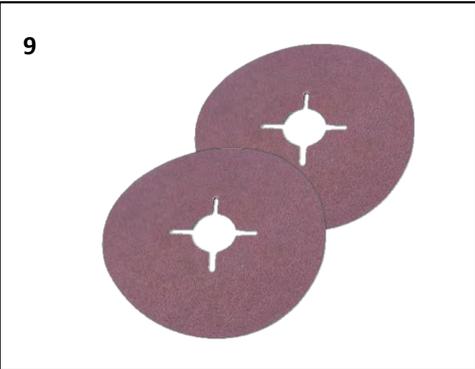


PRODUCTS

for General Engineering



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Chemicals



Multi 5-in-1 400ml



Versatile multi-functional spray for a range of applications

Rust dissolver: Outstanding creeping properties ensure rapid penetration of rust and corrosion

Lubricant: Excellent lubricating properties. Eliminates creaking and squeaking noises. Reduces friction and wear

Cleaner: Good cleaning performance guaranteed by infiltration of dirt, grease and oil residues

Corrosion protection: Optimal adhesion properties on metals. A thin viscous protective film prevents moisture even over micro surface irregularities and thus effectively protects against rust and corrosion

Contact spray: Water and moisture-displacing properties and outstanding creeping properties enhance electrical conductivity and eliminate leakage current

Multi 5-in-1 400ml

Art. No. 00893 055 40



HHS 2000 500ml



Partly synthetic oil that is extremely resistant to high pressures

High pressure resistance: Extraordinarily tear-proof lubricating film with excellent noise and vibration dampening

Good creep properties: Excellent lubricating properties for small gaps, reliable protection against corrosion

Adhesive: Centrifuge-resistance on turning and rotating parts.

Good material compatibility: Compatible with O-rings/X-rings and plastics. Neutral behaviour on painted substrates.

Resistant to splashed water, salt water, weak acids and alkalis

Application: Suitable for universal lubrication and for high pressure loads, e.g. shifting, accelerator and clutch linkages, Bowden cables, pins, joints, hinges, reversing levers, lock strikers, drag link ends, sliding rails, chain wheels, toothed racks and open gearwheels

HHS 2000 500ml

Art. No. 00893 106

HHS Clean 500ml

Art. No. 00893 106 10



Rost Off PLUS 300ml



High-quality rust remover plus lubricating properties thanks to new additive technology (OMC₂)

Excellent capillary activity: Optimum creeping properties ensure outstanding rust penetration and excellent rust removal

Contains liquid, highly effective, organic molybdenum compound OMC₂: In contrast to products that contain solid lubricants, e.g. MOS₂,

OMC₂ does not precipitate out in larger containers, reduces friction, smooths metal surfaces for outstanding lubricating effect, ensures permanent smooth running of connections

Corrosion-protection additives for optimum corrosion protection: Long-term protection against further corrosion

Silicone-free

Application: For loosening extremely rusty and oxidised screw connections on passenger cars, lorries, agricultural machines, construction machines, equipment and devices

Rost Off PLUS 300ml

Art. No. 00890 200



Drill and Cutting Oil 400ml

Multi cutting oil for light to medium machining work

Universal application

Cools even when sprayed: Protects tools, welding of small workshop parts to the cutting edge is prevented

Good penetration: Penetrates the smallest tolerances

Excellent corrosion protection: Provides sustained protection against further rusting and corrosion, no after-treatment or preservation measures required

Free from silicone, chlorine, resin and acids

Application: For drilling, thread cutting, thread moulding, lathing, countersinking, rubbing and sawing. Ideally suited for stainless steel, but also for high-alloy steels, constructional steels, non-ferrous and precious metals. Can also be used as a preservative agent on semi-finished/finished parts and machine parts, and can be used as gun oil.

Drill and Cutting Oil 400ml

Art. No. 00893 050 004



Corrosion Protection Spray 300ml

Creep capacity, colourless special fluid

Low-viscosity special oil with excellent creep properties: Also protects hard-to-reach areas, prevents corrosion from progressing

Very good material compatibility on various surfaces such as varnished surfaces, metals and plastics: For a wide range of applications.

Self-sealing protective film that does not dry on: Scratches, stone impacts etc. are automatically re-sealed, no areas for liquids to attack.

Economical: Saves time and money.

Excellent salt water resistance in line with DIN 50021: Optimum protection, even in extremely harsh condition

Application: For preserving tools or machine and vehicle attachments, e.g. snow chains or roof racks. Can be used in hard-to-reach places in the engine compartment and on bodywork seams and wheel wells. Optimum protection for motorcycles and bicycles, particularly when put into storage for the winter. Ideally suited for all surfaces on parts and fittings exposed to high levels of salinity, e.g. near the coast or at sea. Boat engines and attachments are optimally preserved.

Corrosion Protection Spray 300ml

Art. No. 00893 15



LMS 220 Food Safe Spray 300ml

Colourless special lubricant for the food industry as well as for the beverage, pharmaceutical and clinical industries

Low-viscosity and colourless special lubricant with penetration properties: Outstanding lubrication properties in hard-to-reach places, excellent penetration and cleaning effect guarantees optimum protection on machinery and conveyors, economical, no visible damage if the lubricant occasionally comes into contact with the product

Good material compatibility: Broad application range on a variety of surfaces such as aluminium, stainless steel, plastics compatible with mineral oil, e.g. PP, PE, PS, nylon, polycarbonate glass, epoxy glass fabric-base plastics, sealing rings.

Application: For liquid lubrication of valve gaskets, sleeves, O-rings, drives, piston rods and guides on slide dampers, hinge band and roller chains as well as mechanisms in the food and beverage industry. For lubricating cutting blades in the paper industry as well as needles and hooks on knitting machines. Versatile use in manufacturing, application and packaging of foodstuffs as well as of pharmaceutical and cosmetic products. Lubricating effect is even maintained for machines and conveyors exposed to water. Ideal for use as release agent in the food and beverage industries.

LMS 220 Food Safe Spray 300ml

Art. No. 00893 107 1

Chemicals



Copper Paste 1Kg

Highly adhesive lubricating, separating and anti-corrosive copper paste that is extremely resistant to high temperatures and high pressures.



Very high resistance: Temperature application range from -20°C to +1200°C for dry lubrication, resistant to water, diluted alkali solutions and diluted acids

High, lasting lubrication: Provides long-lasting protection against fusing and seizing, galling, wear, corrosion and frictional corrosion.

Application:

Brakes: Back of disc brake pads (prevents squeaking), mounting parts and individual parts.

Battery terminals: Contact protection, MIG welding gun nozzles (prevents welding beads from forming).

Seals: Prevents solid seals from fusing.

Other: Screw connections (exhaust manifold screws, spark plug threads etc.), bearings, pivot points, joints, sliding surfaces.

Copper Paste 1Kg Art. No. 00893 800 2

Anti Spatter Protection 5Ltr

Biological welding protection spray for aluminium, construction steel, non-ferrous metals, stainless steel



Prevents burning-on of weld splatter on metals, VA materials and on welding torch nozzles: Contributes towards optimum welding work. Starting points for corrosion are prevented

Cooling effect: Colour runs are reduced in VA welding

Silicone-free: Subsequent work, such as painting, is not adversely affected

Contents are identical to natural substances: Free of hydrocarbons and other solvents, the thin film simultaneously acts as temporary corrosion protection

Weld spray residues are easy to remove: Subsequent galvanising and painting pose no problem

Application:

Anti Spatter Protection 5Ltr

Art. No. 00893 102 10

Anti Spatter Protection 400ml

Art. No. 00893 102 100

Brake and Parts Cleaner

For cleaning and degreasing during maintenance and repair work.

