

2D, 3D, 4D, 5D

Indexable insert drills























... Let's change! ...
new drilling range ...



Safety















Cutting Tool Solutions

INDEXABLE DRILLS OVERVIEW

Working length				
Picture				
Cooling				
Page	3	4	7	8
Drill type	802D	803D	804D	805D
Drill tolerance	$\pm 0,05$	$\pm 0,05$	$\pm 0,05$	$\pm 0,05$
Hole tolerance*	0/+0,2	0/+0,3	0/+0,4	0/+0,5
Surface finish*	Ra 2–6 μm	Ra 2–6 μm	Ra 2–6 μm	Ra 2–6 μm
Diameter range	15,0 – 40,0 mm	15,0 – 58,0 mm	17,0 – 40,0 mm	19,0 – 31,0 mm
Centre insert	 XPET	 XPET	 XPET	 XPET
Peripheral insert	 SCET	 SCET	 SCET	 SCET

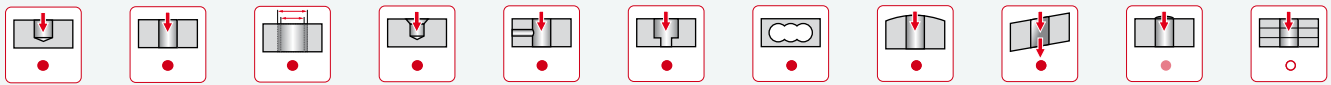
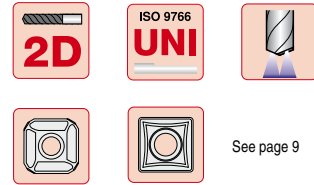
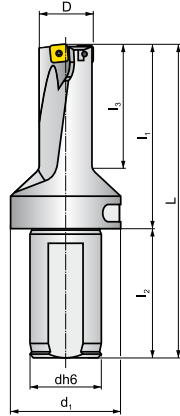
* The tolerance of drilled hole and surface finish are heavily dependent on machining conditions.

DESCRIPTION OF SYMBOLS

	Blind hole drilling		Boring		Drilling of stacked materials
	Through hole drilling		Interrupted cut or plunging		Type of shank - universal
	Adjustable drill diameter		Drilling on curved surface		Aproximate working length
	Drilling into center drilled hole		Drilling on slanted surface		Internal cooling
	Drilling across an existing hole		Welded joint drilling		

INDEXABLE INSERT DRILLS

DIMENSIONS TYPE 2D



● Recommended application ◐ Possible applications (see more on pg. 2) ○ Not recommended

