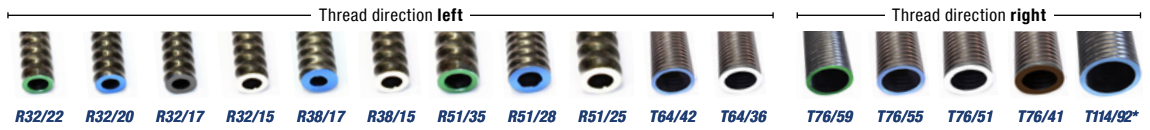


KSB® SPECIFICATIONS

KSB® Standard B 500



○ weak ⊙ strong
 ⊙ standard ⊙ very strong



		R32/22	R32/20	R32/17	R32/15	R38/17	R38/15	R51/35	R51/28	R51/25	T64/42	T64/36	T76/59	T76/55	T76/51	T76/41	T114/92*
Failure load F_{ik}	kN	250	295	360	400	500	580	660	800	1 000	1 200	1 400	1 100	1 300	1 600	2 000	2 050
Yield strength F_{yk}^3	kN	200	240	300	340	400	450	540	630	800	1 000	1 100	850	1 000	1 200	1 600	1 650
Tensile strength f_{tk}^3	N/mm ²	720	720	700	700	700	700	700	700	760	730	740	650	650	650	750	640
Yield point f_{yk}	N/mm ²	580	580	600	600	600	600	600	600	600	600	580	520	520	520	580	520
Nominal outer diameter²	mm	32	32	32	32	38	38	51	51	51	64	64	76	76	76	76	114
Wall thickness	mm	5	6	7.5	9	8.5	9.5	8	9.5	12.5	11	13	8	10	12.5	16	10
Steel cross-section¹ A	mm ²	360	420	530	580	740	800	950	1 150	1 370	1 710	1 920	1 620	2 000	2 400	2 800	3 280
Elongation after fracture Agt	%	> 5.0	> 5.0	> 5.0	> 5.0	> 5.0	> 5.0	> 5.0	> 5.0	> 5.0	> 5.0	> 5.0	> 5.0	> 5.0	> 5.0	> 5.0	> 5.0
Ratio ft / fy		> 1.15	> 1.15	> 1.15	> 1.15	> 1.15	> 1.15	> 1.15	> 1.15	> 1.15	> 1.15	> 1.15	> 1.15	> 1.15	> 1.15	> 1.15	> 1.15
Weight G²	kg/m	2.90	3.40	4.20	4.55	5.80	6.30	7.45	9.10	10.70	13.45	15.05	12.73	15.75	18.86	21.95	25.80
Thread direction		left	left	left	left	left	left	left	left	left	left	left	right	right	right	right	right
Maximum test load (0.9 F_{yk}) F_p	kN	180	216	270	306	360	405	486	567	720	900	990	765	900	1 080	1 440	1 485
Torsional resistance T_{rd}	Nm	1 826	2 032	2 333	2 467	3 833	3 999	7 266	8 479	9 602	16 013	16 939	16 614	19 564	22 638	28 855	48 578
Shear resistance Q_{rd}	kN	118	134	175	191	244	264	313	379	452	564	612	509	606	715	890	940
Equivalent to approx. KÜBOLT® B500 (Yield strength)	mm	20	25	28	28	32	32	40	40	50	50	50	40	50	50	50	50
Equivalent to approx. KÜBOLT® S670 (Yield strength)	mm	18	18	22	25	28	28	30	30	35	43	43	35	43	43	43	43

Working loads according / applications

for piles

Service loads $F_{yk}/1.75$ F	kN	114	134	170	194	229	257	309	360	457	571	629	486	571	685	914	943
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with nails in full composite

Defined force $F_{yk}/1.75$ F	kN	148	178	222	250	296	333	400	466	592	740	814	629	740	888	1 185	1 220
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with prestressed anchor

Setting force $\leq 0.6 \times F_{tk}/PO$	kN	150	177	216	240	300	348	396	480	600	720	840	660	780	960	1 200	1 230
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DUPLEX		o.r.	×	o.r.	×	×	o.r.	×	×	o.r.	o.r.	o.r.	o.r.	×	o.r.	o.r.	o.r.
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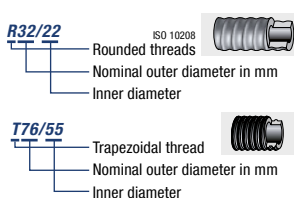
KÜPS® Drill 2a/3a

Outer diameter	mm			60	76	76	89	89	89	o.r.	o.r.
Inner covering	mm			10.5	16.1	16.1	15.8	15.8	15.8	12.3	12.3

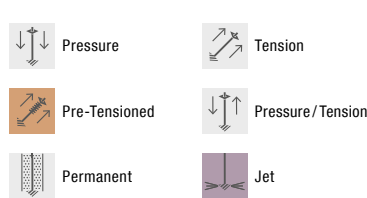
KÜPS® Bolt 2a/3a

Outer diameter	mm	60	60	60	60	76	76	89	89	89	89	89	
Inner covering	mm					10.5	16.1	16.1	15.8	15.8	15.8	12.3	12.3

