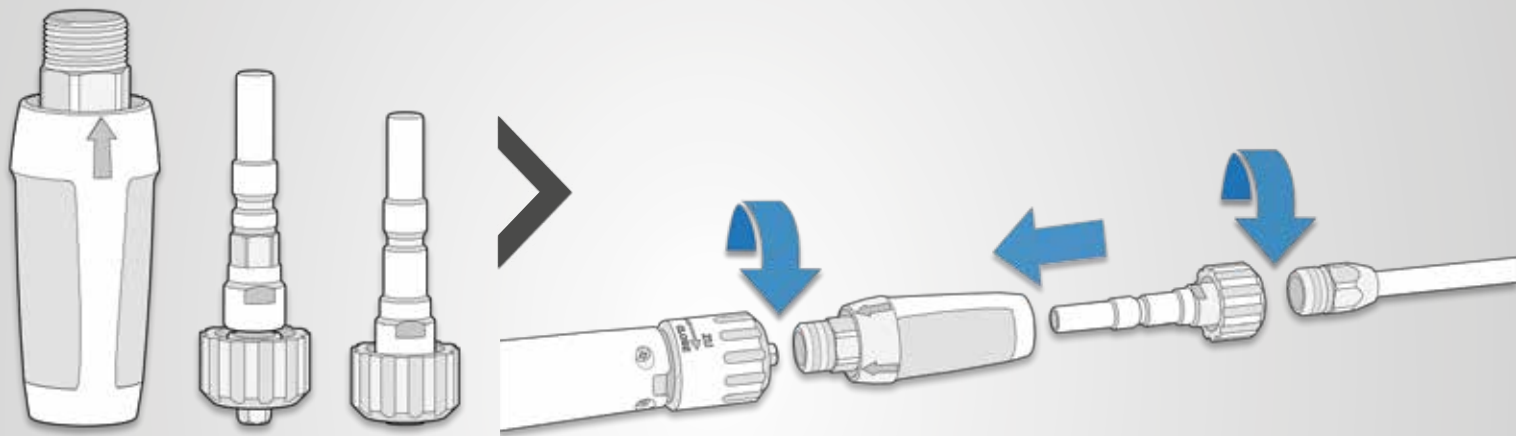


AS SAFE AS EVER, AS FAST AS NEVER BEFORE



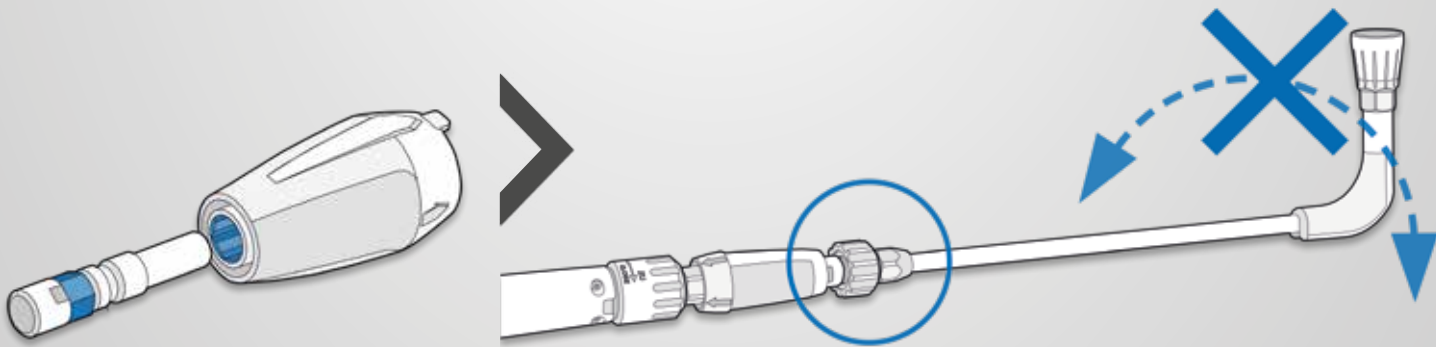
CONVERSION TO PLUG-IN SYSTEM D12

The threaded connection has always been a guarantee for the reliable connection between safety shut-off gun and lances. With the innovative quick-change plug-in system, we have decisively further developed this proven technology: The plug-in coupling combines the usual safety with additional comfort. By simply plugging in, the lances can be changed more conveniently and quickly than ever before.



- CONVERSION KIT** | Ord.no. 13455
- Attachment plug-in system D12
 - Plug nipple D12 wit anti-twist protection
 - Plug nipple D12 without anti-twist protection

- CONVERSION MADE EASY**
- Screw the attachment plug-in system onto the trigger gun M22
 - Screw the accessories with the M22 threaded screw onto the plug nipple
 - Snap the plug nipple into the attachment plug-in system



HEXAGONAL COUPLING

The external hexagon of the plug nipple with anti-twist protection fits perfectly into the internal hexagon of the Attachment plug-in system D12.

