



# 2022





## Introduction

Even before the pandemic started, the importance of clean surgical instruments and the possible presence of germs due to inadequate cleaning has been a highly debated topic in the medical industry.

Germs are not visible, therefore their existence or transmission is very often neglected in clinics and medical practices. Also, water is regularly underestimated as a potential host for germs.

For a variety of reasons, the number of preventable secondary infections is increasing every year. The consequences are up to 20,000 deaths per year which could be avoided. Among these avoidable causes of death, sepsis is the number one worldwide.

With its innovative system solution, RfQ Medizintechnik aims to help prevent possible secondary infections caused by non-dismantlable gun systems.

## Additional background knowledge

In the Medical Devices Operator Ordinance (MPBetriebV), it can be read under §3 Duties of the Operator:  
*The operator shall perform the duties imposed on him by this Ordinance in order to ensure the safe and proper use of the medical devices used on patients in his health care facility.*  
(<http://www.gesetze-iminternet.de/mpbetriebv/MPBetriebV.pdf>)

## Furthermore, one can read in the guidelines:

*Operators of hospitals or medical practices have a special responsibility in the preparation of medical devices. .... Proper reprocessing can be assumed if the recommendation of the Commission for Hospital Hygiene and Infection Prevention (KRINKO) at the Robert Koch Institute (RKI) and the Federal Institute for Drugs and Medical Devices (BfArM) "Requirements for hygiene in the reprocessing of medical devices" is observed.*

### The guideline explicitly requires in Annex 13:

*Guns and gun accessories to be reprocessed by machines are to be preferred. Manufacturer's instructions for reprocessing must be available.*

[https://www.krankenhausthygiene.de/pdfdata/leitlinien/2013\\_Manuelle\\_Leitline\\_deutsch\\_Internet.pdf](https://www.krankenhausthygiene.de/pdfdata/leitlinien/2013_Manuelle_Leitline_deutsch_Internet.pdf)

**In the recommendation of the Hygiene, Construction and Technology Committee, Requirements for the construction or conversion of a reprocessing unit for medical devices (AEMP / CSSD)** also states that machine reprocessable water pressure guns and compressed air guns should be used.

[https://www.dgsv-ev.de/wp-content/uploads/2019/06/HBT\\_DE\\_ZT\\_1\\_19\\_Anforderungen-für-den-Bau-oder-Umbau\\_Teil\\_8.pdf](https://www.dgsv-ev.de/wp-content/uploads/2019/06/HBT_DE_ZT_1_19_Anforderungen-für-den-Bau-oder-Umbau_Teil_8.pdf)

