BOLLHOFF

360° Joining technology

Products and services













Michael W. Böllhoff and Wilhelm A. Böllhoff

The Böllhoff Group

Böllhoff is your partner for 360° joining technology with assembly and logistics solutions – worldwide.

As a family-owned company we have been standing for long-term success through innovative capacity and local presence since 1877. We know the specific needs of our customers from all industries and support them in enabling successful connections.

Around 3,300 employees continuously shape the future of joining technology – both at our headquarters in Bielefeld, Germany, and in our subsidiaries around the world.

BÖLLHOFF

















Contents

	Page
Local to our customers	04
Manufacturer's expertise	05
Partner to many industries	05
DIN and standard fasteners	06
Thread technology	08
Riveting technology	10
Quick-release fasteners and adhesive technology	12
Decoupling and tolerance compensation technology	13
Screw locking	14
Self-tapping fasteners	16
Additional product ranges	17
Custom-made and engineering parts	18
Assembly technology	20
ECOLINE – Efficient e-business	24
ECOPACK – Economic packaging	26
ECOSIT® – Economic procurement and supply systems	28
Technical application consultancy service	30
Core business	32
Overview of our product range	34
Where to find the Böllhoff Group near you	38

We provide our customers with comprehensive local support through a network of sales offices and logistics centres. These range from logistical services and customised advice, to customer-specific product developments.

Our customers are assured of speedy and economic solutions exactly where they are needed through local expertise and quick decisions. We aim to inspire our customers day after day with outstanding products and premium services.

The Böllhoff Group in Europe



Manufacturer's expertise



We produce fasteners and assembly technology ourselves.

In Germany, France, Italy, Great Britain, Austria, Switzerland, the USA, Brazil, India and China we have 12 modern production facilities for the manufacture of high-quality products.

- Injection moulding
- Turning
- Cold forming
- Wire winding
- Machinery and plant engineering

Partner to many industries





















We always work in close collaboration with our customers to develop and select our production range.

This mutual dialogue is a strong basis for our product competence and proximety to market. We also offer a clearly structured range of services, geared to the needs of our target market, which guarantees that users from all industries always have a competent advisor to turn to.

Hexagonal bolts



We deliver over 50,000 DIN and ISO fasteners made from steel, stainless steel, brass and plastic, direct from stock.



Comprehensive range of screws with hexagonal and square head in all standard thread types.

Your benefits at a glance

- Steel strength classes from 3.6 to 12.9
- Various Cr(VI)-free surfaces
- Stainless steel in A1, A2, A4
- Certified Böllhoff quality
- All products are also available to order online

Our ranges

- Hexagon head bolts, self-locking screws
- Self-drilling screws, threaded self-tapping screws
- Tapping screws
- Locking screws
- Tolerance bolts
- and many more

Cap screws with internal driving feature



Comprehensive range of screws with various internal driving features and different thread types.

Other screws



Exclusive range of screws for a wide range of special customer requirements.

Our ranges

- Cylinder screws, self-locking screws
- Self-drilling screws, thread-rolling screws
- Tapping screws, slotted set screws
- Pan head screws, flanged button head screws
- Countersunk bolts, locking screws
- and many more

Our ranges

- Mushroom head bolts, wing screws
- Ring bolts, eyebolts
- Countersunk bolts, studs
- Threaded self-tapping screws, knurled screws
- T-head bolts, stud bolts
- and many more

Nuts



Washers



Huge range of nuts for various applications.

Wide range of washers and sealing rings in numerous sizes and versions.

Our ranges

- Hexagon nuts, self-locking nuts
- Square nuts, wing nuts
- Hexagon weld nuts
- Insert nuts, knurled nuts
- Eye nuts, hexagon cap nuts
- and many more

Our ranges

- Washers, lock washers
- Spring washers, spring lock washers
- Shim rings, tooth lock washers
- Serrated lock washers
- Sealing rings
- and many more

Pins, rivets and wedges



Other fasteners



Extensive range of pins, rivets and wedges for many different applications.

Wide range of other C-parts – from threaded rods to hose clips.

Our ranges

- Blind rivets, expanding blind rivets
- Round head rivets, blind rivet nuts
- Mandrels, pins
- Mandrel holders
- Countersunk head rivets
- and many more

Our ranges

- lacksquare Threaded rods, cylinder rods
- Lock rings, adjusting rings
- Turnbuckle nuts, spring pins
- Spring cotters, conical grease nipples
- Hose clips
- and many more

HELICOIL®

Thread inserts



Thread inserts for high load-bearing resilient joints in metal materials with low shear strength.

Your benefits at a glance

- High thread loading
- Adds quality and value
- Wear-resistant, low and constant thread friction
- Highly resilient
- Corrosion temperature-resistant

KOBSERT®

Thread bushes

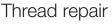


Thread inserts for creating vibration-resistant and torsion-proof nut threads in metal materials with low shear strength.

Your benefits at a glance

- Highly resilient and wear-resistant
- Vibration-resistant and torsion-proof
- Suitable for thread repair
- Sealing (version with sealing ring)

HELICOIL® Kits





 $\ensuremath{\mathsf{HELICOIL^{@}}}$ Plus thread inserts are the fast way to repair damaged threads.

HELICOIL®

Self-locking nuts



Highly durable, reliable joining of steels, aluminium and plastics.

Typical applications

- Oil drain threads
- Spark plug threads
- Lambda probe threads
- Wheel bearing threads
- Injector screw threads

- Consistent clamping torque even when reused
- Consistent load and stress distribution
- High thermal stability
- Constant thread friction
- Reduced residual dirt

SEAL LOCK®Sealing nuts



Sealing from gaseous and liquid media subject to high pressure.

KAPTI NUT®

Insert nuts



High-strength, captive joints for thin steel, aluminium and stainless steel sheets.

Your benefits at a glance

- One-piece element
- Double sealing action
- High preload force
- Up to 5 repeat fastenings
- Thermal stability from -40°C to 110°C

Your benefits at a glance

- Captive threaded element
- High mechanical strength
- Can be used on both sides
- Inserts in one action

IMTEC® Moulded inserts



AMTEC®Thread inserts



Moulded inserts especially for thermoset and thermoplastic materials as well as CFRP composites.

High-strength brass thread inserts for plastic parts.

Your benefits at a glance

- Maximises usable thread length
- Corrosion and acid resistance
- Greater technical cleanliness (minimises residual dirt)
- High pull-out force
- Weight reduction of the component

- Shorter injection cycles
- Lower manufacturing costs for plastic parts
- Secure, stress-free anchoring
- High pull-out and torsion values
- Infinitely repeatable screw fastening unlike self-forming screws

RIVKLE®

Blind rivet nuts and screws



Blind rivet nuts and screws for securing load-bearing nut and bolt threads to thin-walled components.

RIVQUICK®

Blind rivets



Strong and high-strength, non-detachable joints for metal and plastic components.

Your benefits at a glance

- Load-bearing thread on thin-walled components
- Assembly with access from only one side (blind assembly)
- Flexible use in every stage of production
- No thermal stress to workpiece consequently no warping

Your benefits at a glance

- For joining thin-walled components
- No thermal stress to workpiece consequently no warping
- Also suitable for coated components
- Wide range of materials for the fastening element (aluminium, steel, stainless steel, etc.)
- Fast, low-emission

RIVKLE® Kit

Repair solution for thin-walled components

Example: Range with setting tool for manual riveting.

Example: Contents of each kit

- 50 blind rivet nuts M 6
- 25 blind rivet nuts M 8
- 25 blind rivet nuts M 10
- RIVKLE® M2007 setting tool
- 1 mandrel and 1 nozzle for each size



RIVSET®

Self-pierce rivets



Highly durable, reliable joining of steels, aluminium and plastics.

RIVTAC®

Tacks



High-speed tack for joining mixed, multilayer and hybrid joints.

Your benefits at a glance

- High-strength
- Suitable for visual inspection
- Reproducible
- No pre-drilling
- Watertight and airtight

Your benefits at a glance

- Join without pre-punching with access from one side only
- Joining and cycle times reduced to a minimum
- Perfect joining of high-strength materials
- Can be optimally combined with adhesion technology

RIVQUICK® Kit

Repair solution for thin-walled components

Example: Assortment with setting tool for manual riveting.

Example: Contents of each kit

- BRS 02 setting tool
- A variety of blind rivets made of aluminium with steel mandrel
- 4 nozzles
- 2 drills



QUICKLOC®

Quick-release fasteners



Clamping, turning and pressure fasteners for repeatedly releasable joints.

FAST TURN

Quick-release fasteners



Fastening elements for repeatedly releasable joints.

Your benefits at a glance

- Quick subassembly installation without tools
- Open clockwise and counter-clockwise
- Easy locking by turning or axial pressure
- Resistant to dirt

Your benefits at a glance

- Opens and closes quickly
- Easy installation
- Easy operation
- Perfect solution for large-scale production

ONSERT®

Adhesive fasteners



Fast and reliable adhesive bonding of various functional elements using a base made of transparent plastic with light-curing adhesive.

- Full mechanical load capacity immediately after irradiation
- Short curing times (< 4 seconds)
- Fastening elements cannot be seen in plastics or thin-walled components (design)
- Adhere to a wide range of materials
- Flexible use, even after surface treatments (painting/cathodic lectrodeposition coating)

RIVKLE® Elastic Blind rivet nuts



Blind rivet nuts for vibration and noise-decoupling.

SNAPLOC®

Decoupling plug-in connections



Fasteners and fastening systems for absorbing vibration and noise.

Your benefits at a glance

- Resilient thread body on thin-walled components
- Vibration and noise-decoupling
- Thermal and electrical isolation
- Easy installation

Your benefits at a glance

- Quick and easy assembly/disassembly
- Vibration and noise-decoupling
- Tolerance compensation in centre distances
- Wide range of fastening options
- Easy integration

FLEXITOL®

Tolerance compensation systems



A cost-effective technical solution for the stepless compensation of tolerances.

- High functional reliability
- $\hfill \blacksquare$ Access required from one side only
- Easily integrated into a wide range of applications
- High end product quality
- Quick and easy assembly
- Prevents warping during assembly

NORD-LOCK®

Screw locking



NORD-LOCK® wedge-locking washers are locking elements that comply with DIN 25 201 and which lock the threaded connection by preload force instead of friction.

Your benefits at a glance

- Optimal locking solution under strong vibrations and dynamic loads
- Locking effect even under low preload
- Suitable for applications up to screw strength class 12.9
- Suitable for multiple reuse without losing effectiveness
- Reliable locking element for rail and construction

Chemical thread locking



Chemical thread retention is an alternative to anaerobic adhesives. The coatings can be adhesive, locking and sealing.

Your benefits at a glance

- Good, reliable locking and clamping effect
- Simple, safe assembly
- Effective seal
- No change in component geometry
- Removable

RIPP LOCK®

Screw locking



During assembly of the fastener, the radial ribs of the RIPP LOCK® fasteners press into the respective mating surface. The resulting form fit reliably prevents self-loosening of the joint.

- Reliable anti-rotation lock
- Suitable for applications up to screw strength class 12.9
- Also suitable for sensitive surfaces
- Suitable for multiple reuse
- High corrosion and heat resistance

HELICOIL® Screwlock

Thread inserts with screw locking function



These thread inserts also have an additional screw-locking section. The clamping torques are comparable with those specified in ISO 2320.

HELICOIL®

Locknuts



Highly durable, reliable joining of steels, aluminium and plastics.

Your benefits at a glance

- High thread loading
- Integrated screw locking function
- Corrosion-resistant and temperature-resistant
- Different versions for varying requirements
- Highly resilient and wear-resistant

Your benefits at a glance

- Consistent clamping torque even when reused
- Uniform load and stress distribution
- High thermal stability
- Constant thread friction
- Reduced residual dirt

U-NutLocknuts



U-Nut nuts secure bolted connections effectively and efficiently, even under high vibration and dynamic loads and under low preload.

Fine U-Nut

Locknuts



Fine U-Nuts reliably secure shaft bearings, gears and other machine parts against loosening. This is achieved by a plate spring integrated in the nut.

Your benefits at a glance

- High security against loosening of the connection
- No additional safety element necessary
- Good re-screwability
- High material and variant width
- Ready standard assortment

- High security against loosening of the connection
- Easy mounting
- Constant assembly parameters
- No additional safety element necessary
- No keyway milling necessary

EJOT DELTA PT®

Self-tapping fasteners for plastics



These are thread-forming/thread-rolling screws for easy and secure self-tapping fastening in thermoplastic materials.

Your benefits at a glance

- Highly resilient self-tapping fastening in plastics
- High fatigue strength
- Reliable thanks to high tensile, torsional and vibration resistance
- Minimal radial stress
- Wide range of tightening speeds available

EJOT ALtracs® Plus

Self tapping fastener for lite alloys



Direct screwing without additional thread cutting process and securely and durably connect components. This is the principle of the EJOT ALtracs® Plus. The elimination of the previous insertion of a standard thread saves additional tool costs and time.

Your benefits at a glance

- Low loss of preload under high dynamic and thermal pollution
- Very good vibration resistance without additional safety elements
- High mounting safety due to low grooving torques
- Multiple repeat screwing possible

AMTEC®

Self-tapping fasteners for plastics



AMTEC® screws are thread-forming fasteners which are suitable for the direct screw fastening of thermoplastic components.

QUICK FLOW®

Self-tapping fasteners for thin sheets



QUICK FLOW® screws are ideal for joining particularly thin sheets and components.

Your benefits at a glance

- Highly resilient self-tapping fastening in plastics
- High pull-out forces
- Reliable screw fastening
- Releasable and reusable
- Special solutions available on request

- No predrilling or punching of material required
- No guide thread required
- Elevated overtorque values ensure good process reliability during assembly
- Repeated loosening and tightening possible
- Secure, long-lasting fastening

SEALING PLUG

Plug seals



The plug seals are made of two all-metal components. They are used to permanently seal holes in pneumatic and hydraulic components.

