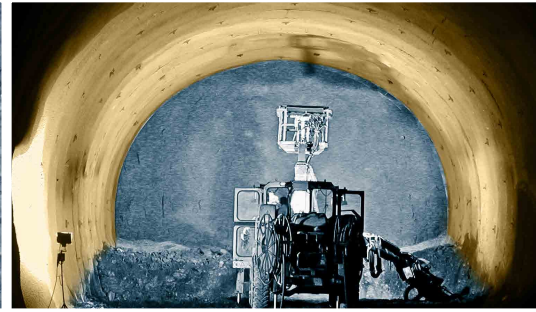
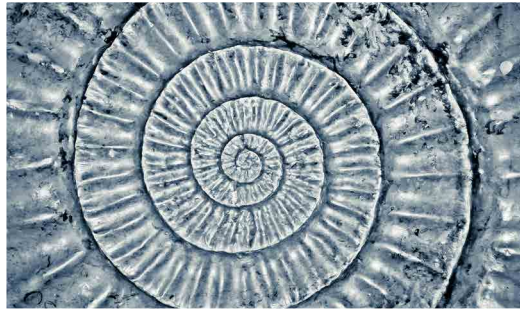
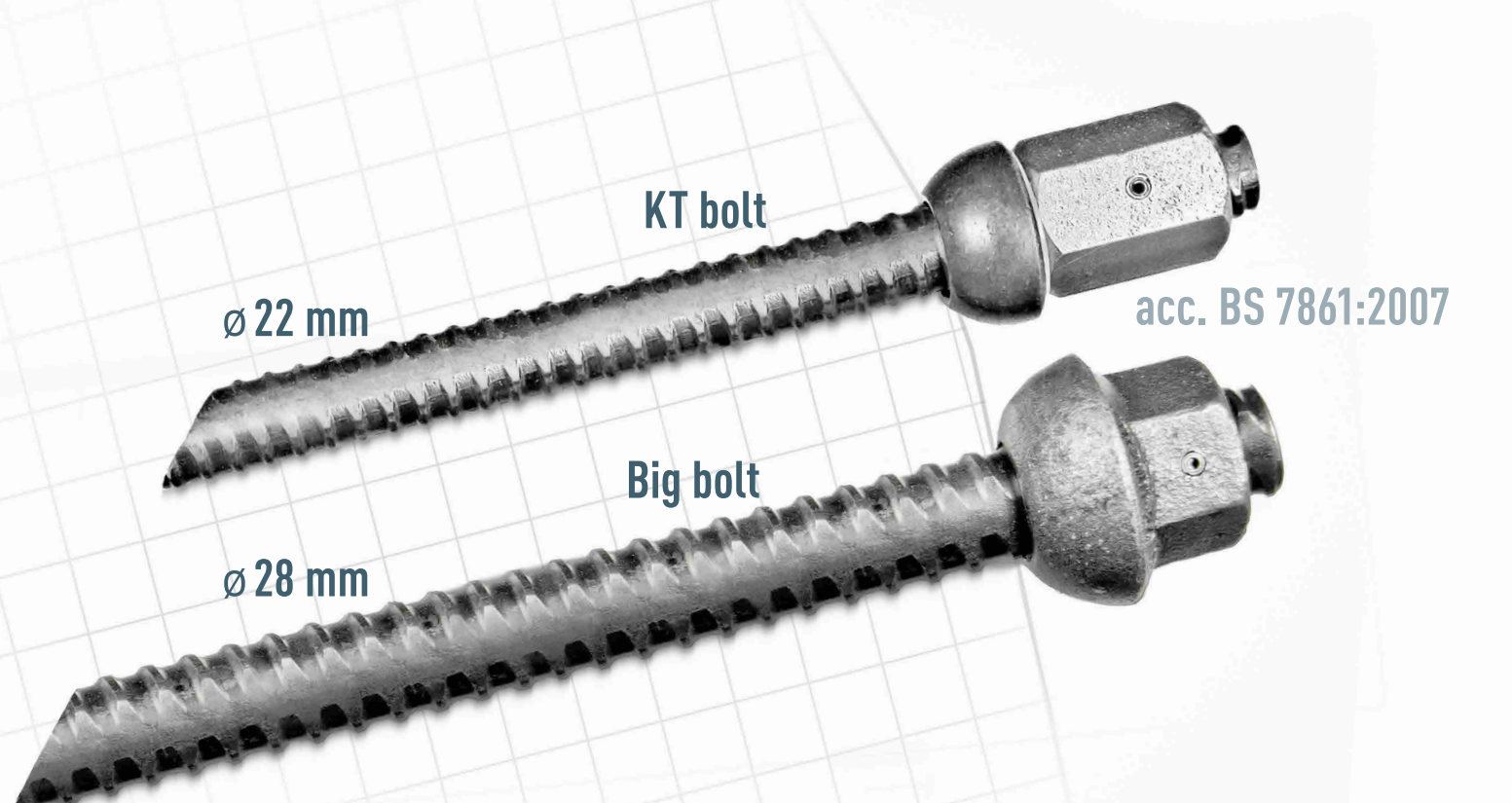