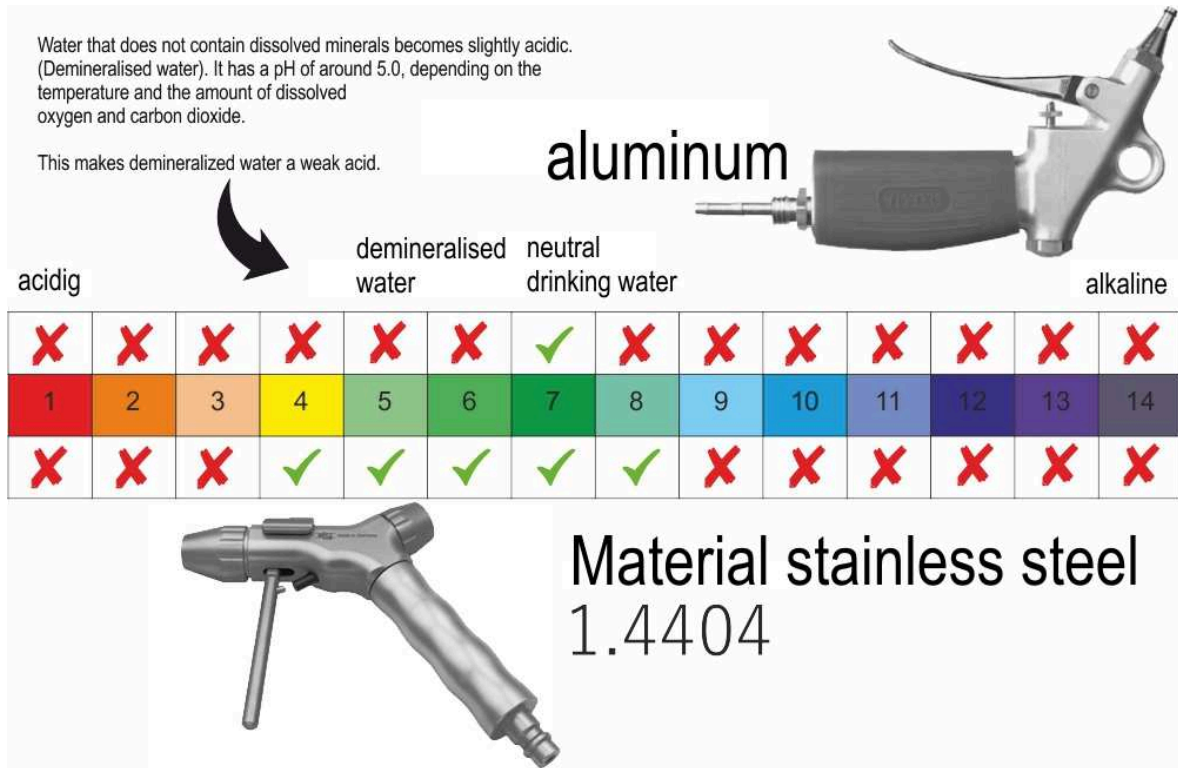
## Solution

In order to save expenses, we developed a cleaning gun that can be used for both water and compressed air.

**All components of the new high-tech stainless steel cleaning gun can be reprocessed in a certified manner.**

The finished, fully dismountable and reprocessable cleaning gun made of, among other things, highly corrosion-resistant stainless steel 1.4404 has a positive side effect: It is resistant to VE-water (fully deionised water). Deionised water (pH values between 4-6) is used for final rinses of, for example, flexible endoscopes or ophthalmic instruments.

Guns made of die-cast aluminium do not usually provide this resistance to deionised water.



The special material 1.4404 used in our HighTech cleaning gun is highly corrosion-resistant and is used when working with demineralised water.

Properties of 1.4404 (X2CrNiMo17-13-2), AISI 316L, (V4A) Austenitic stainless steel.

Usage: Used for mechanical components with greater requirements for corrosion resistance, especially in chloride-containing mediums as well as for hydrogen. AISI 316L is used in a wide variety of areas, in the pharmaceutical industry (manufacture of RDTs = cleaning-disinfection and drying machines), in medical and dental technology, as well as in swimming pool construction, in building technology and for the production of press-fitting-systems for gas and water installations.

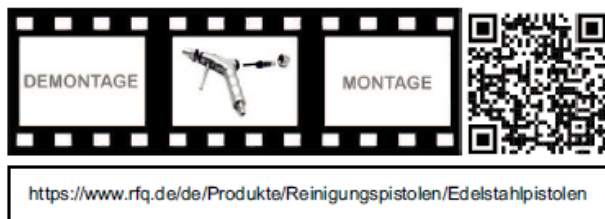
#### The following materials are used

Cleaning gun	stainless steel 1.4404 / piston spring 1.4571 / Piston black plastic - PEEK USP Class VI
Nozzles	stainless steel 1.4404 / spray nozzle sieve: plastic - USP Class VI
Trigger locking Ring	stainless steel 1.4310
Coupling protection cap	plastic - FDA approval
Hose connection cap	stainless steel 1.4404
Hose connection adapter	stainless steel 1.4404 - flat gasket KTW approval
Quick coupling	stainless steel 1.4404 / springs 1.4571/ locking pins 1.4310 / Sealing washer coupling / hose EPDM - KTW -approval
Temperature resistance	Steam up to 134°C
Detergent resistance	alkaline pH 10.4 -10.8



The silicone used for the VE water hoses is a new generation high-tech material. The DVGW approval with the tests W 543, W 270 and KTW A (up to +60°C) certifies the excellent microbiological purity and mechanical resilience. The extremely smooth inner surface prevents build-up and enables low pressure drops. The hose material is food-safe, odourless and tasteless, and it guarantees durability.

