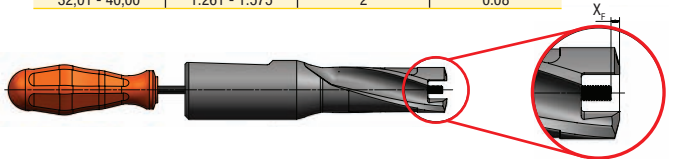


KSEM™ Modular Drill MANUAL



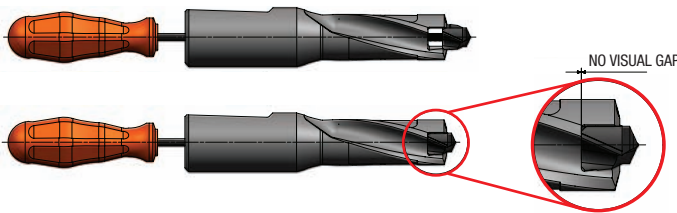
Mounting Instruction

D (mm)	D (inch)	X _c (mm)	X _c (inch)
12,50 - 32,00	0.492 - 1.260	0	0
32,01 - 40,00	1.261 - 1.575	2	0.08



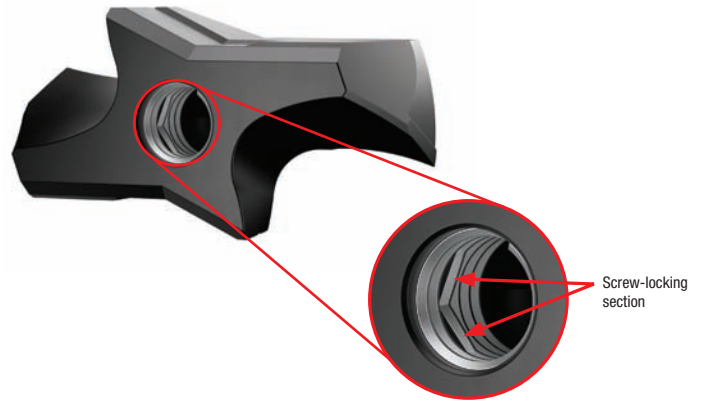
Set the screw to distance X_c

Start to pull the KSEM insert into the pocket seat by turning the wrench clockwise until there is full contact with the bottom of the pocket seat.



Mounting Recommendations

A thread inlay with a screw-locking section improves process safety. Some effort may be required to mount the insert, but anti-seize lubricant on the pocket seat helps to ease the mounting process. Visually inspect the screw after every insert exchange.



Application Data • Coolant

Required minimum coolant quantity in l/min relative to coolant pressure (P) and L x D ratio.

Drill Dia. (D) in mm	8 bar for 1-3 x D	12 bar for 5 x D	20 bar for 7 x D	30 bar for 10 x D	50 bar for >10 x D
12.50	5	6	8	9	12
14.00	6	7	10	12	15
16.00	8	10	13	16	21
20.00	12	14	18	23	29
25.00	15	18	23	29	37
30.00	20	25	32	39	51
35.00	27	33	43	52	67
40.00	27	33	43	52	67

Required minimum coolant quantity in gal/min relative to coolant pressure (psi) and L x D ratio

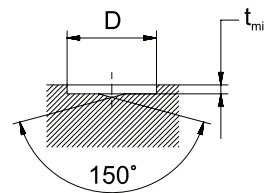
Drill Dia. (D) in inch	116 psi for 1-3 x D	174 psi for 5 x D	290 psi for 7 x D	435 psi for 10 x D	580 psi for >10 x D
0.492	1.3	1.6	2.1	2.4	3.2
0.551	1.6	1.8	2.6	3.2	4.0
0.630	2.1	2.6	3.4	4.2	5.5
0.787	3.2	3.7	4.8	6.1	7.7
0.984	4.0	4.8	6.1	7.7	9.8
1.181	5.3	6.6	8.5	10.3	13.5
1.378	7.1	8.7	11.4	13.7	17.7
1.575	7.1	8.7	11.4	13.7	17.7

Application Data • Piloting

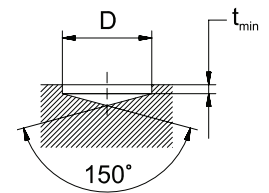
Use FEG or PC geometry for piloting.

D (mm)	D (inch)	t _{min} (mm)	t _{min} (inch)
12,50 - 19,999	0.492 - 0.786	1	0.04
20,000 - 32,000	0.787 - 1.259	1.5	0.06
32,001 - 40,000	1.260 - 1.575	2	0.08

FEG



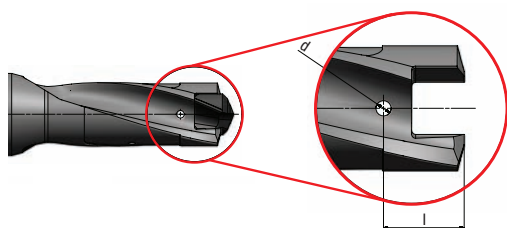
PC



Repair Instructions

In case the central clamping screw gets damaged and the KSEM insert cannot be disassembled anymore, drilling a repair hole enables the removal and replacement of the damaged screw.

See the chart below for the position of the repair hole relative to the drill diameter, and the replacement of the central locking screw.



D (mm)	D (inch)	seat size	central lock screw	d (mm)	d (inch)	l (mm)	l (inch)	
12,500 - 13,500	0.492 - 0.531	C	364.017	1.5	0.06	9.4	0.370	
13,501 - 14,500	0.532 - 0.570	B	364.016	1.5	0.06	10.2	0.402	
14,501 - 15,874	0.571 - 0.624	A	364.016	1.5	0.06	10.5	0.413	
15,875 - 18,000	0.625 - 0.708	1	364.010	2	0.08	11.6	0.457	
18,001 - 19,999	0.709 - 0.786	2	364.010	2	0.08	12.2	0.480	
20,000 - 22,000	0.787 - 0.866	3	364.011	2.5	0.10	13.6	0.535	
22,001 - 24,000	0.867 - 0.944	4	364.011	2.5	0.10	14.2	0.559	
24,001 - 26,000	0.945 - 1.023	5	364.012	3	0.12	15.8	0.622	
26,001 - 28,000	1.024 - 1.102	6	364.012	3	0.12	16.4	0.646	
28,001 - 30,000	1.103 - 1.180	7	364.013	3.5	0.14	17.9	0.705	
30,001 - 32,000	1.181 - 1.259	8	364.013	3.5	0.14	18.5	0.728	
32,001 - 36,000	1.260 - 1.417	9	364.015	4	0.16	20.8	0.819	
36,001 - 40,000	1.418 - 1.575	10	364.015	4	0.16	22.9	0.902	
				Tolerance	+/- 0,1	+/- 0.004	+0,3	+0.012