

KAN-therm MULTISYSTEM





# NOX 504

## Install the **future**

Ø **15-108** mm

## SYSTEM **KAN-therm** Inox 304

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# SYSTEM KAN-therm Inox 304

## 1 General information

KAN-therm Inox 304 is complete, state-of-the-art installation system consisting of precise pipes and fittings manufactured out of high quality stainless steel. Assembly bases on the "Press" technique, in which fittings are radially pressed over the pipe. Special pressure seals (O-Rings) provide tightness of joints. O-Rings are made of high quality synthetic rubber resistant to high temperatures. A three-angle type "M" pressing system, guarantees reliable, uninterrupted operation of the system. Inox 304 system is used in indoor installations (new and renovated) in housing estates, public buildings and industrial facilities.

KAN-therm Inox 304 system is characterized by:

- \_\_\_\_\_easy and quick assembly, without the use of open flame,
- large scope of diameters of pipes and fittings, from 15 to 108 mm,
- \_\_\_\_ broad working temperature tolerance: from -20 °C to 110 °C,
- \_\_\_\_\_ resistance to high pressure,
- \_\_\_\_ low pressure drops in pipes and fittings,
- \_\_\_\_ possibility of connecting with plastic KAN-therm systems,
- \_\_\_\_ low weight of pipes and fittings,
- \_\_\_\_\_ resistance to mechanical loads,
- \_\_\_\_\_ no fire threat during assembly and use (reaction to fire class A),
- \_\_\_\_\_esthetic value of installations,
- \_\_\_\_\_\_ signaling of mistakenly not-pressed joints in the installation.

## 2 System KAN-therm Inox 304

#### 2.1 Pipes and fittings – characteristics

KAN-therm Inox 304 pipes and fittings are made of thin-walled alloy steel, chromium-nickel X5CrNi18 10 No. 1.4301, AISI 304.

Fittings are offered with pressed ends and O-Ring seals, or with pressed and threaded ends with female or male threads, according to EN10226-1.

#### Physical properties of 1.4301 KAN-therm Inox 304 pipes

Property	Symbol	Unit	Value	Remarks
Linear elongation coefficient	α	mm/m × K	0,016	Δt = 1 K
Thermal conductivity	λ	W/m×K	15	
Minimal bending radius	R <sub>min</sub>		3,5 × De	max. diameter 28 mm
Internal wall roughness	k	mm	0,0015	

#### 2.2 Pipe diameters, lengths, weight and capacity

Scope of diameters Ø15 to Ø108 mm for wall thickness from 1,0 to 2,0 mm.

Pipe length 6 m +5 mm / - 0 mm, end-capped.

#### Dimensions, weight by unit, water capacity of standard KAN-therm Inox 304 pipes (1.4301)

DN	External diameter × Wall thickness	Wall thickness	Internal diameter	Weight by unit	Length of the bar	Capacity by unit			
12	15 × 1,0	1,0	13,0	0,352	6	0,133			
15	18 × 1,0	1,0	16,0	0,427	6	0,201			
20	22 × 1,2	1,2	19,6	0,627	6	0,302			
25	28 × 1,2	1,2	1,2 25,6 0,808		6	0,515			
32	35 × 1,5	1,5	32,0	1,263	6	0,804			
40	42 × 1,5	1,5	39,0	1,527	6	1,195			
50	54 × 1,5	1,5	1,5	1,5	1,5	51,0	1,979	6	2,042
65	76,1 × 2,0	2,0	72,1	3,725	6	4,080			
80	88,9 × 2,0	2,0	84,9	4,368	6	5,660			
100	108 × 2,0	2,0	104,0	5,328	6	8,490			

#### 2.3 Scope of use

The scope of application of the KAN-therm Inox 304 installation in the construction industry is determined by the applicable standards - permissible operating pressure up to 16 bar, medium: water and maximum temperature 110 °C.

- \_\_\_\_\_ open and closed heating systems (water, glycol),
- \_\_\_\_\_ technological heat installations,
- \_\_\_\_\_ open and closed chilled water installations (max. dissolved chloride contents 200 mg/l),
- \_\_\_\_\_ compressed air installations free from oil,
- \_\_\_\_\_ condensate installations applying the condensation technique for gas fuels (pH 3.5 to 5.2),
- \_\_\_\_\_ technological installations in the industry.

The use of KAN-therm Inox 304 pipes and fittings outside the scope of indoor heating and cooling installations, e.g. for media of non-typical chemical contents should be consulted with KAN's Technical Support Department (available questionnaire); Please provide i. a. the chemical content of the medium, maximum temperature and operating pressure, as well as ambient temperature in the questionnaire.



Exemplary KAN-therm Inox 304 installation

## 3 Sealants - O-Rings

KAN-therm Inox 304 pressed fittings are, by standard, equipped with O-Rings made of ethylene-propylene EPDM rubber observing the requirements of EN 681-1. In the case of special applications, Viton O-Rings may be supplied. Working parameters and scopes of use are presented in the table.

Material	Color	Working parameters	Use
EPDM ethylene-propylene rubber	black	<ul> <li>max working pressure: 16 bar</li> <li>working temperature: -20 °C to +110 °C</li> </ul>	installations: central heating technological heat glycol solutions* compressed air (with no oil**)

\* It is permissible to use antifreeze solutions based on ethylene and propylene glycols with a maximum concentration of up to 50%, which have been approved

by KAN in writing. \*\* Maximum concentration of synthetic oils up to 5 mg/m<sup>3</sup>; mineral oils not allowed.

The use of glycol solutions (ethylene and propylene) is allowed as long as they are approved in writing by the manufacturer of the installation system.

If it is necessary to use a lubricant to enable the pipe to be inserted correctly into the fitting socket, water or soap should be used. Do not cover O-Rings with grease, oil or fat. These substances might damage the joints. This also refers to contact with some types of paint used to cover pipes and fittings. Therefore, if it is necessary to paint the installation, only water-based paints should be used.

KAN-therm Inox 304 fittings up to 54 mm are equipped with special LBP O-Rings which guarantees quick detection of not-pressed joints in the installation during the preliminary stage of connecting to water supply (LBP function – Leak Before Press). Such joints are signaled by water leaks at a point of connection. To ensure a fully functional and tight joint, after locating the leak, just press the joint.

For elements above 54 mm, LBP function is performed by fitting specific shape.



1. O-Ring action with the LBP function of leakage detection

## 4 Durability, resistance to corrosion

Installation technology distinguishes various types of corrosion: chemical, electrochemical, internal or external, spot corrosion, corrosion produced by stray currents, etc. Such phenomena may be caused by specific physical and chemical factors related to the quality of installation materials, parameters of conducted media, external conditions, as well as the structure of the installation. Below, we present a few guidelines to be taken into account when designing, assembling and using KAN-therm Inox 304 installations in order to avoid undesirable corrosive phenomena in metal installations.

The probability of occurrence of metal corrosion caused by stray currents (direct current passing through the pipeline material to the ground, disrupting the natural insulation layers, such as walls, pipe shields, etc.) is very small. This phenomenon is additionally reduced by introducing equipotential connections to the installation.

#### 4.1 Internal corrosion

Stainless steel is resistant to nearly all components of the media transported in installations. Pay special attention to chlorides dissolved in water (halogens), since their action depends on their concentration and temperature (max 200 mg/l at 20 °C). No elements should be subjected to contact with highly concentrated ions of dissolved chlorides in temperatures above 50 °C. This is why you should:

- avoid sealants containing halogens which could dissolve in water (use plastic sealing tape, e.g. PARALIQ PM 35),
- local water heating by increased pipe wall temperature (e.g. heating cables in water supply installations) may lead to the precipitation of sediments on the internal surface of pipes, including chloride ions, which increase the risk of pit corrosion. In such case, the temperature of pipe wall should not exceed 60 °C permanently. Periodic (max 1 hour a day) water heating up to 70 °C for the purpose of thermal disinfection is permissible.

Direct connections of stainless steel elements with zinc-plated steel (fixtures, fittings) may result in contact corrosion of zinc-plated steel. Therefore, a bronze or brass element (e.g. coupling) of at least 50 mm must be used.



