

Applications:

- Ultrasonic cleaning is currently the state-of-the-art cleaning method
- This method achieves excellent cleaning results, even in hard-to-reach areas, yet is extremely gentle to the material being cleaned
- Suitable for removing grease, oils, fluxes, grinding and polishing abrasives, paint residue, oxide layers, etc.
- Can be used in industry, crafts, laboratories
- Can be used for ferrous and non-ferrous materials, plastics, glass etc. (mechanical, electronic, optical and medical components)

Ultrasonic cleaning terms:**Ultrasonic vibration systems**

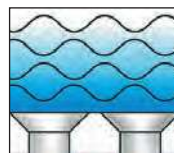
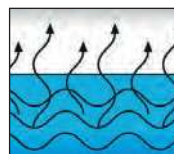
Specially designed ultrasonic vibration systems convert electrical energy into mechanical vibrations. These are transferred to the cleaning fluid via the stainless steel tub floor. In the process, tiny vacuum bubbles in the micrometre range form, which implode at high speed (cavitation). The resulting high-energy flows (jets) efficiently remove debris from the surfaces inserted into the cleaning bath.

Sweep function

The sweep function is used for the continuous shifting of the sound pressure maxima, ensuring a homogeneous sound field distribution. In addition, standing waves are prevented. This leads to optimum distribution of the cavitation performance and cleaning performance throughout the cleaning bath and on the products being cleaned.

Degas and autodegas function

A function for the acceleration of fluid degassing after refilling the treatment chamber. For optimum effectiveness of the ultrasound cavitation in the cleaning fluids or in liquids assisting ultrasound.

**Ultrasonic vibration systems****Sweep function****Degas function****69005****Ultrasonic cleaning devices Elmasonic S****IP 20****Design**

- Efficient 37-kHz ultrasonic power transducer
- Cleaning tub made of cavitation-resistant stainless steel
- User-friendly and easy-to-understand operating unit, sealed so that no liquid can penetrate the electronics
- LED display for the cleaning time with setpoint and remaining time display
- Rotary switch for convenient pre-selection of the cleaning time
- Continuous or short-term operation configurable between 1 and 30 minutes
- The cleaning process can be started immediately

or in a temperature-controlled manner- Switchable **Sweep function** for optimised sound field distribution by means of frequency modulation

- **Degas function** for faster degassing of the cleaning fluid and for special applications in the laboratory
- Time-controlled **Autodegas function** can be selected
- Heating with dry run protection
- Temperature setting with rotary switch can be selected from 30° to 80° C in 5° steps
- LED display for setpoint and actual value of the liquid temperature
- Detachable power cord with IEC connector

- Side-mounted rotary knob for easy emptying of the cleaning fluid through the outlet valve on the rear of the device
- Carrying handles are made of ergonomically shaped plastic

Use

Ideal for degreasing, cleaning of lapping, polishing and sliding abrasives, cutting oils and drawing greases as well as high-performance cooling lubricants. The ultrasonic waves ensure gentle and thorough cleaning.

Note:

Accessories on request.

69005 203

incl. cover and basket

69005 201**69005 202**

Art. no.	69005 201	69005 202	69005 203
Type	Elmasonic S 30 H	Elmasonic S 100 H	Elmasonic S 300 H
Mains voltage (Vac)	220-240 V	220-240 V	220-240 V
Ultrasonic frequency (kHz)	37	37	37
Total power consumption (W)	280	550	1500
Effective ultrasonic capacity (W)	80	150	300
Max. ultrasonic peak capacity (W)	320	600	1200
Heating capacity (W)	200	400	1200
Device external dimensions W x D x H (mm)	300 x 179 x 214	365 x 278 x 264	568 x 340 x 321
Tub internal dimensions W x D x H (mm)	240 x 137 x 100	300 x 240 x 150	505 x 300 x 200
Basket internal dimensions W x D x H (mm)	198 x 106 x 50	255 x 200 x 75	455 x 250 x 115
Max. filling volume (litres)	2.75	9.5	28
Weight (kg)	3.3	5.9	11

Type	69005	...
Elmasonic S 30H		201
Elmasonic S 100 H		202
Elmasonic S 300 H		203



Ultrasonic cleaning concentrates, see page 69.4, art. no. 69010-69014 ►

ATORN®

69006 301-304

Ultrasonic cleaning devices

Design

- Efficient 37-kHz ultrasonic power transducer
- Cleaning tub made of cavitation-resistant stainless steel
- User-friendly and easy-to-use operating unit, sealed, so that no liquid can penetrate the electronics
- LED display for ultrasound function
- Rotary switch for convenient pre-selection of the cleaning time
- Continuous or short-term operation configurable between 1 and 30 minutes
- Permanent sweep function for optimised sound field distribution by means of frequency modulation
- Switchable dynamic function increases the ultrasonic peak capacity, and as a result the effectiveness of the cleaning is improved in order to remove very stubborn contamination
- Heating with dry run protection
- Temperature setting with rotary switch can be selected from 30° to 80° C in 5° steps
- LED display for heating function
- Removable power supply with IEC connector
- Limit temperature can be set, with a warning signal if this is exceeded
- Automatic safety shut-off after 8 hours or at a bath temperature of 90° C

NEW

Stable vibration tub made of special stainless steel
With filling level marking



- Incl. cover
- Optionally available without stainless steel basket (art. no. 69006 401-404)

Quick and easy drainage of the contaminated cleaning fluid via the ball valve drain

Clear control panel protected against spray water, with

- Individual time and temperature control
- Proven sweep function
- Start/stop and dynamic function
- Adjustable limit temperature with LED warning indicator

69006 401-404

Stainless steel baskets

Type	Ultrasonic devices		Stainless steel basket	
	69006	...	69006	...
professionalCLEAN SF 30H		301		401
professionalCLEAN SF 60H		302		402
professionalCLEAN SF 120H		303		403
professionalCLEAN SF 200H		304		404



Art. no.	69006 301	69006 302	69006 303	69006 304
Type	CLEAN SF 30H	CLEAN SF 60H	CLEAN SF 120H	CLEAN SF 200H
Mains voltage (Vac):	220-240 V	220-240 V	220-240 V	220-240 V
Ultrasonic frequency (kHz):	37	37	37	37
Total power consumption (W):	540	550	1000	1500
Effective ultrasonic capacity (W):	140	150	200	300
Max. ultrasonic peak capacity (W):	560	600	800	1200
Heating capacity (W):	400	400	800	1200
Device external dimensions W x D x H (mm):	360 x 230 x 250	420 x 250 x 300	440 x 340 x 350	420 x 390 x 330
Tub internal dimensions W x D x H (mm):	240 x 130 x 100	300 x 150 x 150	300 x 240 x 200	320 x 280 x 200
Basket internal dimensions W x D x H (mm):	196 x 112 x 39	257 x 132 x 74	262 x 222 x 114	280 x 250 x 114
Max. filling volume (litres):	3.0	6.5	14.0	18.0
Weight (kg):	6	10	11	13

