### HAELOK®





# GENERAL CATALOGUE 2020







**OUR INVENTION.** THE ORIGINAL.

### **HAELOK**® – THE SYSTEM



#### ALL FROM ONE SINGLE SOURCE

Controlled production with central storage - ready for fast shipping.



#### **EVERYTHING WORLDWIDE**

Worldwide dispatch via our own HAELOK® warehouse in Southern Germany.



#### **ALWAYS CONNECTED**

Access products, orders and stock at any time and anywhere.

#### **OUR PRODUCT PORTFOLIO**



Straight fitting



Repairfitting



Reducer



End cap



Fitting thread internal



Fitting thread external



Elbow 90°



Union Tee



Flange



Bended pipe



DKO 24° with O-Ring



Distributor

All our products are available in carbon steel (CC) 1.0570 (AISI 1024) and stainless steel (XX) 1.4404 (AISI 316L).

#### OUR INVENTION. THE ORIGINAL.



TECH
Mechanical & plant engineering

From machines to industrial or petrochemical plants, the HAELOK system is successfully used worldwide in various applications – as a standard program or special production.



THERMO
District Heating

HAELOK® has developed its own product line for district heating. HAELOK® THERMO is successfully used in the district heating of municipal utilities and companies.



ENERGY
Oil & Gas

With the help of the HAELOK® system, thousands of kilometers of gas and oil pipelines have been safely and quickly connected. Durable, without welding and without the use of elastomer seals.



PROTECT
Firefighting equipment

In high-rise buildings around the world or in huge cruise and container ships, the HAELOK® system is used in high-pressure firefighting technology.

#### **OUR STRENGTH.** YOUR ADVANTAGE.



Nominal pressure up to 600 bar



Reliable from -20°C to +400°C (-190°C for XX)



Vibration- & fireproof



Suitable for seamless and welded pipes



Vacuum tight



Weather-resistant



Sabotage protection



Durable in the long term



Available from stock

#### **CERTIFIED & VERIFIED**





ASME B31.1 & B31.3

**IACS** 





DNV-GL

**EMPA** 





WTD71

DGRL





Bureau Veritas

Lloyd`s Register





**AGFW** 



**TRANS** Transport technology

The  $HAELOK^{\otimes}$  system is used and installed in trains, buses and other large means of transport worldwide.



**TUBE** For special Tube measurements

Deviating from the DN and inch sizes HAELOK® also offers fittings according to official tube sizes.



The digital access to HAELOK®.

**Everywhere. Anytime.** 

All prices, current stock and conditions



**SHOP. HAELOK.COM** 



#### ALL FROM ONE SOURCE.

Controlled production with central storage - ready for fast shipping.



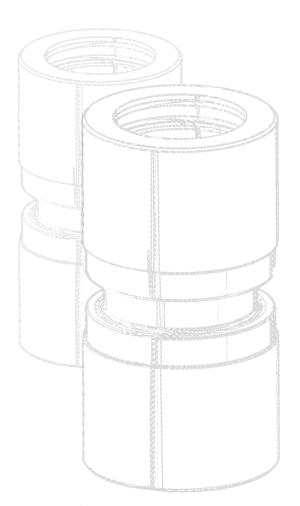
#### **EVERYTHING WORLDWIDE.**

Worldwide dispatch via our own HAELOK® warehouse in Southern Germany.



#### **ALWAYS CONNECTED.**

Access product informations, orders and stock at any time and anywhere.



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### GENERAL CATALOGUE 2020

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### **HAELOK**° – INVENTOR.GENERATOR.TRENDSETTER.



#### HAELOK® THE SYSTEM.

HAELOK® is not an ordinary fitting for a pipe connection. It is rather a combination of an innovative product, the corresponding tool, the service, the name, the quality and the simplicity of the application and the economic benefit.

#### It's a system.

HAELOK® is the leading, purely metallic, press connection system for the application areas industry, energy technology, district heating and technical oils and gases.

The high performance press fittings are developed for extremely high pressures and temperatures as well as fast and safe press connection without the use of sealing elements and welding.

The specially developed pressing tools always provide the same quality of each individual press joint in existing or new plants. A perfect connection in a few seconds.















## HAELOK® AN INNOVATIVE COMPANY. A STRONG BRAND.

The HAELOK®- Group is regarded as the world's leading system provider and as the engine of technological progress in the field of press-fitted pipe connections without welding processes and without elastomeric seals.

 ${\sf HAELOK}^{\circledcirc}$  develops inhouse, produces all products in Europe and sells them under the established product brand  ${\sf HAELOK}^{\circledcirc}.$ 

Through the central distribution of HAELOK® in Switzerland and through international partners, the products are made available to customers worldwide.

Our international customers come from a wide range of industries, including mechanical and plant engineering, transportation, shipbuilding, district heating, refrigeration air conditioning and fire protection technology. In these areas we stand for high-quality products and services as well as forward-looking system and innovation solutions.

#### Research & development

Our own research and development is the heart of the company and crucial for the sustainable success of HAELOK®. An experienced team of specialists works daily on the existing and future product portfolio of high-performance press fittings and press tools. The entire development and manufacturing process is subject to HAELOK® and thus ensures a quality and technical lead just like the leading market position.

#### Warehouse & logistics

The HAELOK® logistics system is structured and efficient. Our warehouse is optimized for extensive stock keeping and fast shipping.

Due to our own production as well as the trained sales department we can give you information at any time.

#### **HAELOK® - Online Shop**

The HAELOK® - Online Shop offers our customers the possibility to access our product portfolio 24/7, always get the latest prices and order easily.





## HAELOK® OUR SYSTEM IS FULL OF VALUES.

#### **SWISSNESS**



The HAELOK®- system is authentic, unadulterated, unique. As creative as it is original in its functionality, its ease of use and its high quality standards, it is absolutely outstanding.

#### **QUALITY & PRECISION**



Every HAELOK®- fitting is a quality product, which is manufactured with the highest standards of precision, functionality and user comfort.

#### **INNOVATION**



HAELOK® regularly launches new product lines, which are characterized by further developments in addition to functionality.

#### DESIGN



HAELOK®'s clear design is unique and internationally recognized and protected.

#### SUSTAINABILITY



The HAELOK® system consists of high-quality steel and can be remelted and reprocessed at any time.



HAELOK®.
OUR PROMISE. YOUR SAFETY.

### HAELOK® PRODUCT LINES & APPLICATION AREAS



From machines to industrial or petrochemical plants, the HAELOK® system is successfully used worldwide in all variants.

#### TECH - Mechanical & plant engineering Heating and cooling technology

Product line: TECH

Application area: Mechanical & plant engineering

Product line No: 10

Example productcode: HLK-10EC-13-CC

Material product line: C-Steel (CC) 1.0570 (AISI 1024)

galvanized or Stainless steel (XX)

1.4404 (AISI 316L)



HAELOK® has developed its own product line for the district heating market. HAELOK® THERMO is successfully used in the district heating of public utilities and companies.

#### THERMO - District heating

Product line: THERMO
Application area: District heating

Product line No: 12

Example productcode: HLK-12EC-13-CC

Material product line: C-Steel (CC) 1.0570 (AISI 1024)

galvanized



Thousands of kilometres of gas and oil pipelines have been safely and quickly connected to the HAELOK® system. Permanently, without welding and without the use of seals.

#### **ENERGY - Oil & Gas**

Product line: ENERGY
Application area: Oil & Gas

Product line No: 10

Example productcode: HLK-10EC-13-CC

Material product line: C-Steel (CC) 1.0570 (AISI 1024)

galvanized or Stainless steel (XX)

1.4404 (AISI 316L)



In high-rise buildings all over the world or in huge cruise ships the HAELOK®- system is used in fire extinguishing technology at high pressures.

#### **PROTECT - Firefighting technology**

Product line: PROTECT

Application area: Firefighting equipment

Product line No: 10

Example productcode: HLK-10EC-13-XX

Material product line: Stainless steel (XX) 1.4404 (AISI 316L)



Whether in trains, buses and other large means of transport, the HAELOK®-system is used and installed worldwide.

#### **TRANS - Transport technology**

Product line: TRANS

Application area: Transport technology

Product line No: 10

Example productcode: HLK-10EC-13-CC

Material product line: C-Steel (CC) 1.0570 (AISI 1024)

galvanized or Stainless steel (XX)

1.4404 (AISI 316L)



Different from the DN and inch sizes HAELOK® also offers fittings according to official tube sizes.

#### **TUBE - Especially for Tube-Sizes**

Product line: TUBE

Application area: Especially for Tube-Sizes

Product line No: 21

Example productcode: HLK-21SF-T1-XX

Material product line: Stainless steel (XX) 1.4404 (AISI 316L)

## HAELOK® CERTIFICATES AND INTERNATIONAL TESTING STANDARDS.

HAELOK® is in accordance fully compliant with the guidelines of ASME B31.1 Power Piping and ASME B 31.3 Process Piping and meets all requirements of IACS (International Association or Classification Societies).

Certificates for special applications and industries are

developed by us as required.

Certificates test tightness, pull-out forces, burst pressures, combined pressure pulse and vibration cycles, vacuum and fire resistance.



#### ISO 9001/2015

ISO 9001 is a globally recognized standard and sets minimum requirements to ensure that products and services are provided that meet customer expectations and any regulatory requirements.



#### **ASME**

ASME is a non-profit membership organization that facilitates collaboration, knowledge sharing, career advancement and skills development in all technical disciplines.



#### **Bureau Veritas**

Bureau Veritas ensures a high level of quality, safety, environmental protection and social responsibility of certified companies through inspection and certification.



#### Lloyd`s Register

Lloyd's Register is a ship classification society and independent risk management organisation providing risk assessment and mitigation services worldwide.



#### District heating research institute

The FFI is an accredited test laboratory, which provides support in tests, simulations and quality monitoring, thus ensuring consistent quality.



#### **IACS**

The IACS, makes a unique contribution to maritime safety and regulatio through technical assistance, conformity assessment and research and development.



#### **EMPA**

Empa is the Research Institute for Materials Science and Technology. As a bridge between research and practical application, it develops solutions for the primary challenges facing industry.



#### **DNV-GL**

DNV-GL is an international classification society and expert in technical consultancy, engineering services, certification and risk management.



#### WTD 71

The Bundeswehr Technical Center for Ships and Naval Weapons, Maritime Technology and Research is a division of the Federal Office for Bundeswehr Equipment, Information Technology and Utilization.



#### **DGRL-Endress + Hauser**

The PED guidelines apply to the design, manufacture and conformity assessment of pressure equipment and assemblies of pressure equipment with a maximum allowable pressure of more than 0.5 bar above atmospheric pressure.



#### **AGFW**

The AGFW as a trade association defines the rules for the certification of pipeline construction and socket installation work.

## HAELOK® TECHNICAL DATA STEEL (CC).

#### **PIPES**

#### Approved pipe tolerances and corresponding standards

#### Inch pipe outside diameter

		Nominal oute to star	•	Permissible v	vall thickness
DN	Size	OD1 <sub>nom</sub>	OD2 <sub>nom</sub>	S <sub>min</sub>	S <sub>max</sub>
8	1/4"	13.50	13.72	1.60	2.30
10	3/8"	17.20	17.15	1.60	2.77
15	1/2"	21.30	21.26	1.60	2.77
20	3/4"	26.90	26.67	2.11	3.91
25	1"	33.70	33.41	2.60	4.55
32	1 1/4"	42.40	42.16	2.60	5.08
40	1 ½"	48.30	48.26	2.60	5.08
50	2"	60.30	60.33	2.60	5.54
65	2 ½"	76.10	76.10	2.30	5.00
80	3"	88.90	88.90	2.30	6.00
100	4"	114.30	114.30	2.60	6.00

#### MATCHING PIPE SPECIFICATIONS STEEL (CC)

OD1 EN 10305, EN 10220, EN 10255 OD2 ASTM A213 (Schedule 10/40)

#### MATCHING PIPE SPECIFICATIONS THERMO® STEEL (CC)

OD1 EN 253, EN 10217-1, EN 10217-2 EN 10216-1, EN 10216-2

#### **CONFORM TO**

ASME B31.1 & B31.3 & FFI

#### Applicable pipes

HAELOK® fittings are applicable for carbon steel pipes and primed carbon steel pipes. Seamless or welded.

The pipe surface must be clean and without grooves or strong scoring. (Grooves > 0.1 mm are not allowed)

Loose rolling skin, scale and rust must be removed. Hot-rolled tubes or tubes with scaly surfaces are not permitted.

Pipe hardness: Maximum values of 90 (Rockwell B) are permissible.

#### **PRESSURE & TEMPERATURE**

#### Applications and burst pressure testing of our fittings

#### Inch tube outside diameter

DN	Size	OD <sub>nom</sub>	PN (nominal pressure) Safety factor 2	s (wall thickness)	Burst pressure test
8	1/4"	13.5	600 bar	1.8	1137 bar
10	%"	17.2	400 bar	1.8	800 bar
15	1/2"	21.3	400 bar	2.0	800 bar
20	3/4"	26.9	400 bar	2.3	800 bar
25	1"	33.7	400 bar	2.6	800 bar
32	1 1/4"	42.4	300 bar	2.6	600 bar
40	1 ½"	48.3	300 bar	2.6	600 bar
50	2"	60.3	300 bar	2.6	600 bar
65	2 ½"	76.1	125 bar	3.2	250 bar
80	3"	88.9	125 bar	3.2	250 bar
100	4"	114.3	125 bar	2.6	250 bar

#### Temperature ranges

Temp C°	C-Steel (CC)
50	0%
100	10%
150	21%
200	31%
250	37%
300	45%

Temperature range is from -20°C to +300°C, depending on the material used. At raised temperatures the maximum working pressure must be reduced by the value according to the table:

Flow coefficients are available on request.

