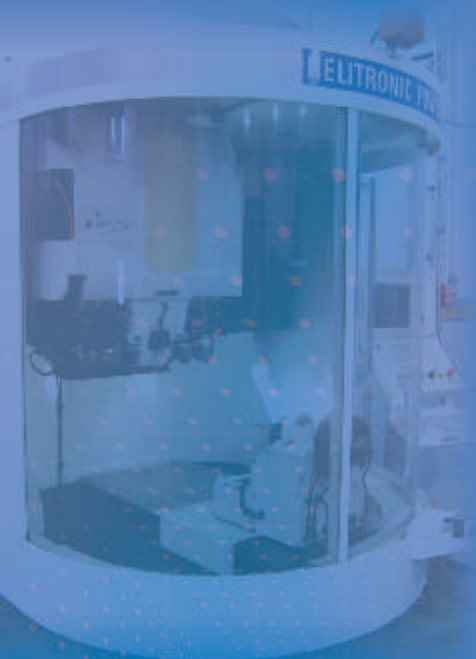




Cutting Tools Company

Solid Carbide Tools

Product catalogue





Cutting Tools Company



ABOUT US

BILTZ is run and managed by highly qualified engineers and dedicated professionals having various manufacturing facilities in India and Europe. *BILTZ* are producers of precision Solid Carbide Cutting Tools. The standard range includes more than 1000 different tools. A major contribution in the total production output is special tooling manufactured to customer's specifications.



APPLICATION

BILTZ produces Tools with specific geometries provide excellent machining qualities on materials such as steel, aluminum, cast iron and non-ferrous materials. Tools developed and produced by *BILTZ* are mainly used by automotive industries, aircraft industries, die & mould shops, CNC shops etc.



CNC PRODUCTION

BILTZ has a fleet of CNC tool grinding machines from Walter. All tools are produced on these state of the art CNC plant and Multi-axis grinding machines ensuring maximum precision and accuracy.



SOLID CARBIDES

BILTZ uses only micro grain and submicrograin carbide from leading European suppliers guarantying higher rigidity with higher hardness because of the homogenous nature of the carbide. Constant market research enables *BILTZ* to follow all developments in carbide technology and incorporate material improvement in their products.



COATING

BILTZ offers wide variety of coating combined with specially adapted geometries for the machining of specific materials, to give increased tool life and higher machining accuracy.



QUALITY

BILTZ Tools are mainly manufactured as per DIN standards and also as per ISI, ANSI, and ISO specifications. All tools are inspected with strict quality norms right from raw material stage to final product. Tools are inspected on sophisticated Zoller machines.



TECHNICAL SUPPORT

BILTZ are able to offer customers high level of support through the expertise of their application engineers and their technical representatives.

