



### KD-TECH® BLIND RIVET NUTS

### A SUSTAINABLE SOLUTION BASED ON CONTROLLED DEFORMATION



SMART. SOLID. SECURE.

# faste (s+

SMART.
CLEVER FASTENING SOLUTIONS

SOLID.

**STABLE AND DURABLE** 

SECURE.

**DECADES OF KNOW-HOW** 







# PROFESSIONAL QUALITY BY KVT

As a specialist for high-quality fastening equipment, internationally renowned KVT-Fastening Group offers one of the broadest product portfolios in the market. Innovative installation, automation and services supplement the Group's product range throughout the world.

KVT sees itself as a partner to its clients, a claim which it backs up with products of its own brand FASTEKS+®. KVT offers a broad range of innovative, high-end fastening components under the brand FASTEKS+®.

And KVT also supplies the leading brands in fastening technology. A global network of key accounts and an established distributor network mean optimal customer service and fast availability.

With over 80 years of experience providing solution-oriented know-how and consulting excellence, the KVT-Fastening Group provides reliability, efficiency and value for its customers.

FASTEKS+® SMART. SOLID. SECURE.











RESILENT THREAD, NO STRESS IN BASE MATERIAL



FASTEKS+ KD-TECH® blind rivet nuts are load-bearing threads, which are designed for applications in thin walled, high-tensile, soft, brittle and sandwich-materials.

KD-TECH® means (K) controlled deformation of the blind side bulge: Very efficient through blind setting and without any need for reoperation, the bulge deforms itself controlled and without hole filling around the workpiece inducing much less stress into the base material as a standard blind rivet nut.

#### **AVAILABLE TYPES OF THE KD-TECH® BLIND RIVET NUTS**

- ) KD-TECH® Bulge Control
- ) KD-TECH® Multigrip
- ) KD-TECH® High Strength
- ) KD-TECH® Micro

### **FEATURES AND BENEFITS**

- ) Bulge-forming without hole filling and stress induction
- Very efficient setting with single side access only
- Manifold application areas, independent from base material



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Bulge Control, Multigrip, High Strength, Micro

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Flat head, open Flush head, open





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Flat head, open Flush head, open





14 – 15 KD-TECH® blind rivet nuts High Strength

> Flat head, open Flush head, open





16 – 17 KD-TECH® blind rivet nuts Micro

Flat head, open Flush head, open





18 Hand tool



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### **BULGE CONTROL BLIND RIVET NUT**

Bulge Control stands for pre-defined deformation of the bulge without hole filling in the base material. To ensure this setting characteristic, we will design the length and hole position of the KD-TECH® rivet nut appropriate to the given base material dimensions. Thereby, the bulge will be formed at the backside of the application assuring the accurate fit of the blind rivet nut.

Installation possibilities	Disadvantages of a standard blind rivet nut	Features and benefits of the KD-TECH®	
Establish a resilient female thread in brittle material (e.g. carbon and glass fiber boards, ceramics) and soft materials (wood, unreinforced plastics, cardboard, rubber)	During the bulging process, the standard blind rivet nut needs to be supported by the inner area of the hole. Thus, a setting force will be applied to the base material, which could lead to damage at the component.	The KD-TECH® blind rivet nut forms the bulge independently applying minimal bearing stresses around the base material, thus preventing damage to it. The distinctive bulge enables a low blind side protrusion.	
Establish a resilient female thread in composite panels	The bulge forming starts randomly at the weakest section of the deformation area.	The controlled deformation assures exact positioning of the blind side bulge.	
Establish a resilient female thread in a blind hole with base material up to brinell hardness 35 (e.g. oakwood, chipboard, medium density fiberboard)	When a standard blind rivet nut is set into a blind hole, the bulge formes uncontrolled.	The KD-TECH® blind rivet nut forms a controlled positioned bulge in blind hole applications, providing a resilient connection with the base material.	
Optimal fitting in irregular, not perfectly round or oversized holes	While bulging, the shank of a standard blind rivet nut needs support from the hole edge. If the hole diameter is out of specification or not perfectly round, the bulge setting can be slanted and not concentric, reducing strength.	The deformation process of the KD-TECH® rivet nut starts with the controlled bulging and continues with a constant deformation till the bulge is plane on the base material.	
Rivet two or more components together	If the application consists of two or more elements with gaps in between, the bulge could possibly deform into the gap, as the standard bulge forming is not a stable process.	With controlled deformation, two or more materials are drawn together with flange and bulge then clamped, similar to standard rivet applications.	







