

77098

## Initial pressure sprayer



## Design

- Clear durable tank with level indicator
- Built-in safety valve (2.5 bar)
- Including 3 nozzles to adjust the foam quality, as well as for different exposure times (black = normal, green = dry, orange = wet)

- Increasing the contact time between the chemical and the surface to be cleaned ensures increased effectiveness of the chemical product

## Applications

For cleaning/disinfecting surfaces, workpieces, vehicles, sanitary facilities.  
Suitable for neutral cleaners as well as diluted acidic and alkaline cleaners.  
Particularly suitable for cleaning vehicles, work surfaces and machine parts.

Net volume l	Total volume l	Operating pressure bar	77098	...
0.75	1.5	3		101



77098

77099

## Sprayer

## Design

Translucent container, with a long neck and adjustable nozzle, DIN thread 28-400.

## Applications

Specially designed for the use of low-viscosity substances.

Fill volume l	Weight g	77099	...
1	90		101



77099

77100

## Spraying device

## Design

Translucent container, stainless-steel pump unit, seal made of special Viton material.

## Applications

For use in industry and trade.

Fill volume l	Weight g	77100	...
0.5	140		101



77100

77101

## Spraying device

## Design

Translucent container, made of high-quality materials, seals made of special Viton material.

## Applications

For use in industry and trade.

Fill volume l	Weight g	Operating pressure bar	Displacement volume l/min.	77101	...
2.0	500	3	0.4-1.2		101



77101

77102

## Compressed air spray device



## Design

- 360° rotating spray tube
- The stream and volume are controlled by turning the nozzle

- Spray material container 0.7 l made of plastic
- Air connection with connector for quick-action coupling

## Applications

According to the suction principle for highly fluid media.

Max. operating Pressure bar	Recommended Working pressure bar	Nozzle diameter mm	Spray cone approx. °	Operating Temperature °C	77102	...
10	2 - 6	3	40	+5 - +50		101



77102

77103

## Spray bottle



## Design

- Cost savings due to the use of large containers
- Safety valve
- Viton seals
- Including 155 mm long jet nozzle and short spray nozzle
- Easy cleaning thanks to two-piece design
- Easy filling via the neck of the bottle (diameter 25 mm) or into the lower section (diameter 54 mm)

- Environmentally friendly: CFC-free and reusable
- The valve located in the bottom is used exclusively for filling with compressed air

## Applications

For use with multifunction sprays, such as penetrating oil and rust remover, as well as rim and brake cleaner.

Capacity ml	Max. operating pressure bar	Weight kg	77103	...
227	8	0.4		101



77103

**77105**
**Drip oil dispenser**
**Design**

Made of transparent Cellidor, push-button operation, fountain-pen-shaped, with clip and cap.

**Applications**

Wherever you want to oil drop by drop, e.g. on precision engineering apparatus or hinges.



Contents ml	Length mm	Weight g	77105	...
5	140	20		102

**77115**
**Plastic oil dispenser**

**Design**

Resistant to oil, petrol and acid.

**Size 1:** flat container with fixed spray tube.

**Size 2 and 3:** round polyethylene containers with brass spray tube.

**Applications**

For trade and industry.

Size	Contents ml	77115	...
1	75		101
2	125		202
3	250		203


**77135 - 77141**
**Oil spray cans**

**Design**

With 130 mm long brass spray tube including brass nozzle. Drip catcher and hanging loop, oil release in drops by raising the pressure lever, all parts replaceable – easy to clean.

**77140 - 77141**
**Design**

Double metal pump unit with rotary piston, even for particularly inaccessible places. Oils in every position imaginable, **even overhead**.

**77140**
**Design**

Seamless aluminium container.

**77141**
**Design**

Polyethylene container.

**77135 - 77136**
**Design**

Simple brass pump unit.

**77135**
**Design**

Seamless aluminium container.

**77136**
**Design**

Polyethylene container.



Contents ml	77135	...	77136	...	77140	...	77141	...
200		102	102		101		101	
300		103	103		102		102	

**77142 - 77144**
**Oil spray cans**

**77142 301-303**
**Design**

- Made from sheet steel
- Painted blue
- With brass pump
- With rigid and flexible metal spray tube
- Non-slip handle
- High stability

**Applications**

- For industrial and workshop use.