### Movie on assembling and disassembling the cleaning gun



### Awards



### red*dot* winner 2020

At the beginning of each year, RedDot, one of the most internationally renowned certification labels for design, grants the RedDot Awards. RfQ-Medizintechnik received the Red Dot Award for Product Design in 2020 with the following statement given by the jury:

*The use of stainless steel as a material increases the cleaning system's range of application and also provides a pleasant feel and a high-quality impression.*



## HighTech Stainless Steel Spray Guns

with stainless steel quick snap-closing connector

**autoclavable – dismantled without tools**

Sterilization of the cleaning gun sets: steam sterilization 134°C – Class B

To rinse or blow out contaminated medical devices to 0.5 Mpa (= 5 bar).

**Note:** The various cleaning gun sets always include the same cleaning gun (64-20820-10). Only the hoses and the set compositions differ depending on the area of application. For the Basic sets on pages 8+9, the handle for the quick-connect coupling 64-20850-29 is replaced by the handle with 1/2" connection 64-20850-31.

**Note:** The "hose unit" (hose, coupling, hose connection adapter) cannot be reprocessed in the event of contamination of the pumped medium and must be replaced.

The installation of the cleaning guns must be carried out by a specialist company.

can be sterilized  
suitable for washer-disinfectors  
validated\* reprocessible



### HighTech Stainless Steel Spray Gun

**Ultimate Set for De-ionized water / Drinking water** (cold) to 5 bar, with stainless steel quick-release coupling

**Set:** Cleaning gun, Luer-lock-connector, Luer-connector, pointed nozzle, shower nozzle, De-ionized waterhose: silicone hose with stainless steel braiding (KTW A, W 270, W 543) stainless steel hose fittings, hose connection adapter 3/8", hose outside 1/2" (outside thread) Stainless steel quick-lock coupling, coupling protection cup, piston spare spring.

**64-20810-00** 1 pcs Ultimate Cleaning gun set, autoclavable "De-ionized water / Drinking water", Hose 100cm with quick-lock coupling

**64-20810-01** 1 pcs Ultimate Cleaning gun set, autoclavable "De-ionized water / Drinking water", Hose 150cm with quick-lock coupling

**64-20810-02** 1 pcs Ultimate Cleaning gun set, autoclavable "De-ionized water / Drinking water", Hose 200cm with quick-lock coupling

\* Validation is the documented evidence of guaranteeing a continuous and effective processing process in accordance with the legal requirements. The validation is implemented on the basis of recommendations, guidelines and standards.

**Note:** The validated instructions for use can be found at  
<https://www.rfq.de>



### HighTech Stainless Steel Spray Gun

**Ultimate Set for Compressed air** (oil-free, medically reprocessed) to 5 bar, with stainless steel quick-release coupling

**Set:** Cleaning gun, Luer-lock-connector, Luer-connector, pointed nozzle, shower nozzle, PVC-Tube with Quick-Coupling made of Stainless Steel and end open, Silicon oil, coupling protection cup, piston spare spring.