Fast flash-off behaviour and excellent cleaning performance: Fast and effective removal of soot, grease, brake dust and oily residues, residue-free cleaning

Acetone-free: High degree of material compatibility with paints, plastics, seals and rubber

Application: For quickly removing oily/greasy residues, soot, brake dust on vehicles, disc and drum brakes, engine and gearbox housings etc.

Brake Cleaner 500ml

Art. No. 00890 108 7

Brake Cleaner 5Ltr

Art. No. 00890 108 715

Brake Cleaner 20Ltr

Art. No. 00890 108 716

Tap for Brake Cleaner 20Ltr

Art. No. 00890 108 716

Pump Dispenser 1Ltr

Art. No. 00891 503 002



Industry Cleaner 500ml



High-quality special cleaner for removing adhesive tape residue, labels and film stickers as well as stubborn dirt. NSF-certified

Effective: Simple removal of adhesive residue, labels, and adhesive tape, dissolves stubborn dirt such as wax, rubber abrasion, silicone residues, permanent marker, oil and grease

Gentle on materials: Delicate surfaces such as aluminium, brass and stainless steel are not attacked.

User-friendly: No unpleasant odours for users and the environment, fast and effective cleaning.

Application: Cleans machine parts, plastic parts and metallic surfaces of adhesive residues. Also suitable for removing protective preservatives e.g. on brake discs

Industry Cleaner 500ml

Art. No. 00893 140



Zinc Spray Light Perfect 400ml



Outstanding long-term protection and optimum metal surface appearance

High layer thickness in first spray pass: High degree of safety thanks to optimum weathering protection, minimum amount of time spent, as only one operation is required, good coverage

Versatile use with adjustable spray head: Large area and minor repairs can be carried out quickly and reliably with the variable spray head.

High degree of resistance to running

High degree of wear resistance

Tested corrosion protection in accordance with DIN

- Perfect zinc spray, light: 250 hours

- Perfect zinc spray: 500 hours

- Can be used for repairs in accordance with DIN EN ISO 1461

Spot weld-able

Zinc Spray Light Perfect

Art. No. 00893 114 114



Silicone Remover 1Ltr

For professional cleaning and degreasing before applying adhesives or painting.

- High level of cleaning power and long flash-off time

- Ideal for cleaning plastic

Application: Apply silicone remover to a clean cloth and thoroughly rub the surface to be treated. Then rub and dry with a clean cloth.

Silicone Remover 1Ltr

Art. No. 00893 222



5. General Engineering

Super Glue 20Gr

Superglue for bonding metal, plastic and rubber parts to each other.

Patented special cap: One-handed operation, precise dispensing, prevents you from gluing the tip

Bonds in seconds: Can be processed immediately, fast repairs, simple construction without additional mounting materials, increased temperatures not normally required

Super Glue 20Gr Art. No. 00893 09
Activator 200ml Art. No. 00893 301 20



Rust Stop Primer 400ml

Active corrosion protection for metallic surfaces

Active corrosion protection and primer with good adhesive properties on a broad range of substrates, including in conjunction with PU and MS polymer sealing compounds

Good adhesive properties: Adheres to aluminium, plain and galvanised sheet metal, steel, old paintwork etc.

Dries quickly: Can be painted over after just 10 - 15 min. approx., depending on layer thickness.

Temperature-resistant up to 80°C, short-term resistance up to 140°C Easy to sand

Rust Stop Primer 400ml Art. No. 00893 210 2



Zinc Spray PERFECT 400ml

Outstanding long-term protection and optimum metal surface appearance.



High layer thickness in first spray pass: High degree of safety thanks to optimum weathering protection, minimum amount of time spent, as only one operation is required, good coverage.

Versatile use with adjustable spray head: Large area and minor repairs can be carried out quickly and reliably with the variable spray head.

High degree of resistance to running

High degree of wear resistance

Tested corrosion protection in accordance with DIN:

Zinc Spray PERFECT: 500 hours

Zinc Spray LIGHT: 250 hours

Spot weld-able

Zinc Spray PERFECT 400ml

Art. No. 00893 114 113

Zinc Spray LIGHT 400ml

Art. No. 00893 114 114

Bond and Seal

Elastic PU adhesive and sealant for a wide range of applications

Universal application

Outstanding adhesive strength on a wide range of materials and surfaces.

Approved for use with foodstuffs (ISEGA certificate): Harmless to health in hardened state, suitable for gluing and sealing in food processing areas

Highly elastic:: Bonding of identical and different substances possible, compensation of different material expansions, absorbs vibrations and sounds

Long skin formation time: Allows bonding or sealing of complex components, also ideal for large surfaces, assembly components can be repositioned

Can be ground/painted: Following skin formation, can be mechanically machined and painted over without surface activation (perform preliminary tests to check paint compatibility).

Not corrosive: Avoids corroding the metal

Odourless

Silicone-free

Bond and Seal 300ml WHITE/GREY/BLACK

Art. No. 00890 100 1/2/3

Bond and Seal 600ml WHITE/GREY/BLACK

Art. No. 00890 100 181/182/183



B&S Activating Cleaner 400ml

Art. No. 00890 100 60



B&S Primer METAL 250ml

Art. No. 00890 100 61



B&S Primer PLASTIC/WOOD/STONE 250ml

Art. No. 00890 100 62



310ml Cartridge Gun BASIC

Art. No. 00891 001



310ml Cartridge Gun PREMIUM

Art. No. 00891 318



600ml Sausage Gun

Art. No. 00891 400 601

RTV Silicone

High-quality adhesive and sealing compound for use in industry and the automotive sector.

Excellent resistance to chemicals: Can also be used in critical areas in which the seal comes into contact with various liquids, outstanding resistance to engine oil and transmission oil, refrigerant and anti-freeze agent

Non-acidic hardening system: Non-corrosive, therefore has no negative impact on electronic components and on lambda probes

Sealant in compressed-air can: Easy to dispense without additional aids. The fine beads allow the product to be applied uniformly

Application: Optimum adhesion to dry, clean and dust-free surfaces. The old sealant must be removed in full from the surface

RTV Silicone BLACK Art. No. 00893 321 1

RTV Silicone GREY Art. No. 00893 321 6



Chemicals

DOS HIGH Strength

Tough removable screw retainer and sealing compound – single-handed dispensing system

Ideally suited for screw connections exposed to high stresses: 100% sealing – no additional fixings necessary, protects

against corrosion due to friction, and against rust

Can only be removed once heated up to 300°C! Removable under normal conditions only by means of special tools and/or under certain temperatures

Excellent media and heat resistance: Universal products with broad range of applications

Prevents removal e.g. due to vibrations and shocks: No unwanted backup problems such as mechanical screw locks

Highly resistant: Resistant to a large number of bases, gases, solvents, oils and fuels.

50Gr High Strength

Art. No. 00893 270 050

25Gr High Strength

Art. No. 00893 270 025



DOS MEDIUM Strength

Removable screw retainer and sealing compound – one-handed dispensing system

For medium-strength bonding: Removable with regular tools

For use even on stainless steel and passive surfaces: No need for accelerator or activator agents

Excellent media and heat resistance: Universal products with wide range of applications

Prevents removal e.g. due to vibrations and impacts:

No unwanted retention problems such as mechanical screw locks

Highly resistant: Resistant to a large number of alkaline solutions, gases, solvents, oils and fuels

50Gr Medium Strength

Art. No. 00893 243 050

25Gr Medium Strength

Art. No. 00893 243 025



Hand Cleaner PLUS

Hand cleaner for medium to heavy soiling with natural exfoliating particles.

