

The high-precision all-rounder with integrated pressure and temperature compensation

FIELD OF APPLICATION:

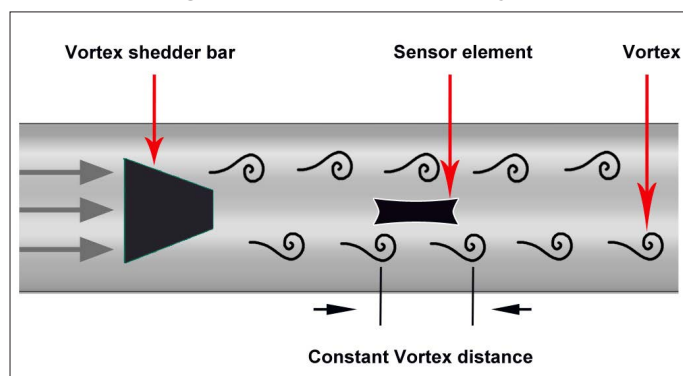
- Measurement of saturated steam or superheated steam
- Measurement of liquids
- Measurement of mixed gases
- Measurement of corrosive media

Benefits at a glance:

- Measurement of standard volume flow, operating volume flow, mass flow
- Measurement at high temperatures of up to 350°C
- Measurement up to 63 bar(g)
- Suitable for unknown/changing gas compositions and mixed gases
- Aggression resistant – all parts in contact with media made of stainless steel
- Not sensitive to vibrations due to reference vibration measurement
- No moving parts



Vortex operating principle, vortex frequency:



Example code for VX 570:

0698 0570_A1_B1_C1_D1_E1_F1_G1_H1_I1

Basic model

| | |
|----|--|
| A1 | Vortex mass flow meter with integrated temperature and pressure sensor |
| A2 | Vortex flow meter without integrated temperature and pressure sensor |

Measured medium:

| | |
|----|---------|
| B1 | Steam |
| B2 | Liquids |
| B3 | Gas |

Display option

| | |
|----|--------------|
| C1 | With display |
|----|--------------|

Measuring section

| | |
|-----|----------------|
| D1 | 1/2" (DN 15) |
| D2 | 3/4" (DN 20) |
| D3 | 1" (DN 25) |
| D4 | 1 1/4" (DN 32) |
| D5 | 1 1/2" (DN 40) |
| D6 | 2" (DN 50) |
| D7 | 2 1/2" (DN 65) |
| D8 | 3" (DN 80) |
| D9 | 4" (DN 100) |
| D10 | 5" (DN 125) |
| D11 | 6" (DN 150) |
| D12 | 8" (DN 200) |
| D13 | 10" (DN 250) |
| D14 | 12" (DN 300) |

Process connection

| | |
|----|---|
| E1 | Wafer type up to 16 bar(g) / 232 psi(g) |
| E2 | Flange DIN PN 16 |
| E3 | Flange DIN PN 25 |
| E4 | Flange DIN PN 40 |
| E5 | Flange DIN PN 63 |
| E6 | Flange ANSI Class 150 lbs |
| E7 | Flange ANSI Class 300 lbs |
| E8 | Flange ANSI Class 400 lbs |

Signal outputs / bus connection option

| | |
|----|--|
| F1 | 3 x 4...20 mA analogue output (not electrically isolated), RS 485 (Modbus-RTU) |
| F3 | RS 485 (Modbus-RTU) |

Reference standard

| | |
|----|----------------------|
| G1 | 20 °C, 1000 mbar |
| G2 | 0 °C, 1013.25 mbar |
| G3 | 15 °C, 981 mbar |
| G4 | 15 °C, 1013.25 mbar |
| G5 | Operating conditions |

Surface condition

| | |
|----|--|
| H1 | Standard version |
| H2 | Special cleaning – oil and grease free (e.g. for oxygen application) |

Max. process temperature

| | |
|----|--|
| I1 | up to 150 °C |
| I2 | up to 250 °C |
| I3 | up to 350 °C (can only be selected in combination with A2) |