- 64-20820-00 1 pcs Ultimate Cleaning gun set, autoclavable "Compressed air", Hose 100cm with quick-lock coupling
- 64-20820-01 1 pcs Ultimate Cleaning gun set, autoclavable "Compressed air", Hose 150cm with quick-lock coupling
- 64-20820-02 1 pcs Ultimate Cleaning gun set, autoclavable "Compressed air", Hose 200cm with quick-lock coupling
- 64-20820-03 1 pcs Ultimate Cleaning gun set, autoclavable "Compressed air", Hose 250cm with quick-lock coupling
- 64-20820-04 1 pcs Ultimate Cleaning gun set, autoclavable "Compressed air", Hose 300cm with quick-lock coupling
- 64-20820-05 1 pcs Ultimate Cleaning gun set, autoclavable "Compressed air", Hose 350cm with quick-lock coupling
- 64-20820-06 1 pcs Ultimate Cleaning gun set, autoclavable "Compressed air", Hose 400cm with quick-lock coupling
- 64-20820-07 1 pcs Ultimate Cleaning gun set, autoclavable "Compressed air", Hose 450cm with quick-lock coupling
- 64-20820-08 1 pcs Ultimate Cleaning gun set, autoclavable "Compressed air", Hose 500cm with quick-lock coupling
- 64-20820-09 1 pcs Ultimate Cleaning gun set, autoclavable "Compressed air", Hose 550cm with quick-lock coupling
- 64-20820-11 1 pcs Ultimate Cleaning gun set, autoclavable "Compressed air", Hose 600cm with quick-lock coupling
- 64-20820-12 1 pcs Ultimate Cleaning gun set, autoclavable "Compressed air", Hose 650cm with quick-lock coupling



### HighTech Stainless Steel Spray Gun

**Ultimate Set for Compressed air** (oil-free, medically reprocessed) to 5 bar, with stainless steel quick-release coupling

**Set:** Cleaning gun, Luer-lock-connector, Luer-connector, pointed nozzle, shower nozzle, Polyamide spiral hose, blue, working length 250cm with kink protection with Quick-Coupling made of Stainless Steel and end open, Silicon oil, coupling protection cup, piston spare spring.  
(There are no certificates or test reports for polyamide hoses)

- 64-20820-50 1 pcs Ultimate Cleaning gun set, autoclavable "Compressed air", Spiral-Hose (colour blue) - Working Length 250cm with quick-lock coupling
- 64-20820-52 1 pcs Ultimate Cleaning gun set, autoclavable "Compressed air", Spiral-Hose (colour green) - Working Length 250cm with quick-lock coupling

**Note:** When using the spiral hoses on a central gas supply, we recommend the following compressed air plug (gas extraction plug) with connection (IQS standard) to the polyamide spiral hoses



**64-20630-29** 1 pcs Compressed air plug (gas sampling plug) DIN 13260 with modification connection IQS standard (max. 10 bar) suitable for polyamide spiral hoses (blue or green)



**64-20630-25** 1 pcs Compressed air plug (gas sampling plug) DIN 13260 with Jurid clamp suitable for PVC hoses



**Basic Set for Compressed air** (oil-free, medically reprocessed) to 5 bar, with threaded gun hose coupling

**Set:** Cleaning gun with stainless steel handle 1/2" female thread for direct screw connection (not rotatable), pointed nozzle, PVC-Tube (KTW) with threaded gun hose coupling and end open (Hose diameter: inside 6mm / outside 12mm), Silicon oil.

**64-20820-70** 1 pcs Basic Cleaning gun set, autoclavable "**Compressed air**", Hose 100cm with with threaded gun hose coupling (not rotatable)  
**64-20820-71** 1 pcs Basic Cleaning gun set, autoclavable "**Compressed air**", Hose 150cm with with threaded gun hose coupling (not rotatable)  
**64-20820-72** 1 pcs Basic Cleaning gun set, autoclavable "**Compressed air**", Hose 200cm with with threaded gun hose coupling (not rotatable)





**Basic Set for De-ionized water / Drinking water** (cold) to 5 bar, with threaded gun hose coupling

**Set:** Cleaning gun with stainless steel handle 1/2" female thread for direct screw connection (not rotatable), pointed nozzle,, De-ionized waterhose: silicone hose with stainless steel braiding (KTW A, W 270, W 543) stainless steel hose fittings, hose connection adapter 3/8" , hose outside 1/2" (outside thread), Silicon oil.