Principle of connecting KAN-therm Inox 304 elements with zinc-plated steel **1.** Steel pipe zinc-plated **2.** Bronze or brass **3.** Fitting with a KAN-therm Inox 304 thread It is also acceptable to make separable flange connections:



#### Case I:

- 1. KAN-therm Inox 304 system,
- 2. stainless steel flange bolt and nut
- 3. elastomer or fibre sealing
- 4. metal washer with plastic casing
- 5. Traditional carbon steel system.

#### Case II:

- 1. KAN-therm Inox 304 system,
- 2. stainless steel flange bolt and nut
- 3. elastomer or fibre sealing
- 4. metal washer with plastic casing
- 5. Traditional copper system.

# Remember that all of the above flange connections use bolts and nuts joining flanges made of stainless steel.

In KAN-therm Inox 304 system, the is a possibility of using other materials (with intermediate elements, such as threaded or collar joints) depends on the type of installation.

#### Possibility of connecting KAN-therm Inox 304 system with other elements

Installation type		Pipes/fittings						
Insta	allation type	Copper	Bronze/Brass	Carbon steel	Stainless steel			
Inox	closed	yes	yes	yes	yes			
304	open	yes	yes	no	yes			

#### 4.2 External corrosion

External corrosion of elements of the KAN-therm Inox 304 system can occur when pipes or fittings are in a humid environment containing or producing compounds of chlorine or other halogens. Corrosion processes are intensified at temperatures above 50 °C.

Moreover, KAN-therm Inox 304 system components can be installed and operated in environments with a corrosion class not higher than C3 according to EN ISO 12944-2.

Therefore, in situations such as:

- \_\_\_\_ contact with building components (e.g. mortar, insulation) emitting chlorine compounds,
- environment containing chlorine or its compounds in gaseous form or water containing salt (brine) or other halogen compounds,
- \_\_\_\_ KAN-therm Inox 304 system applications in environments with corrosion class C4 and higher,

it is necessary to use full, watertight and non-absorbent waterproofing made of material with a closed cell structure that does not emit chlorides and halides. The dissolved chlorine ion content of the insulation materials must not exceed 0.05%. Thermal insulation should comply with current regulations and standards.

If there is a risk of mechanical damage to the external insulations then these must be adequately protected, for example, with protective steel coating.

## 5 Technique of Press joints

KAN-therm Inox 304 system is based on the "Press" technique of executing joints, utilizing M-profiled jaws. This technique allows:

- applying three-angle pressure on the O-Ring, which ensures its correct deformation and adhesion to the pipe surface,
- fully enclosing the inner space, in which the O-Ring is settled through screwing the edge of the fitting onto the surface of the pipe, which prevents pollutions from penetrating the interior of the fitting. Such structure serves as a natural mechanic shield to the seal and reinforcement to the joint,
- controlling the state of the joint through the structure of the O-Ring socket in the vicinity of the fitting edge.





1. Pressure directions in a "Press" joint

- 2. Cross-section of a joint before pressing
- **3.** Cross-section of the joint after pressing

#### 5.1 Tools

In order to ensure a correct, water-tight connection, use proper tools. We suggest the use of cutters, deburrers and press machines as well as jaws offered by the KAN-therm system. There is a possibility of using other tools recommended by KAN (see table below).

To perform connections in KAN-therm Inox 304, use tools available in KAN-therm system offer - see the table below.

Producer	Press t	уре	Diameter	Jaws	/collars	Ada	pter	Type of KAN-therm system
	Description		[mm]	Description		Description	Code	lnox 304
			15	М	1936267249	-	-	+
			18	М	1936267250	-	_	+
E	0.0	38	22	М	1936267251	-		+
-the	AC 3000 DC 4000	2672	28	М	1936267252			+
KAN-therm	AC	1936267239 1936267238	35	M	1936267253			+
KA		~ ~	42	M	1936267283			+
			54	Μ	1936267284	ZBS1	1936267285	+
			151)	[J] M	1948267135	-	_	+
			181)	[J] M	1948267137			+
			221)	[J] M	1948267139	-	-	+
			281)	[J] M	1948267141	-	-	+
		_	351)	[J] M	1948267143		-	+
	3 ⇒ 3XL	1948267181 1948267210	351)	HP Snap On	1948267124			+
	ACO203XL EFP203 ካ	3267	421)	M Snap On	1948267119	ZB203	1948267000	+
	EFI	1948 1948	42 <sup>1)</sup> 54 <sup>1)</sup>	HP Snap On	1948267126			+
			66,7	M Snap On M Snap On	1948267121 1948267089			+
			76,1	M Snap On	1948267145	ZB221	1948267005	+
			88,9	M Snap On	1948267044		10 10207 000	+
			108	M Snap On	1948267038	ZB221 ZB222	1948267005 1948267007	+
10	ACO102 * ACO103	1948055007 1948055008	15	[J] M	1948267093	-		+
SES			18	[J] M	1948267095			+
Ido			22	[J] M	1942121002	-		+
NOVOPRESS			28 35	[J] M	<u>1948267097</u> 1942121004			+ +
2			15	[J] M	1948267085	-	_	+
			18	[J] M	1948267087			+
			22	[J] M	1944267008			+
	*	163 *	28		1944267011			
	ECO301 *	1948267163 *		[J] M				+
	Ĕ	948	35	HP Snap On	1948267124			+
		<i>(</i>	42	HP Snap On	1948267126	ZB 303	1948267166	+
			54	HP Snap On	1948267128			+
			66,7	M Snap On	1948267089	ZB 323	1948267009	+
	33 -1*	151 209	76,1	HP Snap On	1948267100	-	-	+
	ACO401 * ACO403	1948267151 1948267209	88,9	HP Snap On	1948267102	-	-	+
	A AO	194 194	108	HP Snap On	1948267098	-	-	+
			15	[J] M	1948267048			+
	U		18	[J] M	1948267052	-	-	+
10	Power-Press SE Akku-Press Power-Press ACC	160 152 219	22	[J] M	1948267056	-	-	+
REMS	ower-Press S Akku-Press wer-Press A	1936267160 1936267152 1936267219	28	[J] M	1948267061	-	-	+
×	ower Akk wer-	1936267160 1936267152 1936267219	35	[J] M	1948267065	-	-	+
	Po		42	[J] M	1948267067	-	-	+
			54	[J] M	1948267069	-		+
	<u>.</u>		54	[J] M	1948267069	-	-	+

Producer	Press type		Diameter	Jaws/collars		Adapter		Type of KAN-therm system
Producer	Description	Code	[mm]	Description		Description		lnox 304
	AN-therm Mini	KAN-therm Mini 1936055008	15	М	1936267278	-	-	+
UKE			18	М	1936267279	-	-	+
KLA		9360	22	М	1936267280	-	-	+
	$\mathbf{\Sigma}$	10	28	М	1936267282	-	-	+

[J] - two segment jaw, other elements are collars / slings and may require cooperation with an adapter.
 1) Limited diameter range - use selected press jaws
 \* The tools are not available in KAN-therm Inox 304 offer.

Other commonly available tool models on the market can also be used for the installation of the KAN-therm Inox 304 system; see the table below:

Size	Producer	Press type	Jaws/collars			
15–35 mm	Novopress	<ul> <li>ACO102 (12 V)</li> <li>ACO103 (12 V)</li> </ul>	PB1 jaws 15–35 mm			
15–54 mm	Novopress	<ul> <li>ACO 203 (18 V)</li> <li>EFP 201/202 (230 V)</li> <li>EFP 203 (230 V)</li> </ul>	<ul> <li>PB2 jaws 15–35 mm</li> <li>Collars and adapters 35–54 mm:</li> <li>collars: HP35, 42 and 54 (with adapter ZB 201/ZB 203)</li> <li>Snap On collars: HP35, 42 and 54 (with adapter ZB 201)</li> <li>Snap On collars: HP35, HP42 and HP54 (with adapter ZB 203)</li> </ul>			
15–108 mm	Novopress	<ul> <li>ECO 3 Pressmax (230 V)</li> <li>ECO 301 (230 V)</li> </ul>	<ul> <li>PB3 jaws: 15–28 mm</li> <li>Collars and adapters (ZB 302/ZB 303) 35–54 mm:</li> <li>collars: HP35, 42 and 54 (with adapter ZB 302/ZB 303)</li> <li>Sling On collars: HP42 and HP54 (with adapter ZB 302)</li> <li>Snap On collars: HP35, HP42 and HP54 (with adapter ZB 303)</li> <li>Collars and adapters 76,1–108 mm:</li> <li>collars M66,7–88,9 mm (adapter ZB 323)</li> <li>Snap On collar M 108 mm (two adapters required: ZB 323 and ZB 324)</li> <li>Sling On collars M108 (adapter ZB321)</li> <li>Sling On collars M108 (two adapters required: ZB321 and ZB322)</li> <li>IMPORTANT: Press in two stages (108 mm).</li> </ul>			
76,1–108 mm	Novopress	<ul><li>ACO 401 (18 V)</li><li>ACO 403 (18 V)</li></ul>	Snap On collars HP76,1–108 mm			
15–22 mm	Klauke	<ul> <li>MAP215 "Klauke Mini" (18 V)</li> </ul>	Mini Klauke jaws: 15–22 mm			
15–35 mm	Klauke	<ul> <li>MAP219 "Klauke Mini" (18 V)</li> </ul>	Mini Klauke jaws: 15–35 mm			
15–54 mm	Klauke	Klauke UAP332	Jaws: 15–54 mm			
15–108 mm	Klauke	UAP432 (18V)	<ul> <li>Jaws: 15–54 mm (KSP3)</li> <li>Collars and adapters: 42–54 mm (KSP3)</li> <li>Collars and adapters: 76,1–168 mm (LP – KSP3)</li> </ul>			
76–108 mm	Klauke	UAP100120 (18 V)	Collars: 66,7–108 mm (KSP3)			
15-35 mm	Hilti	NPR 019 IE-A22	NPR PM jaws: 15-35 mm			
15-54 mm	Hilti	NPR 032 IE-A22	<ul> <li>NPR PS jaws: 15-35 mm</li> <li>NPR PR collars: 42-54 mm</li> </ul>			
15-108 mm	Hilti	NPR 032 PE-A22	<ul> <li>NPR-PS jaws: 15-35 mm</li> <li>NPR PR jaws with adapter 42-88,9 mm (with NPR PA3 adapter), 108 mm (with NPR PA3+NPR PA4 adapter)</li> </ul>			
45 400	1.01.0		IMPORTANT: press in two stages (108 mm)			
15-108 mm	Hilti	M18HPT XL	Jaws: 15-108 mm			
15-35 mm 15-54 mm	Milwaukee Milwaukee	<ul><li>M12 HPT-202C</li><li>M18 HPT-202C</li></ul>	<ul> <li>J12 jaws: 15-35 mm</li> <li>J18 jaws: 15-35 mm</li> <li>RJ collars: 42-54 mm (with RJA adapter)</li> </ul>			
15–35 mm	REMS	<ul><li>Mini Press ACC (14V)</li><li>Mini Press ACC (22V)</li></ul>	REMS Mini Press jaws: 15–35 mm*			

Size	Producer	Press type	Jaws/collars
15–54 mm	REMS	<ul> <li>Powerpress 2000 (230 V)</li> <li>Powerpress E (230 V)</li> <li>Powerpress ACC (230 V)</li> <li>Accu-Press (12 V)</li> <li>Accu-Press ACC (12 V)</li> </ul>	<ul> <li>REMS jaws: 15–54 mm* (4G)</li> <li>Collars and adapter: 42–54 mm (PR3-S)</li> </ul>
15–108 mm	REMS	Power-Press XL ACC	<ul> <li>REMS jaws: 15–35 mm (2G)</li> <li>REMS jaws: 42 mm (4G)</li> <li>Collars and adapter: 42 mm (PR-3S + Z2)</li> <li>REMS jaws: 54 mm (4G)</li> <li>Collars and adapter: 54 mm (PR-3S + Z2)</li> <li>Collars and adapter: XP66,7 mm (PR-3S + Z6 XL)</li> <li>Collars and adapter: 76,1–108 mm (PR-3S + Z6 XL)</li> </ul>
15–54 mm	Rothenberger	<ul> <li>Romax AC ECO</li> <li>Romax 3000 Akku</li> <li>Romax 3000 AC</li> <li>Romax 4000</li> </ul>	<ul> <li>KAN-therm jaws M15–35 mm</li> <li>KAN-therm collars M42–54 with adapter (ZBS1)</li> </ul>

\* only 18 and 28 mm forks marked as "108" (Q1 2008) or newer allowed

Utilization of other press tools requires consultation with the manufacturer of the installation system each time.



## Tools – work safety

Before starting any works, make sure you read the instruction manual and learn the principles of safe work. All tools must be used according to their dedication and the manufacturer's instruction manual. During the use of tools, one must observe the terms of regular inspections and all applicable safety regulations. Using tools against their designed use may lead to their damage or to the damage of their accessories and pipes. It may also lead to the occurrence of leakages in installation joints.

#### **KAN-therm tools:**



- Electric press KAN-therm AC 3000
   Battery-powered press KAN-therm DC 4000

- Battery-powered press KARATI
   KAN-therm M15–35 mm jaws
   M42-54 mm collar
   ZBS1 42-54 mm adapter

#### **NOVOPRESS tools:**



- Battery-powered press ACO203XL
   PB2 M15–35 mm jaws
   M 35–108 Snap On collar
   ZB203 adapter

- 5. ZB221, ZB222 adapters





- Battery-powered press ACO 102\*
   Battery-powered press ACO 103
   M15–35 mm jaws
   \*The tools are not available in KAN-therm offer.



- Electric press ECO 301\*
   M15–28 mm jaws
   M 35-66,7 Snap On collar
   ZB 303 adapter
   ZB 323 adapter
   The tools are not available in KAN-therm offer.



- Battery-powered press ACO 401\*/ACO 403
   HP 76,1,-108 Snap On collar
   \*The tools are not available in KAN-therm offer.

#### **REMS tools:**



- Electric press Power-Press ACC
   Battery-powered press Akku-Press
   Electric press Power-Press SE
   M15–35 mm jaws
   M42–54 mm jaws

#### **KLAUKE tools:**



1. Battery-powered press KAN-therm Mini 2. SBM M 15–28 mm jaws

#### 5.2 Preparation of pipes for pressing



#### 1. Cutting pipes

Cut pipes perpendicularly to the axis using a roll pipe cutter (breaking incompletely cut pipe sections is prohibited). The use of other tools is permitted, provided that the cut is made perpendicularly and the cut edges are not damaged in the form of cracks, material loss, or other deformations of the pipe cross-section. Do not use torches or cutting discs for pipe cutting, which can generate significant amounts of heat, angle grinders, etc.



#### 2. Chamfering

Use a manual chamfer (for diameters 76,1–108 – a semi-round steel file) to chamfer the internal and external edge of the pipe, removing all chips, which could potentially damage the O-Ring during assembly.



#### 3. Inspection

Prior to assembly, visually inspect the presence and condition of the O-Ring. Check, if there are no chips or metal shavings or other pollutions on the pipe and the fitting, which could damage the seal during installation. Make sure if the distance between neighboring fittings is above the permissible  $d_{min}$  (table: Minimal assembly distances, fig. 1).

#### 4. Mounting the pipe and the joint

To achieve the correct strength of a joint, ensure a proper depth A (table: Minimal assembly distances, fig. 1) of inserting the pipe into the fitting.

Before pressing, insert the pipe into the fitting up to the marked depth (slight rotation permissible). Do not use lubricants, greases or fats when mounting the pipe (water or a soap solution is permissible – recommended for pressure tests conducted with compressed air).



#### 5. Marking the depth of the mount

In order to ensure the correct durability of your joint, maintain proper depth A (table: Minimal assembly distances) of mount of the pipe inside the fitting. When mounting multiple joints at the same time (sliding pipes into fittings), before pressing next joints, inspect the pipe insertion depth. To do this, just check if the pipe is inserted into the fitting as far as possible.

To facilitate the identification of the pipe insertion depth in the fitting, use a simple technique of marking with a marker. It consists in sliding the pipe into the fitting as far as possible and then making a mark on the pipe, right next to the very edge of the fitting socket. After pressing, this mark must still be visible right at the edge of the fitting.