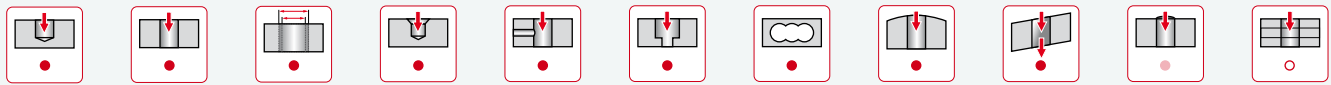
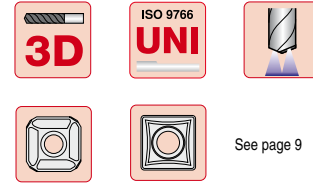
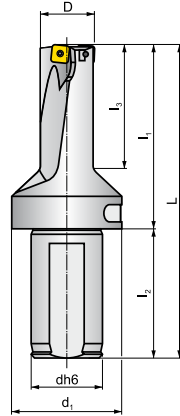
D	h	Marking of drill	Assortment	Dimensions						Centre insert	Peripheral insert	Radial adjustment	
				L	L ₁	L ₂	L ₃	dh6	d ₁			-	+
15	30	802D-15	●	121,0	65,0	56	34,5	25	45	0502AP	0502..	0,30	0,30
16	32	802D-16	●	123,0	67,0	56	37,0	25	45	0502AP	0502..	0,15	0,40
17	34	802D-17	●	125,0	69,0	56	39,5	25	45	0502AP	0502..	0,15	0,50
18	36	802D-18	●	127,0	71,0	56	42,0	25	45	0602AP	0502..	0,35	0,20
19	38	802D-19	●	129,0	73,0	56	44,5	25	45	0602AP	0602..	0,30	0,35
20	40	802D-20	●	131,0	75,0	56	47,0	25	45	0602AP	0602..	0,20	0,50
21	42	802D-21	●	133,0	77,0	56	49,5	25	45	0602AP	0602..	0,10	0,50
22	44	802D-22	●	135,0	79,0	56	52,0	25	45	0703AP	0602..	0,50	0,40
23	46	802D-23	●	137,0	81,0	56	54,5	25	45	0703AP	0703..	0,50	0,50
24	48	802D-24	●	139,0	83,0	56	57,0	25	45	0703AP	0703..	0,50	0,50
25	50	802D-25	●	145,0	85,0	60	57,0	32	50	0703AP	0703..	0,30	0,50
26	52	802D-26	●	147,0	87,0	60	59,5	32	50	0703AP	0703..	0,10	0,50
27	54	802D-27	●	149,0	89,0	60	62,0	32	50	0903AP	0703..	0,50	0,20
28	56	802D-28	●	151,0	91,0	60	64,5	32	50	0903AP	09T3..	0,50	0,35
29	58	802D-29	●	153,0	93,0	60	67,0	32	50	0903AP	09T3..	0,50	0,50
30	60	802D-30	●	155,0	95,0	60	69,5	32	50	0903AP	09T3..	0,35	0,50
32	64	802D-32	●	167,0	99,0	68	70,0	40	59	0903AP	09T3..	0,15	0,50
32	64	802D-32-S32	●	159,0	99,0	60	70,0	32	59	0903AP	09T3..	0,15	0,50
34	68	802D-34	●	171,0	103,0	68	75,0	40	59	11T3AP	09T3..	0,50	0,50
34	68	802D-34-S32	●	163,0	103,0	60	75,0	32	59	11T3AP	09T3..	0,50	0,50
36	72	802D-36	●	173,0	105,0	68	77,5	40	59	11T3AP	1204..	0,10	0,50
36	72	802D-36-S32	●	167,0	107,0	60	80,0	32	59	11T3AP	1204..	0,10	0,50
38	76	802D-38	●	179,0	111,0	68	85,0	40	59	11T3AP	1204..	0,15	0,50
38	76	802D-38-S32	●	171,0	111,0	60	85,0	32	59	11T3AP	1204..	0,15	0,50
40	80	802D-40	●	183,0	115,0	68	90,0	40	59	12T3AP	1204..	0,35	0,50
40	80	802D-40-S32	●	175,0	115,0	60	90,0	32	59	12T3AP	1204..	0,35	0,50

SPARE PARTS

Drill	Clamping screw - internal insert	Clamping screw - external insert	Screwdriver
Ø15 - Ø17	US 2245-T07P	US 2245-T07P	SDR T07P
Ø17,5 - Ø18,5	US 2205-T07P	US 2245-T07P	SDR T07P
Ø19 - Ø21	US 2205-T07P	US 2205-T07P	SDR T07P
Ø21,5 - Ø22	US 2506-T07P	US 2506-T07P	SDR T07P
Ø22,5 - Ø26	US 2507-T08P	US 3007-T08P	SDR T08P
Ø26,5 - Ø27	US 3007-T09P	US 3007-T09P	SDR T09P
Ø28 - Ø32	US 3007-T09P	US 3009-T09P	SDR T09P
Ø33 - Ø34	US 3508-T15P	US 3508-T15P	SDR T15P
Ø35 - Ø40	US 3508-T15P	US 5012-T15P	SDR T15P

INDEXABLE INSERT DRILLS

DIMENSIONS TYPE 3D

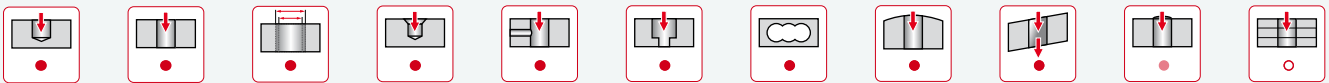
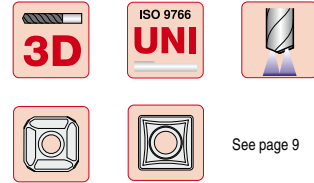
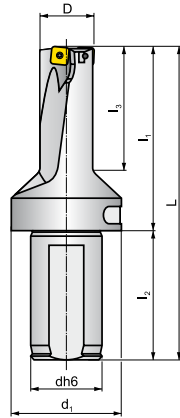


● Recommended application ● Possible applications (see more on pg. 2) ○ Not recommended