SAS 650/800 - KT bolt system acc. BS 7861:2007

High strength bolts with high ductility
and high fracture toughness



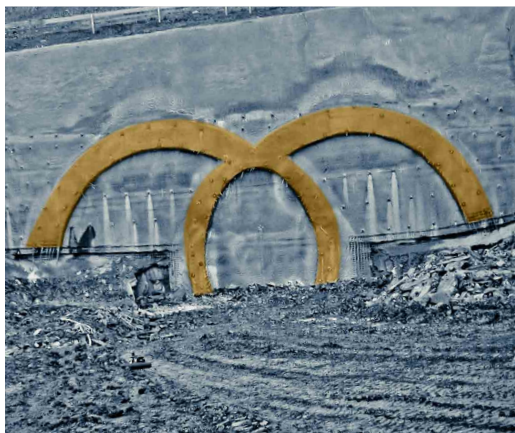
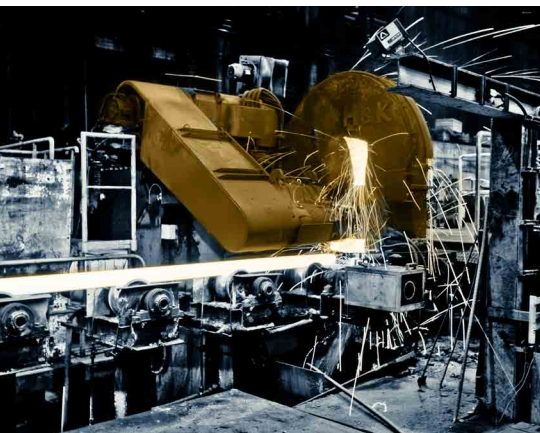


SAS 650/800 - KT bolt system

High strength bolts with high ductility and high fracture toughness

SAS Threadbar grade 650/800 is a vanadium micro alloyed steel. The steel is produced to combine high tensile strength with high ductility and high fracture toughness. SAS Threadbar is hot rolled with a coarse thread along the entire length of the bolt. The coarse thread is less affected by dirt than fine threads and is less susceptible to the formation of micro cracks.

SAS Threadbar complies with BS 7861-2007 "Strata reinforcement support system components used in coal mines - Part 1: Specification for rockbolting".



Advantages

SAS Threadbar system

- high ductility material behaviour
- decrease of corroding surface as a consequence of a high notch toughness; high crack corrosion resistance
- optimal microstructure due to annealing and shape forming in one step; no thread cutting
- reduced costs as a consequence of increased bolt spacing following higher anchor loads
- faster tightening of coarse threads
- thread bars also screwable and no material weakness if slightly bent
- angular alignment with the use of dome nuts and dome plates
- pins for pre-defined breakout-torques
- screwable thread ribs over full length of bars
- cutting or coupling at any position of the bar
- shape of thread ribs makes SAS Thread-Bar-Systems resistant against rough handling
- self-cleaning coarse threads

Guaranteed mechanical properties:

Yield strength (MPa)	Ultimate strength (MPa)	Elongation at fracture (A5) (%)	Uniform elongation (Agt) (%)	Impact resistance charpy (J)
640 <small>(BS 7861-2007:640)</small>	800 <small>(BS 7861-2007:770)</small>	18 <small>(BS 7861-2007:18)</small>	8 <small>(BS 7861-2007:8)</small>	27 <small>(BS 7861-2007:27)</small>

Indicative mechanical properties:

Yield strength (MPa)	Ultimate strength (MPa)	Elongation at fracture (A5) (%)	Uniform elongation (Agt) (%)	Impact resistance charpy (J)
675	860	22	14	32

Typical bolt loads:

Bolt diameter (mm)	Guaranteed yield load (kN)	Guaranteed ultimate load (kN)	Indicative yield load (kN)	Indicative ultimate load (kN)
22	247	304	256	327
25	319	393	331	422
28	400	493	415	529
30	460	565	477	608

Chemical analysis:

C (%)	Si (%)	Mn (%)	P (%)	V (%)	VS(%)
0.26	0.60	1.44	0.01	0.19	0.01

SAS Gewindestäbe / SAS thread bars

Streckgrenze / Zugfestigkeit yield stress / ultimate stress Anwendungsbereiche areas of application	Nenn- \varnothing nom.- \varnothing	Strecklast yield load	Bruchlast ultimate load	Fläche cross section area		Gewicht weight	Dehnung elongation		
	[mm]	[kN]	[kN]	[mm ²]	[m/to]	[kg/m]	A _{gt} [%]	A ₁₀ [%]	A ₅ [%]
SAS 500 / 550 - grade 75									
	12	57	62	113	1123,6	0,89			
	14	77	85	154	826,4	1,21			
	16	100	110	201	632,9	1,58			
	20	160	175	314	404,9	2,47			
	25	245	270	491	259,7	3,85	6	10	12
	28	310	340	616	207,0	4,83			
	32	405	440	804	158,5	6,31			
	40	630	690	1260	101,3	9,87			
SAS 450 / 700 - grade 60									
	16	93	145	207	617,3	1,62			15
	25	220	345	491	259,7	3,85			20
SAS 650 / 800 - grade 90									
BS 7861:2007	22	247	304	380	335,6	2,98			
	25	319	393	491	259,7	3,85			
	28	400	493	616	207,0	4,83			18
	30	460	565	707	180,2	5,55			
SAS 670 / 800 - grade 97									
	18	170	204	254	500,0	2,00			
	22	255	304	380	335,6	2,98			
	25	329	383	491	259,7	3,85			
	28	413	493	616	207,0	4,83	5	8	10
	30	474	565	707	180,2	5,55			
	35	645	770	962	132,5	7,55			



Zubehör für alle Abmessungen und Anwendungen lieferbar / accessories for all dimensions and applications available

Stahlwerk Annahütte
 Max Aicher GmbH & Co. KG
 Werk 3+4 • 83404 Hammerau • Deutschland
 Tel. +49 (0) 8654 487 0 • Fax +49 (0) 8654 487 968
 stahlwerk@annahuette.com • www.annahuette.com



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