You can also use special patterns to mark the sliding depth without checking it with the fitting.

Note: The patterns to mark the sliding depth are not part of the basic system offer and may be available depending on the markets where the product is sold.



#### 6. Pressing joints

Before starting any works, read all suitable instruction manuals and verify the proper operation of your tools. It is recommended to use pressing tools and jaws offered as part of the KAN-therm Inox 304 system.

Select the size of your press jaw basing on the diameter of the joint. Place the jaws on the joint so that its notch embraces the protruding part of the fitting (the space where the O-Ring is located). After starting the press, the process takes place automatically and cannot be stopped. If, for any reason, the process of pressing is stopped, the joint needs to be disassembled (cut off) and a new one needs to be executed. If the installer has press tools and jaws not supplied by the KAN-therm, the possibility of using them should be consulted with KAN's Technical Support Department.



#### 7. Pressing 76,1–108 mm joints - preparing the jaws

To press the biggest diameters (76,1; 88,9; 108), use a special, four-part jaw (collar). After taking the jaws out of the box, unlock it. Next, open the jaws.

8. Mount the opened jaws on the fitting. The jaws are equipped with a special notch, which fits the collar on the fitting. Notice: A label with the size of the jaws (visible on the figure) should be always located at the side of the pipe.

**9.** After the jaw is properly located on the fitting, it should be secured again by pressing the pin as far as possible (Klauke collars) or checking the alignment of the markers (Novopress collars). At this moment, the jaws are ready to be connected to the press machine.



#### 10. Connecting the press machine to the jaws

Connect the press tool to the collar. It is absolutely necessary to ensure that the press tool is connected to the collar in accordance with the instructions attached to the specific tool.

A press machine connected this way may be started for the purpose of executing a fully pressed joint.

#### 11. Pressing

The full time of executing one pressed joint is c.a. 1 min. (applies to diameters: 76,1–108 mm). After starting the press, the process takes place automatically and cannot be stopped. If, for any reason, the process of pressing is stopped, the joint needs to be disassembled (cut off) and a new one needs to be executed. After executing the pressed joint, the press machine will automatically return to its primary position. After that, remove the arms of the press machine from the jaws. To remove the collar from the fitting, unlock it again and then unfold it.

#### Pipe insertion depth in the fitting and minimum distance between pressed fittings

Ø [mm]	A [mm]	d <sub>min</sub> [mm]	C <sub>min</sub> [mm]
15	<b>15</b> 20		35
18	20	10	35
22	21	10	35
28	23	10	35
35	26	10	35
42	30	20	35
54	35	20	35
76,1	53	20	75
88,9	60	20	75
108	71	20	100



Ø [mm]	C [mm]	D [mm]	E [mm]	F [mm]
		Jaws		
15	20	28	75	130
18	25	28	75	131
22-28	31	35	80	150
35	31	44	80	170
54	60	110	140	360
		Collars		
42	75	75	115	265
54	85	85	120	290
76,1	110	110	140	350
88,9	<b>88,9</b> 120		150	390
108	140	140	170	450



#### Minimal assembly distances

#### 5.3 Pipe bending

If there is a need, KAN-therm Inox 304 pipes may be bent "cold", provided that the minimal bending radius  $R_{min}$  is observed:

#### $R_{min} = 3,5 \times D_{e}$

#### D<sub>e</sub> – external diameter of the pipe

Do not bend the pipes "hot", due to the vulnerability of pipes processed this way to corrosion resulting from a change in the crystal structure of their material.

Use manual benders to bend the pipe. These may be electric or hydraulic. Do not "cold" bend pipes with diameters exceeding Ø35 mm (use ready-made bends and elbows 90° and 45° supplied as part of the KAN-therm system).

Do not weld or solder KAN-therm Inox 304 pipes, since this process changes the structure of material, which might lead to corrosion.

#### 5.4 Threaded fittings, connecting with other KAN-therm systems



The principle of connecting KAN-therm Inox 304 joints with brass fittings

KAN-therm Inox 304 system offer a wide selection of fittings with male and female threads. Since fittings with male threads are equipped with cone threads (pipe), in threaded joints with brass shape fittings, you can only use male threads for brass joints, sealed with e.g. a small amount of tow. It is suggested that the threaded (screwed) joint is executed before pressing the joint, so that no additional load is applied on the pressed joint. Do not use standard PTFE tape or any other solutions containing halides (e.g. chlorides) to seal threads in KAN-therm Inox 304 installations.

Threaded fittings with other fixtures and threaded elements outside the system KAN-therm offer should be made in line with EN 10226 (ISO 7-1) and EN ISO 228 depending on the thread type.

## 6 Flange connections



#### Table of Inox 304 flange connections

Code	Size	Amount of screws/ nuts	Screw size	Screw class	Nut class	Amount of washers	Flange	Flat seal
1609091030	15 DN15 PN16	4	M12	8.8	8	8	DN15	DN12 EPDM
1609091031	18 DN15 PN16	4	M12	8.8	8	8	DN15	DN15 EPDM
1609091032	22 DN20 PN16	4	M12	8.8	8	8	DN20	DN20 EPDM
1609091033	28 DN25 PN16	4	M12	8.8	8	8	DN25	DN25 EPDM
1609091034	35 DN32 PN16	4	M16	8.8	8	8	DN32	DN32 EPDM
1609091035	42 DN40 PN16	4	M16	8.8	8	8	DN40	DN40 EPDM
1609091036	54 DN50 PN16	4	M16	8.8	8	8	DN50	DN50 EPDM
1609091037	76,1 DN65 PN16	4	M16	8.8	8	8	DN65	DN65 EPDM
1609091038	88,9 DN80 PN16	8	M16	8.8	8	16	DN80	DN80 EPDM
1609091029	108 DN100 PN16	8	M16	8.8	8	16	DN100	DN100 EPDM

## 7 Operational notes

#### 7.1 Equipotential bonding

Every finished metal installation has to be provided with connections equalizing electrical potentials, i.e. grounded in order to prevent stray currents and occurrence of contact corrosion.

According to regulations in force, the connections of grounding conductors have to be made by welding or by threaded clamps and the connections to the pipelines must be made with screw clamps. In order to make the correct equipotential bonding, it is necessary to:

- 1. Get information on the applied electric shock protection solution (grounding method) in the building object.
- 2. Connect the equalizing conduit to the pipe with the appropriate clamp. In order to eliminate the risk of contact corrosion, the clamp must be selected according to the type of pipe.
- 3. Make the serial connections of all individual pipelines branches with a use of potentials equalization conduits and connect them to the main grounding collecting bar of the building object.

#### Attention!

D

#### Remove the insulation, paintwork and dirt from the pipe in clamp assembly places.

The length of the electrical conduits from the piping system to the grounding collecting bar of the potential equalization system should be as short as possible.

Calculations of the electrical potentials equalization system in the building object must be performed by person with appropriate qualifications.



- **1.** Gas
- 2. Insulation liner
- 3. Central heating
- 4. Foundation grounding
- 5. Water
- 6. Sewer

## 8 Transport and storage

- Elements of the KAN-therm Inox 304 must be stored separately from other metal elements such as carbon steel.
- \_\_\_\_ Do not store elements of the system directly on the ground (e.g. on soil or concrete).
- \_\_\_\_ Do not store elements of the system in the vicinity of chemical solutions.
- Pipe bundles should be stored and transported on wooden pallets (avoid direct contact with other steel elements, e.g. pipe stands).
- During transport, loading and unloading, be extra careful not to scratch or damage the pipes or fittings do not: throw, drag or bend them.
- \_\_\_\_ Rooms designed for storing elements of the system must be dry.
- During their storage, assembly and use, pipe surfaces must not be exposed to long-term, direct contact with water or humidity.



Detailed information about storage and transport of components can be found at en.kan-therm.com.