Gentle on the skin: Protects and nourishes, high proportion of substances with prophylactic effect prevent skin irritation, improved lipid-replenishing effect, pH-neutral and soap-free, dermatologically tested.

Biodegradable: Environmentally-friendly, prevents drains from becoming clogged

Alkali-free and silicone-free

4000ml Hand Cleaner Art. No. 00893 900 0

Hand Pump Art. No. 00891 901 1

Wall Stand Art. No. 00891 900 2

Hand Cleaner BASIC

Hand cleaner for light to medium soiling with natural exfoliating particles.

Gentle on the skin: Good skin compatibility with effective combination of tensides and a high proportion of lipid-replenishing substances, adapted to the natural pH of human skin, soap-free, dermatologically tested.

Biodegradable, wood-based exfoliating agent

Alkali-free, solvent-free and silicone-free

10Ltr Hand Cleaner Art. No. 00893 900 015

Universal Hand Wipes



For thorough and fast cleaning of most surfaces without the need for water, soap or a brush. NSF-certified.

Ideal for daily use or for use on the go

Removes extremely heavy contamination such as oils, greases, adhesive, paints, tar and lubricants thoroughly and gently

Problem solver: Tool, surface and hand cleaning in one product.

Gentle hand cleaning: Lasting moisturisation and pleasant, fresh fragrance.

Reusable, as the cloth can be washed out with water and remoistened: Saves costs due to multiple use.

Universal Industrial Wipes

Art. No. 00890 900 90

2Ply Paper Towel

The cleaning paper is suitable for cleaning surfaces in a range of fields (vehicles, metalwork, kitchen construction). Soiling such as oil and grease can be removed with the cleaning paper.

- Fits all common dispensers
- Different ply and widths
- Virtually lint-free
- Food-safe
- Highly absorbent and tear-proof

2Ply Perforated Paper Roll Art. No. 00899 800 773

Paper Towel Stand Art. No. 01962 899

Fasteners

Cable Ties



Temperature stability: -40°C to +85°C. Material: Polyamide 6.6. For quick, problem-free and reliable bundling of cables, cable harnesses, hoses, etc

Cable Ties

Art. No. 00502...

Allen Cap Screws



ISO 4762/DIN 912, steel 8.8, galvanised, blue passivated (A2K)

Allen Cap Screws

Art. No. 00084...

Hex. Set Screws Stainless Steel



DIN 933, stainless steel, A4, plain

Hex. Set Screws Stainless

Art. No. 00091..

ASSY Screws



For universal use in furniture construction, shop fitting, fitting attachments and interior fittings.

ASSY Screws

Art. No. 00170..

Pias Screw AW Drive



Galvanised steel, blue passivated (A3K), with AW drive

Pias AW Drive

Art. No. 00206...

Pias Screw Pan Head



Galvanised steel, blue passivated (A3K), with AW drive

Pias AW Drive

Art. No. 00211..

Pias Screw Hex. Head



Galvanized steel, blue passivated (A3K)

Pias Hex. Head

Art. No. 00214...

Ball Joints



Galvanized steel, blue passivated (A3K)

Pias Hex. Head

Art. No. 00268..

Retaining Clips



With single loop. Galvanised steel, blue passivated (A2K).

Retaining Clips

Art. No. 00473..

Hose Clamps Stainless Steel



With asymmetrical lock made entirely of stainless steel, band stainless steel

Hose Clamps Stainless Steel

Art. No. 00538..

Hose Clamps Steel - 9mm



With asymmetrical lock - 9mm Band

Hose Clamps Steel

Art. No. 00539..

Hose Clamps Steel - 12mm



With asymmetrical lock - 12mm Band

Hose Clamps Steel

Art. No. 00549..

Pipe Clamps Multifix



The fastening clamp with rubber profile in grey

Pipe Clamps Multifix

Art. No. 00542..

Hex. Nuts



DIN 934 steel I6I/18I galvanised NUT-HEX-DIN934-I8I-WS10-(A2K)-M6

Hexagon Nuts

Art. No. 00317..

Fender Washers



According to DIN 522, galvanised steel, blue passivated (A2K)

Fender Washers

Art. No. 00411..

Cargo Tie Downs



Art. No. 00713 921 954 - 9.5Mx50mm

Art. No. 00713 922 192 - 6Mx25mm

Material Processing

Alu-Oxide Discs



Tear-resistant, tough-elastic sanding discs

22 mm hole with cross slot

Carrier material made from vulcanised fibre

- Grain size 16-50: 0.8 mm

- Grain 60-120: 0.6 mm

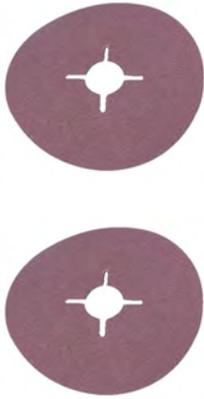
Highly elastic fully synthetic resin bonding: Long service life

Electrostatic dispersion: Uniform removal rates

For use on hand-held pneumatic or electric angle grinders with circumferential speed of up to 80 m/s in conjunction with a support plate

Edge and surface grinding on flat and curved components:

- **Grain size 16-40:** Levelling welding seams, spot-welding points, brazing seams etc. Deburring work on sheet, cast and forged metal parts. Grinding off sprues.



- **Grain size 40-80:** Smoothing of butt welds, edge breakage work and bare grinding of metal sheets and other metal surfaces.

- **Grain size 40-120:** Derusting, grinding off old paint layers, fine sanding in vehicle repair

Materials to be processed:

Steel, non-ferrous metals, cast metal and aluminium alloys

115mm Alu-Oxide Discs Art. No. 00580 115 16/24/30/36/40/50/60/80/120

125mm Alu-Oxide Discs Art. No. 00580 125 24/36/60/80

180mm Alu-Oxide Discs Art. No. 00580 180 16/24/36/40/60/80/100/120

Backing Pad Art. No. 00586 580 115/125/180 (115/125/180mm)

Grinding Machines (Electric) refer to Page

Grinding Machines (Pneumatic) refer to Page



Cutting Disc INOX



Cutting disc for stainless steel

Free of iron, chlorine and sulphur ($\leq 0.1\%$).

High-performance standard disc with excellent performance values.

Application: Cutting solid materials, pipes, profiles and stainless steel sheets.

115mmx1x22.2mm

Art. No. 00669 230 111

125mmx1x22.2mm

Art. No. 00669 230 121

230mmx1.8x22.2mm

Art. No. 00669 230 121



RED LINE

Cutting Disc STEEL

Cutting Disc for steel

Disc with medium hardness.

High-performance standard disc with excellent performance values.

Application: Cutting solid materials, pipes, profiles and metal sheets

115mmx2.5x22.2mm

Art. No. 00669 201 155

125mmx2.5x22.2mm

Art. No. 00669 201 255

230mmx3x22.2mm

Art. No. 00669 202 303



RED LINE

Grinding Disc STEEL

Grinding Disc for Steel

High-performance standard disc with excellent performance values.