SECURED AGAINST TWISTING

Thanks to the plug-in nipple with hexagonal coupling, lances and accessories can be locked in six different positions. This makes unintentionally twisted accessories a thing of the past.

ACCESSORIES | QUICK RELEASE PLUG-IN SYSTEM D12 CONVERSION TO PLUG-IN SYSTEM D12



Conversion kit plug-in system D12

For converting trigger gun with safety catch and accessories with thread screw M22 to quick-change plug-in system D12.

Attachment plug-in system	Adapter 1	Adapter 2	Ord.no.
M22x1,5 AG ▶ D12	Plug nipple D12 without anti-twist protection	Plug nipple D12 with anti-twist protection	13455



124415

12440

Adapter Thread screw M22 ▶ plug-in system D12

For use of the accessories with thread screw M22 for trigger gun with safety catch with plug-in system D12

Inlet	Outlet	Anti-twist protection	Length mm	Ord.no.
Plug nipple D12	M22x1,5 IG	–	100	12441
Plug nipple D12	M22x1,5 IG	●	100	124415
Plug nipple D12	M22x1,5 IG	–	400 grip plates	12440



Attachment plug-in system D12

For converting trigger gun with safety catch to quick-change plug-in system D12.

Ord.no.	12443
Outlet	D12



ACCESSORIES THREAD SCREW M22 FOR DEVICES WITH A YEAR OF CONSTRUCTION UNTIL 2020

Since 2020, all high-pressure cleaners will be equipped exclusively with the innovative quick-change plug-in system. The previous cleaning accessories with threaded fittings for existing Kränzle units are of course still available.

► **DOWNLOAD: ACCESSORIES CATALOGUE M22**
Scan QR code or go to www.kraenzle.com/accessories-m22



LIGHT, COMFORTABLE AND ROBUST FOR AN EFFORTLESS CLEANING EXPERIENCE



NEW: STARLET 4

With the Starlet 4 high-pressure gun, you get a high-quality and reliable tool for professional cleaning work. It offers a lightweight yet robust design that allows comfortable handling and precise control of the water flow. Whether you want to remove hard dirt or clean surfaces thoroughly, the Starlet 4 is the ideal choice.



TRIGGER GUNS WITH SAFETY CATCH



Starlet 3		
Ord.no.	12500	
Outlet	plug-in system D12	
Operating pressure	bar MPa	270 27
Water output	l/min	40
Temperature max.	°C	150



NEW!

Starlet 4		
Ord.no.	12525	
Outlet	plug-in system D12	
Operating pressure	bar MPa	210 21
Water output	l/min	20
Temperature max.	°C	100



CLEVER NOZZLE TECHNOLOGY FOR MAXIMUM CLEANING POWER



LANCE WITH PENDULUM NOZZLE

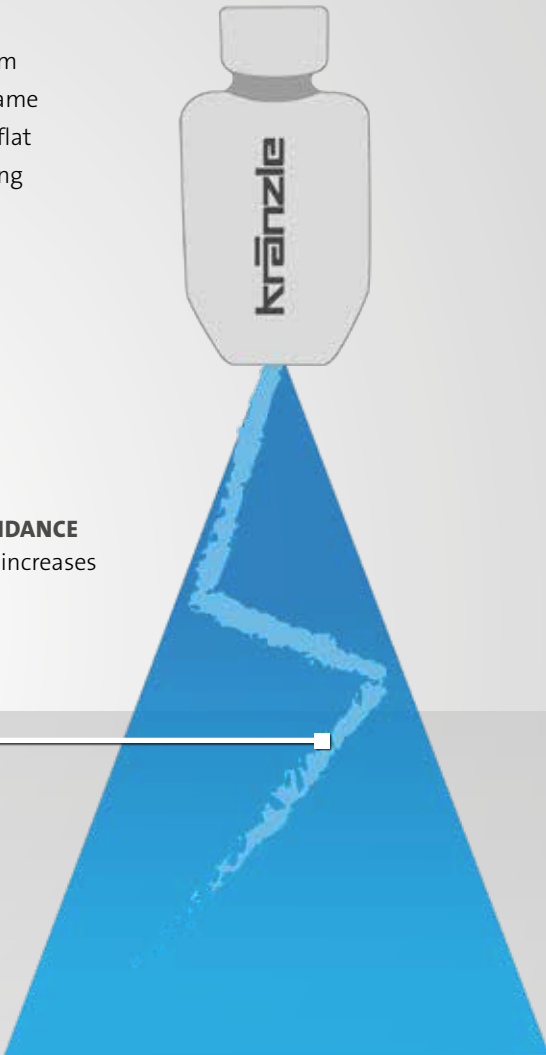
Convinces even under the toughest conditions: The new cleaning lance with pendulum nozzle made of wear-free stainless steel removes the most stubborn dirt and at the same time ensures area-wide cleaning. Its intelligent design combines the advantages of a flat jet lance with the power of a spot jet. An oscillating water jet delivers excellent cleaning results with significantly increased rinsing/spraying performance.