ATORN®

69007 101-102

Ultrasonic cleaning devices**Design**

- Ultrasound tub and stainless steel housing
- Tapered tub bottom for better emptying of the cleaning fluid
- Sandwich performance vibration systems
- Ultrasonic frequency can be switched between 25 kHz for coarse and pre-cleaning and 45 kHz for fine cleaning
- Heating with temperature control (30°C–80°C)
- Temperature-controlled ultrasonic function: Ultrasound starts automatically upon reaching the preset temperature
- Automatic safety shut-off after 12 hours of operation in order to avoid accidental continuous operation
- Automatic safety shut-off at a bath temperature of 90°C to protect the material to be cleaned against too high a temperature
- Display of the set values and actual values via the LED display
- Castors with parking brake for mobile use of the device in an unfilled state
- Stainless steel liquid outlet on the side of the device

Sweep function:

For continuous shift of the sound pressure maxima; produces a homogeneous sound field distribution in the tub

Pulse function:

Can be activated to intensify the ultrasonic cleaning effect for stubborn contamination. Also optimises operational readiness (reaching the cavitation threshold) when fresh cleaning fluid is added after a basket change (reduction of cleaning time).

Dynamic function:

Sweep and pulse function run in an automatically alternating manner. The ultrasonic capacity is increased temporarily by up to 20%. At the same time, the cleaning effect is distributed due to the even ultrasound distribution in the ultrasonic bath.

NEW

69007 101

Figure shows ultrasonic cleaning device incl. standard cover, art. no. **69007 201** (Please order cover separately)

Art. no.	69007 101	69007 102
Type	CLEAN MF 300H	CLEAN MF 600H
Mains voltage (Vac):	230-240 V	230-240 V
Ultrasonic frequency (kHz):	25 / 45	25 / 45
Total power consumption (W):	2000	2400
Effective ultrasonic capacity (W):	480 (25 / 45 kHz)	800 (25 kHz) / 900 (45 kHz)
Max. ultrasonic peak capacity (W):	1920 (25 / 45 kHz)	3200 (25 kHz) / 3600 (45 kHz)
Heating capacity (W):	1400	1400
Device external dimensions W x D x H (mm):	500 x 550 x 936	670 x 580 x 936
Tub internal dimensions W x D x H (mm):	330 x 300 x 300	500 x 330 x 350
Max. filling volume (litres):	30	58
Weight (kg):	40	45

Ultrasonic cleaning devices

Type	69007	...
professionalCLEAN MF 300H	101	
professionalCLEAN MF 600H	102	

69007 201-202

Standard cover (to be placed on top)**Applications**

For professionalCLEAN MF 300H and MF 600H ultrasonic cleaning devices (art. no. 69007 101-102).

69007 301-302

Noise protection cover (flip cover)**Applications**

For professionalCLEAN MF 300H and MF 600H ultrasonic cleaning devices (art. no. 69007 101-102).

69007 401

Stainless steel basket**Design**

- Internal dimensions W 257 x D 233 x H 166 mm
- Mesh size 10 x 10 x 1.6 mm

Applications

For ultrasonic cleaning devices professionalCLEAN MF 300H (art. no. 69007 101).

69007 402

Stainless steel basket**Design**

- Internal dimensions W 257 x D 233 x H 366 mm
- Mesh size 10 x 10 x 1.6 mm

Applications

For ultrasonic cleaning devices professionalCLEAN MF 600H (art. no. 69007 102).

69007 401-402



69007 201-202



Accessories	Standard cover	Sound protection cover	Stainless steel basket	...
For type	69007	69007	69007	...
professionalCLEAN MF 300H	201	301	401	
professionalCLEAN MF 600H	202	302	402	

69010 - 69014 Ultrasonic cleaning concentrates



Design

- Elma Tec Clean cleaners are highly productive concentrates, specially designed for high-performance ultrasonic devices
- In addition to the task of solving specific industrial cleaning problems, the highly stressed vibrating baths of the ultrasonic devices need to be protected
- The ultrasound vibrating baths are exposed to a frequency of 25 to 130 kHz
- In the process, the ultrasound generates small cavitation bubbles that gently remove the dirt in combination with the right cleaning agents
- In this process, the vibration baths made of special stainless steels are subjected to strong bending stresses

- Cleaning products that are not designed for this application may contain lead ions, which promote material removal or corrosion
- Strong corrosion-formers that significantly reduce durability include halide ions
- Chlorides and fluorides in acid medium are the most aggressive in this respect
- **Elma Tec Clean extends the service life of the ultrasonic devices**

Note:

For Elma ultrasonic cleaning devices, see art. no. 69005–69006.

69010

Elma Tec Clean A1

- As electronics and precision optics cleaner
- Specially designed for the fine cleaning of PCBs and electro-mechanical assemblies
- Cleaning the parts of flux residues, fingerprints or dust
- Dosage of 3-10%



69010

69013

Elma Tec Clean A4

- Alkaline universal cleaner
- For metals, non-ferrous metals, light metals, glass, rubber, ceramics and alkali-resistant plastics
- Removes common contaminants such as oil, grease and polishing agent residues
- It causes the removed oils, greases and waxes to settle on the bath surface. These can then be washed away in an ultrasonic device with overflow strips
- Dosage of 1-5%



69013

69012

Elma Tec Clean A3

- Ideal for metal cleaning after mechanical processing
- For stainless steel, steel, iron, grey cast iron, titanium and precious metals after turning, milling, lapping, polishing, grinding, drawing and punching
- Effortlessly removes polishing compounds, oils, greases, chips etc., even from bores and hard-to-reach spots
- Dosage of 3-6%



69012

69014

Elma Tec Clean A5

- Powerful cleaner for iron and light metal
- Powder cleaner for cleaning stubborn contamination such as resin, coking, tar residues and paint and varnish residues
- For overhaul cleaning of car parts, cutting tools and other machine parts
- Dosage of 1-4%



69014

		A1		A3		A4		A5	
		69010	...	69012	...	69013	...	69014	...
Content l	Content g								
2.5	-		101		101		101		
10.0	-		102		102		102		
-	850								101

69040 Intensive cleaner

Design

- Powerful cleaning, making it well suited for machine applications
- Free from preservatives, not perfumed
- Can be used wherever strongly adhesive, oily dirt must be removed: In workshops as well as in industrial plants
- Does not corrode rubber, plastic and metals and is therefore suitable for universal use.

