



KOMET KUB Pentron™

Solid drilling up to 5xD

KOMET KUB Pentron™

Continuous drilling to 5 x D

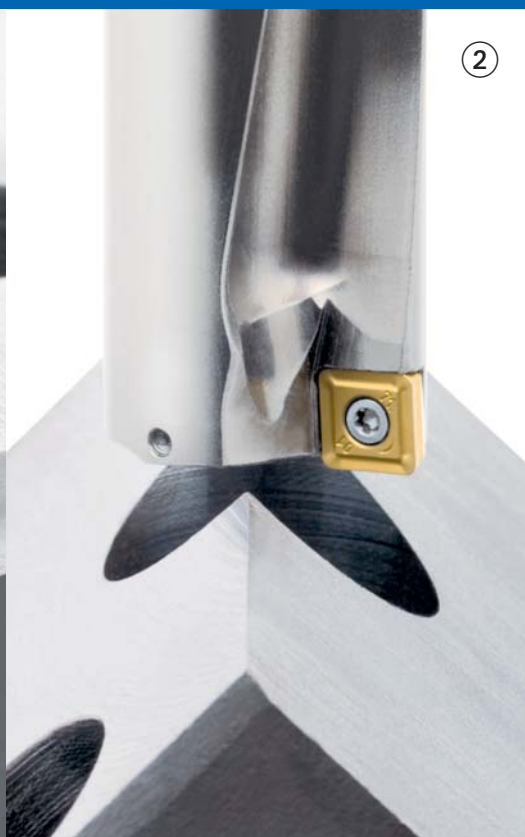
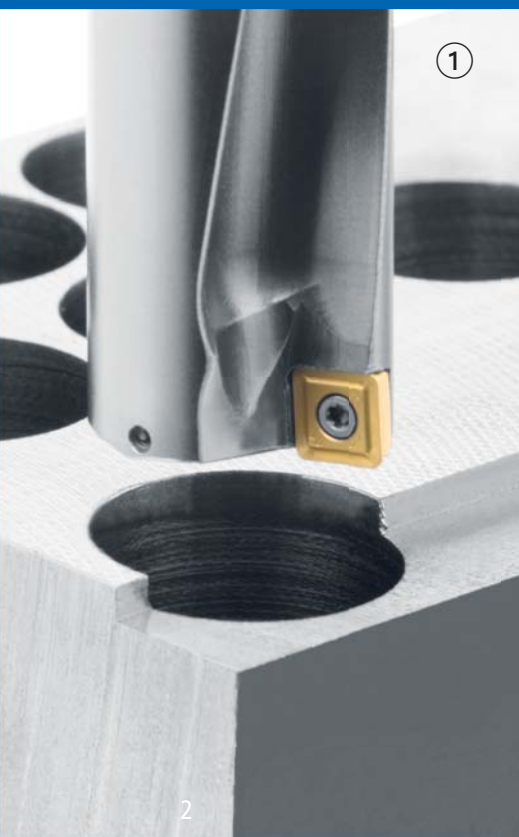
Applications:

- For large drilling depths
- Ideal for extreme working situations
- For use with steel, cast metal, aluminum and stainless materials

Benefits for you:

- **Maximum functionality and life with excellent drilling performance**
due to optimum main body stability and a special surface treatment
- **Optimum dimensional accuracy in the most difficult drilling conditions to 5xD**
- **Cost savings and ease of handling**
due to identical internal and external indexable inserts
- **Maximum tool life**
due to four fully useable cutting edges of modern substrates with appropriate coatings.

- ① Extreme applications in the 5xD region: drilling on an edge
- ② Extreme applications in the 5xD region: drilling into a corner
- ③ Extreme applications in the 5xD region: stackplate drilling
- ④ Extreme applications in the 5xD region: drilling on a welded seam or uneven surfaces



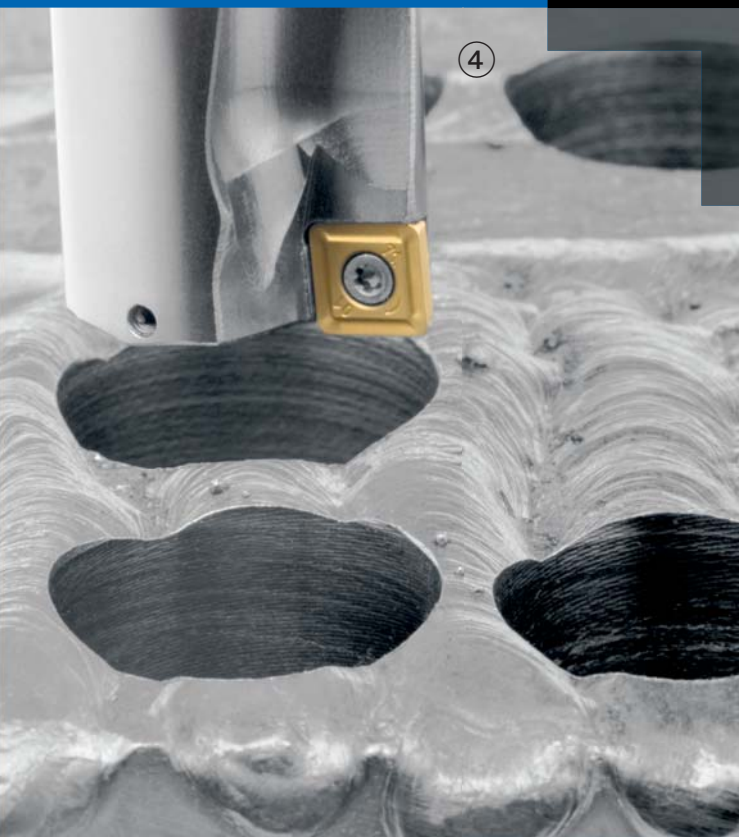
KOMET KUB Pentron™ continuous drill

In developing the KOMET KUB Pentron™, KOMET has blazed a completely new trail.

It has combined key features such as real accuracy, top performance parameters and deep drilling depths in a single tool.

In comparison with the usual indexable insert drills available now on the market, the KOMET KUB Pentron™ gives up to 20% higher cut and feed values, right through to a 5xD length/diameter ratio.

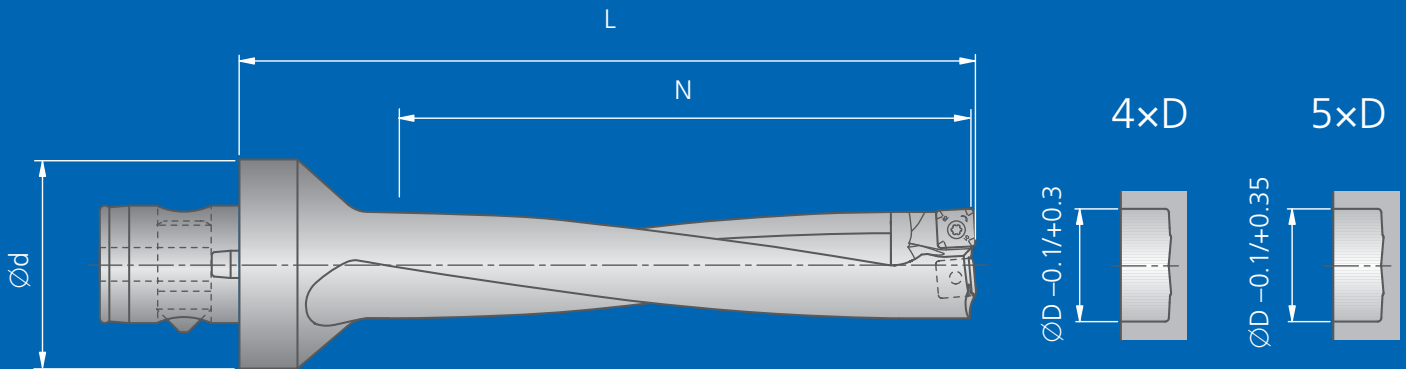
It can handle extreme working conditions that were only previously feasible with 3xD.





KOMET KUB Pentron™

Ø 0.656 – 1.000 inch

Insert drill with ABS® connection, R.H. cutting



Dimension are in inch

ØD	* max. diameter offset	ABS Ød	4xD				5xD			
			Order No.	N	L		Order No.	N	L	
0.656	0.676	50	U44 51670	2.624	3.898	0.95	U45 51670	3.280	4.567	
0.687	0.707	50	U44 51750	2.748	4.055	0.97	U45 51750	3.435	4.764	
0.703	0.723	50	U44 51790	2.812	4.055	0.97	U45 51790	3.515	4.764	
0.750	0.770	50	U44 51910	3.000	4.409	1.08	U45 51910	3.750	5.197	
0.765	0.785	50	U44 51940	3.060	4.409	1.10	U45 51940	3.825	5.197	
0.781	0.801	50	U44 51980	3.124	4.409	1.12	U45 51980	3.905	5.197	
0.812	0.832	50	U44 52060	3.248	4.567	1.12	U45 52060	4.060	5.394	
0.828	0.842	50	U44 52100	3.312	4.567	1.12	U45 52100	4.140	5.394	
0.875	0.895	50	U44 52220	3.500	4.882	1.19	U45 52220	4.375	5.787	
0.906	0.926	50	U44 52300	3.624	4.882	1.23	U45 52300	4.530	5.787	
0.937	0.957	50	U44 52380	3.748	5.039	1.26	U45 52380	4.685	5.984	
0.985	1.005	50	U44 52500	3.940	5.236	1.32	U45 52500	4.925	6.220	
1.000	1.020	50	U44 51540	4.000	5.394	1.34	U45 52540	5.000	6.417	

Supply includes: KUB Pentron™ drill with assembly parts. Please order insert and accessories separately.
Adjustment device see Compass catalog – chapter 5"

L / D	Through Hole	Blind Hole	Welded Joint	Slanted Surface	Curved Surface	Cross Hole	Center drilled Hole	Interrupted Cut	Stackplate	Rough Boring	Adjustable Diameter
4xD											
5xD											

● highly recommended ● recommended ○ may be suitable: see technical notes, page 29 ✕ not recommended

