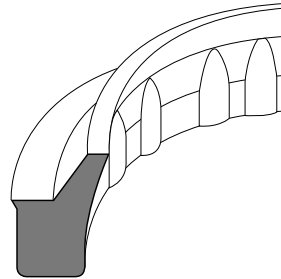


Wipers

SAP, H-38

(Metric Size)

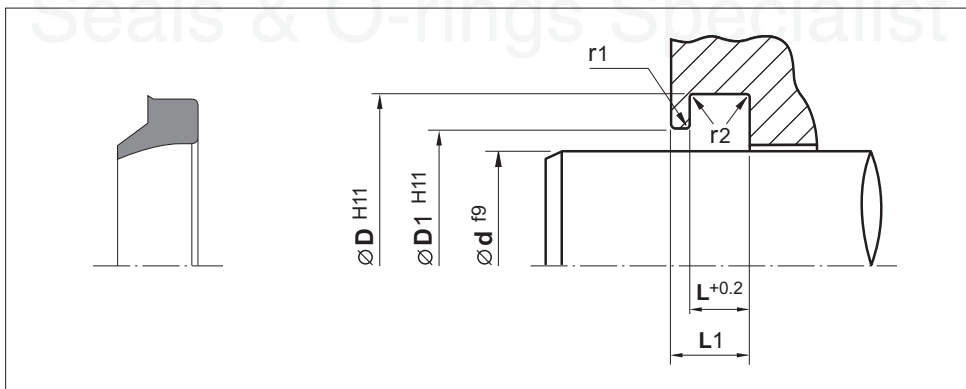


SAP, H-38

| Type | Material | Temp. (°C)  | Speed (m/s) |
|------|----------|-------------|-------------|
| SAP  | TPE      | -40<br>+100 | 4           |
| H-38 | TPU      | -40<br>+120 |             |

- Outside lip for effective housing seal.
- Pressure relief nibs.
- Effective scraping lip.
- Wear resistant, long service life.

Installation Recommendation



| Surface roughness  | Ra       | Rt      | Radius mm.    |     |
|--------------------|----------|---------|---------------|-----|
| Sliding surface    | ≤ 0.3 μm | ≤ 4 μm  | Rod<br>∅d     | r1  |
| Surface of housing | ≤ 1.8 μm | ≤ 10 μm | up to 50 mm.  | 0.4 |
| Sides of housing   | ≤ 3.0 μm | ≤ 16 μm | up to 90 mm.  | 0.4 |
|                    |          |         | up to 200 mm. | 0.4 |
|                    |          |         | above 200 mm. | 0.8 |

# Wiper - SAP

(Metric Size)