Your benefits at a glance

- Easy installation
- Reliable and efficient
- Operating pressures up to 500 bar
- Complies with RoHs
- Wide range of items

PARRYPLUG®

Tamper-resistant elements





PARRYPLUG® is a locking element for internal drives to prevent tampering with thread connections by unauthorised staff.

- Easy and convenient to install
- Perfectly tight fit provides maximum protection against tampering
- Can be removed with appropriate tool
- Wide temperature range (-50°C to +200°C)
- Customised colouring available

Custom-made parts made of metal and special materials

We offer you the best solution for your application from both a technical and economic point of view while taking into account requirements regarding material, manufacturing processes and surface finishes. For us at Böllhoff, providing advice is as important as meeting customer requirements quickly and reliably. We offer support right from the design stage, through the creation of prototypes, to serial production.



- Fasteners in all dimensions, lengths and diameters
- In all batch sizes from 1 to over 1,000,000 units
- Individually assembled, labelled and packaged on request
- Including inspection certificates
- Maximum quality













TEPRO® and ELASTEC®

Custom-made engineering parts and assemblies made of plastics, silicones and elastomers

Solutions for virtually any application.

We are the perfect partner for customised solutions to meet high demands. We develop and manufacture these products for the automotive, aerospace and many other industries.

- Focus on individual customer benefits
- Customised products
- In-house development, design and prototype manufacture
- State-of-the-art tool making









Your benefits at a glance

- Automatic reversal when insertion depth is reached
- Infinitely variable: Speed/torque
- Compatible with existing tool systems (exchange unit)
- Ease of use
- Ergonomic design and compact size
- Quiet operation



Your benefits at a glance

- Increased concentricity
- Infinitely variable stop clutch
- Ease of use
- Low maintenance
 - QUICKSERT® is part of the AMTEC® product group.



Your benefits at a glance

- Ergonomic two-component housing: secure grip and non-slip
- Tailored lamp geometry ensures optimal curing
- USB connection for process monitoring
- 3-position pushbutton for fast and reliable positioning

We can also supply the appropriate assembly solutions for our fasteners. You can find a selection of our processing systems here.



RIVKLE® P2007 pneumatic setting tool

For the fast, force-monitored processing of blind rivet nuts and studs.

Your benefits at a glance

- Just one force setting for different component thicknesses
- Long service life due to optimal force setting
- Multiple riveting possible
- Extra light (2 kg)
- Pressure setting method
- Flexible and versatile

RIVQUICK® P2000 hydraulicpneumatic setting tool

For quick processing of blind rivets.

- Reliable
- Lightweight and ergonomic
- Long service life
- Compact design





Fully automated system with RIVTAC® Automation P process monitoring

For innovative tack-setting at high speed.

Your benefits at a glance

- Maximum flexibility in production planning
- Modular design allows flexible positioning
- Quick and easy maintenance
- Compact setting tool for optimum access to application point
- Quick response times





PASS series with RIVCLINCH® 4006 P50 PASS hydraulic drive and compressed air booster

For surface-friendly joining without a fastener.

- Powerful all-purpose clinch machine
- Joins the most common material combinations up to a total thickness of 4 mm
- "Passive Approach Stroke System" for secure and lightweight tool positioning
- High process speed for series of high quality clinch joints
- Quick and easy maintenance
- Highly reliable









Electric-hydraulic RIVSET® Automation EH self-pierce technology

For efficient processing of semi-tubular self-pierce rivets.

Your benefits at a glance

- Long service life with maximum availability
- Minimal maintenance costs
- Modular and extensive machine models
- Machine configuration via Plug&Play
- Remote access to control software
- Fast and powerful CPU



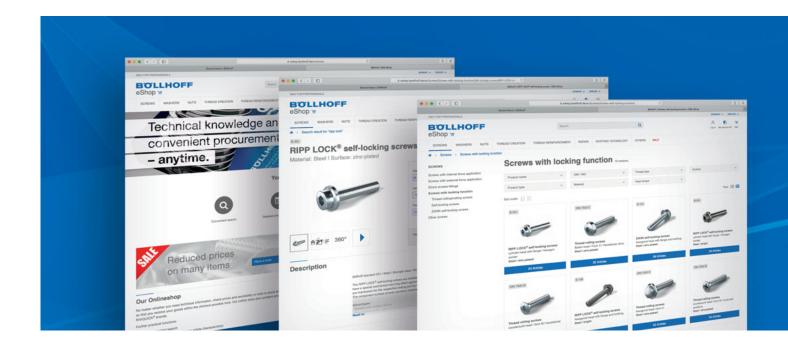




Pressure-regulated, path-monitored tool with integrated RIVKLE® EPK C quality control

For process-monitored setting of RIVKLE® blind rivet nuts and studs.

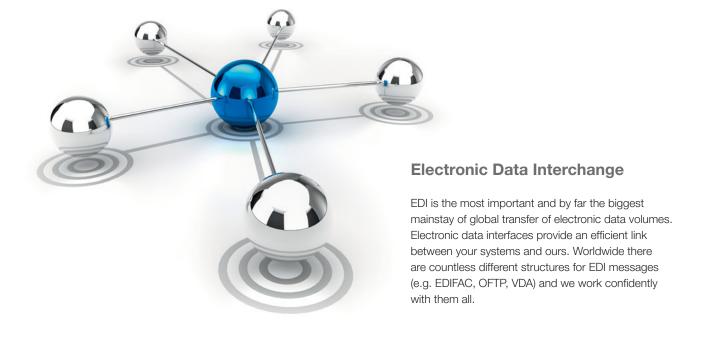
- 100% process control
- Pressure-regulated tool
- Suitable for large production series
- Multilingual touchscreen
- Adjustable alarm and safety devices

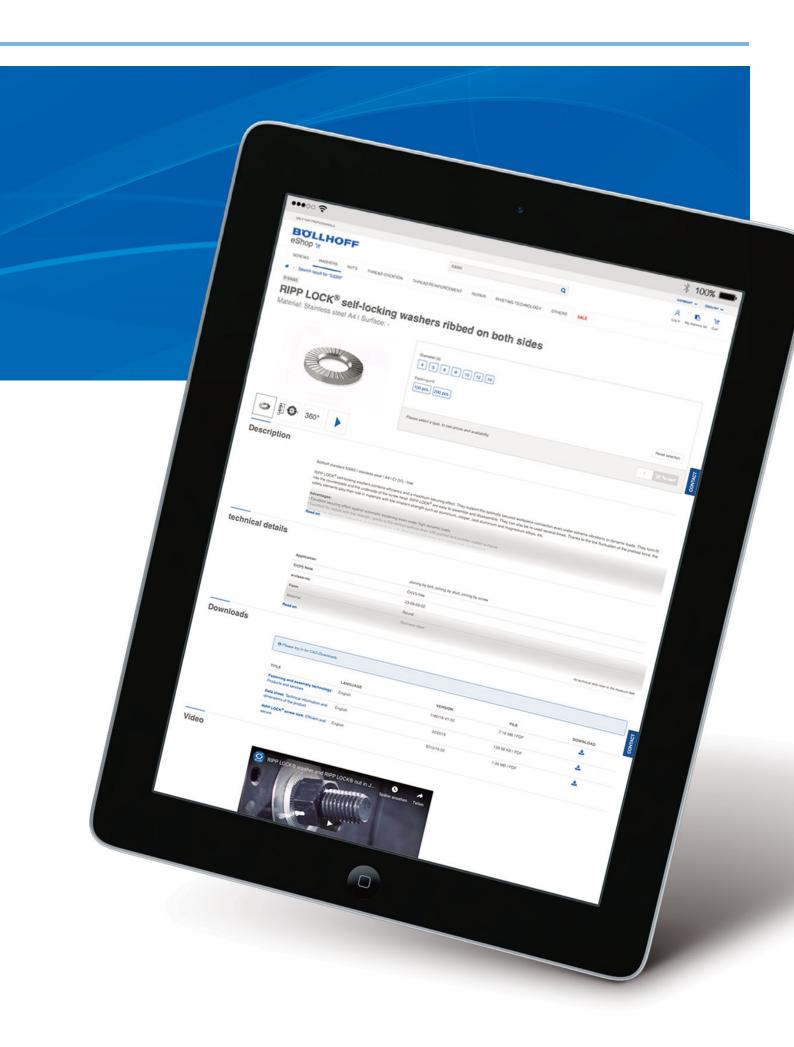


eShop – Technical knowledge and convenient procurement – for every time.

Our eShop offers over 40,000 DIN and standard fasteners, as well as HELICOIL® thread inserts and RIVKLE® blind rivet nuts. The eShop features all the functionalities of a modern shop system. It also offers everything you would expect of a web-based technical manual for fasteners. There are a variety of options for the technically-minded user – product illustrations, technical specifications, interactive 3D visualisations and CAD downloads.

- A good overview of our extensive Product range
- detailed technical information, incl. product videos and data sheets
- Product illustrations and technical drawings
- Up-to-date information on prices and availabilities
- A comfortable ordering process all around the clock





ECOPACK – Economic packaging









One-stop shop for products and packaging

In addition to provision of fastenings to meet your needs, we are also an expert partner for bagging solutions. We will discuss your packaging requirements face to face to discover the perfect technical and most economical solution.

Our range of services

Our range of services includes automatic packing by computer-controlled packaging machines and customer-specific packaging solutions.

Bag packaging labelling

- Printing with
 - logos
 - barcodes
 - information
 - by thermal transfer
- Labelling of bags and cardboard boxes
- Package slip dispenser up to DIN A4

Continuous quality control

- Inspection by light barrier
- Final weight checking using check weighers
- Random sampling
- Inspection by camera





ECOSIT® (ECOnomic Supply In Time)

With our ECOSIT® service package we take over the complete supply chain of our customers: from disposition, procurement, quality control and warehousing until the goods are distributed to the assembly line. The ECOSIT® product family in overview:

RFID Box

All the relevant data is stored on RFID labels. As soon as stocks start getting low, the label is simply thrown into the RFID Box. The order is triggered and the procurement process begins. The 15" touchscreen also allows access to the central database, the control of electronic shelf displays and quick help via the video hotline.

ECOBin

The small load carriers of the ECOBin container series can be placed freely on the shelf thanks to the multi-sided access possibilities. The all-round rounded inner edges of the containers additionally facilitate the removal of the articles. Thanks to the special waffle base, the containers can also be stacked safely and stably in a composite stack.

ECOLABEL

ECOLABEL allows flexible marking of all articles in the ECOSIT® system and accelerates the processes on site via pick-by-signal. If an article is to be picked, an optical signal on the ECOLABEL guides the worker directly to the respective container – for faster location of the articles and fewer mistakes.

ECOPORTAL

In ECOPORTAL you always have an overview of the most important data concerning your delivery system. Whether you want to call up master data, view the shelf occupancy plan or download further documents: ECOPORTAL is your fast and flexible access to all relevant information. Comprehensive reporting provides you with numerous approaches to increase the efficiency of the system - for more transparency and independence.

ECOFREIGHT

Mobile pallets with integrated load securing allow a comfortable transport of the loaded ECOBin containers.

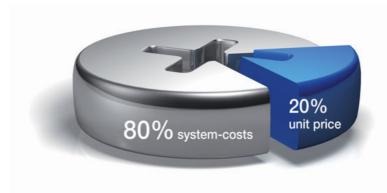
Due to the combination of pallet, handle and trailer coupling, no lift truck is necessary. The absence of wood, paper and cardboard also protects the environment – for more sustainability in logistics.

- Easy and fast shelving and technology installation
- Systematic, clear storage
- Reduction of warehouse and contingency stocks
- High security of supply
- Express deliveries during demand peaks
- Online order process control
- Video hotline



Potential savings

The cost efficiency of joints does not depend as much on the price of the fastener as it does on the costs for preparation and assembly of the parts to be joined. The main cost drivers in the process are: design, procurement, quality control, logistics, storage, assembly and commitment of capital.



Compared to this, the unit price of the fastener, at 20%, is relatively low.

The future manufacturing costs of a product are, to a large extent, determined at the design stage of a new development. The general rule is: the earlier the fastening technology specialists are brought in, the better.

Our range of services

Our priority is always to improve customer products while cutting the costs of production.

We offer the following services:

- Design and engineering of fasteners
- Design and supply of customised special articles
- Application engineering tests in a certified laboratory
- In-house prototyping
- Standardisation of fasteners
- Optimisation of product lines
- Specialist publications about fastening technology
- Customer seminars



Technical analyses

With our accredited laboratory we offer comprehensive support for the customer's design departments:

- Preload force measurements
- Material analysis
- Insertion tests
- Tensile tests

- Friction steel measurements
- Compression behaviour
- Corrosion protection tests
- Dynamic strength testing

We also produce our own prototypes for custom-made fasteners as part of our range of application technology services.







Cr6+-free fasteners

We have chosen a range (VZD) in the field of galvanised zinc surfaces which ensures corrosion protection equivalent to a sophisticated surface in accordance with DIN ISO 4042 = A3C. The corrosion resistance in the salt spray test is greater than 72 hours at zinc corrosion resistance and a minimum of 144 hours until the base metal corrodes. The appearance is iridescent silver. We have many DIN and standard fasteners from the VZD range available from stock.

Antiseize coating

Screwed joints in which both the screw and nut, as well as the clamping parts, are made of stainless steel materials are prone to so-called galling or seizing. The antiseize coating effectively prevents cold welding. Currently DIN 934 nuts and DIN 985 self-locking nuts in A2 are available as standard with the antiseize coating. Other nuts, as well as screws, can be supplied at any time on request.





Quality guaranteed

Fulfilling the quality specifications of our customers – high as they may be – has always been particularly important to us.

Böllhoff has always been among those companies which see customer-specific requirements as a challenge and have always been certified to the latest specifications in quality and environmental management. Our customers benefit directly from the resulting continuous improvements.