Measuring ranges of VX 570 (in m/s under operating conditions)

| Nominal width | Gas | | Steam | | Liquids | |
|----------------|-------|--------|-------|--------|---------|-------|
| | from | to | from | to | from | to |
| DN 15 - DN 20 | 6 m/s | 60 m/s | 6 m/s | 70 m/s | 0.3 m/s | 7 m/s |
| DN 25 - DN 32 | 4 m/s | 60 m/s | 4 m/s | 70 m/s | | |
| DN 40 - DN 300 | 2 m/s | 60 m/s | 2 m/s | 70 m/s | | |

TECHNICAL DATA VX 570

| | |
|---|--|
| Measuring range: | See table |
| Measured medium: | Primary single-phase gases, mixed gases, saturated steam, superheated steam and liquids |
| Accuracy: | Gas / Steam: ± 1 % of m.v., (Re > 20,000) ± 2 % of m.v., (10,000 < Re < 20,000) |
| Volume flow (m³/h) | Liquids: ± 0.75 % of m.v., (Re > 20,000) ± 2 % of m.v., (10,000 < Re < 20,000) |
| Mass flow (kg/h) or standard volume flow (Nm³/h) | Gas / Steam: ± 1.5 % of m.v., (Re > 20,000) ± 2.5 % of m.v., (10,000 < Re < 20,000) |
| Measuring principle: | Vortex – vortex frequency measurement |
| Process temperature: | -40...+350 °C |
| Process pressure: | up to 63 bar(g) |
| Protection class | IP67 |
| Material measuring section and parts in contact with medium: | Stainless steel 304 |
| Material display unit: | Aluminium – die casting |
| Signal outputs: | As standard: RS 485 (Modbus-RTU), 3x 4...20 mA, |
| Power supply: | Optional: Ethernet interface |
| Measuring span: | 18...36 VDC Gases: 1:30 Vapour: 1:35 Liquids 1:23 |
| Viscosity | DN 15 ≤ 4 mPas DN 25 ≤ 5 mPas DN 40...DN 300 ≤ 7 mPas |
| Repeatability: | ± 0.3 % of m.v. |
| Process connection: | Flange DIN EN1092-1 Flange ANSI Wafer type |

DESCRIPTION ORDER NO.

| | |
|--|-------------------------------------|
| VX 570 – Vortex flow sensor for steam, gases and liquids | 0698 0570 + Order code A...I_ |
| Further accessories: ISO calibration certificate at 5 measuring points | 3200 0001 |