Insert Recommendation					Insert clamping screw	Starting clamping torque	TORX PLUS®
Order No. size	ISO Insert Description	Qty	P M K N S H	Order No. Description	in-lbs	Order No. Description	
 W80 12010.048425 W80 12010.042730 W80 12010.046115 W80 12010.047710	SOGX 050204-01 BK8425 SOGX 050204-01 BK2730 SOGX 050204-01 BK6115 ⚠ SOGX 050204-01 BK7710	2		N00 56041 S/M2x4.3-6IP	5.49	L05 00810 6IP	
W80 18010.068425 W80 18010.062730 W80 18010.066115 W80 18010.067710	SOGX 060206-01 BK8425 SOGX 060206-01 BK2730 SOGX 060206-01 BK6115 ⚠ SOGX 060206-01 BK7710	2		N00 57553 S/M2.2x5.5-6IP	8.9	L05 00810 6IP	
W80 20010.088425 W80 20010.082730 W80 20010.086115 W80 20010.087710	SOGX 07T208-01 BK8425 SOGX 07T208-01 BK2730 SOGX 07T208-01 BK6115 ⚠ SOGX 07T208-01 BK7710	2		N00 57553 S/M2.2x5.5-6IP	8.9	L05 00810 6IP	
W80 24010.088425 W80 24010.082730 W80 24010.086115 W80 24010.087710	SOGX 080308-01 BK8425 SOGX 080308-01 BK2730 SOGX 080308-01 BK6115 ⚠ SOGX 080308-01 BK7710	2		N00 57571 S/M2.5x6.3-8IP	11.3	L05 00830 8IP	

Guideline values for solid drilling and alternative inserts: page 24 - 28

EP 0 547 049 and other patents (ABS®), Patented design (KUB Pentron™)

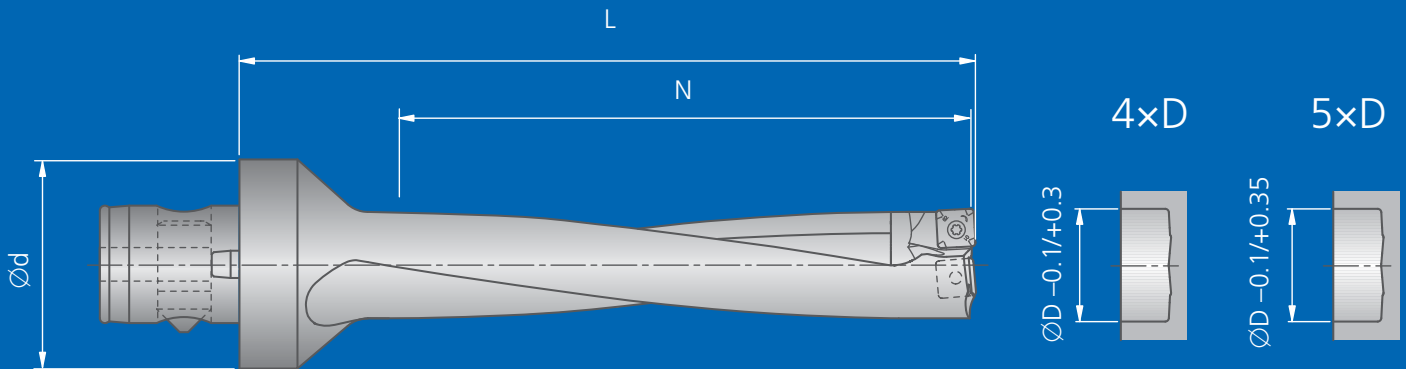


Note: Only use this insert with KUB Pentron™ as an external cutting edge: SOGX ... -01 (geometry 01) in BK6115

KOMET KUB Pentron™

Ø 1.031 – 1.437 inch

Insert drill with ABS® connection, R.H. cutting



Dimension are in inch

ØD	* max. diameter offset	ABS Ød	4xD				5xD			
			Order No.	N	L	lbs	Order No.	N	L	lbs
1.031	1.051	50	U44 52620	4.124	5.590	1.34	U45 52620	5.155	6.653	1.45
1.062	1.082	50	U44 52700	4.248	5.590	1.37	U45 52700	5.310	6.653	1.48
1.109	1.129	50	U44 52820	4.436	5.945	1.48	U45 52820	5.545	7.087	1.61
1.125	1.145	50	U44 52860	4.500	5.945	1.50	U45 52860	5.625	7.087	1.65
1.156	1.176	50	U44 52940	4.624	6.102	1.54	U45 52940	5.780	7.283	1.70
1.187	1.207	63	U44 63020	4.748	6.417	2.27	U45 63020	5.935	7.638	2.47
1.218	1.238	63	U44 63090	4.872	6.417	2.34	U45 63090	6.090	7.638	2.53
1.250	1.270	63	U44 63150	5.000	6.575	2.42	U45 63180	6.250	7.835	2.62
1.281	1.301	63	U44 63250	5.124	6.772	2.53	U45 63250	6.405	8.071	2.75
1.312	1.332	63	U44 63330	5.248	6.929	2.60	U45 63330	6.560	8.268	2.82
1.328	1.348	63	U44 63370	5.312	6.929	2.62	U45 63370	6.640	8.268	2.84
1.375	1.395	63	U44 63490	5.500	7.126	2.73	U45 63490	6.875	8.504	3.00
1.437	1.457	63	U44 63650	5.748	7.480	2.95	U45 63650	7.185	8.937	3.26

Supply includes: KUB Pentron™ drill with assembly parts. Please order insert and accessories separately.
Adjustment device see Compass catalog – chapter 5"

L / D	Through Hole	Blind Hole	Welded Joint	Slanted Surface	Curved Surface	Cross Hole	Center drilled Hole	Interrupted Cut	Stackplate	Rough Boring	Adjustable Diameter
4xD	●	●	●	●	●	●	●	○	●	✕	●
5xD	●	●	●	●	●	●	●	✕	●	✕	●

● highly recommended ● recommended ○ may be suitable: see technical notes, page 29 ✕ not recommended

Insert Recommendation					Insert clamping screw	Starting clamping torque	TORX PLUS®
Order No. size	ISO Insert Description	Qty	P M K N S H	Order No. Description	in-lbs	Order No. Description	
W80 28010.088425 W80 28010.082730 W80 28010.086115 W80 28010.087710	SOGX 09T308-01 BK8425 SOGX 09T308-01 BK2730 SOGX 09T308-01 BK6115 ⚠ SOGX 09T308-01 BK7710	2		N00 57251 S3076-8IP	5.49	L05 00830 8IP	
W80 32010.088425 W80 32010.082730 W80 32010.086115 W80 32010.087710	SOGX 100408-01 BK8425 SOGX 100408-01 BK2730 SOGX 100408-01 BK6115 ⚠ SOGX 100408-01 BK7710	2		N00 57261 S3575-15IP	8.9	L05 00860 15IP	
W80 38010.088425 W80 38010.082730 W80 38010.086115 W80 38010.087710	SOGX 110408-01 BK8425 SOGX 110408-01 BK2730 SOGX 110408-01 BK6115 ⚠ SOGX 110408-01 BK7710	2		N00 57261 S3575-15IP	11.3	L05 00860 15IP	

Guideline values for solid drilling and alternative inserts: page 24 - 28

EP 0 547 049 and other patents (ABS®), Patented design (KUB Pentron™)

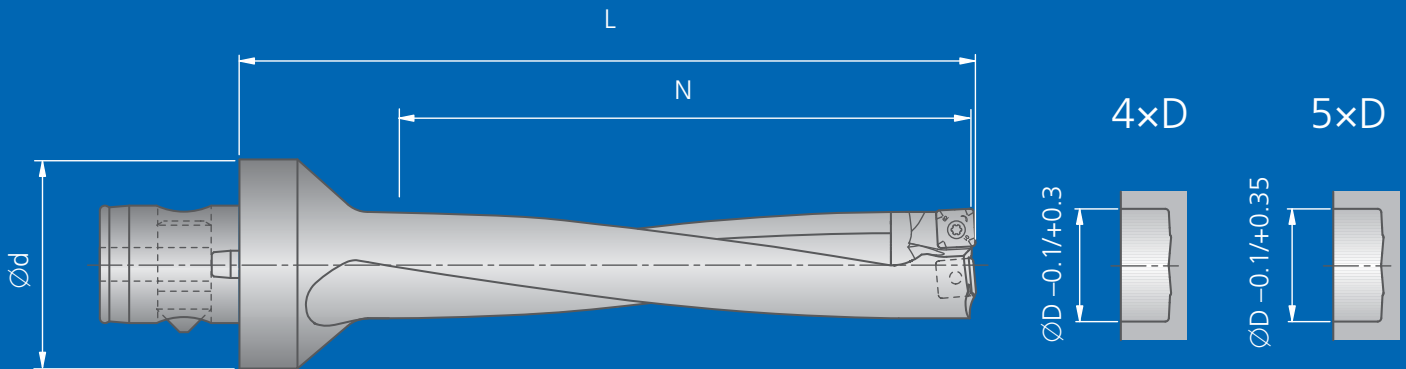


Note: Only use this insert with KUB Pentron™ as an external cutting edge: SOGX ... -01 (geometry 01) in BK6115

KOMET KUB Pentron™

Ø 1.469 – 1.750 inch

Insert drill with ABS® connection, R.H. cutting



Dimension are in inch

ØD	* max. diameter offset	ABS Ød	4xD				5xD			
			Order No.	N	L	lbs	Order No.	N	L	lbs
1.469	1.489	63	U44 63730	5.876	7.638	3.04	U45 63730	7.345	9.134	3.35
1.500	1.520	63	U44 63810	6.000	7.835	3.13	U45 63810	7.500	9.370	3.46
1.562	1.582	63	U44 63970	6.248	7.992	3.31	U45 63970	7.810	9.567	3.66
1.625	1.645	63	U44 64130	6.500	8.346	3.57	U45 64130	8.125	10.000	4.01
1.656	1.676	63	U44 64210	6.624	8.543	3.66	U45 64210	8.280	10.236	4.17
1.687	1.707	63	U44 64290	6.748	8.543	3.75	U45 64290	8.435	10.236	4.23
1.750	1.770	63	U44 64450	7.000	8.898	4.06	U45 64450	8.750	10.669	4.61