Application: Grinding edges, weld seams, and surfaces

115mmx6x22.2mm

Art. No. 00669 260 116

125mmx6x22.2mm

Art. No. 00669 260 126

230mmx6x22.2mm

Art. No. 00669 260 236



RED LINE

Lamella Discs

Used for grinding edges and surfaces, dressing and smoothing, deburring and for weld seam processing



For free-hand grinding with electric or compressed air angle grinders

Circumferential speed max. 80 m/s

Free of iron, chlorine and sulphur ($\leq 0,1\%$)

Robust polyester-cotton blend fabric

Glass fabric backing disc

Abrasive cloth (zirconia alumina): Long service life, high rate of material removal, self-sharpening

Especially suitable for machining stainless steel

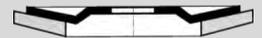
Stainless steel sheets, non-alloyed stainless steels, alloyed and highly alloyed steels, rust- and acid-proof steels, chrome-nickel steels

115x22.2mm - P40, P60, P80, P120

Art. No. 00580 430 314/316/318/311

178x22.2mm - P40, P60, P80

Art. No. 00579 430 374/376/378



Bi-metal Hacksaw Blades

No saw blade offers more cutting performance and flexibility.



Specialist steels: High-alloyed, high-speed steel on tooth edge, tough tool steel on ridge.

Tooth edges of fully hardened material make for unbeatable cutting performance and service life.

Work faster, longer and more economically with only one saw blade.

Normal toothing: More profitability, more safety, high cutting performance, prolonged service life.

Progressive toothing: Different tooth pitches provide clear advantages, universally used, high tooth pitch in the initial cut area for easy initial cuts. Fluttering of thin materials is considerably reduced. Low tooth pitch in remaining cutting area for high cutting performance.

24Tpi Hacksaw

Art. No. 00603 300 13

32Tpi Hacksaw

Art. No. 00603 300 133

18-32Tpi Hacksaw

Art. No. 00603 301 13

Hacksaw Frame

Art. No. 00714 64 02



Material Processing

ZEBRA Drills

Assembly drill for precise working in steel, tip angle 130°.



Tool life:	●●○○
Drilling speed:	●●○○
Drilled-hole quality:	●●○○
Versatility:	●●○○
Drilling behavior:	●●○○
Drilling depth:	5 x drill bit dia.

Steel

Precise drilling: The sturdy twist drill with its short design provides for precise drilling.

Self-centering: The crosswise grinding ensures an excellent centring even on round materials, eliminating the need for centre-punching or piloting.

Long tool life: Thanks to HC (High Speed Cutting) grinding and the related precise cutting geometry, a constant drilled-hole quality is ensured with simultaneous high precision and a long tool life.

Zebra Drills Art. No. 00624...

HSS B2000 Drills

Cold-formed assembly drill for working in steel, tip angle 118°.



Tool life:	●○○○
Drilling speed:	●○○○
Drilled-hole quality:	●○○○
Versatility:	●○○○
Drilling behavior:	●○○○
Drilling depth:	5 x drill bit dia.

Steel

HSS B2000 Drills Art. No. 00625...

HSCO Twist Drill

Precision drill for stainless steel, tip angle 130°.



Tool life:	●●○○
Drilling speed:	●●○○
Drilled-hole quality:	●●○○
Versatility:	●●○○
Drilling behavior:	●●○○
Drilling depth:	5 x drill bit dia.

Steel Stainless Steel

Precise drilling: The sturdy twist drill with its short design provides for precise drilling.

Self-centering: The crosswise grinding ensures an excellent centring even on round materials, eliminating the need for centre-punching or piloting.

Long tool life: Thanks to HC (High Speed Cutting) grinding and the related precise cutting geometry, a constant drilled-hole quality is ensured with simultaneous high precision and a long tool life.

Excellent chip removal: Thanks to the bare spiral groove, excellent chip removal is ensured in the drilling hole.

HSCO Twist Drill Art. No. 00626...

Double Ended Drill

Assembly drill for working in thin-sheet steel, tip angle 118°.



Tool life:	●●○○
Drilling speed:	●●○○
Drilled-hole quality:	●●○○
Versatility:	●○○○
Drilling behavior:	●●○○

Steel

Precise drilling: The sturdy twist drill with its extra-short design provides for precise drilling.

Self-centering: The crosswise grinding ensures an excellent centring even on round materials, eliminating the need for centre-punching or piloting.

Double Ended Drill Art. No. 00636...

Hand Taps

Taper, Intermediate and Plug Tap Sets and Assortments for metric ISO threads according to DIN 13.



Tap Sets (individual Sets)
Individual Taps (1st, 2nd, 3rd)

Drill & Cutting Oil 400ml
Tap Wrench No. 1
Tap Wrench No. 2
Tap Wrench No. 3

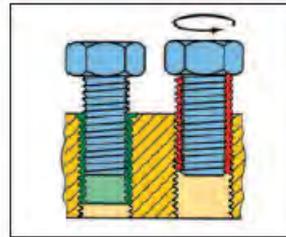
Art. No. 00639...
Art. No. 00640...
(M3, 4, 5, 6, 8, 10, 12, 14, 16, 20)
Art. No. 00893 050 004
Art. No. 00657 1 (M1-M10)
Art. No. 00657 2 (M4-M12)
Art. No. 00657 3 (M5-M21)



Convincing Advantages - Economical Advantages

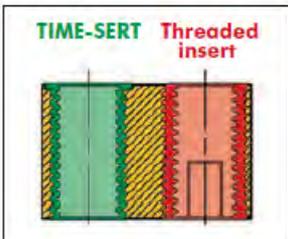


- The TIME-SERT system is based on a solid steel bush machined from a solid piece of material. The thin-walled bush is press-fitted to the workpiece. Therefore, TIME-SERT is able to withstand high continuous strains as well as frequent tightening and undoing of screws. The available bushes can be used with ISO, coarse-pitch, fine-pitch and unified threads. TIME-SERT is universally applicable, e.g. in aluminium, brass, steel or casting materials.



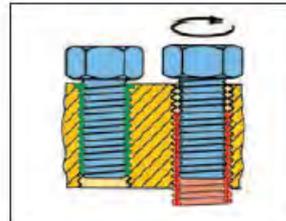
- TIME-SERT is self-locking through automatic forming of the semi-finished threads during installation.

Your advantage:
The bush is absolutely secure against unscrewing without the necessity of bonding.



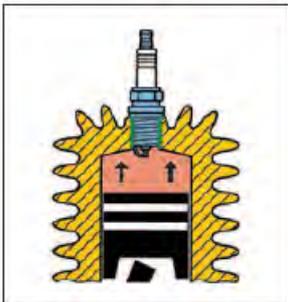
- TIME-SERT is very thin-walled owing to the synchronous path of the inner and outer threads.

Your advantage:
TIME-SERT can be used safely even with very thin-walled workpieces.



- TIME-SERT is equipped with a collar permitting precise positioning in the workpiece.

Your advantage:
Additional fixing in the workpiece is not required.



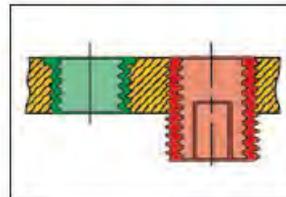
- TIME-SERT is media-proof owing to the press-fit with the workpiece.

Your advantage:
Pressure sealed to resist water, oil and other liquids, as well as compressed gases, e.g. in case of spark plug threads.



- Certain sizes of TIME-SERT are also available in stainless steel.

Your advantage:
Suitable for food processing even in critical areas, as well as for extremely high strains.



- TIME-SERT can be installed in thin-walled components, as well.

Your advantage:
Permits dependable repairs in places where only a few threads exist, e.g. oil drain plug.