| Measuring ranges for gases and liquids VX 570 under operating conditions | | | | | | | | | | |
|---|-----|--------|---------------|---------------|--------------|--------------|---------------|---------------|--------------|--------------|
| Inside diameter of pipe | | | Gases | | | | Liquids | | | |
| | | | Min flow m3/h | Max flow m3/h | Min flow cfm | Max flow cfm | Min flow m3/h | Max flow m3/h | Min flow GPM | Max flow GPM |
| Inch | mm | DN | | | | | | | | |
| 1/2" | 15 | DN 15 | 3.8 | 44.5 | 2.2 | 26.2 | 0.2 | 4.4 | 0.8 | 19.6 |
| 3/4" | 20 | DN 20 | 6.8 | 79.1 | 4 | 46.6 | 0.3 | 7.9 | 1.5 | 34.8 |
| 1" | 25 | DN 25 | 7.1 | 123.6 | 4.2 | 72.7 | 0.5 | 12.4 | 2.3 | 54.4 |
| 1 1/4" | 32 | DN 32 | 11.6 | 202.5 | 6.8 | 119.2 | 0.9 | 20.2 | 3.8 | 89.2 |
| 1 1/2" | 40 | DN 40 | 9 | 316.4 | 5.3 | 186.2 | 1.4 | 31.6 | 6.0 | 139.3 |
| 2" | 50 | DN 50 | 14.1 | 494.4 | 8.3 | 291 | 2.1 | 49.4 | 9.3 | 217.7 |
| 2 1/2" | 65 | DN 65 | 23.9 | 835.5 | 14 | 491.7 | 3.6 | 83.5 | 15.8 | 367.8 |
| 3" | 80 | DN 80 | 36.2 | 1265.5 | 21.3 | 744.9 | 5.4 | 126.6 | 23.9 | 557.2 |
| 4" | 100 | DN 100 | 56.5 | 1977.4 | 33.3 | 1163.9 | 8.5 | 197.7 | 37.3 | 870.6 |
| 5" | 125 | DN 125 | 88.3 | 3089.7 | 52 | 1818.5 | 13.2 | 309.0 | 58.3 | 1360.4 |
| 6" | 150 | DN 150 | 127.1 | 4449.2 | 74.8 | 2618.7 | 19.1 | 444.9 | 84.0 | 1958.9 |
| 8" | 200 | DN 200 | 226 | 7909.6 | 133 | 4655.4 | 33.9 | 791.0 | 149.3 | 3482.5 |
| 10" | 250 | DN 250 | 353.1 | 12358.8 | 207.8 | 7274.1 | 53.0 | 1235.9 | 233.2 | 5441.4 |
| 12" | 300 | DN 300 | 508.5 | 17796.6 | 299.3 | 10474.7 | 76.3 | 1779.7 | 335.8 | 7835.6 |

| Measuring ranges for steam VX 570 under operating conditions in kg/h | | | | | | | | | | | | | | | | |
|---|-----|--------|----------------|---------|---------------|---------|---------------|---------|---------------|---------|---------------|---------|---------------|---------|---------------|---------|
| Inside diameter of pipe | | | T=112 °C | | T=121 °C | | T=134 °C | | T=144 °C | | T=159 °C | | T=165 °C | | T=171 °C | |
| | | | P=0.5 bar(g) | | P=1 bar(g) | | P=2 bar(g) | | P=3 bar(g) | | P=5 bar(g) | | P=6 bar(g) | | P=7 bar(g) | |