**77144 301-303**
**Design**

- Made from polyethylene
- Transparent
- With brass pump
- With rigid metal spray tube
- Non-slip handle
- Conical shape for stability

**Applications**

For industry, workshop and hobby applications.

Contents ml	Sheet steel		Polyethylene	
	77142	...	77144	...
200		301		301
300		302		302
500		303		303



77145

## Special oil spray can

## Design

With high-pressure pump, round tinplate container and metal spray tube, oil delivery also adjustable drop by drop, intermediate base to prevent oil leaks, thus **lubricates in every situation**.

77145



Contents ml	Spray tube length mm	Container height mm	77145	...
250	170	130	102	

77180

## Hand pump



## Design

Double-action hand pump, with intake and outlet hose. Full metal construction made of light metal, resistant to wear and temperature. With safety handle.

## Applications

Can be used in all industry and trade applications to fill heating oils, mineral, synthetic and biological oils, washing solvent, coolant, anti-freeze, spirit, petroleum etc.

77180

Pumping performance ml/stroke	Pipe Ø mm	Hose length mm	77180	...
260	40	600	102	



77181

## Manual dispensing pumps



## Design

With transparent cylinder made of rigid PVC, graduation in cl for controlled filling and emptying of any fluid. Smooth running, high suction capacity and fast.

77181 101

## Design

Including 300 mm flexible hose and 130 mm straight tube.

77181 102

## Design

Including 750 mm flexible hose.

77181 101

77181 102

Pumping performance ml/stroke	Pipe Ø mm	Pump stroke mm	Weight g	77181	...
150	40	208	645	101	
1000	60	420	768	102	



77185 - 77187

## Oil and petrol suction syringes



## Design

Suction and pressure effect, aluminium cylinder tube, wear-resistant and smooth with PTFE piston rings.

## Note:

Art. no. 77186 - 77187 suitable for both suction syringes.

77185 102

## Suction syringe.

## Design

Size 2 including 3 small connecting tubes 90/140 and 250 mm long, Ø 10 mm.

77185 103

## Suction syringe.

## Design

Size 3 including 1 straight tube 300 mm long, diameter 12 mm.

77186

## Additional tube.

## Applications

For viscous oil.

77187

## Flexible metal tube.

77185 102

77186

77187



Size	Contents approx. ml	Ø mm	Pump stroke mm	Length mm	Pipe Ø mm	77185	...	77186	...	77187	...
2	750	60	255	-	10		102				
3	1000	60	363	-	12		103				
-	-	-	-	200	12				101		
-	-	-	-	250	10						101

77190

## Oil miser

## Design

Transparent, impact resistant, weather resistant. The liquid that flows from the main reservoir into the brush container is enough that only the bristles of the brush are soaked; clean and economical. Complete with swivel bracket and 2 brushes.

## Applications

Only suitable for lubricating and drilling oils, petrol, petroleum, ether, soapy water (not for acids, acetone etc.).

77190



Container capacity  
approx. l

77190

...

0.5

101

77193

## Storage container

## Design

Equipped with a brush for applying glue, paint, contact adhesive and various solvents.

## Advantages:

- Significant adhesive savings
- No costs for disposal of dried adhesive as hazardous waste
- High resistance to chemicals
- Long service life through impact-resistant plastic
- Quality-tested joining of the base to the housing
- Optimised sealing cap with seal groove prevents evaporation, even of low-viscosity liquids

## Applications

For universal use in production, shipping, trade and hobbies.

77193



Volume  
l

Dimensions  
mm

77193

...

1.5

215 x 105 x 130

101

77194

## Magnetic lubricant pot

## Design

Made from unbreakable plastic. With permanent magnet on the bottom.

77194



Capacity  
ml

Height  
mm

Width  
mm

Weight  
g

77194

...

250

80

80

100

101

77300

## Multi-purpose tub



## Design

Break-proof, with sturdy carrying handles. Safe pouring through full perimeter overflow edge and spout. With raised section for placing dirty parts.