**64-20810-70** 1 pcs Basic Cleaning gun set, autoclavable " De-ionized water / Drinking water", Hose 100cm with with threaded gun hose coupling (not rotatable)

**64-20810-71** 1 pcs Basic Cleaning gun set, autoclavable " De-ionized water / Drinking water", Hose 150cm with with threaded gun hose coupling (not rotatable)

**64-20810-72** 1 pcs Basic Cleaning gun set, autoclavable " De-ionized water / Drinking water", Hose 200cm with with threaded gun hose coupling (not rotatable)

## Cleaning guns - Parts & Accessories



**64-20820-10** 1 pcs Spray Gun-Compressed air or De-ionized water / Drinking water, with handle DN7,2  
(Gun alone) for use with Quick-Coupling

**Please note:** The cleaning gun 64-20820-10 can be used for compressed air as well as for demineralized water / drinking water. However, it is not advisable to use them alternately.

## Spare Parts for Spray Guns



**64-20850-23** 1 pcs Piston with O-Rings



**64-20850-26** 1 box CG Piston spring (1 box = 3 pieces)

**64-20850-24** 1 CG Piston-O-Ring small (alone not available, in 64-20850-16)  
**64-20850-25** 1 CG Piston-O-Ring large (alone not available, in 64-20850-16)



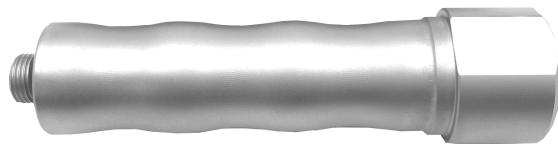
**64-20850-27** 1 pcs End Cap for CG Gun body



**64-20850-28** 1 pcs End Cap for CG nozzle



**64-20850-29** 1 pcs CG Handle DN 7.2 with O-Ring (Standard handle for 64-20820-10)



**64-20850-31** 1 pcs CG Handle with with O-ring for inline coupling (1/2") or for direct mounting on water or compressed air hoses (not rotatable)



**64-20850-17** 1 pcs CG pointed nozzle, M8



**64-20850-18** 1 pcs CG Luer Lock Connector M8



**64-20850-19** 1 pcs CG Tube nozzle Size 6



**64-20850-11** 1 pcs CG Luer connector Stainless Steel M8



**64-20850-14** 1 pcs CG shower nozzle, stainless steel, M8, mit nozzle sieve stainless steel



**64-20850-15** 1 pcs CG shower nozzle sieve, stainless steel, for stainless steel shower nozzle



**64-20850-16** 1 pcs Replacement set of O-Ring sealings for CG



**64-20850-53** 1 pcs Locking pin for trigger (new model -> backwards compatible until 2019)



**64-20850-33**      1 pcs Silicon oil



**64-20850-20**      1 pcs Wall holder for Stainless Steel Spray Gun



**64-20850-10**      1 pcs Table-top rosette, for top thickness from 0 to 45mm (standard)



**64-20850-09**      1 pcs Table-top rosette, for top thickness from 0 to 60mm (special)



**64-20850-47**      1 pcs Nozzle Holder - Table Version  
**64-20850-57**      1 pcs Nozzle Holder - Wall Version



**64-20850-59** 1 pcd. Sterilization tray 188 x 125 x 40 mm (base / lid / holders) - Electropolished surface with spring lock

## Hose parts



**64-20850-34** 1 pcs Stainless steel quick-lock coupling DN7,2  
**64-20850-35** 1 pcs sealing washer H 3mm f. hose fitting



**64-20850-36** 1 pcs CG coupling protection cup



**64-20850-12** 1 pcs Hose fitting adapter, stainless steel, GA 3/8", GI 1/2"  
**64-20850-13** 1 pcs Hose fitting adapter, stainless steel, GA 3/8", GI 3/4"



