We ensure that systems work better.

VULKAN

Solutions for refrigeration and air conditioning technology

Refrigeration Appliances

Braze-free tube connections for service and original equipment



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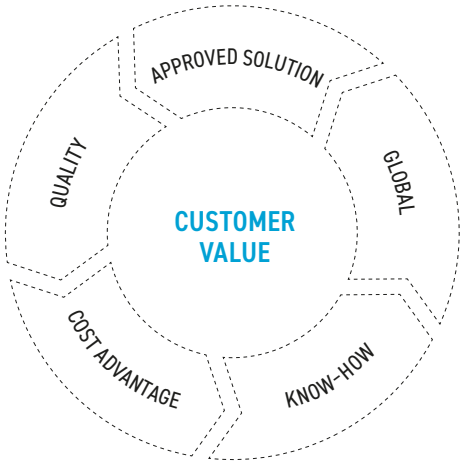

VULKAN

THE VULKAN GROUP

SINCE 1979 VULKAN HAS DEVELOPED, MANUFACTURED AND MARKETED MECHANICAL TUBE JOINING SYSTEMS FOR REFRIGERANT LINES.

With five production sites, over 50 sales companies and around 1,400 employees at 18 locations worldwide, the VULKAN Group is one of the technology and market leaders in the field of marine, industrial and energy technology as well as refrigeration and air conditioning technology.

Under the slogan "We ensure that systems work better." we provide our customers with customized solutions that help to improve their systems both technically and economically.



MARKETS AND PRODUCTS

Due to its diversified business portfolio, the VULKAN Group - in line with the markets it serves - is made up of three divisions: Marine, Industry and Energy and Refrigeration and Air Conditioning.

EXPERTS FOR REFRIGERATION AND AIR CONDITIONING TECHNOLOGY

Originally developed for the most extreme conditions of aerospace applications, VULKAN's LOKRING tube joining technology has been continuously developed for domestic and commercial refrigeration as well as air conditioning applications.

APPROVED SOLUTION

2,500,000,000 LOKRING® CONNECTIONS

have been successfully used in the industrial volume production of refrigerators, freezers and air conditioning systems.

GLOBAL

1,000,000 LOKRINGS PER DAY

are produced in the five international production facilities of VULKAN on modern multi-spindle automatic lathe machines and shipped to 83 destination countries.

COST ADVANTAGE

7,000 CUSTOMERS

optimise their international competitive edge by using LOKRING tube connections as cost and quality benefit compared to brazed ones.

KNOW-HOW

650 UNIQUE TYPES OF LOKRING

are used at present by customers in order to optimally join tubes made of different materials and combinations of diameters.

QUALITY

100 % QUALITY INSPECTION

of LOKRING based on automated industrial image processing as part of the certified VULKAN quality management system.

THE VULKAN GROUP

CUSTOMIZED SOLUTIONS FOR BRAZE-FREE TUBE CONNECTIONS

Since 1979, we have continuously applied the expert knowledge gained as an original equipment manufacturer for the industry to our braze-free tube connections, providing customized solutions for tube connections used in the manufacture, installation and maintenance of refrigeration and air conditioning equipment. As the market leader in braze-free, permanent tube connections, we can supply a matched system of tube connections in original equipment quality and with all necessary certifications for almost any installation or service application. This also includes the corresponding assembly tools and accessories.

EVERYTHING FROM A SINGLE SOURCE

Our customers receive everything from a single source - from special development for specific customer requirements and in-house production to sales and service through local subsidiaries or authorized distributors. VULKAN's Refrigeration and Air Conditioning division is divided into the following business segments:

OEM | PRODUCTION

The LOKRING Single Ring technology is a method for connecting metallic refrigerant lines without brazing so that they are permanent and hermetically sealed. For this purpose, VULKAN constructs customised LOKRING tube connectors for any application based on the tube materials, dimensions and tolerances and the associated assembly tools. Whether it is a matter of optimising costs, improving quality, or solving a problem – LOKRING Single Ring is the answer!

INSTALLATION OF HVAC SYSTEMS

The patented LOKRING tube connection system provides an innovative system of braze-free tube connectors for every installation situation in refrigeration and air conditioning technology.

REPAIR OF REFRIGERATION APPLIANCES

VULKAN provides an innovative system of braze-free tube connectors for every repair situation in refrigeration appliances.

REPAIR OF VEHICLE A/C SYSTEMS

Our technology includes an innovative system of braze-free tube connectors as well as hose connectors for every repair situation in vehicle air conditioning systems & E-Vehicle battery cooling circuits.

RESEARCH AND DEVELOPMENT

For the last decades, experienced engineers have built new solutions for customers‘ applications in the development centre in Germany.

PRODUCT AND MANAGEMENT CERTIFICATION

The products of VULKAN Refrigeration and Air Conditioning have of course TÜV product approval. Furthermore, the quality management system is certified according to ISO 9001 and the environmental management system according to ISO 14001. In addition, AEO certifications, leak tests and expert reports are available.

CLIMATE PROTECTION

Since our tube connections are hermetically sealed, we can ensure that no climate damaging refrigerants leak into the environment. Furthermore, LOKRING makes the use of environmental friendly but flammable refrigerants (HC) safer and allows the use of CO_2 (R744). Thus, by using LOKRING tube connections you make a contribution to the active protection of the environment.

SERVICE

Whether you are seeking planning and consultancy for optimising the refrigeration cycle system by using braze-free tube connections, support with the introduction of the LOKRING technology in production or after-sales service – everything is available locally with competent VULKAN technicians.

THE BEST CONNECTION – WORLDWIDE

Operating with five international production facilities, with 18 VULKAN subsidiaries and an additional 13 agencies worldwide, we ensure that LOKRING expertise is available on site throughout the world. This means that our customers have rapid access to our specialists and that the necessary solutions are quickly available exactly where they are needed.



CUSTOMER REFERENCES

A small selection from more than 7,000 satisfied customers:

BOSCH · Electrolux · FRIGOGLASS · Godrej · gorenje · GRAM · HITACHI · Haier · INDESIT · IVECO · LIEBHERR · LG · MAHLE · Miele · MITSUBISHI ELECTRIC · PORSCHE · SAMSUNG · SIEMENS · Valeo · Whirlpool

LOKRING®

THE PATENTED LOKRING® TUBE CONNECTION SYSTEM PROVIDES AN INNOVATIVE SYSTEM OF BRAZE-FREE TUBE CONNECTIONS FOR EVERY REPAIR SITUATION IN REFRIGERATION APPLIANCES.

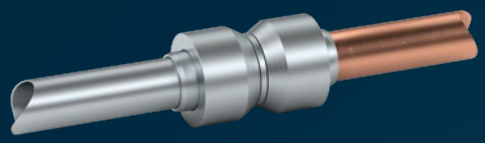
LOKRING tube connections can be made without a great deal of force being necessary, using simple hand assembly tools. LOKRING ensures an absolutely clean, permanent and purely mechanical tube connection with long-term hermetic gas-tightness. This is confirmed by the special TÜV test and approval. All this makes LOKRING tube connections one of the most economical and reliable methods of connecting refrigerant tubes.