## NOTES

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-																	

## **SYSTEM KAN-therm Inox 304 - assortment**

## **Pipes**

Stainless steel pipe 1.4301 - bar			GROU	IP: H
Size [mm]	* Code	6⁄	6666	UM
15×1,0	<b>1629194048</b>	6	762	m
18×1,0	1629194049	6	366	m
22×1,2	1629194050	6	366	m
28×1,2	1629194051	6	222	m
35×1,5	1629194052	6	222	m
42×1,5	1629194053	6	114	m
54×1,5	1629194054	6	114	m
76,1×2,0	1629194055	6	144	m
88,9×2,0	1629194056	6	96	m
108×2,0	1629194047	6	78	m



coil 6/ bar 6000 pipes in tube 📋 bag 😚 carton box 2000 pallet N new 🚺 available soon

### Connectors



#### Female connector 1.4301

#### **GROUP: G**

	Size [mm]	* Code		(	UM
N	15 Rp¾"	1609044033	20	90	pc.
N	15 Rp1⁄2"	1609044016	20	130	pc.
N	15 Rp¾"	1609044017	20	90	pc.
N	18 Rp1⁄2"	1609044018	20	120	pc.
N	18 Rp¾"	1609044019	20	80	pc.
N	22 Rp1/2"	1609044021	20	100	pc.
N	22 Rp¾"	<b>1609044022</b>	20	100	pc.
N	22 Rp1"	<b>1609044020</b>	20	60	pc.
N	28 Rp³⁄4"	<b>1609044025</b>	20	40	pc.
N	28 Rp1"	<b>1609044024</b>	20	60	pc.
N	28 Rp1¼"	<b>1609044023</b>	20	30	pc.
N	35 Rp1"	<b>1609044028</b>	10	20	pc.
N	35 Rp1¼"	<b>1609044027</b>	10	30	pc.
N	35 Rp1½"	<b>1609044026</b>	10	20	pc.
N	42 Rp1 <sup>1</sup> /4"	<b>1609044030</b>	4	12	pc.
N	42 Rp1½"	<b>1609044029</b>	4	24	pc.
N	54 Rp1½"	1609044031	4	12	pc.
N	54 Rp2"	<b>1609044032</b>	4	12	pc.
N	76.1 Rp21/2"	<b>1609044034</b>	1	1	pc.
N	88.9 Rp3"	1609044035	1	1	pc.



#### Male connector 1.4301 **GROUP: G** N 15 R3⁄8" 1609045098 20 80 pc. N 15 R1⁄2" 1609045096 20 200 pc. 15 R¾" 1609045097 20 80 N pc. N 18 R1/2" 1609045099 20 160 pc. N 18 R3⁄4" 1609045100 20 100 pc. 70 N 22 R1/2" 1609045102 20 pc. 22 R3⁄4" 1609045103 20 100 N pc. N 22 R1" 1609045101 20 60 pc. 28 R¾" 1609045106 20 50 N pc. N 28 R1" 1609045105 20 60 pc. 28 R1¼" **1609045104** 20 30 N pc. 40 35 R1" 1609045109 10 N pc. N 35 R11⁄2" 1609045107 10 20 pc. N 35 R1¼" 1609045108 10 40 pc. N 42 R1½" 1609045110 4 24 pc. 42 R1¼" 1609045111 4 24 Ν pc. 54 R11⁄2" 1609045112 N 4 16 pc. 54 R2" N 1609045113 4 12 pc. N 76.1 R21/₂" **1609045114** 1 1 pc. N 88.9 R3" 1609045115 1 1 pc. N 108 R4" **16090**45125 1 1 pc.



	Female half union with flat sealing 1.4301			GROL	JP: G
	Size [mm]	* Code			UM
N	15 G1⁄2"	1609271074	20	120	pc.
N	15 G¾"	1609271063	10	120	pc.
N	18 G1⁄2"	1609271075	20	100	pc.
N	18 G¾"	1609271064	20	100	pc.
N	22 G¾"	1609271076	20	60	pc.
N	22 G1"	1609271065	20	60	pc.
N	28 G1"	1609271077	20	40	pc.
N	28 G1¼"	1609271066	20	40	pc.
N	35 G1¼"	1609271078	10	32	pc.
N	35 G11⁄2"	1609271067	10	32	pc.
N	42 G1¾"	1609271079	4	12	pc.
N	42 G2"	1609271080	4	12	pc.

1609271081

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8

**GROUP: G** 

pc.





	Straight coupling 1.4301			GROU	P: G
	Size [mm] *	Code		$\bigotimes$	UM
N	15	1609245054	20	140	pc.
N	18	1609245055	20	120	pc.
N	22	1609245056	20	80	pc.
N	28	1609245057	20	60	pc.
N	35	1609245058	10	35	pc.
N	42	1609245059	4	24	pc.
N	54	1609245060	4	16	pc.
N	76,1	1609245061	1	1	pc.
N	88,9	1609245062	1	1	pc.
N	108	1609245052	1	1	pc.



Slip cou	upling	1.4301	
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N 54 G2"

	Size [mm]	*	Code		(	UM
N	15		1609080042	20	140	pc.
N	18		1609080043	20	100	pc.
N	22		1609080044	20	60	pc.
N	28		1609080045	20	40	pc.
N	35		1609080046	10	20	pc.
N	42		1609080047	4	16	pc.
N	54		1609080048	4	8	pc.
N	76,1		1609080049	1	1	pc.
N	88,9		1609080050	1	1	pc.
N	108		1609080040	1	1	pc.

coil 6/ bar 666 pipes in tube 📋 bag 😚 carton box 2000 pallet N new 🚺 available soon

1	CAN
	- M

	Elbow 90° 1.4301				GROU	P: G
	Size [mm]	*	Code		$(\mathcal{D})$	UM
N	15		1609068333	20	110	pc.
N	18		1609068334	20	90	pc.
N	22		1609068335	20	50	pc.
N	28		1609068336	10	30	pc.
N	35		1609068337	10	20	pc.
N	42		1609068338	4	10	pc.
N	54		1609068339	2	8	pc.
N	76,1		1609068340	1	1	pc.
N	88,9		1609068341	1	1	pc.
N	108		1609068332	1	1	pc.



	Plain end elbow 90° 1.4301	GROUP: G					
	Size [mm]	*	Code			UM	
N	15		1609068323	20	120	pc.	
N	18		1609068324	20	60	pc.	
N	22		1609068325	20	60	pc.	
N	28		1609068326	10	30	pc.	
N	35		1609068327	10	20	pc.	
N	42		1609068328	4	10	pc.	
N	54		1609068329	2	6	pc.	
N	76,1		1609068330	1	1	pc.	
N	88,9		1609068331	1	1	pc.	
N	108		1609068322	1	1	pc.	



Elbow 45° 1.4301				GROU	IP: G
Size [mm]	*	Code		$\bigotimes$	UM
15		1609068303	20	150	pc.
18		1609068304	20	120	pc.
22		1609068305	20	70	pc.
28		1609068306	10	40	pc.
35		1609068307	10	25	pc.
42		1609068308	4	16	pc.
54		1609068309	2	8	pc.
76,1		1609068310	1	1	pc.
88,9		1609068311	1	1	pc.
108		1609068302	1	1	pc.
	Size [mm]         15         18         22         28         35         42         54         76,1         88,9	Size [mm]       *         15       *         18       *         22       *         28       *         35       *         42       *         54       *         76,1       88,9	Size [mm]         *         Code           15         1609068303         1609068304           22         1609068305         1609068305           28         1609068306         1609068307           35         1609068307         1609068307           42         1609068308         1609068308           54         1609068310         1609068310           88,9         1609068311         1609068311	Size [mm]         *         Code         Image: Code           15         1609068303         20           18         1609068304         20           22         1609068305         20           28         1609068306         10           35         1609068307         10           42         1609068308         4           54         1609068309         2           76,1         1609068310         1           88,9         1609068311         1	Size [mm]         Code         Image: Code         Im





	Plain end elbow 45° 1.4301				GROU	P: G
	Size [mm]	*	Code		(	UM
N	15		1609068313	20	150	pc.
N	18		1609068314	20	120	pc.
N	22		1609068315	20	60	pc.
N	28		1609068316	10	40	pc.
N	35		1609068317	10	25	pc.
N	42		1609068318	4	16	pc.
N	54		1609068319	2	8	pc.
N	76,1		1609068320	1	1	pc.
N	88,9		1609068321	1	1	pc.
N	108		1609068312	1	1	pc.