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### **MULTIGRIP BLIND RIVET NUT**

With a KD-TECH® Multigrip blind rivet nut you can depending on the thread size cover a grip range of up to 9 mm. To cover such a wide grip range, usually two or three different standard blind rivet nuts are required.

Installation possibilities	Disadvantages of a standard blind rivet nut	Features and benefits of the KD-TECH®
Material thickness is not completely defined	The standard grip range of a common blind rivet nut is around 2,5 mm. If the incorrect grip range is chosen, the rivet nut will not set properly:  Too thick material → almost no bulge  Too thin material → incorrect setting with irregular bulge and excentric thread position	With the KD-TECH® Multigrip blind rivet nut you can dependent on the thread size cover a grip range of up to 9 mm. This reduces the risk of using the wrong blind rivet nut for the wrong grip range or application.
Variable material/grip thickness (MRO,DIY,)	If blind rivet nuts of the same thread size are used in many applications with different material thickness, there is a high risk of part mix-up. The limitated grip range for a standard blind rivet nut requires stock-keeping of many different blind rivet nut sizes.	As the KD-TECH® blind rivet nut covers a very wide grip range, there is almost no risk for part mix-up.  Also the number and variety of blind rivet nuts can be reduced by using only one KD-TECH® rivet nut with a wide grip range.

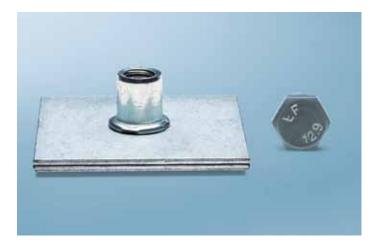


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### **HIGH STRENGTH BLIND RIVET NUTS**

With this blind rivet nut made of steel or aluminum, a resilient thread can be brought into all materials.

Installation possibilities	Disadvantages of a standard blind rivet nut	Features and benefits of the KD-TECH®
Create a connection point for high strength screw joints	It is not possible to get a proper bulge forming at rivet nuts made of high grade material. To bear higher application loads, either the number of rivet nuts, or the thread diameter has to be increased.	With the KD-technology we can produce blind rivet nuts in high grade material. A High Strength KD-TECH® blind rivet nut in steel, is able to outlast the tensile strength of a 12.9 screw, a High Strength KD-TECH® rivet nut in aluminum is able to bear the tensile strength of a 8.8 screw.



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### MICRO BLIND RIVET NUTS

Through its very short construction form, the KD-TECH® Micro blind rivet nut enables thread joints also in applications with very limited space. The reduced shank length brings additional weight savings. The KD-TECH® Micro is suitable for grade 8.8 screws in steel.

Installation possibilities	Disadvantages of a standard blind rivet nut	Features and benefits of the KD-TECH®		
Create fixation points with very low blind side protrusion for applications like sandwich panels (e.g. M6 in 10 mm aluminum sandwich panel) or round and square tubes with small diameters.	<ul> <li>When space is limited, e.g. at small diameter tubes or interfering edges, standard blind rivet nuts cannot be used due to their blind side length. If the bulge of the rivet nut has no contact to the base material while setting, the setting will not be correct.</li> <li>The flange of a standard blind rivet nut must rest on the base material during the setting process. This requires that the blind side space matches the length of the unset blind rivet nut.</li> </ul>	<ul> <li>KD-Technology enables the use of higher grade materials requiring less threads and a shorter blind rivet nut.</li> <li>Moreover, the flange (head) doesn't need to rest on the base material for proper setting of the Micro blind rivet nut. It is only neccessary that the cross-holes stick out about 1 mm off the back material; then the flange will be pulled against the front material.</li> </ul>		
Weight optimized joint	A standard blind rivet nut is always longer and heavier than the comparable KD-TECH® Micro with the same performance.	As KD-TECH® uses higher grade material for the blind rivet nuts, we are able to produce shorter and lighter blind rivet nuts.		