| Rod Dia. | Groove Dia. | Groove Width. | Part Width | Bore Dia. | Reference<br>(For order processing) | Reference            |             |
|----------|-------------|---------------|------------|-----------|-------------------------------------|----------------------|-------------|
|          |             |               |            |           |                                     | For order processing | Part Number |
| d        | D           | L             | L1         | D1        |                                     |                      |             |
| 18.0     | 24.0        | 5.0           | 6.5        | 21.0      |                                     | H-38 018-024-5       | 4392000     |
| 20.0     | 28.0        | 5.0           | 7.0        | 25.5      | SAP 020-028-5                       | H-38 020-028-5       | 4321900     |
| 22.0     | 30.0        | 5.0           | 7.0        | 27.5      | SAP 022-030-5                       | H-38 022-030-5       | 4322000     |
| 25.0     | 33.0        | 5.0           | 8.0        | 30.5      | SAP 025-033-5                       | H-38 025-033-5       | 6617700     |
| 28.0     | 36.0        | 5.0           | 8.0        | 33.5      | SAP 028-036-5                       | H-38 028-036-5       | 6617800     |
| 30.0     | 38.0        | 5.0           | 7.0        | 35.5      | SAP 030-038-5                       | H-38 030-038-5       | 4419200     |
| 30.0     | 41.2        | 7.5           | 10.0       | 37.0      |                                     | H-38 030-041.2-7.5   | 4528900     |
| 32.0     | 40.0        | 5.0           | 8.0        | 37.5      | SAP 032-040-5                       | H-38 032-040-5       | 6617900     |
| 35.0     | 43.0        | 5.0           | -          | 40.5      | SAP 035-043-5                       |                      |             |
| 36.0     | 44.0        | 5.0           | 8.0        | 41.5      | SAP 036-044-5                       | H-38 036-044-5       | 6618000     |
| 40.0     | 48.0        | 5.0           | 8.0        | 45.5      | SAP 040-048-5                       | H-38 040-048-5       | 6618100     |
| 45.0     | 53.0        | 5.0           | 8.0        | 50.5      | SAP 045-053-5                       | H-38 045-053-5       | 6618200     |
| 45.0     | 55.6        | 5.3           | -          | 48.0      | SAP 045-055.6-5.3                   |                      |             |
| 50.0     | 58.0        | 5.0           | 8.0        | 55.5      | SAP 050-058-5                       | H-38 050-058-5       | 6618300     |
| 50.0     | 58.6        | 5.3           | 7.0        | 53.0      |                                     | H-38 050-058.6-5.3   | 4300400     |
| 50.0     | 60.6        | 5.3           | 7.0        | 53.0      | SAP 050-060.6-5.3                   | H-38 050-060.6-5.3   | 4458000     |
| 55.0     | 63.6        | 5.3           | -          | 58.0      | SAP 055-063.6-5.3                   |                      |             |
| 55.0     | 65.0        | 5.3           | -          | 61.0      | SAP 055-065-5.3                     |                      |             |