## Applications

For changing oil or cleaning parts.

## Quality

Polyethylene.

77300



Capacity  
l

Height  
mm

Length  
mm

Width  
mm

Colour

77300

...

6

100

360

360

Black

101

77303

## Measuring cup set



## Design

Transparent, coloured and raised scale. Resistant to oil and acid, food safe. With ergonomic handle, stackable, safe pouring.

## Quality

Polypropylene.

77303



Set

Volume

Area of application  
from to °C

77303

...

3 pieces

0.5/1.0/2.0

- 10 + 120

101

## 77305 - 77306 Liquid measures

### Design

With a funnel-shaped spout.

### 77305

#### Design

Tinplate, can be calibrated.



### 77306

#### Design

Zinc-plated sheet steel, swivelling carry handle.

Contents l	77305	...	77306	...
1		102		
10				102



## 77319 - 77321 Funnel

### 77319

#### Design

Tinplate with overflow edge, air groove in the tube, with removable sieve.

### 77321

Flexible extension tube.

	Funnel 77319	...	Extension tube 77321	...
Upper Ø mm				
160		101		101



## 77323 Funnel set



### Design

Ø 160 mm with removable brass sieve.

### Quality

Polyethylene.

Set	Funnel Ø mm	77323	...
6 pieces	50/75/100/120/150/160		101



## 77325 Funnel

### Design

Red, with black, lockable lid.

### Applications

For metal drums. Suitable for standard 60 or 200 l oil drums. Funnel for waste oil or chemical disposal (polyethylene).

Drum screw connection	Ø mm	Volume l	77325	...
2 inch outer	250	3.2		101



## 77350 Oil supply cans DIN 6425

### Design

Made from tinplate, with hinged lid and captive pipe closure, strong carrying handle.

Volume l	Height mm	77350	...
5	290		102
10	350		103





## 77370

## Fuel canister

## Design

With flexible outlet. Robust and insensitive to impact. Cap protected against loss with fixing band. Outlet tube with integrated vent. **Outlet tube is kept in the canister: Contamination caused by transport is prevented and** loss of the outlet tube is made more difficult. High stability through large base area. With solid handle for easy carrying. Design optimised and dimensionally stable through all-round tank reinforcements. TÜV tested, UN/BAM approval.

## Applications

For liquid fuels.

## Quality

Material HDPE.

Volume l	H x L x W mm	Outlet tube length mm	Outlet tube Ø mm	Colour	77370	...
5	237 x 331 x 185	195	20	red		101
10	319 x 329 x 195	195	20	red		102
20	410 x 385 x 229	195	20	red		103



## 77371

## Metal canister MK 20

## 77371 101

## Design

Interior painted, without outlet tube, can be ventilated.

## Applications

For all types of motor vehicles as well as for unleaded petrol.

## 77371 102

## Outlet tube

## Design

Flexible, zinc-plated.

Type	Volume l	Colour	Weight approx. kg	77371	...
Canister	20	Green	3.6		101
Outlet tube	-	Olive	0.23		102



## 77405

## Washing bowl

## Design

With a removable perforated plate insert, the lid closes tightly and prevents evaporation of the washing fluid; engages when opening. In case of fire, the lid closes automatically and the flame is suffocated. Black metal painted on the outside.

## Applications

For washing small parts with flammable cleaning agents.

Volume approx. l	Ø mm	Height mm	77405	...
5	300	125		101



## 77415

## Professional used oil collection devices



## 77415 201-202

## Collector 70 + 100

## Design

- Mobile devices with 70 l or 100 l reservoirs
- Compact and rounded with separate side level indicator
- Container surface is powder-coated, impact-resistant and colour stable, white
- Chassis consists of two large driving wheels and two steering wheels with reinforced wheel support
- Collection hopper with sieve insert, centralised or decentralised mounting possible
- Pressure emptying via a separate discharge hose with a pressure safety valve, max. 8 bar

## Applications

For the collection and/or suction of waste oils or other non-corrosive liquids with a flash point above 55°C from vehicles or machines.

