DATA SHEET

# Pressure hoses

## out of PTFE, PA or stainless steel

The pressure hoses from KLETTI are the basis of our heated hoses. In addition, they can be used in many other areas as cold hoses - without heating. The hoses are resistant to chemicals such as acids and alkalis in any concentration. Exceptions are molten alkali metals and fluorine compounds.

The hose basically consists of an inner core made of PTFE, PA or stainless steel, the steel braid and fittings on both sides. The even wall thickness of the inner core has a significant influence on the lifespan of the pressure hose. Depending on the compressive stress, the core is wrapped with one or more layers of steel wire, wound, or built up in combination. The fittings are positively pressed with the pressure hose so that the hose can withstand the desired compressive stresses.

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FLEXIBLE ELEKTRISCHE BEHEIZUNGEN

**PLEASE NOTE:**

The maximum operating pressure depends on the operating temperature and the nominal size. Empirically determined temperature correction factors allow us to specify the maximum pressure at different temperatures.

The total pressure of the hose is always dependent on the weakest link of the assembly. The following data in the pressure tables refer exclusively to the pressure hoses (without fitting). In doubt, the maximum permissible pressure of the fitting must be compared with that of the pressure hose.

The material of the inner core limits the maximum permissible operating temperature. Our PA hoses can be used up to a maximum operating temperature of + 100°C, the PTFE hoses up to + 250°C and the corrugated stainless-steel hoses even up to a maximum operating temperature of + 550°C.

We can provide FDA approval for our PTFE hoses in conjunction with stainless steel fittings, which is available on request.

## PTFE smooth hose

### Type T1-PTFE

Smooth PTFE hose with **one** braided layer of steel wire, max. operating temperature 250 °C

| Temperature - pressure / Nominal width | 20 – 50 °C [ bar ] | 100 °C [ bar ] | 200 °C [ bar ] | 250 °C [ bar ] | Burst pressure [ bar ] | Min. bending radius |
|---|---|---|---|---|---|---|
| DN 4 | 275 | 245 | 220 | 165 | 1100 | 50 mm |
| DN 6 | 240 | 215 | 190 | 140 | 960 | 75 mm |
| DN 8 | 200 | 180 | 160 | 120 | 800 | 100 mm |
| DN 10 | 175 | 155 | 140 | 105 | 700 | 120 mm |
| DN 13 | 150 | 135 | 120 | 90 | 600 | 135 mm |
| DN 16 | 135 | 120 | 105 | 80 | 540 | 160 mm |
| DN 20 | 100 | 90 | 80 | 60 | 400 | 200 mm |
| DN 25 | 80 | 70 | 60 | 45 | 320 | 250 mm |

## PTFE smooth hose

### Type T2-PTFE

Smooth PTFE hose with **two** braided layers of steel wire, max. operating temperature 250 °C

| Temperature - pressure / Nominal width | 20 – 50 °C [ bar ] | 100 °C [ bar ] | 200 °C [ bar ] | 250 °C [ bar ] | Burst pressure [ bar ] | Min. bending radius |
|---|---|---|---|---|---|---|
| DN 6 | 275 | 245 | 220 | 165 | 1100 | 75 mm |
| DN 8 | 250 | 225 | 200 | 150 | 1000 | 100 mm |
| DN 10 | 225 | 200 | 180 | 135 | 900 | 120 mm |
| DN 13 | 200 | 180 | 160 | 120 | 800 | 135 mm |
| DN 16 | 175 | 155 | 140 | 105 | 700 | 160 mm |
| DN 20 | 150 | 135 | 120 | 90 | 600 | 200 mm |
| DN 25 | 130 | 115 | 100 | 75 | 520 | 250 mm |
| DN 32 | 70 | 60 | 55 | 40 | 280 | 500 mm |
| DN 40 | 50 | 45 | 40 | 30 | 200 | 850 mm |

### Type T3-PTFE

Smooth PTFE hose with **two** spiralized winding and **one** braided layer of steel wire, max. operating temperature 250 °C

| Temperature - pressure / Nominal width | 20 – 50 °C [ bar ] | 100 °C [ bar ] | 200 °C [ bar ] | 250 °C [ bar ] | Burst pressure [ bar ] | Min. bending radius |
|---|---|---|---|---|---|---|
| DN 6 | 500 | 450 | 400 | 300 | 1800 | 75 mm |
| DN 8 | 475 | 425 | 380 | 285 | 1600 | 100 mm |
| DN 10 | 450 | 405 | 360 | 270 | 1500 | 120 mm |
| DN 13 | 400 | 360 | 320 | 240 | 1500 | 135 mm |
| DN 16 | 400 | 360 | 320 | 240 | 1300 | 160 mm |
| DN 20 | 300 | 270 | 240 | 180 | 1200 | 200 mm |
| DN 25 | 275 | 245 | 220 | 165 | 1100 | 240 mm |
| DN 32 | 250 | 225 | 200 | 150 | 1000 | 280 mm |
| DN 38 | 200 | 190 | 166 | - | 800 | 320 mm |

