistance and long service life
- Low break-out and running friction
- Compatibility with nearly all media due to the high chemical resistance of the sealing element and the wide selection of O-ring compounds

Please contact us for applications approaching maximum values.

SGR-L-: Light serie
SGR-P-: Heavy serie

| d | D | L | O-ring NBR 70 Sh A | Reference |
|----|------|-----|-----------------------|------------|
| 5 | 9,9 | 2,2 | 6,35 x 1,78 | SGR-0050 |
| 8 | 15,3 | 3,2 | 10,78 x 2,62 | SGR-0080 |
| 10 | 14,9 | 2,2 | 12,42 x 1,78 | SGR-L-0100 |
| | 17,3 | 3,2 | 12,37 x 2,62 | SGR-0100 |
| 12 | 19,3 | 3,2 | 13,94 x 2,62 | SGR-0120 |
| 14 | 21,3 | 3,2 | 17,12 x 2,62 | SGR-0140 |
| 15 | 22,3 | 3,2 | 18 x 2,65 | SGR-0150 |
| 16 | 23,3 | 3,2 | 18,72 x 2,62 | SGR-0160 |
| 18 | 22,9 | 2,2 | 18,77 x 1,78 | SGR-L-0180 |
| | 25,3 | 3,2 | 20,3 x 2,62 | SGR-0180 |
| 20 | 27,3 | 3,2 | 22,23 x 2,62 | SGR-L-0200 |
| | 30,7 | 4,2 | 23,39 x 3,53 | SGR-0200 |
| 22 | 29,3 | 3,2 | 25,07 x 2,62 | SGR-L-0220 |
| | 32,7 | 4,2 | 26,57 x 3,53 | SGR-0220 |
| 24 | 34,7 | 4,2 | 28,17 x 3,53 | SGR-0240 |
| 25 | 32,3 | 3,2 | 28,24 x 2,62 | SGR-L-0250 |
| | 35,7 | 4,2 | 29,74 x 3,53 | SGR-0250 |
| 28 | 35,3 | 3,2 | 29,82 x 2,62 | SGR-L-0280 |
| | 38,7 | 4,2 | 32,92 x 3,53 | SGR-0280 |
| 30 | 37,3 | 3,2 | 32,99 x 2,62 | SGR-L-0300 |
| | 40,7 | 4,2 | 34,52 x 3,53 | SGR-0300 |
| 32 | 39,3 | 3,2 | 34,59 x 2,62 | SGR-L-0320 |
| | 42,7 | 4,2 | 36,09 x 3,53 | SGR-0320 |
| 35 | 42,3 | 3,2 | 37,77 x 2,62 | SGR-L-0350 |
| | 45,7 | 4,2 | 37,69 x 3,53 | SGR-0350 |
| 36 | 43,3 | 3,2 | 39,34 x 2,62 | SGR-L-0360 |
| | 46,7 | 4,2 | 40,87 x 3,53 | SGR-0360 |
| 37 | 47,7 | 4,2 | 40,87 x 3,53 | SGR-0370 |
| 38 | 53,1 | 6,3 | 43,82 x 5,34 | SGR-0380 |
| 40 | 50,7 | 4,2 | 44,04 x 3,53 | SGR-L-0400 |
| | 55,1 | 6,3 | 43,82 x 5,34 | SGR-0400 |

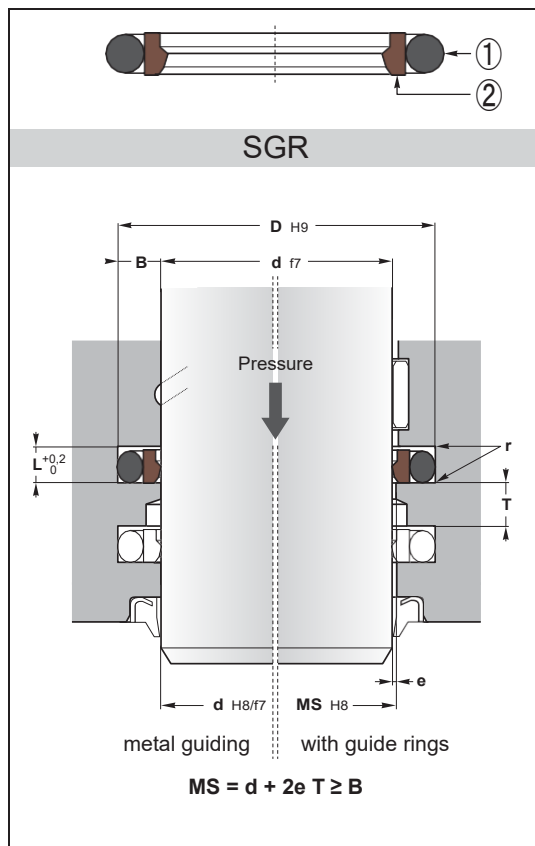
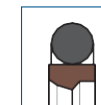
| e (mm) | | | H8/f7 |
|-----------|------------|----------------------|-------|
| L (mm) | 0 - 20 MPa | 20 - 40 MPa > 40 MPa | |
| 2,2 - 3,2 | 0,15 | 0,1 | |
| 4,2 - 6,3 | 0,25 | 0,15 | |
| 8,1 | 0,4 | 0,2 | |