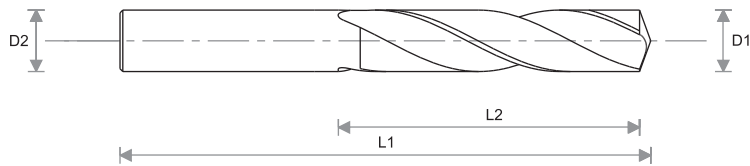
INDEX

SOLID CARBIDE TOOLS

	SR NO.	TOOLS SERIES	ITEM	PG		SR NO.	TOOLS SERIES	ITEM	PG	
REAMERS / DRILLS	1.	BTD-71	STUB DRILLS	2	END MILLS / BALL NOSE	45.	BSM-25	POWER ENDMILLS - STANDARD SERIES	31	CUSTOM TOOLS
	2.	BTD-72	JOBBER DRILLS	4		46.	BSM-26	POWER ENDMILLS - LONG SERIES	31	
	3.	BTD-73	RATIO DRILLS (L/D 3)	6		47.	BSM-27	POWER ENDMILLS - EXTRA LONG SERIES	31	
	4.	BTD-74	RATIO DRILLS (L/D 5)	8		48.	BSM-28	POWER ENDMILLS - INCHES SERIES	31	
	5.	BTD-75	RATIO DRILLS (L/D 7)	10		49.	BSM-31	ENDMILLS FOR ALUMINUM MACHINING - STANDARD SERIES	32	
	6.	BTD-76	3 FLUTE DRILLS	12		50.	BSM-32	ENDMILLS FOR ALUMINUM MACHINING - LONG SERIES	32	
	7.	BTD-77	3 FLUTE DRILLS (THROUGH COOLANT)	13		51.	BSM-33	ENDMILLS FOR ALUMINUM MACHINING - EXTRA LONG SERIES	32	
	8.	BBD-81	BURNISHING DRILLS L/D 4	14		52.	BSM-34	ENDMILLS FOR ALUMINUM MACHINING - INCHES SERIES	32	
	9.	BBD-82	BURNISHING DRILLS L/D 7	14		53.	BSM-35	SLOT MILLS - STANDARD SERIES	33	
	10.	BBD-83	BURNISHING DRILL (THROUGH COOLANT) L/D 4	15		54.	BSM-36	SLOT MILLS - LONG SERIES	33	
	11.	BBD-84	BURNISHING DRILL (THROUGH COOLANT) L/D 7	15		55.	BSM-37	SLOT MILLS - EXTRA LONG SERIES	33	
	12.	BSD-85	STEP DRILLS - 2 FLUTE TWIST DRILLS	16		56.	BSM-38	SLOT MILLS - INCHES SERIES	33	
	13.	BSD-86	STEP DRILLS - 2 FLUTE BURNISHING DRILLS	16		57.	BSM-41	HIGH HELIX ENDMILL - STANDARD SERIES	34	
	14.	BMD-87	MICRO DRILLS	17		58.	BSM-42	HIGH HELIX ENDMILLS - LONG SERIES	34	
	15.	BPD-88	SPADE DRILLS	17		59.	BSM-43	HIGH HELIX ENDMILLS - EXTRA LONG SERIES	34	
	16.	BLD-91	DEEP HOLE DRILLS (L/D 15)	18		60.	BSM-44	HIGH HELIX ENDMILLS - INCHES SERIES	34	
	17.	BLD-92	DEEP HOLE DRILLS (L/D 20)	18		61.	BSM-15	TOUGH MILLS - STANDARD SERIES	35	
	18.	BLD-92	DEEP HOLE DRILLS (L/D 25)	19		62.	BSM-16	TOUGH MILLS - LONG SERIES	35	
	19.	BLD-94	DEEP HOLE DRILLS (L/D 30)	19		63.	BSM-17	TOUGH MILLS - EXTRA LONG SERIES	35	
	20.	BND-95	NC SPOTTING DRILL (90°)	20		64.	BSM-18	TOUGH MILLS - INCHES SERIES	35	
	21.	BND-96	NC SPOTTING DRILL (120°)	20		65.	BRM-45	ROUGHING ENDMILLS - STANDARD SERIES	36	
	22.	BCD-97	CENTRE DRILLS (FORM A)	21		66.	BRM-46	ROUGHING ENDMILLS - LONG SERIES	36	
	23.	BCD-98	CENTRE DRILLS (FORM B)	21		67.	BRM-47	ROUGHING ENDMILLS - EXTRA LONG SERIES	36	
	24.	BCD-99	CENTRE DRILLS (FORM R)	21		68.	BRM-48	ROUGHING ENDMILLS - INCHES SERIES	36	
	25.	BMR-01	MACHINE REAMERS	22		69.	BTM-61	TAPER ENDMILLS	37	
	26.	BSR-02	STUB REAMERS	23		70.	BBM-51	BALL NOSE ENDMILLS 2 FLUTE - STANDARD SERIES	38	
	27.	BRD-03	CORE DRILLS - STANDARD SERIES	24		71.	BBM-52	BALL NOSE ENDMILLS 2 FLUTE - LONG SERIES	38	
	28.	BRD-03 L	CORE DRILLS - LONG SERIES	24		72.	BBM-53	BALL NOSE ENDMILLS 2 FLUTE - EXTRA LONG SERIES	38	
CUTTERS	29.	BHM-04	HOLE MILLS	25	CUSTOM TOOLS	73.	BBM-54	BALL NOSE ENDMILLS 2 FLUTE - INCHES SERIES	38	
	30.	BCB-05	COUNTER BORES	25		74.	BBM-55	BALL NOSE ENDMILLS 4 FLUTE - STANDARD SERIES	39	
	31.	BKC-06	KEY SEAT CUTTER	26		75.	BBM-56	BALL NOSE ENDMILLS 4 FLUTE - LONG SERIES	39	
	32.	BTC-07	T SLOT CUTTER	26		76.	BBM-57	BALL NOSE ENDMILLS 4 FLUTE - EXTRA LONG SERIES	39	
	33.	BDC-(deg) S	DOVE TAIL CUTTER - STRAIGHT	27		77.	BBM-58	BALL NOSE ENDMILLS 4 FLUTE - INCHES SERIES	39	
	34.	BDC-(deg) R	DOVE TAIL CUTTER - REVERSE	27		78.	BSC-65	SLITTING CUTTER	40	
	35.	BCC-08	CONCAVE CUTTER	28		79.	BCU-DR	CUSTOM DRILL	41	
	36.	BCS-09	COUNTER SINKS	28		80.	BCU-RM	CUSTOM REAMER	41	
END MILLS	37.	BSM-11	ENDMILLS 4 FLUTE - STANDARD SERIES	29		81.	BCU-SD	CUSTOM STEP DRILL (1 STEP)	42	
	38.	BSM-12	ENDMILLS 4 FLUTE - LONG SERIES	29		82.	BCU-MD	CUSTOM STEP DRILL (MULTIPLE STEP)	42	
	39.	BSM-13	ENDMILLS 4 FLUTE - EXTRA LONG SERIES	29		83.	BCU-EM	CUSTOM ENDMILL	43	
	40.	BSM-14	ENDMILLS 4 FLUTE - INCHES SERIES	29		84.	BCU-TM	CUSTOM TAPER ENDMILL	43	
	41.	BSM-21	VIBRATION FREE ENDMILLS - STANDARD SERIES	30		85.	BCU-TC	CUSTOM T SLOT CUTTER	44	
	42.	BSM-22	VIBRATION FREE ENDMILLS - LONG SERIES	30		86.	BCU-PM	CUSTOM PROFILE MILLING CUTTER	44	
	43.	BSM-23	VIBRATION FREE ENDMILLS - EXTRA LONG SERIES	30		87.	BCU-BT	CUSTOM BORING TOOLS	45	
	44.	BSM-24	VIBRATION FREE ENDMILLS - INCHES SERIES	30		88.	NOTES	NOTES	46	