- produces a unique fluid jet (Coandă effect)
- without moving parts, thus robust and durable
- saves energy and water due to faster cleaning
- low vibrations and noise development

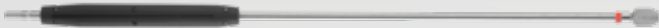
PRACTICALLY INDESTRUCTIBLE
made of stainless steel



INTELLIGENT FLOW GUIDANCE
the oscillating point jet increases
the cleaning power



CLEANING LANCES



12424-PD3008

Lance with pendulum nozzle				
Length	mm	Nozzle size	Spraying angle	Ord.no.
1000	grip plates	05	30°	12424-PD3005 NEW!
1000	grip plates	07	30°	12424-PD3007 NEW!
1000	grip plates	08	30°	12424-PD3008
1000	grip plates	11	30°	12424-PD3011



CLEANING LANCES



Lance with flat jet nozzle				
Length	mm	Nozzle size	Spraying angle	Ord.no.
500		028	20°	12435-M20028
500		03	20°	12435-M2003
500		042	20°	12435-M20042
500		045	20°	12435-M20045
500		1/4" female, without nozzle **	without nozzle **	12435-XXX
1000	grip plates	03	25°	12420-D2503
1000	grip plates	035	25°	12420-D25035
1000	grip plates	04	25°	12420-D2504
1000	grip plates	045	25°	12420-D25045
1000	grip plates	05	25°	12420-D2505
1000	grip plates	055	25°	12420-D25055
1000	grip plates	06	25°	12420-D2506
1000	grip plates	065	25°	12420-D25065
1000	grip plates	07	25°	12420-D2507
1000	grip plates	075	25°	12420-D25075
1000	grip plates	08	25°	12420-D2508
1000	grip plates	085	25°	12420-D25085
1000	grip plates	11	25°	12420-D2511
1000	grip plates	125	25°	12420-D25125
1000	grip plates	05	40°	12420-D4005
1000	grip plates	06	40°	12420-D4006
1000	grip plates	065	40°	12420-D40065
1000	grip plates	08	40°	12420-D4008
1000	grip plates	085	40°	12420-D40085
1000	grip plates	11	40°	12420-D4011
1000	grip plates	125	40°	12420-D40125
1000	grip plates	15	40°	12420-D4015
1000	grip plates	175	40°	12420-D40175
1000	grip plates	20	40°	12420-D4020
1000	grip plates	1/4" female, without nozzle **	without nozzle **	12420-XXX
1250	grip plates	1/4" female, without nozzle **	without nozzle **	124220-XXX
1500	grip plates	1/4" female, without nozzle **	without nozzle **	124210-XXX

FLAT JET NOZZLE

Our recommendation for cleaning sensitive surfaces. The flat spray nozzle with its conical jet (spraying angle: 20 - 40°) works particularly well and even does the "sweeping" of the dirt possible.



SPRAY ANGLE NOZZLES



20° SPRAYING ANGLE

Knife nozzle

Material: Brass



25° SPRAYING ANGLE

Flat-jet nozzle

Material: Stainless steel



40° SPRAYING ANGLE

Flat-jet nozzle

Material: Stainless steel

**Please order high-pressure nozzle separately.

CLEANING LANCES



VARIO-JET

The spray pattern can be adjusted from pointed jet to a wide spray fan. In addition, for high pressure cleaners with an integrated chemical injector, the Vario-jet lance has an adjustable nozzle that allows the user switch from spraying water to spraying detergent. As such, cleaning foam or detergent can be applied without the need to change accessories.

NEW: VARIO-JET DUO

The spray pattern can be adjusted from pointed jet to a wide spray fan.



NEW!

Lance with Vario-Jet			
■ with anti-twist protection			
Length	mm	Nozzle size	Ord.no.
500		028	12437-028
500		03	12437-03
500		042	12437-042

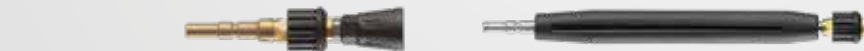
Lance with Vario-Jet Duo			
Length	mm	Nozzle size	Ord.no.
500		028	12433-028
500		03	12433-03
500		042	12433-042



Stainless steel lance with regulating nozzle				
■ max. 250 bar 25 MPa ■ max. 150 °C ■ with anti-twist protection (500 mm)				
Length	mm	Nozzle size	Spraying angle	Ord.no.
500		042	20°	12436-M20042
500		03	20°	12439-D2503
500		05	20°	12439-D2505
1000	grip plates	03	25°	12431-D2503
1000	grip plates	045	25°	12431-D25045
1000	grip plates	05	25°	12431-D2505
1000	grip plates	07	25°	12431-D2507
1000	grip plates	R 1/4" IG, without nozzle **	without nozzle **	132061
1500	grip plates	R 1/4" IG, without nozzle **	without nozzle **	132062

LANCE WITH CONTROL NOZZLE

The working pressure can be set directly on the lance and for different tasks settings, for example more powerful flat jet with high pressure or more practical rinsing jet in low pressure operation.