Accredited laboratory and certification

Continuous improventing to DIN EN ISO/IE

Continuous improventing to DIN EN ISO/IE

Customer satisfaction

Continuous improventing to DIN EN ISO/IE

Continu

Böllhoff was among the first companies to be successfully certified to ISO/TS 16949 – the world's highest standard for the automotive industry.

Böllhoff has its own accredited test laboratory certified to DIN EN ISO / IEC 17025 and the company is certified to DIN EN ISO 14001, further proof of our strong commitment to quality and the environment. These certifications attest to the highly competent testing of our products and our environmentally conscious actions that protect resources.



Specialist publications

In our daily dealings with a wide range of fasteners we frequently encounter "out-of-the-ordinary" questions from customers and interested parties. The answers can be found in the seventh edition of "The Manual of Fastening Technology",

grouped as follows:

- Selecting and calculating a screwed joint
- Standards
- Materials
- Manufacture
- Threads
- Assembly
- Self-tapping fasteners
- Fastener retention
- Corrosion protection

Products and markets develop at great speed. Increasing competition and new laws present manufacturers with the challenge of developing alternative technical solutions. We regularly inform our customers about the latest technical developments – in the field of fastener technology, corrosion protection or screw locking, for example. Our specialist publications "The Manual of Fastening Technology", Böllhoff Bulletin and Böllhoff News are longestablished and valued reference works in the market.





Böllhoff Academy

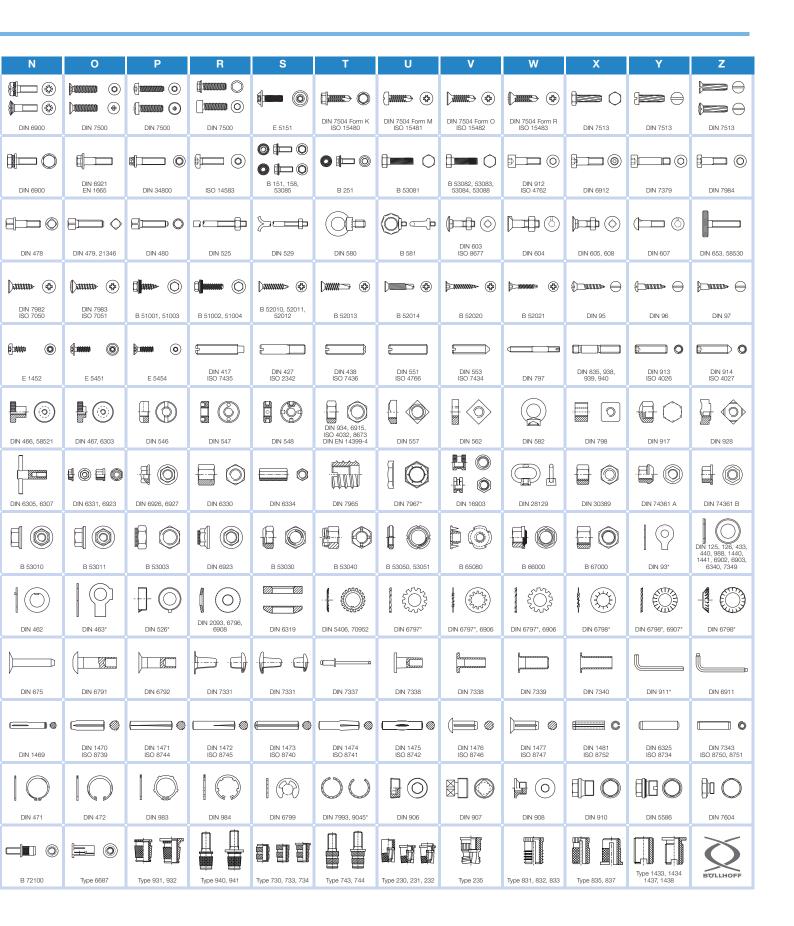
The aim of our Academy programme is to help our customers make their fastening and assembly technology as efficient as possible and to constantly produce reliable joints. The courses we offer are geared towards people in both technical and business roles and include technical seminars on fastening and assembly technology, hardness tests in our accredited laboratory, joining technology for plant operators and all aspects of screwing technology for sales staff.

Overview of our product range

	Α	В	С	D	E	F	G	Н	T I	K	L	M
1					otag							
	DIN 84 ISO 1207	DIN 85 ISO 1580	DIN 404	DIN 920	DIN 921	DIN 922	DIN 923	DIN 924, 925	DIN 963 ISO 2009	DIN 964 ISO 2010	DIN 965 ISO 7046	DIN 966 ISO 7047
2												
	DIN 7516	DIN 7516	DIN 7516	DIN 7985 ISO 7045	DIN 558, 933, 961 ISO 4017, 4018, 8676	DIN 561	DIN 564	DIN 609, 610*, 7968	DIN 601, 931, 960, 6914, DIN EN 14399-4, ISO 4014, 4016, 8765	DIN 7990	DIN 7964	DIN 6900
3										}		
	DIN 7991 ISO 10642	B 52100	ISO 7380-1	ISO 7380-2	ISO 7380-2 (TX)	B 50500	DIN 186, 261, 7992, 25192	DIN 188	DIN 316	B 316	DIN 444	DIN 464, 58531
4		₽									{ mm> &	
	DIN 6304, 6306	DIN 6367	DIN 6378	DIN 7969	DIN 11014, 25195	DIN 15237	DIN 25193	DIN 6901	DIN 6901 ISO 10510	DIN 7976 ISO 1479	DIN 7981 ISO 7049	ISO 14585
5	#####		{ &	Tillion &	[<i>{**********</i>	E	(+11111111	drawa &	€	Danna &
	DIN 571	DIN 7995	DIN 7996	DIN 7997	B 7505	B 7505	B 52004	B 52005	B 52006	E 1411	E 1412	E 1413
6	• •											
	DIN 915 ISO 4028	DIN 916 ISO 4029	DIN 926	DIN 927	DIN 976	DIN 2509	DIN 2510	DIN 2510	DIN 315	B 315	DIN 431, 80705	DIN 439, 936* ISO 4035, 8675
7												
	DIN 929	DIN 935	DIN 979	DIN 980, 982, 985, 6924, 6925	DIN 981, 1804, 70851, 70852	DIN 986	DIN 1478	DIN 1479	DIN 1480	DIN 1587	DIN 1816	DIN 2510, 30387
8							O					
	DIN 80701	DIN 80704	B 193, 196, 53012	B 317, 318	B 466	B 467	B 50400	B 51010	B 51011	B 51012	B 53001	B 53002
9							90		1 6			
	ISO 7089, 7091, 7092, 7094, 8738, 10669, 10673	DIN 7989, 9021 ISO 7093 B 1052, 9022	DIN EN 14399-6 DIN 125, 6916 ISO 7090	DIN 7603	DIN 127*, 7980*	DIN 128*, 6905*	DIN 74361 C	DIN 137*, 6904*	DIN 432	DIN 434, 435, 6917, 6918	DIN 436	DIN 440 ISO 7094
10												
	DIN 6913*	B 53060	B 53061	B 53062	B 53065	B 53070	B 53072	B 53077	DIN 124, 660	DIN 302, 661	DIN 662	DIN 674
11		€ ⊕	• • • • • • • • • • • • • • • • • • •									
	B 50502	B 51020, 51021	B 51022	DIN 1 ISO 2339	DIN 7 ISO 2338	DIN 94 ISO 1234	DIN 11024	DIN 258, 7977 ISO 8737	DIN 1433, 1443 ISO 2340	DIN 1434, 1435 ISO 2341	DIN 1436, 1444 ISO 2341	DIN 1445
12		E										
	DIN 7344 ISO 8748	DIN 7346 ISO 13337	DIN 7978 ISO 8736	DIN 7979 ISO 8733, 8735	DIN 6881	DIN 6883, 6886	DIN 6884, 6887	DIN 6885	DIN 6886	DIN 6888	DIN 6889	DIN 705*
13												
	DIN 442	DIN 443	DIN 470	DIN 3017	DIN 71412	DIN 8140, B 610004, 620004	B 610005, 620005	B 70100, 70101, 70102, 70300	B 70200, 70201, 70202, 70400	B 70500	B 71100, 71101	B 71200, 71300, 71301

*Note: Norm is withdrawn

BOLLHOFF



A list of keywords, with the corresponding assignment via the coordinate system, can be found on the following pages.