## HAELOK® TECHNICAL DATA STAINLESS STEEL (XX).

#### **PIPES & TEMPERATURE**

#### Approved pipe tolerances and corresponding standards

#### Inch pipe outside diameter

		Nominal oute to star	0	Permissible v	vall thickness
DN	Size	OD1 <sub>nom</sub>	OD2 <sub>nom</sub>	S <sub>min</sub>	S <sub>max</sub>
8	1/4"	13.50	13.72	1.60	2.30
10	3%"	17.20	17.15	1.60	2.77
15	1/2"	21.30	21.26	1.60	2.77
20	3/4"	26.90	26.67	2.11	3.91
25	1"	33.70	33.41	2.60	4.55
32	1 1/4"	42.40	42.16	2.60	5.08
40	1 ½"	48.30	48.26	2.60	5.08
50	2"	60.30	60.33	2.60	5.54
65	2 ½"	76.10	73.03	2.30	5.00
80	3"	88.90	88.90	2.30	5.54
100	4"	114.30	114.30	2.60	5.54

#### Metric tube outside diameter

	Nominal outer-ø according to standard	Permissible	wall thickness
d	OD1-2 <sub>nom</sub>	S <sub>min</sub>	S <sub>max</sub>
10	10	1.0	2
12	12	1.50	2
15	15	1.50	3
16	16	1.50	3
18	18	1.50	3
20	20	1.50	3
22	22	1.50	3
25	25	1.50	3
28	28	1.50	3
30	30	1.50	3
35	35	2.00	3
38	38	2.00	4
42	42	2.00	4

#### MATCHING PIPE SPECIFICATIONS STAINLESS STEEL (XX) Tolerances D3 and T3

OD1 EN 10217-7, EN 10216-5, EN ISO 1127

OD2 ASTM A268, A269

#### Applicable tubes

HAELOK fittings are applicable for stainless steel pipes. Seamless or welded.

The pipe surface must be clean and without grooves or strong scoring. (Grooves > 0.1 mm are not allowed)

Loose rolling skin, scale and rust must be removed.

Hot-rolled tubes or tubes with scaly surfaces are not permitted.

Pipe hardness: Maximum values of 90 (Rockwell B) are permissible.

#### Temperature ranges

Temperature range is from -190°C to +400°C, depending on the material used. At raised temperatures the maximum working pressure must be reduced according to the table:

Temp C°	Stainless Steel (XX)
50	4%
100	12%
150	15%
200	20%
250	25%
300	30%
350	33%
400	35%

Flow coefficients are available on request.

#### **PRESSURE**

#### Applications and burst pressure testing of our fittings

#### Inch tube outside diameter

DN	Size	OD	PN (nominal pressure) Safety factor 2	PN (IACS) Safety factor 4	s (wall thickness)	Burst pressure test
8	1/4"	13.5	600 bar	300 bar	1.8	1137 bar
10	3/8"	17.2	400 bar	200 bar	1.8	800 bar
15	1/2"	21.3	400 bar	200 bar	2.0	800 bar
20	3/4"	26.9	400 bar	200 bar	2.3	800 bar
25	1"	33.7	400 bar	200 bar	2.6	800 bar
32	1 1/4"	42.4	300 bar	150 bar	2.6	600 bar
40	1 ½"	48.3	300 bar	150 bar	2.6	600 bar
50	2"	60.3	300 bar	150 bar	2.6	600 bar
65	2 ½"	76.1	125 bar	n.a.	3.2	250 bar
80	3"	88.9	125 bar	n.a.	3.2	250 bar
100	4"	114.3	125 bar	n.a.	2.6	250 bar

#### Metric tube outside diameter

Size	OD	PN (nominal pressure) Safety factor 2	PN (IACS) Safety factor 4	s (wall thickness)	Burst pressure test
10	10	600 bar	300 bar	1.5	1137 bar
12	12	600 bar	300 bar	1.5	1137 bar
15	15	400 bar	200 bar	1.5	800 bar
16	16	400 bar	200 bar	1.5	800 bar
18	18	400 bar	200 bar	1.5	800 bar
20	20	400 bar	200 bar	2	800 bar
22	22	400 bar	200 bar	2	800 bar
25	25	400 bar	200 bar	2.5	800 bar
28	28	400 bar	200 bar	2.5	800 bar
30	30	400 bar	200 bar	3	800 bar
35	35	300 bar	150 bar	3	600 bar
38	38	300 bar	150 bar	3	600 bar
42	42	300 bar	150 bar	3	600 bar

 $\label{eq:linear_problem} \mbox{All figures in mm; others are specially marked. Misprints and technical changes reserved.}$ 



## HAELOK® PRODUCT PORTFOLIO. MATERIAL STEEL (CC).

The HAELOK® product portfolio covers different types of high performance press fittings in more than 250 variants and sizes.

The unique pipe connection system, without welding and without the use of elastomeric seals, guarantees a hermetic seal for pipe diameters from 10 mm to 114.3 mm (4") HAELOK®- fittings can be made of **galvanized steel**1.0570 (AISI 1024) or stainless steel 1.4404 (AISI 316L). The system is specially designed for applications under vibration, high pressure and high temperature.

In summary, the HAELOK $^{\circ}$  system is suitable for almost all industrial applications, different pipe diameters, materials, pressures and temperature ranges as well as fluids and gases.

HAELOK®. THE ORIGINAL.

#### Material Steel CC:

Enclosure: C-Steel (CC) 1.0570 (AISI 1024) galvanized Press ring: C-Stahl (CC)1.0570 (AISI 1024) galvanized

## **HAELOK®**Straight Fitting HLK-10SF

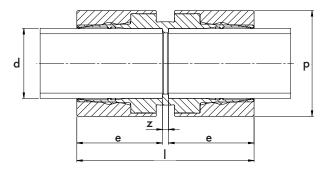
The HAELOK® fitting, type "SF" (Straight Fitting), is used for a straight connection of two pipes. The fitting consists of a total of three permanently mounted components; a base body and two press rings.





#### Short overview

- Temperature range from -20°C to + 300°C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10305, EN 10220, EN 10255, ASTM A213
- Pipe diameter from ø 13.5 ø 114.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see pages 14/15



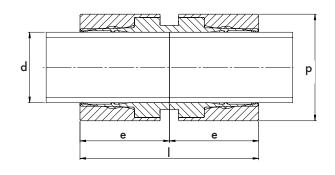
#### C-Steel (CC) + galvanized

Article No.	d	DN	р	1	е	z	Weight (g)	VE (Pcs.)
HLK-10SF-13-CC	1/4"	8	22	37	17	3	55	20
HLK-10SF-17-CC	3/8"	10	29	52	25	2	160	20
HLK-10SF-20-CC	20		32	52	25	2	178	20
HLK-10SF-21-CC	1/2"	15	34	52	25	2	187	20
HLK-10SF-25-CC	25		37	52	25	2	210	20
HLK-10SF-26-CC	3/4"	20	39	52	25	2	223	20
HLK-10SF-28-CC	28		40	52	25	2	230	20
HLK-10SF-33-CC	1"	25	52	87	42	3	770	20
HLK-10SF-42-CC	1 1/4"	32	61	87	42	3	941	10
HLK-10SF-48-CC	1 ½"	40	68	87	42	3	1108	10
HLK-10SF-60-CC	2"	50	81	87	42	3	1445	10
HLK-10SF-76-CC	2 ½"	65	103	155	75	5	4060	2
HLK-10SF-88-CC	3"	80	120	155	75	5	5560	2
HLK-10SF-114-CC	4"	100	154	155	75	5	9090	2



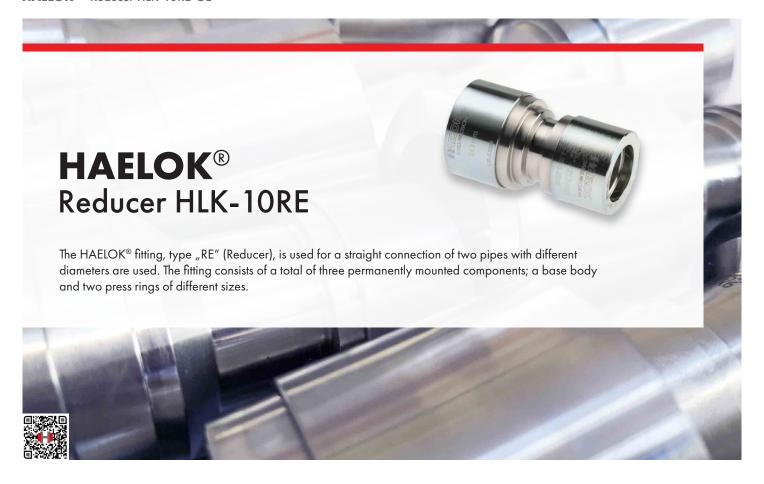


- Temperature range from -20°C to + 300°C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10305, EN 10220, EN 10255, ASTM A213
- Pipe diameter from ø 13.5 ø 114.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see pages 14/15



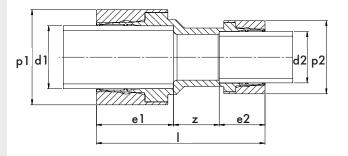
#### C-Steel (CC) + galvanized (INCH)

Article No.	d	DN	р	1	е	Weight (g)	VE (Pcs.)
HLK-10SR-13-CC	1/4"	8	22	37	18.5	55	20
HLK-10SR-17-CC	3/8"	10	29	52	26	160	20
HLK-10SR-20-CC	20		32	52	26	176	20
HLK-10SR-21-CC	1/2"	15	34	52	26	187	20
HLK-10SR-25-CC	25		37	52	26	208	20
HLK-10SR-26-CC	3/4"	20	39	52	26	223	20
HLK-10SR-28-CC	28		40	52	26	228	20
HLK-10SR-33-CC	1"	25	52	87	43.5	770	20
HLK-10SR-42-CC	1 1/4"	32	61	87	43.5	941	10
HLK-10SR-48-CC	1 ½"	40	68	87	43.5	1108	10
HLK-10SR-60-CC	2"	50	81	87	43.5	1445	10
HLK-10SR-76-CC	2 ½"	65	103	155	77.5	4060	2
HLK-10SR-88-CC	3"	80	120	155	77.5	5560	2
HLK-10SR-114-CC	4"	100	154	155	77.5	9090	2





- Temperature range from -20  $^{\circ}$ C to + 300  $^{\circ}$ C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10305, EN 10220, EN 10255, ASTM A213
- Pipe diameter from ø 13.5 ø 60.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see pages 14/15



#### C-Steel (CC) + galvanized (INCH)

Article No.	d1	рl	e1	d2	p2	e2	1	z	Weight (g)	VE (Pcs.)
HLK-10RE-17-13-CC	%"	29	25	1/4"	22	17	52	10	117	5
HLK-10RE-21-17-CC	1/2"	34	25	3%"	29	25	58	8	183	5
HLK-10RE-26-17-CC	3/4"	39	25	1/4"	29	25	58	8	205	5
HLK-10RE-26-21-CC	3/4"	39	25	1/2"	34	25	58	8	220	5
HLK-10RE-33-26-CC	1"	52	42	3/4"	39	25	92	25	564	5
HLK-10RE-33-21-CC	1"	52	42	1/2"	34	25	92	25	534	5
HLK-10RE-42-33-CC	1 1/4"	61	42	1"	52	42	100	16	933	5
HLK-10RE-42-26-CC	1 1/4"	61	42	3/4"	39	25	92	25	667	5
HLK-10RE-42-21-CC	1 1/4"	61	42	1/2"	34	25	92	25	650	5
HLK-10RE-48-42-CC	1 ½"	68	42	1 1/4"	61	42	100	16	1107	5
HLK-10RE-48-33-CC	1 ½"	68	42	1"	52	42	100	16	1036	5
HLK-10RE-48-26-CC	1 ½"	68	42	3/4"	39	25	102	35	780	5
HLK-10RE-60-48-CC	2"	81	42	1 ½"	68	42	100	16	1385	5
HLK-10RE-60-42-CC	2"	81	42	1 1/4"	61	42	100	16	1304	5
HLK-10RE-60-33-CC	2"	81	42	1"	52	42	100	16	1243	5

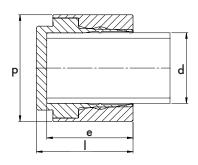
All figures in mm; others are specially marked. Misprints and technical changes reserved.

All reductions can be manufactured on request.