Supply includes: KUB Pentron™ drill with assembly parts. Please order insert and accessories separately.
Adjustment device see Compass catalog – chapter 5"

L / D	Through Hole	Blind Hole	Welded Joint	Slanted Surface	Curved Surface	Cross Hole	Center drilled Hole	Interrupted Cut	Stackplate	Rough Boring	Adjustable Diameter
4xD											
5xD											

● highly recommended ● recommended ○ may be suitable: see technical notes, page 29 ✕ not recommended

Insert Recommendation						Insert clamping screw	Starting clamping torque	TORX PLUS®			
Order No. size	ISO Insert Description	Qty	P	M	K	N	S	H	Order No. Description	in-lbs	Order No. Description
 W80 42010.088425 W80 42010.082730 W80 42010.086115 W80 42010.087710	SOGX 120408-01 BK8425 SOGX 120408-01 BK2730 SOGX 120408-01 BK6115 ⚠ SOGX 120408-01 BK7710	2	●	●	●	●	●	○	N00 57301 S45100-20IP	5.49	L05 00870 20IP
W80 46010.088425 W80 46010.082730 W80 46010.086115 W80 46010.087710	SOGX 130408-01 BK8425 SOGX 130408-01 BK2730 SOGX 130408-01 BK6115 ⚠ SOGX 130408-01 BK7710	2	●	●	●	●	●	○	N00 57301 S45100-20IP	8.9	L05 00870 20IP

Guideline values for solid drilling and alternative inserts: page 24 - 28

EP 0 547 049 and other patents (ABS®), Patented design (KUB Pentron™)

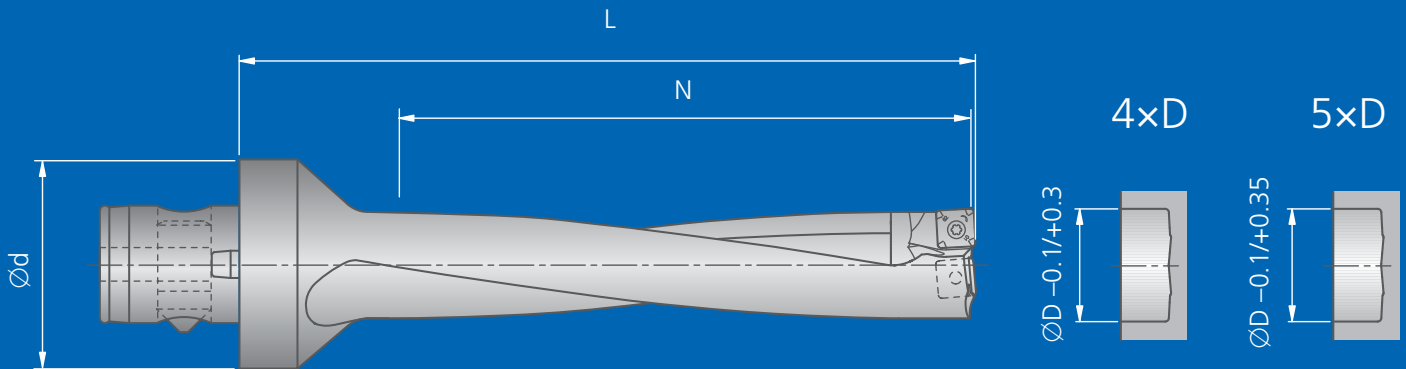


Note: Only use this insert with KUB Pentron™ as an external cutting edge: SOGX ... -01 (geometry 01) in BK6115

KOMET KUB Pentron™

Ø 16.5 – 26.0 mm

Insert drill with ABS® connection, R.H. cutting



Dimension are in mm

ØD	* max. diameter offset	ABS Ød	4xD				5xD			
			Order No.	N	L	lbs	Order No.	N	L	lbs
16.5	17.0	50	U44 51650	68	99	0.95	U45 51650	85	116	0.97
17.0	17.5	50	U44 51700	68	99	0.95	U45 51700	85	116	0.97
17.5	18.0	50	U44 51750	72	103	0.97	U45 51750	90	121	0.99
18.0	18.5	50	U44 51800	72	103	0.97	U45 51800	90	121	0.99
18.5	19.0	50	U44 51850	76	108	1.04	U45 51850	95	127	1.12
19.0	19.5	50	U44 51900	76	108	1.08	U45 51900	95	127	1.15
19.5	20.0	50	U44 51950	80	112	1.10	U45 51950	100	132	1.17
20.0	20.5	50	U44 52000	80	112	1.12	U45 52000	100	132	1.17
20.5	21.0	50	U44 52050	84	116	1.12	U45 52050	105	137	1.17
21.0	21.5	50	U44 52100	84	116	1.12	U45 52100	105	137	1.19
21.5	22.0	50	U44 52150	88	120	1.15	U45 52150	110	142	1.21
22.0	22.5	50	U44 52200	88	120	1.17	U45 52200	110	142	1.23
22.5	23.0	50	U44 52250	92	124	1.21	U45 52250	115	147	1.30
23.0	23.5	50	U44 52300	92	124	1.23	U45 52300	115	147	1.32
23.5	24.0	50	U44 52350	96	128	1.23	U45 52350	120	152	1.32
24.0	24.5	50	U44 52400	96	128	1.26	U45 52400	120	152	1.34
24.5	25.0	50	U44 52450	100	133	1.30	U45 52450	125	158	1.39
25.0	25.5	50	U44 52500	100	133	1.32	U45 52500	125	158	1.41
25.5	26.0	50	U44 52550	104	137	1.34	U45 52550	130	163	1.45
26.0	26.5	50	U44 52600	104	137	1.39	U45 52600	130	163	1.50

Supply includes: KUB Pentron™ drill with assembly parts. Please order insert and accessories separately.

Adjustment device see Compass catalog – chapter 5"

L / D	Through Hole	Blind Hole	Welded Joint	Slanted Surface	Curved Surface	Cross Hole	Center drilled Hole	Interrupted Cut	Stackplate	Rough Boring	Adjustable Diameter
4xD											
5xD											

● highly recommended ● recommended ○ may be suitable: see technical notes, page 29 ✕ not recommended

Insert Recommendation						
Order No. size	ISO Insert Description	Qty	P M K N S H	Insert clamping screw Order No. Description	Starting clamping torque in-lbs	TORX PLUS® Order No. Description
W80 12010.048425 W80 12010.042730 W80 12010.046115 W80 12010.047710	SOGX 050204-01 BK8425 SOGX 050204-01 BK2730 SOGX 050204-01 BK6115 ⚠ SOGX 050204-01 BK7710	2		N00 56041 S/M2×4.3-6IP	5.49	L05 00810 6IP
W80 18010.068425 W80 18010.062730 W80 18010.066115 W80 18010.067710	SOGX 060206-01 BK8425 SOGX 060206-01 BK2730 SOGX 060206-01 BK6115 ⚠ SOGX 060206-01 BK7710	2		N00 57553 S/M2.2×5.5-6IP	8.9	L05 00810 6IP
W80 20010.088425 W80 20010.082730 W80 20010.086115 W80 20010.087710	SOGX 07T208-01 BK8425 SOGX 07T208-01 BK2730 SOGX 07T208-01 BK6115 ⚠ SOGX 07T208-01 BK7710	2		N00 57553 S/M2.2×5.5-6IP	8.9	L05 00810 6IP
W80 24010.088425 W80 24010.082730 W80 24010.086115 W80 24010.087710	SOGX 080308-01 BK8425 SOGX 080308-01 BK2730 SOGX 080308-01 BK6115 ⚠ SOGX 080308-01 BK7710	2		N00 57571 S/M2.5×6.3-8IP	11.3	L05 00830 8IP

Guideline values for solid drilling and alternative inserts: page 24 - 28

EP 0 547 049 and other patents (ABS®), Patented design (KUB Pentron™)

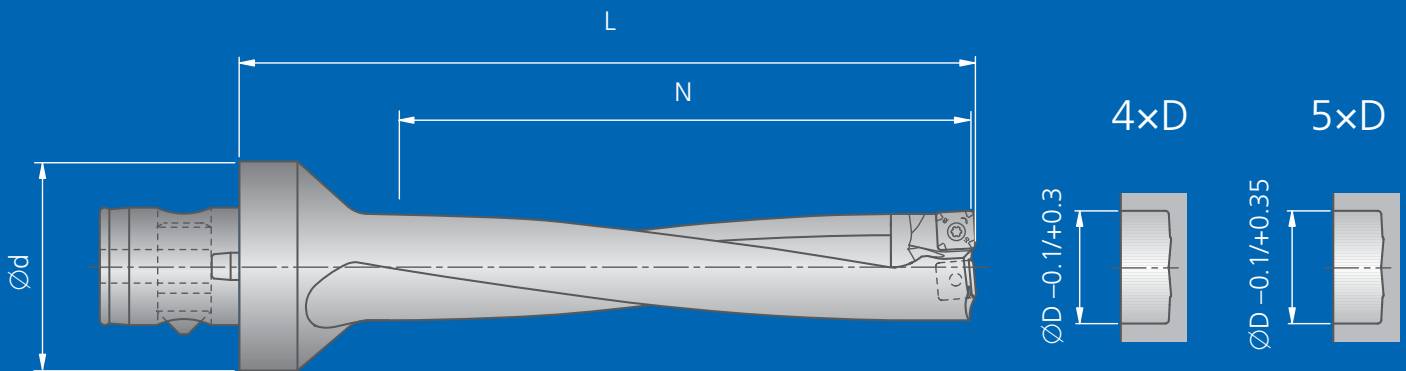


Note: Only use this insert with KUB Pentron™ as an external cutting edge: SOGX ... -01 (geometry 01) in BK6115