Application Examples

Automotive

- **Motor**
Spark plug threads, stud bolt threads
- **Aggregates**
Attachments of servo pump, alternator, compressor
- **Transmission**
Gear cover, brackets
- **Differential**
Stud bolts
- **Axles**
Attaching parts, brackets
- **Body**

Mechanical Engineering / Precision Mechanics

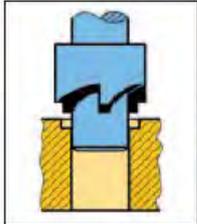
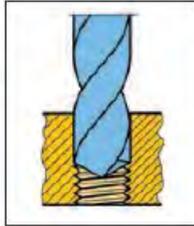
- **Repairs**
Perfect repair of damaged or stripped threads
- **Lightweight construction**
TIME-SERT can serve as a permanently installed thread anywhere in lightweight construction when saving weight is a consideration.
- **Food processing**
In food processing applications, where contact with food is possible, threads must be repaired or reinforced with stainless steel bushes only.

Material Processing - TIME SERT

Installation Instructions

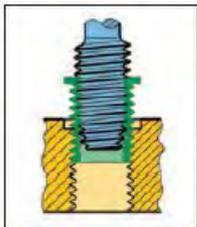
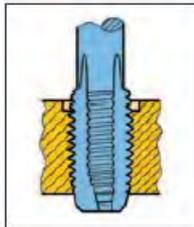
Metric Threads / UNC Threads

Phase 1
Drill out the damaged thread all the way to the bottom using a HSS drill bit **A**. Be sure to keep the borehole aligned.



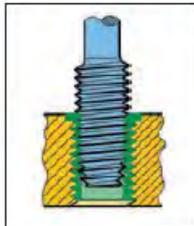
Phase 2
Machine the borehole with seat cutter **B** deep enough that the depth stop gets in contact with the workpiece.

Phase 3
Using thread tap **C**, cut the thread for the TIME-SERT bush. Be sure to keep the borehole aligned.

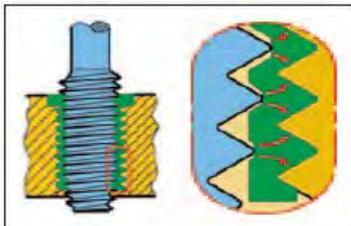


Phase 4
Blow out the shavings. Lubricate insertion tool **D** and screw in bush manually into the TIME-SERT thread.

Phase 5
Once the bush sits flush with the surface, the remaining threads are formed using the insertion tool **D**. The screw-in resistance increases noticeably.



Phase 6
In this phase, the semi-finished threads of the bush are pressed outward. The insertion tool **D** presses excess material into the workpiece. The repair is complete when the tool can be turned with noticeably less resistance.



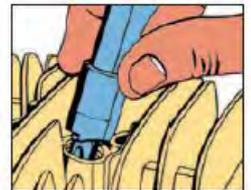
Spark Plug Threads

Phase 1
Screw in stepped tap **A** into the remaining thread.



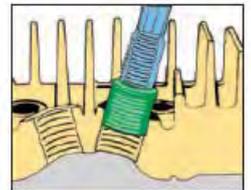
Phase 2
Snap socket wrench **D** onto stepped tap **A** and continue turning until the outer tap protrudes about 5 mm from the thread. In this way, the old thread is removed and the new one is cut in a single operation.

Phase 3
The stepped tap **A** remains in the thread. Slide the seat cutter **B** onto the stepped tap. Keep turning until the seat has been completely cut out. The entire seating surface must be bright.

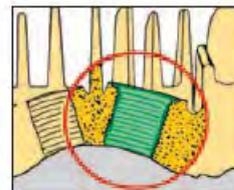


Phase 4
Blow out the shavings. Screw in TIME-SERT bush manually with a few turns - or using insertion tool **C**. Make sure to lubricate the insertion tool first.

Phase 5
Screw in the bush until it is seated securely using the lubricated insertion tool **C** and socket wrench **D**. The screw-in resistance will increase noticeably. Continue turning until the resistance drops noticeably.



Phase 6
The repair is complete. The threaded bush is now compression proof and secured against unscrewing.



A HSS drill bit
B Seat cutter

C Tap
D Insertion tool

A Stepped tap
B Seat cutter

C Insertion tool
D Socket wrench



Complete Set

M 5 / M 6 / M 8 / M 10 / M 12

- Metric coarse thread
- Bushes and tools for 5 sizes with 2 different lengths of bushes

Art. No. 0964 961 7

Thread Ø x pitch x length, mm		5
M 5 x 0.8 x 7.6	M 8 x 1.25 x 16.2	
M 5 x 0.8 x 10.0	M 10 x 1.5 x 14.0	
M 6 x 1.0 x 9.4	M 10 x 1.5 x 20.0	
M 6 x 1.0 x 12.0	M 12 x 1.75 x 16.2	
M 8 x 1.25 x 11.7	M 12 x 1.75 x 24.0	

Complete Set

M 6 / M 8 / M 10

- Metric coarse thread
- Bushes and tools for 3 sizes with 2 different lengths of bushes each

Art. No. 0964 961 6

Thread Ø x pitch x length, mm		5
M 6 x 1.0 x 9.4	M 8 x 1.25 x 16.2	
M 6 x 1.0 x 12.0	M 10 x 1.5 x 14.0	
M 8 x 1.25 x 11.7	M 10 x 1.5 x 20.0	

Bush Refill Packs

Type: steel, galvanized, passivated and A2 with contents of 25 each

Metric coarse thread
Metric fine thread

Thread Ø x pitch x length, mm	Art. No. Steel galvanized
M 4 x 0.7 x 6.0	0663 4 60*
M 4 x 0.7 x 8.0	0663 4 80*
M 5 x 0.8 x 7.6	0663 5 76
M 5 x 0.8 x 10.0	0663 5 100
M 6 x 1 x 9.4	0663 6 94
M 6 x 1 x 12.0	0663 6 120
M 7 x 1 x 10.0	0663 7 100
M 7 x 1 x 14.0	0663 7 140
M 8 x 1 x 11.7	0663 8 117
M 8 x 1.25 x 11.7	0663 812 511
M 8 x 1.25 x 16.2	0663 812 516
M 9 x 1.25 x 13.0	0663 912 513
M 9 x 1.25 x 18.0	0663 912 518
M 10 x 1 x 6.2	0663 101
M 10 x 1 x 9.0	0663 101 90*
M 10 x 1 x 15.0	0663 10 150
M 10 x 1.25 x 9.0	0663 101 250*
M 10 x 1.25 x 15.0	0663 101 251
M 10 x 1.25 x 20.0	0663 101 252
M 10 x 1.5 x 14.0	0663 101 514
M 10 x 1.5 x 20.0	0663 101 520
M 11 x 1.25 x 22.0	0663 111 122*

Thread Ø x pitch x length, mm	Art. No. Steel galvanized
M 11 x 1.5 x 16.0	0663 111 516*
M 11 x 1.5 x 22.0	0663 111 522*
M 12 x 1.5 x 6.7	0663 121 567
M 12 x 1.5 x 9.3	0663 121 593
M 12 x 1.5 x 16.3	0663 121 516
M 12 x 1.5 x 24.0	0663 121 524
M 12 x 1.75 x 16.2	0663 121 751
M 12 x 1.75 x 24.0	0663 121 752
M 14 x 1.5 x 6.5	0663 141 565
M 14 x 1.5 x 9.3	0663 141 593
M 14 x 1.5 x 12.8	0663 141 512
M 14 x 1.5 x 16.0	0663 141 516
M 14 x 1.5 x 26.0	0663 141 526
M 16 x 1.5 x 7.0	0663 161 570*
M 16 x 1.5 x 12.7	0663 161 512*
M 16 x 1.5 x 24.0	0663 161 524*
M 16 x 2 x 24.0	0663 16 240*
M 16 x 2 x 32.0	0663 16 320*
M 18 x 1.5 x 10.0	0663 181 610*
M 18 x 1.5 x 18.3	0663 181 518*
M 18 x 1.5 x 27.0	0663 181 527*