| | | | D=0.8798 kg/m3 | | D=1.155 kg/m3 | | D=1.672 kg/m3 | | D=2.185 kg/m3 | | D=3.182 kg/m3 | | D=3.671 kg/m3 | | D=4.218 kg/m3 | |
| Inch | mm | DN | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max |
| 1/2" | 15 | DN 15 | 3.4 | 39.1 | 4.4 | 51.4 | 6.4 | 74.4 | 8.3 | 97.2 | 12.1 | 141.6 | 14.0 | 163.3 | 16.1 | 187.7 |
| 3/4" | 20 | DN 20 | 6.0 | 69.6 | 7.8 | 91.4 | 11.3 | 132.2 | 14.8 | 172.8 | 21.6 | 251.7 | 24.9 | 290.4 | 28.6 | 333.6 |
| 1" | 25 | DN 25 | 6.2 | 108.7 | 8.2 | 142.7 | 11.8 | 206.6 | 15.4 | 270.0 | 22.5 | 393.3 | 25.9 | 453.7 | 29.8 | 521.3 |
| 1 1/4" | 32 | DN 32 | 10.2 | 178.1 | 13.4 | 233.9 | 19.3 | 338.6 | 25.3 | 442.4 | 36.8 | 644.3 | 42.5 | 743.3 | 48.8 | 854.1 |
| 1 1/2" | 40 | DN 40 | 8.0 | 278.4 | 10.4 | 365.4 | 15.1 | 529.0 | 19.8 | 691.3 | 28.8 | 1006.7 | 33.2 | 1161.4 | 38.1 | 1334.5 |
| 2" | 50 | DN 50 | 12.4 | 434.9 | 16.3 | 571.0 | 23.6 | 826.6 | 30.9 | 1080.2 | 44.9 | 1573.0 | 51.9 | 1814.8 | 59.6 | 2085.2 |
| 2 1/2" | 65 | DN 65 | 21.0 | 735.0 | 27.6 | 964.9 | 39.9 | 1396.9 | 52.2 | 1825.5 | 76.0 | 2658.4 | 87.6 | 3066.9 | 100.7 | 3523.9 |
| 3" | 80 | DN 80 | 31.8 | 1113.4 | 41.8 | 1461.7 | 60.5 | 2116.0 | 79.0 | 2765.2 | 115.1 | 4026.9 | 132.7 | 4645.8 | 152.5 | 5338.0 |
| 4" | 100 | DN 100 | 49.7 | 1739.7 | 65.3 | 2283.9 | 94.5 | 3306.2 | 123.4 | 4320.6 | 179.8 | 6292.1 | 207.4 | 7259.0 | 238.3 | 8340.7 |
| 5" | 125 | DN 125 | 77.7 | 2718.3 | 102.0 | 3568.6 | 147.6 | 5166.0 | 192.9 | 6751.0 | 280.9 | 9831.4 | 324.1 | 11342.2 | 372.4 | 13032.3 |
| 6" | 150 | DN 150 | 111.8 | 3914.4 | 146.8 | 5138.8 | 212.5 | 7439.0 | 277.8 | 9721.4 | 404.5 | 14157.2 | 466.7 | 16332.8 | 536.2 | 18766.5 |
| 8" | 200 | DN 200 | 198.8 | 6958.9 | 261.0 | 9135.6 | 377.9 | 13224.9 | 493.8 | 17282.5 | 719.1 | 25168.4 | 829.6 | 29036.2 | 953.2 | 33362.7 |
| 10" | 250 | DN 250 | 310.7 | 10873.2 | 407.8 | 14274.4 | 590.4 | 20663.8 | 771.5 | 27003.9 | 1123.6 | 39325.6 | 1296.3 | 45369.0 | 1489.4 | 52129.2 |
| 12" | 300 | DN 300 | 447.4 | 15657.5 | 587.3 | 20555.1 | 850.2 | 29755.9 | 1111.0 | 38885.6 | 1618.0 | 56628.8 | 1866.6 | 65331.4 | 2144.7 | 75066.1 |