SOLID CARBIDE STUB DRILLS

TOOL SERIES : BT-D-71



TOL:
h8

DIN
6539

Micro
Grain

ALL DIMENSIONS IN MM.

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BT-D-71-030	3.0	16	46	3.0
BT-D-71-031	3.1	18	49	3.1
BT-D-71-032	3.2	18	49	3.2
BT-D-71-033	3.3	18	49	3.3
BT-D-71-034	3.4	20	52	3.4
BT-D-71-035	3.5	20	52	3.5
BT-D-71-036	3.6	20	52	3.6
BT-D-71-037	3.7	20	52	3.7
BT-D-71-038	3.8	22	55	3.8
BT-D-71-039	3.9	22	55	3.9
BT-D-71-040	4.0	22	55	4.0
BT-D-71-041	4.1	22	55	4.1
BT-D-71-042	4.2	22	55	4.2
BT-D-71-043	4.3	24	58	4.3
BT-D-71-044	4.4	24	58	4.4
BT-D-71-045	4.5	24	58	4.5
BT-D-71-046	4.6	24	58	4.6
BT-D-71-047	4.7	24	58	4.7
BT-D-71-048	4.8	26	62	4.8
BT-D-71-049	4.9	26	62	4.9
BT-D-71-050	5.0	26	62	5.0
BT-D-71-051	5.1	26	62	5.1
BT-D-71-052	5.2	26	62	5.2
BT-D-71-053	5.3	26	62	5.3
BT-D-71-054	5.4	28	66	5.4
BT-D-71-055	5.5	28	66	5.5
BT-D-71-056	5.6	28	66	5.6
BT-D-71-057	5.7	28	66	5.7
BT-D-71-058	5.8	28	66	5.8
BT-D-71-059	5.9	28	66	5.9
BT-D-71-060	6.0	28	66	6.0
BT-D-71-061	6.1	31	70	6.1
BT-D-71-062	6.2	31	70	6.2
BT-D-71-063	6.3	31	70	6.3
BT-D-71-064	6.4	31	70	6.4
BT-D-71-065	6.5	31	70	6.5
BT-D-71-066	6.6	31	70	6.6
BT-D-71-067	6.7	31	70	6.7