#### 

	Tee 1.4301				GROU	P: G
	Size [mm]	*	Code		(	UM
N	15		1609257126	20	80	pc.
N	18		1609257127	20	60	pc.
N	22		1609257128	20	40	pc.
N	28		1609257129	10	25	pc.
N	35		1609257130	10	15	pc.
N	42		1609257131	4	8	pc.
N	54		1609257132	2	6	pc.
N	76,1		1609257133	1	1	pc.
N	88,9		1609257134	1	1	pc.
N	108		1609257125	1	1	pc.

coil 6/ bar 666 pipes in tube 📋 bag 😚 carton box 2000 pallet N new 🚺 available soon



	Reducing tee 1.4301			GROU	P: G
	Size [mm]	* Code		$\bigcirc$	UM
N	18 / 15 / 18	1609260133	20	60	pc.
N	22 / 15 / 22	1609260134	20	50	pc.
N	22 / 18 / 22	1609260135	20	50	pc.
N	28 / 15 / 28	<b>1609260136</b>	10	30	pc.
N	28 / 18 / 28	1609260137	10	30	pc.
N	28 / 22 / 28	1609260138	10	30	pc.
N	35 / 15 / 35	1609260139	10	20	pc.
N	35 / 18 / 35	1609260140	10	20	pc.
N	35 / 22 / 35	1609260141	10	20	pc.
N	35 / 28 / 35	1609260142	10	20	pc.
N	42 / 15 / 42	1609260143	4	12	pc.
N	42 / 18 / 42	1609260144	4	12	pc.
N	42 / 22 / 42	1609260145	4	12	pc.
N	42 / 28 / 42	1609260146	4	12	pc.
N	42 / 35 / 42	1609260147	4	12	pc.
N	54 / 15 / 54	1609260148	2	8	pc.
N	54 / 18 / 54	1609260149	2	8	pc.
N	54 / 22 / 54	1609260150	2	8	pc.
N	54 / 28 / 54	1609260151	2	8	pc.
N	54 / 35 / 54	1609260152	2	8	pc.
N	54 / 42 / 54	1609260153	2	8	pc.
N	76,1 / 22 / 76,1	1609260154	1	1	pc.
N	76,1 / 28 / 76,1	<b>1609260155</b>	1	1	pc.
N	76,1 / 35 / 76,1	1609260156	1	1	pc.
N	76,1 / 42 / 76,1	1609260157	1	1	pc.
N	76,1 / 54 / 76,1	<b>1609260158</b>	1	1	pc.
N	88,9 / 22 / 88,9	<b>1609260159</b>	1	1	pc.
N	88,9 / 28 / 88,9	1609260160	1	1	pc.
N	88,9 / 35 / 88,9	1609260161	1	1	pc.
N	88,9 / 42 / 88,9	1609260162	1	1	pc.
N	88,9 / 54 / 88,9	1609260163	1	1	pc.
N	88,9 / 76,1 / 88,9	1609260164	1	1	pc.
N	108 / 22 / 108	1609260126	1	1	pc.
N	108 / 28 / 108	1609260127	1	1	pc.
N	108 / 35 / 108	1609260128	1	1	pc.
N	108 / 42 / 108	1609260129	1	1	pc.
N	108 / 54 / 108	1609260130	1	1	pc.
N	108 / 76,1 / 108	1609260131	1	1	pc.
N	108 / 88,9 / 108	1609260132	1	1	pc.

coil 🎸 bar 🐼 pipes in tube 📋 bag 😚 carton box 🕮 pallet N new 🌖 available soon

	Size [mm]	*	Code			UM
N	18 / 15		1609221109	20	150	pc.
N	22 / 15		1609221110	20	140	pc.
N	22 / 18		1609221111	20	120	pc.
N	28 / 15		1609221112	20	70	pc.
N	28 / 18		1609221113	20	100	pc.
N	28 / 22		1609221114	20	80	pc.
N	35 / 15		1609221115	10	50	pc.
N	35 / 18		1609221116	10	50	pc.
N	35 / 22		1609221117	10	50	pc.
N	35 / 28		1609221118	10	45	pc.
N	42 / 15		1609221119	4	30	pc.
N	42 / 18		1609221120	4	30	pc.
N	42 / 22		1609221121	4	24	pc.
N	42 / 28		1609221122	4	24	pc.
N	42 / 35		1609221123	4	24	pc.
N	54 / 15		1609221124	4	16	pc.
N	54 / 18		1609221125	4	16	pc.
N	54 / 22		1609221126	4	16	pc.
N	54 / 28		1609221127	4	16	pc.
N	54 / 35		1609221128	4	16	pc.
N	54 / 42		1609221129	4	16	pc.
N	76,1 / 42		1609221130	1	1	pc.
N	76,1 / 54		1609221131	1	1	pc.
N	88,9 / 54		1609221132	1	1	pc.
N	88,9 / 76,1		1609221133	1	1	pc.
N	108 / 54		1609221106	1	1	pc.
N	108 / 76,1		1609221107	1	1	pc.

Plain end reducer 1.4301

108 / 88,9

N

	Female elbow 90° 1.4301			GROUP: G			
	Size [mm]	*	Code		(	UM	
N	15 Rp1⁄2"		1609069008	20	90	pc.	
N	18 Rp1⁄2"		1609069009	20	70	pc.	
N	18 Rp¾"		1609069013	10	90	pc.	
N	22 Rp¾"		1609069010	10	50	pc.	
N	28 Rp1"		1609069011	10	30	pc.	
N	35 Rp1¼"		1609069012	10	10	pc.	

#### Male elbow 90° 1.4301 **GROUP: G** Size [mm] 15 R1/2" 1609070025 20 80 N pc. 18 R1⁄2" 1609070026 20 N 80 pc. N 18 R3⁄4" 1609070027 10 80 pc. 22 R3⁄4" 1609070028 10 50 N pc. 28 R1" 1609070029 10 30 N pc. N 35 R1¼" 1609070030 10 20 pc. 42 R11/2" 1609070031 2 Ν 10 pc. 54 R2" 1609070032 2 6 N pc.

coil 6⁄ bar 566 pipes in tube 📋 bag 😚 carton box 2000 pallet N new 🚺 available soon

\* custom-made - lead time max 4 weeks | \*\* availability as agreed | \*\*\* while stock lasts









1

pc.

1

**1609221108** 

**GROUP: G** 



	Female tee 1.4301 Inox			GROUP: G				
	Size [mm]	* Code		$\mathfrak{B}$	UM			
N	15 Rp½"	<b>1609257137</b>	20	70	pc.			
N	18 Rp½"	1609257138	20	50	pc.			
N	18 Rp¾"	1609257139	20	50	pc.			
N	22 Rp1⁄2"	1609257140	20	40	pc.			
N	22 Rp¾"	1609257141	20	40	pc.			
N	28 Rp1⁄2"	1609257143	10	30	pc.			
N	28 Rp¾"	1609257144	10	30	pc.			
N	28 Rp1"	1609257142	10	30	pc.			
N	35 Rp1⁄2"	1609257146	10	20	pc.			
N	35 Rp¾"	1609257147	10	20	pc.			
Ν	35 R1¼"	1609257145	10	20	pc.			
Ν	42 Rp1⁄2"	1609257149	4	16	pc.			
Ν	42 Rp¾"	1609257150	4	12	pc.			
Ν	42 R11⁄2"	1609257148	4	12	pc.			
Ν	54 Rp1⁄2"	1609257151	2	8	pc.			
Ν	54 Rp¾"	1609257153	2	8	pc.			
N	54 Rp2"	1609257152	2	6	pc.			
N	76,1 Rp¾"	1609257155	1	1	pc.			
N	76,1 Rp2"	1609257154	1	1	pc.			
N	88,9 Rp¾"	1609257157	1	1	pc.			
N	88,9 Rp2"	1609257156	1	1	pc.			
N	108 Rp³⁄4"	1609257136	1	1	pc.			
N	108 Rp2"	1609257135	1	1	pc.			



	Male tee 1.4301 Inox				GROU	P: G
	Size [mm]	*	Code		(	UM
N	15 Rp1⁄2"		1609257158	20	70	pc.
N	18 Rp1⁄2"		1609257159	20	50	pc.
N	22 Rp¾"		1609257160	20	40	pc.
N	28 Rp1"		1609257161	10	30	pc.
N	35 Rp1/4"		1609257162	10	20	pc.