Caption



Application



KSB® System options



¹ Calculated from the nominal mass with $S_0 = 106 \times m / 7.850$ (kg/m³)

² Permissible deviation: -3 bis +9 (%)

³ Characteristic value (5 % fractile)

* Delivery on request (o.r. / delivery time min. 2 weeks)

- Corresponds to B 500 B according to SIA 262
 - Values are subject to constant changes



		R51/7T	R51/9T	T76/6T	T76/8T*	T76/10T	T76/12T
Failure load F_{ik}	kN	1 000	1 200	1 400	1 800	2 200	2 900
Yield strength F_{yk}^3	kN	800	1 000	1 200	1 400	1 700	2 100
Tensile strength f_{tk}^3	N/mm ²	> 1 100	> 1 100	> 1 100	> 1 100	> 1 100	> 1 100
Yield point f_{yk}	N/mm ²	> 900	> 900	> 900	> 900	> 900	> 900
Nominal outer diameter²	mm	51	51	76	76	76	76
Wall thickness	mm	7.1	9.4	6.3	8	10	12.5
Steel cross-section¹ A	mm ²	1 000	1 200	1 500	1 800	2 200	2 900
Elongation after fracture Agt	%	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ratio ft / fy		> 1.15	> 1.15	> 1.15	> 1.15	> 1.15	> 1.15
Weight G²	kg/m	8.00	9.60	12.20	14.50	17.70	23.30
Thread direction		left	left	right	right	right	right
Maximum test load (0.9 F_{yk}) F_p	kN	720	900	1 080	1 260	1 530	1 890
Torsional resistance T_{rd}	Nm	10 637	12 645	23 791	28 755	33 861	39 880
Shear resistance Q_{rd}	kN	465	589	718	881	1 049	1 232
Equivalent to approx. KÜBOLT® B500 (Yield strength)	mm	40	50	50	50	63.5	63.5
Equivalent to approx. KÜBOLT® S670 (Yield strength)	mm	35	43	43	43	57.5	63.5

Working loads according / applications for piles

Service loads $F_{yk}/1.75 F$	kN	457	571	685	800	971	1 200
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with nails in full composite

Defined force $F_{yk}/1.75 F$	kN	592	740	888	1 037	1 259	1 555
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with prestressed anchor

Setting force $\leq 0.6 \times F_{tk}/P_0$	kN	not suitable					
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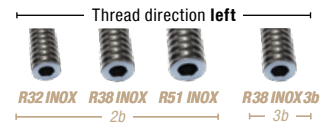
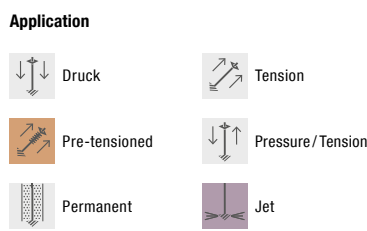
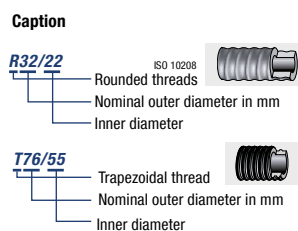
DUPLEX	o.r.	o.r.	o.r.	o.r.	o.r.	o.r.
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KÜPS® Drill 2a/3a

Outer diameter	mm	o.r.	o.r.
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KÜPS® Bolt 2a/3a

Outer diameter	mm	o.r.	o.r.
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		R32 INOX	R38 INOX	R51 INOX	R38 INOX 3b
Failure load F_{ik}	kN	360	630	950	630
Yield strength F_{yk}^3	kN	300	460	760	460
Tensile strength f_{tk}^3	N/mm ²	800	800	800	800
Yield point f_{yk}	N/mm ²	650	650	650	650
Nominal outer diameter²	mm	32	38	51	38
Wall thickness	mm	5.6	9.5	9.5	9.5
Steel cross-section¹ A	mm ²	480	800	1 300	800
Elongation after fracture Agt	%	> 5.0	> 5.0	> 5.0	> 5.0
Ratio ft / fy		> 1.2	> 1.2	> 1.2	> 1.2
Weight G²	kg/m	3.8	6.3	10.5	6.3
Thread direction		left	left	left	left
Maximum test load (0.9 F_{yk}) F_p	kN	270	414	684	414

Working loads according / applications for piles

Service loads $F_{yk}/1.75 F$	kN	170	260	430	260
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with nails in full composite

Defined force $F_{yk}/1.35 F$	kN	222	340	562	340
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- The support (top plate) must be positioned at 90° to the axis of the supporting element
- Values are subject to constant changes
- Anchor rod delivery lengths: 2, 3 or 4 meters

¹ Calculated from the nominal mass with $S_o = 10^6 \times m / 7.850$ (kg/m³)
² Permissible deviation: -3 bis +9 (%)
³ Characteristic value (fractile 5%)
 * Delivery on request (o.r. / delivery time min. 2 weeks)

