

# CASAFLEX Local and District Heating Pipe system

With quality into a safe future



# CASAFLEX Local and District Heating Pipe system

for local and district heating systems



**CASAFLEX - the self-compensating, monitorable, thermally insulated and helically corrugated pipe system made of stainless steel: flexible, efficient, simple, reliable and competent.**

The corrugated outer casing, the twisted monitoring wires and an optimised connection technology enable installation-friendly laying. The high-temperature-resistant, high-performance PIR (polyisocyanurate) foam composite system encloses local and district heating networks reliably and quickly. It has been an energy-efficient system for decades. Whether as the main pipe or as a house connection - CASAFLEX is your investment in a safe future.

Patented connection technology that has been tried and tested for many years  
Encapsulated graphite seal for lasting security

**Simple, smaller, faster – optimised connection technology**  
Permanent press-connection technology for placement in the ground and in the house

## Flexible monitoring wires

Twisted message wires for WIREM/Brandes and Nordic measurement procedures already integrated

## Highest of temperatures

The composite system is designed for a peak temperature of up to 180 °C

## Optimum thermal insulation

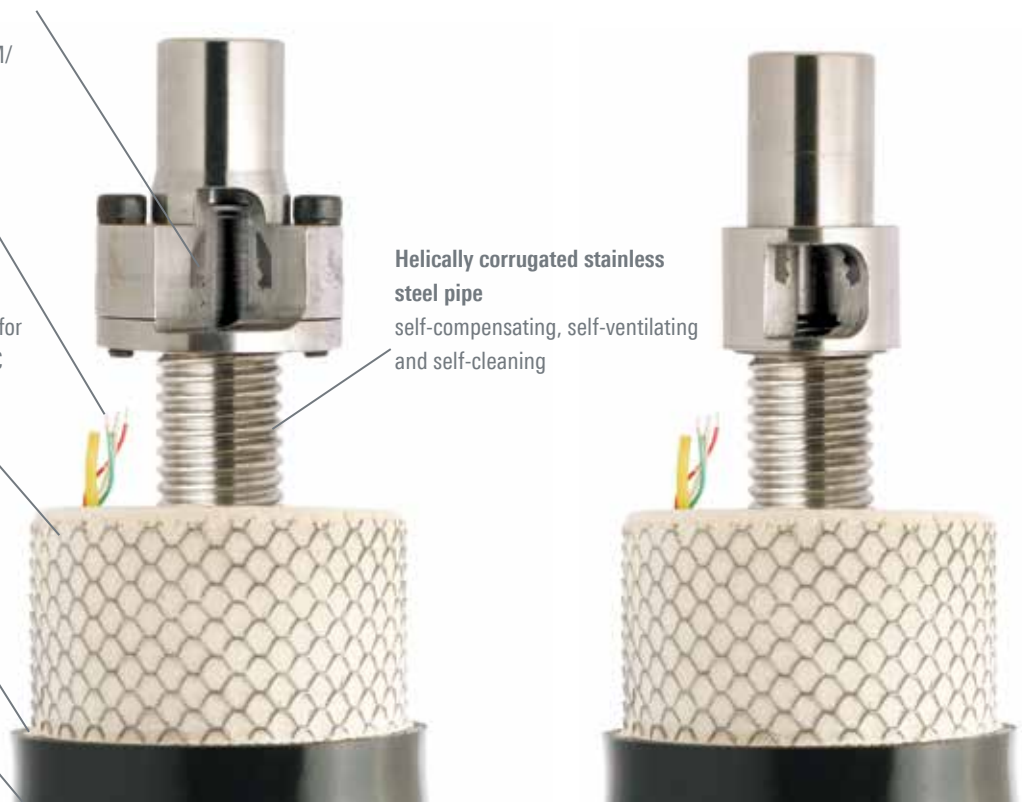
A multi-layer diffusion barrier restrains the escaping of cell gases.

