



PE-RT pipes.

5 layers of pure quality
made in Germany.

radiant heating
& cooling
components

OEM

PE-RT PIPES

1. Polyethylene resistant to high temperatures
2. Adhesive layer
3. Oxygen barrier
4. Adhesive layer
5. Polyethylene resistant to high temperatures

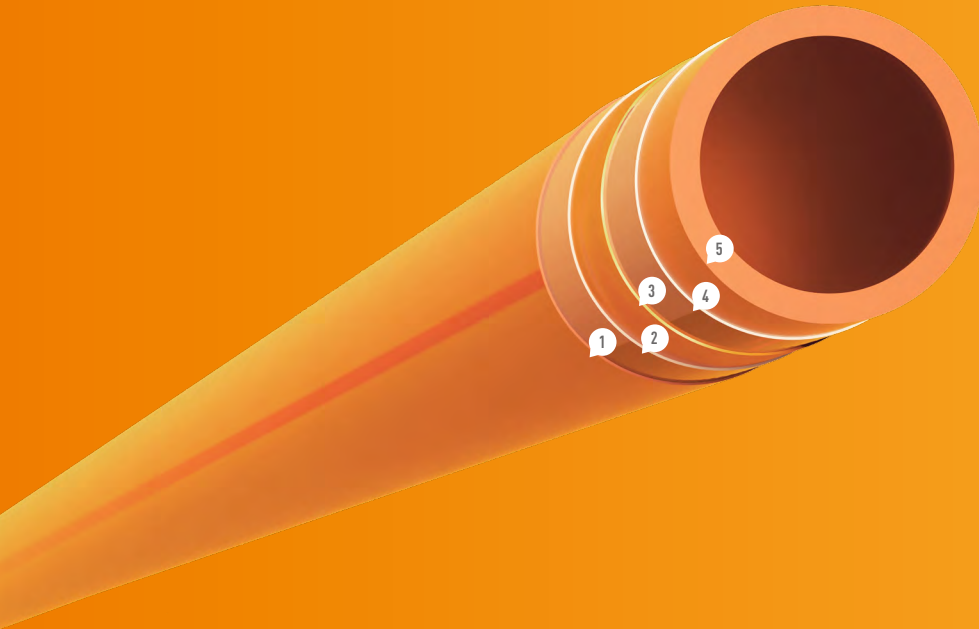
Class



Application



Maximum temperature



5 layer extrusion technology

Enetec pipes are especially developed according to customer needs demanding highly flexible pipes with extraordinary long term resistance. Due to the very long experience of Enetec employees extruding pipes for more than 25 years, we are very pleased being a trustable and experienced producer for our partners. The integration of our superb working experience combined with the state-of-the-art extrusion technology we grant our partners a perfect quality of extruded pipes.

At our plant in Kleve in Germany, in the region of the beautiful lower-rhine, we are focused on extrusion-technology. Our partners appreciate the spread of production technologies, Enetec can support.

Pipes made of PE-RT

Enetec extrudes pipes made of PE-RT according to the relevant standards ISO22391, ISO24033, ISO21003. In addition to the national guidelines BRL 5602 and BRL 5607. Production and product surveillance by Institute KIWA N.V. and Süddeutsche Kunststoff-Zentrum Würzburg, SKZ. The pipes meet the ISO 10508 standard class 4, underfloor-heating and class 5, radiator connection.



1) Detailed information on request.