- Temperature range from -20°C to + 300°C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10305, EN 10220, EN 10255, ASTM A213
- Pipe diameter from ø 13.5 ø 114.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see pages 14/15



#### C-Steel (CC) + galvanized

Article No.	d	DN	р	I	е	Weight (g)	VE (Pcs.)
HLK-10EC-13-CC	1/4"	8	22	22	17	35	5
HLK-10EC-17-CC	3%"	10	29	30	25	89	5
HLK-10EC-20-CC	20		32	30	25	106	5
HLK-10EC-21-CC	1/2"		33	30	25	111	5
HLK-10EC-25-CC	25	15	37	30	25	130	5
HLK-10EC-26-CC	3/4"		39	30	25	139	5
HLK-10EC-28-CC	28	20	40	30	25	145	5
HLK-10EC-33-CC	1"	25	52	47	42	432	5
HLK-10EC-42-CC	1 1/4"	32	61	47	42	538	5
HLK-10EC-48-CC	1 ½"	40	68	47	42	639	5
HLK-10EC-60-CC	2"	50	81	47	42	906	5
HLK-10EC-76-CC	2 ½"	65	103	88	76	2495	2
HLK-10EC-88-CC	3"	80	120	88	76	3505	2
HLK-10EC-114-CC	4"	100	136	88	76	5704	2

### HAELOK® Fitting Thread Internal HLK-10TI

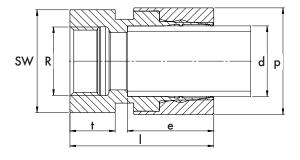
The HAELOK® fitting, type "TI" (Thread Internal) is used to connect or extinguishing nozzles. The fitting consists of a total of two permanently mounted components; a base body and a press ring. Special designs with special threads e.g. NPT are possible.





#### Short overview

- Temperature range from -20°C to + 300°C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10305, EN 10220, EN 10255, ASTM A213
- Pipe diameter from ø 21.3 ø 60.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see pages 14/15



#### C-Steel (CC) + galvanized

Article No.	d	R	р	1	е	t	SW	Weight (g)	VE (Pcs.)
HLK-10TI-21-R12-CC	1/2"	1/2"	34	50	25	18	34	200	5
HLK-10TI-25-R34-CC	25	3/4"	37	51	25	18	37	226	5
HLK-10TI-26-R34-CC	3/4"	3/4"	39	51	25	18	39	283	5
HLK-10TI-28-R34-CC	28	3/4"	40	51	25	18	40	284	5
HLK-10TI-33-R1-CC	1"	1"	52	70	42	22	52	520	5
HLK-10TI-42-R114-CC	1 1/4"	1 1/4"	61	70	42	24	61	828	5
HLK-10TI-48-R112-CC	1 ½"	1 ½"	68	70	42	26	68	1024	5
HLK-10TI-60-R2-CC	2"	2"	82	70	42	29	82	1131	5

Other dimensions on request.

## **HAELOK**® Fitting Thread External HLK-10TE



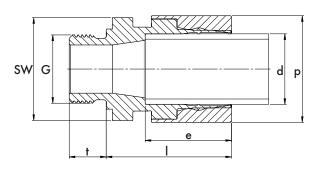
The HAELOK® fitting, type "TE" (Thread External), is used to connect pumps or valves. In general the thread is manufactured according to type "B" with sealing edge. The fitting consists of two permanently mounted components; a base body and a press ring. Special designs with special threads e.g. NPT are possible.





#### Short overview

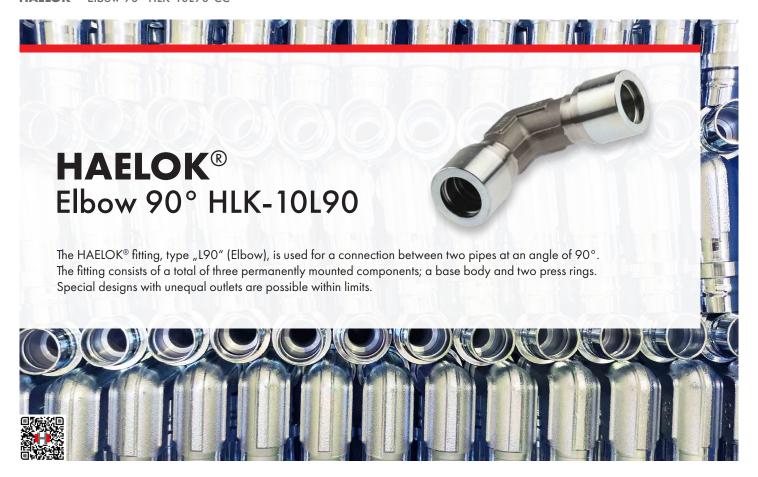
- Temperature range from -20°C to + 300°C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10305, EN 10220, EN 10255, ASTM A213
- Pipe diameter from ø 21.3 ø 60.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see pages 14/15



#### C-Steel (CC) + galvanized

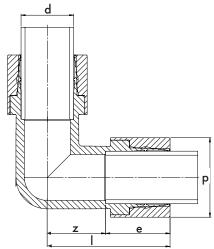
Article No.	٦	R	_	1		1	SW	\\/-:- -+/\	\/E /D \
Afficie No.	d	K	р		е	ī	344	Weight (g)	VE (Pcs.)
HLK-10TE-21-G12B-CC	1/2"	1/2"	34	41	25	14	36	192	5
HLK-10TE-25-G12B-CC	25	1/2"	37	42	25	16	36	219	5
HLK-10TE-26-G34B-CC	3/4"	3/4"	29	42	25	16	41	254	5
HLK-10TE-28-G34B-CC	28	3/4"	40	42	25	16	41	249	5
HLK-10TE-33-G1B-CC	1"	1"	52	61	42	18	50	615	5
HLK-10TE-42-G114B-CC	1 1/4"	1 1/4"	61	62	42	20	60	<i>7</i> 95	5
HLK-10TE-48-G112B-CC	1 ½"	1 ½"	68	62	42	22	70	952	5
HLK-10TE-60-G2B-CC	2"	2"	82	66	42	24	75	1233	5

Other dimensions on request.





- $^{\text{-}}$  Temperature range from -20  $^{\circ}\text{C}$  to + 300  $^{\circ}\text{C}$
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10305, EN 10220, EN 10255, ASTM A213
- Pipe diameter from ø 17.2 ø 60.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see pages 14/15



#### C-Steel (CC) + galvanized

Article No.	d	р	I	е	z	Weight (g)	VE (Pcs.)
HLK-10L90-17-CC	<b>%</b> "	29	60	25	35	288	5
HLK-10L90-21-CC	1/2"	34	65	25	40	369	5
HLK-10L90-25-CC	25	37	65	25	40	476	5
HLK-10L90-26-CC	3/4"	39	65	25	40	432	5
HLK-10L90-28-CC	28	40	65	25	40	419	5
HLK-10L90-33-CC	1"	52	80	42	38	1110	5
HLK-10L90-42-CC	1 1/4"	61	95	42	53	1765	5
HLK-10L90-48-CC	1 ½"	68	95	42	53	1723	5
HLK-10L90-60-CC	2"	82	100	42	58	2511	5

# HAELOK® Union Tee HLK-10T3



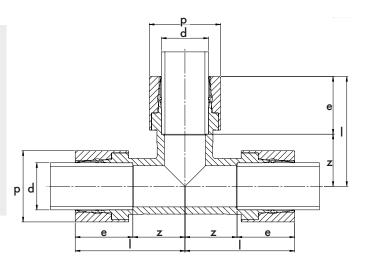
The HAELOK® fitting, type "T3" (Equal-T), is used as a connection between three pipes. The fitting consists of a total of four permanently mounted components; a base body and three press rings. Special designs with unequal outlets (TR/T-reduced) are possible within limits.





#### Short overview

- Temperature range from -20°C to + 300°C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10305, EN 10220, EN 10255, ASTM A213
- Pipe diameter from ø 17.2 ø 60.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see pages 14/15



#### C-Steel (CC) + galvanized

Article No.	d	р	1	е	z	Weight (g)	VE (Pcs.)
HLK-10T3-17-CC	3/8"	29	60	25	35	415	5
HLK-10T3-21-CC	1/2"	34	65	25	40	513	5
HLK-10T3-25-CC	25	37	65	25	40	661	5
HLK-10T3-26-CC	3/4"	39	65	25	40	604	5
HLK-10T3-28-CC	28	40	65	25	40	590	5
HLK-10T3-33-CC	1"	52	80	42	38	1558	5
HLK-10T3-42-CC	1 1/4"	61	95	42	53	2420	5
HLK-10T3-48-CC	1 ½"	68	95	42	53	2411	5
HLK-10T3-60-CC	2"	82	100	42	58	3484	5



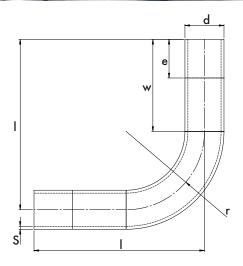
The HAELOK® fitting, type "BP90" (Bended Pipe) is used for a connection between two pipes at an angle of 90°. The pipe is bent to guarantee a better flow and can be completed with all HAELOK® fittings. The article consists of one pipe in total.





#### Short overview

- Temperature range from -20  $^{\circ}$ C to + 300  $^{\circ}$ C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10305, EN 10220, EN 10255, ASTM A213
- Pipe diameter from ø 42.2 ø 60.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see pages 14/15



#### C-Steel (CC) + galvanized

Article No.	d	r	S	е	W	I	Weight (g)	VE (Pcs.)
HLK-10BP90-42-CC	1 1/4"	85	3.2	42	100	185	1052	1
HLK-10BP90-48-CC	1 ½"	100	3.2	42	100	185	1295	1
HLK-10BP90-60-CC	2"	120	3.6	42	100	185	1830	1

The BENDED PIPE 90° can be supplied in the sizes, angles, radii and wall thicknesses you require, as well as with and without fittings. The Bended pipe is delivered without an HAELOK® fitting.

### HAELOK® DIN-Flange HLK-10FD



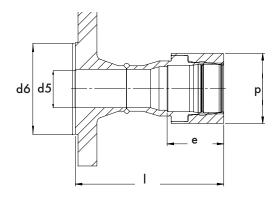
The HAELOK® fitting, type "FD" (Flange DIN), is a detachable connection to valves, pumps and tanks. We offer from stock PN40 flange connections according to DIN 2633, standard sizes range from DN 20 to DN 50. The flanges are supplied without gaskets and fasteners. The hole pattern also fits flanges of the PN16 and PN25 series.

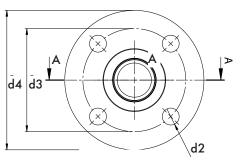




#### Short overview

- Temperature range from -20°C to + 300°C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10305, EN 10220, EN 10255, ASTM A213
- Pipe diameter from ø 26.7 ø 60.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see pages 14/15





#### C-Steel (CC) + galvanized

Article No.	d	р	1	е	d2	d3	d4	d5	d6	Weight (g)	VE (Pcs.)
HLK-10FD-PN40-26-CC	3/4"	39	87	25	14	85	105	20.9	58	1252	2
HLK-10FD-PN40-33-CC	1"	52	110	42	14	85	115	28.5	68	1787	2
HLK-10FD-PN40-42-CC	1 1/4	61	116	42	18	100	140	37.2	78	2490	2
HLK-10FD-PN40-48-CC	1 ½"	68	121	42	18	110	150	43.1	88	2896	2
HLK-10FD-PN40-60-CC	2"	81	130	42	18	125	165	54.5	102	3884	2



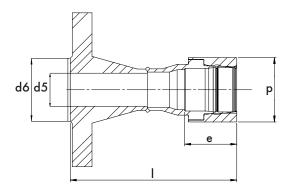
The HAELOK® fitting, type "FA" (Flange ASME/ANSI), is a detachable connection to valves, pumps and tanks. HAELOK® offers from stock PN40 flange connections according to ASME B16.5. The fitting consists of a total of two completely assembled components; a base body and a press ring. The flanges are supplied without gaskets and fasteners.

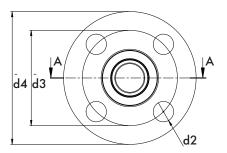




#### Short overview

- Temperature range from -20°C to + 300°C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10305, EN 10220, EN 10255, ASTM A213
- Pipe diameter of ø 33.4 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see pages 14/15





#### C-Steel (CC) + galvanized

Article No.	d	р	1	е	d2	d3	d4	d5	d6	Weight (g)	VE (Pcs.)
HLK-10FD-PN40-33-CC	1"	52	110	42	14	85	115	28.5	68	1787	2

ASME/ANSI flanges can be produced in different sizes on request.

## **HAELOK®**SAE Flange HLK-10FS



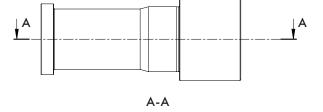
The HAELOK® fitting, type "FS" (SAE flange), is used for a straight connection with a counter flange. SAE Flanges according to DIN ISO 6162-1 (Code 61) pressure class 3000 PSI / 207 bar. The flanges are supplied with O-ring and two half flanges. Half flanges can only be connected to each other with a connecting plate. The advantage of this connection is the freely rotating assembly.