Short regulating nozzle			
Length	mm	anti-twist protection	Ord.no.
180		●	R 1/4" IG, without nozzle ** 132051
340	grip plates	—	R 1/4" IG, without nozzle ** 132060

**Please order high-pressure nozzle separately.

CLEANING LANCES



12438-028



12425-042

Lance with Dirtkiller			
Length	mm	Nozzle size	Ord.no.
500		028	12438-028
500		03	12438-03
500		042	12438-042
500		045	12438-045
500		05	12438-05
500		055	12438-055
1000	grip plates	03	12425-03
1000	grip plates	035	12425-035
1000	grip plates	042	12425-042
1000	grip plates	045	12425-045
1000	grip plates	05	12425-05
1000	grip plates	055	12425-055
1000	grip plates	06	12425-06
1000	grip plates	07	12425-07
1000	grip plates	075	12425-075

12430-045



Lance with Turbokiller			
Length	mm	Nozzle size	Ord.no.
1000	grip plates	035	12430-035
1000	grip plates	04	12430-04
1000	grip plates	045	12430-045
1000	grip plates	05	12430-05
1000	grip plates	055	12430-055
1000	grip plates	07	12430-07
1000	grip plates	08	12430-08
1000	grip plates	09	12430-09
1000	grip plates	10	12430-10
1000	grip plates	11	12430-11
1000	grip plates	12	12430-12

DIRTKILLER AND TURBOKILLER

On insensitive surfaces the high pressure nozzle of the dirt killer with its rotating ceramic ball, removes even the most stubborn stains without residue. The turbokiller comes to the use when higher working pressure and large quantities of water are required.



Figure: Dirtkiller



Figure: Turbokiller



****Please order high-pressure nozzle separately.**

CLEANING LANCES



411545

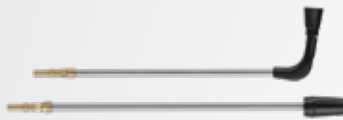


411547



Lance extension			
■ with anti-twist protection (342 mm and 500 mm)			
Length	mm	Outlet	Ord.no.
342		Plug nipple D12	411544
500		Plug nipple D12	411545
1000	grip plates	Plug nipple D12	411546
1250	grip plates	Plug nipple D12	411547
1500	grip plates	Plug nipple D12	411548

410755



Underbody lance			
For hard-to-reach areas ■ with anti-twist protection			
Length	mm	Nozzle size	Ord.no.
500		07	410756
1000		07	410755

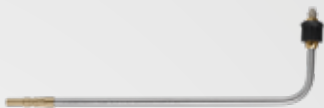
12133



Double lance with turning hand-grip			
Infinite variable control of working pressure ■ with anti-twist protection (660 mm)			
Length	mm	Nozzle size	Ord.no.
660		D3035 **	121332
1000		D3035 **	12133



**** Low-pressure nozzle serially included. Order high-pressure nozzle separately.**



Toilet lance		
■ with anti-twist protection		■ with regulating nozzle
Ord.no.	12540	
Length	mm	500
Nozzle size	D25055	



Bend lance with handgrip		
Infinite adjustment of bending angle from 20° to 140°		
Ord.no.	121801-XXX	
Length	mm	1100
Outlet	R 1/4" IG, without nozzle **	

125301



Double lance with turning knob			
Infinite variable control of working pressure ■ with anti-twist protection (660 mm)			
Length	mm	Nozzle size	Ord.no.
660		D3035 **	125301
1000		D3035 **	125302



FLOOR CLEANERS



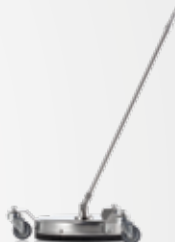
Round Cleaner UFO short	
for small to medium-sized surfaces	
Ord.no.	41855
+ Adapter D12	12441
Inlet	M22x1.5 AG
Ø	mm 300
Operating pressure	bar MPa 180 18
Water output max.	l/min 12
Weight	kg 1.9
Nozzle size	045