| 55.0     | 65.0        | 6.3           | -          | 61.0      | SAP 055-065-6.3                     |                      |             |
| 56.0     | 66.0        | 6.3           | 10.0       | 63.0      | SAP 056-066-6.3                     | H-38 056-066-6.3     | 6618400     |
| 56.0     | 66.6        | 5.3           | 7.0        | 59.0      |                                     | H-38 056-066.6-5.3   | 4458100     |
| 60.0     | 70.0        | 5.3           | 7.0        | 66.0      | SAP 060-070-5.3                     | H-38 060-070-5.3     | 4386200     |
| 60.0     | 70.0        | 6.3           | 10.0       | 67.0      | SAP 060-070-6.3                     | H-38 060-070-6.3     | 4270200     |
| 60.0     | 70.6        | 5.3           | 7.0        | 63.0      |                                     | H-38 060-070.6-5.3   | 4456400     |
| 63.0     | 73.0        | 6.3           | 10.0       | 70.0      | SAP 063-073-6.3                     | H-38 063-073-6.3     | 6618500     |
| 63.0     | 73.6        | 5.3           | 7.0        | 66.0      | SAP 063-073.6-5.3                   | H-38 063-073.6-5.3   | 4283600     |
| 65.0     | 75.0        | 5.3           | -          | 68.0      | SAP 065-075-5.3                     |                      |             |
| 65.0     | 75.0        | 6.3           | 10.0       | 72.0      |                                     | H-38 065-075-6.3     | 4343800     |
| 70.0     | 78.0        | 5.0           | -          | 75.5      | SAP 070-078-5                       |                      |             |
| 70.0     | 80.0        | 6.3           | 10.0       | 77.0      | SAP 070-080-6.3                     | H-38 070-080-6.3     | 6618600     |
| 70.0     | 80.6        | 5.3           | 7.0        | 73.0      | SAP 070-080.6-5.3                   | H-38 070-080.6-5.3   | 4454000     |
| 70.0     | 82.2        | 7.2           | 12.0       | 76.0      | SAP 070-082.2-7.2                   | H-38 070-082.2-7.2   | 4243900     |
| 75.0     | 83.0        | 5.0           | -          | 80.5      | SAP 075-083-5                       |                      |             |
| 75.0     | 83.6        | 5.3           | 7.0        | 78.0      |                                     | H-38 075-083.6-5.3   | 4539500     |
| 75.0     | 85.0        | 6.3           | 10.0       | 82.0      | SAP 075-085-6.3                     | H-38 075-085-6.3     | 4532500     |
| 75.0     | 87.2        | 7.2           | 11.0       | 81.0      |                                     | H-38 075-087.2-7.2   | 4384400     |
| 80.0     | 90.0        | 6.3           | 10.0       | 87.0      | SAP 080-090-6.3                     | H-38 080-090-6.3     | 6618700     |
| 80.0     | 91.0        | 7.5           | 10.3       | 85.0      |                                     | H-38 080-091-7.5     | 4493200     |
| 80.0     | 92.2        | 7.1           | 12.0       | 86.0      |                                     | H-38 080-092.2-7.1   | 4242800     |
| 82.6     | 92.2        | 5.3           | 7.1        | 85.7      |                                     | H-38 082.6-092.2-5.3 | 4415500     |