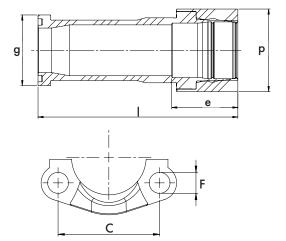


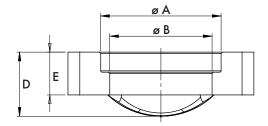


#### Short overview

- Temperature range from -20  $^{\circ}\text{C}$  to + 300  $^{\circ}\text{C}$
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10305, EN 10220, EN 10255, ASTM A213
- Pipe diameter of ø 33.4 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see pages 14/15



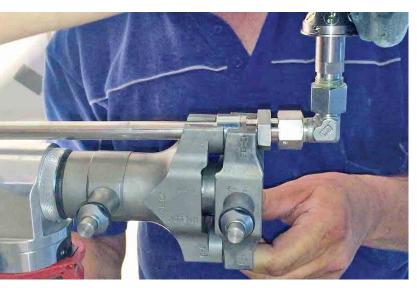




#### C-Steel (CC) + galvanized

Article No.	d	р	1	е	g	С	D	Е	F	øA	øB	d5	Weight (g)	VE (Pcs.)
HLK-10FS-33-CC	1"	52	127	42	44.45	52.4	24	16	10.75	45.3	38.5	28	670	2









## HAELOK® PRODUCT PORTFOLIO. MATERIAL STAINLESS STEEL (XX).

The HAELOK® product portfolio comprises different types of high performance press fittings in more than 250 variants and sizes.

The unique pipe connection system, without welding and without the use of elastomeric seals, guarantees a hermetic seal for pipe diameters of 10 mm to 114.3 mm (4"). HAELOK® fittings can be made of galvanized steel 1.0570 (AISI 1024) or **stainless steel 1.4404 (AISI 316L)**. The system is specially designed for applications under vibration, high pressure and high temperature.

In summary, the HAELOK®- system is suitable for almost all industrial applications, different pipe diameters, materials, pressures and temperature ranges as well as fluids and gases.

HAELOK®. ALL FROM ONE PROVIDER.

Material Stainless Steel XX:

Enclosure: Stainless steel(XX) 1.4404 (AISI 316L) Press ring: Stainless steel (XX) 1.4404 (AISI 316L)

## **HAELOK®**Straight Fitting HLK-10SF

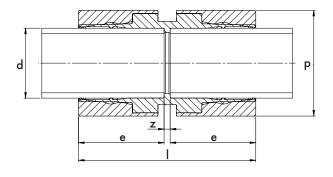
The HAELOK® fitting, type "SF" (Straight Fitting), is used for a straight connection of two pipes. The fitting consists of a total of three permanently mounted components; a base body and two press rings.





#### Short overview

- Temperature range from -190°C to + 400°C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10217-7, EN 10216-5, EN ISO 1127, A268, A269
- Pipe diameter from ø 10 ø 114.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see page 16/17



#### Stainless Steel (XX)

Article No.	d	DN	р	I	е	z	Weight (g)	VE (Pcs.)
HLK-10SF-10-XX	10		22	37	17	3	73	10
HLK-10SF-12-XX	12		22	37	17	3	65	10
HLK-10SF-13-XX	1/4"	8	22	37	17	3	55	10
HLK-10SF-15-XX	15		27	52	25	2	145	10
HLK-10SF-16-XX	16		27	52	25	2	133	10
HLK-10SF-17-XX	3/8"	10	29	52	25	2	160	10
HLK-10SF-18-XX	18		29	52	25	2	148	10
HLK-10SF-20-XX	20		32	52	25	2	178	10
HLK-10SF-21-XX	1/2"	15	34	52	25	2	187	10
HLK-10SF-22-XX	22		34	52	25	2	190	10
HLK-10SF-25-XX	25		37	52	25	2	210	10
HLK-10SF-26-XX	3/4"	20	39	52	25	2	223	10
HLK-10SF-28-XX	28		40	52	25	2	230	10
HLK-10SF-30-XX	30		47	87	42	3	645	10
HLK-10SF-33-XX	1"	25	52	87	42	3	770	10

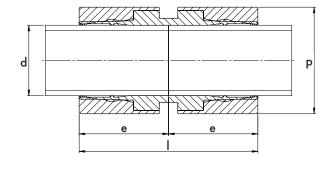
Article Nr.	d	DN	р	1	е	z	Weight (g)	VE (Pcs.)
HLK-10SF-35-XX	35		54	87	42	3	818	10
HLK-10SF-38-XX	38		55	87	42	3	778	10
HLK-10SF-42-XX	1 1/4"	32	61	87	42	3	941	10
HLK-10SF-48-XX	1 ½"	40	68	87	42	3	1108	10
HLK-10SF-60-XX	2"	50	81	87	42	3	1445	10
HLK-10SF-76-XX	2 ½"	65	103	155	75	5	4060	2
HLK-10SF-88-XX	1 ½"	80	120	155	75	5	5560	2
HLK-10SF-114-XX	4"	100	154	155	75	5	9090	2





#### Short overview

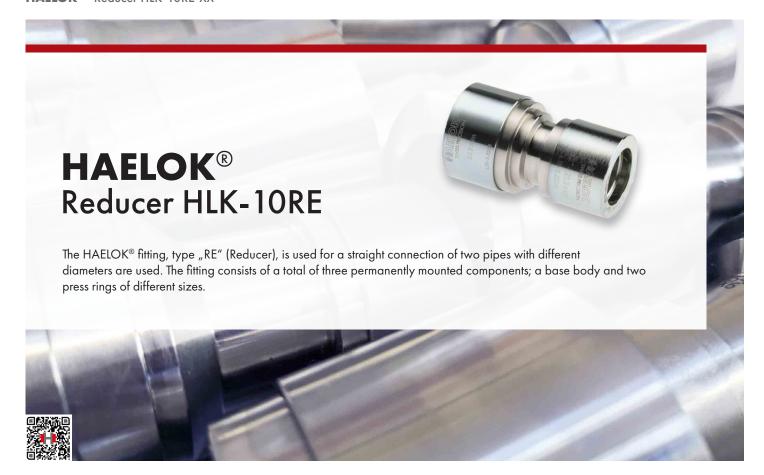
- Temperature range from -190  $^{\circ}$ C to + 400  $^{\circ}$ C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10217-7, EN 10216-5, EN ISO 1127, A268, A269
- Pipe diameter from ø 10 ø 114.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see page 16/17



#### Stainless steel (XX)

Article No.	d	DN	р	1	е	Weight (g)	VE (Pcs.)
HLK-10SR-10-XX	10		22	37	18.5	73	10
HLK-10SR-12-XX	12		22	37	18.5	63	10
HLK-10SR-13-XX	1/4"	8	22	37	18.5	55	10
HLK-10SR-15-XX	15		27	52	26	144	10
HLK-10SR-16-XX	16		27	52	26	133	10
HLK-10SR-17-XX	%"	10	29	52	26	160	10
HLK-10SR-18-XX	18		29	52	26	145	10
HLK-10SR-20-XX	20		32	52	26	176	10
HLK-10SR-21-XX	1/2"	15	34	52	26	187	10
HLK-10SR-22-XX	22		34	52	26	190	10
HLK-10SR-25-XX	25		37	52	26	208	10
HLK-10SR-26-XX	3/4"	20	39	52	26	223	10
HLK-10SR-28-XX	28		40	52	26	228	10
HLK-10SR-30-XX	30		47	87	43.5	640	10
HLK-10SR-33-XX	1"	25	52	87	43.5	770	10

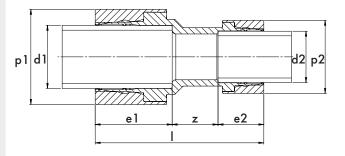
Article No.	d	DN	р	I	е	Weight (g)	VE (Pcs.)
HLK-10SR-35-XX	35		55	87	43,5	814	10
HLK-10SR-38-XX	38		55	87	43,5	773	10
HLK-10SR-42-XX	1 1/4"	32	61	87	43,5	941	10
HLK-10SR-48-XX	1 1/2"	40	68	87	43,5	1108	10
HLK-10SR-60-XX	2"	50	82	87	43,5	1445	10
HLK-10SR-76-XX	1 1/4"	65	103	155	77.5	4060	2
HLK-10SR-88-XX	1 ½"	80	120	155	77.5	5560	2
HLK-10SR-114-XX	4"	100	154	155	77.5	9090	2





#### Short overview

- Temperature range from -190  $^{\circ}$ C to + 400  $^{\circ}$ C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10217-7, EN 10216-5, EN ISO 1127, A268, A269
- Pipe diameter from ø 10 ø 60.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see page 16/17



#### Stainless steel (XX) (METRIC)

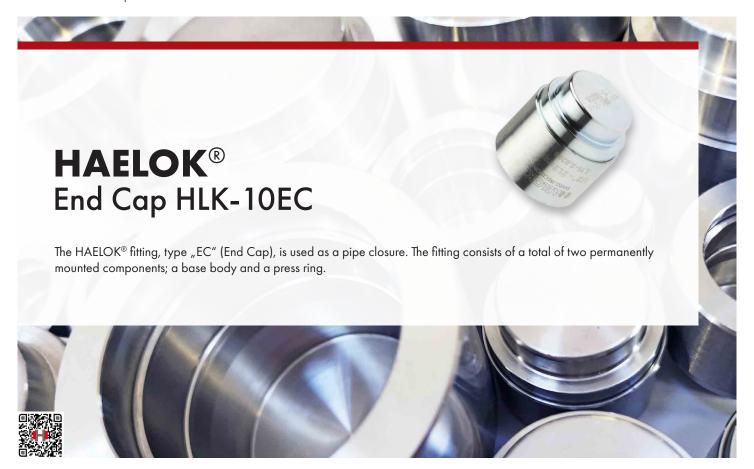
Article No.	d1	рl	e1	d2	p2	e2	1	Z	Weight (g)	VE (Pcs.)
HLK-10RE-12-10-XX	12	22	17	10	22	17	38	4	69	5
HLK-10RE-16-12-XX	16	27	25	12	22	17	52	10	110	5
HLK-10RE-20-16-XX	20	32	25	16	27	25	58	8	165	5
HLK-10RE-22-18-XX	22	34	25	18	29	25	58	8	180	5
HLK-10RE-25-10-XX	25	37	25	20	32	25	58	8	207	5
HLK-10RE-28-22-XX	28	40	25	22	34	25	58	8	227	5
HLK-10RE-30-25-XX	30	47	42	25	37	25	75	8	446	5
HLK-10RE-35-28-XX	35	54	42	28	40	25	92	25	596	5
HLK-10RE-38-30-XX	38	55	42	30	47	42	100	16	600	5

#### Stainless steel (XX) (INCH)

Article No.	d1	d2	рl	e1	p2	e2	1	Z	Weight (g)	VE (Pcs.)
HLK-10RE-17-13-XX	3∕8"	1/4"	29	25	22	17	52	10	117	5
HLK-10RE-21-17-XX	1/2"	¾"	34	25	29	25	58	8	183	5
HLK-10RE-26-17-XX	3/4"	1/4"	39	25	29	25	58	8	205	5
HLK-10RE-26-21-XX	3/4"	1/2"	39	25	34	25	58	8	220	5
HLK-10RE-33-21-XX	1"	1/2"	52	42	34	25	92	25	534	5
HLK-10RE-33-26-XX	1"	3/4"	52	42	39	25	92	25	564	5
HLK-10RE-42-21-XX	1 1/4"	1/2"	61	42	34	25	92	25	650	5
HLK-10RE-42-26-XX	1 1/4"	3/4"	61	42	39	25	92	25	667	5
HLK-10RE-42-33-XX	1 1/4"	1"	61	42	52	42	100	16	933	5
HLK-10RE-48-26-XX	1 ½"	3/4"	68	42	39	25	102	35	780	5
HLK-10RE-48-33-XX	1 ½"	1"	68	42	52	42	100	16	1036	5
HLK-10RE-48-42-XX	1 ½"	1 1/4"	68	42	61	42	100	16	1107	5
HLK-10RE-60-33-XX	2"	1"	81	42	52	42	100	16	1243	5
HLK-10RE-60-42-XX	2"	1 1/4"	81	42	61	42	100	16	1304	5
HLK-10RE-60-48-XX	4"	1 ½"	81	42	68	42	100	16	1385	5

Other reductions can be manufactured on request.