Applications

The intensive cleaner can be sprayed on, splashed on, applied with a brush or a sponge, and **is also suitable for use in high-pressure cleaning systems.**

It can be used pure or diluted depending on the level of soiling. For maintenance cleaning, a 2 to 10% solution is recommended. For basic cleaning, a 10% up to concentrated solution is recommended, depending on the severity of the soiling.

Wash and dry hands after finishing work. Then rub skincare cream (art. no. 68025) into hands. In the event of prolonged skin contact, protective gloves are recommended.

Note:

The intensive cleaner complies with the requirements of the German Foodstuffs and Commodities Act (LMBG). Biodegradable.

Content l	Design	69040	...
0.75	spray bottle		100
10	canister		201
200	barrel		203



69040 100



69040 201

69100

HHW oil-free**Design**

- Removes oil stains from virtually all materials and surfaces
- Converts oil into oil microparticles
- The encapsulated oil microparticles have no further holding effect on the substrate and can be easily removed from the surface

Features:

- Entirely environmentally friendly
- Biodegradable (over 99%)
- Solvent-free
- Neither combustible nor explosive
- No toxic steam development

Application areas:

- Oil and grease removal on tools, workpieces, machines, concrete floors and plastic coatings

Application:

- Apply or spray onto the oil or grease soiling
- Leave to soak for a few minutes, or a longer time in the event of more intensive soiling (subsequently spraying slightly with water increases the effect)
- Then simply wipe off or spray off with water and absorb or take up the mixture using an oil binder (art. no. 69215).

69100 102

69100 101



Content	Design	69100	...
1	spray bottle	101	
5	canister	102	

Before**After**

69167

Scotch-Brite™ high-performance cleaning cloth**3M****Design**

- With patented fibre combination of polyester and nylon
- This allows for extremely economical cleaning of both aqueous and greasy dirt with little effort
- The grease and dirt absorption is up to 100 times greater than for conventional cleaning cloths

- The cloth is machine washable up to 95 °C
- Colour: blue

Applications

Suitable for all surfaces. Cleans dry, damp or wet.

69167

Cloth size approx. cm	Pack = pieces	69167	...
36 x 32	5	101	



69168

Micro-fibre cloth**3M****Design**

- Very versatile, reusable cloths that clean numerous surfaces by taking up dust, dirt, fingerprints and moisture
- Unlike conventional cloths, the loop-like fibres penetrate deep into uneven surfaces to the places where dirt, grease and bacteria accumulate
- Cloths can be machine washed up to 300 times at up to 95 °C
- Colour: green

Cloth size approx. cm	Pack = pieces	69168	...
40 x 40	10	101	



69168

69169

Micro-fibre cloth**Design**

- High-quality green microfibre cloths
- Cleans deep into the pores
- Cleans and dries lint and streak-free, without the addition of detergents

Applications

Ideally suited for wet and dry cleaning as well as for cleaning kitchens, bathrooms, cars, LCD screens, etc.

69169

Cloth size approx. cm	Pack = pieces	69169	...
40 x 40	5	101	



Cleaning cloths | Cleaning cloth rolls and dispensers

69205

Damp cleaning cloths



Design

- Resealable dispenser bucket with damp Polytex® wipes
- Gentle, skin-friendly cleaning substances, highly effective
- Fresh, pleasant scent
- Colour: blue

Applications

Cleaning of surfaces and tools, without water, removal of oil, grease, tar and adhesives.



69205

No. of cloths approx. per bucket	Cloth dimension approx. cm	69205	...
72	25 x 25		101

69210

Folding towel dispenser/folding towels

69210 201

Folding towel dispenser

Design

- Plastic
- Lockable
- Easy removal and re-filling
- Colour: light grey
- W x D x H mm: 301 x 146 x 450.

Applications

For wall-mounting.

69210 202-203

Folded hand towels

Design

- Extra soft, absorbent and tear-resistant folding towels
- Hygienic and economical removal by means of special folding technique

69210 201

69210 202



69210 203



	No. of cloths	Cloth size approx. cm	69210	...
Folding towel dispenser	-	-		201
Folding towels, 2-ply	3,045	23.5 x 25		202
Folding towels, 3-ply	1,890	23.5 x 34		203

69175

Paper cleaning cloth roll



69175 102

Type: Advanced 420

Design

Stable, 2-ply, blue cloth roll in hybrid quality. A layer of tissue connected to a voluminous TAD layer with a soft and highly absorbent exterior. The line embossing allows for increased absorption of liquids. 1500 sheets per roll.

Applications

Ideally suited for cleaning all water-resistant surfaces where absorption of liquids is required; quick and efficient.

69175 101

Type: Advanced 430

Design

High-quality blue cleaning cloth roll made of 2-ply TAD material. Double absorbency as well as exceptional wet strength provide a significant economic advantage. 1000 sheets per roll.

Applications

Like art. no. 69175 102, but with even higher fluid absorption.

Note:

Dispenser for rolls, see art. no. 69201.

69175 102

69175 101



Type	Cloth size approx. cm	69175	...
Advanced 420	34 x 37		102
Advanced 430	34 x 37		101

69176

Paper cleaning cloth roll and dispenser



69176 101

Design

Highly absorbent, tear-proof wiping cloth in a fabric blend. This 2-ply white cloth is composed of a layer of TAD and a layer of tissue. The two layers are connected by a blue-coloured line embossing. 2 rolls of 750 sheets.

69176 102

Centre-feed dispenser system

Design

Wall bracket for centre feed, can be locked. Plastic, colour: opaque blue/black.

Applications

For wiping cloth rolls up to 43 cm.

69176 101

69176 102



Type	Cloth size approx. cm	H x W x D mm	69176	...
Cleaning cloth roll	24 x 34	-		101
Dispensing system	-	420 x 330 x 345		102



69183

Design

- excelClean® technology for faster professional cleaning results
- Strong structure enables excellent oil and water absorption
- Can be used in combination with most solvents and detergents to meet all cleaning requirements
- Since the cloths are free of silicone, no residue remains on the surface
- Colour: grey
- 1-ply, perforated

Applications

Perfect alternative to cleaning rags and rented textiles. Soft and flexible non-woven cloths, very durable, enable cleaning of confined spaces and complex components without scratching the surfaces. For all cleaning work in industry and workshops, metal processing industry, metalworking, punching, sheet metal processing, tinning works.