Overview of our product range

Description	DIN/ISO/B/Type Coord	unates	Description	DIN/ISO/B/Type Coor	ainates	Description	DIN/ISO/B/Type Co	
A	DUI		Countersunk head wood screws with cross	DIN 7007	D. F.	Hexagon couplings	DIN 6334	S
Adjusting screws for drawing instruments	DIN 58530	Z 3	recess H	DIN 7997	D 5	Hexagon domed cap nuts, high type	DIN 1587	K:
AMTEC® screws for plastic materials	D 50005		Cross recessed raised countersunk head	DIN 700E	D.F	Hexagon domed cap nuts, low type	DIN 917	
countersunk head, cross recess Z	B 52005	H 5	wood screws Cup head nib bolts	DIN 7995 DIN 607	B 5 Y 3	Hexagon domed cap nuts, self locking	DIN 986 DIN 7968	F: H:
AMTEC® screws for plastic materials raised	D 50004	0.5	Cutter retaining screws	DIN 6367	B 4	Hexagon fitted bolts for steel constructions		H 2
countersunk head, cross recess Z	B 52004	G 5	Cylindrical pins	DIN 7 / ISO 2338	E 11	Hexagon fited bolts with short and long thread Hexagon flange bolts	DIN 6921 / EN 1665	
AMTEC® screws for plastic materials raised	B 52006	15	Cylinuncai pins	DIN / / IOU 2000	E 11	Hexagon flange nuts	DIN 6923	0.7
countersunk head, with washer, cross recess Z AMTEC® screws, cross recess Z,	Б 32000	10	D			Hexagon head pipe plugs	DIN 7604	Z 12
countersunk head	B 52005	H 5	Disc springs	DIN 2093	R 9	Hexagon head screws for steel constructions		K 2
AMTEC® screws, cross recess Z,	D 32003	11.0	Double end studs with full shank	DIN 2509	F 6	Hexagon head screws with partial fine thread		12
raised countersunk head	B 52004	G 5	Double end studs with reduced shank,	DII 1 2000		Hexagon head screws with partial thread	DIN 601, 931/ISO 40	
AMTEC® screws, cross recess Z,	2 02001		type KU and ZU	DIN 2510	H 6	, , , , , , , , , , , , , , , , , , , ,	4016	12
raised countersunk head with washer	B 52006	15	Double end studs with reduced shank,			Hexagon head screws, fully threaded	DIN 558, 933/ISO 40	017,
AMTEC® thread inserts, EXPANSIONSERT 1	Type 230, 231, 232	U 13	type L, K, and Z	DIN 2510	G 6		4018	E2
AMTEC® thread inserts, EXPANSIONSERT 2	Type 235	V 13	Dowel pins with internal thread	DIN 7979/ISO 8733,		Hexagon head screws, fully threaded,		
AMTEC® thread inserts, HITSERT®,				8735	D 12	metric fine thread	DIN 961 / ISO 8676	E 2
through hole	Type 932	P 13	Dry wall screws Self-drilling tapping			Hexagon head tapping screws	DIN 7976 / ISO 1479	
AMTEC® thread inserts, HITSERT®,			screws thread, cross recess H	B 52021	W 4	Hexagon head wood screws	DIN 571	Α :
with bolt and flange	Type 940, 941	R 13	Dry wall screws, cross recess H	B 52020	V 4	Hexagon locking screws with flange		
AMTEC® thread inserts, HITSERT®,						and toothing	B 53085	S
with flange, through hole	Type 931	P 13	E			Hexagon nuts	DIN 934/ISO 4032,	
AMTEC® thread inserts, QUICKSERT® Hex, wi			EJOT® ALtracs® Plus-screw, TORX,				8673	T
flange and hexagon shape, reverse locking	Type 1437, 1438	Y 13	with pressed washer	E 5151	S 1	Hexagon nuts for high strength constructions		_
AMTEC® thread inserts, SONICSERT®,			EJOT® ALtracs® Plus-screw				DIN EN 14399-4	T
through hole	Type 730, 733	S 13	for light metal materials	E 5151	S 1	Hexagon nuts for high strength constructions		_
AMTEC® thread inserts, SONICSERT®,	T 742 T	-	EJOT®-Delta PT-screws, TORX,			Howard auto with firms	DIN EN 14399-4	T
with bolt and flange	Type 743, 744	T 13	countersunk head	E 5454	P 5	Hexagon nuts with flange and teathing	DIN 6926, 6927	P
AMTEC® thread inserts, SONICSERT®,	T 70 1	0.40	EJOT®-Delta PT-screws, TORX,			Hexagon nuts with flange and toothing	B 53012	C
with flange, through hole	Type 734	S 13	with pressed washer	E 5451	0 5	Hexagon nuts with flange, self-locking,	R 52021	R
AMTEC® thread inserts, SPREDSERT® 1	Type 831, 832, 833	W 13	EJOT®-PT-screws, cross recess H,	E 1410		all-metal	B 53021 B 51010	H 8
AMTEC® thread inserts, SPREDSERT®,	Tuno 005 007	V 40	countersunk head	E 1413	M 5	Hexagon set nuts Hexagon set screws with full dog point	DIN 561	H &
with retaining flange	Type 835, 837	X 13	EJOT®-PT-screws, cross recess H, pan head	E 1412	L 5	Hexagon set screws with full dog point Hexagon set screws with half dog point,	ו טכ אווע	Γ2
В			EJOT®-PT-screws, cross recess H,	E 1/11	V.F	cone end	DIN 564	G 2
Blind rivet nuts RIVKLE®, countersunk head			raised countersunk head with washer EJOT®-PT-screws, cross recess H.	E 1411	K 5	Hexagon socket head cap screws	DIN 912 / ISO 4762	
				Г 1 411	V E	Hexagon socket head cap screws low head	DIN 312 / 100 4702	VV 2
round body, linear knurls in grip range,	D 70000 70001		with pressed washer	E 1411	K 5 P 5	with pilot recess	DIN 6912	X 2
open and closed end, steel, stainless steel, aluminium	B 70200, 70201,	140	EJOT®-PT-screws, TORX, countersunk head	E 5454	N 5	Hexagon socket head cap screws with	DIN 0312	Α.
Blind rivet nuts RIVKLE®, extra-small	70202, 70400	I 13	EJOT®-PT-screws, TORX, pan head EJOT®-PT-screws, TORX, raised countersunk	E 1452	СИ	low head	DIN 7984	Z
countersunk head hexagonal body, open end,	R 71200 71200		head with washer	E 5451	0 5	Hexagon socket head shoulder screws	ISO 7379	Y 2
stainless steel, steel	71301	M 13	Elevator Bolts	DIN 15237	F 4	Hexagon socket screw plugs conical thread	DIN 906	U 12
Blind rivet nuts RIVKLE®, extra-small	71301	W 13	Eye bolts	DIN 444	L 3	Hexagon socket screw plugs with collar and	5.11 000	0.12
countersunk head, countersinking round body			Lyc bolts	DIN TTT	LU	ventilation	DIN 5586	Y 12
open end, stainless steel, steel	B 71100, 71101	L 13	F			Hexagon socket screw plugs with collar		
Blind rivet nuts RIVKLE®, flat head, full	271100,71101	2.0	Fine U-Nut self-locking nuts material nuts			cylindrical pipe thread	DIN 910	X 12
hexagonal body,open and closed end,			(1.0503), material insert: stainless steal			Hexagon socket screw plugs with collar		
stainless steel, steel	B 70500	K 13	metric fine thread	B 53050, 53051	U 8	cylindrical thread	DIN 908	W 12
Blind rivet nuts RIVKLE®, flat head, round			Fixing washers, spring steel	B 53062	D 10	Hexagon socket set screws with cone point	DIN 914/ISO 4027	Z 5
body, linear knurls in grip range, opened and	B 70100, 70101,		Flange button head socket screws with			Hexagon socket set screws with cup point	DIN 916/ISO 4029	В 6
closed end, steel, stainless steel, aluminium	70102, 70300	H 13	hexalobular drive	LFS (TX)	E 3	Hexagon socket set screws with dog point	DIN 915/ISO 4028	Α 6
Blind rivet nuts RIVKLE®, slotted round body,			Flange button hexagon head socket screws	LFS	D 3	Hexagon socket set screws with flat point	DIN 913/ISO 4026	Y
open end, steel	Type 6687	0 13	Flat countersunk head bolts with two nibs	DIN 11014	E 4	Hexagon thin nuts	DIN 439, 936/	
Blind rivet studs RIVKLE®, flat head knurled			Flat countersunk rivets	DIN 675	N 10		ISO 4035, 8675	M 6
round body, steel	B 72100	N 13	Flat countersunk square neck bolts,			Hexagon weld nuts	DIN 929	A 7
Blind rivets head shape A and B	DIN 7337	T 10	long square	DIN 605, 608	X 3	Hexalobular external driving head screws	DIN 34800	P 2
Bow nuts for Shipbuilding	DIN 80704	B 8	Foundation bolts	DIN 797	W 5	Hollow keys, one-piece	DIN 7339	W 10
Butterfly nuts for shipbuilding	DIN 80701	A 8	Foundation nuts	DIN 798	X 6	Hollow keys, two-parts, type A	DIN 7331	R 10
Buttonhead wood screws with cross recess	DIN 7996	C 5	Fujilok self-locking nuts material nuts	B 53030	S 8	Hollow keys, two-parts, type B	DIN 7331	S 10
_						Hook bolt Hose clamps	DIN 6378	C 4
C			G			nose ciamps	DIN 3017	D 1
Cage nuts	B 51012	K 8	Gib-head keys	DIN 6887	G 12	1		
Cap nuts	DIN 2510	G 6	Gib-head saddle keys	DIN 6889	L 12	Insert nuts for plastic moulding	DIN 16903	V
Castle nuts	DIN 935	B 7	Grooved pins	DIN 1474 / ISO 8741	T 11	Internal tab washers	DIN 16903 DIN 462	N S
Castle nuts hexagon, slotted thin type	DIN 979	C 7	Grooved pins countersunk head	DIN 1477 / ISO 8747	W 11	mornal ad washers	DIN TOL	IV S
Chipboard screws countersunk head cross recess Z	B 7505	E 5	Grooved pins with gorge	DIN 1469	N 11	К		
Chipboard screws, countersunk head,	D 1000	LJ	Grooved pins with round head Grooved pins, centre grooved	DIN 1476 / ISO 8746 DIN 1475 / ISO 8742	V 11 U 11	Knurled nuts	DIN 6303	0 6
cross recess Z	B 7505, 7510	E 5	Grooved pins, centre grooved Grooved pins, full length parallel grooved	147J/10U014Z	011	Knurled nuts for drawing instruments	DIN 58521	N 6
Chipboard screws, pan head, cross recess Z		F 5	with chamfer	DIN 1473 / ISO 8740	S 11	Knurled thumb nuts, high type	DIN 466	N 6
Chipboard screws, pair riead, cross recess 2.	_ 1000, 1010	1 3	Grooved pins, full length parallel grooved	DIN 1713 / 100 0/40	3 11	Knurled thumb nuts, high type, type F,		
cross recess Z	B 7505, 7510	F5	with chamfer and pilot	DIN 1470 / ISO 8739	0 11	polyamide	B 466	E 8
Clamping screws for drawing instruments	DIN 58531	M 3	Grooved pins, half-length taper grooved	DIN 1470 / ISO 8739 DIN 1472 / ISO 8745	R 11	Knurled thumb nuts, thin type	DIN 467	0.6
Clevis pins with head and threaded portion	DIN 1445	M 11	Grooved tapper pins	DIN 1472 / ISO 8744	P 11	Knurled thumb nuts, thin type, type F,		
Clevis pins with large head	DIN 1436,		Table of building			polyamide	B 467	F8
,	1444/ISO 2341	L 11	н			Knurled thumb screws, high type	DIN 464	М 3
Clevis pins with small head, type M and MG	DIN 1434, 1435	K 11	Hardened dowel pins	DIN 6325 / ISO 8734	Y 11	Knurled thumb screws, thin type	DIN 653	Z 3
Clevis pins without head	DIN 1433,		Heaxagon socket screws security-screws					
	1443/ISO 2340	111	with dog point similar ISO 7380	B 50500	F3	L		
Coating 3M, Scotch Grip 2353	B 53084	V 2	HELICOIL® Plus, thread inserts for metals	DIN 8140	F 13	Lifting eye bolts	DIN 580	T 31
Coating Plas-Bolt	B 53081	U 2	HELICOIL® Plus, type free running,			Lifting eye bolts, high quality tempered,		
Coating Precote 30 / 80	B 53082, 53083	V 2	thread inserts for metals	B 610004	F 13	octagonal	B 581	U :
Coating Precote 85	B 53088	V 2	HELICOIL® Plus, type screwlock,			Lifting eye nuts	DIN 582	W
Conical spring washers for screw joints	DIN 6796, 6908	R 9	thread inserts for metals	B 620004/10	F 13	Lifting nuts	DIN 28129	W
	DIN 907	V 12	HELICOIL® Tangfree, type free running,			Locking washers polyamide	B 53061	C 10
Core plugs			thread inserts for metals	B 610005	G 13	Locking washers type S	B 53070	F 10
Core plugs Countersunk flat head screws with	DINLOGE CIGO	L1	HELICOIL® Tangfree, type screwlock,			Locknuts	B 53001, 53002,	L 8
Core plugs Countersunk flat head screws with cross recess H	DIN 965 / ISO 7046	100.0		B 620005	G 13		53030 / DIN 980,	M 8
Core plugs Countersunk flat head screws with cross recess H Countersunk flat head screws with nib	DIN 604	W 3	thread inserts for metals					S 8/D
Core plugs Countersunk flat head screws with cross recess H Countersunk flat head screws with nib Countersunk head rivets		W 3 K 10	HELICOIL® lock nuts	B 67000	X 8		982, 985	
Core plugs Countersunk flat head screws with cross recess H Countersunk flat head screws with nib Countersunk head rivets Countersunk head screws with forged slot	DIN 604 DIN 302, 661	K 10	HELICOIL® lock nuts Hex head bolts with reduced shank	B 67000 DIN 7964	L 2	Locknuts basis DIN 934 all metal	982, 985 B 53001	
Core plugs Countersunk flat head screws with cross recess H Countersunk flat head screws with nib Countersunk head rivets Countersunk head screws with forged slot for steel structures	DIN 604 DIN 302, 661 DIN 7969	K 10	HELICOIL® lock nuts Hex head bolts with reduced shank Hexagon and castle nuts with knuckle thread	B 67000 DIN 7964 DIN 30389		Locknuts basis DIN 934 all metal,	B 53001	L
Core plugs Countersunk flat head screws with cross recess H Countersunk flat head screws with nib Countersunk head rivets Countersunk head screws with forged slot for steel structures Countersunk head screws with hexagon drive	DIN 604 DIN 302, 661 DIN 7969	K 10	HELICOIL® lock nuts Hex head bolts with reduced shank Hexagon and castle nuts with knuckle thread Hexagon bolts for high-tensile	B 67000 DIN 7964 DIN 30389 DIN 6914/	L 2 X 7	Locknuts basis DIN 934 all metal, provided with thread on both sides	B 53001 B 53002	L 8
Core plugs Countersunk flat head screws with cross recess H Countersunk flat head screws with nib Countersunk head rivets	DIN 604 DIN 302, 661 DIN 7969	K 10	HELICOIL® lock nuts Hex head bolts with reduced shank Hexagon and castle nuts with knuckle thread	B 67000 DIN 7964 DIN 30389	L 2	Locknuts basis DIN 934 all metal,	B 53001	M 8 P 8 E 13