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BT-D-71-068	6.8	34	74	6.8
BT-D-71-069	6.9	34	74	6.9
BT-D-71-070	7.0	34	74	7.0
BT-D-71-071	7.1	34	74	7.1
BT-D-71-072	7.2	34	74	7.2
BT-D-71-073	7.3	34	74	7.3
BT-D-71-074	7.4	34	74	7.4
BT-D-71-075	7.5	34	74	7.5
BT-D-71-076	7.6	37	79	7.6
BT-D-71-077	7.7	37	79	7.7
BT-D-71-078	7.8	37	79	7.8
BT-D-71-079	7.9	37	79	7.9
BT-D-71-080	8.0	37	79	8.0
BT-D-71-081	8.1	37	79	8.1
BT-D-71-082	8.2	37	79	8.2
BT-D-71-083	8.3	37	79	8.3
BT-D-71-084	8.4	37	79	8.4
BT-D-71-085	8.5	37	79	8.5
BT-D-71-086	8.6	40	84	8.6
BT-D-71-087	8.7	40	84	8.7
BT-D-71-088	8.8	40	84	8.8
BT-D-71-089	8.9	40	84	8.9
BT-D-71-090	9.0	40	84	9.0
BT-D-71-091	9.1	40	84	9.1
BT-D-71-092	9.2	40	84	9.2
BT-D-71-093	9.3	40	84	9.3
BT-D-71-094	9.4	40	84	9.4
BT-D-71-095	9.5	40	84	9.5
BT-D-71-096	9.6	43	89	9.6
BT-D-71-097	9.7	43	89	9.7
BT-D-71-098	9.8	43	89	9.8
BT-D-71-099	9.9	43	89	9.9
BT-D-71-100	10.0	43	89	10.0
BT-D-71-101	10.1	43	89	10.1
BT-D-71-102	10.2	43	89	10.2
BT-D-71-103	10.3	43	89	10.3
BT-D-71-104	10.4	43	89	10.4
BT-D-71-105	10.5	43	89	10.5

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BTD-71-106	10.6	43	89	10.6
BTD-71-107	10.7	47	95	10.7
BTD-71-108	10.8	47	95	10.8
BTD-71-109	10.9	47	95	10.9
BTD-71-110	11.0	47	95	11.0
BTD-71-111	11.1	47	95	11.1
BTD-71-112	11.2	47	95	11.2
BTD-71-113	11.3	47	95	11.3
BTD-71-114	11.4	47	95	11.4
BTD-71-115	11.5	47	95	11.5
BTD-71-116	11.6	47	95	11.6
BTD-71-117	11.7	47	95	11.7
BTD-71-118	11.8	47	95	11.8
BTD-71-119	11.9	51	102	11.9
BTD-71-120	12.0	51	102	12.0
BTD-71-121	12.1	51	102	12.1
BTD-71-122	12.2	51	102	12.2
BTD-71-123	12.3	51	102	12.3
BTD-71-124	12.4	51	102	12.4
BTD-71-125	12.5	51	102	12.5
BTD-71-126	12.6	51	102	12.6
BTD-71-127	12.7	51	102	12.7
BTD-71-128	12.8	51	102	12.8
BTD-71-129	12.9	51	102	12.9
BTD-71-130	13.0	51	102	13.0
BTD-71-131	13.1	51	102	13.1
BTD-71-132	13.2	51	102	13.2
BTD-71-133	13.3	54	107	13.3
BTD-71-134	13.4	54	107	13.4
BTD-71-135	13.5	54	107	13.5
BTD-71-136	13.6	54	107	13.6
BTD-71-137	13.7	54	107	13.7
BTD-71-138	13.8	54	107	13.8
BTD-71-139	13.9	54	107	13.9
BTD-71-140	14.0	54	107	14.0
BTD-71-141	14.1	56	111	14.1
BTD-71-142	14.2	56	111	14.2
BTD-71-143	14.3	56	111	14.3