KOMET KUB Pentron™

Ø 26.5 – 37.0 mm

Insert drill with ABS® connection, R.H. cutting



Dimension are in mm

ØD	* max. diameter offset	ABS Ød	4xD				5xD			
			Order No.	N	L	lbs	Order No.	N	L	lbs
26.5	27.0	50	U44 52650	108	142	1.34	U45 52650	135	169	1.45
27.0	27.5	50	U44 52700	108	142	1.37	U45 52700	135	169	1.48
27.5	28.0	50	U44 52750	112	146	1.41	U45 52750	140	174	1.54
28.0	28.5	50	U44 52800	112	146	1.43	U45 52800	140	174	1.56
28.5	29.0	50	U44 52850	116	151	1.50	U45 52850	145	180	1.63
29.0	29.5	50	U44 52900	116	151	1.52	U45 52900	145	180	1.67
29.5	30.0	50	U44 52950	120	155	1.54	U45 52950	150	185	1.70
30.0	30.5	50	U44 53000	120	155	1.56	U45 53000	150	185	1.74
30.5	31.0	63	U44 63050	124	163	2.31	U45 63050	155	194	2.49
31.0	31.5	63	U44 63100	124	163	2.36	U45 63100	155	194	2.53
31.5	32.0	63	U44 63150	128	167	2.42	U45 63150	160	199	2.60
32.0	32.5	63	U44 63200	128	167	2.45	U45 63200	160	199	2.64
32.5	33.0	63	U44 63250	132	172	2.53	U45 63250	165	205	2.75
33.0	33.5	63	U44 63300	132	172	2.58	U45 63300	165	205	2.80
33.5	34.0	63	U44 63350	136	176	2.60	U45 63350	170	210	2.84
34.0	34.5	63	U44 63400	136	176	2.62	U45 63400	170	210	2.87
34.5	35.0	63	U44 63450	140	181	2.71	U45 63450	175	216	2.95
35.0	35.5	63	U44 63500	140	181	2.73	U45 63500	175	216	3.00
35.5	36.0	63	U44 63550	144	185	2.80	U45 63550	180	221	3.09
36.0	36.5	63	U44 63600	144	185	2.84	U45 63600	180	221	3.13
36.5	37.0	63	U44 63650	148	190	2.94	U45 63650	185	227	3.26
37.0	37.5	63	U44 63700	148	190	3.00	U45 63700	185	227	3.31

Supply includes: KUB Pentron™ drill with assembly parts. Please order insert and accessories separately.

Adjustment device see Compass catalog – chapter 5"

L / D	Through Hole	Blind Hole	Welded Joint	Slanted Surface	Curved Surface	Cross Hole	Center drilled Hole	Interrupted Cut	Stackplate	Rough Boring	Adjustable Diameter
4xD											
5xD											

● highly recommended ● recommended ○ may be suitable: see technical notes, page 29 ✕ not recommended

Insert Recommendation					Insert clamping screw	Starting clamping torque	TORX PLUS®
Order No. size	ISO Insert Description	Qty	P M K N S H	Order No. Description	in-lbs	Order No. Description	
W80 28010.088425 W80 28010.082730 W80 28010.086115 W80 28010.087710	SOGX 09T308-01 BK8425 SOGX 09T308-01 BK2730 SOGX 09T308-01 BK6115 ⚠ SOGX 09T308-01 BK7710	2		N00 57251 S3076-8IP	5.49	L05 00830 8IP	
W80 32010.088425 W80 32010.082730 W80 32010.086115 W80 32010.087710	SOGX 100408-01 BK8425 SOGX 100408-01 BK2730 SOGX 100408-01 BK6115 ⚠ SOGX 100408-01 BK7710	2		N00 57261 S3575-15IP	8.9	L05 00860 15IP	
W80 38010.088425 W80 38010.082730 W80 38010.086115 W80 38010.087710	SOGX 110408-01 BK8425 SOGX 110408-01 BK2730 SOGX 110408-01 BK6115 ⚠ SOGX 110408-01 BK7710	2		N00 57261 S3575-15IP	11.3	L05 00860 15IP	

Guideline values for solid drilling and alternative inserts: page 24 - 28

EP 0 547 049 and other patents (ABS®), Patented design (KUB Pentron™)

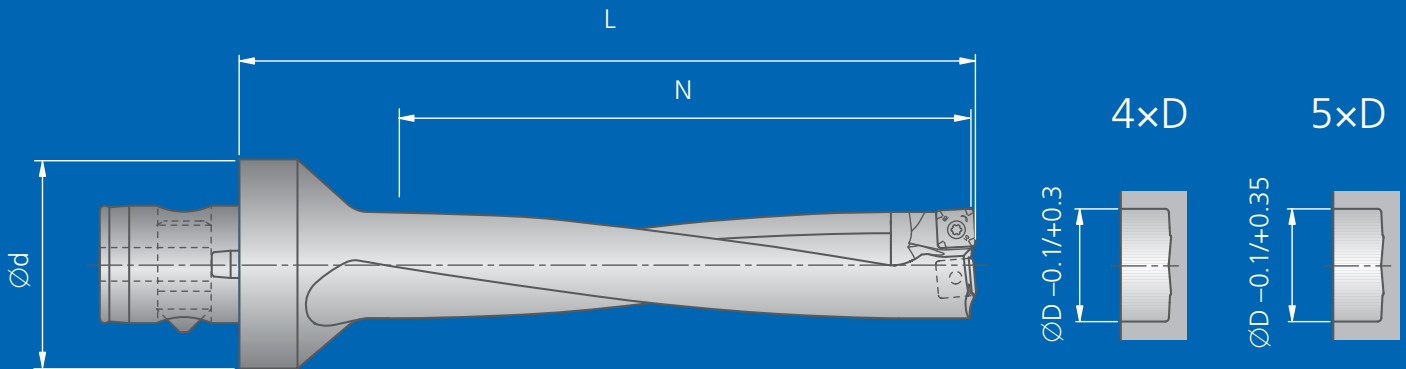


Note: Only use this insert with KUB Pentron™ as an external cutting edge:
 SOGX ... -01 (geometry 01) in BK6115

KOMET KUB Pentron™

Ø 37.5 – 44.5 mm

Insert drill with ABS® connection, R.H. cutting



Dimension are in mm

ØD	* max. diameter offset	ABS Ød	4xD				5xD			
			Order No.	N	L	lbs	Order No.	N	L	lbs
37.5	38.0	63	U44 63750	152	194	3.06	U45 63750	190	232	3.37
38.0	38.5	63	U44 63800	152	194	3.09	U45 63800	190	232	3.42
38.5	39.0	63	U44 63850	156	199	3.15	U45 63850	195	238	3.48
39.0	39.5	63	U44 63900	156	199	3.17	U45 63900	195	238	3.53
39.5	40.0	63	U44 63950	160	203	3.28	U45 63950	200	243	3.64
40.0	40.5	63	U44 64000	160	203	3.33	U45 64000	200	243	3.70
40.5	41.0	63	U44 64050	164	208	3.44	U45 64050	205	249	3.84
41.0	41.5	63	U44 64100	164	208	3.48	U45 64100	205	249	3.90
41.5	42.0	63	U44 64150	168	212	3.59	U45 64150	210	254	4.03
42.0	42.5	63	U44 64200	168	212	3.64	U45 64200	210	254	4.10
42.5	43.0	63	U44 64250	172	217	3.70	U45 64250	215	260	4.19
43.0	43.5	63	U44 64300	172	217	3.75	U45 64300	215	260	4.23
43.5	44.0	63	U44 64350	176	221	3.86	U45 64350	220	265	4.39
44.0	44.5	63	U44 64400	176	221	3.92	U45 64400	220	265	4.45
44.5	45.0	63	U44 64450	180	226	4.06	U45 64450	225	271	4.61

Supply includes: KUB Pentron™ drill with assembly parts. Please order insert and accessories separately.
Adjustment device see Compass catalog – chapter 5"

L / D	Through Hole	Blind Hole	Welded Joint	Slanted Surface	Curved Surface	Cross Hole	Center drilled Hole	Interrupted Cut	Stackplate	Rough Boring	Adjustable Diameter
4xD											
5xD											

● highly recommended ● recommended ○ may be suitable: see technical notes, page 29 ✕ not recommended

Insert Recommendation					Insert clamping screw	Starting clamping torque	TORX PLUS®
Order No. size	ISO Insert Description	Qty	P M K N S H	Order No. Description	in-lbs	Order No. Description	
W80 42010.088425 W80 42010.082730 W80 42010.086115 W80 42010.087710	SOGX 120408-01 BK8425 SOGX 120408-01 BK2730 SOGX 120408-01 BK6115 ⚠ SOGX 120408-01 BK7710	2		N00 57301 S45100-20IP	5.49	L05 00870 20IP	
W80 46010.088425 W80 46010.082730 W80 46010.086115 W80 46010.087710	SOGX 130408-01 BK8425 SOGX 130408-01 BK2730 SOGX 130408-01 BK6115 ⚠ SOGX 130408-01 BK7710	2		N00 57301 S45100-20IP	8.9	L05 00870 20IP	

Guideline values for solid drilling and alternative inserts: page 24 - 28

EP 0 547 049 and other patents (ABS®), Patented design (KUB Pentron™)

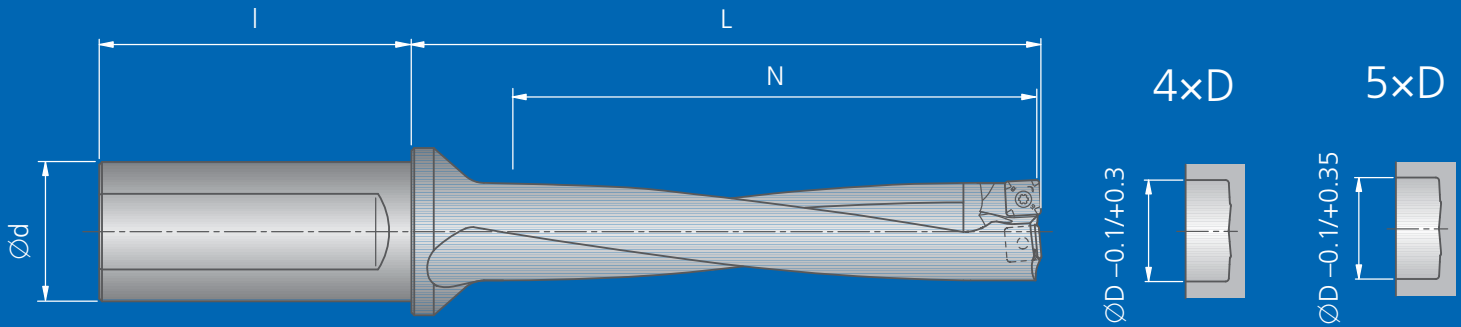


Note: Only use this insert with KUB Pentron™ as an external cutting edge: SOGX ... -01 (geometry 01) in BK6115