## Scope of delivery:

- Used oil collection cart with pressure drainage
- 2 m rubber discharge hose with discharge pipe and drip protection
- Collection hopper Ø 440 mm, H 180 mm

## 77415 202

## Collector 100

## Design

- Additionally with storage for small tools, filters, additional adapter, handles
- Innovative running gear with wheel guard and bracket
- Decentralised additional attachment for existing oil drip pan, can be rotated 360°
- Additional spray protection

NEW

77415 201

77415 202



Type	Container content l	Discharge hose m	Collection hopper Ø mm	77415	...
COLLECTOR 70	70	2	440		201
COLLECTOR 100	100	2	440		202

## 77420 - 77421

## Small parts cleaner

### Design

Table-top model with 4 feet, work surface and spray guards zinc-plated.

With safety foot-operated switch and cleaning brush, with electric pump, connecting cable and plug.

Tested in accordance with ZH 1/562 04.82, DIN VDE 0700 T1A6 12.91 and DIN VDE 0700 T236 03.84. **Delivered without drum.**

### Applications

For cleaning machine parts and implements with commercial cold cleaners.

### Note:

The cleaning agent is transferred directly into the cleaning brush by a self-priming drum pump. The dirty cleaner flows directly back into the drum, where the dirt particles settle at the base. The intake of fresh fluid is always in the upper area. Version with compressed-air pump and cold cleaner deliverable on request.

### 77421

Replacement hollow-shaft brush, Ø 30 mm.



77420

77421



External dimensions H x W x D mm	Working height mm	Performance l/min.	Replacement brush			
			77420	...	77421	...
1350 x 800 x 550	950	3 - 5	101			101

## 85590

## Safety collection container

### Design

Made of sheet steel, interior tin plated for flammable solids. Easy to open with foot pedal. Self-closing lid. Perforated bottom rim prevents warming of the base/self-ignition. No leakage of accumulated liquids. High stability. Container labelling prepared according to GefStoffV and BGV A8. Tested safety product.

### Applications

For safe collection of used cleaning materials.



85590

Volume l	Ø x height mm	Paint on outer	85590	...
20	290 x 397	Powder-coated, red	101	



## 85593

## Eco-moistener

### Design

Made of sheet steel, interior tin plated. Spring-mounted soaking tray with flame arrester. Economical removal of cleaning fluid, unneeded fluid flows back to the tank. Reduction of escaping vapours to a minimum. Good media resistance, even with contaminated materials. High stability. Container labelling prepared according to GefStoffV and BGV A8. Tested safety product.

### Applications

For economical moistening of a cleaning cloth where only small quantities of solvent are required.



85593

Volume l	Ø x height mm	Soaking tray diameter mm	Paint on outer	85593	...
0.5	120 x 135	75	Powder-coated, red	101	
2.0	180 x 190	135	Powder-coated, red	104	



## 77500

## High-pressure push guns



77500 101-102

- Made from steel

- With universal nosepiece

### Applications

For greases and oils.

### 77500 102

- With universal and pointed nosepiece.

77500



Volume ml	Pressure capacity approx. bar	77500	...
60	200	101	
150	200	102	



## 77540 - 77543

## Grease guns

## Applications

For loose greases, cartridges and grease filling devices. Connecting thread M10 x 1.



## 77540 101

## Single-handed gun PEP500/D

## Design

- With nozzle pipe 103/R with 4-jaw professional nosepiece
- Made of precision steel
- Plastic display bag
- Filling nipple
- Quick refilling with the Füllmeister® or with 400 g grease cartridges (DIN 1284)
- Volume 500 cm<sup>3</sup>/400 g
- Connecting thread G 1/8 inch
- Weight 1.4 kg

## Applications

For use in hard-to-reach greasing locations.



## 77540 302

## Professional lever gun X-TRA 701/M DIN 1283

- Steel, strong and durable
- Display box
- Filling nipple
- Safety handle
- Quick refilling with the Füllmeister® or with 400 g grease cartridges (DIN 1284)
- Volume: 500 ccm/400 g
- Connecting thread M10 x 1
- Weight 1.3 kg

## 77540 203

## Hand-lever grease gun

## Design

- With die-cast zinc head Z 410,
- Burst pressure testing at approx. 1200 bar,
- Filling volume 500 cm<sup>3</sup>,
- Displacement volume/stroke approx. 1.2 cm<sup>3</sup>,
- Supply pressure up to 400 bar,
- No misleading signs of lubrication through precise fit of pumping piston and cylinder,
- Incl. armoured hose 11 x 300 mm,
- Nozzle pipe, bent 150 mm and
- 2 x nosepiece with 4 turned jaws.