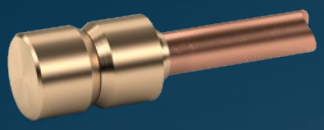
THE BENEFITS

- Also suitable for flammable refrigerants
- Customer-friendly onsite service
- Absolutely clean, efficient and reliable
- Repair work during business hours and public access
- Repair work in situations where there is a fire hazard
- Light hand assembly tool without energy exertion
- No braze-related quality problems

AREAS OF APPLICATION

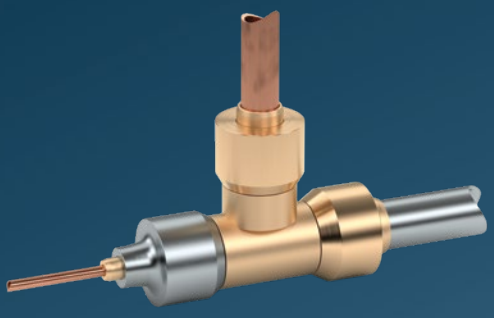
- Household refrigeration appliances (refrigerators, freezers, wine coolers)
- Ready-to-use refrigeration equipment (refrigeration cabinets, bars, lockers, chillers)
- Refrigeration equipment for catering (sales counter refrigerators, flow-through coolers, portable cooling systems)





THE BEST CONNECTION





ONE SYSTEM ENDLESS POSSIBILITIES

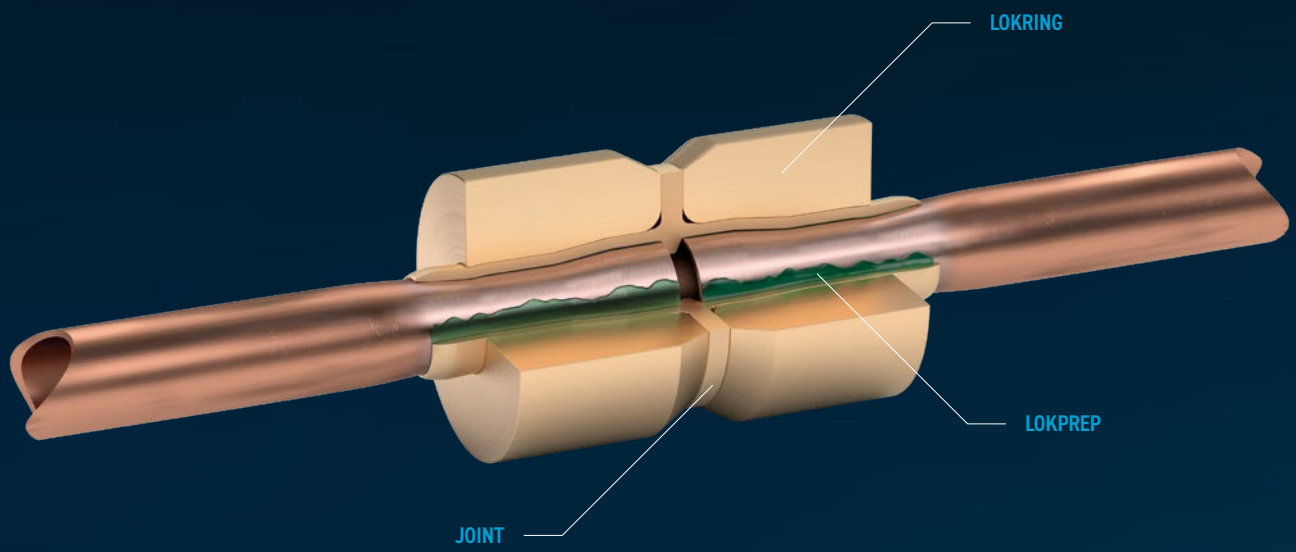
- Straight connections
- Straight reducing connections
- Capillary connections
- Elbows
- T-connections
- Connections with schrader valve
- Stoppers

WITH LOKRING YOU CAN

- Replace a compressor
- Replace a dryer
- Replace a charging tube
- Repair leaky tubes

LOKRING®
BRASS CONNECTORS

THE TYPICAL LOKRING union joint consists of two LOKRINGs and one tubular joint for the acceptance of the two tube ends. Thanks to the conical inner contour of the LOKRING and the special outer contour of the joint, the diameter of the connection, is reduced during assembly to such an extent that the joint and the tube create a hermetically



TECHNICAL SPECIFICATIONS

Reference standards:
EN 378-2 and ISO 14903

Max. operating pressure:
50 bar (720 psi) – Observe the permissible operating pressure of the tube used.

Admissible refrigerants:
Suitable for all HCs, HFCs and mixtures. Not suitable for NH_3.

Temperature range:
-50°C up to 150°C (-58°F up to 302°F)

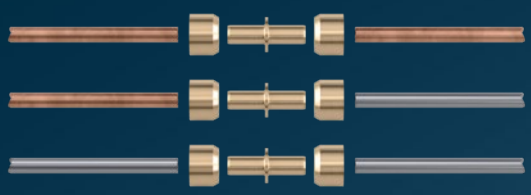
Tube diameter range:
1.6 to 11 mm (1/16" to 3/8")

Minimum tube wall thickness:
- for operating pressures < 25 bar (360 psi): 0.5 mm (0.020")
- for operating pressures > 25 bar (360 psi): 0.7 mm (0.028")*

Approvals:
TÜV

*Applications > 25 bar (360 psi) with smaller tube wall thickness on request.

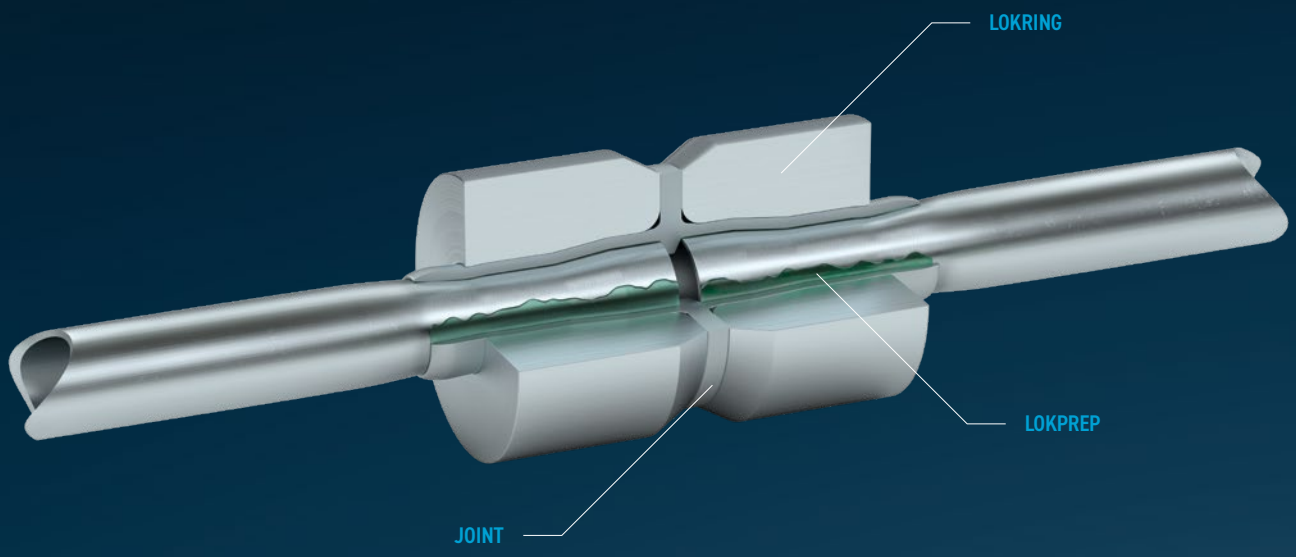
MATERIAL COMBINATIONS



Copper Brass Steel

LOKRING®
ALUMINIUM CONNECTORS

sealed metal-to-metal connection. The lifetime gas-tightness of the fitted connection is ensured by the state of permanent elastic pre-tension, which is produced by the radial forces of the LOKRINGs acting in the opposite direction to the tube-joint connection.



TECHNICAL SPECIFICATIONS

Reference standards:
EN 378-2 and ISO 14903

Max. operating pressure:
50 bar (720 psi) – Observe the permissible operating pressure of the tube used.

Admissible refrigerants:
Suitable for all HCs, HFCs and mixtures. Not suitable for NH_3.

Temperature range:
-50°C up to 150°C (-58°F up to 302°F)

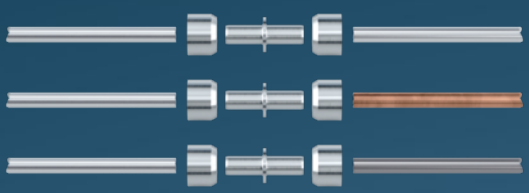
Tube diameter range:
1.8 to 9 mm (5/64" to 5/16")

Minimum tube wall thickness:
- for operating pressures < 25 bar (360 psi): 0.5 mm (0.020")
- Cu and St for operating pressures > 25 bar (360 psi): 0.7 mm (0.028")*
- Al for operating pressures > 25 bar (360 psi): 0.8 mm (0.032")*

Approvals:
TÜV

*Applications > 25 bar (360 psi) with smaller tube wall thickness on request.

MATERIAL COMBINATIONS



Aluminium Copper Steel


WARNING



LOKRING® TUBE CONNECTIONS

STARTER KITS



HAND ASSEMBLY TOOL
ASSEMBLY JAWS
LOKPREP
SANDPAPER
DRYERS

STRAIGHT CONNECTORS
STRAIGHT REDUCING CONNECTORS
STRAIGHT CONNECTORS WITH SCHRADER VALVE

LOKRING® STARTER KITS



For a perfect start in the world of quick and, above all, low-cost repairs to plug-in refrigeration equipment.