KOMET KUB Pentron™

Ø 0.752 – 1.000 inch

Insert drill with cylindrical shank ISO 9766, R.H. cutting



Dimension are in inch

ØD	* max. diameter offset	cylindrical shank Ød x l	4xD				5xD			
			Order No.	N	L	lbs	Order No.	N	L	lbs
0.750	0.772	1.00x3.25	U44 81910	3.000	3.858	0.57	U45 81910	3.750	4.646	0.62
0.765	0.784	1.00x3.25	U44 81940	3.060	3.858	0.60	U45 81940	3.825	4.646	0.64
0.781	0.800	1.00x3.25	U44 81980	3.124	3.858	0.62	U45 81980	3.905	4.646	0.66
0.812	0.831	1.00x3.25	U44 82060	3.248	4.055	0.64	U45 82060	4.060	4.882	0.68
0.828	0.847	1.00x3.25	U44 82100	3.312	4.055	0.68	U45 82100	4.140	4.882	0.73
0.843	0.863	1.00x3.25	U44 82140	3.372	4.213	0.68	U45 82140	4.215	5.079	0.75
0.875	0.894	1.00x3.25	U44 82220	3.500	4.409	0.71	U45 82220	4.375	5.315	0.77
0.906	0.926	1.00x3.25	U44 82300	3.624	4.409	0.77	U45 82300	4.530	5.315	0.84
0.937	0.957	1.25x3.25	U44 82380	3.748	4.567	1.12	U45 82380	4.685	5.512	1.19
0.985	1.004	1.25x3.25	U44 82500	3.940	4.764	1.19	U45 82500	4.925	5.748	1.30
1.000	1.020	1.25x3.25	U44 82540	4.000	4.921	1.21	U45 82540	5.000	5.945	1.32

Supply includes: KUB Pentron™ drill with assembly parts. Please order insert and accessories separately.
Adjustment device see Compass Catalog – chapter 5

L / D	Through Hole	Blind Hole	Welded Joint	Slanted Surface	Curved Surface	Cross Hole	Center drilled Hole	Interrupted Cut	Stackplate	Rough Boring	Adjustable Diameter
4xD											
5xD											

● highly recommended ● recommended ○ may be suitable: see technical notes, page 29 ✕ not recommended

Insert Recommendation						Insert clamping screw	Starting clamping torque	TORX PLUS®			
Order No. size	ISO Insert Description	Qty	P	M	K	N	S	H	Order No. Description	in-lbs	Order No. Description
W80 18010.068425 W80 18010.062730 W80 18010.066115 W80 18010.067710	SOGX 060206-01 BK8425 SOGX 060206-01 BK2730 SOGX 060206-01 BK6115 ⚠ SOGX 060206-01 BK7710	2	●	●	●	●	●	○	N00 57553 S/M2.2×5.5-6IP	8.9	L05 00810 6IP
W80 20010.088425 W80 20010.082730 W80 20010.086115 W80 20010.087710	SOGX 07T208-01 BK8425 SOGX 07T208-01 BK2730 SOGX 07T208-01 BK6115 ⚠ SOGX 07T208-01 BK7710	2	●	●	●	●	●	○	N00 57553 S/M2.2×5.5-6IP	8.9	L05 00810 6IP
W80 24010.088425 W80 24010.082730 W80 24010.086115 W80 24010.087710	SOGX 080308-01 BK8425 SOGX 080308-01 BK2730 SOGX 080308-01 BK6115 ⚠ SOGX 080308-01 BK7710	2	●	●	●	●	●	○	N00 57571 S/M2.5×6.3-8IP	11.3	L05 00830 8IP

Guideline values for solid drilling and alternative inserts: page 24 - 28

Patented design (KUB Pentron™)

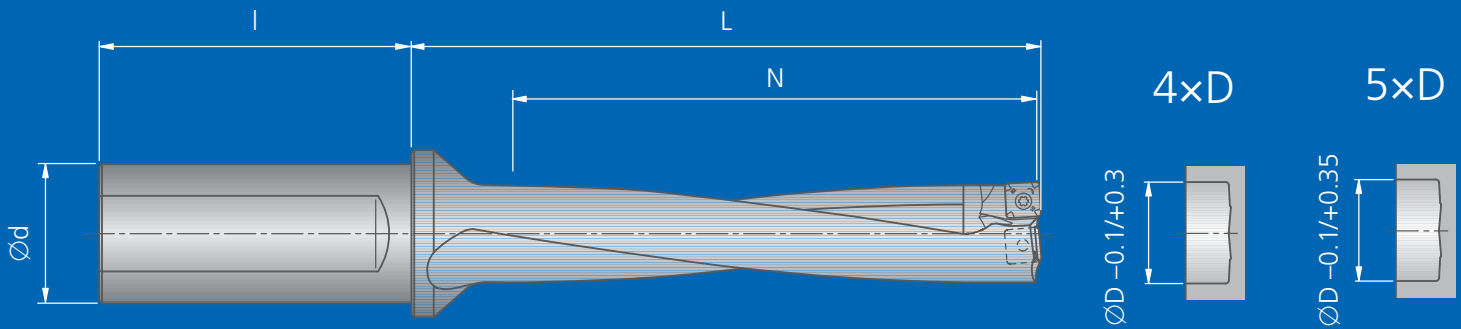


Note: Only use this insert with KUB Pentron™ as an external cutting edge:
SOGX ... -01 (geometry 01) in BK6115

KOMET KUB Pentron™

Ø 16.5 – 26.0 mm

Insert drill with cylindrical shank ISO 9766, R.H. cutting



Dimension are in mm

ØD	* max. diameter offset	cylindrical shank Ød x l	4xD				5xD			
			Order No.	N	L	lbs	Order No.	N	L	lbs
16.5	17.0	20x50	U44 01650	68	85	0.53	U45 01650	85	102	0.57
16.7*	17.2	20x50	U44 01700	68	85	0.55	U45 01670	85	102	0.57
17.0	17.5	20x50	U44 01700	68	85	0.55	U45 01700	85	102	0.57
17.5	18.0	20x50	U44 11750	72	89	0.55	U45 11750	90	107	0.60
17.9	18.4	25x56	U44 11790	72	89	0.57	U45 11790	90	107	0.62
18.0	18.5	25x56	U44 11800	72	89	0.57	U45 11800	90	107	0.62
18.5	19.0	25x56	U44 11850	76	94	0.57	U45 11850	95	113	0.62
19.0	19.5	25x56	U44 11900	76	94	0.60	U45 11900	95	113	0.64
19.5	20.0	25x56	U44 11950	80	98	0.62	U45 11950	100	118	0.66
20.0	20.5	25x56	U44 12000	80	98	0.64	U45 12000	100	118	0.68
20.5	21.0	25x56	U44 12050	84	103	0.68	U45 12050	105	124	0.73
21.0	21.5	25x56	U44 12100	84	103	0.68	U45 12100	105	124	0.75
21.5	22.0	25x56	U44 12150	88	107	0.71	U45 12150	110	129	0.77
22.0	22.5	25x56	U44 12200	88	107	0.73	U45 12200	110	129	0.79
22.5	23.0	25x56	U44 12250	92	112	0.77	U45 12250	115	135	0.84
23.0	23.5	25x56	U44 12300	92	112	0.79	U45 12300	115	135	0.86
23.5	24.0	32x60	U44 22350	96	116	1.12	U45 22350	120	140	1.19
24.0	24.5	32x60	U44 22400	96	116	1.12	U45 22400	120	140	1.21
24.5	25.0	32x60	U44 22450	100	121	1.19	U45 22450	125	146	1.30
25.0	25.5	32x60	U44 22500	100	121	1.21	U45 22500	125	146	1.32
25.5	26.0	32x60	U44 22550	104	125	1.23	U45 22550	130	151	1.34
26.0	26.5	32x60	U44 22600	104	125	1.26	U45 22600	130	151	1.37

Supply includes: KUB Pentron™ drill with assembly parts. Please order insert and accessories separately.

Adjustment device see Compass Catalog – chapter 5

L / D	Through Hole	Blind Hole	Welded Joint	Slanted Surface	Curved Surface	Cross Hole	Center drilled Hole	Interrupted Cut	Stackplate	Rough Boring	Adjustable Diameter
4xD											
5xD											

● highly recommended ● recommended ○ may be suitable: see technical notes, page 29 ✕ not recommended

Insert Recommendation						
Order No. size	ISO Insert Description	Qty	P M K N S H	Insert clamping screw Order No. Description	Starting clamping torque in-lbs	TORX PLUS® Order No. Description
W80 12010.048425 W80 12010.042730 W80 12010.046115 W80 12010.047710	SOGX 050204-01 BK8425 SOGX 050204-01 BK2730 SOGX 050204-01 BK6115 ⚠ SOGX 050204-01 BK7710	2		N00 56041 S/M2×4.3-6IP	5.49	L05 00810 6IP
W80 18010.068425 W80 18010.062730 W80 18010.066115 W80 18010.067710	SOGX 060206-01 BK8425 SOGX 060206-01 BK2730 SOGX 060206-01 BK6115 ⚠ SOGX 060206-01 BK7710	2		N00 57553 S/M2.2×5.5-6IP	8.9	L05 00810 6IP
W80 20010.088425 W80 20010.082730 W80 20010.086115 W80 20010.087710	SOGX 07T208-01 BK8425 SOGX 07T208-01 BK2730 SOGX 07T208-01 BK6115 ⚠ SOGX 07T208-01 BK7710	2		N00 57553 S/M2.2×5.5-6IP	8.9	L05 00810 6IP
W80 24010.088425 W80 24010.082730 W80 24010.086115 W80 24010.087710	SOGX 080308-01 BK8425 SOGX 080308-01 BK2730 SOGX 080308-01 BK6115 ⚠ SOGX 080308-01 BK7710	2		N00 57571 S/M2.5×6.3-8IP	11.3	L05 00830 8IP

Guideline values for solid drilling and alternative inserts: page 24 - 28

Patented design (KUB Pentron™)