## PE casing with metal reinforcement

Maximum durability and service life

## Helically corrugated stainless steel pipe

self-compensating, self-ventilating and self-cleaning



# With quality into a safe future

The five strengths combined in CASAFLEX



## Flexible

Adjusted to the requirements and flexible in use



## Efficient

Ambitious scheduling inexpensively realised



## Simple

Simply and competently planned, implemented quickly



## Reliable

The original - successfully used for many years



## Professional

Consultation and innovation on the basis of many years of experience



**Now with new  
connection technology  
4 steps  
ready to use!**

Rapid, simple and securely installed with few components.  
Thanks to its compact construction, the connection points can be retroactively insulated with standard sockets.

# Flexible and efficient

The best of both sides: quickly installed to meet tight schedules



**Delivery lengths up to 810 metres on one coil and highly flexible pipes simplify routing.**

**Short construction times and small trenches minimise construction costs.**

## Monitorable flexibility

The corrugated outer casing of CASAFLEX offers in combination with the flow-optimised helically corrugated carrier pipe and the twisted, expandable monitoring wires, a maximum in flexibility. This means that underground obstacles can be circumvented without difficulty, quickly and securely. Narrow winding radii enable the delivery of the smallest of coiled bundles to the construction site.

## The one-day construction site

Short construction schedules can be met through direct connections between the main pipe and the consumer thanks to our cut-to-length coils and pipe laying direct from the coil into the trench. Because of customised lengths no further connections are needed.

## The cost-saver

Narrow trenches mean considerable savings in excavation costs. Thermal expansion measures aren't necessary, CASAFLEX is both self-ventilating and self-compensating. Less earth removal, a simple restoration of the surfaces and low outlays for construction site safety and for street and pedestrian bridges all speak in favour of CASAFLEX.



# Simple and reliable

The original - hassle-free installation and a long service life



**Hassle-free planning and design thanks to simple statics and connection technology.**

**Maximum product quality, optimised thermal insulation and installation result in a long service life.**

## The problem-solver

We plan and ship, you lay the pipes. Rapid and simple in implementation, you need take neither U-bends nor Z-bends into consideration, fixed-point structures and ventilation facilities are generally not required.

CASAFLEX - connections are installed simply and rapidly. They produce a secure connection to ongoing lines or to in-house installations.

## Simple connection technology

The CASAFLEX connection technology, with years of tried-and-tested experience, is easy to use, because neither welding nor calibration tools are required. The contemporary, lean connection technology ensures, through its unique pressing technique, the security of a permanent connection in the house connection sector. Entirely in accordance with the motto: simple, quick and reliable.

## The technology of tomorrow, available today!

The multi-layer diffusion barrier and the flexible PIR foam (polyisocyanurate) result in minimal thermal losses at a high temperature resistance of up to 180 °C. The tried-and-tested connection technology enables use in networks with nominal pressures of both PN 16 and PN 25. Any external damage that may occur to the pipeline can be detected immediately by means of integrated monitoring wires.



# Professional

Consultation and innovation on the basis of many years of experience



**Innovation, long-standing experience and needs-oriented, individual consultation.**

## A strong brand

Some 2,000,000 m of CASAFLEX pipes already laid and well over 100,000 installed connections show the confidence our customers have in our products.

Brugg Pipesystems stand for long-standing experience, high quality and innovative products. The consultation we provide to you is individual and results-oriented. Our quality control and compliance with the relevant standards ensures that all of the Brugg companies maintains the highest quality standards.

The Brugg Development Team is working continuously on the solution to your requirements. Our contemporary press-connection is one of the many examples of application-oriented innovations. Brugg product solutions stand for the consistently high quality and long service life of our products. The differences can be seen in the details, as for example with the twisted monitoring wires of the CASAFLEX local and district heating pipe systems, which have been used successfully for years and which do not break when the tube is bent. You're therefore always on the safe side with Brugg Pipesystems.