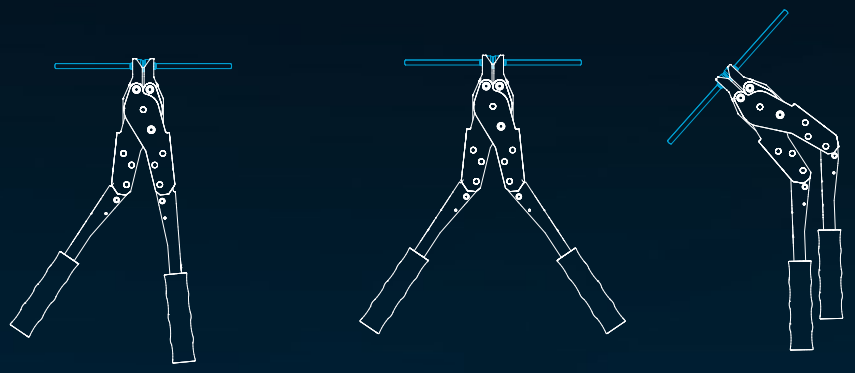
Article no.	Article name	Description
L13005831	LOKBOX CK-RA-01	Complete Kit
L13005828	LOKBOX SK-RA-01	Starter Kit

Scope of supply		Quantity	
Article no.	Article name	CK-RA-01	SK-RA-01
L13003829	LOKTOOL HMRK-V	1	1
L20000200	LOKTOOL MB 8	2	2
L20000201	LOKTOOL MB 10	1	1
L14000878	LOKPREP 65G	1	1
L14000002	SP-SL	1	1
L13000775	LOKRING 5 NK MS SV 00	2	0
L13000776	LOKRING 6 NK MS SV 00	2	0
L13000766	LOKRING 6 VS MS 00	4	2
L14000143	LOKRING 6 NF MS SV NG	5	4
L14000128	LOKRING DR 10	3	3
L14002319	LOKRING DRS 11	3	2
L14000118	LOKRING DRS 15	1	1
L13000503	LOKRING 6 NK AL 00	3	0
L13005631	LOKRING 7 NK AL 00	2	0
L13005630	LOKRING 7,5 NK AL 00	2	0
L13005625	LOKRING 8 NK AL 00	2	1
L13002357	LOKRING 5/2 NR AL 00	3	0
L13005928	LOKRING 7/6 NR AL 00	2	1
L13005929	LOKRING 7,5/6 NR AL 00	2	0
L13005930	LOKRING 8/6 NR AL 00	2	0
L13005654	LOKRING 8/7 NR AL 00	2	1
L13005655	LOKRING 8/7,5 NR AL 00	2	1
L13005657	LOKRING 9/8 NR AL 00	2	0
L13000576	LOKRING 2 NK MS 00	5	1
L13000580	LOKRING 3 NK MS 00	5	0
L13000584	LOKRING 4 NK MS 00	1	1
L13000587	LOKRING 5 NK MS 00	4	3
L13000588	LOKRING 6 NK MS 00	5	5
L13000592	LOKRING 8 NK MS 00	2	1

		Quantity	
Article no.	Article name	CK-RA-01	SK-RA-01
L13000612	LOKRING 3/2 NR Ms 00	5	1
L13000616	LOKRING 4/2 NR Ms 00	5	1
L13000618	LOKRING 5/1,6 NR Ms 00	5	0
L13000930	LOKRING 5/1,8 NR Ms 00	5	1
L13000619	LOKRING 5/2 NR Ms 00	5	5
L13000622	LOKRING 5/4 NR Ms 00	4	1
L13001806	LOKRING 5/4,5 NR Ms 00	2	0
L13000625	LOKRING 6/2 NR Ms 00	4	1
L13000629	LOKRING 6/4 NR Ms 00	3	1
L13000632	LOKRING 6/4,5 NR Ms 00	3	0
L13000630	LOKRING 6/5 NR Ms 00	3	2
L13000634	LOKRING 6,5/5 NR Ms 00	3	0
L13000635	LOKRING 6,5/6 NR Ms 00	3	0
L13000640	LOKRING 7/4 NR Ms 00	3	1
L13000643	LOKRING 7/4,5 NR Ms 00	2	0
L13000638	LOKRING 7/5 NR Ms 00	3	3
L13000639	LOKRING 7/6 NR Ms 00	2	2
L13000646	LOKRING 7,5/5 NR Ms 00	2	0
L13000645	LOKRING 7,5/6 NR Ms 00	2	2
L13000653	LOKRING 8/5 NR Ms 00	2	2
L13000654	LOKRING 8/6 NR Ms 00	3	3
L13000657	LOKRING 8/7 NR Ms 00	2	0
L13000658	LOKRING 8/7,5 NR Ms 00	2	0
L13000674	LOKRING 8,5/6 NR Ms 00	3	3
L13000678	LOKRING 9/6 NR Ms 00	2	0
L13000683	LOKRING 9,53/5 NR Ms 00	2	0
L13000684	LOKRING 9,53/6 NR Ms 00	3	3
L13000686	LOKRING 9,53/8 NR Ms 00	2	0

ASSEMBLY TOOLS

LOKTOOL HMRK-V



Our patented hand assembly tools were developed especially for LOKRING assembly. You only need one tool, because the assembly jaws can be exchanged quickly and easily. Since the handles are offset on both sides, the HMRK-V is also suitable for flexible use during work in hard-to-reach areas.

ASSEMBLY TOOLS

LOKRING HAND ASSEMBLY TOOL



- Specially developed for the LOKRING assembly.
- Patented lever mechanism for assembly with minimum effort.
- Assembly jaws are easy to change for different tube diameters.
- Both handles bend for use in hard-to-reach areas.
- Made in Germany!

IMPORTANT: Assembly jaws not included.

Article no.	Article name
L13003829	LOKTOOL HMRK-V

ASSEMBLY JAWS FOR LOKRING CONNECTIONS TYPE 00



- Suitable for the LOKPRESS Mini, LOKTOOL HMRK-V and HMRK-L hand assembly tools.
- Suitable for double-sided assembly of LOKRING type 00 connections.

Article no.	Article name	For tube outer-ø [mm | "]	
L20000200	LOKTOOL MB 8	1.6 – 8.5	1/16 – 5/16
L20000201	LOKTOOL MB 10	9 – 11	3/8
L20000202	LOKTOOL MB 12	12 – 13	1/2

PRE-ASSEMBLY FITTINGS



For the single sided pre-assembly of a LOKRING connector type 00.

Article no.	Article name	For LOKRING connector size
L13000982	LOKTOOL VME 3	3
L13000871	LOKTOOL VME 5	5
L13000872	LOKTOOL VME 6	6
L13000873	LOKTOOL VME 7	7 – 7,5
L13000875	LOKTOOL VME 8	8

CORDLESS ASSEMBLY TOOL

CORDLESS ASSEMBLY TOOL SET









Features:

- Lightweight for one-hand operation
- Compact design for narrow space operation
- Automatic stop after assembly for battery power saving
- LED for work area illumination
- Made in Germany

For LOKRING connectors:

- Type 00 from 1.6 to 11 mm (1/16" to 3/8")
- Type Ms 50 from 6 to 12.7 mm (1/4" to 1/2")
- Type Al 50 from 6 to 16 mm (1/4" to 5/8")

NOTE: The LOKPRESS Mini comes without assembly jaws.

Article no.	Article name
L14004431	LOKPRESS Mini Set-C-EU incl. plastic case

Technical data

Dimensions incl. rechargeable battery (H x W x L):	approx. 111 x 71 x 393 mm
Operating temperature:	- 10 °C up to 40 °C (14 °F up to 104 °F)
Battery charger:	100 - 240 V | 50 - 60 Hz | 35 W
Rechargeable battery:	12 V / 2.5 Ah Li-Ion
Recharge time:	40 min.
Number of pressings:	Minimum 100
Weight incl. rechargeable battery:	approx. 2.2 kg (4.85 lb)

Scope of supply

Article no.	Article name	Description
L14004393	LOKPRESS Mini LB	Li-Ion battery
L14004394	LOKPRESS Mini BC-EU	Battery charger EU

LONGER ASSEMBLY JAWS FOR LOKRING® CONNECTORS TYPE 00



- Approx. 30 mm longer than LOKTOOL MB 8
- Easier assemblies in cramped spaces
- Suitable for LOKPRESS Mini*
- Suitable for double-sided assembly of LOKRING connectors type 00

Article no.	Article name	For tube outer-ø [mm | "]
L20001398	LOKTOOL MB 8 L	1.6 – 8.5 | 1/16 – 5/16

*Not suitable for the hand assembly tools LOKTOOL HMRK-V and HMRK-L.