D	h	Marking of drill	Assortment	Dimensions						Centre insert XPET	Peripheral insert SCET	Radial adjustment	
				L	L ₁	L ₂	L ₃	dh6	d ₁			-	+
15	45	803D-15	●	136,0	80,0	56	49,5	25	45	0502AP	0502..	0,30	0,15
15,5	47	803D-15,5	●	137,5	81,5	56	51,2	25	45	0502AP	0502..	0,35	0,15
16	48	803D-16	●	139,0	83,0	56	53,0	25	45	0502AP	0502..	0,30	0,30
16,5	50	803D-16,5	●	140,5	84,5	56	54,7	25	45	0502AP	0502..	0,35	0,30
17	51	803D-17	●	142,0	86,0	56	56,5	25	45	0502AP	0502..	0,15	0,35
17,5	53	803D-17,5	●	143,5	87,5	56	58,2	25	45	0602AP	0502..	0,15	0,35
18	54	803D-18	●	145,0	89,0	56	60,0	25	45	0602AP	0502..	0,35	0,15
18,5	56	803D-18,5	●	146,5	90,5	56	61,2	25	45	0602AP	0502..	0,35	0,15
19	57	803D-19	●	148,0	92,0	56	63,5	25	45	0602AP	0602..	0,30	0,20
19,5	59	803D-19,5	●	149,5	93,5	56	63,7	25	45	0602AP	0602..	0,35	0,20
20	60	803D-20	●	151,0	95,0	56	67,0	25	45	0602AP	0602..	0,30	0,35
20,5	62	803D-20,5	●	152,5	96,5	56	67,2	25	45	0602AP	0602..	0,20	0,35
21	63	803D-21	●	154,0	98,0	56	70,5	25	45	0602AP	0602..	0,10	0,50
21,5	65	803D-21,5	●	155,5	99,5	56	70,8	25	45	0703AP	0602..	0,35	0,25
22	66	803D-22	●	157,0	101,0	56	74,0	25	45	0703AP	0602..	0,50	0,25
22,5	68	803D-22,5	●	158,5	102,5	56	74,3	25	45	0703AP	0703..	0,35	0,40
23	69	803D-23	●	160,0	104,0	56	77,5	25	45	0703AP	0703..	0,50	0,40
23,5	71	803D-23,5	●	161,5	105,5	56	77,6	25	45	0703AP	0703..	0,25	0,40
24	72	803D-24	●	163,0	107,0	56	81,0	25	45	0703AP	0703..	0,50	0,45
24,5	74	803D-24,5	●	168,5	108,5	60	78,7	32	50	0703AP	0703..	0,35	0,40
25	75	803D-25	●	170,0	110,0	60	82,0	32	50	0703AP	0703..	0,30	0,50
25,5	77	803D-25,5	●	171,5	111,5	60	82,2	32	50	0703AP	0703..	0,20	0,50
26	78	803D-26	●	173,0	113,0	60	85,5	32	50	0703AP	0703..	0,20	0,50
26,5	80	803D-26,5	●	174,5	114,5	60	85,7	32	50	0903AP	0703..	0,35	0,25
27	81	803D-27	●	176,0	116,0	60	89,0	32	50	0903AP	0703..	0,50	0,20
28	84	803D-28	●	179,0	119,0	60	92,5	32	50	0903AP	09T3..	0,50	0,35
29	87	803D-29	●	182,0	122,0	60	96,0	32	50	0903AP	09T3..	0,50	0,45
30	90	803D-30	●	185,0	125,0	60	99,5	32	50	0903AP	09T3..	0,35	0,50
31	93	803D-31	●	188,0	128,0	60	103,0	32	50	0903AP	09T3..	0,20	0,50
32	96	803D-32	●	199,0	131,0	68	102,0	40	59	0903AP	09T3..	0,10	0,50
32	96	803D-32-S32	●	191,0	131,0	60	102,0	32	59	0903AP	09T3..	0,10	0,50
33	99	803D-33	●	202,0	134,0	68	105,5	40	59	11T3AP	09T3..	0,50	0,40
33	99	803D-33-S32	●	194,0	134,0	60	105,5	32	59	11T3AP	09T3..	0,50	0,40
34	102	803D-34	●	205,0	137,0	68	109,0	40	59	11T3AP	09T3..	0,50	0,30
34	102	803D-34-S32	●	197,0	137,0	60	109,0	32	59	11T3AP	09T3..	0,50	0,30
35	105	803D-35	●	208,0	140,0	68	112,5	40	59	11T3AP	1204..	0,50	0,40
35	105	803D-35-S32	●	200,0	140,0	60	112,5	32	59	11T3AP	1204..	0,50	0,40
36	108	803D-36	●	211,0	143,0	68	116,0	40	59	11T3AP	1204..	0,40	0,50
36	108	803D-36-S32	●	203,0	143,0	60	116,0	32	59	11T3AP	1204..	0,40	0,50
37	111	803D-37	●	214,0	146,0	68	119,5	40	59	11T3AP	1204..	0,20	0,50
37	111	803D-37-S32	●	206,0	146,0	60	119,5	32	59	11T3AP	1204..	0,20	0,50
38	114	803D-38	●	217,0	149,0	68	123,0	40	59	11T3AP	1204..	0,10	0,50
38	114	803D-38-S32	●	209,0	149,0	60	123,0	32	59	11T3AP	1204..	0,10	0,50