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BTD-71-144	14.4	56	111	14.4
BTD-71-145	14.5	56	111	14.5
BTD-71-146	14.6	56	111	14.6
BTD-71-147	14.7	56	111	14.7
BTD-71-148	14.8	56	111	14.8
BTD-71-149	14.9	56	111	14.9
BTD-71-150	15.0	56	111	15.0
BTD-71-151	15.1	58	115	15.1
BTD-71-152	15.2	58	115	15.2
BTD-71-153	15.3	58	115	15.3
BTD-71-154	15.4	58	115	15.4
BTD-71-155	15.5	58	115	15.5
BTD-71-156	15.6	58	115	15.6
BTD-71-157	15.7	58	115	15.7
BTD-71-158	15.8	58	115	15.8
BTD-71-159	15.9	58	115	15.9
BTD-71-160	16.0	58	115	16.0
BTD-71-165	16.5	60	119	16.5
BTD-71-170	17.0	60	119	17.0
BTD-71-175	17.5	62	123	17.5
BTD-71-180	18.0	62	123	18.0
BTD-71-185	18.5	64	127	18.5
BTD-71-190	19.0	64	127	19.0
BTD-71-195	19.5	66	131	19.5
BTD-71-200	20.0	66	131	20.0
BTD-71-210	21.0	68	136	21.0
BTD-71-220	22.0	70	141	22.0
BTD-71-230	23.0	72	146	23.0
BTD-71-240	24.0	75	151	24.0
BTD-71-250	25.0	75	151	25.0
BTD-71-260	26.0	78	156	26.0
BTD-71-280	28.0	81	162	28.0
BTD-71-300	30.0	84	168	30.0
BTD-71-320	32.0	90	180	32.0
BTD-71-340	34.0	93	186	34.0
BTD-71-360	36.0	96	193	36.0
BTD-71-380	38.0	100	200	38.0
BTD-71-400	40.0	100	200	40.0

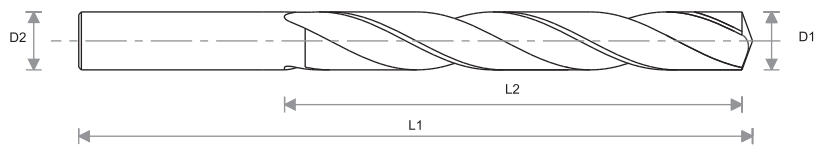
ALSO OFFERED ON REQUEST IN:

- ◆ Inches sizes and intermediate sizes.
- ◆ Specific tolerances.
- ◆ Left hand/right hand helix.
- ◆ High/low helix angle and special helix.
- ◆ Drill point geometry to suit application.
- ◆ Flute design to suit application.
- ◆ Through coolant.
- ◆ Special coatings to enhance tool life.
- ◆ Lugged design above 12.0 mm.
- ◆ Special shank (Weldon, taper, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE JOBBER DRILLS

TOOL SERIES : BTD-72



TOL:
h7

DIN
338

Micro
Grain

ALL DIMENSIONS IN MM.

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BTD-72-030	3.0	33	61	3.0
BTD-72-031	3.1	36	65	3.1
BTD-72-032	3.2	36	65	3.2
BTD-72-033	3.3	36	65	3.3
BTD-72-034	3.4	39	70	3.4
BTD-72-035	3.5	39	70	3.5
BTD-72-036	3.6	39	70	3.6
BTD-72-037	3.7	39	70	3.7
BTD-72-038	3.8	43	75	3.8
BTD-72-039	3.9	43	75	3.9
BTD-72-040	4.0	43	75	4.0
BTD-72-041	4.1	43	75	4.1
BTD-72-042	4.2	43	75	4.2
BTD-72-043	4.3	47	80	4.3
BTD-72-044	4.4	47	80	4.4
BTD-72-045	4.5	47	80	4.5
BTD-72-046	4.6	47	80	4.6
BTD-72-047	4.7	47	80	4.7
BTD-72-048	4.8	52	86	4.8
BTD-72-049	4.9	52	86	4.9
BTD-72-050	5.0	52	86	5.0
BTD-72-051	5.1	52	86	5.1
BTD-72-052	5.2	52	86	5.2
BTD-72-053	5.3	52	86	5.3
BTD-72-054	5.4	57	93	5.4
BTD-72-055	5.5	57	93	5.5
BTD-72-056	5.6	57	93	5.6
BTD-72-057	5.7	57	93	5.7
BTD-72-058	5.8	57	93	5.8
BTD-72-059	5.9	57	93	5.9
BTD-72-060	6.0	57	93	6.0
BTD-72-061	6.1	63	101	6.1
BTD-72-062	6.2	63	101	6.2
BTD-72-063	6.3	63	101	6.3
BTD-72-064	6.4	63	101	6.4
BTD-72-065	6.5	63	101	6.5
BTD-72-066	6.6	63	101	6.6
BTD-72-067	6.7	63	101	6.7