## 77540 301

## Pneumatic grease gun DL Plus

## Design

- Pressure transmission 1:50,
- Recommended working pressure 6 bar,
- Displacement per stroke 0.8 cm<sup>3</sup>,
- Nominal volume 500 cm<sup>3</sup>,
- Complete with armoured hose,
- 4-jaw nosepiece,
- Hanging eyelet and
- Filling nipple.



## 77543 101-104

- Accessories for art. no. 77540.

## 77543 101

## Nozzle pipe

- Bent, with hydraulic gripper coupling.

## 77543 102

## Armoured hose

- Ø 11 mm,
- 300 mm long,
- Made from polyamide with hydraulic nosepiece.

## 77543 103

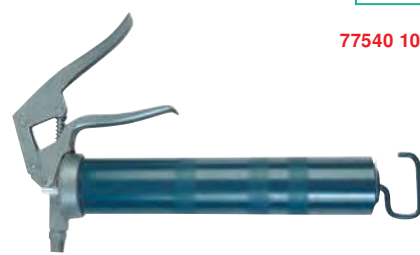
## Nosepiece assortment

- Made from steel,
- Bright nickel-plated,
- Comprising: Hollow nosepiece, pointed nosepiece and hydraulic nosepiece.

## 77543 104

## Hydraulic nosepiece

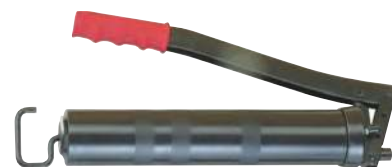
- 4 jaws with wrench surface.



77540 101



77540 302



77540 203



77540 301



77543 101

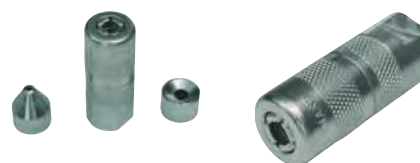


77543 102



77543 103

77543 104



## Grease guns

## Accessories

77540	...	77543	...
101		101	
302		102	
203		103	
301		104	

## 77545

## QUICK-FIX professional nosepiece



## Design

- Self-locking automatic 7-ball quick-action mechanism
- Spring-supported quick-action coupling with easy-grip and non-slip surface for coupling and releasing
- Rotationally symmetrical design
- No separate swivel required
- Steel bronzed
- No larger than a conventional professional 4-jaw nosepiece

## Applications

For all hydraulic grease nipples in accordance with DIN and SAE. Can be used together with all common manual, pneumatic and battery-operated grease guns.

NEW

77545



Type	Decouple up to max. bar working pressure	Leak-free sealing up to bar	77545	...
Version M 10 x 1	700	700		100





77544

## Grease nipple assortment box



## Design

Professional conical grease nipples in accordance with DIN 71412.

Content	77544	...
120 pieces	101	

## Set contents

30	Straight (180°) M 6 x 1
20	Straight (180°) M 8 x 1
10	Straight (180°) M 10 x 1
10	Straight (180°) R 1/8 inch
5	Angled (45°) M 6 x 1
10	Angled (45°) M 8 x 1
5	Angled (45°) M 10 x 1
5	Angled (45°) R 1/8 inch
5	Angled (90°) M 6 x 1
10	Angled (90°) M 8 x 1
5	Angled (90°) M 10 x 1
5	Angled (90°) R 1/8 inch



77544

90317

## Cordless grease guns Red Li-ion



## Note:

For replacement charger, see art no. 90318 103.

90317 101

M12 GG

## Design

- Up to 7 cartridges per battery charge
- Balanced design only 355 mm in length
- REDLINK™ electronic overload protection for a long service life for the battery, motor and gears
- Bleed valve for fast work progress
- Capacity when filling from containers is 454 g and for cartridges 411 g
- Integrated hose stand and suspension device for shoulder strap
- Handle with soft-grip support
- Battery charge indicator

## Applications

Ideal for lubrication of vehicles and machines in mobile applications.