INDEXABLE INSERT DRILLS

DIMENSIONS TYPE 3D



● Recommended application ◐ Possible applications (see more on pg. 2) ○ Not recommended

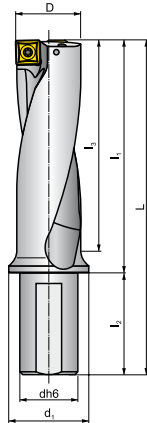
D		Marking of drill	Assortment	Dimensions						Centre insert XPET	Peripheral insert SCET	Radial adjustment	
				L	L ₁	L ₂	L ₃	dh6	d ₁			-	+
39	117	803D-39	●	220,0	152,0	68	126,5	40	59	12T3AP	1204..	0,50	0,35
39	117	803D-39-S32	●	212,0	152,0	60	126,5	32	59	12T3AP	1204..	0,50	0,35
40	120	803D-40	●	223,0	155,0	68	130,0	40	59	12T3AP	1204..	0,35	0,50
40	120	803D-40-S32	●	215,0	155,0	60	130,0	32	59	12T3AP	1204..	0,35	0,50

SPARE PARTS

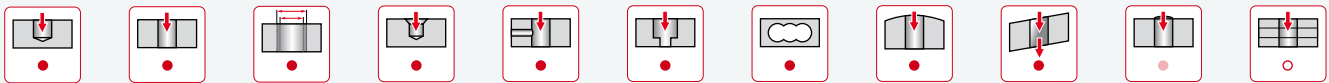
Drill	Clamping screw - internal insert		Clamping screw - external insert		Screwdriver
Ø15 - Ø17	US 2245-T07P	US 2245-T07P	US 2245-T07P	US 2245-T07P	SDR T07P
Ø17,5 - Ø18,5	US 2205-T07P	US 2205-T07P	US 2205-T07P	US 2205-T07P	SDR T07P
Ø19 - Ø21	US 2205-T07P	US 2205-T07P	US 2205-T07P	US 2205-T07P	SDR T07P
Ø21,5 - Ø22	US 2506-T07P	US 2506-T07P	US 2506-T07P	US 2506-T07P	SDR T07P
Ø22,5 - Ø26,5	US 2507-T08P	US 2507-T08P	US 3007-T08P	US 3007-T08P	SDR T08P
Ø27	US 3007-T09P	US 3007-T09P	US 3007-T09P	US 3007-T09P	SDR T09P
Ø28 - Ø32	US 3007-T09P	US 3007-T09P	US 3009-T09P	US 3009-T09P	SDR T09P
Ø33 - Ø34	US 3508-T15P	US 3508-T15P	US 3508-T15P	US 3508-T15P	SDR T15P
Ø35 - Ø40	US 3508-T15P	US 3508-T15P	US 5012-T15P	US 5012-T15P	SDR T15P

INDEXABLE INSERT DRILLS

DIMENSIONS TYPE 3D



See page 9



● Recommended application ● Possible applications (see more on pg. 2) ○ Not recommended