69183 101

Design

- Rolls in a cardboard box with the option to remove the cloths individually

69183 202

Design

- 120 cloths in a large bag
- Individually folded

69184

Design

- Colour: blue
- 1-ply, perforated
- 100 cloths in a large bag

Applications

Textile-like cloths for heavy-duty cleaning work and when using powerful solvents. Very tear-resistant and highly absorbent. Embossed surface ensures quick absorption of oil. High volume protects the hands from metal chips. Insulates against heat.



69183 101



69183 202



69184 102

Design	Number cloths	Cloth approx. cm	69183	...	69184	...
Box	390	32.0 x 38.0		101		
Large bags	120	35.5 x 42.8		202		
Large bags	100	35.5 x 42.8				102

69200

Cleaning cloths

69200 201

Non-woven cloths**Design**

- Colourful, high cotton content

Applications

For cleaning coarse dirt.

69200 203

Non-woven cellulose soft cloth roll**Design**

- White, extra-strong, water-resistant, very absorbent, solvent-resistant

Applications

For all applications in which lint-free results and wet strength are important.

69200 204+105

Cleaning cloth roll**Design**

- Blue, high wet strength

Applications

For industry and trade, ideal for cleaning light and coarse dirt.

69200 204

Design

- 3-ply, edge and surface embossing

69200 105

Multiclean®**Design**

- 2 ply, embossed point-to-point
- Pack = 2 rolls

69200 106

Tissue cleaning cloth roll**Design**

- Highly absorbent, tear-resistant
- 3-ply, blue
- Volume and surface-embossed,
- Layer-glued
- Pack = 2 rolls

Applications

High absorbency, as well as fast and efficient uptake of liquids.

69200 206

Polytex® wet-wipe roll**Design**

- Blue, washable, silicon-free, tear-resistant, lint-free, solvent resistant, anti-static.

Applications

For cleaning and wiping in the food industry, automotive industry, industrial kitchens, trades, etc.



69200 201



69200 203



69200 204



69200 105



69200 106



69200 206



Design	Cloth size approx. cm	Number of cloths approx.	Number of tear-offs approx.	69200	...
Non-woven	35 x 33	415	-		201
Non-woven cellulose	36 x 27	-	500		203
3 ply	38 x 36	-	1000		204
Multiclean®, 2-ply	35 x 37	-	1000		105
Tissue	38 x 36	-	500		106
Polytex®	38 x 32	-	500		206

69201

Floor stand / wall holder

69201 101

Floor stand

Design

- Mobile
- With refuse bag holder
- Delivery without refuse bag and cleaning roll

Applications

For cleaning cloth rolls up to 42 cm roll width.

Note:

Plastic refuse bags, see art. no. 69195 + 85851.

69201 103

Floor stand

Design

- Metal/plastic, blue
- Without wheels

Applications

For cleaning cloth rolls up to 40 cm roll width.

69201 102

Wall bracket

Design

- Metal, blue

Applications

For cleaning cloth rolls up to 40 cm roll width.

69201 101



69201 103



69201 102



Type	Dimensions W x H x D mm	69201	...
Floor stand, with wheels	480 x 1060 x 550	101	
Floor stand, without wheels	460 x 900 x 440	103	
Wall holder	500 x 312 x 23	102	

69195

Refuse bags



Applications

For floor stand, art. no. 69201 101.

69195 101

Design

- HDPE material
- High load-bearing capacity
- Not suitable for sharp objects

69195 102

Design

- Standard design in tear-resistant LDPE material

69195 101



Colour	Content litres	Size H X W mm	Pack = pieces	69195	...
blue	70	1000 x 575	50	101	
transparent	70	1000 x 575	25	102	

69215

Oil binder

69215 101

Design

- Fast-acting and highly absorbent
- Made from 100% polyurethane foam granulate
- Water-repellent

Applications

All-round oil and chemical binders for tiled and sealed industrial floors.

69215 102

Design

- Fast-acting and highly absorbent
- On the basis of magnesium hydroxysilicate / sepiolite
- A completely chemically inert product
- Non-flammable and non-toxic

Applications

Particularly well suited for all kinds of emulsions. Safely absorbs spilled chemicals, oils, greases, fuels and other hazardous liquids.

Grain size mm	1 sack binds approx. l	Content approx. l	Weight approx. kg	69215	...
0.125 - 4	33	50	12		101
0.5 - 1	15	32	20		102



69215 102

69215 101

69220

Schlängel universal sorbent

Design

- Filled with high-quality polypropylene flakes

Applications

Versatile application for oil and chemicals. For absorbing leaking liquids on machines. Ideal for a safe and clean workspace.



Length m	Ø cm	Absorption litre	Pieces per carton	69220	...
1.2	7.5	80	20		201



69220

69225 - 69226

Sorbent absorbent cloths and rolls

Design

- Polypropylene non-woven fabric for the absorption of moisture and chemicals
- Highly absorbent, clean and safe
- High absorption capacity
- Easy disposal (residue-free combustion of the polypropylene)

Applications

Compatible with chemicals. Ideal for use on workbenches, on the floor, under machines and pipes, etc.

69225

Design

- Pack = 2 rolls
- Extra absorbent, 300 g/m²
- Length 40 m
- Width: 40 cm

Note:

For matching floor stands and wall holders, see art. no. 69201.

69226

Design

- 100 cloths, 40 x 50 cm
- Extra absorbent, 300 g/m²

Design	Absorption litres	69225	...	69226	...
Roll	180		201		
Cloths	113				101



69225

69226



69227

Sorbent roll, multi-format

Design

- Twice-folded roll
- Can be used as a winding or cloth
- Non-woven polypropylene, reinforced and lint-free
- In dispenser box

Applications

Ideal for a variety of applications in the workshop or for external maintenance and repair operations. For all liquids and chemicals.



Length m	Width cm	Width, folded cm	Absorption litres	69227	...
15	40	14	24		101



69227

Technical sprays for maintenance and servicing

69847

Caramba intensive industrial cleaner

caramba

...das wirkt!