## Scope of delivery:

- Transport bag
- 1 x 12 V/4.0 Ah red Li-ion battery
- Quick charger, C12 C

90317 102

M12 PCG 310 C

## Design

- Discharge pressure of up to 178 kg/1780 N
- Optimised for all common adhesives and sealants
- REDLINK™ electronic overload protection for a long service life of battery, motor and gears
- Electronic control of the discharge speed by an adjusting wheel
- Electronic switch with speed control
- Automatic return of pressure rod prevents drops emerging
- Integrated spike to pierce glued cartridge openings
- Battery charge indicator

## Scope of delivery:

- Transport bag
- 1 x 12-V/2.0-Ah Red Li-ion battery
- Quick charger, C12 C
- 310-ml cartridge holder
- Push bar



90317 101



90317 102

Type	Volt/Ah	Operating pressure bar	Flow rate g/min	Hose pressure bar	Hose length mm	Weight with battery kg	90317	...
M12 GG	12.0/4.0	562	74	690	914	3.3	101	
M12 PCG 310 C	12.0/2.0	-	-	-	-	1.9	102	

77550

## Professional single-handed guns



77550 101-102

## Professional single-handed guns

## Design

Display box. Quick and clean refilling with screw-in cartridge PAT 100 (2 pieces in scope of delivery), filled with approximately 100 g of lithium-saponified grease, consistency 2. Connecting thread M10 x 1. With 4-jaw professional nosepiece.

77550 103

## Refill set

## Design

4 grease cartridges Optimol PD2, 100 grams each.

## Applications

To fill the professional single-handed gun PEP200 and the professional push gun K100.

Type	Version with	77550	...
Single-handed gun	PEP200 D	Nozzle pipe 103/M	101
Single-handed gun	PEP200 G	Safety armoured rubber hose 110/M	102
Refill set	Optimol PD2	-	103



77550 102

77550 103



77551

## Multi-purpose grease in cartridge



## Design

For grease guns art. no. 77540 and other commercial guns.

77551



Content approx. g	77551	...
400		101

77555

## Grease filling device



## Design

Increased suction performance with longer stroke and larger intake and valve openings. Stable and wear resistant due to reinforced steel lever. Environmentally friendly, economical, air-free filling. Bucket emptying sequence with special grease follower cover.

## Scope of delivery:

Grease follower cover, dust protection cover, fill tube with sleeve.

## Applications

For filling grease guns. Suitable for organic lubricating greases, long-lasting greases with adhesive additives and for greases up to consistency class 2 (low-viscosity greases).

77555



For containers kg	Inner Ø mm	Delivery rate ccm/stroke	Pump pipe Ø mm	77555	...
15 - 18	255 - 282	50	40		102

77605

## Pneumatic lubrication device



## PM 15 mobile

## Design

- With safety lubrication hose 4 m.
- Incl. conditioning unit for low-wear operation and drum fitting with 2 inch thread.
- Pre-feed system for secure feeding of long-lasting greases.
- High delivery rate through transformation ratio of 1:55, suction connection and safety lubrication hoses with a large inner diameter.

- Grease follower cover for buckets with inner Ø 260 - 290 mm.
- Steel dust cover for buckets with outer Ø 265 - 310 mm.
- High-pressure lubrication gun with ball bearing-mounted pro-Z joint, exceptionally smooth under pressure.
- Compressed air connection/grease outlet G 1/4 inch female thread.
- Trolley.

## Applications

Suitable for oils and greases up to consistency class 2, also organic greases (multi-purpose greases).

77605



Air pressure min./max. bar	Lubrication pressure max. bar	Burst pressure bar	Delivery rate* approx. ccm/min	77605	...
3/10	400	1600	600		101

\*With open discharge and 7 bar input pressure.

77620

## Professional quick change set SWS



## Design

In sturdy plastic case with oil-resistant inlay.