# BLIND RIVET NUT BULGE CONTROL

### FASTEKS+ | KD-TECH®

### **FLAT HEAD, OPEN**

Material: Steel, thick coat passivated

(RoHS compliant) ST or aluminum AL

### Round shank type BBFK

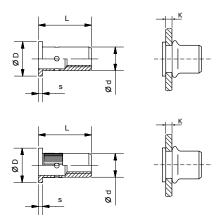
### Knurled shank type RBBFK

Additional types on request

ORDERING DATA EXAMPLE: M6-25 RBBFK ST

Thread size M6 + code indicating grip range

Type knurled shank



Thread	Grip range	Code	Hole-Ø d	Head-Ø D	Head high S	Length L
	0,5 – 1,5	15				14,0
	1,5 – 2,5	25				14,5
M4	2,5 – 3,5	35	7,0	10,0	0,8	15,5
	3,5 – 4,5	45				16,5
	4,5 – 5,5	55				17,5
	0,5 – 2,0	20				17,0
M5	2,0 - 3,0	30	9.0	11,0	1,0	18,0
CIVI	3,0 – 4,0	40	8,0			19,0
	4,0 - 5,0	50				20,0
	0,5–2,5	25	9,0	13,0	1,5	18,0
M6	2,5 – 4,0	40				20,0
IVIO	4,0 – 5,5	55				21,5
	5,5 – 7,0	70				23,0
	1,0 – 3,0	30				20,5
M8	3,0 – 5,0	50	11,0	16,0	4.5	24,0
IVIO	4,5 – 6,5	65	11,0	10,0	1,5	26,0
	6,5 – 8,5	85				28,0
	1,0 – 3,5	35				26,0
M10	3,5 – 6,0	60	13,0	19,0	2,0	29,0
	6,0 - 8,5	85				34,0



# BLIND RIVET NUT BULGE CONTROL

### FASTEKS+ | KD-TECH®

### **FLUSH HEAD, OPEN**

Material: Steel, thick coat passivated

(RoHS compliant) ST or aluminum AL

### Round shank type BBKS

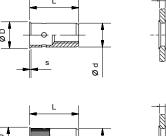
### Knurled shank type RBBKS

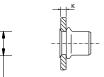
Additional types on request

### ORDERING DATA EXAMPLE: M6-25 RBBKS ST

Thread size M6 + code indicating grip range

Type knurled shank





Thread	Grip range	Code	Hole-Ø d	Head-Ø D	Head high S	Length L
	0,5 – 1,5	15				13,5
	1,5 – 2,5	25				14,0
M4	2,5 – 3,5	35	7,0	8,0	0,5	15,0
	3,5 – 4,5	45				16,0
	4,5 – 5,5	55				17,0
	0,5 – 2,0	20				16,0
ME	2,0 - 3,0	30	0.0	9,0	0,5	17,0
M5	3,0 - 4,0	40	8,0			18,0
	4,0 - 5,0	50				19,0
	0,5 – 2,5	25	9,0	10,0	0,5	17,0
MG	2,5 – 4,0	40				19,0
M6	4,0 – 5,5	55				20,5
	5,5 – 7,0	70				22,0
	1,0 – 3,0	30				20,0
MO	3,0 – 5,0	50	11.0	10.0		23,0
M8	4,5 - 6,5	65	11,0	12,0	0,6	24,0
	6,0 - 8,0	80				27,0
	1,0 – 3,5	35				25,0
M10	3,5 – 6,0	60	13,0	14,0	0,6	28,0
	6,0 - 8,5	85				32,0



# BLIND RIVET NUT MULTIGRIP

### FASTEKS+ | KD-TECH®

### **FLAT HEAD, OPEN**

Material: Steel, thick coat passivated

(RoHS compliant) ST or aluminum AL

Round shank type BMFK

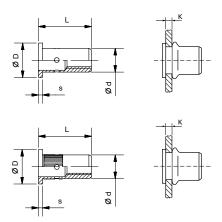
Knurled shank type RBMFK

Additional types on request

ORDERING DATA EXAMPLE: M6-45 RBMFK ST

Thread size M6 + code indicating grip range

Type knurled shank



Thread	Grip range	Code	Hole-Ø d	Head-Ø D	Head high S	Length L
	0,5 – 4,0	40				14,0
M4	2,5 - 5,5	55	7,0	10,0	0,8	15,5
	4,0 - 7,0	70				17,0
M5	0,5 - 5,0	50	8,0	11,0	1.0	17,0
IVIO	3,0 - 7,0	70	6,0	11,0	1,0	19,0
	0,5 - 4,5	45		13,0	1,5	17,5
M6	0,5 - 6,0	60	9,0			19,0
	4,0 - 9,0	90				22,5
	0,5 - 6,0	60		10.0	1,5	20,5
M8	0,5 - 8,0	80	11,0			23,0
IVIO	4,5 – 11,0	110	11,0	16,0		26,0
	6,5 – 13,0	130				28,0
	0,8 - 7,0	70				26,0
M10	1,5 – 10,0	100	13,0	19,0	2,0	30,0
	5,5 – 14,0	140				34,0