## PA pressure hoses

### Type T3-PA12

Smooth PA12 hose with two spiralized winding and one braided layer of steel wire, without cover (working temperature range -30 °C to +100 °C)

| Temperature - pressure / Nominal width | 100 °C [ bar ] | Burst pressure [ bar ] | Min. bending radius |
|---|---|---|---|
| DN 16 | 400 | 1600 | 180 mm |
| DN 20 | 300 | 1200 | 200 mm |
| DN 25 | 275 | 1100 | 250 mm |

### Type NY500

Two layers aramid fibre and one braided layer of steel wire, cover made of Polyurethan, (working temperature range -40 °C to +100 °C)

| Temperature - pressure / Nominal width | 100 °C [ bar ] | Burst pressure [ bar ] | Min. bending radius |
|---|---|---|---|
| DN 6 | 700 | 2800 | 35 mm |
| DN 8 | 700 | 2800 | 60 mm |
| DN 10 | 700 | 2800 | 90 mm |
| DN 13 | 590 | 2360 | 100 mm |
| DN 16 | 500 | 2000 | 160 mm |
| DN 20 | 450 | 1800 | 180 mm |
| DN 25 | 315 | 1260 | 250 mm |

## PTFE corrugated hose

PTFE corrugated hose with one braided layer of steel wire, suitable for small bending radii and dynamic movements (working temperature range -55 °C to +250 °C), approvals for DNV-GL, BV, LR, ABS, RINA, FDA, EG 1935/2004 and EU 10/2011

| Temperature - pressure / Nominal width | 20 – 50 °C [ bar ] | 100 °C [ bar ] | 200 °C [ bar ] | 250 °C [ bar ] | Burst pressure [ bar ] | Min. bending radius |
|---|---|---|---|---|---|---|
| DN 10 | 125 | 116 | 106 | 100 | 500 | 50 mm |
| DN 13 | 105 | 97 | 89 | 84 | 420 | 65 mm |
| DN 16 | 100 | 93 | 85 | 80 | 400 | 80 mm |
| DN 20 | 90 | 83 | 76 | 72 | 360 | 100 mm |
| DN 25 | 80 | 74 | 68 | 64 | 320 | 125 mm |
| DN 32 | 64 | 59 | 54 | 51 | 256 | 150 mm |
| DN 40 | 53 | 49 | 45 | 42 | 212 | 200 mm |
| DN 50 | 35 | 32 | 29 | 28 | 140 | 250 mm |

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## Stainless steel corrugated hose

### Type EWS-KBA

Stainless steel corrugated hose with one braided layer of steel wire, suitable for **various applications** (working temperature range -220 °C to +550 °C (applies only for the hose)), according to DIN EN ISO 10380

| Temperature - pressure / Nominal width | 20 – 50 °C [ bar ] | 100 °C [ bar ] | 200 °C [ bar ] | 250 °C [ bar ] | 300 °C [ bar ] | 400 °C [ bar ] | Min. bending radius |
|---|---|---|---|---|---|---|---|
| DN 6 | 100 | 73 | 61 | 58 | 53 | 50 | 80 mm |
| DN 8 | 100 | 73 | 61 | 58 | 53 | 50 | 125 mm |
| DN 10 | 100 | 73 | 61 | 58 | 53 | 50 | 129 mm |
| DN 13 | 65 | 47 | 40 | 37 | 34 | 32 | 140 mm |
| DN 16 | 64 | 47 | 39 | 37 | 34 | 32 | 160 mm |
| DN 20 | 43 | 31 | 26 | 25 | 23 | 21 | 170 mm |
| DN 25 | 49 | 36 | 30 | 28 | 26 | 24 | 180 mm |
| DN 32 | 35 | 25 | 21 | 20 | 18 | 17 | 260 mm |
| DN 40 | 38 | 28 | 23 | 22 | 20 | 19 | 300 mm |
| DN 50 | 25 | 18 | 15 | 14 | 13 | 12 | 320 mm |