| Measuring ranges for steam VX 570 under operating conditions kg/h | | | | | | | | | | | | | | |
|--|-----|--------|---------------|---------|---------------|----------|---------------|----------|---------------|----------|---------------|----------|---------------|----------|
| Inside diameter of pipe | | | T=176 °C | | T=185 °C | | T=192 °C | | T=199 °C | | T=210 °C | | T=215 °C | |
| | | | P=8 bar(g) | | P=10 bar(g) | | P=12 bar(g) | | P=14 bar(g) | | P=18 bar(g) | | P=20 bar(g) | |
| | | | D=4.723 kg/m3 | | D=5.752 kg/m3 | | D=6.671 kg/m3 | | D=7.706 kg/m3 | | D=9.593 kg/m3 | | D=10.57 kg/m3 | |
| Inch | mm | DN | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max |
| 1/2" | 15 | DN 15 | 18.0 | 210.1 | 21.9 | 255.9 | 25.4 | 296.8 | 29.4 | 342.9 | 36.6 | 426.8 | 40.3 | 470.3 |
| 3/4" | 20 | DN 20 | 32.0 | 373.6 | 39.0 | 455.0 | 45.2 | 527.6 | 52.2 | 609.5 | 65.0 | 758.8 | 71.7 | 836.0 |
| 1" | 25 | DN 25 | 33.4 | 583.7 | 40.6 | 710.9 | 47.1 | 824.5 | 54.4 | 952.4 | 67.7 | 1185.6 | 74.6 | 1306.3 |
| 1 1/4" | 32 | DN 32 | 54.6 | 956.3 | 66.6 | 1164.7 | 77.2 | 1350.8 | 89.2 | 1560.4 | 111.0 | 1942.4 | 122.3 | 2140.3 |
| 1 1/2" | 40 | DN 40 | 42.7 | 1494.3 | 52.0 | 1819.8 | 60.3 | 2110.6 | 69.7 | 2438.1 | 86.7 | 3035.1 | 95.5 | 3344.2 |
| 2" | 50 | DN 50 | 66.7 | 2334.8 | 81.2 | 2843.5 | 94.2 | 3297.8 | 108.8 | 3809.5 | 135.5 | 4742.3 | 149.3 | 5225.3 |
| 2 1/2" | 65 | DN 65 | 112.7 | 3945.8 | 137.3 | 4805.5 | 159.2 | 5573.3 | 183.9 | 6438.0 | 229.0 | 8014.5 | 252.3 | 8830.7 |
| 3" | 80 | DN 80 | 170.8 | 5977.1 | 208.0 | 7279.4 | 241.2 | 8442.4 | 278.6 | 9752.2 | 346.9 | 12140.3 | 382.2 | 13376.7 |
| 4" | 100 | DN 100 | 266.8 | 9339.3 | 325.0 | 11374.0 | 376.9 | 13191.2 | 435.4 | 15237.9 | 542.0 | 18969.2 | 597.2 | 20901.1 |
| 5" | 125 | DN 125 | 416.9 | 14592.6 | 507.8 | 17771.9 | 588.9 | 20611.3 | 680.3 | 23809.1 | 846.8 | 29639.4 | 933.1 | 32658.0 |
| 6" | 150 | DN 150 | 600.4 | 21013.3 | 731.2 | 25591.5 | 848.0 | 29680.3 | 979.6 | 34285.2 | 1219.4 | 42680.7 | 1343.6 | 47027.5 |
| 8" | 200 | DN 200 | 1067.3 | 37357.1 | 1299.9 | 45496.0 | 1507.6 | 52765.0 | 1741.5 | 60951.4 | 2167.9 | 75876.8 | 2388.7 | 83604.5 |
| 10" | 250 | DN 250 | 1667.7 | 58370.4 | 2031.1 | 71087.6 | 2355.6 | 82445.3 | 2721.0 | 95236.6 | 3387.4 | 118557.6 | 3732.3 | 130632.1 |
| 12" | 300 | DN 300 | 2401.5 | 84053.4 | 2924.7 | 102366.1 | 3392.0 | 118721.2 | 3918.3 | 137140.7 | 4877.8 | 170722.9 | 5374.6 | 188110.2 |

