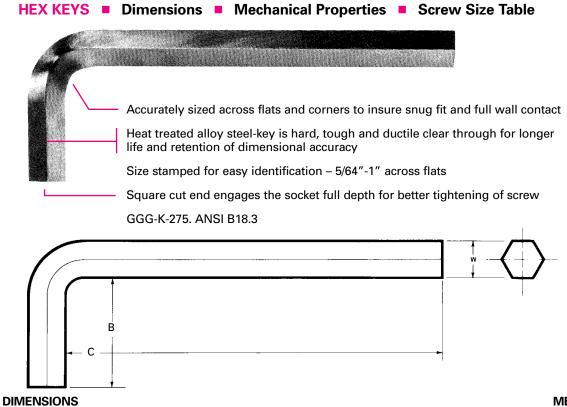
Unbrako



MECHANICAL PROPERTIES

key size W		dash number size	C length of l short series				B length of short arm		torsional shear strength	torsional yield	
max.	min.	page 87	max.	min.	max.	min.	max.	min.		inch-lbs. min.	
.028	.0275	1	1.312	1.125	2.688	2.500	.312	.125	1.1	.9	
.035	.0345	2	1.312	1.125	2.766	2.578	.438	.250	2.3	2.0	
.050	.049	3	1.750	1.562	2.938	2.750	.625	.438	6.5	5.6	
1/16	.0615	4	1.844	1.656	3.094	2.906	.656	.469	12.2	10.5	
5/64	.0771	5	1.969	1.781	3.281	3.094	.703	.516	25	21	
3/32	.0927	6	2.094	1.906	3.469	3.281	.750	.562	43	35	
7/64	.1079	7	2.219	2.031	3.656	3.469	.797	.609	68	60	
1/8	.1235	8	2.344	2.156	3.844	3.656	.844	.656	98	85	
9/64	.1391	9	2.469	2.281	4.031	3.844	.891	.703	146	125	
5/32	.1547	10	2.594	2.406	4.219	4.031	.938	.750	195	165	
3/16	.1860	11	2.844	2.656	4.594	4.406	1.031	.844	342	295	
7/32	.2172	12	3.094	2.906	4.969	4.781	1.125	.938	535	460	
1/4	.2485	13	3.344	3.156	5.344	5.156	1.219	1.031	780	670	
5/16	.3110	14	3.844	3.656	6.094	5.906	1.344	1.156	1,600	1,370	
3/8	.3735	15	4.344	4.156	6.844	6.656	1.469	1.281	2,630	2,260	
7/16	.4355	16	4.844	4.656	7.594	7.406	1.594	1.406	4,500	3,870	
1/2	.4975	17	5.344	5.156	8.344	8.156	1.719	1.531	6,300	5,420	
9/16	.5600	18	5.844	5.656	9.094	8.906	1.844	1.656	8,900	7,650	
5/8	.6225	19	6.344	6.156	9.844	9.656	1.969	1.781	12,200	10,500	
3/4	.7470	20	7.344	7.156	11.344	11.156	2.219	2.031	19,500	16,800	
7/8	.8720	21	8.344	8.156	12.844	12.656	2.469	2.281	29,000	24,900	
1 1 1/4 1 1/2	.9970 1.243 1.493	22 23 24	9.344 11.500 13.500	9.156 11.000 13.000	14.344	14.156	2.719 3.250 3.750	2.531 2.750 3.250	43,500 71,900 124,000	37,400 62,500 108,000	
1 3/4 2	1.743 1.993	25 26	15.500 17.500	15.000 17.000			4.250 4.750	3.750 4.250	198,000 276,000	172,000 240,000	
									1		

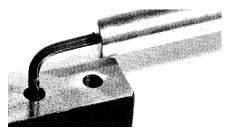
HEXAGON KEYS Why UNBRAKO keys tighten socket screws tighter, safely

An UNBRAKO key is not an ordinary hexagon key - it is a precision internal wrenching tool of great strength and ductility. With an UNBRAKO key, far more tightening torque than is needed can be applied without damaging the screw or the key, and it can be done safely. This is an important feature, especially true of the smaller sizes (5/32" and under) which are normally held in the hand.

Photographs of a destruction test show what we mean. Under excessive torque a 5/64" UNBRAKO key twists but does not shear until a torque has been reached that is approximately 20% greater than can be applied with an ordinary key. At this point it shears off clean, flush with the top of the socket, leaving no jagged edge to gash a hand.

Still the UNBRAKO screw has not been harmed. The broken piece of the key is not wedged into the socket. It can be lifted out with a small magnet, convincing proof that the socket has not been reamed or otherwise damaged.

NOTE: The use of an extension in these illustrations is for demonstration purposes only. The manufacturer does not recommend the use of extensions with any hex key product under normal conditions.

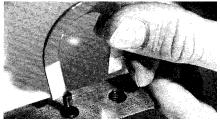


A 5/64" UNBRAKO key will twist up to 180° without weakening.

SCREW SIZE SELECTOR TABLE



off clean. Note the extension bar illustrated for test purposes only.



The socket hasn't been reamed or damaged. Broken section can be lifted out with a magnet.

1960 Series low heads socket button and socket flat head head head shoulder set pressure* cap screws screws screws screws screws plugs #0 #1, #2 #0 #0 #0 #1,#2 #3, #4 #1,#2 #1 #3,#4 #3, #4 #5,#6 #2,#3 #5,#6 #5,#6 #8 #4,#5 #8 #8 #10 #6 #10 1/4 #10 1/4 #8 5/16 1/16 #10 1/4 1/4 5/16 1/4 5/16 5/16 3/8 1/8 3/8 7/16 3/8 3/8 5/16 7/16 1/2 1/2 1/4 3/8 1/2 1/2, 9/16 5/8 5/8 3/8 7/16,1/2 3/4 3/4 1/2 5/8 5/8 9/16 5/8 3/4 7/8, 1 7/8 7/8 1, 1/8 3/4 3/4 1 1 1/4 1 1/4, 1 3/8 1 1 1/2 1-1/4, 1-1/2 7/8.1 1 1/8, 1 1/4 1 1/2 1 3/8, 1 1/2 1 3/4 1/2,2 1 3/4 2 2 2 1/4, 2 1/2 2 3/4

NOTES Material: ANSI B18.3, alloy steel Heat treat: Rc 47-57