Thread Ø x pitch x length, mm	Art. No. A2
M 6 x 1 x 9.4	0663 06 94*
M 6 x 1 x 12.0	0663 06 120*
M 8 x 1.25 x 11.7	0663 081 211*
M 8 x 1.25 x 16.2	0663 081 216*
M 10 x 1.5 x 14.0	0663 011 514*
M 10 x 1.5 x 20.0	0663 011 520*



* ORSY

Personal Protection Equipment

Welding Gloves

Description

- Split Leather shell
- Jersey palm lined and black drill cuff lined
- Kevlar stitching
- Wing thumb, red piping
- Conform to EN420/EN388/EN407
- EN388 Performance level: 4144
- EN407 Performance level: 413X4X

11" Welding Gloves Art. No. 00984 310 001
 16" Welding Gloves Art. No. 00984 310 002



Cut Level 5 Gloves

Description

- 13 gauge HPPE yarn with fibre glass liner
- Micro foam nitrile coated gloves with nitrile dots on palm
- Excellent grip and protection allowing maximum flexibility and dexterity
- Excellent cut protection, mechanical resistant
- CE Certificated; Conform to EN420/EN388
- CAT. II/EN388/Performance level: 4543

Cut Level 5 Glove 7/8/9/10/11
 Art. No. 00899 451 357/358/359/360/361



Soffflex Gloves



Description

- Nylon / spandex liner for tight and comfortable fit
- Extremely good grip and dexterity
- Very comfortable to wear
- EN388: 4.1.3.1

Application: Used in areas such as industry, transport, garages, workshops, construction. Not suitable for handling of chemicals.

Soffflex Gloves 8/9/10/11
 Art. No. 00899 401 068/069/070/071



Copenhagen Gloves

Description

- Split leather palm and knuckle padded on back
- Cotton back with elastic band for better fit
- Rubberized cuff
- Double stitched
- CE certified; conform to EN420 / EN388
- CAT.II / EN388 Performance level: 4.1.4.4

Application: Used in areas such as industry, transport, agriculture, garages, workshops, construction.

Copenhagen Gloves 10
 Art. No. 00899 535 030

Safety Shoes & Boots

Security level S1P EN ISO 20345:2011



Description

- Buffalo Split Black leather upper
- Full mesh grey lining
- Foam padding collar
- Dual density PU injection outsole Black/Grey
- Anti-impact, Anti-perforation, Anti-static

Application Automotive, construction industry (not in wet environments), heavy duty work, transportation etc.

Available Sizes: 6, 7, 8, 9, 10, 11

Safety Shoes Art. No. 05357 209...
 Safety Boots Art. No. 05357 210...

Nitrile Disposable Gloves

Description

- Nitrile Powder-free glove/4 mil
- Finger textured, beaded cuff
- Silicone-free
- Can be worn on both sides
- **Material thickness:** Finger: min. 0.11 +/- 0.02 mm Palm: min. 0.07 +/- 0.02 mm
- Total length: 240 mm

Shelf-life 5 years from the date of manufacture when stored in a dry condition and out of direct sunlight.

Application: Laboratory work, pharmaceutical, chemical and electrical industries, house painting work, painting and polishing work, cleaning and maintenance work

Nitrile Disposable Gloves M/L/XL
 Art. No. 00899 470 01/02/03



FFP2 Disposable Mask



For protection against solid and liquid aerosols. Suitable for protecting the user against low-toxicity contaminants in concentrations of up to 10 times the AGW - value.

Advantages:

- **Flexible nose clip:** well fitting, secure nose-area seal.
- **Soft inner flees:** comfortable to wear.
- **Multi-layer filter medium:** Good, continuous filtration of dangerous particles, low breathing resistance.
- **Without exhalation valve**
- **Elastic textile band:** Tear-proof head band, suitable for different head sizes.

FFP2 Disposable Mask Art. No. 00899 121 102



Safety Glasses "PREMIUM"



Description

- Wraparound polycarbonate lens with adjustable temple
- Anti-scratch & impact resistance
- Anti-Fog
- Protection against high speed particles at extremes of temperature
- UV protection up to 99.9%
- CE Certificated; Conform to EN 166-2001
- AS/NZS Certificated; Conform to AS/NZS 1337.1:2010
- Conform to ANSI Z87.1-2010

Application: Construction, grinding, milling, light & precision, engineering, assembly & maintenance, laboratory & outdoor work etc.

Safety Glasses "PREMIUM" Clear/Grey/Amber

Art. No. 00899 103 120/121/122

Safety Glasses "STANDARD"



Description

- First class polycarbonate lens and polycarbonate temple
- Sporty & dynamic design
- Anti-scratch & impact resistance
- UV protection up to 99.9%
- CE Certificated; Conform to EN 166-2001
- AS/NZS Certificated; Conform to AS/NZS 1337.1:2010
- Conform to ANSI Z87.1-2010

Application: Construction, grinding, milling, light & precision, engineering, assembly & maintenance, laboratory & outdoor work etc.

Safety Glasses "STANDARD" Clear/Grey/Amber

Art. No. 00899 103 110/111/112

Power Tools

18V Battery Impact Drill

Extremely powerful yet handy battery-powered impact drill driver with connectible screw driver.



Max. Drill Dia:
Softwood - 45mm
Steel - 13mm

Max. Screw Dia:
10mm



Four-pole motor: Better power distribution than conventional two-pole motor.
Robust: All components are rated for tough construction site conditions.
Drill chuck with carbide clamping jaws: The extra-tough clamping jaws grip hard in the shank of the drill.
LED lamp on the battery block: The working area is always well lit.
Delivery Scope: 2x4.0Ah Batteries (0700 916 532), 1xQuick Charger (00700 816), 1xORSY Carry Case

18V Battery Impact Drill Art. No. 00700 615 4
*ZEBRA Drill Set 1-13mm Art. No. 00624 000 002
*Dial-a-Drill 1-10mm Art. No. 00625 01
* Optional Articles

1/2" Battery Operated Impact Wrench

Versatile battery-powered impact screwdriver with 1/2". High torque up to 180 Nm, yet gentle on the wrist thanks to the rotary percussion.



Max Torque: 180Nm
Screw Dia: M6-M16



Virtually no fatigue arises while working: Thanks to the short and compact design.

Long running time per battery charge Thanks to 4.0 Ah Li-ion battery packs.

Battery charge level indicator Four LEDs on battery pack.

Delivery Scope: 2x4.0Ah Batteries (0700 916 532), 1xQuick Charger (00700 816), 1xORSY Carry Case

1/2" Battery Operated Impact Wrench Art. No. 00700 625 4
* Impact Sockets 1/2" Art. No. 00714 13...
* Optional Articles

24mm SDS Hammer Drill

Lightweight, manageable 750-W hammer drill with interchangeable drill chuck and chiselling function for universal use



Max. Drill Dia:
Concrete: 4-24mm
(Ideal in concrete 6-16mm)
Hollow Drill bit into
masonry: 68mm



Compact: Ergonomic shape and lightweight for continuous use without rapid signs of fatigue.

Interchangeable drill chuck for versatile applications: The machine can be converted from SDS to a standard drill chuck in just a few steps.

Universal: The machine's chiselling function also makes it suitable for corrective chiselling work.