Mushroom head anchor bolts Mushroom head screws, with square neck Mushroom head square neck bolts N NORD-LOCK® — Locking washers Nuts with captive washer with undetachable, loose washer Nuts with flat collar, type B Nuts with spherical collar, type B Nuts with spherical collar, type B Pan head screws with hexalobular drive Parallel keys Parallel keys, type A Parallel keys, type B Pipe nuts Pipe nuts Pipe nuts Pipe nuts Pipe nuts with flat head, type A Plain washers medium finish for clevis pins Plain washers tolerance according to DIN ISO 4759.3 class C Plain washers, class 200 HV Plain washers, class 200 HV Plain washers, class 200 HV and 300 HV Plain washers, class 200 HV and 300 HV Plain washers, class 200 HV and 300 HV Plain prevailing torque type hexagon locknuts, all metal Prevailing torque type hexagon locknuts, all metal DIN Prevailing torque type hexagon nuts with nylon insert, high and low type R Raised countersunk head rivets Raised countersunk head rivets Raised countersunk head rivets Raised countersunk head rivets Raised countersunk head crews, cross recess H DIN Raised countersunk head rivets Raised countersunk	7340 X 11 1440, 1441 Z 10 1022 B 11 125, 126 Z 17 17093 B 17 17089 A 17
Mushroom head anchor bolts Mushroom head screws, with square neck Mushroom head square neck bolts N NORD-LOCK® — Locking washers Nuts with captive washer with undetachable, loose washer Nuts with captive washer with undetachable, loose washer Nuts with spherical collar, type B Nuts with spherical collar, type B Nuts with spherical collar, type B Pan head screws with hexalobular drive Parallel keys Parallel keys Parallel keys, type A Parallel keys, type A Parallel keys, type B Pipe nuts Pipe nuts Pipe nuts Pipe nuts with flat head, type A Plain washers medium finish for clevis pins Plain washers tolerance according to DIN ISO 4759.3 class C Plain washers, class 200 HV Plain washers, class 200 HV Plain washers, class 200 HV and 300 HV Plain washers, class 200 HV and 300 HV Plain washers, class 200 HV and 300 HV Plain prevailing torque type hexagon locknuts, all metal Prevailing torque type hexagon locknuts, all metal Prevailing torque type hexagon nuts with nylon insert, high and low type R Raised countersunk head rivets Raised countersunk head crews, cross recess H DIN Raised countersunk head rivets Raised countersunk head rivets	25193 G 603 / ISO 8677 V 603 / ISO 8677 V 3074 H 10 3010 N 3010 N 74361 Z 74361 Y 14583 R 6886 I 11 6886 I 11 6886 F 11 431 L 1440, 1441 Z 122 B 125, 126 Z 7093 B 17089 A 171 A 180 8603 / ISO 8678 A 171 A 180 180 180 180 180 180 180 180 180 180
Mushroom head square neck bolts N NORD-LOCK® — Locking washers Nuts with captive washer with undetachable, loose washer Nuts with flat collar, type B Nuts with spherical collar, type A DIN Nuts with spherical collar, type A DIN P Pan head screws with hexalobular drive Parallel keys Parallel keys, type A Parallel keys, type B Pipe nuts Pipe nuts with flat head, type A Plain washers medium finish for clevis pins Pipe nuts with flat head, type A Plain washers medium finish for clevis pins Pipe nuts with flat head, type A Plain washers remail medium finish for clevis pins Pipian washers, class 200 HV Pilain washers by pilain washers with head screws, cross recess H Pilain washers with washers Pilain washers washers washers Pilain washers for shafts type I Pilain washers washers washers washers Pilain washers washers washers washers Pilain washers washers washers Pilain washers washers washers Pilain washers washers washers washers Pilain washers washers washers washers Pilain washers washers washers Pilain washers washer	603 / ISO 8677 V: 8074 H 10 8010 N; 74361 Z 74361 Y 14583 R; 6886 I1; 6886 I1; 6886 F1; 431 L 431 L 1440, 1441 Z; 1222 B; 125, 126 Z, 7093 B; 7089 A; 71 A;
NORD-LOCK® — Locking washers Nuts with captive washer with undetachable, loose washer Nuts with captive washer with undetachable, loose washer Nuts with flat collar, type B DIN Nuts with spherical collar, type B DIN Peranlel keys Parallel keys Parallel keys Parallel keys, type A Parallel keys, type A Parallel keys, type B Pilen washers medium finish for clevis pins Pipe nuts Pipe nut	3074 H 11 3010 N 3 74361 Z 7 74361 Y 1 14583 R 1 6883 F 11 6886 I 11 6886 F 11 1440, 1441 Z 1 122 B 3 125, 126 Z 7 7093 B 3 7089 A 4
NORD-LOCK® — Locking washers Nuts with captive washer with undetachable, loose washer Nuts with flat collar, type B Nuts with flat collar, type B Nuts with spherical collar, type A DIN PP Pan head screws with hexalobular drive Parallel keys Parallel keys Parallel keys, type A Parallel keys, type A Parallel keys, type B Pipe nuts DIN Pipe nuts Pipe nuts with flat head, type A DIN Pipe nuts with flat head, type A Plain washers tolerance according to DIN ISO 4759.3 class C Plain washers, class 140 HV DIN Plain washers, class 140 HV Plastic caps, black, only for DIN 571 Prevailing torque type hexagon locknuts Prevailing torque type hexagon locknuts, all metal Prevailing torque type hexagon locknuts, all metal Prevailing torque type hexagon nuts with nylon insert, high and low type R Raised countersunk flat head screws, cross recess H Raised countersunk head rivets Raised countersunk head screws with hexagon socket head Raised countersunk head screws with hexagon socket head Raised countersunk head, cross recess H Reinforcement window screw, countersunk head, drilling bit, metric thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, betric thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, betric thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, betric thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, betric thread, cro	3010 N3 74361 Z 74361 Y 14583 R 6883 F1 6886 I1 6886 F1 431 L 17340 X 11 1440, 1441 Z 1022 B3 125, 126 Z 7093 B3 7089 A4 71 A3
Nuts with captive washer with undetachable, loose washer Nuts with flat collar, type B DIN Nuts with spherical collar, type A DIN Nuts with spherical collar, type A DIN PP Pan head screws with hexalobular drive ISO Parallel keys DIN Parallel keys, type A DIN Parallel keys, type B DIN Parallel keys, type B DIN Pipe nuts with flat head, type A DIN Piah washers medium finish for clevis pins DIN Piah washers medium finish for clevis pins DIN Piah washers, class 140 HV DIN ISO 4759.3 class C B 99 Piah washers, class 140 HV DIN Piah washers, class 200 HV DIN Piah washers, class 200 HV DIN Piah washers, class 200 HV DIN STO Prevailing torque type hexagon locknuts, all metal DIN Raised countersunk head screws, cross recess H DIN Raised countersunk head screws with hexagon socket head SIO Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5. Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5. Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5. Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5. Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5. Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cr	3010 N3 74361 Z 74361 Y 14583 R 6883 F1 6886 I1 6886 F1 431 L 17340 X 11 1440, 1441 Z 1022 B3 125, 126 Z 7093 B3 7089 A4 71 A3
loose washer Nuts with flat collar, type B Nuts with spherical collar, type A DIN Nuts with spherical collar, type A DIN P Parallel keys Parallel keys Parallel keys, type A Parallel keys, type B Pipe nuts P	74361 Z 74361 Y 14583 R 6883 F 1: 6886 I 1: 6886 F 1: 431 L 1440, 1441 Z 1222 B 125, 126 Z 7093 B 7089 A 71 A 11 A 11 A
P Pan head screws with hexalobular drive Parallel keys Parallel keys, type A Parallel keys, type A Parallel keys, type B Pipe nuts Pipe	74361 Y 14583 R 6883 F 6886 I 431 L 7340 X 1440, 1441 Z 122 B 125, 126 Z 7093 B 7089 A 71 A
Pan head screws with hexalobular drive Parallel keys Parallel keys, type A Parallel keys, type A Parallel keys, type B Parallel keys, type B Parallel keys, type B Parallel keys, type B Pipe nuts P	14583 R: 6883 F1: 6886 I1: 6886 F1: 431 L: 7340 X: 1440, 1441 Z: 122 B: 125, 126 Z: 7093 B: 7089 A: 71 A:
Pan head screws with hexalobular drive Parallel keys Parallel keys Parallel keys, type A Parallel keys, type A Parallel keys, type B Pipe nuts Pipe nuts with flat head, type A DiN Pipe nuts with flat head flat DiN prevailing torque type hexagon locknuts Prevailing torque type hexagon locknuts, all metal DiN Prevailing torque type hexagon locknuts, all metal DiN Prevailing torque type hexagon nuts with nylon insert, high and low type DiN R Raised countersunk head screws, cross recess H DiN Raised countersunk head screws with hexagon socket head Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, beat in the screen bit in the scale pile LOCK® lock washers DiN Retaining rings for shafts type I DiN Retaining rings for shafts type I DiN Retaining rings for shafts type I DiN Retaining rings for shafts spring steel DiN Retaining rings for shafts spring steel DiN Round nuts with set pin holes DiN Round nuts with set pin holes in side RiPP LOCK® locking washers ripped on both sides RiPP LOCK® lock nuts Bit Rives for brake and clutch lining	6883 F1 6886 I1 6886 F1 431 L 7340 X1 1440, 1441 Z 022 B 125, 126 Z 7093 B 7089 A
Parallel keys Parallel keys, type A Parallel keys, type A Parallel keys, type B Pipe nuts Pipe nuts Pipe nuts with flat head, type A Pilain washers tolerance according to DIN ISO 4759.3 class C Pilain washers tolerance according to DIN ISO 4759.3 class C Pilain washers, class 140 HV Pilain washers, class 140 HV Pilain washers, class 200 HV Pilain washers in control in	6883 F1 6886 I1 6886 F1 431 L 7340 X1 1440, 1441 Z 022 B 125, 126 Z 7093 B 7089 A
Parallel keys, type A Parallel keys, type B Parallel keys, type B Parallel keys, type B Pipe nuts Pipe nuts with flat head, type A Plain washers medium finish for clevis pins Plain washers tolerance according to DIN ISO 4759.3 class C Plain washers, class 140 HV Plain washers, class 200 HV Prevailing torque type hexagon locknuts Prevailing torque type hexagon locknuts, all metal Prevailing torque type hexagon locknuts, all metal Prevailing torque type hexagon nuts with nylon insert, high and low type R Raised cheese head screws, cross recess H DIN Raised countersunk head rivets Raised countersunk head screws with hexagon socket head Iso Reinforcement window screw, countersunk head, cross recess H Beinforcement window screw, countersunk head, cross recess H Beinforcement window screw, countersunk head, drilling bit, metric thread, cross recess H Beinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Beinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Beitalning rings for shafts Retaining rings for shafts type I Retaining rings for shafts t	6886 I1 6886 F1 431 L 7340 X1 1440, 1441 Z 022 B 125, 126 Z 7093 B 7089 A 71 A
Parallel keys, Type B Pipe nuts Pipe nuts Pipe nuts with flat head, type A DIN Plain washers medium finish for clevis pins Plain washers tolerance according to DIN ISO 4759.3 class C Plain washers, class 100 HV Plain washers, class 200 HV and 300 HV Plain washers, class 200 HV and 300 HV Plain washers, class 200 HV and 300 HV Prevailing torque type hexagon locknuts all metal Prevailing torque type hexagon locknuts, all metal DIN Prevailing torque type hexagon nuts with nylon insert, high and low type R Raised countersunk flat head screws, cross recess H DIN Raised countersunk head rivets Raised countersunk head screws with hexagon socket head Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, countersunk head, drilling bit, metric thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reitaining rings for shafts type I Retaining rings for shafts type I R	6886 F1 431 L 7340 X1 1440, 1441 Z 122 B 125, 126 Z 7093 B 7089 A 71 A
Pipe nuts with flat head, type A Plain washers medium finish for clevis pins DIN Plain washers tolerance according to DIN ISO 4759.3 class C Plain washers, class 140 HV Plain washers, class 120 HV Plain washers, class 120 HV Plain washers, class 200 HV Plastic caps, black, only for DIN 571 Prevailing torque type hexagon locknuts Prevailing torque type hexagon locknuts, all metal DIN Prevailing torque type hexagon nuts with nylon insert, high and low type DIN R Raised cheese head screws, cross recess H DIN Raised countersunk flat head screws, cross recess H Raised countersunk head rivets Raised countersunk head screws with hexagon socket head Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, countersunk head, drilling bit, metric thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, Hill-o-thread, cross recess H Reinforcement window screw, countersunk head, Hil-o-thread, cross recess H Reinforcement window screw, countersunk head, Hill-o-thread, cross recess H Reinforcement window screw, countersunk head, Hill-o-thread, cross recess H Retaining rings for bores DIN Retaining rings for shafts type I Retaining rings for shafts type I DIN Retaining rings for shafts type I DIN Retaining rings for shafts type A DIN Retaining rings for shafts type I DIN Retaining rings for sh	7340 X1 1440, 1441 Z 2022 B 125, 126 Z 7093 B 7089 A 71 A
Plain washers medium finish for clevis pins Plain washers tolerance according to DIN ISO 4759.3 class C Plain washers, class 140 HV Plain washers, class 200 HV Prevailing torque type hexagon locknuts Prevailing torque type hexagon nuts with nylon insert, high and low type R Raised cheese head screws, cross recess H DIN Raised countersunk flat head screws, cross recess H Raised countersunk head rivets Raised countersunk head screws with hexagon socket head Iso Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, countersunk head, drilling bit, metric thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, the pring screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, foross recess H Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, countersunk head, by the pring screw thread, cross recess H Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, countersunk head, by the pring screw thread, cross recess H Reinforcement window screw, countersunk head, by the pring screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, metric thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, metric thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, metric thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, metric thread, cross recess H Reinforcement window screw, countersunk head, dr	1440, 1441 Z 2022 B 125, 126 Z 7093 B 7089 A 71 A
Plain washers tolerance according to DIN ISO 4759.3 class C B 9 Plain washers, class 140 HV DIN Plain washers, class 140 HV ISO Plain washers, class 200 HV and 300 HV ISO Plastic caps, black, only for DIN 571 B 5 Prevailling torque type hexagon locknuts all metal DIN Prevailling torque type hexagon locknuts, all metal DIN Prevailling torque type hexagon locknuts, all metal DIN Prevailling torque type hexagon locknuts, all metal DIN Prevailling torque type hexagon nuts with nylon insert, high and low type DIN R Raised countersunk flat head screws, cross recess H DIN Raised countersunk head rivets DIN Raised countersunk head rivets DIN Raised countersunk head countersunk head countersunk head, cross recess H DIN Raised Countersunk head, cross recess H DIN Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5 Plain Forcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5 Plain Forcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5 Plain Forcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5 Plain Forcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5 Plain Forcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5 Plain Forcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5 Plain Forcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5 Plain Forcement window screw, countersunk head, drilling bit, tapping screw bit internal hexagon socket B 5 Plain Forcement window screw, countersunk head, drilling bit, tapping screw bit internal hexagon socket B 5 Plain Forcement window screw, countersunk head, drilling bit, tappin	D22 B 125, 126 Z 7093 B 7089 A 71 A
DIN ISO 4759.3 class C B 9 Plain washers, class 140 HV DIN Plain washers, class 200 HV SISO Plain washers, class 200 HV SISO Plain washers, class 200 HV and 300 HV SISO Plain washers, class 200 HV and 300 HV SISO Plain washers, class 200 HV and 300 HV SISO Plain washers, class 200 HV and 300 HV SISO Plain washers, class 200 HV and 300 HV SISO Plain washers, class 200 HV and 300 HV SISO Prevailing torque type hexagon locknuts all metal DIN Prevailing torque type hexagon locknuts, all metal DIN Prevailing torque type hexagon nuts with nylon insert, high and low type DIN Reliased countersunk flat head screws, cross recess H DIN Raised countersunk head crews, with hexagon socket head ISO Reinforcement window screw, countersunk head, cross recess H B 5: Reinforcement window screw, countersunk head, cross recess H B 6: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 6: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screws thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screws hit hitemal head, drill	125, 126 Z 7093 B 7089 A 71 A
Plain washers, class 200 HV Plastic caps, black, only for DIN 571 Prevailing torque type hexagon locknuts Prevailing torque type hexagon locknuts, all metal DIN Prevailing torque type hexagon nuts with nylon insert, high and low type R Raised cheese head screws, cross recess H DIN Raised countersunk flat head screws, cross recess H Raised countersunk head rivets Raised countersunk head rivets Raised countersunk head screws with hexagon socket head Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, special point, countersunk head, cross recess H Reinforcement window screw, countersunk head, drilling bit, metric thread, cross recess H Reinforcement window screw, countersunk head, thilo-thread, cross recess H Reinforcement window screw, countersunk head, Hilo-thread, cross recess H Reinforcement window screw, countersunk head, Hilo-thread, cross recess H Retaining rings for shafts DIN Retaining rings for shafts DIN Retaining rings for shafts type I Retaining rings for shafts type I Retaining rings for shafts type I Retaining rings for shafts spring steel RIPP LOCK® lock washers RIPP LOCK® lock washers RIPP LOCK® locking screws with internal hexagon socket RIPP LOCK® lock nuts RIPP LOCK® lock n	7093 B 7089 A 71 A
Plain washers, class 200 HV and 300 HV ISO Plastic caps, black, only for DIN 571 B 5 Prevailing torque type hexagon locknuts Prevailing torque type hexagon locknuts, all metal DIN Prevailing torque type hexagon nuts with nylon insert, high and low type DIN Reaised countersunk flat head screws, cross recess H DIN Raised countersunk head rivets DIN Raised countersunk head rivets DIN Raised countersunk head rivets DIN Raised countersunk head screws with hexagon socket head IsO Reinforcement window screw, countersunk head, cross recess H B 5: Reinforcement window screw, countersunk head, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Retaining rings for shafts type I DIN Retaining rings for shafts type I DIN Retaining rings for shafts type I DIN Retaining washers for bores DIN Round nuts with set pin holes in one face DIN Round nuts with set pin holes in side DIN Round nuts with set pin holes in side DIN Round washers type V = square hole for wood construction DIN Round washers type V = square hole for wood construction DIN Round washers type V = square hole for wood construction DIN Round washers type V = square hole for wood construction DIN Round washers type V = square hole for wood construction DIN Round washers type V = square hole for wood construction DIN Round washers type V = square hole for wood construction DIN Round washers type V = square hole for wood construction DIN Round	7089 A 71 A
Plastic caps, black, only for DIN 571 Prevailing torque type hexagon locknuts, all metal Prevailing torque type hexagon locknuts, all metal Prevailing torque type hexagon locknuts, all metal Prevailing torque type hexagon nuts with nylon insert, high and low type Baised cheese head screws, cross recess H Raised countersunk flat head screws, cross recess H Raised countersunk head rivets Raised countersunk head rivets Raised countersunk head screws with hexagon socket head Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, special point, countersunk head, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, counter	71 A
Prevailing torque type hexagon locknuts Prevailing torque type hexagon locknuts, all metal I m	
Prevailling torque type hexagon locknuts, all metal DIN Prevailling torque type hexagon nuts with nylon insert, high and low type DIN R Raised cheese head screws, cross recess H DIN Raised countersunk flat head screws, cross recess H DIN Raised countersunk flat head screws, cross recess H DIN Raised countersunk head rivets Paised countersunk head cross recess H BIN Raised countersunk head screws with hexagon socket head ISO Reinforcement window screw, countersunk head, cross recess H BIN Reinforcement window screw, special point, countersunk head, cross recess H BIN Reinforcement window screw, countersunk head, drilling bit, tertic thread, cross recess H BIN Reinforcement window screw, countersunk head, drilling bit, tepping screw thread, cross recess H BIN Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H BIN Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H BIN Retaining rings for shafts type I BIN Retaining rings for shafts bype I BIN Retaining rings for shafts bype I BIN Retaining rings for shafts bype I BIN Retaining rings for shafts type I BIN Retaining rings for shafts spring steel BIN Retaining values of the screws BIN Retaining values BIN Retaining values BIN Retaining values BIN Retaining values BIN Round nuts with set pin holes in one face DIN Round nuts with set pin holes in one face DIN Round nuts with set pin holes in side BIN Round nuts with set pin holes in side BIN Round nuts with set pin holes in side BIN Round nuts with set pin holes in side BIN Round nuts with set pin holes in side BIN Round nuts with set pin holes in side BIN Round nuts with set pin holes in side BIN Round nuts with set pin holes in side BIN Round nuts with set pin holes in side BIN Round nuts with set pin holes in side BIN Round nuts with set pin holes in s	6924, 6925 D
Prevailling torque type hexagon nuts with nylon insert, high and low type R Raised cheese head screws, cross recess H Raised countersunk flat head screws, cross recess H Raised countersunk flat head screws, cross recess H Raised countersunk head rivets Raised countersunk head rivets Raised countersunk head screws with hexagon socket head Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, special point, countersunk head, cross recess H Reinforcement window screw, countersunk head, drilling bit, metric thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screws H Reinforcement window screw, countersunk head, drilling bit, tapping screws head, drilling bit, tapping screw	
R Raised cheese head screws, cross recess H DIN Raised countersunk flat head screws, cross recess H DIN Raised countersunk flat head screws, cross recess H DIN Raised countersunk head rivets Raised countersunk head rivets Raised countersunk head screws with hexagon socket head ISO Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, special point, countersunk head, cross recess H Reinforcement window screw, countersunk head, drilling bit, metric thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H B 5: Retaining rings for shafts DIN Retaining rings for shafts bype I Retaining rings for shafts type I Retaining rings for shafts type I Retaining rings for shafts spring steel RIPP LOCK® hexagon locking screws RIPP LOCK® locking screws with internal hexagon socket RIPP LOCK® locking washers ripped on both sides RIPP LOCK® locking washers ripped on both sides RIPP LOCK® locking washers ripped on both sides RIPP LOCK® lock nuts Rivets for brake and clutch lining Round coupplings Round huts with set pin holes Round nuts with set pin holes in side Round nuts with set pin holes in side Round washers type R = round hole for wood construction Round washers type R = round hole for wood construction Round washers type R = round hole for wood construction Round washers type R = round hole for wood construction Round washers type R = round hole for wood donstruction Round washers type R = round hole for wood donstruction Round washers type R = round hole for wood donstruction Round washers type R = round hole for wood donstruction Round washers type R = round hole for wood donstruction Round washers type R = round hole for wood donstruction Round washers type R = round hole for wood donstruction Round washers type R = round hole for	980 D
Raised cheese head screws, cross recess H Raised countersunk flat head screws, cross recess H Raised countersunk flat head screws, cross recess H Raised countersunk head rivets Raised countersunk head screws with hexagon socket head Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, special point, countersunk head, cross recess H Reinforcement window screw, countersunk head, drilling bit, metric thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Retaining rings for shafts Retaining rings for shafts bybe I Retaining rings for shafts type I Retaining rings	982, 985 D
Raised countersunk flat head screws, cross recess H Raised countersunk head rivets Raised countersunk head screws with hexagon socket head Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, special point, countersunk head, cross recess H Reinforcement window screw, special point, countersunk head, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Retaining rings for shafts by bit setaining screws Retaining rings for shafts spring steel RiPP LOCK® locking screws with internal hexagon socket RiPP LOCK® locking screws with internal hexagon socket RiPP LOCK® locking washers ripped on both sides RiPP LOCK® lock nuts Rivets for brake and clutch lining Round coupplings Round nuts swith drilled holes in one face Round nuts swith set pin holes Round nuts with set pin holes in side Round nuts with set pin holes in side Round washers type V = square hole for wood construction Round washers type V = square hole for wood construction Round washers type V = square hole for wood construction Round washers type V = square hole for wood construction Round washers type V = square hole for wood construction Round washers type V = square hole for wood constructions Round huts with set pin holes in side Round huts with set pi	7985 / ISO 7045 D
Raised countersunk head rivets Raised countersunk head screws with hexagon socket head Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, special point, countersunk head, cross recess H Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, countersunk head, drilling bit, terric thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Reinforcement window screw, co	
Raised countersunk head screws with hexagon socket head Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, special point, countersunk head, cross recess H Reinforcement window screw, special point, countersunk head, cross recess H Reinforcement window screw, countersunk head, drilling bit, metric thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Retaining rings for shafts type I Retaining rings for shafts type I DIN Retaining rings for shafts type I DIN Retaining rings for shafts type I DIN Retaining rings for shafts type I Retaining rings for shafts spring steel RIPP LOCK® hexagon locking screws RIPP LOCK® locking screws with internal hexagon socket RIPP LOCK® locking washers ripped on both sides RIPP LOCK® locking washers ripped on both sides RIPP LOCK® lock nuts RIPP LOCK® lock nuts Rivets for brake and clutch lining Round coupplings Round huts with set pin holes Round nuts with set pin holes in side Round nuts with set pin holes in side Round nuts with set pin holes in side Round washers type V = square hole for wood construction Round washers type R = round hole for wood construction Round washers type R = round hole for wood construction Round washers type R = round hole for wood construction Round washers type R = round hole for wood construction Round washers type R = round hole for wood construction Round washers type R = round hole for wood construction Round washers type R = round hole for wood construction Round washers type R = round hole for wood construction Round washers type R = round hole for wood construction Round washers type R = round hole for wood construction Round washers type R = round hole for wood construction Round washers type R = round hole for wood construction Round washers type R = round hole for wood c	966 / ISO 7047 M
Reinforcement window screw, countersunk head, cross recess H Reinforcement window screw, special point, selinforcement window screw, special point, countersunk head, cross recess H Reinforcement window screw, countersunk head, drilling bit, metric thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, Hillo-thread, cross recess H Reinforcement window screw, countersunk head, Hillo-thread, cross recess H Reinforcement window screw, countersunk head, Hillo-thread, cross recess H Reinforcement window screw, countersunk head, Hillo-thread, cross recess H Reinforcement window screw, countersunk head, Hillo-thread, cross recess H Reinforcement window screw, countersunk head, Hillo-thread, cross recess H Retaining rings for shafts type I Retaining rings for shafts type I DIN Retaining rings for shafts type I DIN Retaining rings for shafts type I DIN Retaining mashers for shafts spring steel DIN Retaining washers ripped on both sides B 5: RIPP LOCK® lock washers B 19: RIPP LOCK® locking screws with internal hexagon socket B 19: RIPP LOCK® locking screws with internal hexagon socket B 19: RIPP LOCK® lock nuts B 19: Rivets for brake and clutch lining DIN Round coupplings B 5: Round nuts with drilled holes in one face DIN Round nuts with set pin holes DIN Round nuts with set pin holes in side DIN Round washers type V = square hole for wood construction Round washers type V = square hole for wood constructions Round washers type V = square hole for wood constructions Round washers type V = square hole for wood constructions Round washers type V = square hole for wood constructions Round washers type V = square hole for wood constructions Round washer assemblies DIN Round washer assem	
Reinforcement window screw, special point, countersunk head, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, metric thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H B 5: Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H B 5: Retaining rings for sbafts DIN Retaining rings for shafts DIN Retaining rings for shafts type I B 5: RIPP LOCK® locking screws with internal hexagon socket B 5: RIPP LOCK® locking washers ripped on both sides B 5: RIPP LOCK® locking washers ripped on both sides B 5: RIPP LOCK® lock nuts B 1: Rivets for brake and clutch lining DIN Round coupplings B 5: Round head rivets DIN Round nuts sidtted for hook spanners DIN Round nuts with set pin holes in one face Round nuts with set pin holes in side Round washers type R = round hole for wood construction DIN Round washers type R = round hole for wood construction DIN Round ended feather keys DIN Screw and washer assemblies DIN Screw and washer assemblies DIN Screwdriver bits S 5: 510. Screwdriver bits with hexalobular drive B 5: 510.	7380 C
countersunk head, cross recess H	2010 S
drilling bit, metric thread, cross recess H Reinforcement window screw, countersunk head, drilling bit, tapping screw thread, cross recess H Reinforcement window screw, countersunk head, Hillo-thread, cross recess H Reinforcement window screw, countersunk head, Hillo-thread, cross recess H Reinforcement window screw, countersunk head, Hillo-thread, cross recess H Reinforcement window screw, countersunk head, Hillo-thread, cross recess H Reinforcement window screw, countersunk head, Hillo-thread, cross recess H Retaining rings for bores DIN Retaining rings for shafts DIN Retaining rings for shafts type A Retaining rings for shafts type I DIN Retaining rings for shafts type I DIN Retaining rings for shafts spring steel RIPP LOCK® hexagon locking screws RIPP LOCK® locking screws with internal hexagon socket RIPP LOCK® locking screws with internal hexagon socket RIPP LOCK® locking washers ripped on both sides RIPP LOCK® lock nuts RiPP LOCK® loc	2011 S
cross recess H Reinforcement window screw, countersunk head, Hi-lo-thread, cross recess H Bed, Hi-lo-thread, cross recess H Retaining rings for bores DIN Retaining rings for shafts DIN Retaining rings for shafts type A Retaining rings for shafts type I Retaining rings for shafts type I Retaining washers for shafts spring steel DIN Retaining washers for shafts spring steel RIPP LOCK® hexagon locking screws B 1: RIPP LOCK® lock washers RIPP LOCK® lock washers RIPP LOCK® lock washers RIPP LOCK® locking screws with internal hexagon socket B 2: RIPP LOCK® lock nuts RIPP LOCK® lock nuts Rivets for brake and clutch lining DIN Round coupplings Round head rivets DIN Round nuts with set pin holes in one face Round nuts with set pin holes in side Round nuts with set pin holes in side Round washers type R = round hole for wood construction Round washers type R = round hole for wood construction Round washers type V = square hole for wood construction Round-ended feather keys DIN S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits B 5 Screwdriver bits with hexalobular drive B 5 SI SCrewadriver bits with hexalobular drive B 5 SI SCREWATIVE DIN	2014 U
Reinforcement window screw, countersunk head, H-Io-thread, cross recess H B 5. Retaining rings for bores DIN Retaining rings for shafts DIN Retaining rings for shafts bype I Retaining rings for shafts type I Retaining rings for shafts type I Retaining shafts spring steel DIN Retaining shafts spring steel DIN Retaining shafts spring steel DIN RIPP LOCK® hexagon locking screws B 1: RIPP LOCK® locking screws with internal hexagon socket RIPP LOCK® locking screws with internal hexagon socket RIPP LOCK® locking washers ripped on both sides RIPP LOCK® lock nuts B 5: RIPP LOCK® lock nuts DIN Round coupplings B 5: Round head rivets Round nuts slotted for hook spanners Round nuts with drilled holes in one face DIN Round nuts with set pin holes DIN Round nuts with set pin holes in side Round washers type R = round hole for wood construction Round washers type V = square hole for wood construction Round-ended feather keys DIN S Safety cup DIN Screw and washer assemblies DIN Screw and washer assemblies DIN Screwdriver bits B 5 510 Screwdriver bits with hexalobular drive	
head, Hi-lo-thread, cross recess H Retaining rings for bores Retaining rings for shafts Retaining rings for shafts Petaining rings for shafts type A Retaining rings for shafts type I Retaining rings for shafts type I Retaining rings for shafts type I Retaining washers for shafts spring steel RIPP LOCK® hockmassers RIPP LOCK® lock washers B 5: RIPP LOCK® locking screws with internal hexagon socket RIPP LOCK® locking washers ripped on both sides B 6: RIPP LOCK® lock nuts RIPP LOCK® lock nuts B 1: Rivets for brake and clutch lining DIN Round cupplings Round cupplings Round nuts slotted for hook spanners Round nuts with drilled holes in one face Round nuts with drilled holes in one face Round nuts with set pin holes DIN Round nuts with set pin holes DIN Round nuts with set pin holes in side DIN Round washers type R = round hole for wood construction DIN Round ended feather keys DIN S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits with hexalobular drive B 5: SCrewdriver bits with hexalobular drive	2013 T
Retaining rings for bores Retaining rings for shafts DIN Retaining rings for shafts type A Retaining rings for shafts type I Retaining rings for shafts type I Retaining washers for shafts spring steel Retaining washers for shafts spring steel RIPP LOCK® lock washers RIPP LOCK® lock washers RIPP LOCK® locking screws with internal hexagon socket RIPP LOCK® locking washers ripped on both sides B 5: RIPP LOCK® lock nuts Rivets for brake and clutch lining DIN Round coupplings B 5: Round nuts with drilled holes in one face DIN Round nuts with set pin holes DIN Round nuts with set pin holes in side Round washers type R = round hole for wood construction Round washers type R = round hole for wood constructions Round washers type V = square hole for wood constructions Round-ended feather keys S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits with hexalobular drive B 5: Screwdriver bits with hexalobular drive DIN Screwariver bits with hexalobular drive DIN Screwariver bits with hexalobular drive DIN Screwariver bits with hexalobular drive B 5: DIN Screwariver bits with hexalobular drive B 5: DIN Screwariver bits with hexalobular drive DIN Screwariver bits with hexalobular drive	2012 S
Retaining rings for shafts DIN Retaining rings for shafts type A DIN Retaining rings for shafts type I Retaining washers for shafts spring steel RIPP LOCK® hexagon locking screws B 1: RIPP LOCK® locking screws with internal hexagon socket RIPP LOCK® locking washers ripped on both sides RIPP LOCK® lock nuts B 5: RIPP LOCK® lock nuts B 19: Rivets for brake and clutch lining DIN Round coupplings B 5: Round head rivets DIN Round nuts slotted for hook spanners DIN Round nuts with drilled holes in one face DIN Round nuts with set pin holes DIN Round nuts with set pin holes in side Round washers type R = round hole for wood construction Round washers type R = round hole for wood constructions Round washers type V = square hole for wood constructions Round-ended feather keys DIN S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits B 5 SICSCREWdriver bits with hexalobular drive DIN Screw and washer with hexalobular drive B 5 SICSCREWAIT A DIN DIN SCREWAIT A DIN SCREWAIT A DIN D	
Retaining rings for shafts type A Retaining rings for shafts type I Retaining rings for shafts type I Retaining washers for shafts spring steel IRIPP LOCK® hexagon locking screws IRIPP LOCK® lock washers IRIPP LOCK® locking screws with internal hexagon socket RIPP LOCK® locking washers ripped on both sides IRIPP LOCK® lock nuts	983 P 1
Retaining washers for shafts spring steel RIPP LOCK® hexagon locking screws RIPP LOCK® lock washers RIPP LOCK® lock washers RIPP LOCK® locking screws with internal hexagon socket RIPP LOCK® locking washers ripped on both sides Rivets for brake and clutch lining Round coupplings Round head rivets DIN Round nuts swith drilled holes in one face Round nuts with set pin holes Round washers type R = round hole for wood construction Round construction Round endres DIN Round washers type R = round hole for wood construction Round muts with drilled holes in one face DIN Round nuts with set pin holes in side DIN Round washers type R = round hole for wood construction Round washers type V = square hole for wood constructions Round-ended feather keys DIN Screw and washer assemblies DIN Screw and washer assemblies DIN Screwdriver bits B 5 510 Screwdriver bits with hexalobular drive	471 N 1
RIPP LOCK® hexagon locking screws RIPP LOCK® lock washers RIPP LOCK® locking screws with internal hexagon socket RIPP LOCK® locking washers ripped on both sides RIPP LOCK® lock nuts RIPP LOCK® lock nuts Rivets for brake and clutch lining Round coupplings Round head rivets Round nuts slotted for hook spanners Round nuts with drilled holes in one face DIN Round nuts with set pin holes DIN Round nuts with set pin holes in side Round washers type R = round hole for wood construction Round washers type V = square hole for wood constructions Round ended feather keys S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits B 5 Screwdriver bits with hexalobular drive B 5 Screwdriver bits with hexalobular drive	472 0 1 :
RIPP LOCK® lock washers RIPP LOCK® locking screws with internal hexagon socket RIPP LOCK® locking washers ripped on both sides RIPP LOCK® locking washers ripped on both sides RIPP LOCK® lock nuts R	6799 S 1 2
RIPP LOCK® locking screws with internal hexagon socket RIPP LOCK® locking washers ripped on both sides B 5: RIPP LOCK® locking washers ripped on both sides B 5: RIPP LOCK® lock nuts B 1: Rivets for brake and clutch lining DIN Round coupplings B 5: Round head rivets DIN Round nuts sidted for hook spanners DIN Round nuts with drilled holes in one face DIN Round nuts with set pin holes in side DIN Round nuts with set pin holes on the for wood construction DIN Round washers type R = round hole for wood construction DIN Round washers type V = square hole for wood constructions DIN Round-ended feather keys DIN S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits with hexalobular drive B 5: Screwdriver bits with hexalobular drive	
hexagon socket B 28 RIPP LOCK* locking washers ripped on both sides RIPP LOCK* lock nuts Rivets for brake and clutch lining B 51 Round coupplings B 51 Round head rivets Bound head rivets DIN Round nuts sibtted for hook spanners DIN Round nuts with drilled holes in one face DIN Round nuts with set pin holes in side Round washers type R = round hole for wood construction Round washers type V = square hole for wood constructions Round-ended feather keys S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits B 5 Screwdriver bits with hexalobular drive B 5 Screwdriver bits with hexalobular drive	3065 E 1
on both sides B 5: RIPP LOCK® lock nuts B 1: Rivets for brake and clutch lining DIIN Round coupplings B 5: Round head rivets DIIN Round nuts slotted for hook spanners Bound nuts sibtted for hook spanners DIN Round nuts with set pin holes in one face DIN Round nuts with set pin holes DIIN Round nuts with set pin holes in side DIIN Round nuts with set pin holes in side DIIN Round washers type R = round hole for wood construction Round washers type V = square hole for wood constructions Round-ended feather keys DIN S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits B 5 Screwdriver bits with hexalobular drive B 5 Screwdriver bits with hexalobular drive	51 T
Rivets for brake and clutch lining Round coupplings B 55 Round head rivets Round nuts slotted for hook spanners Round nuts with drilled holes in one face DIN Round nuts with set pin holes DIN Round nuts with set pin holes in side Round washers type R = round hole for wood construction Round washers type V = square hole for wood constructions Round-ended feather keys DIN S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits B 5 510 Screwdriver bits with hexalobular drive B 5	3065 E 1
Round coupplings Round head rivets Round nuts slotted for hook spanners Round nuts with drilled holes in one face Round nuts with set pin holes Round nuts with set pin holes in side Round nuts with set pin holes in side Round washers type R = round hole for wood construction Round washers type V = square hole for wood constructions Round-ended feather keys BIN S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits B 5 510 Screwdriver bits with hexalobular drive B 5	
Round head rivets DIN Round nuts slotted for hook spanners Round nuts with drilled holes in one face Round nuts with set pin holes Round nuts with set pin holes DIN Round nuts with set pin holes in side Round nuts with set pin holes in side Round washers type R = round hole for wood construction Round washers type V = square hole for wood constructions Round-ended feather keys DIN S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits B 5 Strewdriver bits with hexalobular drive B 5 Screwdriver bits with hexalobular drive	
Round nuts slotted for hook spanners Round nuts with drilled holes in one face DIN Round nuts with set pin holes in side Round washers type R = round hole for wood construction Round washers type V = square hole for wood constructions Round washers type V = square hole for wood constructions Round-ended feather keys DIN S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits B 5 510 Screwdriver bits with hexalobular drive B 5	
Round nuts with drilled holes in one face DIN Round nuts with set pin holes DIN Round nuts with set pin holes in side DIN Round nuts with set pin holes in side Round washers type R = round hole for wood construction DIN Round washers type V = square hole for wood constructions DIN Round-ended feather keys DIN S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits B 5 510 Screwdriver bits with hexalobular drive B 5	124, 660 I 1 70851, 70852 E
Round nuts with set pin holes DIN Round nuts with set pin holes in side DIN Round washers type R = round hole for wood construction DIN Round washers type V = square hole for wood constructions DIN Round-ended feather keys DIN S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits B 5 Screwdriver bits with hexalobular drive B 5	
Round washers type R = round hole for wood construction Round washers type V = square hole for wood constructions Round-ended feather keys S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits B 5 Screwdriver bits with hexalobular drive B 5	1816 L
wood construction DIN Round washers type V = square hole for wood constructions DIN Round-ended feather keys DIN S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits B 5 Strewdriver bits with hexalobular drive B 5	548 S
Round washers type V = square hole for wood constructions DIN Round-ended feather keys DIN S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits B 5 Screwdriver bits with hexalobular drive B 5	
Round-ended feather keys DIN S Safety cup DIN Screw and washer assemblies DIN Screwdriver bits B 5 510 Screwdriver bits with hexalobular drive B 5	440 Z
Safety cup DIN Screw and washer assemblies DIN Screwdriver bits B 5 510 51c Screwdriver bits with hexalobular drive B 5	
Screw and washer assemblies DIN Screwdriver bits B 5 510 Screwdriver bits with hexalobular drive B 5	440/IS0 7094 M
Screwdriver bits B 5 510 Screwdriver bits with hexalobular drive B 5	440/IS0 7094 M 6885 H 1
510 Screwdriver bits with hexalobular drive B 5	440/ISO 7094 M S
	440/IS0 7094 M 9 6885 H 12 526 P 9
Coroughiyar hita areas resease II 17	440/IS0 7094 M 9 6885 H 12 526 P 9 6900 N 1020, 51021, B 11 22 C 1
	440/IS0 7094 M 1 66885 H 12 526 P 1 6900 N 1 1020, 51021, B 11 22 C 1
	440/IS0 7094 M 6885 H1 526 P 6900 N 1020, 51021, B11 22 C1 1022 C1 1020, 51021 B1
	440/IS0 7094 M 6885 H1 526 P 6990 N 1020, 51021, B11 22 C1 1022 C1 1020, 51021 B1 7965 T
	440/ISO 7094 M 9 6885 H 12
	440/ISO 7094 M 1 6885 H 12 526 P 1 6900 N 1 1020, 51021, B 11 22 C 1 1022, 51021 B 1 7965 T 7 9000 W 1 443 B 1
Self-drilling tapping screws countersunk DIN	440/IS0 7094 M 6885 H1 526 P 6900 N 1020, 51021, B11 22 C1 1022 C1 1020, 51021 B1 7965 T
Self-drilling tapping screws screw and washer	440/IS0 7094 M 6885 H1 526 P 6900 N 1020, 51021, B11 22 C1 1022 C1 1020, 51021 B1 7965 T 6000 W 443 B1 442 A1 470 C1 7504
Self-drilling tapping screws screw and DIN washer assembly, type F ISO	440/IS0 7094 M 6885 H1 526 P 6900 N 1020, 51021, B11 22 C1 1022 C1 1020, 51021 B1 7965 T 6000 W 443 B1 442 A1 470 C1 7504

