

# TURBO COLLECTOR

## TECHNICAL DATA SHEET

PE100-RC Ø32 Ø40 Ø45 Ø50 Ø63  
SDR17 – SDR13,6 – SDR11

### Probe design

Patent no: 2 195 586

TurboCollector represents a patented advancement in traditional collectors, boasting markedly improved heat transfer characteristics achieved through a more turbulent flow. Field measurements demonstrate that TurboCollector exhibits up to 33% lower bore resistance compared to equivalent measurements on a smooth collector.

### Installation and operation

The collector is delivered with the desired length and adapted to be easily installed with associated installation products, e.g. collector reel, collector feeder.

### Delivery form

The U-bend is well protected with a protection cap, ensuring its durability. The U-bend solution is designed to accommodate additional weights, facilitating an easier installation process. The collectors are stacked well on wooden pallets for a seamless transport and effortless installation. Desired length could be ordered with 10-meter intervals.

### Material

Polyethylene PE100-RC (RC=resistance to cracking)

### Dimension & pressure class

Ø32, Ø40, Ø45, Ø50, Ø63 PN10 SDR17, PN12.5 SDR13.6, PN16 SDR11

### Standard

Our products have obtained certifications from Insta-cert, P-marking, and SKZ, tailoring to the specific requirements of the local market.

DIN EN 12201-2, SKZ HR3.26:A825/A759/A760, RISE SPCR 169

### Physical properties

Density	0.95–0.97 g/cm <sup>3</sup>
Pipe roughness	0.03 mm
Minimum bending radius at 0°C	50 × dn
Minimum bending radius at 10°C	35 × dn
Minimum bending radius at 20°C	20 × dn

### Mechanical properties

Tensile modulus of elasticity (23°C, v = 1 mm/min, secant)	1100 MPa
Yield stress (23°C, v = 50 mm/min)	24 MPa
Tensile deformation (23°C, v = 50 mm/min)	9%
FNCT (4.0 MPa, 2% Arkopal N100, 80°C)	> 1 year
Point Loading Test	> 1 year
Failure strain	>= 350%
Mean thermal coefficient of linear thermal expansion	0.18 mm/m K

### Hardness

Shore hardness (Shore D (3 sec))	62
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### Thermal properties

Thermal conductivity	~0.4 W/mK
Specific thermal capacity	1.9 J/g K
Maximum temperature	+40°C
Minimum temperature	- 20°C
When using permanent operating temperature higher than +20 °C to +40 °C.	
Pressure reduction factor:	+20 °C: 1,0, +30 °C: 0,87, +40 °C: 0,74

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