24mm SDS Hammer Drill Art. No. 05708 202 1
* SDS Plus Drills Art. No. 00648...
* Optional Articles

Power Tools

13mm Percussion Drill

Universal 13mm percussion drill with 750 watt, convincingly fast drilling progress and long service life.



Max. Drill Dia:
Softwood - 35mm
Brick - 22mm
Concrete - 20mm
Steel - 13mm



Single-sleeve quick-action drill chuck with clamping force locking and carbide jaws prevents the workpiece slipping in the drill chuck

Special connection system for replacing faulty cables or attaching longer leads in seconds

Electronic throttle switch for continuous speed control

2-way switch with lock on the housing exterior prevents accidental switching

Right/left switch on top of housing

Additional replacement carbon brushes in the handle

13mm Percussion Drill

Art. No. 00702 322 1

* Masonry Drills

Art. No. 00637 02...

* Optional Articles



10V Battery Operated Drill Driver

Extremely compact, powerful 10.8 volt lithium-ion screw driller. Ideal for all light-duty drilling and screwing applications.



Max. Drill Dia:
Softwood - 19mm
Steel - 8mm
Max. Screw Dia: 5mm

Compact, lightweight and ergonomic shape: For convenient and effortless work, even with applications above head height and in confined areas.

Li-ion battery packs: Long runtime per battery charge. The practical battery charge indicator tells you how much energy is left at all times.

2-speed gear unit and drill chuck: The cordless drill screwdriver is suitable for both screwing and drilling.

Overload protection: Prevents overload damage to motor and battery.

LED lamp: The working area is always well lit.

Delivery Scope: 2x2.0Ah Batteries (00700 996 214), 1xQuick Charger (00700 896), 1xORSY Carry Case

10V Battery Operated Drill Driver

Art. No. 05700 101 2

Heat Gun

Handy, lightweight device with continuous temperature regulation



Rugged ceramic heater

- Long service life

- Low sensitivity to jolts

Easy and ergonomic

Making it possible to work for long periods without fatigue.

Adjustable Temperature Range: 1

1	50°C	6	400°C
2	100°C	7	480°C
3	200°C	8	540°C
4	300°C	9	600°C
5	350°C		

Heat Gun

Art. No. 00702 202 0

Power Tools

Light Work...

Angle Grinder EWS 8-115 LIGHT

820 W angle grinder with slim grip circumference and 115 mm protective hood. Ideal for light grinding and cutting work, such as deburring.



Power Input: 820W
Power Output: 510W
Cable Length: 4M

1.6Kgs

Ergonomic design: The compact angle grinder offers an outstanding weight-performance ratio thanks to its small grip size, ensuring low-fatigue work.

Restart protection: Following an interruption in the power supply, the angle grinder does not restart unintentionally, significantly reducing the risk of injury.

Rapidly adjustable protective hood: Enables rapid adjustment of the protective cover without the use of tools.

EWS 8-115 Art. No. 05707 010 0

Industrial...

Angle Grinder EWS 12-125 SOLID

1,200 watt, robust angle grinder for fast working progress and long service life. Ideal for continuous intense rough machining and cutting work. With anti-vibration handle.



Power Input: 1200W
Power Output: 710W
Cable Length: 4M

2.4Kgs

Restart protection: The angle grinder will not restart unintentionally following an interruption to the power supply, significantly reducing the risk of injury.

Recoil protection: Mechanical decoupling ensures no recoil if the disk locks. For a high level of protection for the user and rapid continuation of work.

Quick adjustment of protective cover: Enables quick adjustment of the protective cover without the use of tools.

EWS 12-125 Art. No. 05707 004 0

Industrial...

Angle Grinder EWS 17-125Q POWER

Powerful 1700-watt handy angle grinder for removing material as quickly as possible and achieving maximum productivity. Ideal for heavy-duty roughing and cutting work. With anti-vibration handle.



Power Input: 1200W
Power Output: 710W
Cable Length: 4M

2.5Kgs

Constant electronics: Enables rapid progress with work as the speed remains constant even under load.

Restart protection: Following an interruption in the power supply, the angle grinder does not restart unintentionally, significantly reducing the risk of injury.

Overload protection and soft start: Increase in service life and level of operating safety offered by the machine.

Recoil protection: Mechanical decoupling ensures no recoil if the disk locks. For a high level of protection for the user and rapid continuation of work.

"Q-Nut" quick-clamping nut and quick-adjustment protective cover: The quick-clamping nut enables discs to be replaced quickly at the push of a button – without the use of tools. This quick-change system ideally supplemented by the quick-adjustment protective cover.

EWS 17-125 Art. No. 05707 006 2

Industrial...

Angle Grinder EWS 24-230

2400 watt angle grinder, for disks with max. 230 mm diameter.



Power Input: 2400W
Power Output: 1600W
Cable Length: 4M

5.8Kgs

Handle can be rotated in 90° increments: Optimum working position for both grinding and cutting.

Vibration damping on both handles: Less fatigue during work.

Twist-proof protective hood: Adjustable without tools, for rapid and effective work

Recoil protection: If the wheel suddenly blocks, the power supply to the motor is interrupted, considerably reducing the danger of injury.

Overload indicator: To prevent motor damage, an LED comes on if the unit becomes overloaded.

Extremely slimline housing: Makes it easier to work with the angle grinder.

On/Off switch with intelligent electronics: Restart protection, overload protection, soft start

Optimised dust-protection concept
Cool air is sucked in at the rear ventilation slots and blown out at the front by the gear head

EWS 24-230 Art. No. 00702 446 10

Consumables...



Cutting STAINLESS STEEL
115mmx1x22.2mm
Art. No. 00669 230 111
125mmx1x22.2mm
Art. No. 00669 230 121
230mmx1.8x22.2mm



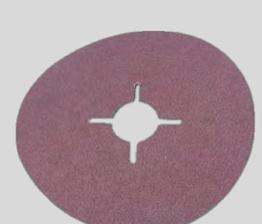
Cutting STEEL
115mmx2.5x22.2mm
Art. No. 00669 201 155
125mmx2.5x22.2mm
Art. No. 00669 201 255
230mmx3x22.2mm
Art. No. 00669 202 303



Grinding STEEL
115mmx6x22.2mm
Art. No. 00669 260 116
125mmx6x22.2mm
Art. No. 00669 260 126
230mmx6x22.2mm
Art. No. 00669 260 236



Lamella Discs
115x22.2mm - P40, P60, P80, P120
Art. No. 00580 430
314/316/318/311
178x22.2mm - P40, P60, P80
Art. No. 00579 430 374/376/378



Aluminium Oxide
115mm Alu-Oxide Discs
Art. No. 00580 115...
125mm Alu-Oxide Discs
Art. No. 00580 125...
180mm Alu-Oxide Discs
Art. No. 00580 180 ...