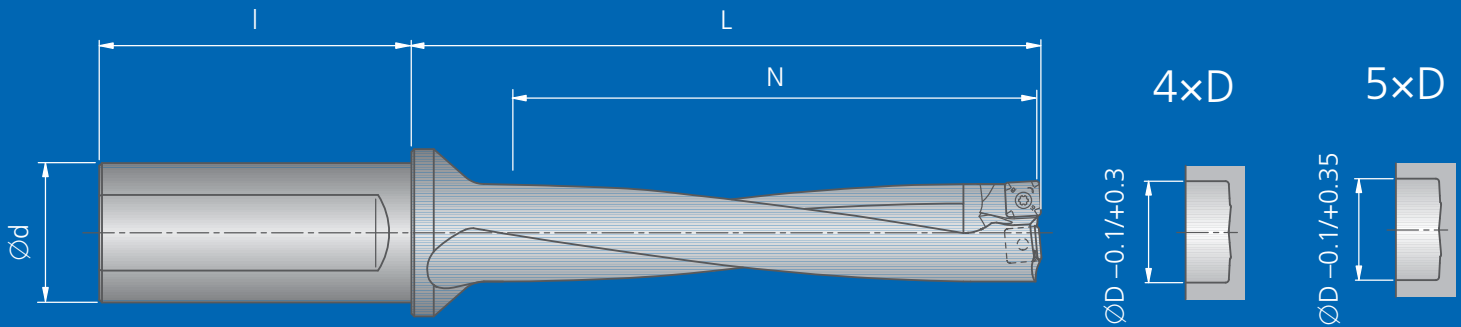


Note: Only use this insert with KUB Pentron™ as an external cutting edge:
SOGX ... -01 (geometry 01) in BK6115

KOMET KUB Pentron™

Ø 26.2 – 37.0 mm

Insert drill with cylindrical shank ISO 9766, R.H. cutting



Dimension are in mm

ØD	* max. diameter offset	cylindrical shank Ød x l	4xD				5xD			
			Order No.	N	L	lbs	Order No.	N	L	lbs
26.2*	26.7	32x60	U44 22620	102	130	1.26	U45 22620	135	157	1.39
26.5	27.0	32x60	U44 22650	108	130	1.26	U45 22650	135	157	1.39
27.0	27.5	32x60	U44 22700	108	130	1.28	U45 22700	135	157	1.41
27.5	28.0	32x60	U44 22750	112	134	1.32	U45 22750	140	162	1.46
28.0	28.5	32x60	U44 22800	112	134	1.37	U45 22800	140	162	1.50
28.2*	28.6	32x60	U44 22820	116	139	1.39	U45 22820	145	168	1.54
28.5	29.0	32x60	U44 22850	116	139	1.41	U45 22850	145	168	1.57
28.6*	29.1	32x60	U44 22860	116	139	1.41	U45 22860	145	168	1.57
29.0	29.5	32x60	U44 22900	116	139	1.43	U45 22900	145	168	1.59
29.4*	29.9	32x60	U44 22940	120	143	1.46	U45 22940	150	173	1.61
29.5	30.0	32x60	U44 22950	120	143	1.46	U45 22950	150	173	1.61
30.0	30.5	32x60	U44 23000	120	143	1.48	U45 23000	150	173	1.65
30.2*	30.7	40x68	U44 33020	124	148	1.96	U45 33020	155	179	2.18
30.5	31.0	40x68	U44 33050	124	148	1.98	U45 33050	155	179	2.20
30.9*	31.4	40x68	U44 33090	124	148	2.01	U45 33090	155	179	2.23
31.0	31.5	40x68	U44 33100	124	148	2.03	U45 33100	155	179	2.23
31.5	32.0	40x68	U44 33150	128	152	2.12	U45 33150	160	184	2.31
31.8*	32.3	40x68	U44 33180	128	152	2.14	U45 33180	160	184	2.31
32.0	32.5	40x68	U44 33200	128	152	2.14	U45 33200	160	184	2.34
32.5	33.0	40x68	U44 33250	132	157	2.23	U45 33250	165	190	2.43
33.0	33.5	40x68	U44 33300	132	157	2.25	U45 33300	165	190	2.47
33.2*	33.7	40x68	U44 33320	136	161	2.23	U45 33320	170	195	2.49
33.3*	33.8	40x68	U44 33330	136	161	2.25	U45 33330	170	195	2.49
33.5	34.0	40x68	U44 33350	136	161	2.27	U45 33350	170	195	2.51
33.7*	34.2	40x68	U44 33370	136	161	2.27	U45 33370	170	195	2.51
34.0	34.5	40x68	U44 33400	136	161	2.29	U45 33400	170	195	2.54
34.5	35.0	40x68	U44 33450	140	166	2.38	U45 33450	175	201	2.62
34.9*	35.4	40x68	U44 33490	140	166	2.40	U45 33490	175	201	2.67
35.0	35.5	40x68	U44 33500	140	166	2.40	U45 33500	175	201	2.67
35.5	36.0	40x68	U44 33550	144	170	2.49	U45 33550	180	206	2.76
36.0	36.5	40x68	U44 33600	144	170	2.51	U45 33600	180	206	2.80
36.5	37.0	40x68	U44 33650	148	175	2.60	U45 33650	185	212	2.91
37.0	37.5	40x68	U44 33700	148	175	2.65	U45 33700	185	212	2.95

Supply includes: KUB Pentron™ drill with assembly parts. Please order insert and accessories separately.

* Please contact KOMET for delivery.

L / D	Through Hole	Blind Hole	Welded Joint	Slanted Surface	Curved Surface	Cross Hole	Center drilled Hole	Interrupted Cut	Stackplate	Rough Boring	Adjustable Diameter
4xD											
5xD											

● highly recommended ● recommended ○ may be suitable: see technical notes, page 29 ✕ not recommended

Insert Recommendation					Insert clamping screw	Starting clamping torque	TORX PLUS®
Order No. size	ISO Insert Description	Qty	P M K N S H	Order No. Description	in-lbs	Order No. Description	
W80 28010.088425 W80 28010.082730 W80 28010.086115 W80 28010.087710	SOGX 09T308-01 BK8425 SOGX 09T308-01 BK2730 SOGX 09T308-01 BK6115 ⚠ SOGX 09T308-01 BK7710	2		N00 57251 S3076-8IP	5.49	L05 00830 8IP	
W80 32010.088425 W80 32010.082730 W80 32010.086115 W80 32010.087710	SOGX 100408-01 BK8425 SOGX 100408-01 BK2730 SOGX 100408-01 BK6115 ⚠ SOGX 100408-01 BK7710	2		N00 57261 S3575-15IP	8.9	L05 00860 15IP	
W80 38010.088425 W80 38010.082730 W80 38010.086115 W80 38010.087710	SOGX 110408-01 BK8425 SOGX 110408-01 BK2730 SOGX 110408-01 BK6115 ⚠ SOGX 110408-01 BK7710	2		N00 57261 S3575-15IP	11.3	L05 00860 15IP	

Guideline values for solid drilling and alternative inserts: page 24 - 28

Patented design (KUB Pentron™)

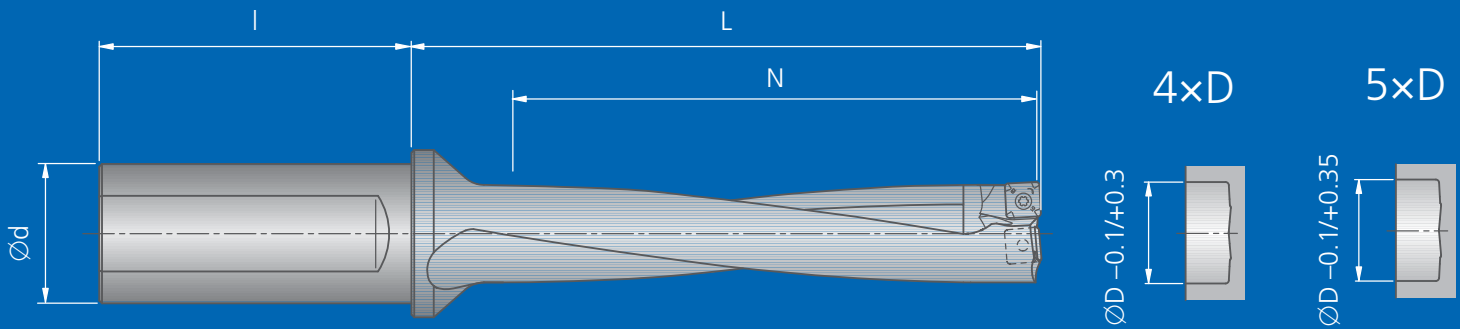


Note: Only use this insert with KUB Pentron™ as an external cutting edge: SOGX ... -01 (geometry 01) in BK6115

KOMET KUB Pentron™

Ø 37.3 – 44.5 mm

Insert drill with cylindrical shank ISO 9766, R.H. cutting



Dimension are in mm

ØD	* max. diameter offset	ABS Ød	4xD				5xD			
			Order No.	N	L	lbs	Order No.	N	L	lbs
37.3*	37.8	40x68	U44 33730	152	179	2.69	U45 33730	190	217	3.00
37.5	38.0	40x68	U44 33750	152	179	2.71	U45 33750	190	217	3.02
38.0	38.5	40x68	U44 33800	152	179	2.73	U45 33800	190	217	3.06
38.1*	38.6	40x68	U44 33810	156	184	2.80	U45 33810	195	223	3.11
38.5	39.0	40x68	U44 33850	156	184	2.82	U45 33850	195	223	3.15
39.0	39.5	40x68	U44 33900	156	184	2.84	U45 33900	195	223	3.20
39.5	40.0	40x68	U44 33950	160	188	2.95	U45 33950	200	228	3.31
39.7*	40.2	40x68	U44 33970	160	188	2.95	U45 33970	200	228	3.33
40.0	40.5	40x68	U44 34000	160	188	2.98	U45 34000	200	228	3.35
40.5	41.0	40x68	U44 34050	164	193	3.09	U45 34050	205	234	3.48
41.0	41.5	40x68	U44 34100	164	193	3.13	U45 34100	205	234	3.55
41.3*	41.8	40x68	U44 34130	168	197	3.22	U45 34130	210	239	3.66
41.5	42.0	40x68	U44 34150	168	197	3.24	U45 34150	210	239	3.68
42.0	42.5	40x68	U44 34200	168	197	3.28	U45 34200	210	239	3.75
42.1*	42.6	40x68	U44 34210	172	202	3.35	U45 34210	215	245	3.81
42.5	43.0	40x68	U44 34250	172	202	3.37	U45 34250	215	245	3.84
42.9*	43.4	40x68	U44 34290	172	202	3.40	U45 34290	215	245	3.88
43.0	43.5	40x68	U44 34300	172	202	3.40	U45 34300	215	245	3.88
43.5	44.0	40x68	U44 34350	176	206	3.53	U45 34350	220	250	4.01
44.0	44.5	40x68	U44 34400	176	206	3.57	U45 34400	220	250	4.08
44.5	45.0	40x68	U44 34450	180	211	3.70	U45 34450	225	256	4.23

Supply includes: KUB Pentron™ drill with assembly parts. Please order insert and accessories separately.