# BLIND RIVET NUT MULTIGRIP

### FASTEKS+ | KD-TECH®

### **FLUSH HEAD, OPEN**

Material: Steel, thick coat passivated

(RoHS compliant) ST or aluminum AL

### Round shank type BMKS

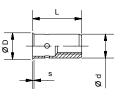
### Knurled shank type RBMKS

Additional types on request

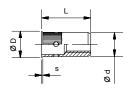
### ORDERING DATA EXAMPLE: M6-45 RBMKS ST

Thread size M6 + code indicating grip range

Type knurled shank









			Hole-Ø d	Head-Ø D	Head high S	Length L
	0,5 – 4,0	40				13,5
M4	2,5 – 5,5	55	7,0	8,0	0,5	15,0
	4,0 - 7,0	70				16,5
M5 —	0,5 – 5,0	50	8,0	9,0	0,5	16,0
IVIO	3,0 - 7,0	70	0,0	9,0	0,5	18,0
	0,5 – 4,5	45	9,0	10,0	0,5	16,0
M6	0,5 - 6,0	60				17,5
	4,0 - 9,0	90				21,0
	0,5 - 6,0	60		10.0	0,6	19,5
M8 —	0,5 – 8,0	80	11,0			21,5
IVIO	4,5 – 11,0	110	11,0	12,0		25,0
	6,5 – 13,0	130				27,0
	0,8 – 7,0	70				25,0
M10	1,5 – 10,0	100	13,0	14,0	0,6	28,0
	5,5 – 14,0	140				32,0



# **BLIND RIVET NUT HIGH STRENGTH**

### FASTEKS+ | KD-TECH®

### **FLAT HEAD, OPEN**

Material: Steel, thick coat passivated

(RoHS compliant) ST or aluminum AL

Round shank type BHFK

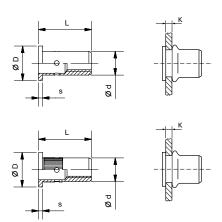
Knurled shank type RBHFK

Additional types on request

ORDERING DATA EXAMPLE: M6-30 RBHFK ST

Thread size M6 + code indicating grip range

Type knurled shank



Thread	Grip range	Code	Hole-Ø d	Head-Ø D	Head high S	Length L
M5	0,7 - 2,5	25	0.0	11.0	1.0	16,0
IVIS	2,5 - 4,0	40	8,0	11,0	1,0	17,5
M6	1,0 – 3,0	30	9,0	13,0	1,5	19,0
IVIO	3,0 - 5,0	50		13,0		21,0
	1,5 – 4,0	40	11,0	16,0	1,5	23,0
M8	4,0 - 6,0	60				25,0
	6,0 - 8,0	80				27,0
	2,0 - 5,0	50	14,0		2,0	28,0
M10	4,5 - 7,0	70		19,0		30,0
	6,5 – 9,0	90				32,0



# **BLIND RIVET NUT HIGH STRENGTH**

### FASTEKS+ | KD-TECH®

### **FLUSH HEAD, OPEN**

Material: Steel, thick coat passivated

(RoHS compliant) ST or aluminum AL

### Round shank type BHKS

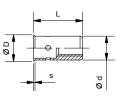
### Knurled shank type RBHKS

Additional types on request

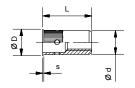
### ORDERING DATA EXAMPLE: M6-30 RBHKS ST

Thread size M6 + code indicating grip range

Type knurled shank









Thread	Grip range	Code	Hole-Ø d	Head-Ø D	Head high S	Length L
M5	0,7 - 2,5	25	8,0	9,0	0,5	15,0
IVIO	2,5 - 4,0	40	0,0	9,0	0,5	16,5
M6	1,0 - 3,0	30	0.0	10,0	0,5	18,0
IVIO	3,0 - 5,0	50	9,0	10,0	0,5	20,0
	1,5 – 4,0	40	11,0	12,0	0,6	22,0
M8	4,0 - 6,0	60				24,0
	6,0 - 8,0	80				26,0
	2,0 - 5,0	50			0,6	27,0
M10	4,5 – 7,0	70	14,0	14,0		29,0
	6,5 – 9,0	90				31,0