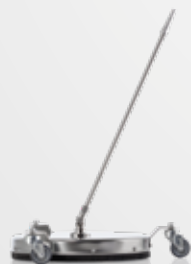
Round Cleaner UFO long	
for small to medium-sized surfaces	
Ord.no. without wheels	41880
Ord.no. with wheels	41881
Ø	mm 300
Operating pressure	bar MPa 180 18
Water output max.	l/min 12
Weight without wheels	kg 2.4
Weight with wheels	kg 3.1
Nozzle size	045



Round Cleaner UFO long stainless steel	
for small to medium-sized surfaces	
Ord.no. Nozzle size 045	41891
Ord.no. Nozzle size 055	41890
Ø	mm 350
Operating pressure	bar MPa 210 21
Water output max.	l/min 15
Weight	kg 5.5



Round Cleaner INOX 300	
for medium-sized to large surfaces	
Ord.no.	41813
Ø	mm 300
Operating pressure	bar MPa 160 16.0
Water output max.	l/min 12
Weight	kg 2.9
Nozzle size	045



Round Cleaner INOX 410	
for large to very large surfaces	
Ord.no.	41814
Ø	mm 410
Operating pressure	bar MPa 180 18.0
Water output max.	l/min 14
Weight	kg 3.6
Nozzle size	045



Round Cleaner INOX 520	
for large to very large surfaces	
Ord.no.	41812
Ø	mm 520
Operating pressure	bar MPa 220 22.0
Water output max.	l/min 26
Weight	kg 11.4
Nozzle size	06



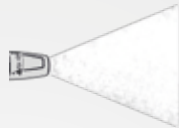
FOAM CLEANING | ADDITIVE



Foam lance		
Production of highly effective foam		
■ adjustable spraying angle (spot jet - flat-jet)		
■ incl. screw cap		
Container	Liter	Ord.no.
1		135303
2		135313



SPOT JET



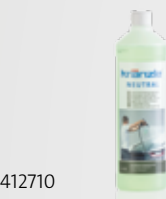
FLAT-JET



1 Liter

2 Liter

Spare container foam lance	
For changing and storing cleaning agents	
Container without lid	Ord.no.
1 Liter	135320
2 Liter	135321
Screw cap	135336



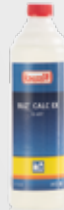
Kränzle Neutral		
Universal cleaner for removal of strong contaminations		
■ pH value***: 10.9		
Container	Liter	Ord.no.
1		412710
5		412711
25		412712



Kränzle Plus		
Special cleaner to degrease and clean		
■ pH value**: 13.2		
Container	Liter	Ord.no.
5		412721
25		412722



Kränzle Marine		
Highly alkaline intensive cleaner dissolves soot, oil and grease stains		
■ pH value**: 13.5		
Container	Liter	Ord.no.
5		412731
25		412732



Decalcifying (concentrate)		
Descaling of water high-pressure cleaners		
Removal of lime deposits		
■ pH value**: 1.0		
Container	Liter	Ord.no.
1		412580
12 x 1		412570



High-performance transmission oil		
For all Kränzle high pressure pumps		
Container	Liter	Ord.no.
0.25		400931 NEW!
1		400932
5		400933 NEW!
20		400934 NEW!



Important note:

When using chemical cleaning agents, observe the respective regulations, provisions, safety notes and safety data sheets.
Safety data sheets under: www.kraenzle.com/sda

**pH value: Undiluted

We recommend testing the cleaning agent on the surface to be cleaned before starting.

POWERFUL TOOL FOR PROFESSIONAL CLEANING WORK

NEW: TELESCOPIC LANCE

The telescope lance offers a convenient and effective solution for cleaning hard-to-reach places at great heights. With this telescope lance, you can work without scaffolding or a lifting platform and safely clean various surfaces from the ground, including facades, ceilings, glass surfaces and solar installations



INTERNAL HIGH PRESSURE HOSE
ensures a reliable and safe water supply during the the cleaning process



CARRYING STRAP
As an option, the telescopic lance can be supplied with a carrying or shoulder strap to make transport and handling transport and handling even more repeated comfortable.

Ord.no. 122100



Telescopic lance		
For easy cleaning of hard-to-reach places at great heights. Clean without scaffolding or lifting platform - safely from the ground.		
Ord.no.	121900	
Inlet/Outlet	M22x1.5 AG	
Length min. max.	m	2.4 5.4
Operating pressure with cleaning brush max.	bar MPa	4 40
Water output max.	l/min	30

Cleaning brush transverse		EXPERT TIP
■ Natural bristles ■ Connection M22x1.5 AG		
Ord.no.	410500	