77620



Set contents	
1	Nozzle pipe 103/M, straight, with 4-jaw professional nosepiece,
2	4-jaw professional nosepieces 120/M,
1	Quick-change armoured rubber hose 2200,
1	Quick-change nozzle pipe with thrust coupling 2070/M 1,
1	Quick-change nozzle pipe with combi nosepiece,
1	Connecting piece R 1/8 inch inside, M 10 x 1 outside.

Design	Weight approx. kg	77620	...
In plastic case	0.80		102



77705

## Multi-purpose pumps



## Design

- Handy pumps for diesel, heating oil, hydraulic oil and engine oil
- For 200 l drums
- 1 m plastic hose with outlet nozzle, suction tube

77705



Pump	Delivery rate l/stroke	77705	...
MZE-02	0.2		101
MZE-04	0.4		102

**Note**

Other immersion depths and versions deliverable on request.

**77720 101****Pump set for low delivery rates****Design**

- IP 24
- With 2-stage switch for precision filling

**Applications**

For filling, transferring and metering of acids and alkalis like battery acid, ammonia water, glycols, sodium hydroxide and soap solution.

**77720 202****Pump set for acids****Design**

- Drum screw fitting and FLUX clip for secure fixation of the nozzle onto the pump
- IP 24
- With speed adjustment and under-voltage tripping.

**Applications**

For dispensing acids such as boric acid, fruit acids, phosphoric acid, hydrochloric acid and sulphuric acid (up to 80%).

**77720 103****Pump set for mineral oil products****Design**

- Drum screw fitting and FLUX clip for secure fixation of the nozzle onto the pump
- IP 24
- With under-voltage tripping

**Applications**

For dispensing mineral oil products such as diesel, heating oil, hydraulic oil, mechanical oil and engine oil.

**77720 104****Pump set for highly flammable liquids****Design**

- Base Ø 43 mm
- Drum screw fitting and FLUX clip for secure fixation of the nozzle onto the pump
- Motor explosion-protected in accordance with II 2 G EEx de IIC T6, in accordance with the ATEX Directive 94/9/EC
- Category 2 with under-voltage tripping

**Applications**

For dispensing flammable liquids such as acetone, petrol, butanol, ethanol, methanol, toluene, xylene etc. For safely dispensing low-viscosity, neutral, corrosive and flammable liquids. Pumps used for transporting flammable liquids may only be made of stainless steel in combination with an explosion protected (**only up to a maximum of 40 °C!**) collector motor or pneumatic motor.

77720 101



77720 202



77720 103



77720 104



Technical data:	Pump F 314 PP	Pump F 430 PP	Pump F 430 AL	Pump F 424 S
Material	Polypropylene	Polypropylene	Aluminium	Stainless steel 1.4571
Outside Ø	25	40	41	41
Pressure joint	G 1 A	G 1 1/4 A	G 1 1/4 A	G 1 1/4 A
Hose line *	PVC DN 13	PVC DN 19	Mineral oil DN 25	Universal DN 21
Length *	1.5	2.0	2.0	2.0
Nozzle	PP	PP	AL	Brass
Seal	FKM	FKM	NBR	PTFE
Collector motor	W/V/Hz	230/230/50	500/230/50	800/230/50
Connecting cable	m	5, 2-pin connector	5, 2-pin connector	5, 2-pin connector

Pump type	Collector motor type	Flow rate max. l/min.	Flow rate max. l/min.*	Delivery height max. m	Viscosity max. mPas	Temperature max. °C	Immersion depth mm	Weight kg	77720	...
F 314 PP	FEM 3070	40	15	5.2	250	45	700	2.4	101	
F 430 PP	FEM 4070	165	40	9.5	600	50	1000	5.1	202	
F 430 AL	F 457	220	80	12.0	800	80	1000	7.8	103	
F 424 S	F 460 Ex	200	50	9.5	600	100	1000	10.9	104	

\* With hose and nozzle

**77721****Pump set COMBIFLUX****77721 101****Design**

- COMBIFLUX pump set for filling, transferring and metering acids and alkalis, water, ammonia water, low-viscosity oils and chemically neutral fluids
- Also suitable for dispensing small quantities
- Can dispense from narrow-necked and hard-to-reach containers
- Comprising: Motor, IP 44, charger, seal-less pump design, shaft made of Hastelloy C, hose line, nozzle with seals
- Charging time: 55 min.