## Additional customer benefits

- UNO and DUO pipes available
- Operating temperature: 160 °C, peak temperature: 180 °C
- Standard connection in PN 16 and PN 25
- Press-connection up to DN 40/PN16
- Available with materials suitable for use as a drinking water line
- Special materials upon request
- Fulfils the requirements of EN 15632-4
- Special insulation strengths available upon request
- Lengths greater than 560 m available upon request with drum transport
- Metallic, reinforced exterior casing
- Training courses on-site or at one of our training centres



# Product range variety

also for your application

## CASAFLEX-UNO



### Operating temperature

max. 160 °C

### Peak temperature

max. 180 °C

### Operating pressure

16/25 bar

## CASAFLEX-UNO

Type	DN	Inch	Inner pipe d x s	Outer casing D	Minimum bending radius	Volume of inner pipe	Weight	Maximum delivery lengths			
								Coil <sup>1)</sup>	Coil <sup>2)</sup>	Coil <sup>3)</sup>	Coil <sup>4)</sup>
		"	mm	mm	m	l/m	kg/m	m	m	m	m
22/ 91	20	¾	25 x 0.3	91	0.8	0.44	1.30	320	480	560	810
30/111	25	1	34 x 0.3	111	1.0	0.80	1.93	205	290	360	500
39/126	32	1 ¼	44 x 0.4	126	1.2	1.35	2.60	155	230	280	340
48/126	40	1 ½	55 x 0.5	126	1.2	2.04	2.92	155	230	280	340
60/142	50	2	66 x 0.5	142	1.3	3.12	3.54	100	150	200	300
75/162	65	2 ½	86 x 0.6	162	1.8	5.12	4.80	55	100	145	190
98/162	80	3	109 x 0.8	162	1.8	8.43	5.70	55	100	145	190
127/202	100	4	143 x 0.9	210	2.8	14.30	8.80	–	40	–	75

1) Coil dimension Ø 2,800 x 800 mm (width)

2) Coil dimension Ø 2,800 x 1,200 mm (width)

3) Coil dimension Ø 3,000 x 1,200 mm (width)

4) Coil dimension Ø 3,000 x 1,600 mm (width) **just ex work Wunstorf**

**Supplied in drums on request**

## CASAFLEX-DUO



### Operating temperature

max. 160 °C

### Peak temperature

max. 180 °C

### Operating pressure

16 bar

## CASAFLEX-DUO

Type	DN	Inch	Inner pipe d x s	Outer casing D	Minimum bending radius	Volume of inner pipe	Weight	Maximum delivery lengths			
								Coil <sup>1)</sup>	Coil <sup>2)</sup>	Coil <sup>3)</sup>	Coil <sup>4)</sup>
		"	mm	mm	m	l/m	kg/m	m	m	m	m
22+22/111	20	¾	25 x 0.3	111	1.1	0.44	2.5	205	290	360	500
30+30/126	25	1	34 x 0.3	126	1.4	0.80	3.1	155	230	280	340
39+39/142	32	1 ¼	44 x 0.4	142	1.5	1.35	3.7	100	150	200	300
48+48/162	40	1 ½	55 x 0.5	162	1.8	2.04	4.2	55	100	145	190
60+60/182*	50	2	66 x 0.5	182	2.0	3.12	5.1	55	80	–	–

\* Max. continuous operating temp. T<sub>Bmax</sub> 130 °C (not available in Germany)

1) Coil dimension Ø 2,800 x 800 mm (width)

2) Coil dimension Ø 2,800 x 1,200 mm (width)

3) Coil dimension Ø 3,000 x 1,200 mm (width)

4) Coil dimension Ø 3,000 x 1,600 mm (width) **just ex work Wunstorf**

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# Pipe systems for the future

District heating – Industry – Petrol stations – System packages



## Your partner for pipe systems

We are your point of contact for efficient solutions for the transport of liquids. Thanks to our project engineers, our Development Department, our own production and professional installation management, we are in a position to accompany your projects competently and reliably – in district heating/cooling, in petrol station construction, in industrial plant construction and in the area of system packages.

## International network

Our worldwide partnership network is active around the world and can be reached locally at any time. Our 34 partners in 20 different countries serve you around the globe.

## Customer-specific solutions

Brugg offers the complete range of single-wall, double-wall and thermally insulated conductor systems. This know-how enables us to produce project-specific customised solutions.

## Give us a call!

Our engineers will be happy to advise you and will find the optimum solution.

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