| d (mm) | | | r (mm) | L (mm) | D (mm) | O-ring C/S ① |
|--------------------|-------------------|-------------------|--------|--------|--------|--------------|
| SGR Standard serie | SGR-L Light serie | SGR-P Heavy serie | | | | |
| 3 → 7,9 | 8 → 18,9 | | 0,4 | 2,2 | d+4,9 | 1,78 |
| 8 → 18,9 | 19 → 37,9 | | 0,6 | 3,2 | +7,3 | 2,62 |
| 19 → 37,9 | 38 → 199,9 | 8 → 18,9 | 1,0 | 4,2 | +10,7 | 3,53 |
| 38 → 199,9 | 200 → 255,9 | 19 → 37,9 | 1,3 | 6,3 | +15,1 | 5,34 |
| 200 → 255,9 | 256 → 649,9 | 38 → 199,9 | 1,8 | 8,1 | +20,5 | 7 |
| 256 → 649,9 | 650 → 999,9 | 200 → 255,9 | 1,8 | 8,1 | +24 | 7 |
| 650 → 999,9 | ≥ 1000 | 256 → 649,9 | 2,5 | 9,5 | +27,3 | 8,4 |
| ≥ 1000 | | 650 → 999,9 | 3 | 13,8 | +38 | 12 |



SGR

PTFE single acting rod seal



SGR rod seals are composed of a filled PTFE ring manufactured by machining technique combined with an O-ring that is used as an energising ring.

They are suitable for high sliding speeds due to the low friction force which is among one of the essential properties of PTFE material. Moreover, they can be used for different type of fluids by changing O-ring material.

Operating conditions

| | |
|-------------|----------------|
| Pressure | ≤ 50 MPa |
| Temperature | -30°C to 100°C |
| Speed | ≤ 15 m/s |

Materials

| | |
|---------------------------|-------------|
| Energising element ① | NBR 70 Sh A |
| Dynamic sealing element ② | |
| SGR | PT55 |
| SGR | PT15 |

Assembly

O-ring and PTFE-ring may easily be mounted into the grooved housings (above 12 mm)

Advantages

- Optimal sealing in tandem system
- Suitable as a primary seal (buffer)
- Small sections
- High extrusion resistance and long service life
- Low break-out and running friction
- Compatibility with nearly all media due to the high chemical resistance of the sealing element and the wide selection of O-ring compounds

Please contact us for applications approaching maximum values.

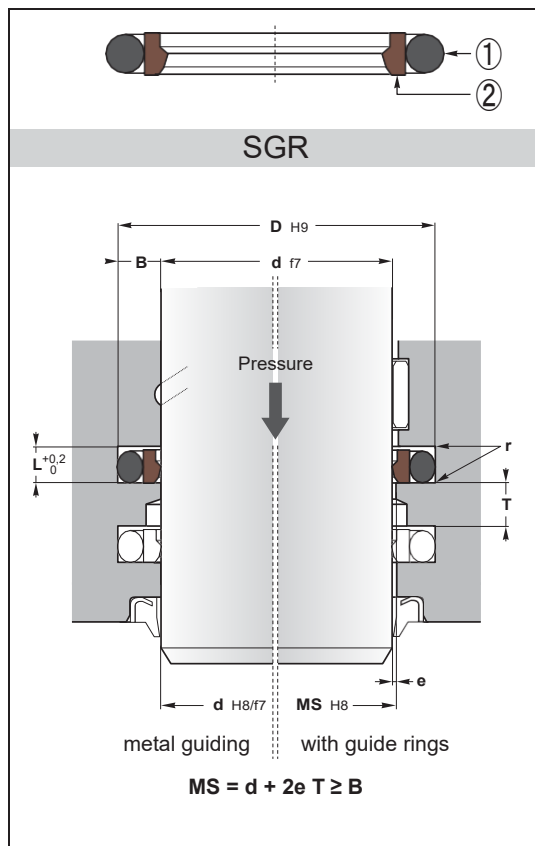
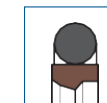
| e (mm) | | | H8/f7 |
|-----------|------------|-------------|-------|
| L (mm) | 0 - 20 MPa | 20 - 40 MPa | |
| 2,2 - 3,2 | 0,15 | 0,1 | H8/f7 |
| 4,2 - 6,3 | 0,25 | 0,15 | |
| 8,1 | 0,4 | 0,2 | |