Quickly and thoroughly loosens and removes encrusted and resinified dirt, oil, grease and other residues. Quick-drying and residue-free ventilation. Non-corrosive, silicone-free. Acetone-rich. For cleaning and degreasing of machine parts, surfaces, steel cables, gears, etc.

69847 101

Content ml	Design	69847	...
500	spray can		101



69847

Universal cleaner (Fast Dry Degreaser)

CRC

Fast Dry Degreaser is the 5x strength universal cleaner and degreaser. The fast-acting cleaner contains five active components for reliable removal of a wide range of dirt such as soot, oil and grease residues. Fast Dry Degreaser quickly penetrates into the smallest cracks and dries without residue in minutes. It has a pleasant scent and is therefore

particularly easy to use. In addition to its high loosening power, Fast Dry Degreaser also has good material compatibility with all metals and solvent-resistant plastic and painted surfaces. Fast Dry Degreaser is used for cleaning parts of machine elements and for degreasing prior to gluing or painting.

69847 201

Content ml	Design	69847	...
500	spray can		201



69849

Caramba intensive brake cleaner

caramba

...das wirkt!

Cleaning of brakes and other vehicle parts. Quick-drying and residue-free evaporation. Very good cleaning effect, acetone-free. Neutral with regard to rubber, plastic and painted surfaces. Silicone-free and degreasing.

69849 301

Content ml	Design	69849	...
500	spray can		301



69849

Brake cleaner (BRAKLEEN PRO)

CRC

BRAKLEEN PRO – Economical – the unique brake cleaner with Formula 5 has proven itself a million times over. The most effective way to clean brakes, transmission, engine parts, etc. quickly and without residue. BRAKLEEN PRO cleans up to 40 brake discs by means of the 5-component formula.

The five active components ensure optimum cleaning for oil, grease, road dirt, brake dust and brake fluid. High yield by means of a balanced metering system. Pleasant to process due to its unique scent. Optimal application by a user-friendly spray head and 360° spray system. Dries quickly and without residue.

69849 201

Content ml	Design	69849	...
500	spray can		201



69848

Stainless steel cleaner (INOX KLEEN)



INOX KLEEN is a special, aqueous cleaning and care foam for stainless steel, aluminium and chrome. Dirt, fingerprints and water spots are removed quickly. After cleaning, a uniformly shiny surface remains. An extremely thin, water-repellent protective film creates long-lasting shine. INOX KLEEN is registered in accordance with NSF A7,C1 for use in food technology.

69848

Content ml	Design	69848	...
500	spray can		201



69826

Contact cleaner (Contact Cleaner Plus)



Oxide-dissolving cleaner, lubricant and protection for electrical contacts. CONTACT CLEANER PLUS contains a cleaning and protective oil that is highly compatible with materials common in electronics. CONTACT CLEANER PLUS is not corrosive and has no ozone-depleting potential.

69826

Content ml	Design	69826	...
500	spray can		201



69820

Caramba Super multi-function spray



...das wirkt!

Caramba Super – the original multi-function spray

Rust remover, lubricant, contact spray, corrosion protection, cleaner. Very good lubricity at high pressure (four-ball test value: 1,900 N). High moisture displacement and corrosion protection. Resistant to temperatures from -40°C to +180°C. Without solids, silicone-free, no resin deposits, good penetration.

69820 102

Content ml	Design	69820	...
500	spray can		101
5000	canister		102

69820 101



69820

Multi-function oil (5-56 +PTFE)



5-56 +PTFE is the high-quality, multi-function oil with PTFE additive and 2-spray technology.

The high-quality mechanical oil lubricates, loosens and protects. The PTFE lubricant additive ensures lasting protection against wear, high pressure absorption capacity and reliable lubrication even under extreme conditions. 5-56 + PTFE is silicone-free and does not resinify and can be used between -50°C and +150°C.

The 2-spray special spray head with folding spray tube allows for either whole-surface or precise spraying.

69820 202

Content ml	Design	69820	...
500	spray can		201
5000	canister		202

69820 201



Technical sprays for maintenance and servicing

69823

Rust remover (Rust off IND)



RUST OFF IND is the capillary-action penetrating oil with molybdenum disulphide (MoS₂) additive. The silicone-free fine oil quickly penetrates into the smallest cracks, moistens the surfaces and reduces the friction forces. Fasteners such as screws, bolts or nuts can be easily loosened. The MoS₂ additive prevents parts from seizing again and facilitates future disassembly.

Content ml	Design	69823	...
500	spray can		201



69823

69835

Rust remover with cold shock (Rost Flash)



ROST FLASH is twice as strong against rust. A refrigerant freezes the sprayed surface and splits the rust and dirt structure. This crack effect means that the penetrating oil can penetrate quickly and deeply, so that seized screws, bolts or sliders can be loosened easily. ROST FLASH is silicone-, resin- and acid-free and prevents future rust formation.

ROST FLASH quickly and non-destructively loosens rusted screws, bolts, connection elements and mounting parts of all kinds.

Content ml	Design	69835	...
500	spray can		201



69835



69832

Silicone spray (Silicone IND)



SILICONE IND is the highly versatile synthetic oil spray. The silicone oil forms a thin, water-repellent sliding film, which is also highly compatible with plastic, rubber and paint. SILICONE IND refreshes plastic surfaces, protects rubber from icing and is a highly effective release agent. SILICONE IND does not resinify and can be used between -40°C and +200°C.

Content ml	Design	69832	...
500	spray can		201



69832



69833

PTFE dry lubricant (Dry Lube-F)



DRY LUBE-F forms a dry sliding film based on PTFE. The PTFE film is oil-, grease- and silicone-free, has a good anti-adhesive effect and is temperature-resistant up to + 250°C. DRY LUBE-F is registered for use in food technology in accordance with NSF H1 and can be used universally as a sliding and release agent on rails, transport rollers, cutting tools, etc.

With Permalock special spray head for maximum safety in food production.

Content ml	Design	69833	...
500	spray can		201



69833



69844

Copper Paste



COPPER PASTE is the high-quality copper-based anti-fusing and assembly paste.

The particularly fine copper powder in combination with a drip-free basic grease guarantees long-term action even under extreme operating conditions from -30 °C to +1000 °C. COPPER PASTE PRO is drip-free and does not run, even at high temperatures.

The copper paste is an ideal anti-seize separating paste for protection against cold welding, also ensures uniform tightening torque during mounting of screw connections and allows for problem-free dismantling after exposure to high temperatures. It damps noise and vibrations and protects against corrosion.