	Female wallplate elbow 1.4301 - L = 41 mm			GROUP: G			
	Size [mm]	*	Code		$(\mathcal{D})$	υм	
N	15 Rp1⁄2"		1609286000	20	70	pc.	
	Note: Size B = 50 mm.						



	Female wallplate elbow 1.4301 - L = 44 mm		GROUP: G				
	Size [mm]	* Code		(	UM		
N	18 Rp½"	1609286001	20	70	pc.		
	Note: Size B = 50 mm.						



	Female wallplate elbow 1.4301 - L = 52 mm			GROUP: O		
	Size [mm]	* Code		(	UМ	
N	22 Rp¾"	1609286002	20	50	pc.	
	Note: Size B = 55 mm.					





	Crossover 1.4301		GROUP: G			
	Size [mm]	* Code			UM	
N	15	1609178014	10	80	pc.	
N	18	1609178015	10	50	pc.	
N	22	1609178016	10	50	pc.	



	Bend 90° 1.4301				GROU	P: G
	Size [mm]	*	Code		$\Im$	UM
N	15		1609011050	20	70	pc.
N	18		1609011051	20	50	pc.
N	22		1609011052	10	30	pc.
N	28		1609011053	10	20	pc.
N	35		1609011054	4	8	pc.
N	42		1609011055	2	4	pc.
N	54		1609011056	2	2	pc.
N	76,1		1609011057	1	1	pc.
N	88,9		1609011058	1	1	pc.
N	108		1609011049	1	1	pc.

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	Stop end 1.4301 GROUP: G					JP: G
	Size [mm]	*	Code		$(\mathcal{D})$	UM
N	15		1609250063	20	80	pc.
N	18		1609250064	20	300	pc.
N	22		1609250065	20	150	pc.
N	28		1609250066	20	100	pc.
N	35		1609250067	10	75	pc.
N	42		1609250068	4	32	pc.
N	54		1609250069	4	24	pc.
N	76,1		1609250070	1	1	pc.
N	88,9		1609250071	1	1	pc.
N	108		1609250062	1	1	pc.







Flange PN16 1.4	301						GROU	P: G
Size [mm]				*	Code		$\bigotimes$	UM
15 DN15					1609091030	1	15	pc.
18 DN15					1609091031	1	12	pc.
22 DN20					1609091032	1	9	pc.
28 DN25					1609091033	1	8	pc.
35 DN32					1609091034	1	5	pc.
42 DN40					1609091035	1	4	pc.
54 DN50					1609091036	1	2	pc.
76,1 DN65					1609091037	1	1	pc.
88,9 DN80					1609091038	1	1	pc.
108 DN100					1609091029	1	1	pc.
Code	D	k	b	d2	h	z	n	12
1609091030	95	65	14	14	45	25		4
1609091031	95	65	14	14	47	27		4
1609091032	105	75	16	14	52	31		4
1609091033	115	85	16	14	56	34		4
1609091034	140	100	18	18	66	40		4
1609091035	150	110	18	18	74	44		4
1609091036	165	125	18	18	85	51		4
1609091037	185	145	20	18	132	78		4
1609091038	200	160	20	18	146	91	;	8
1609091029	220	180	20	18	169	100		8



## Accessories

	Plug				GROU	P: G
	Size [mm]	*	Code		$(\mathcal{D})$	UM
N	15		2141183000	20	80	pc.
N	18		<b>2141</b> 183001	20	300	pc.
N	22		<b>2141183002</b>	10	150	pc.
N	28		<b>2141</b> 183003	10	130	pc.
N	35		<b>2141183004</b>	5	75	pc.
N	42		<b>2141</b> 183005	4	48	pc.
N	54		<b>2141183006</b>	1	24	pc.



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## Tools



Roller cutter for pipes REMS RAS St		GROUP: K		
Range [mm]	*	Code	(	UM
15-54		<b>1948267025</b>	1	pc.
35-108		1948267027	1	pc.



Cutting wheel for roller cutter REMS St			GROUP: K		
Range [mm]	*	Code		UM	
15-108		1941267037	1	pc.	
Intended for roller cutters, codes: 1948267025, 1948267027.					



	Roller cutter for pipes REMS RAS Mini S			GROU	JP: K
	Range [mm]	*	Code	(	UM
N	15-28		<b>1900267003</b>	1	pc.
	Note: The set includes a cutting wheel.				



	Roller cutter for pipes REMS RAS S			GROUP: K			
	Range [mm]	*	Code	$(\mathcal{D})$	UM		
N	15-28		<b>1900267001</b>	1	pc.		
	Note:						

The set includes a cutting wheel.



	Cutting wheel for roller cutter REMS RAS			GROUP: K				
	Range [mm]	*	Code	(	UM			
N	15-28		1900267002	1	pc.			
	Intended for roller cutters, codes: 1900267003, 1900267001.							



	Cordless pipe cutter REMS Akku-Nano		GROU	IP: K
	Range [mm]	* Code	(	UM
J	15-28	<mark>1948</mark> 183003	1	pc.
	Note: The set includes a cutting wheel.			



	Cutting wheel for roller cutter REMS Nano			GROU	JP: K
	Range [mm]	*	Code	(	UM
N	15-28		1978267000	1	pc.
	Intended for Cordless pipe cutting machine code 1948183003.				

Pipe cutting machine REMS Cento			GROU	JP: K
Range [mm]	*	Code		UM
22-108		1948183001	1	pc.
Note: The set includes a cutting wheel.				

Pipe cutting machine REMS DueCento	GROUP			JP: K
Range [mm]	*	Code	$(\mathcal{D})$	UM
54-108		1948267034	1	pc.
<b>Note:</b> The set does not include a cutting wheel.				

Cutting wheel for pipe cutting machine REMS Cento/DueCento				
Range [mm]	*	Code	$\bigotimes$	UM
22-108		1941267041	1	pc.
Intended for pipe cutting machines, codes: 1948183001, 1948267034.				

vheel for pipe cutting machine REMS Cento/	Du	eCento	GROUP: I		
	*	Code	(	UM	
		1941267041	1	pc.	
ipe cutting machines, codes: 1948183001, 1948267034.					

Guide roller insert for pipe cutting REMS DueCento GROUP: K				
Range [mm]	*	Code	(	UM
54-108		1900267000	1	pc.
Note: Intended for pipe cutting machine, code: 1948267034.				

Pipe support for cutting machine REMS Cento		GROL	JP: K	
	* Code		UM	
	1948267029	1	pc.	

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Range [mm]         *         Code         £         UM           15-54         1948267015         1         pc.	Deburrer for metal pipes REMS REG			GROU	JP: K
15-54 <b>1948267015</b> 1 pc.	Range [mm]	*	Code		UM
	15-54		1948267015	1	pc.



Tool set - deburrer and roller cutter		GROUP: K		
Range [mm]	*	Code		UМ
15-54	*	1948267023	1	set
Each set includes: 1948267025 - roller cutter for pipes 12-54 mm, 1948267015 - deburrer for pipes 12-54 mm, 1941267129 - case.				



#### Tool set - KAN-therm Mini battery press tool + "M" profile iaws

jaws	·	GROL	JP: K
Range [mm]	* Code		υм
N 15-28	1936055009	1	pc.
Each set includes: 1936055008 - KAN-therm Mini press tool - 1 pc., 1936267278 - jaws SBM M15 - 1 pc., 1936267279 - jaws SBM M18 - 1 pc., 1936267280 - jaws SBM M22 - 1 pc., 1936267282 - jaws SBM M28 - 1 pc., 1967267051 - battery RAML1 10,8 V Li-lon 1,5 Ah - 2 pcs., 1967267024 - charger LGML1 ~230 V 35 W,			

1967267024
 case - 1 pc.

N CO
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	KAN-therm AC 3000 electric press tool			GROL	JP: K
	Range [mm]	*	Code	$(\mathcal{D})$	UM
N	15-54		1936267239	1	pc.
	Note:				

The press tool is sold in a case.



	KAN-therm DC 4000 battery press tool			GROUP: K			
	Range [mm]	*	Code		UM		
N	15-54		1936267238	1	pc.		
	Note: The press tool is sold with a battery, charger and case.						