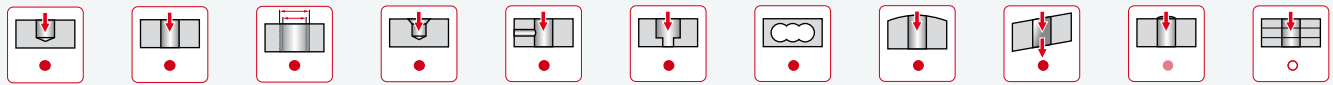
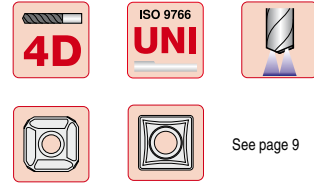
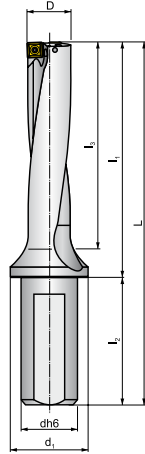
D	h	Marking of drill	Assortment	Dimensions						Centre insert	Peripheral insert	Radial adjustment	
				L	l_1	l_2	l_3	dh6	d_1	XPET	SCET	-	+
41	123	803D-41-123-S40	●	219,0	149,0	70	133,0	40	50	12T3AP	1204..	0,20	0,50
42	126	803D-42-126-S40	●	221,5	151,5	70	136,0	40	50	12T3AP	1204..	0,15	0,50
43	129	803D-43-129-S40	●	224,0	154,0	70	139,0	40	50	12T3AP	1204..	0,10	0,50
44	132	803D-44-132-S40	●	226,5	156,5	70	142,0	40	50	1504AP	1204..	0,50	0,50
45	135	803D-45-135-S40	●	230,5	160,5	70	144,0	40	55	1504AP	1505..	0,50	0,50
46	138	803D-46-138-S40	●	235,0	165,0	70	148,0	40	55	1504AP	1505..	0,50	0,50
47	141	803D-47-141-S40	●	237,5	167,5	70	151,0	40	55	1504AP	1505..	0,50	0,50
48	144	803D-48-144-S40	●	240,0	170,0	70	154,0	40	55	1504AP	1505..	0,50	0,50
49	147	803D-49-147-S40	●	242,5	172,5	70	157,0	40	55	1504AP	1505..	0,30	0,50
50	150	803D-50-150-S40	●	246,5	176,5	70	160,0	40	58	1504AP	1505..	0,15	0,50
51	153	803D-51-153-S40	●	249,0	179,0	70	163,0	40	58	1504AP	1505..	0,15	0,50
52	156	803D-52-156-S40	●	251,5	181,5	70	166,0	40	58	1904AP	1505..	0,50	0,50
53	159	803D-53-159-S40	●	254,0	184,0	70	169,0	40	58	1904AP	1505..	0,50	0,50
54	162	803D-54-162-S40	●	257,5	187,5	70	173,0	40	58	1904AP	1505..	0,50	0,50
55	165	803D-55-165-S40	●	260,0	190,0	70	176,0	40	58	1904AP	1505..	0,50	0,50
56	168	803D-56-168-S40	●	264,0	194,0	70	179,0	40	58	1904AP	1505..	0,50	0,50
57	171	803D-57-171-S40	●	266,5	196,5	70	182,0	40	58	1904AP	1505..	0,35	0,50
58	174	803D-58-174-S40	●	270,0	200,0	70	186,0	40	58	1904AP	1505..	0,15	0,50

SPARE PARTS

Drill	Clamping screw - internal insert	Clamping screw - external insert	Screwdriver
∅41 - ∅43	US 3510-T15P	US 5012-T15P	SDR T15P
∅44 - ∅58	US 4011-T15P	US 5012-T15P	SDR T15P

INDEXABLE INSERT DRILLS

DIMENSIONS TYPE 4D



● Recommended application ◐ Possible applications (see more on pg. 2) ○ Not recommended