## Compressed Air-Hose



- |                    |  |
|--------------------|--|
| <b>64-20825-20</b> | 1 pcs PVC-Tube "Compressed air", length <b>100cm</b><br>with threaded gun hose coupling AG1/2" and a free tube end |
| <b>64-20825-21</b> | 1 pcs PVC-Tube "Compressed air", length <b>150cm</b><br>with threaded gun hose coupling AG1/2" and a free tube end |
| <b>64-20825-22</b> | 1 pcs PVC-Tube "Compressed air", length <b>200cm</b><br>with threaded gun hose coupling AG1/2" and a free tube end |
| <b>64-20825-25</b> | 1 pcs PVC-Tube "Compressed air", length <b>300cm</b><br>with threaded gun hose coupling AG1/2" and a free tube end |
| <b>64-20825-26</b> | 1 pcs PVC-Tube "Compressed air", length <b>400cm</b><br>with threaded gun hose coupling AG1/2" and a free tube end |

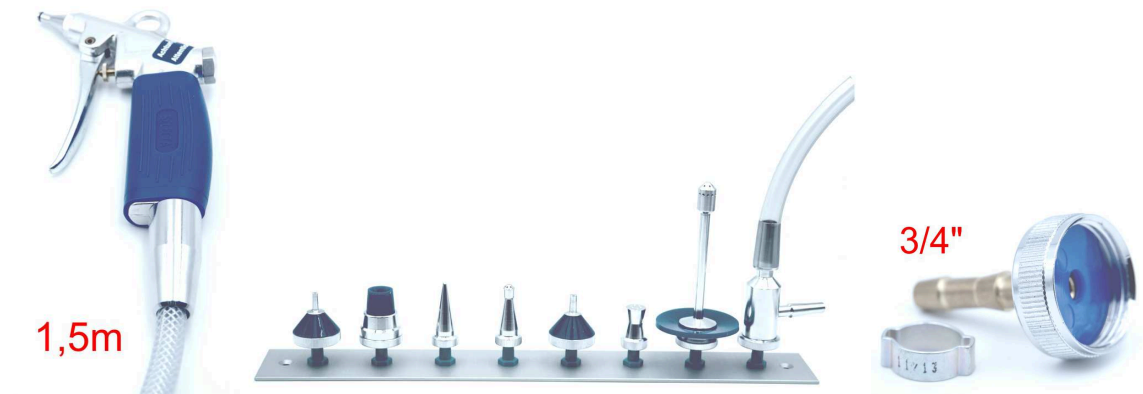
## De-ionized waterhose / Drinking waterhose



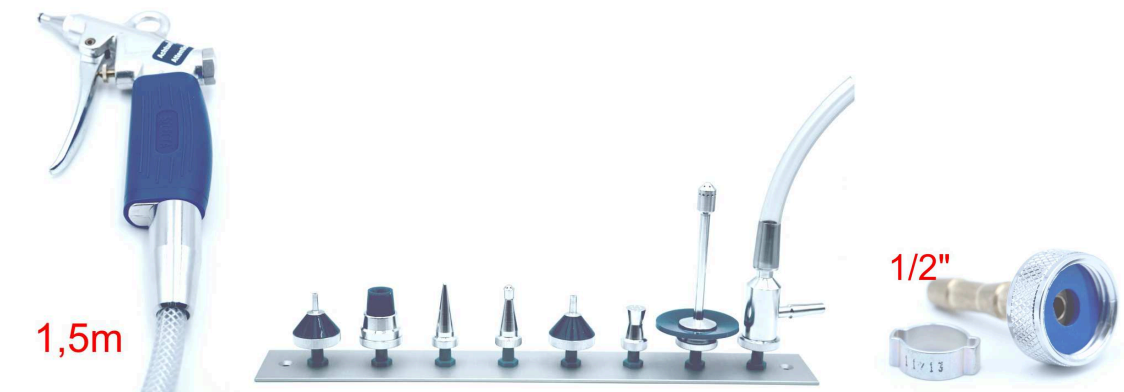
- |                    |  |
|--------------------|--|
| <b>64-20815-20</b> | 1 pcs De-ionized waterhose / Drinking waterhose, length <b>100cm</b> ,<br>AG1/2" and 3/8" connector for water supply |
| <b>64-20815-21</b> | 1 pcs De-ionized waterhose / Drinking waterhose, length <b>150cm</b> ,<br>AG1/2" and 3/8" connector for water supply |
| <b>64-20815-22</b> | 1 pcs De-ionized waterhose / Drinking waterhose, length <b>200cm</b> ,<br>AG1/2" and 3/8" connector for water supply |
| <b>64-20815-24</b> | 1 pcs De-ionized waterhose / Drinking waterhose, length <b>300cm</b> ,<br>AG1/2" and 3/8" connector for water supply |
| <b>64-20815-26</b> | 1 pcs De-ionized waterhose / Drinking waterhose, length <b>400cm</b> ,<br>AG1/2" and 3/8" connector for water supply |