LOKPRESS MINI LI-ION BATTERY



- Rechargeable Li-Ion battery 12 V
- 4 LEDs indicate:
  - Battery charge level
  - Auto-test
  - Maintenance needed
  - Overheat safety stop

Article no.	Article name	Description
L14004393	LOKPRESS Mini LB	Li-Ion battery

LOKPRESS MINI BATTERY CHARGER



- Li-Ion battery charger 100 V - 240 V
- Info panel for battery charging status check

Article no.	Article name	Description
L14004394	LOKPRESS Mini BC-EU	Battery charger EU

PLASTIC CASE

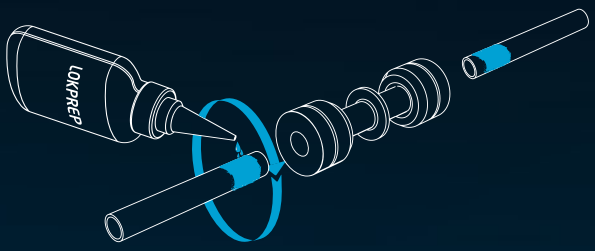


Robust plastic case for easy transportation of the LOKPRESS Mini tool set

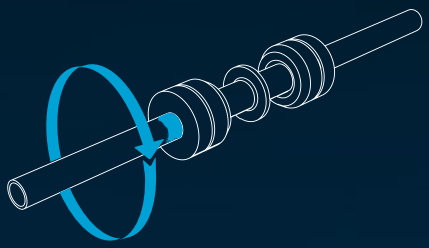
Article no.	Article name	Description
L14004437	LOKPRESS Mini PC2	Plastic case

LOKPREP® APPLICATION

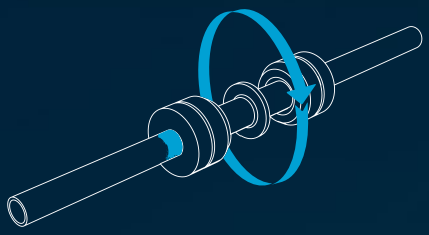
LOKPREP 65G



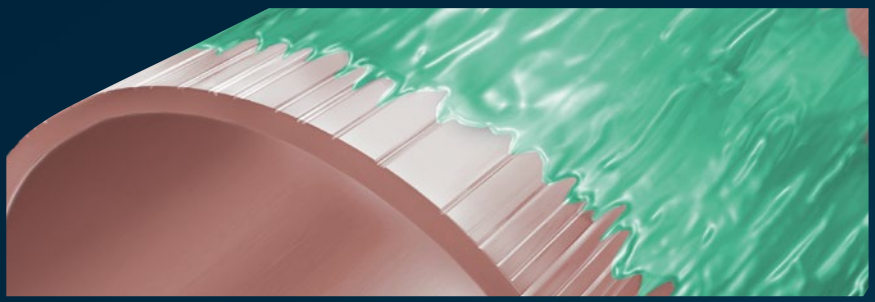
POSSIBILITY A
Move the nozzle 360° around the tube to distribute the LOKPREP evenly.



POSSIBILITY B
Rotate the moistened tube through 360° inside the joint.



POSSIBILITY C
Rotate the joint through 360° around the end of the tube.



Metal tubes can have longitudinal grooves on the surface from production. These production-related faults can be compensated quite easily by moistening the tube ends to be connected with LOKPREP fluid before assembly. Thanks to its capillary characteristic, it can even flow into microscopic cavities and fill these out completely. LOKPREP is not an adhesive, rather an anaerobic sealant which hardens under oxygen exclusion and in contact with free metal ions.

LOKPREP®



ANAEROBIC SEALANT

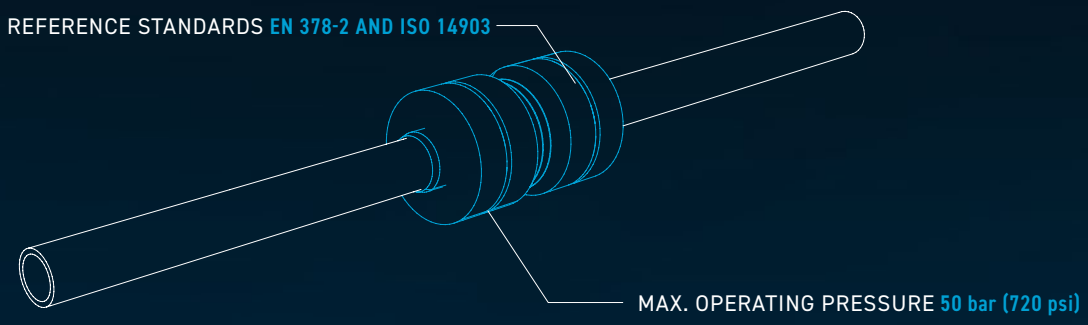


- Specially developed for the LOKRING assembly.
- Must be used for all LOKRING assemblies.
- Compensates for any unevenness in the tube surface.
- Ensures that every LOKRING connection is hermetically sealed.

Article no.	Article name	Content [ml]
L14000878	LOKPREP 65G	15

LOKRING® TUBE CONNECTIONS

LOKRING BRASS CONNECTORS



- CORROSION TEST ACCORDING TO ISO 9227 NSS
- TEMPERATURE CHANGE CYCLE TEST
- TENSILE TEST ACCORDING TO DIN EN 10 002
- ALTERNATING PRESSURE TEST WITH 250,000 CYCLES
- BURST PRESSURE TEST UP TO 200 bar (2,900 psi)
- JOINS: COPPER TO COPPER / COPPER TO STEEL / STEEL TO STEEL

STRAIGHT BRASS CONNECTORS



STRAIGHT BRASS CONNECTORS TYPE 00

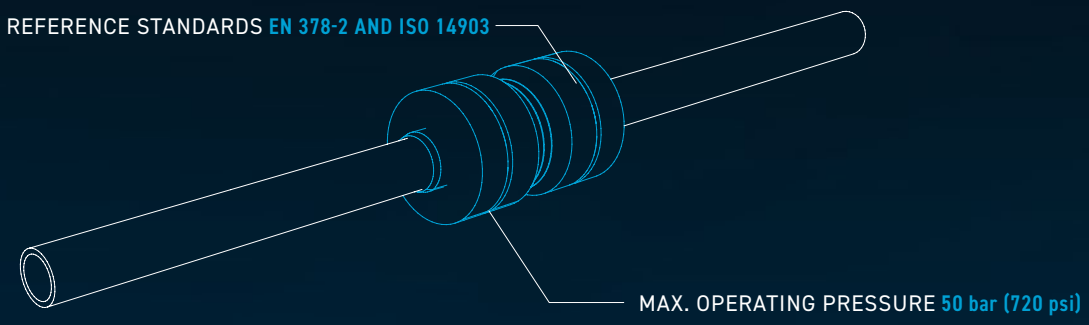


For connecting copper and/or steel tubes with identical tube outer diameters.