| d (mm) | | | r (mm) | L (mm) | D (mm) | O-ring C/S ① |
|--------------------|-------------------|-------------------|--------|--------|--------|--------------|
| SGR Standard serie | SGR-L Light serie | SGR-P Heavy serie | | | | |
| 3 → 7,9 | 8 → 18,9 | | 0,4 | 2,2 | d+4,9 | 1,78 |
| 8 → 18,9 | 19 → 37,9 | | 0,6 | 3,2 | +7,3 | 2,62 |
| 19 → 37,9 | 38 → 199,9 | 8 → 18,9 | 1,0 | 4,2 | +10,7 | 3,53 |
| 38 → 199,9 | 200 → 255,9 | 19 → 37,9 | 1,3 | 6,3 | +15,1 | 5,34 |
| 200 → 255,9 | 256 → 649,9 | 38 → 199,9 | 1,8 | 8,1 | +20,5 | 7 |
| 256 → 649,9 | 650 → 999,9 | 200 → 255,9 | 1,8 | 8,1 | +24 | 7 |
| 650 → 999,9 | ≥ 1000 | 256 → 649,9 | 2,5 | 9,5 | +27,3 | 8,4 |
| ≥ 1000 | | 650 → 999,9 | 3 | 13,8 | +38 | 12 |

SGR-L-: Light serie
SGR-P-: Heavy serie

| d | D | L | O-ring NBR 70 Sh A | Reference |
|------|-------|------|--------------------|--------------|
| 42 | 52,7 | 4,2 | 47,22 x 3,53 | SGR-L-0420 |
| | 57,1 | 6,3 | 46,99 x 5,34 | SGR-0420 |
| 45 | 55,7 | 4,2 | 49,2 x 5,34 | SGR-L-0450 |
| | 60,1 | 6,3 | 50,17 x 5,34 | SGR-0450 |
| 48 | 63,1 | 6,3 | 53,34 x 5,34 | SGR-0480 |
| 50 | 60,7 | 4,2 | 53,97 x 3,53 | SGR-L-0500 |
| | 65,1 | 6,3 | 56,52 x 5,34 | SGR-0500 |
| | 65,1 | 6,3 | 56,52 x 5,34 | SGR-0500 |
| 52 | 67,1 | 6,3 | 56,52 x 5,34 | SGR-0520 |
| 55 | 65,7 | 4,2 | 59,92 x 3,53 | SGR-L-0550 |
| | 70,1 | 6,3 | 59,69 x 5,34 | SGR-0550 |
| 56 | 66,7 | 4,2 | 59,92 x 3,53 | SGR-L-0560 |
| | 71,1 | 6,3 | 62,87 x 5,34 | SGR-0560 |
| | 76,5 | 8,1 | 63 x 7 | SGR-P-0560 |
| 60 | 70,7 | 4,2 | 63,09 x 3,53 | SGR-L-0600 |
| | 75,1 | 6,3 | 66,04 x 5,34 | SGR-0600 |
| 63 | 73,7 | 4,2 | 66,27 x 3,53 | SGR-L-0630 |
| | 78,1 | 6,3 | 69,22 x 5,34 | SGR-0630 |
| 65 | 75,7 | 4,2 | 69,44 x 3,53 | SGR-L-0650 |
| | 80,1 | 6,3 | 69,22 x 5,34 | SGR-0650 |
| 70 | 80,7 | 4,2 | 74,6 x 3,53 | SGR-L-0700 |
| | 85,1 | 6,3 | 75,57 x 5,34 | SGR-0700 |
| | 85,1 | 6,3 | 75,57 x 5,34 | SGR-0700 |
| | 90,5 | 8,1 | 78 x 7 | SGR-P-0700 |
| | 75 | 90,1 | 6,3 | 79,73 x 5,34 |
| 95,5 | | 8,1 | 82 x 7 | SGR-P-0750 |
| 80 | 90,7 | 4,2 | 85,32 x 3,53 | SGR-L-0800 |
| | 95,1 | 6,3 | 85,09 x 5,34 | SGR-0800 |
| | 95,1 | 6,3 | 85,09 x 5,34 | SGR-0800 |
| | 100,5 | 8,1 | 89 x 7 | SGR-P-0800 |
| 85 | 100,1 | 6,3 | 89,69 x 5,34 | SGR-0850 |
| | 105,5 | 8,1 | 92 x 7 | SGR-P-0850 |
| 90 | 100,7 | 4,2 | 94,84 x 3,53 | SGR-L-0900 |
| | 105,1 | 6,3 | 94,62 x 5,34 | SGR-0900 |
| | 110,5 | 8,1 | 98 x 7 | SGR-P-0900 |