	Charger for KAN-therm DC 4000 battery press tool			GROU	IP: K
	Version	*	Code	$\mathfrak{B}$	UM
U	10,8-36 V		1936267267	1	pc.



	Battery for KAN-therm DC 4000 press tool			GROU	IP: K
	Version	*	Code	(	UM
N	18 V / 4 Ah		1936267266	1	pc.

	KAN-therm "M" profile press jaws			GROU	JP: K
	Size [mm]	*	Code	$(\mathcal{D})$	υм
N	15		1936267249	1	pc.
N	18		1936267250	1	pc.
N	22		1936267251	1	pc.
N	28		1936267252	1	pc.
N	35		1936267253	1	pc.
	Note: The jaws work with KAN-therm: AC 3000, DC 4000 drives.				

Note: Use KAN-therm "M" profile collar jaws with KAN-therm ZBS1 adapter for KAN-therm press tools, AC 3000, DC 4000.

Note: Use KAN-therm "M" profile collar jaws with KAN-therm ZBS1 adapter for KAN-therm press tools: AC 3000, DC 4000.

ZBS1 adapter for KAN-therm "M" profile collar jaws





**GROUP: K** 

pc.

pc.

pc.

1

1

**GROUP: K** 

1

**GROUP: K** 

pc.

1

1936267283

1936267284

**1936267285** 

**1936**267160



REMS Power-Press ACC electric press tool			GROU	JP: K
Range [mm]	*	Code	(	UM
15-54		<b>1936</b> 267219	1	pc.



REMS	-	
	~ ~	REMS

**Note:** The press tool is sold with a case. The set does not include jaws.

The press tool is sold with a case. The set does not include jaws.

KAN-therm "M" profile collar

42

N 42 - 54

Note:

Range [mm] 15-54

N

N 54

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\* custom-made - lead time max 4 weeks | \*\* availability as agreed | \*\*\* while stock lasts

**REMS Power-Press SE Basic Pack electric press tool** 



#### **REMS Akku Press battery press tool**

#### **GROUP: K**

**GROUP: K** 

Range [mm]	*	Code		UM
15-54		1936267152	1	pc.
Note: The press tool is sold with a battery, charger and case.				

The set does not include jaws.



REMS "M" profile press jaws	GROUP: K		
Size [mm]	* Code	$\bigotimes$	UM
15	1948267048	1	pc.
18	<mark>1948267052</mark>	1	pc.
22	<mark>1948267056</mark>	1	pc.
28	<mark>1948</mark> 267061	1	pc.
35	<mark>1948</mark> 267065	1	pc.
42	<mark>1948</mark> 267067	1	pc.
54	<mark>1948</mark> 267069	1	pc.
Note:			

The jaws work with Power-Press SE, Akku-Press, Power-Press ACC drives.



Set of REMS "M" profile press jaws			GROL	JP: K
Range [mm]	*	Code		UM
42-54		1948267130	1	set
Each set includes: 1948267067 - jaws "M" to diameter 42 mm, 1948267069 - jaws "M" to diameter 54 mm, case. Jaws work with Power-Press SE, Akku-Press, Power-Press ACC drives.				



#### REMS tool set - electric Power-Press SE press tool and "M" profile jaws

prome jamo			0	
Range [mm]	*	Code	$( \mathcal{D} )$	UM
15-35		1948267033	1	set
Each set includes: 1936267160 - electric press tool REMS Power-Press SE, 1948267054 - jaws "M" to diameter 15 mm, 1948267052 - jaws "M" to diameter 18 mm, 1948267056 - jaws "M" to diameter 22 mm, 1948267065 - jaws "M" to diameter 28 mm, 1948267065 - jaws "M" to diameter 35 mm, case.				



Novopress tool set - ACO103 BT battery press tool + "M" profile jaws

profile jaws	<i>.</i>		GROU	JP: K
Range [mm]	*	Code		UM
15-28	*	1948055008	1	pc.
Each set includes: battery press tool - 1 pc., 1948267093 - jaws M15 for press tool - 1 pc., 1948267095 - jaws M18 for press tool - 1 pc., 1942121002 - jaws M22 for press tool - 1 pc., 1948267097 - jaws M28 for press tool - 1 pc., 19382670047 - charger - 1 pc., 1938267002 - battery 2 Ah - 2 pcs., Case.				



Novopress EFP203 electric press tool		GROU	JP: K	
Range [mm]	*	Code	$\bigotimes$	UM
15-54		<b>1948267210</b>	1	pc.
<b>Note:</b> The press tool is sold with a plastic case.				

Novopress ACO203XL BT press tool		GROU	JP: K
Range [mm]	* Code		UM
15-108	1948267181	1	pc.
Each set includes: battery press tool - 1 pc., battery 18 V / 5.0 Ah Li-lon Milwaukee - 2 pcs., charger - 1 pc.			

- charger 1 pc.,
  pubricant 1 pc.,
  plastic case.

ovopress PB2 "M" profile press jaws		GROU	JP: K	
Size [mm]	*	Code	$(\mathcal{D})$	UM
15		1948267135	1	pc.
18		1948267137	1	pc.
22		1948267139	1	pc.
28		1948267141	1	pc.
35		1948267143	1	pc.
Note: The jaws work with EFP203 and ACO203XL drives.				



Novopress "M" profile Snap On collar GROU		IP: K		
Size [mm]	*	Code	(	UM
42		1948267119	1	pc.
54		1948267121	1	pc.
66,7	*	1948267089	1	pc.
76,1		<mark>1948</mark> 267145	1	pc.
88,9		1948267044	1	pc.
108		1948267038	1	pc.



Note:

Note: Use jaws for diameters 42, 54 mm with adapter ZB203 for ACO203XL. Use jaws for diameters 66,7, 76,1 and 88,9 mm with adapter ZB221 for ACO203XL. Use the jaw with a diameter of 66,7 mm with adapter ZB323 for ECO301. Use the jaw with a diameter of 108 mm with adapter ZB221 and ZB222 for ACO203XL.

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#### HP Snap On collar for Novopress ECO301, ACO203XL, EFP203 **GROUP: K**

Size [mm]	*	Code	$\mathfrak{B}$	UM
35	*	1948267124	1	pc.
42	*	<mark>1948</mark> 267126	1	pc.
54	*	1948267128	1	pc.
Noto:				

Note: Jaws for diameters 35-54 mm with ECO301 press tool use with ZB303 adapter. Jaws for diameters 35-54 mm with ACO203XL and EFP203 crimping tool use with ZB203 adapter. Do not use jaw 54 with the ACO203XL and EFP203 crimper to join KAN-therm Inox system pipes (1.4404 and 1.4521) with a



Novopress ZB203 adapter			GROUP:	
Range [mm]	*	Code	$(\mathcal{D})$	UM
35-54		1948267000	1	pc.
Note: Adapter for EFP203 and ACO203XL drives. Press: 50-63 mm. Steel & Inox: 35-54 mm. Copper: 42-54 mm.				



Novopress ZB221 Adapter			GROL	JP: K
Range [mm]	*	Code		UM
66,7-108		1948267005	1	pc.
Note: Adapter for ACO203XL drive.				

For a diameter of 108 mm, adapter ZB221 is used to make the first crimp, and adapter ZB222 for the second crimp.

Novopress ZB222 Adpater			GROU	JP: K
Range [mm]	*	Code		UM
66,7-108		<b>1948267007</b>	1	pc.
Note: Adapter for ACO203XL drive.				

For a diameter of 108 mm, adapter ZB221 is used to make the first crimp, and adapter ZB222 for the second crimp.



Novopress ACO403 battery press tool			GROUP: K		
Range [mm]	*	Code	(	UM	
76,1-108		<b>1948267209</b>	1	pc.	
Each set includes: battery press tool - 1 pc., battery 18 V / 5.0 Ah Li-Ion Milwaukee - 2 pcs., charger - 1 pc., lubricant - 1 pc., plastic case					

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Novopress "M" profile HP collar			JP: K	
Size [mm]	*	Code		UM
76,1	*	1948267100	1	pc.
88,9	*	1948267102	1	pc.
108	*	1948267098	1	pc.
Note: The jaws work with ACO401 and ACO403 drives.				



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## NOTES



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