### Type EWS-FBA

Stainless steel corrugated hose with one braided layer of steel wire, due to its particularly wide corrugation, very well suited for use in the **food, chemical or pharmaceutical industries** (working temperature range -220 °C to +550 °C (applies only for the hose)), according to DIN EN ISO 10380 and approval for water according to DVGW W 543 up to DN 32

| Temperature - pressure / Nominal width | 20 – 50 °C [ bar ] | 100 °C [ bar ] | 200 °C [ bar ] | 250 °C [ bar ] | 300 °C [ bar ] | 400 °C [ bar ] | Min. bending radius |
|---|---|---|---|---|---|---|---|
| DN 6 | 140 | 103 | 86 | 81 | 75 | 70 | 110 mm |
| DN 8 | 115 | 84 | 71 | 66 | 61 | 57 | 130 mm |
| DN 10 | 100 | 73 | 61 | 58 | 53 | 50 | 150 mm |
| DN 13 | 80 | 58 | 49 | 46 | 42 | 40 | 165 mm |
| DN 16 | 63 | 46 | 38 | 36 | 33 | 31 | 195 mm |
| DN 20 | 50 | 36 | 30 | 29 | 26 | 25 | 225 mm |
| DN 25 | 40 | 29 | 24 | 23 | 21 | 20 | 260 mm |
| DN 32 | 40 | 29 | 24 | 23 | 21 | 20 | 300 mm |
| DN 40 | 32 | 23 | 19 | 18 | 17 | 16 | 340 mm |
| DN 50 | 32 | 23 | 19 | 18 | 17 | 16 | 390 mm |
| DN 65 | 25 | 18 | 15 | 14 | 13 | 12 | 460 mm |
| DN 80 | 23 | 16 | 14 | 13 | 12 | 11 | 660 mm |
| DN 100 | 15 | 11 | 9,2 | 8,7 | 8 | 7,5 | 750 mm |
| DN 125 | 13 | 9,5 | 8 | 7,5 | 6,9 | 6,5 | 1000 mm |
| DN 150 | 11 | 8,1 | 6,8 | 6,4 | 5,9 | 5,5 | 1250 mm |

## Type EWS-ICA

Stainless steel corrugated hose with one braided layer of steel wire, well-suited for use in **analytical technology** (working temperature range -200 °C to +550 °C (applies only for the hose)), according to DIN 3384 and approval for all gases according to DVGW-worksheet G260

| Temperature - pressure / Nominal width | 20 – 50 °C [ bar ] | 100 °C [ bar ] | 200 °C [ bar ] | 250 °C [ bar ] | 300 °C [ bar ] | 400 °C [ bar ] | Min. bending radius |
|---|---|---|---|---|---|---|---|
| DN 10 | 75 | 62 | 55 | 53 | 50 | 46 | 190 mm |
| DN 13 | 70 | 58 | 52 | 49 | 46 | 43 | 210 mm |
| DN 16 | 65 | 54 | 48 | 46 | 43 | 40 | 285 mm |
| DN 20 | 50 | 41 | 37 | 35 | 33 | 31 | 310 mm |
| DN 25 | 40 | 33 | 29 | 28 | 26 | 24 | 375 mm |
| DN 32 | 35 | 29 | 26 | 24 | 23 | 21 | 405 mm |
| DN 40 | 30 | 24 | 22 | 21 | 20 | 18 | 480 mm |

## Type ABB-S / DCB-S

Stainless steel corrugated hose with two braided layers of steel wire, well suited for **high pressure applications** (working temperature range - 200 °C to +550 °C (applies only for the hose)), according to DIN EN ISO 10380

| Temperature - pressure / Nominal width | 20 – 50 °C [ bar ] | 100 °C [ bar ] | 200 °C [ bar ] | 250 °C [ bar ] | 300 °C [ bar ] | 400 °C [ bar ] | Min. bending radius |
|---|---|---|---|---|---|---|---|
| DN 6 | 250 | 184 | 154 | 145 | 134 | 125 | 110 mm |
| DN 8 | 250 | 184 | 154 | 145 | 134 | 125 | 130 mm |
| DN 10 | 225 | 165 | 139 | 130 | 120 | 112 | 150 mm |
| DN 13 | 200 | 147 | 123 | 116 | 107 | 100 | 165 mm |
| DN 16 | 200 | 147 | 123 | 116 | 107 | 100 | 195 mm |
| DN 20 | 120 | 99 | 89 | 55 | 52 | 49 | 640 mm |
| DN 25 | 100 | 83 | 74 | 46 | 44 | 41 | 710 mm |
| DN 32 | 90 | 74 | 66 | 41 | 39 | 36 | 790 mm |
| DN 40 | 80 | 66 | 59 | 36 | 34 | 32 | 900 mm |
| DN 50 | 65 | 54 | 48 | 30 | 28 | 26 | 1000 mm |
| DN 65 | 50 | 41 | 37 | 23 | 22 | 20 | 1100 mm |
| DN 80 | 40 | 33 | 29 | 18 | 17 | 16 | 1380 mm |
| DN 100 | 32 | 26 | 23 | 14,7 | 14 | 13 | 1500 mm |
| DN 125 | 25 | 20 | 18 | 11,2 | 10,6 | 9,9 | 1800 mm |
| DN 150 | 20 | 16 | 14 | 9,1 | 8,6 | 8,1 | 2300 mm |

Further information and suitable accessories can be found on our website: www.kletti-gmbh.com.

Do you have any questions or need an offer?
Contact us: sales@kletti-gmbh.com

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