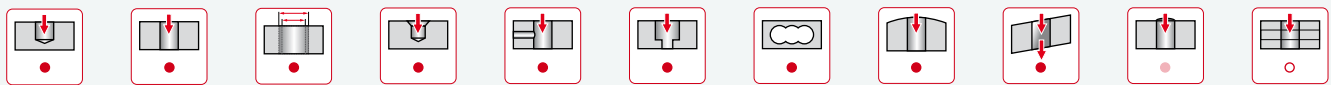
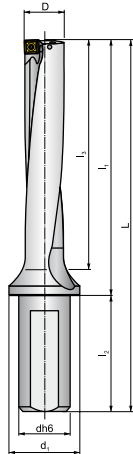
D	h	Marking of drill	Assortment	Dimensions						Centre insert	Peripheral insert	Radial adjustment	
				L	L ₁	L ₂	L ₃	dh6	d ₁			-	+
17	68	804D-17-68-S25	●	149,0	93,0	56	73,0	25	35	0502AP	0502..	0,10	0,50
18	72	804D-18-72-S25	●	153,0	97,0	56	77,0	25	35	0602AP	0502..	0,35	0,25
19	76	804D-19-76-S25	●	157,0	101,0	56	81,5	25	35	0602AP	0502..	0,15	0,45
20	80	804D-20-80-S25	●	161,0	105,0	56	85,0	25	35	0602AP	0602..	0,10	0,45
21	84	804D-21-84-S25	●	165,0	109,0	56	89,5	25	35	0602AP	0602..	0,10	0,50
22	88	804D-22-88-S25	●	169,0	113,0	56	94,0	25	35	0703AP	0602..	0,45	0,50
23	92	804D-23-92-S25	●	173,0	117,0	56	98,5	25	35	0703AP	0703..	0,35	0,50
24	96	804D-24-96-S25	●	177,0	121,0	56	103,0	25	35	0703AP	0703..	0,15	0,50
25	100	804D-25-100-S32	●	185,0	125,0	60	105,0	32	42	0703AP	0703..	0,15	0,50
26	104	804D-26-104-S32	●	189,0	129,0	60	109,5	32	42	0703AP	0703..	0,10	0,50
27	108	804D-27-108-S32	●	193,0	133,0	60	114,0	32	42	0903AP	0703..	0,50	0,30
28	112	804D-28-112-S32	●	197,0	137,0	60	118,5	32	42	0903AP	09T3..	0,30	0,50
29	116	804D-29-116-S32	●	201,0	141,0	60	123,0	32	42	0903AP	09T3..	0,20	0,50
30	120	804D-30-120-S32	●	205,0	145,0	60	127,5	32	42	0903AP	09T3..	0,15	0,50
31	124	804D-31-124-S32	●	209,0	149,0	60	132,0	32	42	0903AP	09T3..	0,15	0,50
32	128	804D-32-128-S32	●	213,0	153,0	60	136,5	32	42	11T3AP	09T3..	0,50	0,30
33	132	804D-33-132-S32	●	217,0	157,0	60	141,0	32	42	11T3AP	09T3..	0,50	0,50
34	136	804D-34-136-S32	●	221,0	161,0	60	145,5	32	42	11T3AP	09T3..	0,25	0,50
35	140	804D-35-140-S32	●	225,0	165,0	60	149,0	32	42	11T3AP	1204..	0,25	0,50
36	144	804D-36-144-S32	●	229,0	169,0	60	153,5	32	42	11T3AP	1204..	0,10	0,50
37	148	804D-37-148-S32	●	233,0	173,0	60	158,0	32	42	11T3AP	1204..	0,10	0,50
38	152	804D-38-152-S32	●	237,0	177,0	60	162,5	32	42	11T3AP	1204..	0,50	0,50
39	156	804D-39-156-S32	●	241,0	181,0	60	167,0	32	42	12T3AP	1204..	0,40	0,50
40	160	804D-40-160-S32	●	245,0	185,0	60	171,5	32	42	12T3AP	1204..	0,20	0,50

SPARE PARTS

Drill	Clamping screw - internal insert	Clamping screw - external insert	Screwdriver
Ø15 - Ø17	US 2245-T07P	US 2245-T07P	SDR T07P
Ø17,5 - Ø19	US 2205-T07P	US 2245-T07P	SDR T07P
Ø20 - Ø21	US 2205-T07P	US 2205-T07P	SDR T07P
Ø21,5 - Ø22	US 2506-T07P	US 2506-T07P	SDR T07P
Ø22,5 - Ø26	US 2507-T08P	US 3007-T08P	SDR T08P
Ø26,5 - Ø27	US 3007-T09P	US 3007-T09P	SDR T09P
Ø28 - Ø31	US 3007-T09P	US 3009-T09P	SDR T09P
Ø32 - Ø34	US 3510-T15P	US 3508-T15P	SDR T15P
Ø35 - Ø40	US 3510-T15P	US 5012-T15P	SDR T15P

INDEXABLE INSERT DRILLS

DIMENSIONS TYPE 5D



● Recommended application ● Possible applications (see more on pg. 2) ○ Not recommended