Content ml	Design	69844	...
100	tube		201
500	spray can		202

69844 201



69844 202



69841

Zinc protective coating (Zinc)



ZINC is the zinc dust coating for the greatest rust protection for iron and steel. The protective coating contains a high proportion of 98.5% pure zinc, forming a galvanically active corrosion protection coating in accordance with **EN ISO 1461:1999**. ZINC is quick-drying and temperature-resistant. It can be welded and painted over and is matt grey in colour.

Content ml	Design	69841	...
500	spray can		201

69841



69842

Zinc-alu protective coating (Galva Brite)



GALVA BRITE is silver-coloured zinc repair spray. The bright zinc-aluminium protective coating is ideally suited for repairing hot-galvanised surfaces after welding or assembly. It is a universally applicable, decorative metal protective coating. GALVA BRITE is quick-drying, adhesive, weather-resistant and is a silver matt colour.

Content ml	Design	69842	...
500	spray can		201

69842



69829

Caramba active leak detector spray



...das wirkt!

Reliably indicates leaks on gas and air pressure lines. Reliable and fast diagnosis through strong foam formation. Suitable for all gas installation companies and test facilities. PH-neutral and compatible with all seals used in the installation field. Non-flammable, does not react with gases or refrigerants. Resistant to temperatures from -15 °C to +50 °C. DVGW-approved according to DIN 14291. **Not suitable for oxygen-conducting lines.**

Content ml	Design	69829	...
400	spray can		101

69829 101



69829

Leak detector spray (Eco Leak Finder)



ECO LEAK FINDER is the biodegradable leak detector with NSF-P1-registration for food technology. The aqueous test liquid forms easily visible foam bubbles at the gas leak and can be used for all types of gas. ECO LEAK FINDER is **DVGW certified** and meets the requirements in accordance with **DIN EN 14291**.

69829 201



Content ml	Design	69829	...
500	spray can		201

69838

Weld separating agent (Eco Bio Weld)



ECO BIO WELD is the weld release agent based on an aqueous emulsion. The solvent-free release agent contains no flammable ingredients. It is biodegradable and silicone-free. ECO BIO WELD reliably protects welding nozzles, workpieces and surfaces from fusion of welding beads.

69838



Content ml	Design	69838	...
500	spray can		201

69846

Magnetic spray can storage



Design

- 6 strong magnets
- Magnetic retention force approx. 1.8 kg
- 10 holes Ø 19 mm in the base

Applications

For e.g. 3 spray cans of Ø 73 mm.

69846



Dimensions mm	69846	...
210 x 75 x 70		101

WD-40

WD-40 is silicone- and resin-free. It penetrates rust layers, loosens jammed mechanisms and seized vehicle and machine parts. Removes stubborn dirt, displaces moisture from electrical contacts and prevents leakage currents. WD-40 also leaves behind a thin layer of protective film that prevents new formation of moisture and rust on metal parts.

The innovative WD-40 Smart Straw™ is a perfect dual spray thanks to the innovative folding tube on the spray head.

For precise spraying, e.g. for use as a contact spray or in the care of locking cylinders, simply fold out the tube. For surface application, e.g. rim cleaning or care of garden tools, simply fold the tube in again.

With the innovative WD-40 Smart Straw™, you no longer have to spend time finding and attaching tubes. One hand always remains free.

WD-40 Smart Straw – The revolution in spray cans!

With the 5-in-1 active formula**1. Cleans and protects**

- Loosens stubborn dirt, oil, grease and adhesive residue and can be easily removed
- Leaves a protective layer

2 applies as the year of use. Resolves squeaking

- For optimum running of movable parts
- Eliminates and prevents squeaking and creaking
- No silicone, so there is no bonding

3 applies as the year of use. Loosens rusted parts and jammed mechanisms

- Penetrates rust layers
- Quickly loosens jammed metal parts, screws and nuts

4 applies as the year of use. Protects against corrosion

- Leaves behind a thin layer of protective film that prevents formation of moisture and rust on metal parts

5 applies as the year of use. Displaces moisture

- Keeps electrical and electronic mechanisms free



For precise spraying, fold the tube upwards.



For surface application, simply fold in again.

69850**Multi-function spray WD-40****WD-40****Design**

- Rust remover
- Lubricant
- Contact spray
- Cleaner
- Corrosion protection
- ... in one!

69850 202

Spray can, contents 400 ml.

69850 301-302**Smart Straw can****Design**

Integrated tube on the spray head. For precise spraying, simply fold out. For surface applications, fold in again. Ideal for fast work without laborious searching or attaching.

69850 203

Canister, contents 5 litres.

69850 204**Hand sprayer/atomiser**

Ideal for dosing and distribution of WD-40. **Without** contents. Capacity 500 ml. In addition to the 5-litre canister.

69850 202**69850 302****69850 301****69850 203****69850 204**

Design	Contents ml	Contents litre	69850	...
Smart Straw can	300	-		301
Spray can	400	-		202
Smart Straw can	500	-		302
Canister	-	5		203
Hand sprayer/atomiser	-	-		204

69855**BALLISTOL universal oil****BALLISTOL****Design**

Wide range of uses. Forms an alkaline protective film on metals, neutralises hand sweat and other acidic rust-promoting residues. Due to its low surface tension and enormous creep capacity, it reaches even the narrowest angles and finest cracks in the metal. Resin- and acid-free, non-ageing, biodegradable and harmless to the environment.

Extremely well tolerated by the skin, and food safe.

Applications

In the automotive sector, in trade and industry, for example as a preservative and care product for precision measuring instruments and tools of all kinds. Ideal for the storage of injection moulds and components and for the storage and maintenance of high-quality machines. Prevents fingerprints and corrosion. Also suitable for the care of wood, plastic and leather.

**69855**

Content ml	69855	...
200		101

Info

69860–69875 adhesive systems

ergo®

Modern adhesive technology has developed in a variety of areas into a safe and cost-effective connection method. High quality adhesives are available for a wide range of applications.