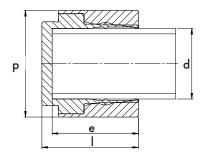
 $\label{eq:linear_problem} \mbox{All figures in mm; others are specially marked. Misprints and technical changes reserved.}$ 





#### Short overview

- Temperature range from -190  $^{\circ}$ C to + 400  $^{\circ}$ C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10217-7, EN 10216-5, EN ISO 1127, A268, A269
- Pipe diameter from ø 10 ø 114.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see page 16/17



#### Stainless steel (XX) (METRIC)

Article No.	d	р	I	е	Weight (g)	VE (Pcs.)
HLK-10EC-10-XX	10	22	22	17	43	5
HLK-10EC-12-XX	12	22	22	17	39	5
HLK-10EC-13-XX	1/4"	22	22	17	35	5
HLK-10EC-15-XX	15	27	30	25	84	5
HLK-10EC-16-XX	16	27	30	25	79	5
HLK-10EC-17-XX	3/8"	29	30	25	89	5
HLK-10EC-18-XX	18	29	30	25	87	5
HLK-10EC-20-XX	20	32	30	25	106	5
HLK-10EC-21-XX	1/2"	33	30	25	111	5
HLK-10EC-22-XX	22	34	30	25	114	5
HLK-10EC-25-XX	25	37	30	25	130	5
HLK-10EC-26-XX	3/4"	39	30	25	139	5
HLK-10EC-28-XX	28	40	30	25	145	5
HLK-10EC-30-XX	30	47	47	42	359	5
HLK-10EC-33-XX	1"	52	47	42	432	5

Article No.	d	р	I	е	Weight (g)	VE (Pcs.)
HLK-10EC-35-XX	35	54	47	42	458	5
HLK-10EC-38-XX	38	55	47	42	445	5
HLK-10EC-42-XX	1 1/4"	61	47	42	538	5
HLK-10EC-48-XX	1 1/2"	68	47	42	639	5
HLK-10EC-60-XX	2"	81	47	42	906	5
HLK-10EC-76-XX	2 ½"	103	88	76	2495	2
HLK-10EC-88-XX	3"	120	88	76	3505	2
HLK-10EC-114-XX	4"	136	88	76	5704	2

 $\label{eq:linear_problem} \mbox{All figures in mm; others are specially marked. Misprints and technical changes reserved.}$ 



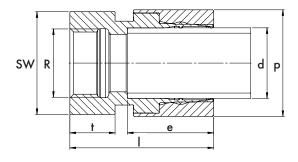
The HAELOK® fitting, type "TI" (Thread Internal) is used to connect or extinguishing nozzles. The fitting consists of a total of two permanently mounted components; a base body and a press ring. Special designs with special threads e.g. NPT are possible.





#### Short overview

- Temperature range from -190  $^{\circ}$ C to + 400  $^{\circ}$ C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10217-7, EN 10216-5, EN ISO 1127, A268, A269
- Pipe diameter from ø 10 ø 60.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see page 16/17



#### Stainless steel (XX) (METRIC)

Article No.	d	R	р	1	е	t	SW	Weight (g)	VE (Pcs.)
HLK-10TI-10-R14-XX	10	1/2"	22	39	17	13	22	85	5
HLK-10TI-12-R12-XX	12	1/2"	22	43	1 <i>7</i>	16	27	100	5
HLK-10TI-13-R12-XX	1/4"	1/2"	22	37	17	16	27	95	5
HLK-10TI-15-R12-XX	15	1/2"	27	50	25	12	27	138	5
HLK-10TI-16-R12-XX	16	1/2"	27	50	25	16	27	131	5
HLK-10TI-17-R38-XX	3/8"	%"	29	46	25	12	29	163	5
HLK-10TI-18-R38-XX	18	%"	29	46	25	13	29	160	5
HLK-10TI-20-R12-XX	20	1/2"	32	50	25	18	32	194	5
HLK-10TI-21-R12-XX	1/2"	1/2"	34	50	25	18	34	200	5
HLK-10TI-22-R12-XX	22	1/2"	34	51	25	18	32	245	5
HLK-10TI-25-R34-XX	25	3/4"	37	51	25	18	37	226	5
HLK-10TI-26-R34-XX	3/4"	3/4"	39	51	25	18	39	283	5
HLK-10TI-28-R34-XX	28	3/4"	40	50	25	18	40	284	5

Article No.	d	R	р	I	е	t	SW	Weight (g)	VE (Pcs.)
HLK-10TI-30-R1-XX	30	1"	47	70	25	19	50	423	5
HLK-10TI-33-R1-XX	1"	1"	52	70	42	22	52	520	5
HLK-10TI-42-R114-XX	1 1/4"	1 1/4"	61	70	42	24	61	828	5
HLK-10TI-48-R112-XX	1 ½"	1 ½"	68	70	42	26	68	1042	5
HLK-10TI-60-R2-XX	2"	2"	82	70	42	29	82	1131	5

## HAELOK® Fitting Thread External HLK-10TE



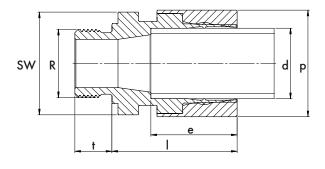
The HAELOK® fitting, type "TE" (Thread External), is used to connect pumps or valves. In general the thread is manufactured according to type "B" with sealing edge. For selected sizes type "E" with Viton sealing ring is also available. The fitting consists of a total of two permanently mounted components; a base body and a press ring.





#### Short overview

- Temperature range from -190°C to + 400°C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10217-7, EN 10216-5, EN ISO 1127, A268, A269
- Pipe diameter from ø 10 ø 60.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see page 16/17



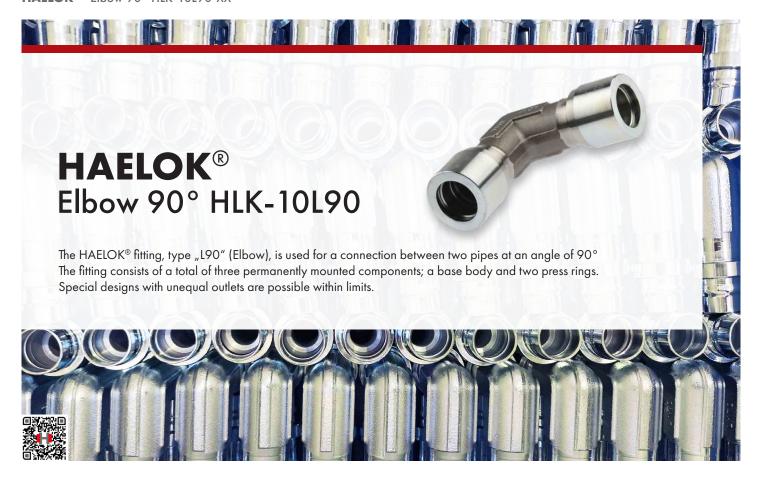
#### Stainless steel (XX) (Sealing type B)

Artcle No.	d	R	р	1	е	t	SW	Weight (g)	VE (Pcs.)
HLK-10TE-10-G14B-XX	10	1/4"	22	30	17	12	22	69	5
HLK-10TE-12-G12B-XX	12	1/2"	21.4	33	17	14	27	109	5
HLK-10TE-13-G12B-XX	1/4"	1/2"	21.4	33	17	14	27	99	5
HLK-10TE-15-G12B-XX	15	1/2"	27	41	25	14	27	138	5
HLK-10TE-16-G12B-XX	16	1/2"	27	41	25	14	27	128	5
HLK-10TE-17-G38B-XX	<b>%</b> "	<b>%</b> "	29	38	25	12	30	136	5
HLK-10TE-18-G38B-XX	18	<b>%</b> "	29	38	25	12	30	135	5
HLK-10TE-20-G12B-XX	20	1/2"	32	41	25	14	36	1 <i>7</i> 5	5
HLK-10TE-21-G12B-XX	1/2"	1/2"	34	41	25	14	34	192	5
HLK-10TE-22-G12B-XX	22	1/2"	34	41	25	14	36	196	5
HLK-10TE-25-G34B-XX	25	3/4"	37	42	25	16	36	219	5
HLK-10TE-26-G34B-XX	3/4"	3/4"	39	42	25	16	41	254	5
HLK-10TE-28-G34B-XX	28	3/4"	40	42	25	16	41	249	5
HLK-10TE-30-G1B-XX	30	1"	51.9	61	42	18	46	505	5

Article No.	d	R	р	1	е	t	SW	Weight (g)	VE (Pcs.)
HLK-10TE-33-G1B-XX	1"	1"	52	61	42	18	50	615	5
HLK-10TE-42-G114B-XX	1 1/4"	1 1/4"	61	62	42	20	60	795	5
HLK-10TE-48-G112B-XX	1 ½"	1 ½"	68	62	42	22	70	952	5
HLK-10TE-60-G2B-XX	2"	2"	82	66	42	24	75	1233	5

#### Stainless steel (XX) (Sealing type E/Viton Ring)

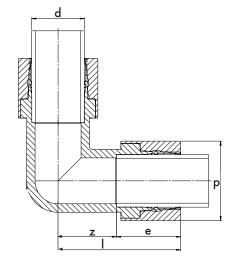
Article No.	d	R	р	1	е	t	SW	Weight (g)	VE (Pcs.)
HLK-10TE-12-G12E-XX	12	1/2"	21.4	33	17	14	27	108	5





#### Short overview

- Temperature range from -190  $^{\circ}$ C to + 400  $^{\circ}$ C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10217-7, EN 10216-5, EN ISO 1127, A268, A269
- Pipe diameter from ø 10 ø 60.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see page 16/17



#### Stainless steel (XX)

Article No.	d	р	1	е	z	Weight (g)	VE (Pcs.)
HLK-10L90-10-XX	10	22	50	17	33	137	5
HLK-10L90-12-XX	12	22	50	17	33	127	5
HLK-10L90-13-XX	1/4"	27	50	17	33	107	5
HLK-10L90-15-XX	15	27	60	25	35	272	5
HLK-10L90-16-XX	16	27	60	25	35	262	5
HLK-10L90-17-XX	3/8"	29	60	25	35	288	5
HLK-10L90-18-XX	18	29	60	25	35	269	5
HLK-10L90-20-XX	20	32	65	25	40	375	5
HLK-10L90-21-XX	1/2"	34	65	25	40	369	5
HLK-10L90-22-XX	22	34	65	25	40	360	5
HLK-10L90-25-XX	25	37	65	25	40	476	5
HLK-10L90-26-XX	3/4"	39	65	25	40	432	5
HLK-10L90-28-XX	28	40	65	25	40	419	5
HLK-10L90-30-XX	30	47	80	42	38	939	5

Article No.	d	р	1	е	z	Weight (g)	VE (Pcs.)
HLK-10L90-33-XX	1"	52	80	42	38	1111	5
HLK-10L90-35-XX	35	53.5	80	42	38	1235	5
HLK-10L90-38-XX	38	54.9	80	42	38	1150	5
HLK-10L90-42-XX	1 1/4"	61	95	42	53	1765	5
HLK-10L90-48-XX	1 ½"	68	95	42	53	1723	5
HLK-10L90-60-XX	2"	82	100	42	58	2520	5

 $\label{eq:linear_problem} \mbox{All figures in mm; others are specially marked. } \mbox{Misprints and technical changes reserved.}$ 



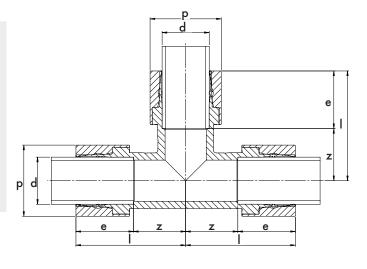
The HAELOK® fitting, type "T3" (Equal-T), is used as a connection between three pipes. The fitting consists of a total of four permanently mounted components; a base body and three press rings. Special designs with unequal outlets (TR/T-reduced) are possible.



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#### Short overview

- Temperature range from -190°C to + 400°C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10217-7, EN 10216-5, EN ISO 1127, A268, A269
- Pipe diameter from ø 10 ø 60.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see page 16/17



#### Stainless steel (XX)

Article No.	d	р	1	е	z	Weight (g)	VE (Pcs.)
HLK-10T3-10-XX	10	22	50	17	33	210	5
HLK-10T3-12-XX	12	22	50	17	33	184	5
HLK-10T3-13-XX	1/4"	27	50	17	33	157	5
HLK-10T3-15-XX	15	27	60	25	35	394	5
HLK-10T3-16-XX	16	27	60	25	35	378	5
HLK-10T3-17-XX	3 <sub>8</sub> "	29	60	25	35	415	5
HLK-10T3-18-XX	18	29	60	25	35	392	5
HLK-10T3-20-XX	20	32	65	25	40	519	5
HLK-10T3-21-XX	1/2"	34	65	25	40	513	5
HLK-10T3-22-XX	22	34	65	25	40	517	5
HLK-10T3-25-XX	25	37	65	25	40	661	5
HLK-10T3-26-XX	3/4"	39	65	25	40	604	5
HLK-10T3-28-XX	28	40	65	25	40	590	5
HLK-10T3-30-XX	30	47	80	42	38	1336	5

Article No.	d	р	1	е	z	Weight (g)	VE (Pcs.)
HLK-10T3-33-XX	1"	52	80	42	38	1558	5
HLK-10T3-35-XX	35	53.5	80	42	38	1684	5
HLK-10T3-38-XX	38	54.9	80	42	38	1577	5
HLK-10T3-42-XX	1 1/4"	61	95	42	53	2420	5
HLK-10T3-48-XX	1 ½"	68	95	42	53	2411	5
HLK-10T3-60-XX	2"	82	100	42	58	3484	5

 $\label{eq:linear_problem} \mbox{All figures in mm; others are specially marked. Misprints and technical changes reserved.}$ 



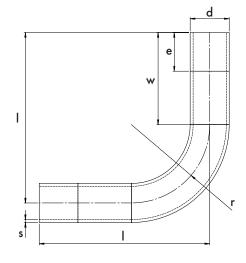
The HAELOK® fitting, type "BP90" (Bended Pipe) is used for a connection between two pipes at an angle of 90°. The pipe is bent to guarantee a better flow and can be completed with all HAELOK® fittings. The article consists of one pipe in total.