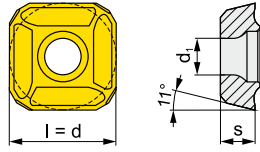
D		Marking of drill	Assortment	Dimensions						Centre insert	Peripheral insert	Radial adjustment	
				L	l_1	l_2	l_3	dh6	d_1	XPET	SCET	-	+
19	95	805D-19-95-S25	●	176,0	120,0	56	100,5	25	35	0602AP	0502..	0,15	0,45
20	100	805D-20-100-S25	●	181,0	125,0	56	105,0	25	35	0602AP	0602..	0,10	0,45
21	105	805D-21-105-S25	●	186,0	130,0	56	110,5	25	35	0602AP	0602..	0,10	0,50
22	110	805D-22-110-S25	●	191,0	135,0	56	116,0	25	35	0703AP	0602..	0,45	0,50
23	115	805D-23-115-S25	●	196,0	140,0	56	121,5	25	35	0703AP	0703..	0,35	0,50
24	120	805D-24-120-S25	●	201,0	145,0	56	127,0	25	35	0703AP	0703..	0,15	0,50
25	125	805D-25-125-S32	●	210,0	150,0	60	130,0	32	42	0703AP	0703..	0,15	0,50
26	130	805D-26-130-S32	●	215,0	155,0	60	135,5	32	42	0703AP	0703..	0,10	0,50
27	135	805D-27-135-S32	●	220,0	160,0	60	141,0	32	42	0903AP	0703..	0,50	0,30
28	140	805D-28-140-S32	●	225,0	165,0	60	146,5	32	42	0903AP	09T3..	0,30	0,50
29	145	805D-29-145-S32	●	230,0	170,0	60	152,0	32	42	0903AP	09T3..	0,20	0,50
30	150	805D-30-150-S32	●	235,0	175,0	60	157,5	32	42	0903AP	09T3..	0,15	0,50
31	155	805D-31-155-S32	●	240,0	180,0	60	163,0	32	42	0903AP	09T3..	0,15	0,50

SPARE PARTS

Drill	Clamping screw - internal insert 	Clamping screw - external insert 	Screwdriver
∅15 - ∅17	US 2245-T07P	US 2245-T07P	SDR T07P
∅17,5 - ∅19	US 2205-T07P	US 2245-T07P	SDR T07P
∅20 - ∅21	US 2205-T07P	US 2205-T07P	SDR T07P
∅21,5 - ∅22	US 2506-T07P	US 2506-T07P	SDR T07P
∅22,5 - ∅26	US 2507-T08P	US 3007-T08P	SDR T08P
∅26,5 - ∅27	US 3007-T09P	US 3007-T09P	SDR T09P
∅28 - ∅31	US 3007-T09P	US 3009-T09P	SDR T09P
∅32 - ∅34	US 3510-T15P	US 3508-T15P	SDR T15P
∅35 - ∅40	US 3510-T15P	US 5012-T15P	SDR T15P

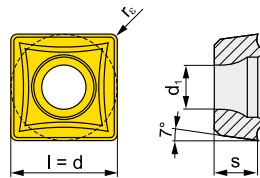
INDEXABLE CUTTING INSERTS

DIMENSIONS XPET AP









ISO	ANSI	Grades			Dimensions				
		D8345			l	d	s	d _i	r _e
XPET 0502AP	XPET -(1.5)AP	●			5,556	5,556	2,38	2,40	-
XPET 0602AP	XPET -(1.5)AP	●			6,350	6,350	2,38	2,60	-
XPET 0703AP	XPET -2AP	●			7,937	7,937	3,18	2,90	-
XPET 0903AP	XPET -2AP	●			9,525	9,525	3,18	3,50	-
XPET 11T3AP	XPET -(2.5)AP	●			11,509	11,509	3,97	3,90	-
XPET 12T3AP	XPET -(2.5)AP	●			12,700	12,700	3,97	3,90	-
XPET 1504AP	XPET -3AP	●			15,875	15,875	4,76	4,50	-
XPET 1904AP	XPET -3AP	●			19,050	19,050	4,76	4,50	-

DIMENSIONS SCET UD



ISO	ANSI	Grades			Dimensions				
		D9335	D8330		l	d	s	d _i	r _e
SCET 050204-UD	SCET -(1.5)1-UD	●	●		5,556	5,556	2,38	2,40	0,4
SCET 060204-UD	SCET -(1.5)1-UD	●	●		6,350	6,350	2,38	2,90	0,4
SCET 070308-UD	SCET -22-UD	●	●		7,937	7,937	3,18	3,50	0,8
SCET 09T308-UD	SCET 3(2.5)2-UD	●	●		9,525	9,525	3,97	4,50	0,8
SCET 120408-UD	SCET 432-UD	●	●		12,700	12,700	4,76	5,60	0,8
SCET 150512-UD	SCET 5(3.5)3-UD	●	●		15,875	15,875	5,56	5,60	1,2