(Metric Size)

| Rod Dia. | Groove Dia. | Groove Width. | Part Width | Bore Dia. | Reference<br>(For order processing) | Reference            |             |
|----------|-------------|---------------|------------|-----------|-------------------------------------|----------------------|-------------|
|          |             |               |            |           |                                     | For order processing | Part Number |
| d        | D           | L             | L1         | D1        |                                     |                      |             |
| 85.0     | 93.6        | 5.3           | 7.0        | 88.0      |                                     | H-38 085-093.6-5.3   | 4292100     |
| 85.0     | 98.0        | 7.5           | 11.5       | 92.0      |                                     | H-38 085-098-7.5     | 4332800     |
| 88.0     | 100.2       | 7.1           | 11.0       | 94.0      |                                     | H-38 088-100.2-7.1   | 4269400     |
| 90.0     | 100.0       | 6.3           | 10.0       | 97.0      | SAP 090-100-6.3                     | H-38 090-100-6.3     | 6618800     |
| 90.0     | 102.0       | 7.1           | 11.0       | 96.0      | SAP 090-102.2-7.1                   | H-38 090-102-7.1     | 4324500     |
| 95.0     | 107.0       | 7.1           | 12.0       | 101.0     | SAP 095-107.2-7.2                   | H-38 095-107-7.1     | 6667600     |
| 100.0    | 110.6       | 5.3           | 7.0        | 104.0     | SAP 100-110.6-5.3                   | H-38 100-110.6-5.3   | 4300200     |
| 100.0    | 112.2       | 7.1           | 12.0       | 106.0     | SAP 100-112.2-7.1                   | H-38 100-112.2-7.1   | 4324600     |
| 100.0    | 115.0       | 9.5           | 14.0       | 110.0     | SAP 100-115-9.5                     | H-38 100-115-9.5     | 6618900     |
| 101.6    | 116.6       | 9.5           | 14.0       | 111.6     |                                     | H-38 101.6-116.6-9.5 | 6619010     |
| 105.0    | 113.0       | 5.0           | 7.0        | 110.5     |                                     | H-38 105-113-5       | 4290300     |
| 105.0    | 117.2       | 7.1           | -          | 111.0     | SAP 105-117.2-7.1                   |                      |             |
| 105.0    | 120.0       | 7.2           | 12.0       | 112.0     |                                     | H-38 105-120-7.2     | 4539100     |
| 110.0    | 122.2       | 7.2           | 12.0       | 116.0     | SAP 110-122.2-7.1                   | H-38 110-122.2-7.2   | 4459200     |
| 110.0    | 125.0       | 9.5           | 14.0       | 120.0     |                                     | H-38 110-125-9.5     | 6619000     |
| 115.0    | 127.0       | 7.1           | 12.0       | 121.0     |                                     | H-38 115-127-7.1     | 4324800     |
| 120.0    | 132.0       | 7.1           | 12.0       | 126.0     |                                     | H-38 120-132-7.1     | 4352600     |
| 120.0    | 132.2       | 7.2           | 12.0       | 130.0     |                                     | H-38 120-132.2-7.2   | 4454300     |
| 120.0    | 135.0       | 9.5           | 14.0       | 130.0     |                                     | H-38 120-135-9.5     | 4385600     |
| 125.0    | 133.0       | 5.3           | 7.0        | 130.8     |                                     | H-38 125-133-5.3     | 4393000     |
| 125.0    | 137.2       | 7.7           | 12.0       | 131.0     |                                     | H-38 125-137.2-7.7   | 4233500     |
| 125.0    | 140.0       | 9.5           | 14.0       | 135.0     |                                     | H-38 125-140-9.5     | 6619100     |
| 130.0    | 142.2       | 7.1           | 12.0       | 136.0     | SAP 130-142.2-7.2                   | H-38 130-142.2-7.1   | 4304300     |
| 132.0    | 144.2       | 7.1           | 12.0       | 138.0     |                                     | H-38 132-144.2-7.1   | 4269500     |
| 135.0    | 150.0       | 9.5           | 14.0       | 145.0     | SAP 135-150-9.5                     | H-38 135-150-9.5     | 4278700     |
| 140.0    | 152.2       | 7.6           | 12.0       | 146.0     |                                     | H-38 140-152.2-7.6   | 4324900     |
| 140.0    | 155.0       | 9.5           | 14.0       | 150.0     |                                     | H-38 140-155-9.5     | 6619200     |
| 145.0    | 160.0       | 9.5           | 14.0       | 155.0     |                                     | H-38 145-160-9.5     | 4560600     |
| 150.0    | 162.2       | 7.6           | 12.0       | 156.0     |                                     | H-38 150-162.2-7.6   | 4278900     |
| 150.0    | 165.0       | 10.1          | 16.0       | 157.6     |                                     | H-38 150-165-10.1    | 4342500     |
| 150.0    | 165.0       | 7.2           | 12.0       | 158.6     |                                     | H-38 150-165-7.2     | 6668500     |
| 150.0    | 166.0       | 8.0           | 12.0       | 161.0     |                                     | H-38 150-166-8.0     | 4336700     |
| 155.0    | 163.0       | 5.0           | 7.0        | 160.5     |                                     | H-38 155-163-5       | 4290200     |
| 155.0    | 167.2       | 7.6           | 12.0       | 161.0     |                                     | H-38 155-167.2-7.6   | 4288200     |
| 155.0    | 175.0       | 10.2          | 18.0       | 165.0     |                                     | H-38 155-175-10.2    | 4226400     |
| 160.0    | 172.2       | 7.6           | 11.5       | 166.0     |                                     | H-38 160-172.2-7.6   | 4405700     |
| 160.0    | 175.0       | 10.2          | 16.0       | 167.0     |                                     | H-38 160-175-10.2    | 4454100     |
| 160.0    | 175.0       | 9.5           | 14.0       | 170.0     |                                     | H-38 160-175-9.5     | 6619300     |
| 165.0    | 180.0       | 9.5           | 14.0       | 175.0     |                                     | H-38 165-180-9.5     | 4537000     |
| 170.0    | 182.2       | 7.7           | 12.0       | 176.0     |                                     | H-38 170-182.2-7.7   | 4233600     |