#### Short overview

- Temperature range from -190  $^{\circ}$ C to + 400  $^{\circ}$ C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10217-7, EN 10216-5, EN ISO 1127, A268, A269
- Pipe diameter from ø 42.2 ø 60.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see page 16/17



#### Stainless steel (XX)

Article No.	d	r	S	е	W	I	Weight (g)	VE (Pcs.)
HLK-10BP90-42-XX	1 1/4"	85	3.2	42	100	185	1052	1
HLK-10BP90-48-XX	1 ½"	100	3.2	42	100	185	1295	1
HLK-10BP90-60-XX	2"	120	3.2	42	100	185	1830	1

The BENDED PIPE 90° can be supplied in the sizes, radii and wall thicknesses you require, as well as with and without fittings.

### HAELOK® – DKO 24° with O-Ring HLK-10CM/CF

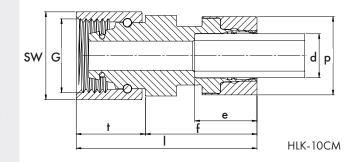
The HAELOK® fitting, type "CM / CF" (DKO), is used as a detachable connection between two pipes or for connecting hydraulic hoses or extinguishing nozzles. CM designates the male cone with union nut, CF the female cone with male thread as counterpart. The fitting consists of several permanently installed parts.

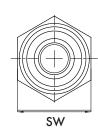


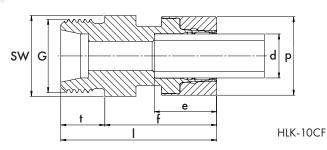


#### Short overview

- Temperature range from 190°C to + 400°C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10217-7, EN 10216-5, EN ISO 1127, A268, A269
- Pipe diameter from ø 10 ø 16 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see page 16/17







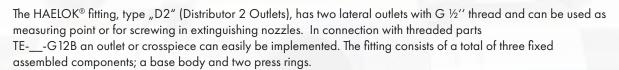
#### Stainless steel (XX)

Article No.	d	р	е	f	t	1	G	SW	Weight (g)	VE (Pcs.)
HLK-10CM-10-XX	10	21.4	17	30	16	46	M16x1.5	22	96	5
HLK-10CM-12-XX	12	21.4	17	31	11	42	M16x1.5	22	92	5
HLK-10CM-16-XX	16	27	25	38	19	57	M16x1.5	27	209	5

Article No.	d	р	е	f	t	1	G	SW	Weight (g)	VE (Pcs.)
HLK-10CF-10-XX	10	21.4	17	30	11	41	M16x1.5	22	73	5
HLK-10CF-12-XX	12	21.4	17	31	11	42	M18x1.5	22	68	5
HLK-10CF-16-XX	16	27	25	38	14	52	M24x1.5	27	132	5

Other sizes on request.

### HAELOK® Distibutor 2 outlets HLK-10D2

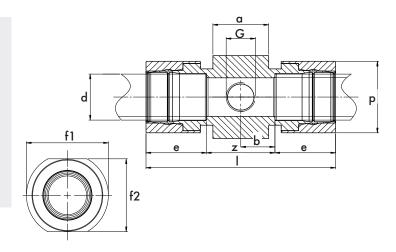






#### Short overview

- Temperature range from -190 $^{\circ}$ C to + 400 $^{\circ}$ C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN ISO 10217-7, EN 10216-5, EN ISO 1127, A268, A269
- Pipe diameter from ø 21 ø 60.3 mm
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see page 16/17



#### Stainless steel (XX)

Article No.	d	G	р	- 1	е	а	Ь	$f_1$	f2	G <sup>1)</sup>	z	Weight (g)	VE (Pcs.)
HLK-10D2-26-G12-XX	3/4"	1/2"	39	99	25	40	24.5	60	52.8	1/2"	49	885	5
HLK-10D2-28-G12-XX	28	1/2"	40	99	25	40	24.5	60	52.8	1/2"	49	887	5
HLK-10D2-30-G12-XX	30	1/2"	47	136	43.5	40	24.5	62	55.1	1/2"	49	1366	5
HLK-10D2-33-G12-XX	1"	1/2"	52	136	43.5	40	24.5	64	57.3	1/2"	49	1545	5
HLK-10D2-38-G12-XX	38	1/2"	55	136	43.5	40	24.5	66	59.5	1/2"	49	1588	5
HLK-10D2-42-G12-XX	1 1/4"	1/2"	61	136	43.5	40	24.5	80	74.8	1/2"	49	2124	5

Other sozes and four-way distributors (D4) are available on request.





# HAELOK® THERMO- DISTRICT HEATING. MATERIAL STEEL (CC).

Especially for the district heating applications HAELOK® has developed its own product line called THERMO. During the development, the focus was on economic efficiency and technical requirements. Two sides that are not always easy to implement together. HAELOK® has managed this and offers a simple and fast alternative in the field of district heating. The THERMO system is specially optimized for high pull-out forces, temperature fluctuations and for the use together with district heating pipes. Marked with the green colour HAELOK® THERMO fittings are already widely used and pressed in the market today.

#### HAELOK®. NEW FOR PROVEN.

#### Material Steel CC:

Enclosure: C-Steel (CC) 1.0570 (AISI 1024) galvanized Press ring: C-Steel (CC) 1.0570 (AISI 1024) galvanized

## HAELOK® THERMO Straight Fitting HLK-12SF



The HAELOK® THERMO fitting, type "SF" (Straight Fitting), is used for a straight connection of two district heating pipes. It is specially optimized for high pull-out forces, temperature load changes and for use according to the current specifications of AGFW FW 449.

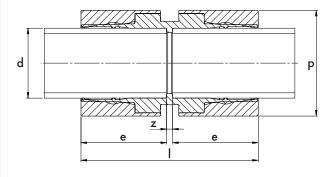
The fitting consists of a total of three permanently mounted components; a base body and two press rings.





#### Short overview

- Temperature range up to + 140°C according to AGFW
- Nominal pressure 2.5 Mpa according to AGFW
- Pipe diameter from DN15 DN100
- Technical useful life of at least 30 years
- Can be used for seamless and welded pipes according to Standards EN 10216-1, EN 10216-2, EN 10217-1, EN 10217-2, EN 253
- For detailed information by size see pages 14/15



#### C-Steel (CC) + galvanized

Article No.	d	DN	р	I	е	z	Weight (g)	VE (Pcs.)
HLK-12SF-21-CC	1/2"	15	34	52	25	2	187	20
HLK-12SF-26-CC	3/4"	20	39	52	25	2	223	20
HLK-12SF-33-CC	1"	25	52	87	42	3	770	20
HLK-12SF-42-CC	1 1/4"	32	61	87	42	3	941	10
HLK-12SF-48-CC	1 ½"	40	68	87	42	3	1108	10
HLK-12SF-60-CC	2"	50	81	87	42	3	1445	10
HLK-12SF-76-CC	2 ½"	65	103	155	75	5	4060	2
HLK-12SF-88-CC	3"	80	120	155	75	5	5560	2
HLK-12SF-114-CC	4"	100	154	155	75	5	9090	2

## **HAELOK® THERMO**Repair Fitting HLK-12SR



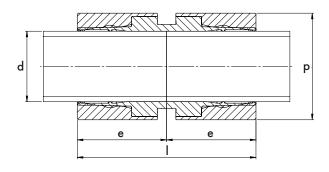
The HAELOK® THERMO fitting, type "SR" (Straight Repair) is used for a straight connection of two district heating pipes. The fitting can be moved over the whole pipe to carry out repairs. It is especially optimized for high pull-out forces, temperature load changes and for the use according to the current specifications of AGFW FW 449. The fitting consists of three fixed mounted components; a base body and two press rings.





#### Short overview

- Temperature range up to + 140 °C according to AGFW
- Nominal pressure 2.5 Mpa according to AGFW
- Pipe diameter from DN15 DN100
- Technical useful life of at least 30 years
- Can be used for seamless and welded pipes according to Standards EN 10216-1, EN 10216-2, EN 10217-1, EN 10217-2, EN 253
- For detailed information by size see pages 14/15



#### C-Steel (CC) + galvanized

Article No.	d	DN	р	1	е	Weight (g)	VE (Pcs.)
HLK-12SR-21-CC	1/2"	15	34	52	26	187	20
HLK-12SR-26-CC	3/4"	20	39	52	26	223	20
HLK-12SR-33-CC	1"	25	52	87	43.5	770	20
HLK-12SR-42-CC	1 1/4"	32	61	87	43.5	941	10
HLK-12SR-48-CC	1 1/2"	40	68	87	43.5	1108	10
HLK-12SR-60-CC	2"	50	81	87	43.5	1445	10
HLK-12SR-76-CC	2 ½"	65	103	155	77.5	4060	2
HLK-12SR-88-CC	3"	80	120	155	77.5	5560	2
HLK-12SR-114-CC	4"	100	154	155	77.5	9090	2

### HAELOK® THERMO End Cap HLK-12EC

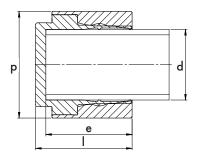


The HAELOK® THERMO fitting, type "EC" (End Cap), is used as a district heating pipe closure. It is especially optimized for high pull-out forces, temperature changes and for use according to the current specifications of AGFW FW 449 The fitting consists of two fixed components; a base body and a press ring.





- Temperature range up to +  $140\,^{\circ}\text{C}$  according to AGFW
- Nominal pressure 2.5a Mpa according to AGFW
- Pipe diameter from DN15 DN100
- Technical useful life of at least 30 years
- Can be used for seamless and welded pipes according to Standards EN 10216-1, EN 10216-2, EN 10217-1, EN 10217-2, EN 253
- For detailed information by size see pages 14/15



#### C-Steel (CC) + galvanized

Article No.	d	DN	р	1	е	Weight (g)	VE (Pcs.)
HLK-12EC-21-CC	1/2"	15	33	30	25	111	5
HLK-12EC-26-CC	3/4"	20	39	30	25	139	5
HLK-12EC-33-CC	1"	25	52	47	42	432	5
HLK-12EC-42-CC	1 1/4"	32	61	47	42	538	5
HLK-12EC-48-CC	1 ½"	40	68	47	42	639	5
HLK-12EC-60-CC	2"	50	81	47	42	906	5
HLK-12EC-76-CC	2 ½"	65	103	88	76	2495	2
HLK-12EC-88-CC	3"	80	120	88	76	3505	2
HLK-12EC-114-CC	4"	100	136	88	76	5704	2

### HAELOK® THERMO Reducer HLK-12RE



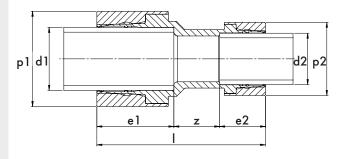
The HAELOK® THERMO fitting, type "RE" (Reducer) is used for a straight connection of two district heating pipes with different diameters. It is specially optimized for high pull-out forces, temperature changes and for use according to the current specifications of AGFW FW 449. The fitting consists of three fixed components; a base body and two press rings of different sizes.





#### Short overview

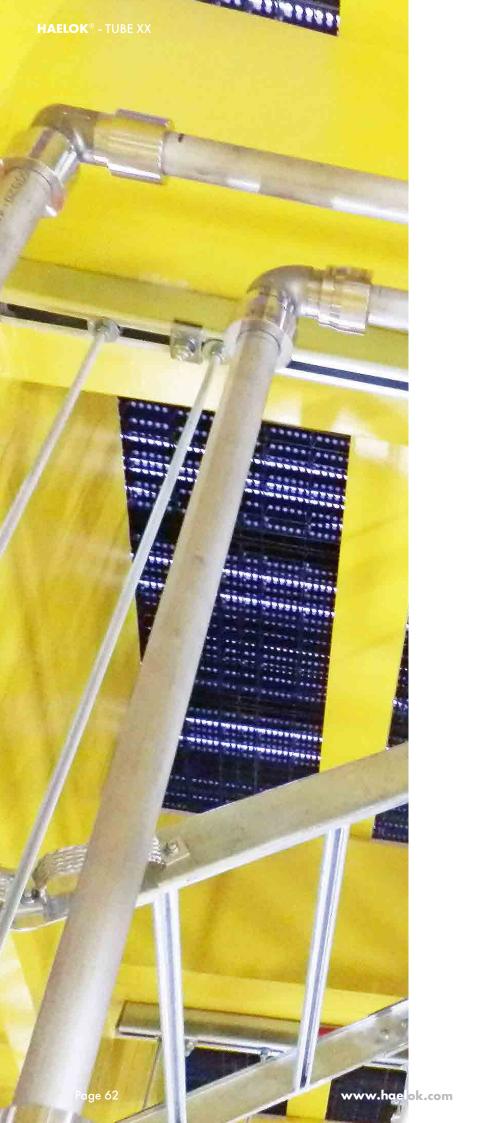
- Temperature range up to + 140°C according to AGFW
- Nominal pressure 2.5 Mpa according to AGFW
- Pipe diameter from DN15 DN100
- Technical useful life of at least 30 years
- Can be used for seamless and welded pipes according to Standards EN 10216-1, EN 10216-2, EN 10217-1, EN 10217-2, EN 253
- For detailed information by size see pages 14/15



#### C-Steel (CC) + galvanized (INCH)

Article No.	d1	р1	e1	d2	p2	e2	1	z	Weight (g)	VE (Pcs.)
HLK-12RE-26-21-CC	3/4"	39	25	1/2"	34	25	58	8	220	5
HLK-12RE-33-26-CC	1"	52	42	3/4"	39	25	92	25	564	5
HLK-12RE-33-21-CC	1"	52	42	1/2"	34	25	92	25	534	5
HLK-12RE-42-33-CC	1 1/4"	61	42	1"	52	42	100	16	933	5
HLK-12RE-42-26-CC	1 1/4"	61	42	3/4"	39	25	92	25	667	5
HLK-12RE-42-21-CC	1 1/4"	61	42	1/2"	34	25	92	25	650	5
HLK-12RE-48-42-CC	1 ½"	68	42	1 1/4"	61	42	100	16	1107	5
HLK-12RE-48-33-CC	1 ½"	68	42	1"	52	42	100	16	1036	5
HLK-12RE-48-26-CC	1 ½"	68	42	3/4"	39	25	102	35	780	5
HLK-12RE-60-48-CC	2"	81	42	1 ½"	68	42	100	16	1385	5
HLK-12RE-60-42-CC	2"	81	42	1 1/4"	61	42	100	16	1304	5
HLK-12RE-60-33-CC	2"	81	42	1"	52	42	100	16	1243	5

Other dimensions on request.