	DIN/ISO/B/Type Coor	dinates
0 11 0	DIN 7504 ISO 15482	0/V 1
	DIN 7504	0/11
hexagon head with collar	ISO 15480	K/T1
Self-drilling tapping screws screws, pan head, cross recess H	DIN 7504 ISO 15481	M/U 1
Self-drilling tapping screws screws,	DIN 7504	
,	ISO 15483 DIN 7504	R/W 1
Self-drilling tapping screws, hexagon head with flange	ISO 15480	K/T1
0 11 0 11	DIN 7504	
cross recess H Self-drilling tapping screws, raised	ISO 15481 DIN 7504	M/U 1
countersunk head, cross recess H	ISO 15483	R/W 1
Self-locking counter nuts (PAL-nuts)	DIN 7967	U 7
,	B 53011 DIN 6792	0 8 P 10
	DIN 6791	0 10
Serrated lock washers for screw assemblies,		
,,	DIN 6798, 6907 DIN 6798	Y 9
	DIN 6798	Z 9
	DIN 705	M 12
	B 53060 DIN 988	B 10 Z 8
Shoulder nut with metric fine screw thread	DII 4 000	20
·	DIN 30387	M 7
	DIN 404 DIN 84 / ISO 1207	C 1 A 1
	DIN 963 / ISO 2009	11
Slotted countersunk head screws with full	DIN OOF	
	DIN 925 DIN 97	H 1
Slotted headless screws with chamfered end	DIN 427 / ISO 2342	S 5
	DIN 85 / ISO 1580	B 1
	DIN 921 DIN 923	E 1
	DIN 920	D 1
Slotted pan head screws, with small head	DIN 000	E4
3 1 3 1	DIN 922 DIN 964 / ISO 2010	F 1 K 1
Slotted raised countersunk head screws		
0.1	DIN 924	H 1
Slotted raised countersunk head wood screws Slotted round head wood screws	DIN 95	X 4 Y 4
	DIN 546	P 6
	DIN 981, 1804	E 7
	DIN 553 / ISO 7434 DIN 438 / ISO 7436	V 5
Slotted set screws with flat point	DIN 551 / ISO 4766	U 5
0.1	DIN 417 / ISO 7435 DIN 926	R 5 C 6
0.1	DIN 927	B 6
	DIN 674	M 10
3	B 51011 DIN 9045	18 T 12
Snap rings for shafts and bores	DIN 7993	T 12
	DIN 911	Y 10
	B 50502 DIN 6911	A 11 Z 10
	DIN 74361	G 9
	DIN 6319	S 9
	DIN 7343 / ISO 8750, 8751	Z 11
	DIN 7344 / ISO 8748	A 12
The state of the s	DIN 94 / ISO 1234	F 11
Spring cotter Spring type straight pins heavy type	DIN 11024	G 11
	DIN 1481/ISO 8752	X 11
Spring type straight pins light type	DIN 7040 / 100 4 0007	D 40
. 0	DIN 7346 / ISO 13337 DIN 137	B 12 H 9
	DIN 6905	F 9
	DIN 6904	H 9
Spring washers for screws with cylindrical heads	DIN 7980	E 9
	DIN 6913	A 10
	DIN 127	E 9
	DIN 128 DIN 21346	F 9
Square nuts	DIN 557	U 6
	DIN 562	V 6
Square taper washers for high-strength constructions	DIN 6917, 6918	K 9
	DIN 434, 435, 6917,	
	6918 DIN 426	K 9
	DIN 436 DIN 928	L 9 Z 6
Square-head screws with collar	DIN 478	N 3
Square-head screws with collar and dog point cap	DIN 480	Р3
	DIN 479	03
Studs, metal end = 1d, 1,25 d, 2,5 d	DIN 938, 939, 940,	
	835	X 5