References printed in green are manufactured with a non-standard material



SGR rod seals are composed of a filled PTFE ring manufactured by machining technique combined with an O-ring that is used as an energising ring.

They are suitable for high sliding speeds due to the low friction force which is among one of the essential properties of PTFE material. Moreover, they can be used for different type of fluids by changing O-ring material.

Operating conditions

| | |
|-------------|----------------|
| Pressure | ≤ 50 MPa |
| Temperature | -30°C to 100°C |
| Speed | ≤ 15 m/s |

Materials

| | |
|---------------------------|-------------|
| Energising element ① | NBR 70 Sh A |
| Dynamic sealing element ② | |
| SGR | PT55 |
| SGR | PT15 |

Assembly

O-ring and PTFE-ring may easily be mounted into the grooved housings (above 12 mm)

Advantages

- Optimal sealing in tandem system
- Suitable as a primary seal (buffer)
- Small sections
- High extrusion resistance and long service life
- Low break-out and running friction
- Compatibility with nearly all media due to the high chemical resistance of the sealing element and the wide selection of O-ring compounds

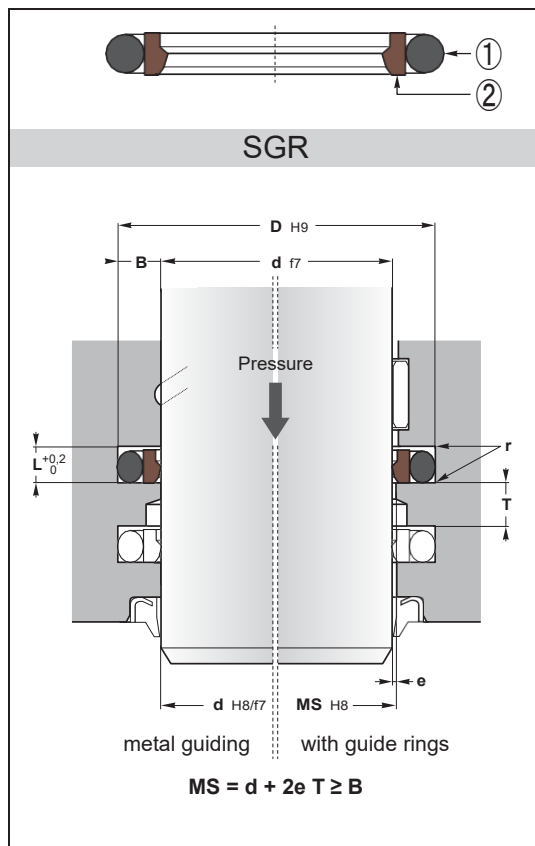
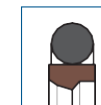
Please contact us for applications approaching maximum values.

| e (mm) | | | |
|-----------|------------|-------------|----------|
| L (mm) | 0 - 20 MPa | 20 - 40 MPa | > 40 MPa |
| 2,2 - 3,2 | 0,15 | 0,1 | H8/f7 |
| 4,2 - 6,3 | 0,25 | 0,15 | |
| 8,1 | 0,4 | 0,2 | |