Article no.	Article name	For tube outer-ø [mm	"]
L13000575	LOKRING 1,6 NK Ms 00	1.6	1/16
L13000932	LOKRING 1,8 NK Ms 00	1.8	–
L13000576	LOKRING 2 NK Ms 00	2	5/64
L13000578	LOKRING 2,2 NK Ms 00	2.2	–
L13000579	LOKRING 2,5 NK Ms 00	2.5	3/32
L13000580	LOKRING 3 NK Ms 00	3	–
L13000582	LOKRING 3,2 NK Ms 00	3.2	–
L13000583	LOKRING 3,5 NK Ms 00	3.5	–
L13000584	LOKRING 4 NK Ms 00	4	5/32
L13006355	LOKRING 4,2 NK Ms 00	4,2	–
L13000587	LOKRING 5 NK Ms 00	5	3/16
L13000588	LOKRING 6 NK Ms 00	6	1/4
L13000589	LOKRING 6,5 NK Ms 00	6.5	–
L13000590	LOKRING 7 NK Ms 00	7	–
L13000591	LOKRING 7,5 NK Ms 00	7.5	–
L13000592	LOKRING 8 NK Ms 00	8	5/16
L13001833	LOKRING 8,5 NK Ms 00	8.5	–
L13000594	LOKRING 9 NK Ms 00	9	–
L13000595	LOKRING 9,53 NK Ms 00	9.53	3/8
L13000596	LOKRING 10 NK Ms 00	10	–

LOKRING® TUBE CONNECTIONS

LOKRING ALUMINIUM CONNECTORS



- CORROSION TEST ACCORDING TO ISO 9227 NSS
- TEMPERATURE CHANGE CYCLE TEST
- TENSILE TEST ACCORDING TO DIN EN 10 002
- ALTERNATING PRESSURE TEST WITH 250,000 CYCLES
- BURST PRESSURE TEST UP TO 200 bar (2900 psi)
- JOINS: ALUMINIUM TO ALUMINIUM / ALUMINIUM TO COPPER / ALUMINIUM TO STEEL

STRAIGHT ALUMINIUM CONNECTORS



STRAIGHT ALUMINIUM CONNECTORS TYPE 00



For connecting aluminium tubes and for connecting aluminium tubes to copper or steel tubes with identical tube outer diameters.

Article no.	Article name	For tube outer-ø [mm	"]
L13005354	LOKRING 1,8 NK Al 00	1.8	–
L13000498	LOKRING 2 NK Al 00	2	5/64
L13000502	LOKRING 5 NK Al 00	5	3/16
L13000503	LOKRING 6 NK Al 00	6	1/4
L13005631	LOKRING 7 NK Al 00	7	–
L13005630	LOKRING 7,5 NK Al 00	7.5	–
L13005625	LOKRING 8 NK Al 00	8	5/16

STRAIGHT BRASS REDUCING CONNECTORS

STRAIGHT BRASS REDUCING CONNECTORS TYPE 00



For connecting copper and/or steel tubes with different tube outer diameters.

Article no.	Article name	Outer-ø tube 1 [mm	"]		Outer-ø tube 2 [mm	"]
L13000611	LOKRING 2/1,6 NR Ms 00	2	5/64	→	1.6	1/16
L13003115	LOKRING 2/1,8 NR Ms 00	2	5/64	→	1.8	–
L13005976	LOKRING 2,8/1,8 NR Ms 00	2.8	–	→	1.8	–
L13005939	LOKRING 2,8/2 NR Ms 00	2.8	–	→	2	5/64
L13001157	LOKRING 3/1,8 NR Ms 00	3	–	→	1.8	–
L13000612	LOKRING 3/2 NR Ms 00	3	–	→	2	5/64
L13000613	LOKRING 3,2/1,6 NR Ms 00	3.2	–	→	1.6	1/16
L13003826	LOKRING 3,2/1,8 NR Ms 00	3.2	–	→	1.8	–
L13004807	LOKRING 3,5/1,8 NR Ms 00	3.5	–	→	1.8	–
L13000614	LOKRING 3,5/2 NR Ms 00	3.5	–	→	2	5/64
L13000931	LOKRING 4/1,8 NR Ms 00	4	5/32	→	1.8	–
L13000616	LOKRING 4/2 NR Ms 00	4	5/32	→	2	5/64
L13006332	LOKRING 4/3,5 NR Ms 00	4	5/32	→	3.5	–
L13000618	LOKRING 5/1,6 NR Ms 00	5	3/16	→	1.6	1/16
L13000930	LOKRING 5/1,8 NR Ms 00	5	3/16	→	1.8	–
L13000619	LOKRING 5/2 NR Ms 00	5	3/16	→	2	5/64
L13000623	LOKRING 5/2,2 NR Ms 00	5	3/16	→	2.2	–
L13000624	LOKRING 5/2,5 NR Ms 00	5	3/16	→	2.5	3/32
L13000620	LOKRING 5/3 NR Ms 00	5	3/16	→	3	–
L13005984	LOKRING 5/3,2 NR Ms 00	5	3/16		3.2	–
L13000621	LOKRING 5/3,5 NR Ms 00	5	3/16	→	3.5	–
L13000622	LOKRING 5/4 NR Ms 00	5	3/16	→	4	5/32
L13006356	LOKRING 5/4,2 NR Ms 00	5	3/16	→	4.2	–
L13001806	LOKRING 5/4,5 NR Ms 00	5	3/16	→	4.5	–
L13002334	LOKRING 6/1,8 NR Ms 00	6	1/4	→	1.8	–
L13000625	LOKRING 6/2 NR Ms 00	6	1/4	→	2	5/64
L13000626	LOKRING 6/2,2 NR Ms 00	6	1/4	→	2.2	–
L13000627	LOKRING 6/2,5 NR Ms 00	6	1/4	→	2.5	3/32
L13005391	LOKRING 6/2,8 NR Ms 00	6	1/4	→	2.8	–
L13000628	LOKRING 6/3 NR Ms 00	6	1/4	→	3	–
L13000631	LOKRING 6/3,2 NR Ms 00	6	1/4	→	3.2	–
L13000629	LOKRING 6/4 NR Ms 00	6	1/4	→	4	5/32
L13000632	LOKRING 6/4,5 NR Ms 00	6	1/4	→	4.5	–
L13000630	LOKRING 6/5 NR Ms 00	6	1/4	→	5	3/16
L13000634	LOKRING 6,5/5 NR Ms 00	6.5	–	→	5	3/16

Article no.	Article name	Outer-ø tube 1 [mm	"]		Outer-ø tube 2 [mm	"]
L13000635	LOKRING 6,5/6 NR Ms 00	6.5	–	→	6	1/4
L13000637	LOKRING 7/2 NR Ms 00	7	–	→	2	5/64
L13000640	LOKRING 7/4 NR Ms 00	7	–	→	4	5/32
L13000643	LOKRING 7/4,5 NR Ms 00	7	–	→	4.5	–
L13000638	LOKRING 7/5 NR Ms 00	7	–	→	5	3/16
L13000639	LOKRING 7/6 NR Ms 00	7	–	→	6	1/4
L13000646	LOKRING 7,5/5 NR Ms 00	7.5	–	→	5	3/16
L13000645	LOKRING 7,5/6 NR Ms 00	7.5	–	→	6	1/4
L13000649	LOKRING 7,5/7 NR Ms 00	7.5	–	→	7	–
L13001697	LOKRING 8/1,8 NR Ms 00	8	5/16	→	1.8	–
L13000651	LOKRING 8/2 NR Ms 00	8	5/16	→	2	5/64
L13000659	LOKRING 8/2,2 NR Ms 00	8	5/16	→	2.2	–
L13000652	LOKRING 8/4 NR Ms 00	8	5/16	→	4	5/32
L13000661	LOKRING 8/4,5 NR Ms 00	8	5/16	→	4.5	–
L13000653	LOKRING 8/5 NR Ms 00	8	5/16	→	5	3/16
L13000654	LOKRING 8/6 NR Ms 00	8	5/16	→	6	1/4
L13000656	LOKRING 8/6,5 NR Ms 00	8	5/16	→	6.5	–
L13000657	LOKRING 8/7 NR Ms 00	8	5/16	→	7	–
L13000658	LOKRING 8/7,5 NR Ms 00	8	5/16	→	7.5	–
L13000673	LOKRING 8,5/5 NR Ms 00	8.5	–	→	5	3/16
L13000674	LOKRING 8,5/6 NR Ms 00	8.5	–	→	6	1/4
L13000675	LOKRING 8,5/8 NR Ms 00	8.5	–	→	8	5/16
L13000678	LOKRING 9/6 NR Ms 00	9	–	→	6	1/4
L13000681	LOKRING 9/7 NR Ms 00	9	–	→	7	–
L13000679	LOKRING 9/8 NR Ms 00	9	–	→	8	5/16
L13000683	LOKRING 9,53/5 NR Ms 00	9.53	3/8	→	5	3/16
L13000684	LOKRING 9,53/6 NR Ms 00	9.53	3/8	→	6	1/4
L13000691	LOKRING 9,53/7 NR Ms 00	9.53	3/8	→	7	–
L13000686	LOKRING 9,53/8 NR Ms 00	9.53	3/8	→	8	5/16
L13000695	LOKRING 10/6 NR Ms 00	10	–	→	6	1/4
L13000696	LOKRING 10/8 NR Ms 00	10	–	→	8	5/16
L13000702	LOKRING 10,5/8 NR Ms 00	10.5	–	→	8	5/16
L13000705	LOKRING 11/6 NR Ms 00	11	–	→	6	1/4
L13000706	LOKRING 11/8 NR Ms 00	11	–	→	8	5/16

STRAIGHT ALUMINIUM REDUCING CONNECTORS

STRAIGHT ALUMINIUM REDUCING CONNECTORS TYPE 00



For connecting aluminium tubes and for connecting aluminium tubes to copper or steel tubes with different tube outer diameters.