Description	DIN/ISO/B/Type Co	ordinates
Tab washers for slotted round nuts	DIN 5406, 70952	Т 9
Tab washers with long tab	DIN 93	Y 8
Tab washers with long tab and wing	DIN 463	0.9
Taper keys with gip head	DIN 6884	G 12
Taper pin with thread and constant		
threaded part	DIN 7977	H 11
Taper pins with internal thread	DIN 7978 / ISO 873	
Taper pins with threaded end	DIN 258 / ISO 8737 DIN 1 / ISO 2339	H 11 D 11
Taper pins, type B Tapper keys	DIN 6881	E 12
Tapping screws for facing, type A and BZ	B 51001, 51002,	L 12
rapping out on thomas, typo 71 and 52	51003, 51004	P4/R4
Tapping screws, countersunk head with cross recess H	DIN 7982 / ISO 705	0 N 4
Tapping screws, pan head with cross recess H		
Tapping screws, pan head with		
hexalobular drive Tapping screws, raised countersunk head	ISO 14585	M 4
with cross recess H	DIN 7983 / ISO 705	1 04
Tee nuts with pronge	B 65080	V 8
T-head bolts	DIN 261	G 3
T-head bolts for railed vehicles	DIN 25192	G 3
T-head bolts with large head	DIN 7992	G 3
T-head bolts with nib	DIN 188	Н 3
T-head bolts with square neck, type B	DIN 186	G 3 R 7
Thick hexagon nuts 1,5 d Thick hexagon nuts with collar 1,5 d	DIN 6330 DIN 6331	0 7
Thin nut for shipbuilding	DIN 80705	Le
Thread cutting screws, type A	DIN 7513	X 1
Thread cutting screws, type A, cross recess H		A 2
Thread cutting screws, type B	DIN 7513	Y 1
Thread cutting screws, type D, cross recess H	DIN 7516	B 2
Thread cutting screws, type E, cross recess H	DIN 7516	C 2
Thread cutting screws, type F and G	DIN 7513	Z 1
Thread forming screws for metric ISO-thread	DIN 7500	01/P1/ R1
Thread inserts, self cutting with		
flange QUICKSERT®	Type 1433, 1434	Y 13
Threaded rods	DIN 976	E 6
Tommy nuts with fixed Tommy Tommy nuts with not fixed Tommy	DIN 6305 DIN 6307	N 7 N 7
Tommy screws with fixed Tommy	DIN 6304	A 4
Tommy screws with not fixed Tommy	DIN 6306	A 4
Toothed lock washers, type A	DIN 6797	US
Toothed lock washers, type I	DIN 6797	VS
Toothed lock washers, type V	DIN 6797	W 9
Toothed washer for screw assemblies, type A	DIN 6906	V 9
Toothed washer for screw assemblies, type V	DIN 6906	W 9
Turnbuckle nuts made from hexagon bar	DIN 1479	H 7
Turnbuckle nuts made from steel tube	DIN 1478	G 7
Turnbuckles with two weld stud ends (left and right-hand thread)	DIN 1480	17
v		
Vargal nuts self-locking nuts clip material:		
phosphated spring steel	B 53040	T 8
W		
Washers	DIN 125 / ISO 7089	
Machara for halte with beauty envire pine	7090 DIN 7240	CS
Washers for bolts with heavy spring pins Washers for cheese head screws	DIN 7349 DIN 433	Z 8
Washers for clamping devices	DIN 433 DIN 6340	Z 8
Washers for hex and machine screws	B 53072	G 10
Washers for hex and machine screws		u 10
form B (wide)	B 53072	G 10
Washers for high-strength constructions	DIN 6916 /	
	DIN EN 14399-6	B 9
Washers for high-tensile structural bolting	DIN EN 14399-6	C 9
Washers for steel constructions	DIN 7989	B 9
Washers for tapping screw assemblies	DIN 6902, 6903	Z 8
Washers for wood constructions	B 1052	B 9
Washers outside diameter ≈ 3 d	DIN 9021	B 9
Washers with external tab	DIN 432	19
Welding studs, with hexagon nut	DIN 525	R 3
Wing nuts Wing nuts American type	DIN 315	16 K 6
Wing nuts, American type Wing nuts, polyamide	DIN 315 B 317 318	K E
	B 317, 318 DIN 316	D 8
	DIN 316	K3
Wing screws		K 12
Wing screws Wing screws, American type Woodruff keys	DIN 6888	
Wing screws Wing screws, American type Woodruff keys	DIIN 0000	
Wing screws Wing screws, American type	В 151	S 2