| d (mm) | | | | | | |
|--------------------|-------------------|-------------------|--------|--------|--------|--------------|
| SGR Standard serie | SGR-L Light serie | SGR-P Heavy serie | r (mm) | L (mm) | D (mm) | O-ring C/S ① |
| 3 → 7,9 | 8 → 18,9 | | 0,4 | 2,2 | d+4,9 | 1,78 |
| 8 → 18,9 | 19 → 37,9 | | 0,6 | 3,2 | +7,3 | 2,62 |
| 19 → 37,9 | 38 → 199,9 | 8 → 18,9 | 1,0 | 4,2 | +10,7 | 3,53 |
| 38 → 199,9 | 200 → 255,9 | 19 → 37,9 | 1,3 | 6,3 | +15,1 | 5,34 |
| 200 → 255,9 | 256 → 649,9 | 38 → 199,9 | 1,8 | 8,1 | +20,5 | 7 |
| 256 → 649,9 | 650 → 999,9 | 200 → 255,9 | 1,8 | 8,1 | +24 | 7 |
| 650 → 999,9 | ≥ 1000 | 256 → 649,9 | 2,5 | 9,5 | +27,3 | 8,4 |
| ≥ 1000 | | 650 → 999,9 | 3 | 13,8 | +38 | 12 |

SGR-L: Light serie
SGR-P: Heavy serie

| d | D | L | O-ring NBR 70 Sh A | Reference |
|-----|-------|-----|--------------------|------------|
| 95 | 110,1 | 6,3 | 100,97 x 5,34 | SGR-0950 |
| | 115,5 | 8,1 | 103 x 7 | SGR-P-0950 |
| 100 | 110,7 | 4,2 | 104,37 x 3,53 | SGR-L-1000 |
| | 115,1 | 6,3 | 107,32 x 5,34 | SGR-1000 |
| | 120,5 | 8,1 | 108 x 7 | SGR-P-1000 |
| 105 | 120,1 | 6,3 | 110,49 x 5,34 | SGR-1050 |
| | 125,5 | 8,1 | 113,67 x 7 | SGR-P-1050 |
| 110 | 120,7 | 4,2 | 113,89 x 3,53 | SGR-L-1100 |
| | 125,1 | 6,3 | 116,84 x 5,34 | SGR-1100 |
| | 130,5 | 8,1 | 116,84 x 7 | SGR-P-1100 |
| 115 | 130,1 | 6,3 | 120,02 x 5,34 | SGR-1150 |
| 120 | 135,1 | 6,3 | 126,37 x 5,34 | SGR-1200 |
| | 140,5 | 8,1 | 129,54 x 7 | SGR-P-1200 |
| 125 | 140,1 | 6,3 | 129,54 x 5,34 | SGR-1250 |
| | 145,5 | 8,1 | 132,72 x 7 | SGR-P-1250 |
| 130 | 140,7 | 4,2 | 132,94 x 3,53 | SGR-L-1300 |
| | 145,1 | 6,3 | 135,89 x 5,34 | SGR-1300 |
| | 150,5 | 8,1 | 139,07 x 7 | SGR-P-1300 |
| 135 | 150,1 | 6,3 | 142,24 x 5,34 | SGR-1350 |
| 140 | 155,1 | 6,3 | 145,42 x 5,34 | SGR-1400 |
| | 160,5 | 8,1 | 148,59 x 7 | SGR-P-1400 |
| 145 | 165,5 | 8,1 | 151,77 x 7 | SGR-P-1450 |
| 150 | 165,1 | 6,3 | 155 x 5,34 | SGR-1500 |
| | 170,5 | 8,1 | 158,12 x 7 | SGR-P-1500 |
| 153 | 168,1 | 6,3 | 158,12 x 5,34 | SGR-1530 |
| 160 | 175,1 | 6,3 | 164,47 x 5,34 | SGR-1600 |
| | 180,5 | 8,1 | 166,7 x 7 | SGR-P-1600 |
| 165 | 180,1 | 6,3 | 170,82 x 5,34 | SGR-1650 |
| 170 | 185,1 | 6,3 | 177,17 x 5,34 | SGR-1700 |
| | 190,5 | 8,1 | 177,17 x 7 | SGR-P-1700 |
| 173 | 188,1 | 6,3 | 177,17 x 5,34 | SGR-1730 |
| 180 | 195,1 | 6,3 | 183,52 x 5,34 | SGR-1800 |
| | 200,5 | 8,1 | 187,3 x 7 | SGR-P-1800 |



SGR rod seals are composed of a filled PTFE ring manufactured by machining technique combined with an O-ring that is used as an energising ring.

They are suitable for high sliding speeds due to the low friction force which is among one of the essential properties of PTFE material. Moreover, they can be used for different type of fluids by changing O-ring material.