* Please contact KOMET for delivery.

L / D	Through Hole	Blind Hole	Welded Joint	Slanted Surface	Curved Surface	Cross Hole	Center drilled Hole	Interrupted Cut	Stackplate	Rough Boring	Adjustable Diameter
4xD											
5xD											

● highly recommended ● recommended ○ may be suitable: see technical notes, page 29 ✕ not recommended

Insert Recommendation					Insert clamping screw	Starting clamping torque	TORX PLUS®
Order No. size	ISO Insert Description	Qty	P M K N S H	Order No. Description	in-lbs	Order No. Description	
W80 42010.088425 W80 42010.082730 W80 42010.086115 W80 42010.087710	SOGX 120408-01 BK8425 SOGX 120408-01 BK2730 SOGX 120408-01 BK6115 ⚠ SOGX 120408-01 BK7710	2		N00 57301 S45100-20IP	5.49	L05 00870 20IP	
W80 46010.088425 W80 46010.082730 W80 46010.086115 W80 46010.087710	SOGX 130408-01 BK8425 SOGX 130408-01 BK2730 SOGX 130408-01 BK6115 ⚠ SOGX 130408-01 BK7710	2		N00 57301 S45100-20IP	8.9	L05 00870 20IP	

Guideline values for solid drilling and alternative inserts: page 24 - 28

Patented design (KUB Pentron™)







Note: Only use this insert with KUB Pentron™ as an external cutting edge: SOGX ... -01 (geometry 01) in BK6115

KOMET KUB Pentron™

Guideline values for solid drilling






Ø 0.634 – 1.752 inch
(Ø 16.1 – 44.5 mm)

Material group	Tensile Strength Rm (lbf/in²)	Hardness HB	Material	Material Example material code/DIN	Cutting Speed v _c (ft/min)														
					4xD														
																			
					BK8425			BK2730			BK6425			BK6115			BK7710		
min opt. max			min opt. max			min opt. max			min opt. max			min opt. max							
P	1.0	≤ 72500	Unalloyed steels	St37-2 / 1.0037; 95Mn28 / 1.0715; St44-2 / 1.0044	660	850	1050	520	720	920	890	1050	1210	820	980	1150	-	-	-
	2.0	72500-130000	Low alloy steels	St52-2 / 1.0050, C55 / 1.0525, 16MnCr5 / 1.7131	590	720	850	520	660	790	790	920	1050	720	850	980	-	-	-
	2.1	< 72500	Lead alloys	95MnPb28 / 1.0718	660	850	1050	520	720	920	890	1050	1210	820	980	1150	-	-	-
	3.0	> 130000	High alloy steel heat resistant structural, heat treated, nitride and tools steels	42CrMo4 / 1.7225, CK60 / 1.1221	460	590	720	390	520	660	720	850	980	660	790	920	-	-	-
	4.0	> 130000	Tool steels	X6CrMo4 / 1.2341, X165CrMoV12 / 1.2601	390	520	660	330	460	590	620	720	820	560	660	750	-	-	-
	4.1		HSS			160	230	300	430	200	260	260	330	390	230	300	360	-	-
S	5.0		Special alloys: Inconel, Hastelloy, Nimonic, etc	Inconel 718 / 2.4668, Nimonic 80A / 2.4631															
	5.1	58000	Titanium, Titanium alloys	TiAl5Sn2 / 3.7114															
M	6.0	≤ 87000	Stainless steel: Austenitic, 300 series	X2CrNi189 / 1.4306, X5CrNiMo1810 / 1.4401	490	560	690	460	590	720	620	720	820	690	790	890	-	-	-
	6.1	< 130000	Stainless steel	X8CrNb17 / 1.4511, X10CrNiMoTi1810 / 1.4571	390	490	660	390	520	660	560	660	750	620	720	820	-	-	-
	7.0	> 130000	Stainless steel: martensitic / ferritic, 400 series	X10CrAl7 / 1.4713, X8CrS-38-18 / 1.4862	360	490	620	390	520	660	560	660	750	620	720	820	-	-	-
K	8.0		180 Gray cast iron	GG-25 / 0.6025, GG-35 / 0.6035	460	590	720	390	520	660	490	660	820	520	790	1050	-	-	-
	8.1		250 Alloy gray cast iron	GG-NiCr202 / 0.6660	390	490	590	330	430	520	330	460	590	330	460	590	-	-	-
	9.0	≤ 87000	130 Nodular cast iron ferritic	GGG-40 / 0.7040	460	590	720	390	520	660	390	520	660	390	520	660	-	-	-
	9.1		230 Nodular cast iron ferritic / pearlitic	GGG-50 / 0.7050 GGG-55 / 0.7055 GTW-55 / 0.8055	390	490	590	360	430	520	330	460	590	330	460	590	-	-	-
	10.0	> 87000	250 Nodular cast iron pearlitic Malleable cast iron	GGG-60 / 0.7060 GTS-65 / 0.8165	360	460	560	300	390	490	300	390	490	300	390	490	-	-	-
	10.1		200 Alloyed nodular cast iron	GGG-NiCr20-2 / 0.7661	360	460	560	300	390	490	300	390	490	300	390	490	-	-	-
10.2		300 Vermicular cast iron	GGV Ti < 0,2 GGV Ti > 0,2	300	360	430	260	330	390	230	330	430	230	330	430	-	-	-	
N	12.0		90 Copper alloy, Brass, Lead-alloy Bronze, Lead bronze: good cut	CuZn36Pb3 / 2.1182, G-CuPb15Sn / 2.1182	490	660	820	490	660	820	-	-	-	490	820	1150	-	-	-
	12.1		100 Copper alloy, Brass, Bronze: average cut	CuZn40Al1 / 2.0550, E-Cu57 / 2.0060	660	980	1310	660	980	1310	-	-	-	820	1150	450	-	-	-
	13.0		60 Wrought aluminum alloys	AlMg1 / 3.3315, AlMnCu / 3.0517	980	1310	1640	980	1310	1640	-	-	-	980	1640	700	-	-	-
	13.1		75 Aluminum alloy: Si-content <10% Magnesium alloy	G-AlMg5 / 3.3561, G-AlSi9Mg / 3.2373	590	820	1050	590	820	1050	-	-	-	690	920	1150	-	-	-
	14.0		100 Aluminum alloy: Si-content >10%	G-AlSi10Mg / 3.2381	490	660	820	490	660	820	-	-	-	460	720	980	-	-	-
H	15.0	203000	Hardened steels < 45 HRC																
	16.0	261000	Hardened steels > 45 HRC																

KOMET KUB Pentron™

Guideline values for solid drilling

Ø 0.634 – 1.752 inch
(Ø 16.1 – 44.5 mm)

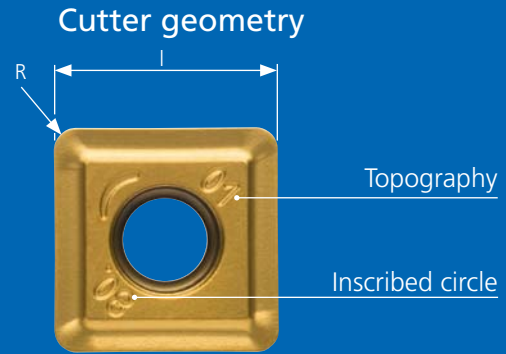
Material group	Tensile Strength Rm (lbf/in²)	Hardness HB	Material	Material Example material code/DIN	Cutting Speed v _c (ft/min)														
					5xD														
																			