ISO 10508 CLASS 4

	TEMPERATURE	LIFETIME	OVERAL SERVICE COEFFICIENT
T_{cold}	20 °C	2,5 years	1,25
T_{design}	40 °C + 60°C	20 years + 25 years	1,5
T_{max}	70 °C	2,5 years	1,3
$T_{\text{malfunction}}$	100 °C	100 hours	1,0

Remark: Temperature Profile during 50 years

ISO 10508 CLASS 5

	TEMPERATURE	LIFETIME	OVERAL SERVICE COEFFICIENT
T_{cold}	20 °C	14 years	1,25
T_{design}	60 °C + 80°C	25 years + 10 years	1,5
T_{max}	90 °C	1 year	1,3
$T_{\text{malfunction}}$	100 °C	100 hours	1,0

Remark: Temperature Profile during 50 years



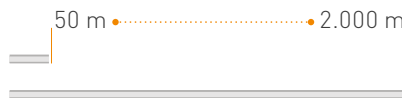
○ Different diameters

Pipes from diameters 8 mm up to 32 mm



— Coil-length

From 50 meter up to 2.000 meter we produce customised length.



ⓧ Marking

In different colours with branded name and customer logo customised length.



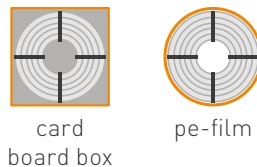
○ Different wall thickness

Depending on outer diameter from 1 mm up to 4 mm



⊗ Packaging

Card board boxes, PE film, one-way decoiler customised length



— Stripe colour

5 layer pipes with integrated stripe for better differentiation.



⊗ Intermediate binding

According to customer needs we bind the coils in between the coil length.



— Pipe colour

We produce your pipe according your idea of colouring the outer layer.



Technical properties PE-RT Type I

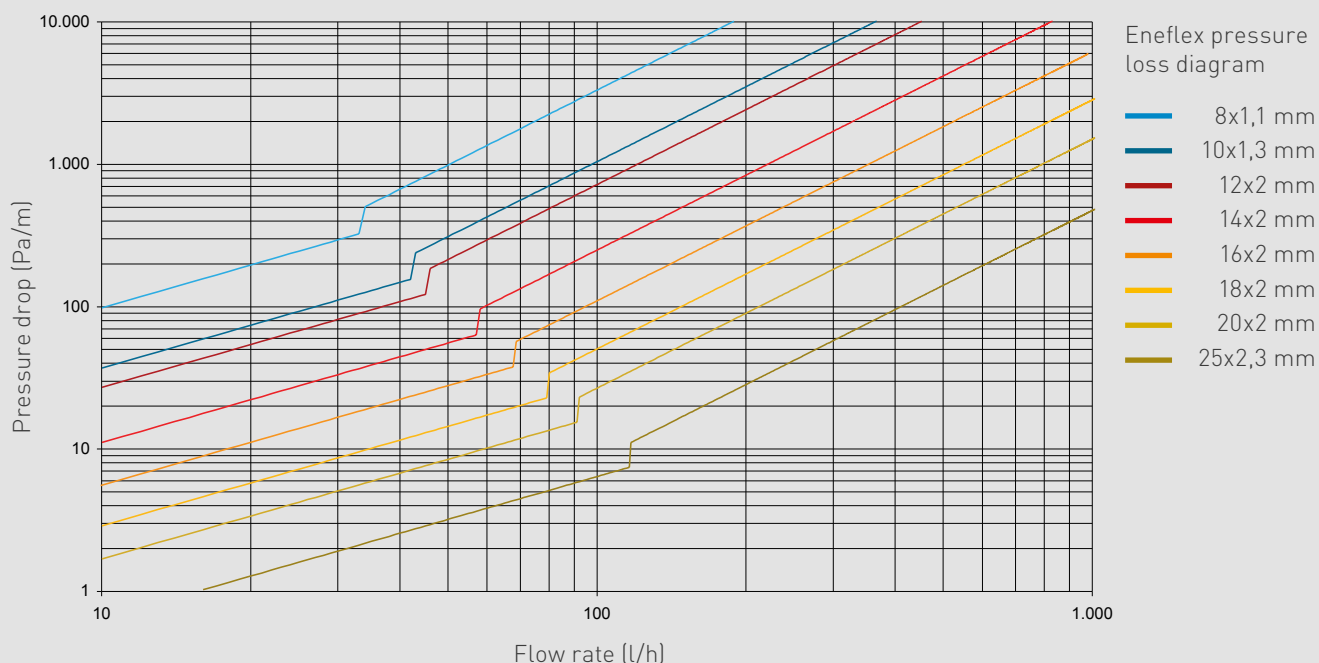
Material	PE-RT Type I acc. to ISO 22391
Max. operating temperature acc. ISO 10508 Class 4 [°C]	70
Max. operating pressure acc. ISO 10508 Class 4 [bar]	6
Thermal conductivity [W/mK] at 20 °C DIN 52612	0,41
Coefficient of linear thermal expansion [mm/mK] DIN 52328	0,195
Surface roughness inside [mm] acc. Prandl/Colebrook	0,007
Oxygene diffusion barrier DIN 4726 [mg/(m ² -d)] 40°C (class 4)	< 0,32
Oxygene diffusion barrier DIN 4726 [mg/(m ² -d)] 80°C (class 5)	< 3,60