Article no.	Article name	Outer-ø tube 1 [mm]	["]	→	Outer-ø tube 2 [mm]	["]
L13001785	LOKRING 4/2 NR Al 00	4	5/32	→	2	5/64
L13002432	LOKRING 5/1,8 NR Al 00	5	3/16	→	1.8	–
L13002357	LOKRING 5/2 NR Al 00	5	3/16	→	2	5/64
L13000964	LOKRING 6/2 NR Al 00	6	1/4	→	2	5/64
L13000528	LOKRING 6/5 NR Al 00	6	1/4	→	5	3/16
L13005644	LOKRING 7/5 NR Al 00	7	–	→	5	3/16
L13005928	LOKRING 7/6 NR Al 00	7	–	→	6	1/4
L13005929	LOKRING 7,5/6 NR Al 00	7.5	–	→	6	1/4

Article no.	Article name	Outer-ø tube 1 [mm]	["]	→	Outer-ø tube 2 [mm]	["]
L13005650	LOKRING 8/2 NR Al 00	8	5/16	→	2	5/64
L13005651	LOKRING 8/3 NR Al 00	8	5/16	→	3	–
L13005652	LOKRING 8/5 NR Al 00	8	5/16	→	5	3/16
L13005930	LOKRING 8/6 NR Al 00	8	5/16	→	6	1/4
L13005654	LOKRING 8/7 NR Al 00	8	5/16	→	7	–
L13005655	LOKRING 8/7,5 NR Al 00	8	5/16	→	7.5	–
L13005657	LOKRING 9/8 NR Al 00	9	–	→	8	5/16

T-REDUCING CONNECTORS

BRASS T-REDUCING CONNECTORS TYPE 00



- For connecting copper and/or steel tubes with different tube outer diameters.
- Allows insertion of a capillary tube into the suction line.

IMPORTANT: For making the assembly, the LOKTOOL NTR-8 is required.

Article no.	Article name	Outer-ø tube 1 [mm	"]	Outer-ø tube 2 [mm	"]	Outer-ø tube 3 [mm	"]
L13000748	LOKRING 7/6/2 NTR Ms 00	7	–	6	1/4	2	5/64
L13000750	LOKRING 7,5/6/2 NTR Ms 00	7.5	–	6	1/4	2	5/64
L13000751	LOKRING 8/6/2 NTR Ms 00	8	5/16	6	1/4	2	5/64

ASSEMBLY FITTING



- For assembling a T-branch.
- Suitable for LOKRING T-connectors or T-reducing connectors type 00.
- For assembly, the insert is simply inserted into the assembly jaw.

Article no.	Article name
L13000864	LOKTOOL NTR-8

CONNECTORS WITH SCHRADER VALVE AND STOPPERS

BRASS CONNECTORS TYPE 00 WITH SCHRADER VALVE



- For connecting copper and/or steel tubes with identical tube outer diameters.
- With 1/4" SAE schrader valve port connection.

Article no.	Article name	For tube outer-ø [mm | "]	
L13000775	LOKRING 5 NK Ms SV 00	5	3/16
L13000776	LOKRING 6 NK Ms SV 00	6	1/4
L13000778	LOKRING 8 NK Ms SV 00	8	5/16
L13000779	LOKRING 9,53 NK Ms SV 00	9.53	3/8

BRASS STOPPERS TYPE 00



For hermetically sealing tube ends.

Article no.	Article name	For tube outer-ø [mm | "]	
L13000765	LOKRING 5 VS Ms 00	5	3/16
L13000766	LOKRING 6 VS Ms 00	6	1/4
L13000767	LOKRING 7 VS Ms 00	7	–
L13000769	LOKRING 8 VS Ms 00	8	5/16
L13000771	LOKRING 9,53 VS Ms 00	9.53	3/8
L13000772	LOKRING 10 VS Ms 00	10	–

STRAIGHT STOPPERS TYPE 00 WITH SCHRADER VALVE CONNECTION



- For easily adding a service port to a refrigerant circuit
- Suitable for R290 and R600a
- 1/4" SAE connection
- Reference standards: EN 378-2 and ISO 14903
- Approvals: TÜV

Article no.	Article name	For tube outer-ø [mm | "]	
L13006471	LOKRING 6 VS Ms SV 00	6	1/4
L13006527	LOKRING 8 VS Ms SV 00	8	5/16

90°-STOPPERS TYPE 00 WITH SCHRADER VALVE CONNECTION

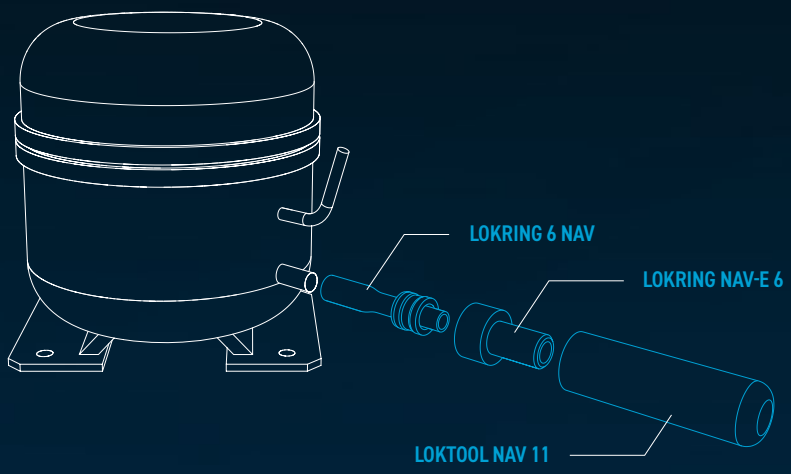


- For easily adding a service port to a refrigerant circuit
- 90° elbow ensures easy connection of a service hose even in tight installation spaces
- Suitable for R290 and R600a
- 1/4" SAE connection
- Reference standards: EN 378-2 and ISO 14903
- Approvals: TÜV

Article no.	Article name	For tube outer-ø [mm | "]	
L13006484	LOKRING 6 NWK Ms SV 00	6	1/4
L13006364	LOKRING 8 NWK Ms SV 00	8	5/16

NAV CONNECTIONS

EXAMPLE OF USE



NAV connections allow the use of LOKRING on the short tube ends of a compressor.

NAV CONNECTIONS

NAV CONNECTIONS



- Allows the use of LOKRING on the short tube ends of a compressor.
- Can only be used in conjunction with the NAV assembly tool and the corresponding NAV assembly insert.

Article no.	Article name	For tube outer-ø [mm | "]	
L13000817	LOKRING 6 NAV	6.35	1/4
L13000818	LOKRING 7 NAV	7	–
L13000820	LOKRING 8 NAV	8	–
L13000926	LOKRING 9,53 NAV	9.53	3/8

NAV ASSEMBLY TOOL



Basic tool for assembling LOKRING NAV connections.

Article no.	Article name
L13000919	LOKTOOL NAV 11

NAV ASSEMBLY FITTINGS

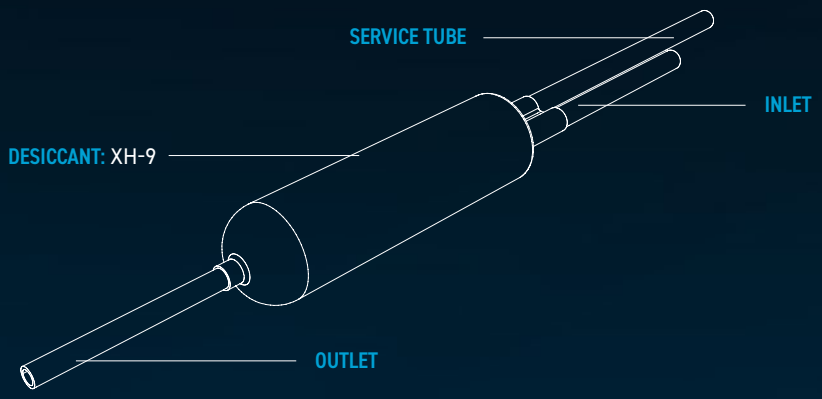


Assembly insert for the NAV 11 assembly tool for assembling LOKRING NAV connections.