## Selecta-Spray Guns (not suitable for De-ionized water)

cannot be processed



**64-20900-00** 1 pcs RFQ-SELECTA Spray Gun Rinser **new model** complete with 1,5 m tube, guide cone, standard set and 3/4" screwing loosely



**64-20900-01** 1 pcs RFQ-SELECTA Spray Gun Rinser **new model** complete with 1,5 m tube, guide cone, standard set and 1/2" screwing loosely



**64-20920-01** 1 pcs RFQ-SELECTA Spray Gun Rinser **new model** with 1,6 m metal tube, guide cone, table-top rosette and 3/4" screwing assembled

**64-20920-09** 1 pcs RFQ-SELECTA Spray Gun Rinser **new model** with 1,6 m metal tube, guide cone, w/o table-top rosette and 3/4" screwing assembled



64-20920-02 1 pcs RFQ-SELECTA Pure Spray Gun Rinser



64-20920-05 1 pcs RFQ-SELECTA Spray Gun Rinser with 1,5 m tube and guide cone assembled (End open)



64-20920-06 1 pcs RFQ-SELECTA Spray Gun Rinser with 3,0 m tube and guide cone assembled (End open)



**64-20620-03**

1 pcs Tip D for syringes and cannulas with record cone



**64-20620-04**

1 pcs Tip E for measuring and blood pipettes



**64-20620-05**

1 pcs Tip A for catheters, valves etc.



**64-20620-06**

1 pcs Tip B for drainage tubings



**64-20620-07**

1 pcs Tip F for syringes and cannulas with Luer cone



**64-20620-08**

1 pcs Tip C spray jet for rapid instrument cleaning



**64-20620-09**

1 pcs Tip G for bottles and Erlenmeyer flasks



**64-20620-10** 1 pcs Tip H Selecta water jet pump for suction cleaning



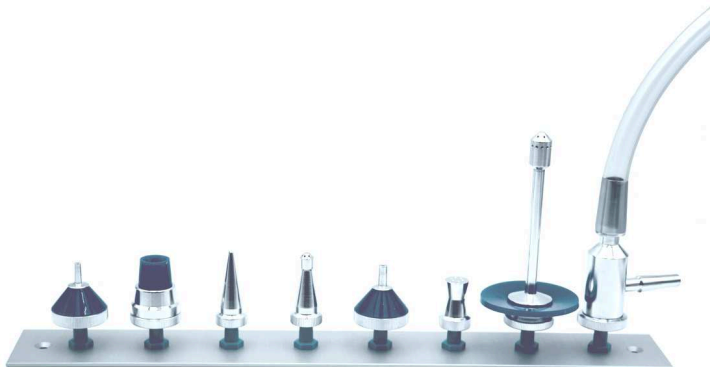
**64-20621-00** 1 pcs Table-top rosette 54 mm with guide cone



**64-20621-01** 1 pcs Table-top rosette 54 mm with nut without guide cone

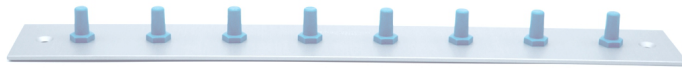


**64-20621-02** 1 pcs Guide cone to screw



**64-20620-20** 1 pcs Standard set A-H with stable rack





64-20620-21      1 pcs Stable rack for 8 attachments complete with 2 screws



64-20630-09      1 pcs Screwing 3/4" complete



64-20630-10      1 pcs Screwing 1/2" complete



64-20630-25      1 pcs Angle Plug "AIR" DIN 13260

### Spare parts for spray gun rinser



64-20630-01      1 pcs Spray gun rinser tip complete



64-20630-02      10 pcs O-ring 3x1 (1VE=10 pcs)