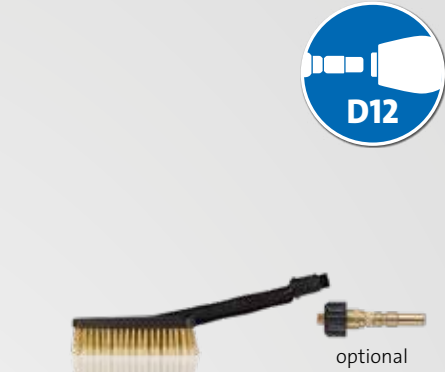


SPECIAL ACCESSORIES



Cleaning brush transverse		
■ Natural bristles		
■ Brush head LxW: 240x90 mm		
■ with anti-twist protection (500 mm)		
Pipe length	mm	Ord.no.
500		128060
750		128061
1000	grip plates	128062
1250	grip plates	128063
1500	grip plates	128064

Rotating washing brush		
■ Natural bristles		
■ Brush head Ø: 180 mm		
■ with anti-twist protection (342 mm)		
Pipe length	mm	Ord.no.
342		410506
1000	grip plates	410507
1250	grip plates	410508
1500	grip plates	410509



Cleaning brush flat	
■ Plastic bristles	
Ord.no.	41073
+ Adapter D12	12441
Inlet	M22x1.5 AG
Dimensions LxW	mm 180x65



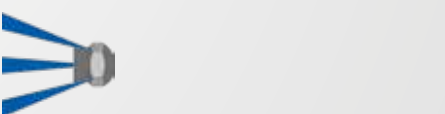
Sandblaster set (wet blasting)	
for blasting sandstone and facades	
■ with hose and intake lance	
Ord.no.	41068
+ Adapter D12	12441
Inlet	M22x1.5 AG
Operating pressure	bar MPa 250 25
Water output	l/min 19
for blasting material	mm 0.2 - 2.0
Nozzle size	● 055



Spray guard	
For cleaning surfaces without splashing water	
■ Applicable for all washing lances	
Ord.no.	132600
Dimensions LxW	mm 285x190



Pipe cleaning hose with nozzle			
■ Operating pressure max.: 200 bar 20 MPa			
other nozzles on request			
■ Nozzle size without front bore: KN 055			
■ Nozzle size with front bore: KNF 055			
Length	m	Ord.no. without front bore	Ord.no. with front bore
10		12550	12550-F
15		125501	125501-F
20		125502	125502-F
25		125503	125503-F
30		125504	125504-F



WITHOUT FRONT BORE
3 jets to the rear



WITH FRONT BORE
3 jets to the rear
1 jet to the front

INTAKE / EXTRACTION | FILTER



Sludge sucker	
Extraction of mud from pools and ponds	
■ For high-pressure cleaners from 10 l/min	
Ord.no.	41791
Inlet	M22x1.5 AG
Length	m 2
Operating pressure max.	bar MPa 250 25
Water output max.	l/min 20
Suction height max.	m 3
Suction power at 130 bar / 220 bar	l/h 10000 17500
Nozzle size (factory fitted)	● 055



Sludge sucker	
Extraction of mud from pools and ponds	
■ For high-pressure cleaners from 10 l/min	
■ hose diameter 1 1/2 "	
Ord.no.	41104
Inlet	M22x1.5 AG
Hose length	m 3.8
Operating pressure max.	bar MPa 250 25
Water output max.	l/min 20
Suction height max.	m 3
Suction power at 130 bar / 220 bar	l/h 10000 17500
Nozzle size (factory fitted)	● 055



Pool cleaner attachment	
Attachment for stainless steel mud extractor	
Ord.no.	418030
Inlet	M22x1.5 AG
Dimensions L	mm 320
Operating pressure max.	bar MPa 250 25
Water output max.	l/min 20
Suction height max.	m 3
Suction power at 130 bar / 220 bar	l/h 10000 17500
Nozzle size as standard	● 055



Suction hose with suction filter	
■ with return valve	
■ For high-pressure cleaners from 10 l/min	
Ord.no.	150383
Inlet	3/4" IG
Hose length	m 3



Water inlet filter		
■ Inlet and outlet in brass execution, except article: 13310		
Inlet	Outlet	Ord.no.
3/4" AG (Plastic connection)	3/4" IG (Screw connection)	13310
3/4" AG	3/4" IG (Screw connection)	133003
Quick release coupling with claws (GEKA)	Quick release coupling with claws (GEKA)	133005
3/4" AG	3/4" IG (Screw connection)	133201