	Wood/leather	Balsa wood/cork	Metal	ABS	PVC	PMMA	GFRP	PE/PP/POM/ PTFE/PA12	TPO/TPE	Rubber
Wood/leather	5011	5039	5011	5011	5011	5889	5011, 5039	5889+ 5150	5011+ 5150	5300, 5925
Balsa wood/cork	5039	5039	5039	5039	5039	5889	5039, 5925	5889+5150	5011+5150	5300, 5925
Metal	5011	5039	5039, 5889	5889, 5925	5925	5889	5889	5889+5150	5011+5150	5925
ABS	5011	5039	5889, 5925	5950	5300	5889	5011, 5300	5300, 5889+5150	5300, 5889+5150	5300, 5925
PVC	5011	5039	5925	5300	5300	5889	5011, 5300	5300, 5889+5150	5300, 5889+5150	5925
PMMA	5889	5889	5889	5889	5889	5889	5889	5889+5150	5889+5150	5011
GFRP	5011, 5039	5039, 5925	5889	5011	5011	5889	5011, 5300	5889+5150	5889+5150	5925
PE/PP/POM/PTFE/PA12	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5925+5150
TPO/TPE	5011+5150	5011+5150	5011+5150	5889+5150	5889+5150	5889+5150	5889+5150	5889+5150	5925+5150	5925+5150
Rubber	5925	5925	5925	5925	5925	5011	5925	5925+5150	5925+5150	5925
Silicone rubber	-	-	5300+5150	5300+5150	5300+5150	5300+5150	5300+5150	5300+5150	5300+5150	5300+5150

Rotating dosing cap

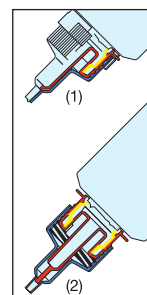
The patented rotating dosing cap is a special feature of the ergo® adhesives and offers many advantages:

- One-handed operation: open and close with one hand, secure the components with the other free hand.
- The dosing opening does not stick: complete closure of the cap means that the nozzle is simultaneously cleaned and fully sealed.

- Extremely fine dosing: more or less adhesive can flow out, the more or less the cap is unscrewed.
- One-piece bottle: bottle and dosing cap form one unit; it is therefore impossible to lose a closure cap.

(1) = closed.

(2) = open.



Info

Cyanoacrylate superglues

ergo®

ergo® cyanoacrylate adhesives are single-component products based on cyanoacrylic acid esters and harden under the influence of humidity. ergo® cyanoacrylates are mainly used for bonding plastics, elastomers and metals. The main advantages of these modern adhesives are in the hardening speed, simple application and good mechanical strength of the bonds. In principle, ergo® cyanoacrylate adhesives can be used in a temperature range from -55 to +120 °C (depending on type).

Safety precaution:

Cyanoacrylate vapours may cause irritation to the mucous membranes and eyes. It is therefore advisable to ensure good ventilation/extraction at the workplace as well as to wear protective gloves (not cotton) and safety goggles. Cyanoacrylate sticks the skin and eyes together in seconds. Keep out of the reach of children. Please contact us if you would like the corresponding safety data sheet and technical data sheet. Please note the further information on the containers.

Info

69861 SmartPen®

ergo®

Clever adhesion with SmartPen®.

Accurate and complete:

With the SmartPen, you can glue precisely and effortlessly in the correct dosage. Together with our rotating and dosing cap, it makes bonding fast, easy and efficient. Pick up the Smart-Pen!

Clever adhesion. Easier and more precise than ever before. SmartPen®.



ergo®

69860 101 + 69861 101
ergo® 5011 Universal

Design

Quick-hardening standard type with medium viscosity for a wide variety of applications: Plastic, rubber, metal, fabric, leather, wood, ceramics, etc. **NSF-approved.**

69861 101

Design

With SmartPen®.

69860 102

ergo® 5039 Universal-gel

Design

Superglue gel is characterised by perfect flow properties, ideal for use on vertical surfaces, larger workpieces or porous, absorbent materials: Wood, fabric, cork, leather, plastics, ceramics, etc.

69860 203 + 69861 103

ergo® 5925 elastomer

Design

Quick-hardening, low-viscosity adhesive is suitable for almost all standard applications in the fields of plastic, elastomers and metal, as long as there are no special requirements.

NSF-approved.

69861 103

Design

With SmartPen®.

69860 204

ergo® 5210 metal

Design

Medium-viscosity product with high resistance to shock and vibration. Good resistance to moisture, climate and solvents. Slow-hardening. Particularly well suited to metal-plastic joints.

69860 107

ergo® 5100 activator

Design

Accelerates the hardening process. Use of the activator is recommended especially in the case of unfavourable porous, inactive (acidic), non-polar surfaces or large bonding gaps. In this case, the product is applied on one side (to the porous, inactive surface) before bonding.

69861 106

ergo® 5014 Universal (high-viscosity)

Design

With SmartPen®. High-viscosity universal setting. It also makes it possible to bond porous or uneven surfaces together. Due to its good gap-closure properties, it is always recommended in cases of relatively imprecise work. It is therefore particularly suitable for the repair sector.

69860 101



69860 102



69860 107



69861 101



Type	Content g	Content ml	69860	...	69861	...
5011 Universal	20	-		101		
5011 Universal with SmartPen	30	-				101
5039 Universal gel	20	-		102		
5925 elastomer	20	-		203		
5925 elastomer with SmartPen	30	-				103
5210 metal	20	-		204		
5014 Universal with SmartPen	30	-				106
5100 activator	-	150		107		

Info**Anaerobic adhesives and sealants****ergo®**

ergo® anaerobic adhesives and sealants are liquid and one-component products that harden on creation of a hermetic seal and on contact with metal. Consequently, they can be used only for purely metal bonding. The ergo® products are available in a range of strength classes, ensuring reliable connections in the desired strength without the need for additional aids. The hardening can be accelerated by heat and/or addition of the activator.

Safety precaution:

In case of contact with the skin, rinse immediately with soap and plenty of water and seek medical advice. Please contact us if you would like the corresponding safety data sheet and technical data sheet. Please note the further information on the containers.

ergo®

69865 104-105

ergo® 4052 medium-strength screw retainer.

Design

Outstanding resistance to media and heat. Can also harden at low temperatures, even without an activator. **NSF and DVGW-approved.**

Applications

Especially suitable for stainless, passivated and galvanised screws. Also fills gaps due to its higher viscosity.

69865 106-107

ergo® 4101 high-strength screw retainer.

Design

High-strength connection to highly stressed threads and cylindrical parts. Medium viscosity allows for universal use. Increased media resistance. **NSF-approved.**

Applications

Fastens studs, ball and roller bearings in the sliding seat. Especially for highly stressed screw connections.

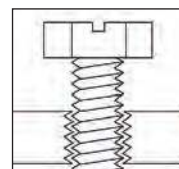
Note:

For ergo® auxiliary products for anaerobic adhesives, see art. no. 69875.