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BTD-72-068	6.8	69	109	6.8
BTD-72-069	6.9	69	109	6.9
BTD-72-070	7.0	69	109	7.0
BTD-72-071	7.1	69	109	7.1
BTD-72-072	7.2	69	109	7.2
BTD-72-073	7.3	69	109	7.3
BTD-72-074	7.4	69	109	7.4
BTD-72-075	7.5	69	109	7.5
BTD-72-076	7.6	75	117	7.6
BTD-72-077	7.7	75	117	7.7
BTD-72-078	7.8	75	117	7.8
BTD-72-079	7.9	75	117	7.9
BTD-72-080	8.0	75	117	8.0
BTD-72-081	8.1	75	117	8.1
BTD-72-082	8.2	75	117	8.2
BTD-72-083	8.3	75	117	8.3
BTD-72-084	8.4	75	117	8.4
BTD-72-085	8.5	75	117	8.5
BTD-72-086	8.6	81	125	8.6
BTD-72-087	8.7	81	125	8.7
BTD-72-088	8.8	81	125	8.8
BTD-72-089	8.9	81	125	8.9
BTD-72-090	9.0	81	125	9.0
BTD-72-091	9.1	81	125	9.1
BTD-72-092	9.2	81	125	9.2
BTD-72-093	9.3	81	125	9.3
BTD-72-094	9.4	81	125	9.4
BTD-72-095	9.5	81	125	9.5
BTD-72-096	9.6	87	133	9.6
BTD-72-097	9.7	87	133	9.7
BTD-72-098	9.8	87	133	9.8
BTD-72-099	9.9	87	133	9.9
BTD-72-100	10.0	87	133	10.0
BTD-72-101	10.1	87	133	10.1
BTD-72-102	10.2	87	133	10.2
BTD-72-103	10.3	87	133	10.3
BTD-72-104	10.4	87	133	10.4
BTD-72-105	10.5	87	133	10.5

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BTD-72-106	10.6	87	133	10.6
BTD-72-107	10.7	94	142	10.7
BTD-72-108	10.8	94	142	10.8
BTD-72-109	10.9	94	142	10.9
BTD-72-110	11.0	94	142	11.0
BTD-72-111	11.1	94	142	11.1
BTD-72-112	11.2	94	142	11.2
BTD-72-113	11.3	94	142	11.3
BTD-72-114	11.4	94	142	11.4
BTD-72-115	11.5	94	142	11.5
BTD-72-116	11.6	94	142	11.6
BTD-72-117	11.7	94	142	11.7
BTD-72-118	11.8	94	142	11.8
BTD-72-119	11.9	101	151	11.9
BTD-72-120	12.0	101	151	12.0
BTD-72-121	12.1	101	151	12.1
BTD-72-122	12.2	101	151	12.2
BTD-72-123	12.3	101	151	12.3
BTD-72-124	12.4	101	151	12.4
BTD-72-125	12.5	101	151	12.5
BTD-72-126	12.6	101	151	12.6
BTD-72-127	12.7	101	151	12.7
BTD-72-128	12.8	101	151	12.8
BTD-72-129	12.9	101	151	12.9
BTD-72-130	13.0	101	151	13.0
BTD-72-131	13.1	101	151	13.1
BTD-72-132	13.2	101	151	13.2
BTD-72-133	13.3	108	160	13.3
BTD-72-134	13.4	108	160	13.4
BTD-72-135	13.5	108	160	13.5
BTD-72-136	13.6	108	160	13.6
BTD-72-137	13.7	108	160	13.7
BTD-72-138	13.8	108	160	13.8
BTD-72-139	13.9	108	160	13.9
BTD-72-140	14.0	108	160	14.0
BTD-72-141	14.1	114	169	14.1
BTD-72-142	14.2	114	169	14.2
BTD-72-143	14.3	114	169	14.3