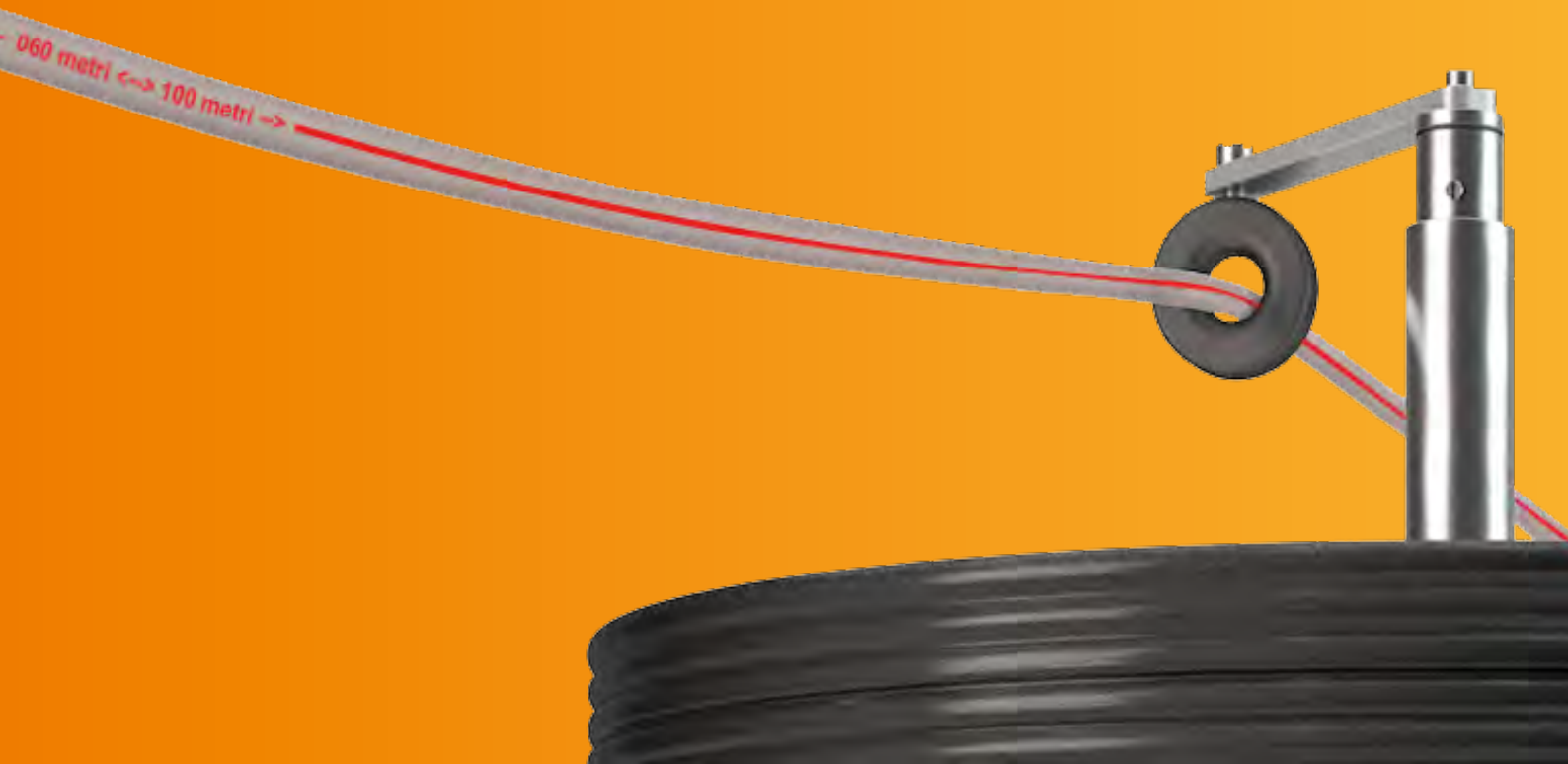
Technical properties PE-RT Type II

Material	PE-RT Type II acc. to ISO 22391
Max. operating temperature acc. ISO 10508 Class 5 [°C]	90
Max. operating pressure acc. ISO 10508 Class 5 [bar]	6
Thermal conductivity [W/mK] at 20 °C DIN 52612	0,41
Coefficient of linear thermal expansion [mm/mK] DIN 52328	0,195
Surface roughness inside [mm] acc. Prandl/Colebrook	0,007
Oxygene diffusion barrier DIN 4726 [mg/(m ² -d)] 40°C (class 4)	< 0,32
Oxygene diffusion barrier DIN 4726 [mg/(m ² -d)] 80°C (class 5)	< 3,60

Approvals and certifications

KIWA KOMO BRL 5602, Certification Nr.: K86478	yes
DIN CERTCO, Certification Nr.: 3V399 PE-RT	yes
Oxygene diffusion barrier acc. to DIN 4726	yes
Oxygene diffusion barrier acc. to ISO 17455	yes
SKZ A 748 acc. HR 3.16	yes
European system proof for service conditions acc. ISO 10508 Class 4 and class 5, certification number: ETA 17/1013	yes





Your perfect assistant: ENEFLEX® DECOILER

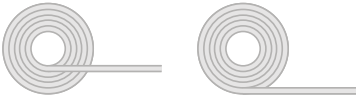
The Enetec pipe decoiler facilitates fitter's work while installing the ENEFLEX® underfloor heating pipe. It allows you hassle-free installation and requires only one person to operate. Thanks to its unique design, the Enetec pipe decoiler offers decoiling from the inner side as well as decoiling from the outer side. Feeding the pipe through the eyelet, grants you installation free of twists.

The ENEFLEX® decoiler is your perfect assistant installing pipes economically and human-engineered.