EVERYTHING IN PLACE

ACCESSORIES ORGANISER

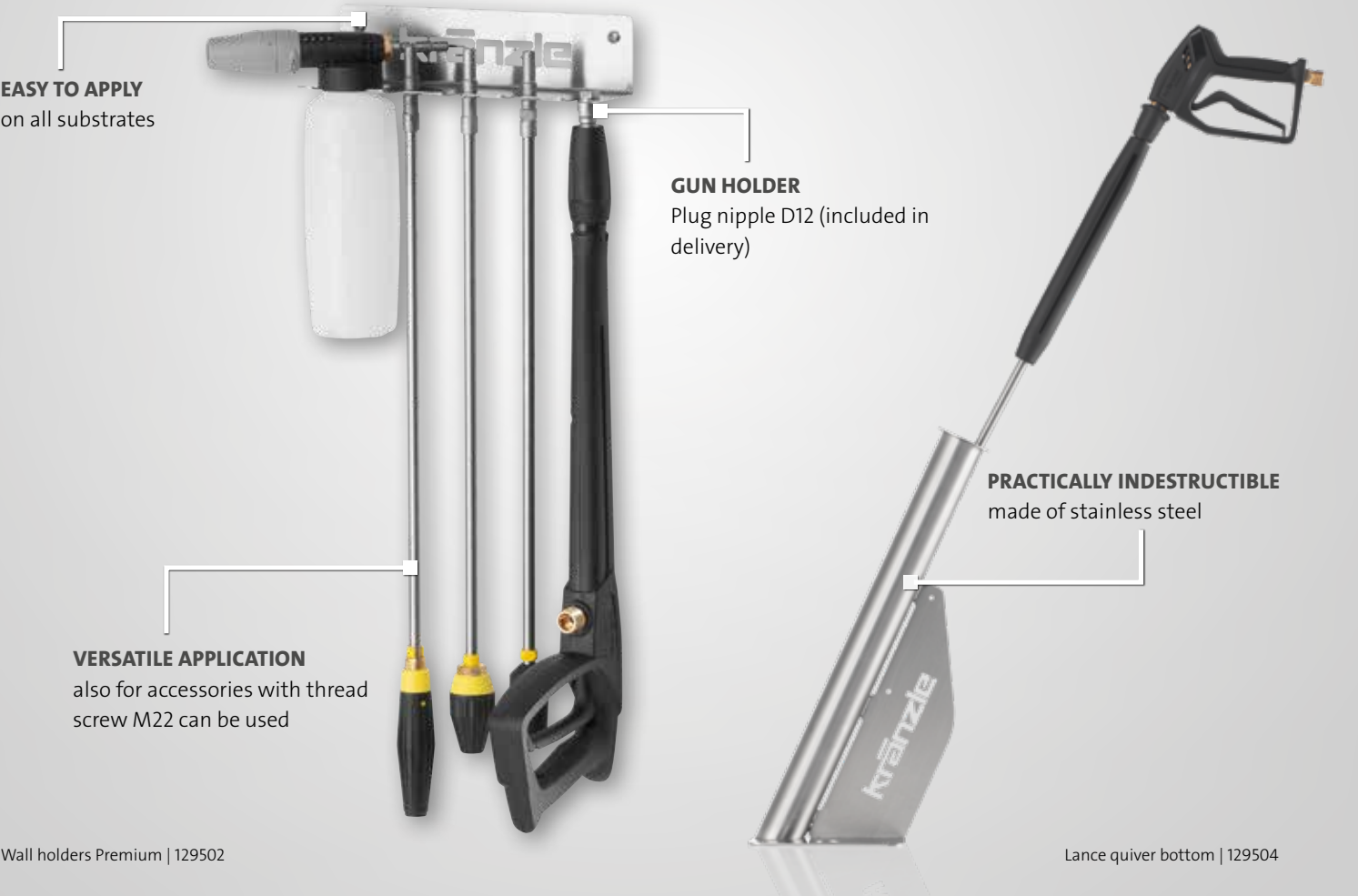
The search is over: without the right accessories, perfect cleaning results are hardly possible. To ensure that all utensils are always within reach and that you don't lose track of them, Kränzle offers the right holder for every requirement. These are compatible with the complete range of Kränzle accessories - also for accessories with M22 threaded screw connection.

EASY TO APPLY
on all substrates

GUN HOLDER
Plug nipple D12 (included in delivery)

PRACTICALLY INDESTRUCTIBLE
made of stainless steel


VERSATILE APPLICATION
also for accessories with thread screw M22 can be used



Wall holders Premium | 129502

Lance quiver bottom | 129504


WALL HOLDERS



Wall holders Lances

Space-saving storage of up to seven lances and washing brushes
■ incl. gun holder D12


Ord.no.	129500
Dimensions LxWxH mm	300x50x70



Wall holders Foam lance

Large trough for practical attachment of the Foam lance

Ord.no.	129501
Dimensions LxWxH mm	80x70x70




Wall holders Premium

For the storage of up to four cleaning lances and one foam lance
■ incl. gun holder D12