# Wiper - SAP

## (Metric Size)

| Rod Dia. | Groove Dia. | Groove Width. | Part Width | Bore Dia. | Reference            |             |
|----------|-------------|---------------|------------|-----------|----------------------|-------------|
| d        | D           | L             | L1         | D1        | For order processing | Part Number |
| 177.0    | 192.0       | 9.5           | 14.0       | 187.0     | H-38 177-192-9.5     | 4287900     |
| 180.0    | 195.0       | 9.5           | 14.0       | 190.0     | H-38 180-195-9.5     | 6619400     |
| 180.0    | 200.0       | 10.2          | 18.0       | 190.0     | H-38 180-200-10.2    | 4460900     |
| 195.0    | 210.0       | 10.1          | 16.0       | 202.5     | H-38 195-210-10.1    | 4325100     |
| 200.0    | 208.6       | 5.3           | 6.3        | 203.0     | H-38 200-208.6-5.3   | 4391600     |
| 200.0    | 215.0       | 9.5           | 14.0       | 210.0     | H-38 200-215-9.5     | 6619500     |
| 200.0    | 220.0       | 10.2          | 18.0       | 210.0     | H-38 200-220-10.2    | 4387100     |
| 205.0    | 220.0       | 9.5           | 14.0       | 215.0     | H-38 205-220-9.5     | 4560500     |
| 210.0    | 226.0       | 8.0           | 12.0       | 221.0     | H-38 210-226-8.0     | 4336600     |
| 210.0    | 230.0       | 10.2          | 18.0       | 222.0     | H-38 210-230-10.2    | 4325300     |
| 212.0    | 232.0       | 12.5          | 17.5       | 225.5     | H-38 212-232-12.5    | 4293900     |
| 220.0    | 235.0       | 10.2          | 16.0       | 227.6     | H-38 220-235-10.2    | 4325400     |
| 220.0    | 240.0       | 12.5          | 18.0       | 233.5     | H-38 220-240-12.5    | 6619600     |
| 225.0    | 240.0       | 9.5           | 14.0       | 235.0     | H-38 225-240-9.5     | 4287800     |
| 225.0    | 245.0       | 10.2          | 18.0       | 235.0     | H-38 225-245-10.2    | 4325500     |
| 230.0    | 238.6       | 5.3           | 7.0        | 233.0     | H-38 230-238.6-5.3   | 4514000     |
| 230.0    | 246.0       | 7.5           | 12.0       | 240.7     | H-38 230-246-7.5     | 4290700     |
| 235.0    | 255.0       | 10.2          | 18.0       | 245.0     | H-38 235-255-10.2    | 4325700     |
| 240.0    | 260.0       | 10.2          | 18.0       | 250.0     | H-38 240-260-10.2    | 4520900     |
| 245.0    | 265.0       | 12.5          | 18.0       | 258.5     | H-38 245-265-12.5    | 4539600     |
| 250.0    | 270.0       | 10.2          | 18.0       | 260.0     | H-38 250-270-10.2    | 4460100     |
| 250.0    | 270.0       | 12.5          | 18.0       | 263.5     | H-38 250-270-12.5    | 6619700     |
| 260.0    | 280.0       | 10.2          | 18.0       | 270.5     | H-38 260-280-10.2    | 4325900     |
| 265.0    | 285.0       | 10.2          | 15.0       | 275.0     | H-38 265-285-10.2    | 4560400     |
| 270.0    | 278.6       | 5.3           | 7.0        | 273.0     | H-38 270-278.6-5.3   | 4391700     |
| 285.0    | 305.0       | 12.5          | 18.0       | 298.5     | H-38 285-305-12.5    | 4537100     |
| 288.0    | 308.0       | 10.2          | 18.0       | 298.0     | H-38 288-308-10.2    | 4265300     |
| 290.0    | 310.0       | 12.5          | 18.0       | 303.5     | H-38 290-310-12.5    | 4467300     |
| 300.0    | 316.0       | 7.5           | 12.0       | 310.7     | H-38 300-316-7.5     | 4290800     |
| 300.0    | 320.0       | 12.5          | 18.0       | 313.5     | H-38 300-320-12.5    | 4525300     |
| 305.0    | 325.0       | 12.5          | 18.0       | 318.5     | H-38 305-325-12.5    | 4473200     |
| 320.0    | 340.0       | 10.2          | 18.0       | 330.0     | H-38 320-340-10.2    | 4454200     |

## (Inch Size)

| Rod Dia. | Groove Dia. | Groove Width. | Bore Dia. | Reference              |
|----------|-------------|---------------|-----------|------------------------|
| d        | D           | L             | D1        | (For order processing) |
| 31.75    | 41.28       | 4.75          | 37.97     | SAP 1250-1625-0187     |
| 38.10    | 47.63       | 4.75          | 44.32     | SAP 1500-1875-0187     |
| 44.45    | 53.98       | 4.75          | 50.67     | SAP 1750-2125-0187     |
| 50.80    | 63.50       | 6.35          | 59.10     | SAP 2000-2500-0250     |