69865 104-105



Type	Content g	69865	...
4052 medium-strength	50		104
4052 medium-strength	250		105
4101 high-strength	50		106
4101 high-strength	250		107



69866

ergo® Anaerobic adhesives for sealing
ergo®
Note:

For ergo® auxiliary products for anaerobic adhesives, see art. no. 69875.

69866 101

ergo® 4202 hydraulic seal.
Design

Medium strength product for sealing cylindrical and conical threaded connections up to R 3/4 of an inch. Excellent resistance to hydraulic fluids.

Applications

For sealing all pneumatic and hydraulic screw connections. For small screw connections of all kinds, up to the bursting pressure.

69866 102+112

ergo® 4207 universal pipe thread sealant.
Design

Neutral taste with respect to water, drinks, etc. Quick to harden, even at temperatures below 0°C. Seals immediately at low pressure. Resistant to natural gas. DVGW-approved, BAM-approved.

Applications

Seals all conical/cylindrical tapered pipe thread connections up to R 3-inch, e.g. in sprinkler systems and gas pipeline systems.

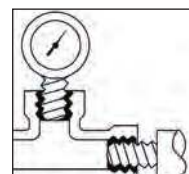
69866 103

ergo® 4253 universal surface seal.
Applications

This quick-hardening, slightly flexible surface sealant is especially suitable for inactive materials. The thixotropic adjustment allows for easy dosing with good stability following application to the product.

NFS approved.

Type	Content g	69866	...
4202 hydraulic sealant	50		101
4207 pipe thread sealant	50		102
4207 pipe thread sealant	250		112
4253 surface sealant	50		103



69866 101



69867

ergo® Anaerobic adhesives for fastening
ergo®
Note:

For ergo® auxiliary products for anaerobic adhesives, see art. no. 69875.

69867 101

ergo® 4401 medium-strength joint-retaining compound.
Applications

For securing bearings in bushings or wheels on shafts. Replaces mechanical fixing elements.

69867 202

ergo® 4430 high-strength joint-retaining compound.
Design

Very good hardening, even on passive metal surfaces. Very strong on cylindrical parts such as bushings, bolts, gears. Prevents corrosion.

NSF-approved.
Applications

For securing shafts, bearings, bushings, sleeves, gears, etc. as supplied.

69867 106

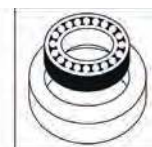
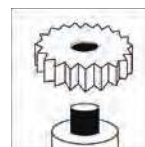
ergo® 4453 heat-resistant joint-retaining compound.
Design

Quick-hardening, high-strength and heat-resistant product. Good resistance to acids, alkalis and water. KTW and DVGW-approved, BAM-approved. NFS-listed.

Applications

For securing cylindrical bushings in engine blocks and bearing supports in heating furnaces. Excellent bonding on smooth surfaces.

Type	Content g	69867	...
4401 medium-strength joint-retaining compound	50		101
4430 high-strength joint-retaining compound	50		202
4453 heat-resistant joint-retaining compound	50		106



69867 101



69875

ergo® Auxiliary products for anaerobic adhesives
ergo®

69875 100

ergo® 4900 activator.
Design

- Activator for accelerating the hardening of anaerobically hardening adhesives
- Recommended in unfavourable conditions, such as inactive surfaces, large gaps, significant roughness depths, low temperatures
- Accelerates the full adhesive hardening

Note:

Use of the activator reduces the achievable final strength by about 15%.

69875 101

ergo® 9190 universal cleaner.
Applications

- Organic solvent-based cleaner for removing grease, cutting and corrosion protection oils and other impurities on metal surfaces
- Free of halogenated hydrocarbons
- Ideal for pre-treatment of adhesive surfaces

Type	Content g	69875	...
4900 activator	100		100
9190 universal cleaner	500		101

69875 100



69875 101



69878

ergo® RTV silicones**ergo®****Design**

- High-quality silicone sealant
- Excellent heat resistance (up to +315°C)
- Excellent resistance to chemicals
- The non-acidic hardening system does not have a corrosive effect on aluminium, iron and steel

Applications

As a permanently elastic adhesive and as a sealant in electrical engineering, the automotive sector, machine tools and mechanical engineering, and in precision engineering.

69878 101-103

Design

- In a pressurised can: **The silicone flows evenly from convenient pressurised cans**
- Thanks to the ingenious design of the double-walled pressurised can, the silicone does not come into contact with the propellant (environmentally friendly air mixture) and remains ready for use for longer

69878 104

Design

- In Euro cartridge

69878 101-103



69878 104



Design	Colour	Content g	Content ml	69878	...
Pressurised can	black	256	-		101
Pressurised can	transparent	208	-		103
Euro cartridge	transparent	332	310		104

69880

Silicone (acetate)**Design**

- Silicone sealant that remains elastic
- Anti-fungal and weather-resistant

Applications

Suitable for applications in accordance with IVD data sheet no. 3.

69880



Design	Colour	Content ml	69880	...
Cartridge	transparent	310		101

69882

Silicone (neutral) paint-compatible**Design**

- Silicone sealant that remains elastic
- Anti-fungal
- Very good weather-, ageing- and UV-resistance
- **Neutral hardening, i.e. silicone is paint-compatible in accordance with DIN 52452**

- Meets the requirements of DIN 18545 Part 2, Stress Group D and DIN 18540 LEED®-compliant IEQ credits 4.1 adhesives and sealants

Applications

Suitable for applications in accordance with IVD data sheet no. 7 and 9.

69882



Design	Colour	Content ml	69882	...
Cartridge	transparent	310		101

69890

Hand-held application guns

69890 101

Design

- Robust toothed rack design for the professional
- Toothed rack hardened
- Black

Applications

For 310-ml cartridges.

69890 102

Design

- Robust push rod design with an open tube
- Orange

Applications

For 310-ml cartridges.

69890 103

Applications

For 400-ml silicone foil bags and 310-ml cartridges.

Note:

Pneumatic application guns on request.



69890 101



69890 102



69890 103

Design	Colour	Content ml	69890	...
				101
				102
				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 C 12 C

Note:

For replacement charger, see art. no. 90318 103.

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 the pressure rod prevents the formation of drops
- Integrated pin to pierce glued cartridge holes
- Battery charge indicator

Scope of delivery:

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

Note:

For replacement battery, see art. no. 90316 093.

For replacement charger, see art. no. 90318 093.



90317 101



90317 102



With online registration

REDLITHIUM-ION™

Type	V/Ah	Operating pressure bar	Flow 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