Ord.no.	129502
Dimensions LxWxH mm	300x70x70

ACCESSORIES


LANCE HOLDER | HOSE REELS



Lance quiver bottom

for floor mounting, with leakage connection
■ Suitable for stowing 2 lances

Ord.no.	129504
Pipe length mm	590
Ø mm	55



Lance quiver wall

for wall mounting
■ not suitable for lances with turbo killer

Ord.no.	129505
Pipe length mm	590
Ø mm	55





Retrofit parts for automatik drum

■ therm-RP, therm-1, therm 1017

Ord.no.	48950
HP hose m	20 (DN8)



Automatic hose winder

■ incl. connection hose 2 m

Ord.no.	43855
HP hose m	20 (DN8)




Automatic hose winder stainless steel

■ incl. connection hose 2 m

incl. HP hose m	Ord.no.
20 (DN8)	412681
30 (DN8)	412691


ADAPTER



Conversion kit - flow monitor

For leakage protection in the pipe network. Suitable for non-monitored areas

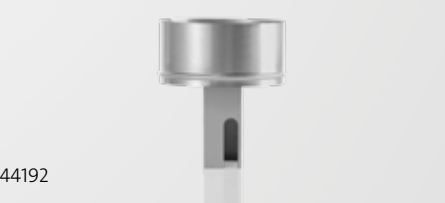
Ord.no.	126342
Flow rate l/min	4



Pipe ventilation with non-return valve

Installation between device and drinking water pipe
■ with return valve

Ord.no.	410164
Inlet	3/4" IG
Outlet	3/4" AG



Chimney adapter

For indoor installations
■ for all oil-heated therm series
■ Ø 200 mm

Length mm	Ord.no.
200	44192
385	441921

HIGH PRESSURE HOSES



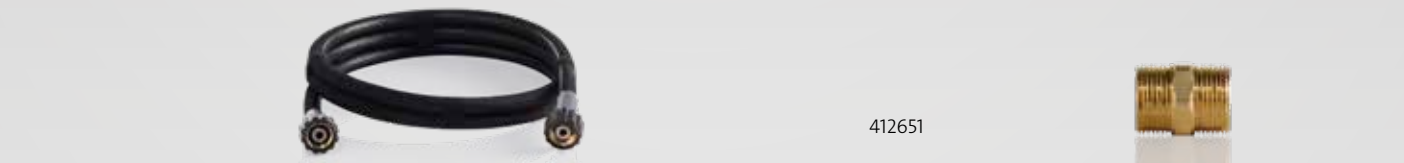
43416 Standard NoM 410841

Steel braided high-pressure hose								
Inlet Outlet: M22x1.5 IG			Rotating screw connection		Bend protection		Other versions on request	
Length	m	Steel braided layers	SN	Operating pressure bar MPa	Temperature max. °C	Ord.no. Standard	Ord.no. NoM	
10 (DN6)	1		210 21	100		43416	434162	
20 (DN6)	1		210 21	100		434161	434163	
10 (DN8)	1		230 23	150		44878	-	
10 (DN8)	2		400 40	150		41081	410811	
15 (DN8)	1		230 23	150		44879	-	
15 (DN8)	2		400 40	150		-	410821	
25 (DN8)	2		400 40	150		41084	410841	
30 (DN8)	2		400 40	150		41080	410801	



443812 Standard NoM 410831

Replacement hose - for high pressure cleaners with hose reel								
Outlet: M22x1.5 IG			Rotating screw connection		Bend protection		Other versions on request	
Device series	Length	m	Steel braided layers	SN	Operating pressure bar MPa	Temperature max. °C	Ord.no. Standard	Ord.no. NoM
K 1152, K 2000	15 (DN6)	1		210 21	100		48015	480151
Profi	15 (DN6)	1		210 21	100		43829	438291
small quadro	15 (DN6)	1		210 21	100		40170	401701
medium quadro	20 (DN6)	1		210 21	100		434161	434163
bully	15 (DN8)	1 / NoM: 2		210 21 / NoM: 400 40	100		46411	464111
large quadro, Profi-Jet, B therm C, therm CA	20 (DN8)	2		400 40	150		41083	410831
LX-RP, therm-RP, therm 1, e-therm	15 (DN8)	1 / NoM: 2		210 21 / NoM: 400 40	150		44879	410821
	20 (DN8)	2		400 40	150		443812	443813



412651

Connecting hose					
Inlet Outlet: M22x1.5 IG					
Length	m	Steel braided layers	SN	Operating pressure bar MPa	Ord.no.
1 (DN8)	2			400 40	41265
2 (DN8)	2			400 40	412651

Hose connector / joining piece	
Ord.no.	13286
Inlet	M22x1.5 AG
Outlet	M22x1.5 AG



THEY BELONG
IN EVERY HOME

HIGH-PRESSURE CLEANERS FOR PRIVATE USERS