(Technical specifications are subject to change without notice)

ARGENTINA

Bollhoff S.A.C.I.y.F. N.S. de la Merced No. 3857 (B1678AOW) Caseros Prov. **Buenos Aires**

Tel. +54 11 47 50 15 00 info@bollhoff.com.ar www.boellhoff.com/ar

AUSTRIA

Böllhoff GmbH

Johann Roithner-Straße 131 4050 Traun Tel. +43 7229 69169 austria@boellhoff.com www.boellhoff.com/at

Böllhoff

Elasmo Systems GmbH

Gewerbepark 7 4861 Schörfling am Attersee Tel. +43 7662575770 elasmo@boellhoff.com www.boellhoff.de/en/elastec

BRAZIL

Bollhoff Service Center

Av. Arquimedes, 500 -Distrito Industrial 13211-840 Jundiaí, SP Tel. +55 1121362500 vendas.sp@bollhoff.com www.boellhoff.com/br

Bollhoff Service Center Ltda.

R. Júlio Kovalski, 125 -Jd.S.Pedro 91040-380 Porto Alegre Tel. +55 5135113050 vendas.rs@bollhoff.com www.boellhoff.com/br

Bollhoff Service Center Ltda.

Av. Juscelino Kubitschek de Oliveira,4661 - CIC 81270-200 Curitiba, PR Tel. +55 4121017077 vendas.pr@bollhoff.com www.boellhoff.com/br

I₩I CANADA

Bollhoff Inc.

85 Royal Crest Court, Unit # 4 Markham, ON L3R 9X5 Tel. +1 9054771670 inquiries_bca@bollhoff.com www.boellhoff.com/ca

CHINA

Bollhoff (Wuxi) Fastenings Co. Ltd.

Boustead Park Plot 20-22 -XinMei Road 55 New District, Wuxi 214028 -Jiangsu Tel. +86 51088651616 sales@bollhoff-china.com

www.boellhoff.com/cn

CZECHIA

Böllhoff s.r.o.

Palouky č.p. 1365 25301 Hostivice Tel. +420 235 318014 czinfo@boellhoff.com www.boellhoff.com/cz

FRANCE

Bollhoff Otalu S.A.S.U.

Rue d'Archimède Z.I. de l'Albanne 73490 La Ravoire/Chambéry Tel. +33 479967000 info fr@bollhoff.com www.boellhoff.com/fr

Böllhoff GmbH

Rue d'Archimède Z.I. de l'Albanne 73490 La Ravoire/Chambéry Tel. +33 479967040 infoproduit@bollhoff.com www.boellhoff.com/fr

GERMANY

Bielefeld

Archimedesstraße 1 − 4 33649 Bielefeld Tel. +49 521 4482-03

Leipzig

Handelsstraße 10 04420 Markranstädt / OT Frankenheim Tel. +49 341 94408-0

Munich

Parkring 4 85748 Garching at München Tel. +49 89 319007-0

Nuremberg

Südwestpark 76 90449 Nürnberg Tel. +49 911 64299-0

Stuttgart

Marie-Curie-Straße 10 71364 Winnenden Tel. +49 7195 1805-0

info@boellhoff.com www.boellhoff.com

HUNGARY

Böllhoff Kft.

Alba Ipari Zóna, Zsurló u. 8 8000 Székesfehérvár Tel. +36 22 511-018 boh@bollhoff.com www.boellhoff.com/hu



INDIA

Bollhoff Fastenings Pvt. Ltd.

Plot No. 771 Udyog Vihar Phase V Gurgaon - 122016 Tel. +91 124421309099 info_in@bollhoff.com www.boellhoff.com/in

II ITALY

Böllhoff S.r.l.

Via Monferrato, 6/8 20094 Corsico (MI) Tel. +39 24505521 info_it@bollhoff.com www.boellhoff.com/it

Bollhoff Unifast S.r.l.

Strada Caffadio 12 10036 Settimo Torinese (TO) Tel. +39 011 8165511 lfilei@bollhoff.com www.unifast.com

JAPAN

Bollhoff K.K.

1-10-29 Marunouchi, Naka-ku Nagoya-shi, Aichi, Japan, 460-0002 Tel. +81 522011813 moishi@bollhoff.com www.boellhoff.com/jp

MEXICO

Bollhoff S.A. de CV

Avenida de las Fuentes No. 106, Nave 10 Parque Industrial Finsa 76246, El Marqués, Querétaro Tel. +52 4422563900 gzamudio@bollhoff.com www.boellhoff.com/mx

POLAND

Bollhoff

Technika Łączenia Sp. z o.o.

ul. Rogowska 117 54-440 Wrocław Tel. +48 713878531 biuro@bollhoff.com www.boellhoff.com/pl

ROMANIA

Böllhoff S.R.L.

Şos. Borşului nr. 74, Jud. Bihor 417075 Bors Tel. +40 259 433756 romania@bollhoff.com www.boellhoff.com/ro

RUSSIA

000 Böllhoff

ul. Nekhinskaya, 59b 173021 Veliky Novgorod Tel. +7 8162948700 bru@bollhoff.com www.boellhoff.com/ru

000 Böllhoff

ul. Novoslobodskaya, 23 office 548 127055 Moskow Tel. +7 4959957047 bru@bollhoff.com www.boellhoff.com/ru

SLOVAKIA

Bollhoff s.r.o.

Diaľnična cesta 10A 90301 Senec Tel. +421 240259430 infosk@boellhoff.com www.boellhoff.com/sk

SOUTH KOREA

JINHAP BOLLHOFF Ltd.

#413, Gunpo IT Valley B, Gosan-ro, 148 Gunpo-si, Gyeonggi-do Korea, 15850 Tel. +82 3180868168 WJang@jinhap-bollhoff.com www.boellhoff.com/ko

SPAIN

Bollhoff s.a.

C/ Valportillo Primera, núm 7-A Polígono Industrial de Alcobendas 28108 Alcobendas (Madrid) Tel. +34 916619188 info_es@bollhoff.com www.boellhoff.com/es

SWITZERLAND

Bollhoff Attexor SA

6, Chemin des Larges Pièces -7 I R 1024 Ecublens/Lausanne Tel. +41 216948000 sales bax@bollhoff.com www.bollhoff-attexor.com

Böllhoff

Verbindungstechnik AG

Buchgrindelstrasse 7 8620 Wetzikon Tel. +41 442251212 info_ch@boellhoff.com www.boellhoff.com/ch

THAILAND

Bollhoff Company Limited

218/7-218/8 Romklao Road Bangkok 10520 Tel. +66 21367966 info_th@bollhoff.com www.boellhoff.com/th

TURKEY

Böllhoff

Cıvata Ticaret Ltd. Şti Istanbul Anadolu Yakası Organize Sanayi Sitesi 6. Sokak No. 4 34953 Tuzla Istanbul Tel. +90 216 5930185-88 tuerkiye@bollhoff.com www.boellhoff.com/tr

UNITED STATES OF AMERICA

Bollhoff Inc.

2705 Marion Drive Kendallville, IN 46755 Tel. +1 2603473903 info_us@bollhoff.com www.boellhoff.com/us

Bollhoff Inc.

Bollhoff Detroit Technical Center 820 Kirts Blvd., Suite 500 Troy, MI 48084 Tel. +1 2482690475 info_us@bollhoff.com www.bollhoff.com/us

UNITED KINGDOM OF **GREAT BRITAIN AND NORTHERN IRELAND**

Bollhoff Fastenings Ltd.

Midacre The Willenhall Estate Willenhall/West Midlands WV13 2JW Tel. +44 190 2637161 enquiries@bollhoff.com

www.boellhoff.com/uk

Bollhoff GmbH - UK Division

Midacre The Willenhall Estate Willenhall/West Midlands WV13 2JW Tel. +44 190 2603934 bdirect@bollhoff.com www.boellhoff.co.uk

Bollhoff Armstrong Ltd. Stoneferry Business Park

Foster Street Hull HU8 8BT Tel. +44 1482325425 info_bal@bollhoff.com www.boellhoff.com/uk

A full overview of all of our sites can be found online at: www.boellhoff.com/en/locations

BOLLHOFF

Böllhoff Group

Innovative partner for joining technology with assembly and logistics solutions.

Find your local partner at www.boellhoff.com or contact us at message@boellhoff.com.

Passion for successful joining.