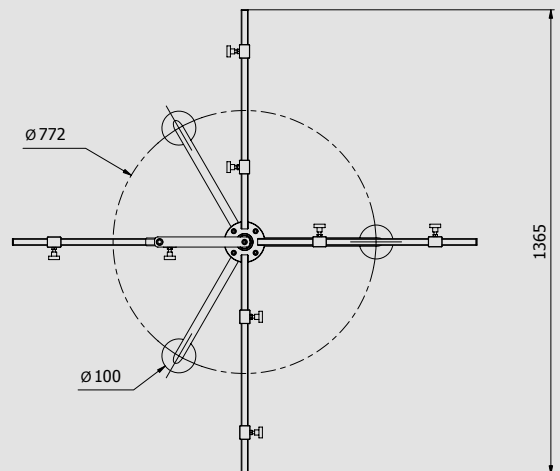
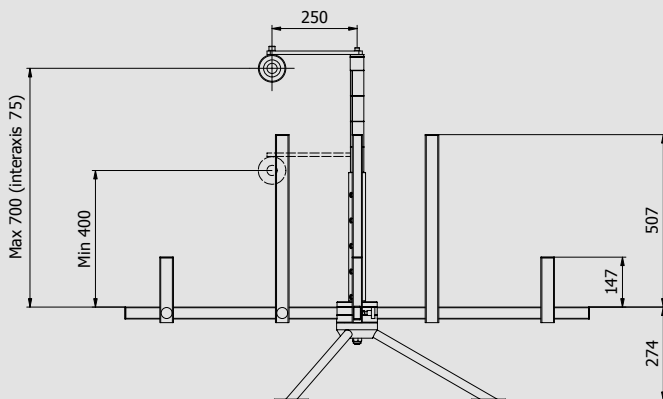
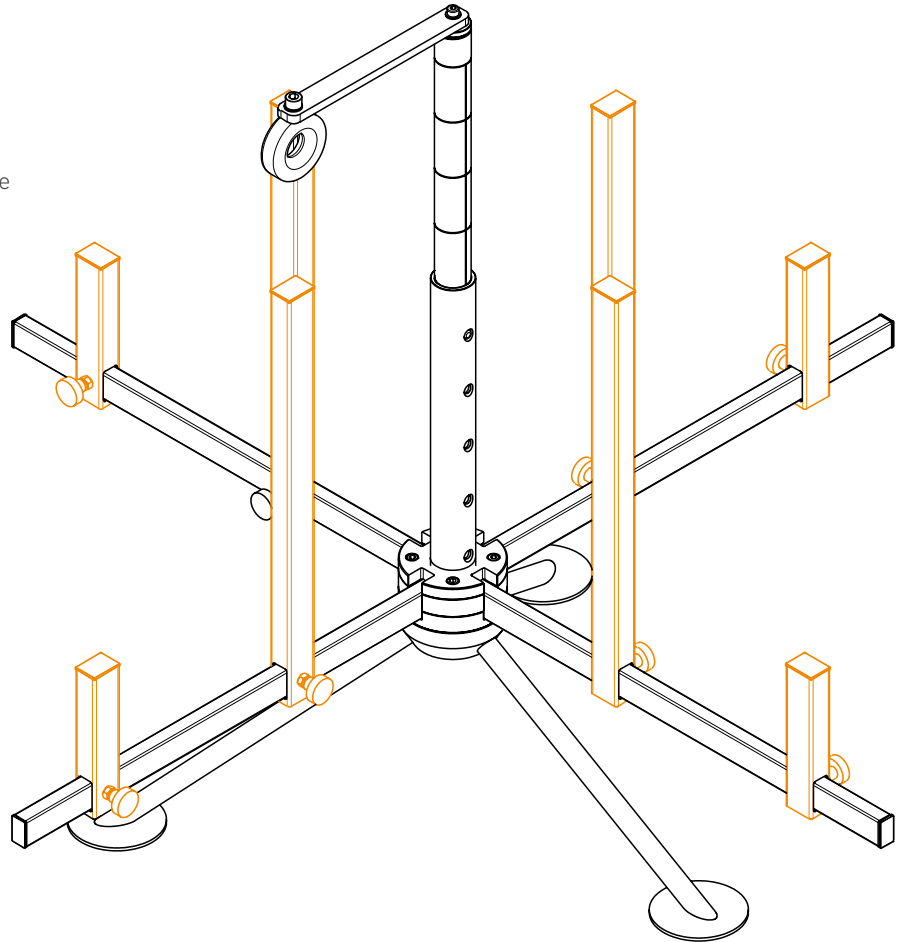