**77721 102****Design**

- Replacement lithium-ion battery for COMBIFLUX pump set
- Nominal voltage: 18 V
- Nominal capacity 2.5 Ah and 45 Wh
- Charging time: 55 min.

77721 102



Technical data:	Pump 314 PP-25
Material	Polypropylene
Outside Ø	25
Hose line	PVC DN13
Length	1.5
Nozzle	PP
Seal	FKM
Battery motor	V/Ah/Wh
Charger	V/Hz

77721 101



Type	Battery motor	Flow rate l/min.	Delivery height max. m	Viscosity max. mPas	Immersion depth mm	Weight kg	77721	...
FP 314 PP-25	FBM-B3100	12-60	8.5	250	700	2.4	101	
Battery B15-3100	-	-	-	-	-	0.35	102	

## Info

## Lubrication systems art. no. 77810 - 77822

### The clever way to lubricate.

perma lubricant dispensers are closed dispenser systems without an external power supply for automatic and location-independent single-point lubrication of roller bearings and plain bearings, industrial chains, open gears and slide guides.

### Lubricant types

**SF 01** Universal grease for all areas at operating temperatures of -30 °C to +130 °C.

**SF 04** High-temperature grease for high operating temperatures from -20 °C to +160 °C.

**SO 14** High-performance oil for high lubrication demands of industrial chains at temperatures from -20 °C to +250 °C.

### Technical data

Code	Lubricant	NLG class	Thickener	Basis	Temperature range	Application	DIN
SF 01	Universal grease	2	Li/Ca	Mineral	-30 °C to +130 °C	Universal	KP2K-30
SF 04	High-temperature grease	0/1	PHS	Mineral + PAO	-20 °C to +160 °C	High operating temperatures	K1S-20
SO 14	High-performance oil	—	—	Synthetic	-20 °C to +250 °C	Industrial chains	CLPE320

## 77810 - 77822

## Lubricant dispenser perma CLASSIC

### 77810

#### perma CLASSIC

#### Design

Electrochemically operated lubricant dispenser, metal housing with 120 cm<sup>3</sup> filling volume with empty level indicator.

#### Applications

Depending on the lubricant required, select an activation screw, which uses a gas generator to build up a pressure, which drains the lubricant tank in the desired period of time (1, 3, 6 or 12 months) and thus guarantees a uniform dosage. The maximum pressure is 4 bar with an operating temperature range from 0 °C up to +40 °C.

#### Note:

An activation screw is required in each case.

### 77822

#### Activation screws

#### Design

Black sealing ring as an identification. Dosage duration at +20 °C reference temperature.

#### Applications

For lubricant dispensers perma CLASSIC and FUTURA.

77810



77822 102



Lubricant type	Dosage duration Months	Screw colour	77810	...	77822	...
SF 01	-	-		101		
SF 04	-	-		102		
SO 14	-	-		103		
-	1	Yellow				101
-	3	Green				102
-	6	Red				103
-	12	Grey				104

## 77820 - 77822

## Lubricant dispenser perma FUTURA

### 77820

#### perma FUTURA

#### Design

Electrochemically operated lubricant dispenser, transparent plastic housing with 120 cm<sup>3</sup> filling volume.

#### Applications

Depending on the lubricant required, select an activation screw, which uses a gas generator to build up a pressure, which drains the lubricant tank in the desired period of time (1, 3, 6 or 12 months) and thus guarantees a uniform dosage. The maximum pressure is 4 bar with an operating temperature range from 0 °C up to +40 °C.

#### Note:

An activation screw is required in each case.

### 77822

#### Activation screws

#### Design

Black sealing ring as an identification. Dosage duration at +20 °C reference temperature.

#### Applications

For lubricant dispensers perma FUTURA and CLASSIC.

77820



77822 101



Lubricant type	Dosage duration Months	Screw colour	77820	...	77822	...
SF 01	-	-		101		
SF 04	-	-		102		
-	1	Yellow				101
-	3	Green				102
-	6	Red				103
-	12	Grey				104