COATED GRADES FOR DRILLING

Designation and microstructure	Application area	Workpiece material group ISO	Grade description and recommended application
D9335 			 <p>Grade for peripheral insert Functionally gradient substrate with high content of cobalt Thin MT CVD coating with a unique Al₂O₃ layer Medium to higher cutting speeds Suitable for machining of material groups P, M, K, conditionally S, H High operation reliability First choice for stable cutting conditions</p>
D8330 			 <p>Universal grade for peripheral insert Submicron substrate with relatively high cobalt content Nanostructured gradient PVD coating Increased hardness yet decreased internal stress Improved resistance against notch wear Medium cutting speeds Suitable for machining of materials group P, M, K, S; conditionally H Good operation reliability First choice for unstable cutting conditions</p>
D8345 			 <p>Universal grade for center insert Submicron substrate with high cobalt content Nanostructured gradient PVD coating Increased hardness yet decreased internal stress Improved resistance against notch wear Medium to lower cutting speeds Suitable for machining of materials group P, M, K, S; conditionally H Unstable cutting conditions</p>

Main application
 Other applications
 Conditional applications

RECOMMENDED CUTTING CONDITIONS FOR INDEXABLE DRILLS

802D / 803D

Material group ISO	Recommended geometry, grade and cutting speed v_c [m/min]			Recommended feed f [mm/rev.] for drill diameter							
	v_c [m/min]	Peripheral inserts Grade	Centre inserts Grade	∅ 15	∅ 20	∅ 25	∅ 30	∅ 40	∅ 58		
P_I	250 ÷ 300	SCET	D9335 D8330	XPET	D8345	0,05	0,06	0,07	0,08	0,09	0,10
P_{II}	230 ÷ 270		D9335 D8330		D8345	0,10	0,12	0,14	0,16	0,18	0,20
P_{III}	180 ÷ 230		D9335 D8330		D8345	0,11	0,15	0,18	0,20	0,22	0,24
P_{IV}	100 ÷ 180		D9335 D8330		D8345	0,10	0,15	0,18	0,20	0,22	0,24
M	120 ÷ 200		D8330		D8345	0,07	0,09	0,11	0,12	0,13	0,14
K	150 ÷ 240		D8330 D9335		D8345	0,15	0,16	0,18	0,20	0,23	0,26
N	-		-		-	-	-	-	-	-	-
S	80 ÷ 120		D8330		D8345	0,07	0,09	0,10	0,11	0,12	0,13
H	-	-	-	-	-	-	-	-	-		

804D

Material group ISO	Recommended geometry, grade and cutting speed v_c [m/min]			Recommended feed f [mm/rev.] for drill diameter						
	v_c [m/min]	Peripheral inserts Grade	Centre inserts Grade	∅ 17	∅ 20	∅ 25	∅ 30	∅ 40		
P_I	210 ÷ 280	SCET	D9335 D8330	XPET	D8345	0,05	0,06	0,07	0,08	0,09
P_{II}	180 ÷ 240		D9335 D8330		D8345	0,08	0,09	0,11	0,13	0,14
P_{III}	140 ÷ 210		D9335 D8330		D8345	0,08	0,09	0,11	0,13	0,14
P_{IV}	90 ÷ 160		D9335 D8330		D8345	0,08	0,09	0,11	0,13	0,14
M	100 ÷ 160		D8330		D8345	0,07	0,08	0,09	0,10	0,11
K	150 ÷ 240		D8330 D9335		D8345	0,11	0,13	0,14	0,17	0,18
N	-		-		-	-	-	-	-	-
S	70 ÷ 110		D8330		D8345	0,06	0,07	0,08	0,09	0,10
H	-	-	-	-	-	-	-	-		

805D

Material group ISO	Recommended geometry, grade and cutting speed v_c [m/min]			Recommended feed f [mm/rev.] for drill diameter					
	v_c [m/min]	Peripheral inserts Grade	Centre inserts Grade	∅ 19	∅ 20	∅ 25	∅ 31		
P_I	170 ÷ 240	SCET	D9335 D8330	XPET	D8345	0,06	0,06	0,07	0,08
P_{II}	140 ÷ 210		D9335 D8330		D8345	0,09	0,09	0,10	0,12
P_{III}	130 ÷ 200		D9335 D8330		D8345	0,09	0,09	0,11	0,12
P_{IV}	90 ÷ 150		D9335 D8330		D8345	0,09	0,09	0,11	0,12
M	90 ÷ 150		D8330		D8345	0,08	0,08	0,09	0,10
K	150 ÷ 240		D8330 D9335		D8345	0,13	0,13	0,14	0,17
N	-		-		-	-	-	-	-
S	60 ÷ 100		D8330		D8345	0,07	0,07	0,08	0,09
H	-	-	-	-	-	-	-		



Safety

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