Article no.	Article name	For NAV connection sizes
L13000914	LOKRING NAV-E 6	6
L13000915	LOKRING NAV-E 8/7	7 – 8
L13000917	LOKRING NAV-E 9,53	9.53

FILTER DRYERS

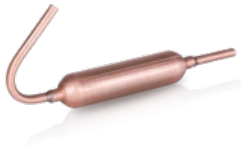
FILTER DRYER WITH SERVICE TUBE



Protects the refrigeration circuit against moisture, acids and dirt particles.

FILTER DRYERS

FILTER DRYERS



- Protects the refrigeration circuit against moisture, acids and dirt particles.
- Desiccant: XH-9

Article no.	Article name	Tube outer-ø (inlet) [mm]	Tube outer-ø (outlet) [mm]	Drying agent [g]	Total length [mm]	Outer-ø (dryer) [mm]
L14000128	LOKRING DR 10	5	5	10	200	19
L14000377	LOKRING DR 20	5	5	20	218	24

FILTER DRYER WITH SERVICE TUBE



- Protects the refrigeration circuit against moisture, acids and dirt particles.
- Desiccant: XH-9
- Service tube outer-ø: 6 mm

Article no.	Article name	Tube outer-ø (inlet) [mm]	Tube outer-ø (outlet) [mm]	Drying agent [g]	Total length [mm]	Outer-ø (dryer) [mm]
L14000636	LOKRING DR 10-2E	5	5	10	245	19
L14000611	LOKRING DR 15-2E	6	5	15	255	25

FILTER DRYER WITH SERVICE TUBE AND SCHRADER VALVE

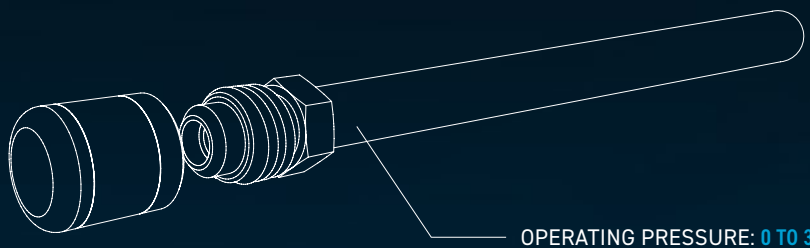


- Protects the refrigeration circuit against moisture, acids and dirt particles.
- Desiccant: XH-9
- Service tube outer-ø: 6 mm

Article no.	Article name	Tube outer-ø (inlet) [mm]	Tube outer-ø (outlet) [mm]	Drying agent [g]	Total length [mm]	Outer-ø (dryer) [mm]
L14002319	LOKRING DRS 11	5	5	11	245	19
L14000118	LOKRING DRS 15	6	5	15	230	25

CHARGING TUBES

CHARGING TUBES WITH SCHRADER VALVE



Copper charging tube with 1/4" SAE schrader valve connection for loss-free charging and sealing of refrigeration circuits.

CHARGING TUBES

CHARGING TUBES WITH SCHRADER VALVE



- Copper charging tube with 1/4" SAE schrader valve connection for loss-free charging and sealing of refrigeration circuits.
- Suitable for flammable refrigerants.

Article no.	Article name	Total length [mm]
L14000143	LOKRING 6 NF Ms SV NG	≈100
L14000139	LOKRING 6 NF Ms SV 01	≈330

Technical Data

Tube outer-ø:	6 mm
Wall thickness:	0.7 mm
Operating pressure:	0 to 30 bar (0 to 435 psi)
Temperature range:	-30°C to 150°C (-22°F to 302°F)

CHARGING TUBES



- Copper charging tube.
- Can be used with LOKRING 6 VS Ms 00 to seal refrigeration circuits.

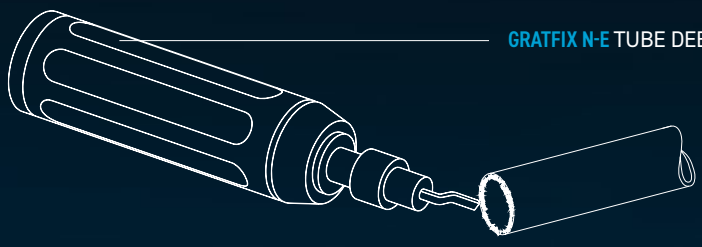
Article no.	Article name	Total length [mm]
L14000609	LOKRING 6 NF Ms 00	≈150

Technical Data

Tube outer-ø:	6 mm
Wall thickness:	1.0 mm
Operating pressure:	0 to 30 bar (0 to 435 psi)
Temperature range:	-30°C to 150°C (-22°F to 302°F)

ACCESSORIES

TUBE DEBURRER



For quick and clean deburring of tubes, edges and steel plates.

ACCESSORIES

SANDPAPER



- For cleaning tube ends.
- Grain: 120
- Dimensions: 230 mm x 280 mm
- Highest quality from 3M.

Article no.	Article name
L14000002	SP-SL

ABRASIVE MAT



- For cleaning tube ends without scratching.
- Suitable for all surfaces.
- Solvent-resistant.
- Dimensions: 158 mm x 224 mm
- Highest quality from 3M.

Article no.	Article name
L14002211	AM-SV

COMPACT TUBE CUTTER



Diameter range: 3 to 16 mm (1/8" to 5/8")

Article no.	Article name	Description
L14001102	TC-1050	Tube cutter
L14001103	TCS-1050	Cutting blade

CAPILLARY TUBE CUTTING PLIERS



- For clean cutting of capillary tubes.
- No reduction of inner diameter.
- Suitable for all capillary tube diameters.

Article no.	Article name
L14000005	CTP-1

ACCESSORIES

TUBE CUTTING PLIERS



- For cutting aluminium, copper and steel tubes.
- Can be used on wall thicknesses up to 1 mm.
- Diameter range: 4 to 12.7 mm (5/32" to 1/2")
- A 120° rotation is sufficient to make the cut.
- Particularly useful in tight assembly areas.
- Minimizes the loss of assembly length of the tube to be separated.

Article no.	Article name	Description
L14000166	LRSZ	Tube cutting pliers
L13001304	LRSM	Cutting blade

PINCH-OFF TOOL



- For pinching off charging tubes.
- Diameter range: up to 10 mm (3/8")

Article no.	Article name
L14000201	ABZ-008

PIERCING PLIERS TOOL SET







- For opening the refrigeration circuit.
- For recovering refrigerant and conducting pressure tests.
- Suitable for dryers or copper tubes.
- For tube outer diameters of 6, 8 and 10 mm (1/4", 5/16" and 3/8").
- Hose connection: 1/4" SAE

Article no.	Article name
L13001976	AZ-027K

Scope of supply

Article no.	Article name	Description	Quantity
L14000202	AZ-027	Piercing pliers	1
L14000211	AZ-027A	Spare insert	1
L14000212	AZ-027B	Spare gasket	1
L14000370	AZ-027C	Gasket for insert	1
L14000651	AZ-027D	Insert 1/4"	1
L14000654	AZ-027E	Insert 5/16"	1

PIERCING PLIERS



- For recovering refrigerant from defective but still pressurised refrigeration circuits.
- Suitable for copper tubes.
- For tube outer diameter of 6 mm (1/4").
- Hose connection: 1/4" SAE

Article no.	Article name	Description
L13004882	EZ-LC	Piercing pliers
L14004422	EZ-LC-E	Piercing pin
L14003019	EZ-LC-D	Spare gasket

TUBE PIERCING VALVE



- For opening the refrigeration circuit.
- For recovering refrigerant and conducting pressure tests.
- Hose connection: 1/4" SAE

Article no.	Article name	For tube outer-ø
L14001027	BPV31	1/4", 5/16", 3/8" (6 mm, 8 mm, 10 mm)
L14001028	BPV21	1/2", 5/8" (12.7 mm, 16 mm)

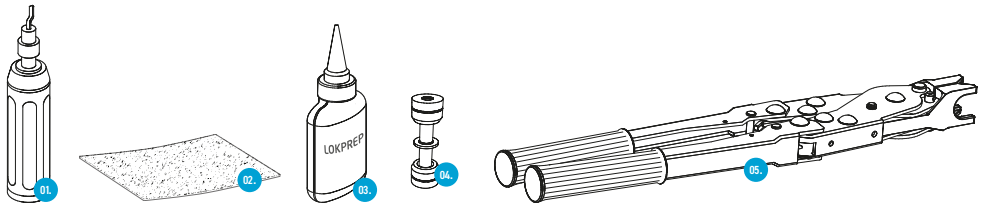
TUBE DEBURRER



For quick and clean deburring of tubes, edges and steel plates.