| Measuring ranges for steam VX 570 under operating conditions in lb/h | | | | | | | | | | | | | | | | |
|---|-----|--------|-----------------|---------|-----------------|---------|-----------------|---------|-----------------|---------|-----------------|----------|-----------------|----------|-----------------|----------|
| Inside diameter of pipe | | | T=233.6 °F | | T=249.8 °F | | T=273.2 °F | | T=291.2 °F | | T=318.2 °F | | T=329 °F | | T=339.8 °F | |
| | | | P=7.3 psi(g) | | P=14.5 psi(g) | | P=29 psi(g) | | P=43.5 psi(g) | | P=72.5 psi(g) | | P=87 psi(g) | | P=101.5 psi(g) | |
| | | | D=0.0034 lb/ft3 | | D=0.0721 lb/ft3 | | D=0.1044 lb/ft3 | | D=0.1364 lb/ft3 | | D=0.1986 lb/ft3 | | D=0.2292 lb/ft3 | | D=0.2633 lb/ft3 | |
| Inch | mm | DN | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max |
| 1/2" | 15 | DN 15 | 7.4 | 86.3 | 9.7 | 113.3 | 14.1 | 164.0 | 18.4 | 214.3 | 26.8 | 312.1 | 30.9 | 360.1 | 35.5 | 413.7 |
| 3/4" | 20 | DN 20 | 13.2 | 153.4 | 17.3 | 201.4 | 25.0 | 291.6 | 32.7 | 381.0 | 47.6 | 554.9 | 54.9 | 640.1 | 63.0 | 735.5 |
| 1" | 25 | DN 25 | 13.7 | 239.7 | 18.0 | 314.7 | 26.0 | 455.6 | 34.0 | 595.3 | 49.5 | 867.0 | 57.2 | 1000.2 | 65.7 | 1149.3 |
| 1 1/4" | 32 | DN 32 | 22.4 | 392.7 | 29.5 | 515.6 | 42.7 | 746.4 | 55.7 | 975.4 | 81.2 | 1420.5 | 93.6 | 1638.8 | 107.6 | 1882.9 |
| 1 1/2" | 40 | DN 40 | 17.5 | 613.7 | 23.0 | 805.6 | 33.3 | 1166.2 | 43.5 | 1524.1 | 63.4 | 2219.5 | 73.2 | 2560.6 | 84.1 | 2942.1 |
| 2" | 50 | DN 50 | 27.4 | 958.9 | 36.0 | 1258.8 | 52.1 | 1822.2 | 68.0 | 2381.3 | 99.1 | 3467.9 | 114.3 | 4000.9 | 131.3 | 4597.0 |
| 2 1/2" | 65 | DN 65 | 46.3 | 1620.5 | 60.8 | 2127.3 | 88.0 | 3079.6 | 115.0 | 4024.5 | 167.5 | 5860.8 | 193.2 | 6761.5 | 222.0 | 7768.9 |
| 3" | 80 | DN 80 | 70.1 | 2454.7 | 92.1 | 3222.5 | 133.3 | 4664.9 | 174.2 | 6096.2 | 253.7 | 8877.9 | 292.6 | 10242.2 | 336.2 | 11768.4 |
| 4" | 100 | DN 100 | 109.6 | 3835.4 | 143.9 | 5035.1 | 208.3 | 7289.0 | 272.2 | 9525.3 | 396.3 | 13871.7 | 457.2 | 16003.4 | 525.4 | 18388.0 |
| 5" | 125 | DN 125 | 171.2 | 5992.8 | 224.8 | 7867.4 | 325.4 | 11389.0 | 425.2 | 14883.3 | 619.3 | 21674.5 | 714.4 | 25005.4 | 820.9 | 28731.3 |
| 6" | 150 | DN 150 | 246.6 | 8629.7 | 323.7 | 11329.1 | 468.6 | 16400.2 | 612.3 | 21432.0 | 891.8 | 31211.3 | 1028.8 | 36007.7 | 1182.1 | 41373.1 |
| 8" | 200 | DN 200 | 438.3 | 15341.7 | 575.4 | 20140.5 | 833.0 | 29155.8 | 1088.6 | 38101.4 | 1585.3 | 55486.7 | 1829.0 | 64013.8 | 2101.5 | 73552.2 |
| 10" | 250 | DN 250 | 684.9 | 23971.4 | 899.1 | 31469.6 | 1301.6 | 45556.0 | 1701.0 | 59533.4 | 2477.1 | 86698.0 | 2857.8 | 100021.5 | 3283.6 | 114925.3 |
| 12" | 300 | DN 300 | 986.3 | 34518.8 | 1294.7 | 45316.2 | 1874.3 | 65600.6 | 2449.4 | 85728.1 | 3567.0 | 124845.2 | 4115.2 | 144031.0 | 4728.4 | 165492.4 |