# BLIND RIVET NUT MICRO

### FASTEKS+ | KD-TECH®

### **FLAT HEAD, OPEN**

Material: Steel, thick coat passivated

(RoHS compliant) ST or aluminum AL

Round shank type BSFK

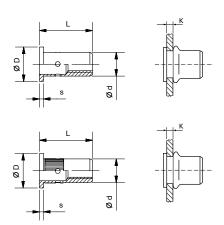
Knurled shank type RBSFK

Additional types on request

ORDERING DATA EXAMPLE: M6-20 RBSFK ST

Thread size M6 + code indicating grip range

Type knurled shank



Thread	Grip range	Code	Hole-∅ d	Head-Ø D	Head high S	Length L
M4	0,5 – 1,8	18	6,0	8,0	0,7	8,0
1014	1,5 – 2,5	25	0,0	0,0	0,7	8,7
	0,7 - 2,0	20	7.0	9,0	0,0	9,5
IVIO	2,0 - 3,0	30	7,0			10,5
M6	0,7 - 2,0	20	8,0	10,0	1,0	10,5
1010	2,0 - 3,0	30				11,5
	0,7 - 2,5	25	10,0		1,2	13,0
M8	2,0 - 4,0	40		13,0		14,5
	3,5 – 5,5	55				16,0



# BLIND RIVET NUT MICRO

### FASTEKS+ | KD-TECH®

### **FLUSH HEAD, OPEN**

Material: Steel, thick coat passivated

(RoHS compliant) ST or aluminum AL

### Round shank type BSKS

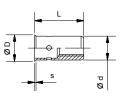
### Knurled shank type RBSKS

Additional types on request

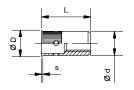
### ORDERING DATA EXAMPLE: M6-20 RBSKS ST

Thread size M6 + code indicating grip range

Type knurled shank









Thread	Grip range	Code	Hole-Ø d	Head-∅ D	Head high S	Length L
M4	0,5 – 1,8	18	6,0	7,0	0,5	7,8
IVI4	1,5 – 2,5	25	0,0	7,0	0,5	8,5
M5	0,7 - 2,0	20	7.0	8,0	0,5	9,0
CIVI	2,0 - 3,0	30	7,0			10,0
M6	0,7 - 2,0	20	8,0	9,0	0,6	10,0
IVIO	2,0 - 3,0	30				11,0
	0,7 – 2,5	25	10,0		0,6	12,5
M8	2,0 - 4,0	40		11,0		14,0
	3,5 – 5,5	55				15,5

### HAND TOOL

### FASTEKS+ | KD-TECH®



### **KS 08**

- ) Hand tool for inserting KD-TECH® and FILKO® blind rivet nuts ) Weight: Approx. 1,7 kg ) Suitable for:

Blind rivet nuts	Thread sizes
Steel/ aluminum	M4 – M10
Stainless steel	M4 – M8
) Standard set:	M5 – M8

### **KVT FASTENING AND SEALING TECHNOLOGY**



) KOENIG-EXPANDER®



) Blind rivet nuts



) Blind rivet technology



) Thread-inserts



) Self-clinching fasteners



) Stud welding systems



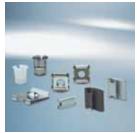
) Lock nuts



) Bonding fasteners



) Access solutions



Quick fastening elements and clips



Quick release pins and spring plungers



) Adhesives and sealants 1)



) Construction fasteners 2)



) Special processes 1)



) Pressure intensifiers 3)

### FASTENING, SEALING AND FLOW CONTROL SOLUTIONS FOR COMPLEX APPLICATIONS

The extensive KVT portfolio offers optimal solutions for your most challenging applications. The products included in this catalog represent only a selection from our entire product portfolio.

Upon request, we will be pleased to provide additional information or an individual consultation to you. Feel free to contact us!

For more information about our range of products and order at our E-shop, please visit

) www.kvt-fastening.com



) Screw technology



) Installation technology



) Quick connectors 4)

<sup>1)</sup> Not available in Germany

<sup>&</sup>lt;sup>2)</sup> Only available in Switzerland

<sup>3)</sup> Not available in Switzerland

<sup>4)</sup> Only available in Germany



) Electrical engineering



) Energy technology



) Automotive



) Medical technology



) Transportation



) Construction industry



) Precision engineering



) Aviation and aerospace



) Hydraulics and industry



) Mechanical engineering

# THE TRUSTED WORLD LEADER IN FASTENING, SEALING AND FLOW CONTROL SOLUTIONS

Whether it is about choosing the optimal fastening, sealing or flow control element or about developing special solutions for complex process and construction procedures – efficiency and project safety are key in every single task.

Browse our website or contact us to find out more about the entire range of products and solutions in the field of high-end fastening, sealing and flow control technology.

For further information please visit:

) www.kvt-fastening.com

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