# HAELOK® TUBE. MATERIAL STAINLESS STEEL (XX).

The HAELOK®- TUBE XX comprises different types of high performance press fittings.

The unique tube connection system, without welding and without the use of elastomeric seals, guarantees a hermetic seal for tube diameters of 1/4" to 2").

The system is specially designed for use under vibration, high pressure and high temperature, such as in the engine rooms of ships or in elevator systems of skyscrapers.

In summary, the HAELOK $^{\circ}$  system is suitable for almost all industrial applications, different tube diameters, materials, pressures and temperature ranges as well as fluids and gases.

**HAELOK®. EFFICIENT, EASY & FAST.** 

Material Stainless Steel XX:

Enclosure: Stainless Steel (XX) 1.4404 (AISI 316L) Press ring: Stainless Steel (XX) 1.4404 (AISI 316L)

## HAELOK® TUBE Straight Fitting HLK-21SF



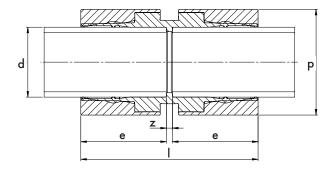
The HAELOK® fitting, type "SF" (Straight Fitting), is used for a straight connection of two tubes. The fitting consists of a total of three completely assembled components; a base body and two press rings.





#### Short overview

- Temperature range from -190  $^{\circ}$ C to + 400  $^{\circ}$ C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN 10216-5, ASTM213, A312, A269
- Pipe diameter from ø 1/4" ø 2"
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see page 16/17



#### Stainless steel (XX)

Article No.	mm	d	р	1	е	z	Weight (g)	VE (Pcs.)
HLK-21SF-T14-XX	6.35	1/4"	18	37	17	3	54	10
HLK-21SF-T38-XX	9.52	%"	22	37	17	3	76	10
HLK-21SF-T12-XX	12.7	1/2"	22	37	17	3	59	10
HLK-21SF-T34-XX	19.05	3/4"	32	52	25	2	191	10
HLK-21SF-T1-XX	25.4	1"	39	52	25	2	346	10
HLK-21SF-T112-XX	38.1	1 ½"	55	87	42	3	759	10
HLK-21SF-T2-XX	50.8	2"	74	87	42	3	1394	10

Availability and other dimensions on request.



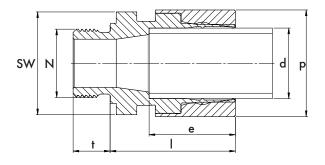
The HAELOK® fitting, type "TE" (Thread External) is used to connect pumps or valves. In general the thread is manufactured according to type "B" with sealing edge. The fitting consists of two completely assembled components; a base body and a press ring.





#### Short overview

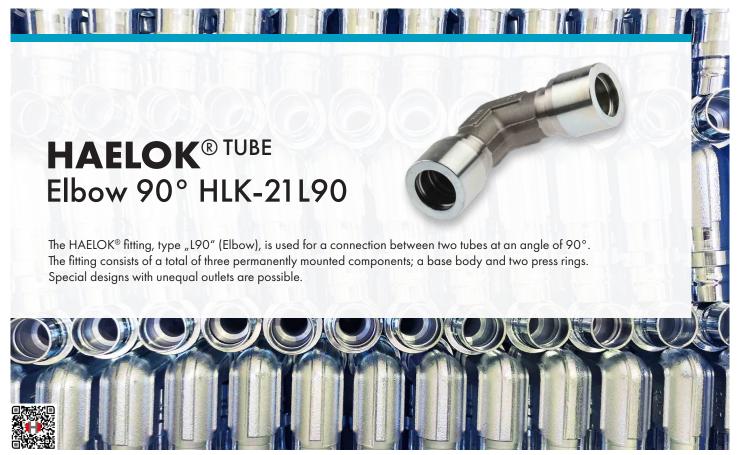
- Temperature range from -190°C to + 400°C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN 10216-5, ASTM213, A312, A269
- Pipe diameter from ø 1/4" ø 2"
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see page 16/17



#### Stainless steel (XX)

Article No.	d	mm	Ν	р	1	е	t	SW	Weight (g)	VE (Pcs.)
HLK-21TE-T14-N14-XX	1/4"	6.35	1/4"	18	51	17	16	27	66	5
HLK-21TE-T38-N38-XX	3/8"	9.52	¾"	22	51	17	16	27	99	5
HLK-21TE-T12-N12-XX	1/2"	12.7	1/2"	22	61	17	18	32	174	5
HLK-21TE-T34-N34-XX	3/4"	19.05	3/4"	32	62	25	18	41	272	5
HLK-21TE-T1-N1-XX	1"	25.4	1"	39	90	25	22	50	614	5

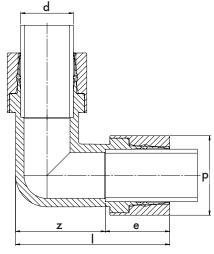
Availability and other dimensions on request.





#### Overview

- Temperature range from -190  $^{\circ}$ C to + 400  $^{\circ}$ C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN 10216-5, ASTM213, A312, A269
- Pipe diameter from ø 1/2" ø 1"
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see page 16/17



#### Stainless steel (XX)

Article No.	d	mm	р	1	е	z	Weight (g)	VE (Pcs.)
HLK-21L90-T12-XX	1/2"	12.7	22	58	17	41	122	5
HLK-21L90-T34-XX	3/4"	19.05	32	77	25	52	373	5
HLK-21L90-T1-XX	1"	25.4	39	81	25	56	605	5

Availability on request.

### HAELOK® TUBE Union Tee HLK-21T3



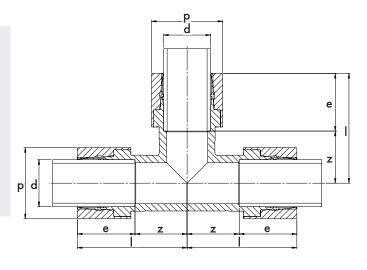
The HAELOK® fitting, type "T3" (Equal-T), is used as a connection between three tubes. The fitting consists of a total of four fully assembled components; a base body and three press rings. Special designs with unequal outlets (TR/T-reduced) are possible.





#### Short overview

- Temperature range from -190°C to + 400°C
- Nominal pressure up to 1140 bar
- Vibration and fire resistant
- Can be used for seamless and welded pipes according to EN 10216-5, ASTM213, A312, A269
- Pipe diameter from ø 1/2" ø 1
- Certified acc. to IACS, DNV-GL, Bureau Veritas, Lloyds Register
- Compliant with ASME B31.1 & B31.3 and FFI
- For detailed information by size see page 16/17



#### Stainless steel (XX)

Article No.	d	mm	р	1	е	z	Weight (g)	VE (Pcs.)
HLK-21T3-T12-XX	1/2"	12.7	22	50	17	33	177	5
HLK-21T3-T34-XX	3/4"	19.05	32	65	25	40	565	5
HLK-21T3-T1-XX	1"	25.4	39	65	25	40	<i>7</i> 14	5

Availability on request.



### HAELOK® SPECIAL PRODUCTIONS.

Especially for special requirements of our customers the HAELOK® can manufacture its own products according to your specifications.

Through in-house engineering and flexible production facilities the HAELOK® is always in the position to provide tailored to deliver special designs.

Be it a special thread, a reduction or special angles and tees, HAELOK® can manufacture these in materials and with the usual quality standard as required.

Please contact us with your request.

HAELOK®. ALWAYS FITTING.

#### Material Steel CC:

Ebclosure: C-Steel (CC) 1.0570 (AISI 1024) galvanized Press ring: C-Steel (CC) 1.0570 (AISI 1024) galvanized

#### Material Stainless Steel XX:

Enclosure: Stainless Steel (XX) 1.4404 (AISI 316L) Press ring: Stainless Steel (XX) 1.4404 (AISI 316L)

## HAELOK® Special productions

Due to a large machine park and the high vertical range of manufacture HAELOK® can, in addition to the standard fittings, also produce customer-specific special designs as single pieces, prototypes or special solutions.



Besides the standard range HAELOK® also offers customer-specific special designs. In close cooperation with the HAELOK® partners, standard parts are adapted to customer-specific requirements or completely new fitting

solutions are developed and manufactured. Our own development department, design and production is always available to advise and support the ideas and requirements of our customers and partners.





HAELOK\*

HAELOK® HLK-BP
Bent pipes according to specification e.g. 45°.

HAELOK® HLK-F\_
Special flanges according to your specifications.



CHARLOK\*

HAELOK® HLK-LD
Elbow with DKO 24° connection.

HAELOK® HLK-RE
Special reduction for connecting old pipes (57mm) with current pipes.





HAELOK® HLK-TE

Connection with male thread to NPT standards.

HAELOK® HLK-TI
HAELOK® connections with female thread to metric fine thread.

















# HAELOK® TOOLS. INLAYS. ACCESSOIRES.

In addition to the standard range of fittings, HAELOK® also offers the specially developed and designed press tools in four different sizes.

The customer thus receives the complete HAELOK® system from one source and directly from the manufacturers stock. By means of exchangeable inserts (hardened tool steel) in different sizes, the HAELOK® pressing tools can be used quickly and easily without any effort. Well packed and convenient to transport by means of the stable tool cases and suitable additional equipment in all sizes. HAELOK® invests a lot of time and effort in the new and further development of its own pressing tools in order to adapt them again and again to the new requirements of the markets.

### HAELOK®. ALL FROM ONE SOURCE.

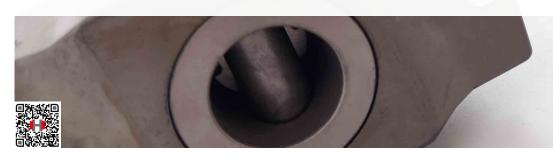
Each tool can be borrowed and financed.

For more information please contact sales@haelok.com.

## HAELOK® Press Tool PT 0613



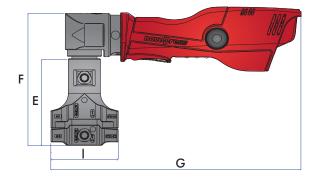
The press tool consists of a hard anodised housing and a maintenance-free closing mechanism. The battery-powered hydraulic unit is state-of-the-art and guarantees a perfect and carefree installation in any situation. By simply turning the horns, the press tool can cover the range from 6 mm to 13.5 mm. All HAELOK® press tools are tested and CE-conform.

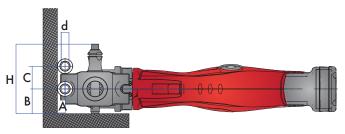




### Short overview

- For pipe diameters  $\varnothing$  6 mm to  $\varnothing$  13.5 mm.
- 3.6 kg in weight
- Long service intervals therefore low maintenance and Repair costs
- CE conformity and TÜV certification
- Delivery in handy case Including carrying strap, charging station, and two lithium-ion batteries 18V/3.0 Ah
   Each tool can be borrowed and financed.





### Press Tool Set PT 0613

Set includes: press tool, hydraulic unit, two batteries incl. charger, transport case

٠	Article No.	d	Α	В	С	Е	F	G	Н	- 1	Press time (ø,sec)	Weight (g)	VE (Pcs.)
	HLK-61 PT-0613	6-13	7	40	28-32	129.8	197.5	358.5	112	96.5	5-10	3600	1

## HAELOK® Press Tool PT 1228



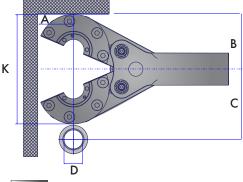
The press tool consists of a hard anodised housing and a maintenance-free closing mechanism. The battery-operated hydraulic unit is state-of-the-art and guarantees a perfect and safe operation. carefree installation in any situation. By simply changing the tool inserts, the pressing tool can cover the range from 12 mm to 28 mm. All HAELOK®- press tools are tested and CE-conform.