Operating conditions

| | |
|-------------|----------------|
| Pressure | ≤ 50 MPa |
| Temperature | -30°C to 100°C |
| Speed | ≤ 15 m/s |

Materials

| | |
|---------------------------|-------------|
| Energising element ① | NBR 70 Sh A |
| Dynamic sealing element ② | |
| SGR | PT55 |
| SGR | PT15 |

Assembly

O-ring and PTFE-ring may easily be mounted into the grooved housings (above 12 mm)

Advantages

- Optimal sealing in tandem system
- Suitable as a primary seal (buffer)
- Small sections
- High extrusion resistance and long service life
- Low break-out and running friction
- Compatibility with nearly all media due to the high chemical resistance of the sealing element and the wide selection of O-ring compounds

Please contact us for applications approaching maximum values.

SGR-L: Light serie
SGR-P: Heavy serie

| d | D | L | O-ring NBR 70 Sh A | Reference |
|-----|-------|-----|-----------------------|------------|
| 190 | 205,1 | 6,3 | 196,22 x 5,34 | SGR-1900 |
| | 210,5 | 8,1 | 196,22 x 7 | SGR-P-1900 |
| 200 | 220,5 | 8,1 | 208,92 x 7 | SGR-2000 |
| 210 | 230,5 | 8,1 | 215,27 x 7 | SGR-2100 |
| 220 | 240,5 | 8,1 | 227,97 x 7 | SGR-2200 |
| 230 | 250,5 | 8,1 | 240,67 x 7 | SGR-2300 |
| 240 | 260,5 | 8,1 | 247 x 7 | SGR-2400 |
| 250 | 270,5 | 8,1 | 259,7 x 7 | SGR-2500 |
| 260 | 284 | 8,1 | 266,07 x 7 | SGR-2600 |
| 270 | 294 | 8,1 | 278,77 x 7 | SGR-2700 |
| 280 | 304 | 8,1 | 291,47 x 7 | SGR-2800 |
| 290 | 314 | 8,1 | 300 x 7 | SGR-2900 |
| 300 | 324 | 8,1 | 310,5 x 7 | SGR-3000 |
| 310 | 334 | 8,1 | 316,87 x 7 | SGR-3100 |
| 320 | 344 | 8,1 | 329,57 x 7 | SGR-3200 |
| 330 | 354 | 8,1 | 342,27 x 7 | SGR-3300 |
| 340 | 364 | 8,1 | 354,97 x 7 | SGR-3400 |
| 350 | 374 | 8,1 | 367,67 x 7 | SGR-3500 |
| 360 | 384 | 8,1 | 367,67 x 7 | SGR-3600 |
| 370 | 394 | 8,1 | 380,37 x 7 | SGR-3700 |
| 380 | 404 | 8,1 | 393,07 x 7 | SGR-3800 |
| 400 | 424 | 8,1 | 412 x 7 | SGR-4000 |
| 530 | 554 | 8,1 | 545,47 x 7 | SGR-5300 |
| 650 | 677,3 | 9,5 | 663 x 8,4 | SGR-6500 |

| e (mm) | | | |
|-----------|------------|-------------|----------|
| L (mm) | 0 - 20 MPa | 20 - 40 MPa | > 40 MPa |
| 2,2 - 3,2 | 0,15 | 0,1 | H8/f7 |
| 4,2 - 6,3 | 0,25 | 0,15 | |
| 8,1 | 0,4 | 0,2 | |

| d (mm) | | | | | | O-ring C/S ① |
|--------------------------|-------------------------|-------------------------|-----------|-----------|-----------|--------------------|
| SGR Standard serie | SGR-L Light serie | SGR-P Heavy serie | r (mm) | L (mm) | D (mm) | |
| 3 → 7,9 | 8 → 18,9 | | 0,4 | 2,2 | d+4,9 | 1,78 |
| 8 → 18,9 | 19 → 37,9 | | 0,6 | 3,2 | +7,3 | 2,62 |
| 19 → 37,9 | 38 → 199,9 | 8 → 18,9 | 1,0 | 4,2 | +10,7 | 3,53 |
| 38 → 199,9 | 200 → 255,9 | 19 → 37,9 | 1,3 | 6,3 | +15,1 | 5,34 |
| 200 → 255,9 | 256 → 649,9 | 38 → 199,9 | 1,8 | 8,1 | +20,5 | 7 |
| 256 → 649,9 | 650 → 999,9 | 200 → 255,9 | 1,8 | 8,1 | +24 | 7 |
| 650 → 999,9 | ≥ 1000 | 256 → 649,9 | 2,5 | 9,5 | +27,3 | 8,4 |
| ≥ 1000 | | 650 → 999,9 | 3 | 13,8 | +38 | 12 |