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BTD-72-144	14.4	114	169	14.4
BTD-72-145	14.5	114	169	14.5
BTD-72-146	14.6	114	169	14.6
BTD-72-147	14.7	114	169	14.7
BTD-72-148	14.8	114	169	14.8
BTD-72-149	14.9	114	169	14.9
BTD-72-150	15.0	114	169	15.0
BTD-72-151	15.1	120	178	15.1
BTD-72-152	15.2	120	178	15.2
BTD-72-153	15.3	120	178	15.3
BTD-72-154	15.4	120	178	15.4
BTD-72-155	15.5	120	178	15.5
BTD-72-156	15.6	120	178	15.6
BTD-72-157	15.7	120	178	15.7
BTD-72-158	15.8	120	178	15.8
BTD-72-159	15.9	120	178	15.9
BTD-72-160	16.0	120	178	16.0
BTD-72-165	16.5	125	184	16.5
BTD-72-170	17.0	125	184	17.0
BTD-72-175	17.5	130	191	17.5
BTD-72-180	18.0	130	191	18.0
BTD-72-185	18.5	135	198	18.5
BTD-72-190	19.0	135	198	19.0
BTD-72-195	19.5	140	205	19.5
BTD-72-200	20.0	140	205	20.0
BTD-72-210	21.0	145	212	21.0
BTD-72-220	22.0	145	212	22.0
BTD-72-230	23.0	150	220	23.0
BTD-72-240	24.0	150	220	24.0
BTD-72-250	25.0	155	230	25.0
BTD-72-260	26.0	155	230	26.0
BTD-72-280	28.0	155	230	28.0
BTD-72-300	30.0	155	230	30.0
BTD-72-320	32.0	155	230	32.0
BTD-72-340	34.0	160	240	34.0
BTD-72-360	36.0	160	240	36.0
BTD-72-380	38.0	160	240	38.0
BTD-72-400	40.0	160	240	40.0

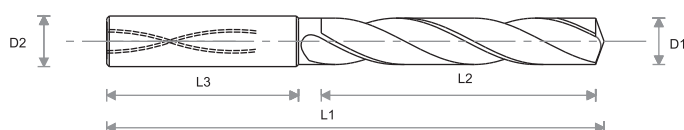
ALSO OFFERED ON REQUEST IN:

- ◆ Inches sizes and intermediate sizes.
- ◆ Specific tolerances.
- ◆ Left hand/right hand helix.
- ◆ High/low helix angle and special helix.
- ◆ Drill point geometry to suit application.
- ◆ Flute design to suit application.
- ◆ Through coolant.
- ◆ Special coatings to enhance tool life.
- ◆ Lugged design above 12.0 mm.
- ◆ Special shank (Weldon, taper, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE RATIO DRILLS (L/D 3)

TOOL SERIES : BTD-73



L/D
=3

TOL:
m7

DIN
6537K

6535 HA

Micro
Grain

ALL DIMENSIONS IN MM.

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BTD-73-030	3.0	20	62	36	6.0
BTD-73-031	3.1	20	62	36	6.0
BTD-73-032	3.2	20	62	36	6.0
BTD-73-033	3.3	20	62	36	6.0
BTD-73-034	3.4	20	62	36	6.0
BTD-73-035	3.5	20	62	36	6.0
BTD-73-036	3.6	20	62	36	6.0
BTD-73-037	3.7	20	62	36	6.0
BTD-73-038	3.8	24	66	36	6.0
BTD-73-039	3.9	24	66	36	6.0
BTD-73-040	4.0	24	66	36	6.0
BTD-73-041	4.1	24	66	36	6.0
BTD-73-042	4.2	24	66	36	6.0
BTD-73-043	4.3	24	66	36	6.0
BTD-73-044	4.4	24	66	36	6.0
BTD-73-045	4.5	24	66	36	6.0
BTD-73-046	4.6	24	66	36	6.0
BTD-73-047	4.7	24	66	36	6.0
BTD-73-048	4.8	28	66	36	6.0
BTD-73-049	4.9	28	66	36	6.0
BTD-73-050	5.0	28	66	36	6.0
BTD-73-051	5.1	28	66	36	6.0
BTD-73-052	5.2	28	66	36	6.0
BTD-73-053	5.3	28	66	36	6.0
BTD-73-054	5.4	28	66	36	6.0
BTD-73-055	5.5	28	66	36	6.0
BTD-73-056	5.6	28	66	36	6.0
BTD-73-057	5.7	28	66	36	6.0
BTD-73-058	5.8	28	66	36	6.0
BTD-73-059	5.9	28	66	36	6.0
BTD-73-060	6.0	28	66	36	6.0
BTD-73-061	6.1	34	79	36	8.0
BTD-73-062	6.2	34	79	36	8.0
BTD-73-063	6.3	34	79	36	8.0
BTD-73-064	6.4	34	79	36	8.0
BTD-73-065	6.5	34	79	36	8.0
BTD-73-066	6.6	34	79	36	8.0
BTD-73-067	6.7	34	79	36	8.0