64-20630-03      1 pcs Spiral tension pin



**64-20630-04**      1 pcs Trigger



**64-20630-06**      1 pcs Connection between gun and tubing



**64-20630-07**      1 pcs Hose clip

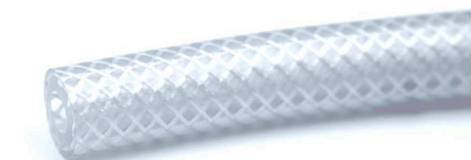


**64-20630-08**      1 pcs Replacement kit flow control



**64-20630-12**      1 pcs Clamp for PVC-tube

**64-20630-13**      1 pcs Clamp for metal-tube



**64-20630-14**      1 pcs PVC-tube (cut good)



**64-20630-15** 1 pcs Grip for spray gun rinser



**64-20630-16** 1 pcs Sealing 3/4"



**64-20630-17** 1 pcs Sealing 1/2"

**64-20630-18** 1 pcs Sealing disc

**64-20630-19** 1 pcs Tubetull

**64-20630-20** 1 pcs Reduction ring 1/2" and perlator

**64-20630-21** 1 pcs Reducing ring 1/2" and 3/8"



**64-20630-22** 1 pcs Hook

## Shark-Washing Guns (not suitable for De-ionized water)



- |                    |  |
|--------------------|--|
| <b>64-20200-15</b> | 1 St. Shark Washing Gun with 1,5m PVC-tube and 1/2" screwing loosely             |
| <b>64-20200-25</b> | 1 St. Shark Washing Gun with 1,5m PVC-tube and 3/4" screwing loosely             |
| <b>64-20200-35</b> | 1 St. Shark Washing Gun with 3,0m PVC-tube and 1/2" screwing loosely             |
| <b>64-20200-45</b> | 1 St. Shark Washing Gun with 3,0m PVC-tube and 3/4" screwing loosely             |
| <b>64-20200-55</b> | 1 St. Shark Washing Gun with 1,5m stainless-steel-tube and 1/2" screwing loosely |
| <b>64-20200-65</b> | 1 St. Shark Washing Gun with 1,5m stainless-steel-tube and 3/4" screwing loosely |
| <b>64-20200-75</b> | 1 St. Shark Washing Gun with 3,0m stainless-steel-tube and 1/2" screwing loosely |
| <b>64-20200-85</b> | 1 St. Shark Washing Gun with 3,0m stainless-steel-tube and 3/4" screwing loosely |

## Shark- Washing Sprinkler (not suitable for De-ionized water)



- |                    |  |
|--------------------|--|
| <b>64-20100-10</b> | Shark Washing Sprinkler with 1,5m PVC-tube and 1/2" screwing loosely             |
| <b>64-20100-20</b> | Shark Washing Sprinkler with 1,5m PVC-tube and 3/4" screwing loosely             |
| <b>64-20100-30</b> | Shark Washing Sprinkler with 3,0m PVC-tube and 1/2" screwing loosely             |
| <b>64-20100-40</b> | Shark Washing Sprinkler with 3,0m PVC-tube and 3/4" screwing loosely             |
| <b>64-20100-50</b> | Shark Washing Sprinkler with 1,5m stainless-steel-tube and 1/2" screwing loosely |
| <b>64-20100-60</b> | Shark Washing Sprinkler with 1,5m stainless-steel-tube and 3/4" screwing loosely |
| <b>64-20100-60</b> | Shark Washing Sprinkler with 3,0m stainless-steel-tube and 1/2" screwing loosely |
| <b>64-20100-60</b> | Shark Washing Sprinkler with 3,0m stainless-steel-tube and 3/4" screwing loosely |



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