					BK8425			BK2730			BK6425			BK6115			BK7710		
min. opt. max.			min. opt. max.			min. opt. max.			min. opt. max.			min. opt. max.							
P	1.0	≤ 72500	Unalloyed steels	St37-2 / 1.0037; 95Mn28 / 1.0715; St44-2 / 1.0044	660	850	1050	520	720	920	890	1050	1210	820	980	1150	-		
	2.0	72500-130000	Low alloy steels	St52-2 / 1.0050, C55 / 1.0525, 16MnCr5 / 1.7131	590	720	850	520	660	790	790	920	1050	720	850	980	-		
	2.1	< 72500	Lead alloys	95MnPb28 / 1.0718	660	850	1050	520	720	920	890	1050	1210	820	980	1150	-		
	3.0	> 130000	High alloy steel heat resistant structural, heat treated, nitride and tools steels	42CrMo4 / 1.7225, CK60 / 1.1221	460	590	720	390	520	660	720	850	980	660	790	920	-		
	4.0	> 130000	Tool steels	X6CrMo4 / 1.2341, X165CrMoV12 / 1.2601	390	520	660	330	460	590	620	720	820	560	660	750	-		
	4.1		HSS		160	230	300	430	200	260	260	330	390	230	300	360	-		
S	5.0	250	Special alloys: Inconel, Hastelloy, Nimonic, etc	Inconel 718 / 2.4668, Nimonic 80A / 2.4631	-- on request --														
	5.1	58000	Titanium, Titanium alloys	TiAl5Sn2 / 3.7114	-- on request --														
M	6.0	≤ 87000	Stainless steel: Austenitic, 300 series	X2CrNi189 / 1.4306, X5CrNiMo1810 / 1.4401	490	560	690	460	590	720	620	720	820	690	790	890	-		
	6.1	< 130000	Stainless steel	X8CrNb17 / 1.4511, X10CrNiMoTi1810 / 1.4571	390	490	660	390	520	660	560	660	750	620	720	820	-		
	7.0	> 130000	Stainless steel: martensitic / ferritic, 400 series	X10CrAl7 / 1.4713, X8CrS-38-18 / 1.4862	360	490	620	390	520	660	560	660	750	620	720	820	-		
K	8.0	180	Gray cast iron	GG-25 / 0.6025, GG-35 / 0.6035	460	590	720	390	520	660	490	660	820	520	790	1050	-		
	8.1	250	Alloy gray cast iron	GG-NiCr202 / 0.6660	390	490	590	330	430	520	330	460	590	330	460	590	-		
	9.0	≤ 87000	Nodular cast iron ferritic	GGG-40 / 0.7040	460	590	720	390	520	660	390	520	660	390	520	660	-		
	9.1	230	Nodular cast iron ferritic / pearlitic	GGG-50 / 0.7050 GGG-55 / 0.7055 GTW-55 / 0.8055	390	490	590	360	430	520	330	460	590	330	460	590	-		
	10.0	> 87000	Nodular cast iron pearlitic Malleable cast iron	GGG-60 / 0.7060 GTS-65 / 0.8165	360	460	560	300	390	490	300	390	490	300	390	490	-		
	10.1	200	Alloyed nodular cast iron	GGG-NiCr20-2 / 0.7661	360	460	560	300	390	490	300	390	490	300	390	490	-		
10.2	300	Vermicular cast iron	GGV Ti < 0,2 GGV Ti > 0,2	300	360	430	260	330	390	230	330	430	230	330	430	-			
N	12.0	90	Copper alloy, Brass, Lead-alloy Bronze, Lead bronze: good cut	CuZn36Pb3 / 2.1182, G-CuPb15Sn / 2.1182	490	660	820	490	660	820	-	-	-	490	820	1150			
	12.1	100	Copper alloy, Brass, Bronze: average cut	CuZn40Al1 / 2.0550, E-Cu57 / 2.0060	660	980	1310	660	980	1310	-	-	-	820	1150	450			
	13.0	60	Wrought aluminum alloys	AlMg1 / 3.3315, AlMnCu / 3.0517	980	1310	1640	980	1310	1640	-	-	-	980	1640	700			
	13.1	75	Aluminum alloy: Si-content <10% Magnesium alloy	G-AlMg5 / 3.3561, G-AlSi9Mg / 3.2373	590	820	1050	590	820	1050	-	-	-	690	920	1150			
	14.0	100	Aluminum alloy: Si-content >10%	G-AlSi10Mg / 3.2381	490	660	820	490	660	820	-	-	-	460	720	980			
H	15.0	203000	Hardened steels < 45 HRC		-- on request --														
	16.0	261000	Hardened steels > 45 HRC		-- on request --														

KOMET KUB Pentron™ Inserts W80..01 (SOGX)

Application range

Solid drilling

BK8425: Allrounder, steel, stainless steel, cast iron
 BK2730: Stainless steel
 BK6425: steel, stainless steel
 BK6115: Cast iron, steel, stainless steel HPC type
 BK7710: Non ferrous metals



() = mm

ISO-Code	Order No. <small>enter carbide code</small>	Carbide Grades					I	R
		CVD coated		BK2730 2730	PVD coated			
		BK6115 6115	BK6425 6425		BK7710 7710	BK8425 8425		
SOGX 050204-01	W80 12010.04..	▲	▲	▲	▲	▲	0.217 (5.5)	0.016 (0.4)
SOGX 060206-01	W80 18010.06..	▲	▲	▲	▲	▲	0.244 (6.2)	0.024 (0.6)
SOGX 07T208-01	W80 20010.08..	▲	▲	▲	▲	▲	0.280 (7.1)	0.031 (0.8)
SOGX 080308-01	W80 24010.08..	▲	▲	▲	▲	▲	0.315 (8.0)	0.031 (0.8)
SOGX 09T308-01	W80 28010.08..	▲	▲	▲	▲	▲	0.350 (8.9)	0.031 (0.8)
SOGX 100408-01	W80 32010.08..	▲	▲	▲	▲	▲	0.386 (9.8)	0.031 (0.8)
SOGX 110408-01	W80 38010.08..	▲	▲	▲	▲	▲	0.429 (10.9)	0.031 (0.8)
SOGX 120408-01	W80 42010.08..	▲	▲	▲	▲	▲	0.472 (12.0)	0.031 (0.8)
SOGX 130408-01	W80 46010.08..	▲	▲	▲	▲	▲	0.520 (13.2)	0.031 (0.8)
Mild steel / tool steel	P	●	●			●	Order example: ISO-Code SOGX 060206-01 Carbide grades BK6425 Order No. W80 18010.066425	
Stainless and acid-resistant steel	M	●	●	●		●		
Grey cast iron, nodular cast iron	K	●	●	●		●		
Non-ferrous metals	N				●	●		
Heat-resistant steels	S			●				
Hardened tool steel	H	●						

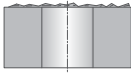
Alternative Inserts for higher cutting speed

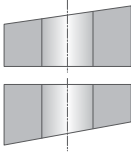
() = mm

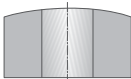
Ø D	Order No. ▽▽ size	ISO-Code	for higher cutting speeds					
			P	M	K	N	S	H
0.634 – 0.709 (16.1 – 18.0)	W80 12010.046425 W80 12010.046115	SOGX 050204-01 BK6425 SOGX 050204-01 BK6115 ⚠	●	●				
0.710 – 0.787 (18.1 – 20.0)	W80 18010.066425 W80 18010.066115	SOGX 060206-01 BK6425 SOGX 060206-01 BK6115 ⚠	●	●				
0.788 – 0.905 (20.1 – 23.0)	W80 20010.086425 W80 20010.086115	SOGX 07T208-01 BK6425 SOGX 07T208-01 BK6115 ⚠	●	●				
0.906 – 1.024 (23.1 – 26.0)	W80 24010.086425 W80 24010.086115	SOGX 080308-01 BK6425 SOGX 080308-01 BK6115 ⚠	●	●				
1.025 – 1.181 (26.1 – 30.0)	W80 28010.086425 W80 28010.086115	SOGX 09T308-01 BK6425 SOGX 09T308-01 BK6115 ⚠	●	●				
1.182 – 1.299 (30.1 – 33.0)	W80 32010.086425 W80 32010.086115	SOGX 100408-01 BK6425 SOGX 100408-01 BK6115 ⚠	●	●				
1.183 – 1.457 (33.1 – 37.0)	W80 38010.086425 W80 38010.086115	SOGX 110408-01 BK6425 SOGX 110408-01 BK6115 ⚠	●	●				
1.458 – 1.653 (37.1 – 42.0)	W80 42010.086425 W80 42010.086115	SOGX 120408-01 BK6425 SOGX 120408-01 BK6115 ⚠	●	●				
1.654 – 1.752 (42.1 – 44.5)	W80 46010.086425 W80 46010.086115	SOGX 130408-01 BK6425 SOGX 130408-01 BK6115 ⚠	●	●				

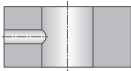


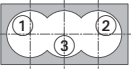
Note: Only use this insert with KUB Pentron™ as an external cutting edge:
 SOGX ... -01 (geometry 01) in BK6115

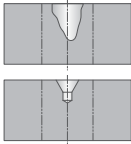
1.  **Starting on uneven surfaces (cast surfaces)**
- when inserting and withdrawing the drill, reduce the feed rate by approx. 30-50% (depending on component stability, clamping and surface quality)


2.  **Starting on angled surfaces / angled bore exit**
- when inserting the drill, reduce the feed rate by approx. 30-60% until full diameter is reached
 - when withdrawing the drill after interruption to the cut, reduce the feed rate by approx. 30-60%
 - use tough insert and stable corner radius

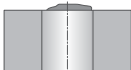
3.  **Starting on curved surfaces**
- when inserting the drill, reduce the feed rate by approx. 30-60% until full diameter is reached
 - when withdrawing the drill after interruption to the cut, reduce the feed rate by approx. 30-60% (depending on component stability and clamping).

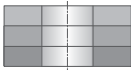
4.  **Drilling through a cross bore**
- when inserting and withdrawing the drill, reduce the feed rate by approx. 30-50% (depending on component stability, clamping and surface quality)
 - in the vicinity of the cross bore, reduce the feed rate by 50%
 - watch for chip jamming around tool
 - use tough insert and stable corner radius

5.  **Drilling a chamber**
- first bore No. 1 + 2, then bore No. 3
 - check distribution is symmetrical
 - avoid chip jams
 - use tough insert and stable corner radius
 - Continuous drilling: when inserting the drill, reduce the feed rate by approx. 30-60% (depending on component stability and clamping)
 - Interruption to cut: when drilling the cut interruption, reduce the feed rate by approx. 50-60%

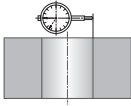
6.  **Starting on a groove or large centering bore**
- when inserting the drill, reduce the feed rate by approx. 30-50% until centering depth is reached
 - reduce feed rate
 - use tough insert for internal cutting edge
 - spot face if required

7.  **Starting on an edge**
- when inserting and withdrawing the drill, reduce the feed rate by approx. 30-50% (depending on component stability, clamping and surface quality)
 - use tough insert and stable corner radius

8.  **Starting on a welded seam**
- when inserting the drill, reduce the feed rate by approx. 30-60% until full diameter is reached
 - when withdrawing the drill after interruption to the cut, reduce the feed rate by approx. 30-60% (depending on component stability and clamping).

9.  **Drilling through stacked plates**
- good workpiece clamping required
 - max. gap = 1 mm

10.  **Roughing**
- *not recommended*

11.  **Adjustable**
- when inserting and withdrawing the drill reduce the feed rate by approx. 30-50% until full bore diameter is reached (depending on component stability and clamping).
 - use tough insert and stable corner radius

Note: The application details shown depend on the environmental and application conditions (e.g. machine, ambient temperature, use of lubricant/coolant and the machining result required). These are subject to correct operating conditions, correct application and compliance with the spindle speed limits given for the tools.

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