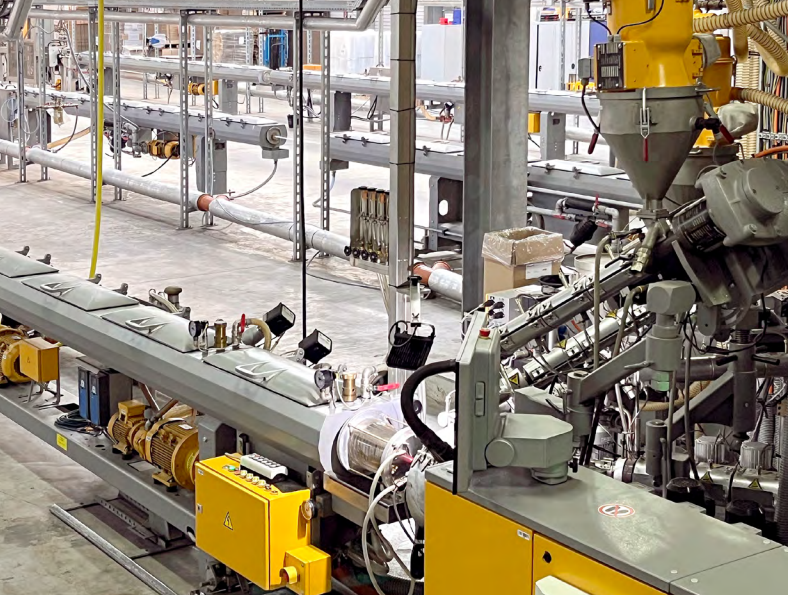
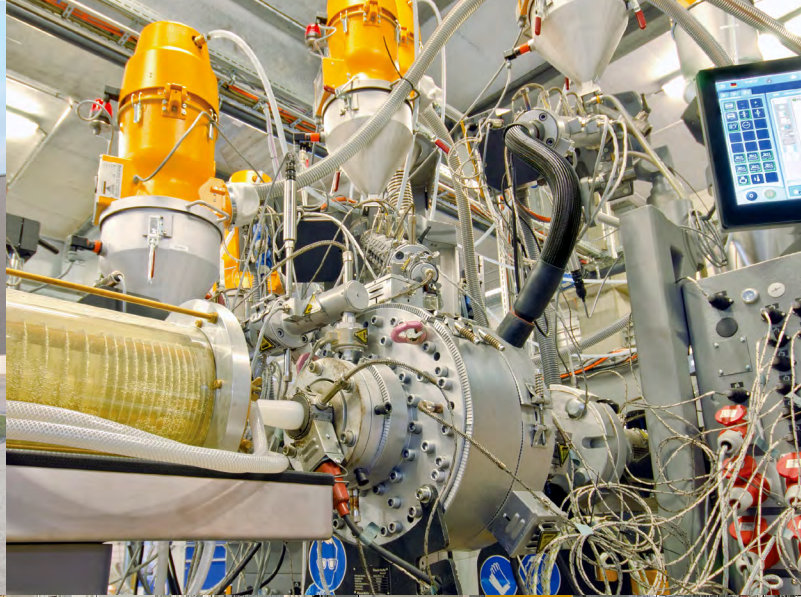
Innovative pipe decoiler

A new decoiler designed for optimising Eneflex pipe laying. The possibility of unwinding the pipe from inside guarantees easy and fast laying without any torsion.



- lightweight aluminium body
- assembly without screws or tools
- double ball bearings
- unwinding from inside and outside
- compact and transportable





PRODUCTION PLANT KLEVE (GERMANY)

Enetec SpA Benefit Company

Pillhof 89
I-39057 Frangarto (BZ)
T +39 0471 051 508
F +39 0471 051 509
mail@enetec.info

Plant Bolzano/Bozen

Molding & Milling
Pillhof 89
I-39057 Frangarto (BZ)
T +39 0471 051 508
F +39 0471 051 509
mail@enetec.info

Plant Verolanuova

EPS Production
Via IV Novembre, 34
I-25028 Verolanuova (BS)
T +39 030 933163
F +39 030 9923998
eps@enetec.info

Enetec GmbH

International sales
Kalkarer Str. 81 – Halle 26
D-47533 Kleve
T +49 2821 89 88 00
sales@enetec.info

Enetec Plastics GmbH

Pipe extrusion
Kalkarer Str. 81 – Halle 25-27
D-47533 Kleve
T +49 2821 89 88 00
pipes@enetec.info