Hand Tools

91Pcs Tool Set

This 91-piece tool case is ideal for use on the move



Included in delivery:

- ZEBRA combination wrench, 11 parts: 8 - 22 mm
- Combination pliers 180 mm
- Hammer 400 g
- Water pump pliers 250 mm
- Voltage tester 3.0 mm, 150 - 250 V
- ZEBRA 1/4" ratchet 135 mm
- ZEBRA 1/4" cardan joint
- ZEBRA 1/4" extension 50 + 100 mm
- ZEBRA 1/4" socket wrench inserts, 12 pcs: 4 - 14 mm
- ZEBRA 1/2 inch ratchet, 250 mm
- ZEBRA 1/2 inch cardan joint
- ZEBRA 1/2 inch extension, 125, 250 mm
- ZEBRA 1/2 inch socket wrench insert, 19 pieces: 10 - 32 mm
- ZEBRA 1/4 inch square screwdriver
- ZEBRA slotted screwdriver, 0.6 x 3.5 x 100 mm, 1.2 x 6.5 x 150 mm
- ZEBRA PH 1, PH 2 screwdrivers
- 1/4 inch bit adapter
- **Bit assortment, 30 pieces:** 1 x AW 10, 25, 30/hexagon socket 3, 4, 5 mm/TX 15, 40 1 x slotted 4.5 x 0.6; 5.5 x 0.8; 6.5 x 1.2 mm 2 x AW 20/PH1, 2/PZ1/TX 10, 20, 25, 30 3 x PZ 2 1 x bit holder, 51 mm

91Pcs Tool Set Art. No. 00965 93 120

59Pcs, 1/4" & 1/2" Multi Socket Set

Extensive 1/4 inch and 1/2 inch combination assortment for a very wide range of applications, ratchets with lever reverse.

Contents: 59 parts

1/4 inch:

- 1 lever ratchet
- 1 25 mm angled extension
- 1 150 mm extension
- 1 150 mm flexible extension
- 1 cardan joint,
- 1 1/4 inch screwdriver handle
- 1 adapter with quick-change chuck
- 12 socket wrench inserts, sizes: 4; 5; 5.5; 6; 7; 8; 9; 10; 11; 12; 13; 14
- 3 PH bits: PH 1, 2, 3
- 4 hexagon socket bits: Sizes 3, 4, 5, 6 mm
- 7 TX bits: TX 10, 15, 20, 25, 27, 30, 40
- 1 slotted bit: 0.8 x 5.5 mm

1/2 inch:

- 1 lever ratchet
- 1 53 mm angled extension
- 1 125 mm extension
- 1 250 mm extension
- 1 cardan joint
- 19 socket wrench inserts, sizes: 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 26, 27, 28, 30, 32

1/4" and 1/2" Socket Set Art. No. 00965 090 59



WÜRTH lever changeover ratchet



reddot design award
honourable mention 2011



23Pcs, 1/2" Multi Socket Set

One tool for all jobs: Multi-socket wrench for 5 different drives.



Contents: 23 pieces

- 19 multi-socket wrenches, 1/2 inch, short, sizes 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 26, 27, 28, 30, 32
- 1 ratchet, 1/2 inch
- 1 extension each in 1/2 inch, 125 mm, 250 mm
- 1 cardan joint, 1/2 inch

1/2" Multi Use Socket Set Art. No. 00965 13 023

33Pcs, 1/4" Multi Socket Set

33-piece assortment containing bi-hexagon multi-socket wrenches for the five most common screw head drives.



Contents 33 pieces:

- Ratchet 138mm
- Extension 100 mm & Extension 150 mm
- Cardan joint 33 mm
- Screwdriver handle 216 mm
- Adapter with quick-change chuck
- 12 multi-socket wrenches, 1/4", 4, 5, 5.5, 6, 7, 8, 9, 10, 11, 12, 13, 14
- **Bits:** PH 1x25 mm, Bit PH 2, Bit PH 3, Bit slotted 0.8x5.5x25mm, Hexagon socket bit Size 3x25mm, 4x25mm, 5x25mm, 6x25mm, TX10x25mm, TX15x25mm, TX20x25mm, TX25x25mm, TX27x25mm, TX30x25mm, TX40x25.

1/4" Multi Use Socket Set Art. No. 00965 11 032

28Pcs, Combination Wrench Set

Metric DIN 3113A/ISO 3318/7738



- Drive: Ring side POWERDRIV® bi-hexagon
- Material: Chromium-vanadium steel
- Surface: Chrome-plated, polished heads and ring
- Geometry: Ring end angled 15°, jaw angle 15°
- Sizes:** 5.5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32mm

28Pcs, Combination Wrench Set Art. No. 00713 301 42

Hand Tools

1/4" Torque Wrench

With switchover square drive



- Accuracy of $\pm 3\%$ to the set value, to ISO 6789:2003
- Simple and precise setting by turning the handle
- With fine-toothed ratchet head (72 teeth) for working in the tightest places
- Scaling in Nm and also in pound force per square foot
- Acoustic and tangible torque triggering prevents over-tightening of bolts
- After use, relax spring and set to lowest value
- With calibration certificate

1/4" Torque Wrench (4-20Nm) Art. No. 00714 71 20

3/8" Torque Wrench (20-100Nm) Art. No. 00714 71 21

1/2" Torque Wrench (40-200Nm) Art. No. 00714 71 23

Thread Extractor Kit

For broken-off screws and bolts from 6-16 mm or 1/4 to 5/8 inches



Complete set, also comprises necessary twist drills

Specially profiled extractor pins enlarge the stud bolt only slightly

Easy extraction of broken bolts in contrast to tapered extractors

Scope of delivery: Guide sleeves, spiral drills, extractor pins and nuts, operating instructions, high-quality plastic box

Methods for extraction:

1a: Use a suitable guide sleeve for stud bolts snapped off beneath the surface. Pre-drill the snapped off threaded section. Then enlarge as required

1b: If the stud bolt is protruding, place the guide sleeve onto the bolt. Pre-drill the threaded bolt. Then enlarge as required

2: If the stud bolt is broken off flush, centre punch and pre-drill the bolt. Then enlarge as required

3: Hammer a suitable extractor pin into the drilled hole

4: Push extractor nut down to the bottom of the pin. Extract snapped off threaded bolt evenly without tilting

Thread Extractor Kit Art. No. 00690 14

3" Knee Pipe Wrench

One tool for all jobs: Multi-socket wrench for 5 different drives.



3" Knee Pipe Wrench Art. No. 00714 06 63

1" Knee Pipe Wrench Art. No. 00714 06 60

Standard: DIN 5234

Swedish form, S-jaw -

Material: Chromium-vanadium steel, forged, tempered for maximum loads

Inductively-hardened teeth

"Toothing" on head set against the direction of rotation:

Optimal hold for high strength, three-point support, self-adhesive

Jaw $\varnothing = 3"$, Grip Range = 3"

Tap & Die Assortment M5-M20

For broken-off screws and bolts from 6-16 mm or 1/4 to 5/8 inches



Material: HSS

Contents 43Pcs:

- One taper tap each of M5, M6, M8, M10, M12, M14, M16, M18, M20

- One second tap each of M5, M6, M8, M10, M12, M14, M16, M18, M20

- One third tap each of M5, M6, M8, M10, M12, M14, M16, M18, M20

- One die each of M5, M6, M8, M10, M12, M14, M16, M18, M20

- One die holder each of 20 x 7; 25 x 9; 30 x 11; 38 x 14; 45 x 18

- One tap wrench each of size 1, size 3

Thread Extractor Kit Art. No. 00965 92 200

Ratchet Rivet Nut Thread Setter

Hand-held rivet setting pliers with quick-change system for processing blind rivet nuts and bolts M4 to M12.



- Low force required compared to manual rivet setting pliers

- Quick-change system for mandrels and sleeves

- Clear stroke scale

- Nozzles with colour-coding system

Application:

For processing:

- Blind rivet nuts M4 to M12 aluminium/steel/stainless steel

- Blind rivet studs M5/M6/M8 aluminium/steel/stainless steel

Riveting in hard-to-reach spot

Available Rivets:



Rivet Nut Countersunk

Art. No. 00917

30/40/60/80



Rivet Nut Flat Head

Art. No. 00917

240/250/260/
280/210 0



Rivet Nut Flat Knurled

Art. No. 00917

760/780