| Measuring ranges for steam VX 570 under operating conditions in lb/h | | | | | | | | | | | | | | | | |
|---|-----|--------|-----------------|----------|-----------------|----------|-----------------|----------|-----------------|----------|-----------------|----------|-----------------|----------|--|--|
| Inside diameter of pipe | | | T=348.8 °F | | T=365 °F | | T=377.6 °F | | T=390.2 °F | | T=410 °F | | T=419 °F | | | |
| | | | P=116 psi(g) | | P=145 psi(g) | | P=174 psi(g) | | P=203 psi(g) | | P=261 psi(g) | | P=290 psi(g) | | | |
| | | | D=0.2948 lb/ft3 | | D=0.3591 lb/ft3 | | D=0.4165 lb/ft3 | | D=0.4811 lb/ft3 | | D=0.5989 lb/ft3 | | D=0.6599 lb/ft3 | | | |
| Inch | mm | DN | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | | |
| 1/2" | 15 | DN 15 | 39.7 | 463.3 | 48.4 | 564.2 | 56.1 | 654.3 | 64.8 | 755.9 | 80.7 | 940.9 | 88.9 | 1036.8 | | |
| 3/4" | 20 | DN 20 | 70.6 | 823.6 | 86.0 | 1003.0 | 99.7 | 1163.3 | 115.2 | 1343.7 | 143.4 | 1672.8 | 158.0 | 1843.2 | | |
| 1" | 25 | DN 25 | 73.5 | 1286.8 | 89.6 | 1567.2 | 103.9 | 1817.6 | 120.0 | 2099.6 | 149.4 | 2613.7 | 164.6 | 2879.9 | | |
| 1 1/4" | 32 | DN 32 | 120.5 | 2108.4 | 146.7 | 2567.7 | 170.2 | 2978.0 | 196.6 | 3440.0 | 244.7 | 4282.4 | 269.6 | 4718.5 | | |
| 1 1/2" | 40 | DN 40 | 94.1 | 3294.3 | 114.6 | 4012.1 | 132.9 | 4653.1 | 153.6 | 5375.0 | 191.2 | 6691.2 | 210.6 | 7372.7 | | |
| 2" | 50 | DN 50 | 147.1 | 5147.4 | 179.1 | 6268.9 | 207.7 | 7270.4 | 240.0 | 8398.4 | 298.7 | 10455.0 | 329.1 | 11519.8 | | |
| 2 1/2" | 65 | DN 65 | 248.5 | 8699.1 | 302.7 | 10594.4 | 351.1 | 12287.0 | 405.5 | 14193.3 | 504.8 | 17668.9 | 556.2 | 19468.4 | | |
| 3" | 80 | DN 80 | 376.5 | 13177.3 | 458.5 | 16048.3 | 531.8 | 18612.3 | 614.3 | 21500.0 | 764.7 | 26764.8 | 842.6 | 29490.6 | | |
| 4" | 100 | DN 100 | 588.3 | 20589.6 | 716.4 | 25075.4 | 830.9 | 29081.7 | 959.8 | 33593.7 | 1194.9 | 41819.9 | 1316.5 | 46079.1 | | |
| 5" | 125 | DN 125 | 919.2 | 32171.2 | 1119.4 | 39180.3 | 1298.3 | 45440.2 | 1499.7 | 52490.2 | 1867.0 | 65343.7 | 2057.1 | 71998.6 | | |
| 6" | 150 | DN 150 | 1323.6 | 46326.5 | 1612.0 | 56419.7 | 1869.5 | 65433.9 | 2159.6 | 75585.9 | 2688.4 | 94094.9 | 2962.2 | 103678.0 | | |
| 8" | 200 | DN 200 | 2353.1 | 82358.2 | 2865.8 | 100301.6 | 3323.6 | 116326.8 | 3839.3 | 134374.9 | 4779.4 | 167279.8 | 5266.2 | 184316.4 | | |
| 10" | 250 | DN 250 | 3676.7 | 128684.7 | 4477.8 | 156721.3 | 5193.2 | 181760.7 | 5998.9 | 209960.7 | 7467.8 | 261374.7 | 8228.4 | 287994.4 | | |
| 12" | 300 | DN 300 | 5294.5 | 185306.0 | 6448.0 | 225678.6 | 7478.2 | 261735.4 | 8638.4 | 302343.4 | 10753.7 | 376379.5 | 11848.9 | 414711.9 | | |