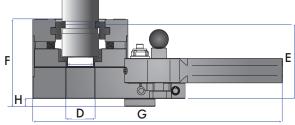




### Short overview

- For pipe diameters ø 12 mm to ø 28 mm.
- 6.5 kg in weight
- Long service intervals therefore low maintenance and Repair costs
- CE conformity and TÜV certification
- Delivery in handy case Including carrying strap, charging station, and two lithium-ion batteries 18V/3.0 Ah
   Each tool can be borrowed and financed.

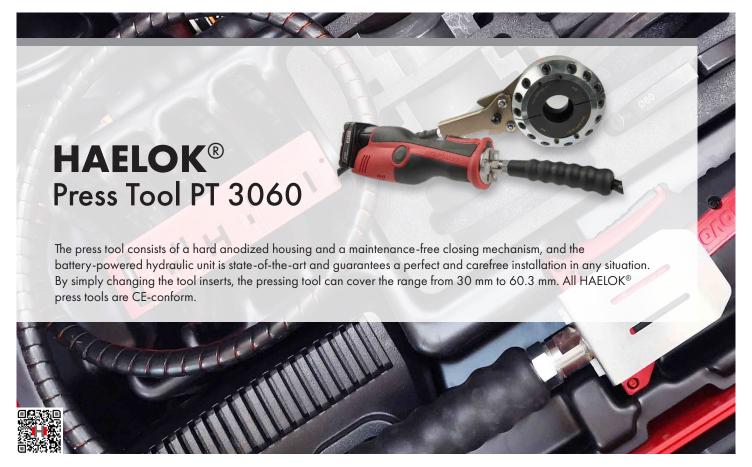




### Press Tool Set PT1228

Set includes: press tool, hydraulic unit, two batteries incl. charger, transport case

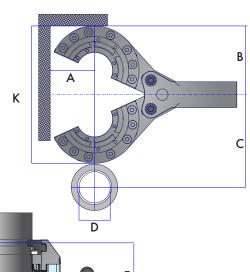
Article No.	d	Α	В	С	Е	Н	F	G	D	K	K (closed tool)	Press time (ø,sec)	Weight (g)	VE (Pcs.)
HLK-61 PT- 1228	12-28	67	100	114-124	75.25	8	89	262.5	30	153.2	134	12-15	6800	1





### Short overview

- For pipe diameters ø 30 mm to ø 60.3 mm.
- 8 kg in weight
- Long service intervals therefore low maintenance and Repair costs
- CE conformity and TÜV certification
- Delivery in handy case Including carrying strap, charging station, and two lithium-ion batteries 18V/3.0 Ah
   Each tool can be borrowed and financed.



### Press Tool Set PT3060

Set includes: press tool, hydraulic unit, two batteries incl. charger, transport case

Article No.	d	Α	В	С	Е	Н	F	G	D	K	K (closed tool)	Press time (ø,sec)	Weight (g)	VE (Pcs.)
HLK-61 PT-3060	30-60	80	110	140-150	110 <i>.7</i> 5	8	128	324	63	240	160	16-20	8000	1

All figures in mm; others are specially marked. Misprints and technical changes reserved.

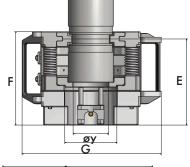


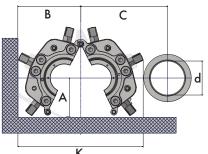


### Short overview

- For pipe diameters ø 76 mm to ø 114 mm.
- 32 kg in weight
- Long service intervals therefore low maintenance and Repair costs
- CE conformity and TÜV certification
- Delivery in 4 handy cases

Each tool can be borrowed and financed.





### Press Tool Set PT76114

Set includes: press tool with 2m hydraulic hose (per side), 1x hydraulic hose 5m with distribution block, inlays, case accessoires

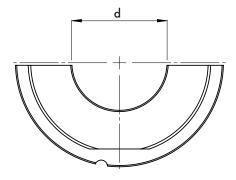
Article No.	d	Α	В	С	D	F	G	øy	K	K (closed tool)	Press time (ø,sec)	Weight (kg)	VE (Pcs.)
HLK-61PT-76114	<i>7</i> 6-114	137	223	192-209	195	211.5	315.2	117.95	425	321	20-30	32	1





### Overview

- For pipe diameters ø 12 mm to ø 114 mm
- CE-conform and TÜV-certified
- Hardened material
- Magnetic for press tools



### Inlays for Press Tool PT1228

Tool inserts for fitting sizes ø 12 mm to 28 mm are available for the PT 1228 press tool.

Article No.	for fitting size:	d	VE (Pcs.)
HLK-61 PI-1213	12	16.5	Set
HLK-61 PI-1516	15,16	20.5	Set
HLK-61 PI-1718	17,18	22.5	Set
HLK-61 PI-20	20	24.5	Set
HLK-61 PI-2122	21,22	26.5	Set
HLK-61PI-25	25	29.5	Set
HLK-61 PI-26	26	31.5	Set
HLK-61 PI-28	28	32.5	Set

### Inlays for Press Tool PT3060

Tool inserts are available for the PT3060 press tool for flange sizes ø30 mm to 60 mm.

Article No.	for fitting size:	d	VE (Pcs.)
HLK-61PI-30	30	37.5	Set
HLK-61 PI-33	33	41.5	Set
HLK-61 PI-35	35	42.5	Set
HLK-61 PI-38	38	45.5	Set
HLK-61 PI-42	42	49.5	Set
HLK-61 PI-48	48	55.5	Set
HLK-61PI-60	60	68	Set

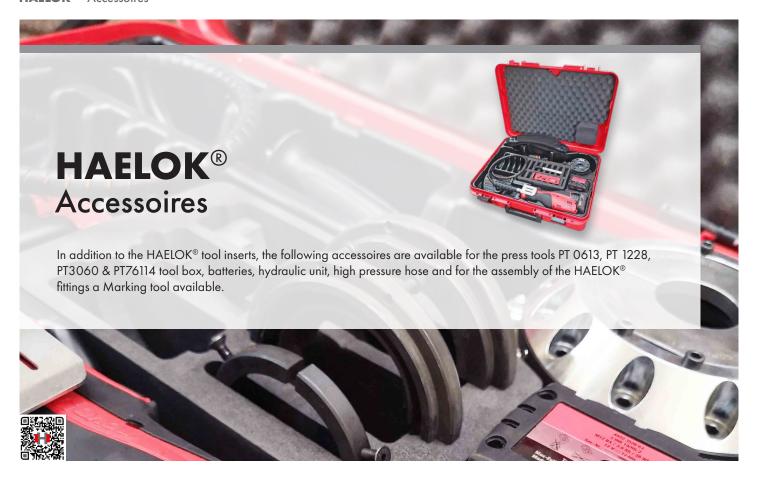
### Inlays for Press Tool-Set PT76114

For the PT76114 press tool, tool inserts for flange sizes ø76 mm to 114 mm are included with the tool.

Article No.	for fitting size:	d	VE (Pcs.)
HLK-61PI-76	76	85	Set
HLK-61 PI-88	88	99.2	Set
HLK-61 PI-114	114	128.5	Set

Please order the corresponding tool inserts separately (except PT76114): One insert consists of four parts and can easily be stored in the transport case.

All figures in mm; others are specially marked. Misprints and technical changes reserved.



### Transport case for Press Tools

Product	Article No.	Lenght	Width	Depth	Weight (g)	VE (Pcs.)
Transport case for PT0613	HLK-61 PC-0613	446	313	110	1490	1
Transport case for PT 1228	HLK-61 PC-1228	571	393	160	3080	1
Transport case for PT3060	HLK-61PC-3060	<i>57</i> 1	393	160	3080	1
Transport case for PK76114 (Tool)	HLK-61PC-76114-1	575	470	205	2000	1
Transport case for PK76114 (Accessoires)	HLK-61PC-76114-2	575	470	270	2000	1

### Battery/Charger

Product	Article No.	VE (Pcs.)
Battery 12 V1,5Ah-Li-ion	HLK-61BA-15	1
Battery 12 V3,0Ah-Li-ion	HLK-61BA-30	1
Charger 230 V	HLK-61BA-CH-EU	1

### **Marking Tool**

Product	Article No.	VE (Pcs.)
Marking Tool 10 - 60.3 mm	HLK-61 MA-0660	1
Marking Tool 76 - 114.3 mm	HLK-61 MA-76114	1

### Hydraulic unit HA11

Product	Article No.	Lenght	Width	Depth	Weight (g)	VE (Pcs.)
Hydraulic unit	HLK-61PC-230-V02	420	425	260	26700	1



#### Technical details

### **Hydraulics:**

Operating pressure: 700bar max Low pressure Delivery rate: 4.0 l/min High pressure delivery rate: 0.34 l/min

Oil volume (usable): 4.0 l

Tank volume: 5.0 l

#### **Elektric-Motor:**

Supply voltage: 230V/50Hz Engine power: 0,37kW Motor current: 3.7A

### High pressure hose DN06

Product	Article No.	Lenght	Operating Pressure	Connector	VE (Pcs.)
PH H5	HLK-61PH-H5-01	5m	700 bar	flat sealing plug connection and plug 700bar	1
				IGN ¼" with protection caps	

All dimensions in mm except those specially marked. Misprints and technical changes reserved.

### All tools can be borrowed and financed!

For more information please contact sales@haelok.com.



## HAELOK® INSTALLATION GUIDE

HAELOK® offers a system for making quick, leak-free pipe connections can be made quickly.

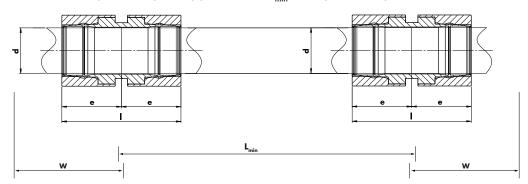
The correct installation is important. The pipe connection must be able to withstand heavy loads, pressures, vibrations and temperature fluctuations. This is achieved by carefully observing the combination of specified pipes, HAELOK® fittings and pressing tools.

Guarantee with trained staff the functional safety according to the assembly instructions and always reveive the constant high quality suitable for the press connection.

HAELOK®. SIMPLE. PRACTICAL. CLEAN.

## HAELOK® INSTALLATION DETAILS.

### Minimum tube length for repair applications ( $L_{\min}$ ) using SR fittings

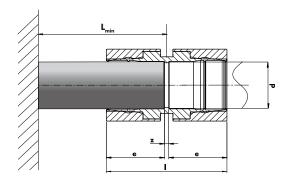


Press Tool	L <sub>min</sub>	W*	1	е
PTO613	60	200	37	18.5
PT1228	116	90	52	26
PT3060	174	130	87	43.5
PT 76114	290	200	155	75.5

<sup>\*</sup> W= space for the tool

All specifications in millimeters, except specially marked.

### Minimum installation length for the tool (W)



Press Tool	W	l pressed	l unpressed	е	z
PTO613	200	37	46	17	3
PT1228	90	52	61	25	2
PT3060	130	87	107	42	3
PT 76114	200	155	195.5	75.5	4

<sup>\*</sup> W= minimum distance of the tool from a wall

All figures in mm; others are specially marked. Misprints and technical changes reserved.

### HAELOK® APPLICATION STEPS.



#### 1. Measure

Check pipe dimension and wall thickness and compare your values with our tolerance page 14-17.



### 2. Cutting to length

Cut the pipe perpendicular (tolerance ±5°). If you use a preinsulated pipe, strip the insulated cover.



### 3. Deburring and grinding

Clean the cutted pipe ends inside and outside. Use sandpaper to remove loose rust, scratches and dirt. Do not use a grinder!



### 4. Mark

Use the HAELOK® marking tool to mark the fitting position (3 marks). If you do not have the tool at hand, you can also mark the end of the unpressed fitting so that you have a control point for a successful pressing.



### 5. Insert

Insert the pipe up to the inner stop of the fitting. Make sure that the insertion depth is correct.



### 6. Apply

Place the pressing tool in place, making sure that the insert of the pressing tool fits into the groove of the fitting. Close the tool until it locks. 3<sup>rd</sup> mark is at the tool edge.



### 7. Press

Now you only have to press and hold the press button on the hydraulic unit. The process stops automatically when the fitting is pressed.

Ready! Make another visual inspection based on your marking. The press ring ist in line with the fittings body. Your HALEOK® connection is ready.

#### Remember

Fittings must be installed without torsion and stress during installation. Only trained and instructed personal are allowed to work with HAELOK® machines.

## HAELOK® CONTACT INFORMATIONS.

### **OUR ADRESS**

HAELOK AG Josefstrasse 225 I 8005 Zurich Switzerland



### STORAGE/SHIPPING

The goods are dispatched by our own warehouse in southern Germany.

#### **HAELOK Services Deutschland GmbH**



### **OUR SERVICE**

Our international team is at your disposal for all questions and concerns.

t: +41 43 501 4550 e: info@haelok.com



### **ONLINE SHOP**

Digital access to HAELOK®.
All prices, current stock and conditions.

www.shop.haelok.com



### **OUR WEBSITE**

Everything about the HAELOK® system and the company HAELOK AG.

www.haelok.com



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