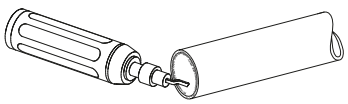
Article no.	Article name	Description
L14001362	Gratfix N-E	Tube deburrer
L14001363	N-E100	Replacement blade

LOKRING® ASSEMBLY TYPE 00



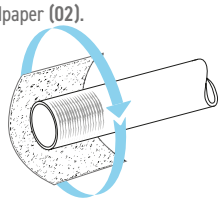
01. TUBE DEBURRER 02. SANDPAPER 03. LOKPREP 65G 04. LOKRING CONNECTOR 05. HAND ASSEMBLY TOOL WITH ASSEMBLY JAWS MB

! Deburr the tube end all the way round using a tube deburrer **(01)**. **Use different deburring tools for different materials.**



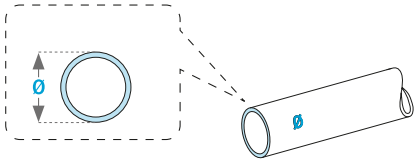


! Clean the tube end by rubbing it in rotary movements using the sandpaper **(02)**.



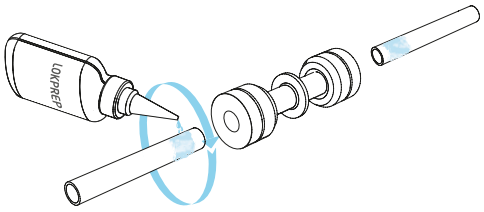


! Determine the outer tube diameter Ø on the basis of tube coding or using a slide gauge.



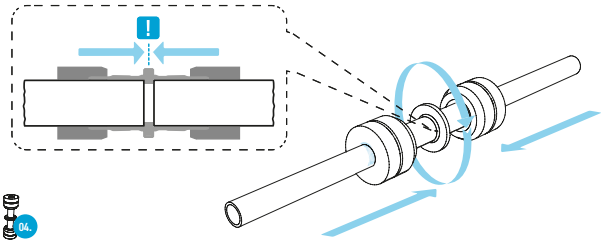
Ø = outer tube diameter

1 Apply LOKPREP 65G **(03)** all the way round the sealing area of the tube ends. Respect the correct curing time of the LOKPREP 65G **(03)**.

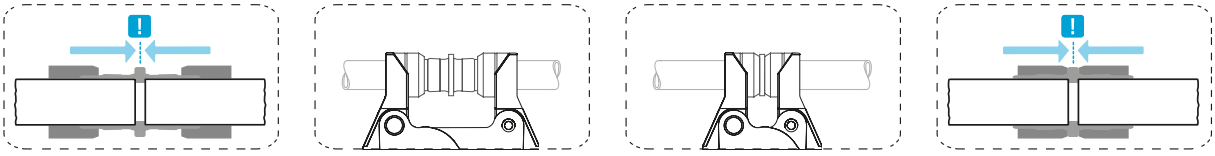


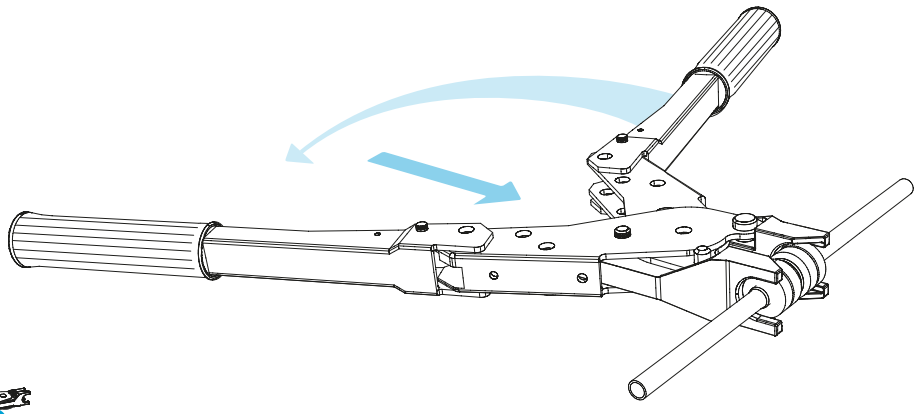


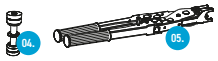
2 Insert both tube ends into the LOKRING connector **(04)** until the tubes reach the inner stop !. Rotate the LOKRING connector **(04)** through 360° to distribute the LOKPREP evenly.



3 Put the assembly jaws of the hand assembly tool **(05)** in place behind the rings of the LOKRING connector **(04)**. Press the tube connection together. ! Do not change the insertion depth of the tubes and the LOKRING connector **(04)**. Press the tube connection until the rings of the LOKRING connector **(04)** are flush to the assembly stop of the LOKRING connector **(04)**. Respect the curing time of the LOKPREP **(03)** before applying forces to the connection.







NOTES

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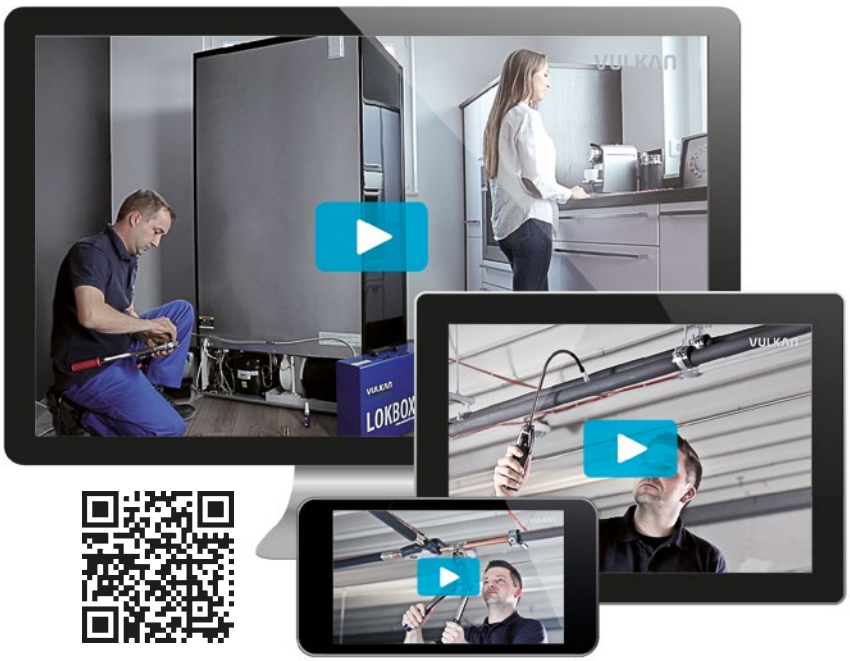
The LOKRING® tube connection technology represents a proven method of producing hermetically sealed metal-to-metal tube connections. The LOKRING® tube connections are mainly used in the refrigeration and air conditioning industries. The use of LOKRING® tube connection technology in other fields is to be discussed with VULKAN. VULKAN as the supplier is responsible for the qualitative delivery of the tube connections and tools which are ordered from this catalogue.

The purchaser is responsible for the use of the LOKRING® tube connections and tools as directed. The assembly has to be done accordingly to the instructions and exclusively with original LOKRING® parts. The present Refrigeration Appliances catalogue shall replace all previous editions, any previous printings shall no longer be valid. The data contained in this catalogue refers to the valid state of affairs in time of the copy deadline. Any changes due to technical progress are reserved.

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