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BTD-73-068	6.8	34	79	36	8.0
BTD-73-069	6.9	34	79	36	8.0
BTD-73-070	7.0	34	79	36	8.0
BTD-73-071	7.1	41	79	36	8.0
BTD-73-072	7.2	41	79	36	8.0
BTD-73-073	7.3	41	79	36	8.0
BTD-73-074	7.4	41	79	36	8.0
BTD-73-075	7.5	41	79	36	8.0
BTD-73-076	7.6	41	79	36	8.0
BTD-73-077	7.7	41	79	36	8.0
BTD-73-078	7.8	41	79	36	8.0
BTD-73-079	7.9	41	79	36	8.0
BTD-73-080	8.0	41	79	36	8.0
BTD-73-081	8.1	47	89	40	10.0
BTD-73-082	8.2	47	89	40	10.0
BTD-73-083	8.3	47	89	40	10.0
BTD-73-084	8.4	47	89	40	10.0
BTD-73-085	8.5	47	89	40	10.0
BTD-73-086	8.6	47	89	40	10.0
BTD-73-087	8.7	47	89	40	10.0
BTD-73-088	8.8	47	89	40	10.0
BTD-73-089	8.9	47	89	40	10.0
BTD-73-090	9.0	47	89	40	10.0
BTD-73-091	9.1	47	89	40	10.0
BTD-73-092	9.2	47	89	40	10.0
BTD-73-093	9.3	47	89	40	10.0
BTD-73-094	9.4	47	89	40	10.0
BTD-73-095	9.5	47	89	40	10.0
BTD-73-096	9.6	47	89	40	10.0
BTD-73-097	9.7	47	89	40	10.0
BTD-73-098	9.8	47	89	40	10.0
BTD-73-099	9.9	47	89	40	10.0
BTD-73-100	10.0	47	89	40	10.0
BTD-73-101	10.1	55	102	45	12.0
BTD-73-102	10.2	55	102	45	12.0
BTD-73-103	10.3	55	102	45	12.0
BTD-73-104	10.4	55	102	45	12.0
BTD-73-105	10.5	55	102	45	12.0

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BTD-73-106	10.6	55	102	45	12.0
BTD-73-107	10.7	55	102	45	12.0
BTD-73-108	10.8	55	102	45	12.0
BTD-73-109	10.9	55	102	45	12.0
BTD-73-110	11.0	55	102	45	12.0
BTD-73-111	11.1	55	102	45	12.0
BTD-73-112	11.2	55	102	45	12.0
BTD-73-113	11.3	55	102	45	12.0
BTD-73-114	11.4	55	102	45	12.0
BTD-73-115	11.5	55	102	45	12.0
BTD-73-116	11.6	55	102	45	12.0
BTD-73-117	11.7	55	102	45	12.0
BTD-73-118	11.8	55	102	45	12.0
BTD-73-119	11.9	55	102	45	12.0
BTD-73-120	12.0	55	102	45	12.0
BTD-73-121	12.1	60	107	45	14.0
BTD-73-122	12.2	60	107	45	14.0
BTD-73-123	12.3	60	107	45	14.0
BTD-73-124	12.4	60	107	45	14.0
BTD-73-125	12.5	60	107	45	14.0
BTD-73-126	12.6	60	107	45	14.0
BTD-73-127	12.7	60	107	45	14.0
BTD-73-128	12.8	60	107	45	14.0
BTD-73-129	12.9	60	107	45	14.0
BTD-73-130	13.0	60	107	45	14.0
BTD-73-131	13.1	60	107	45	14.0
BTD-73-132	13.2	60	107	45	14.0
BTD-73-133	13.3	60	107	45	14.0
BTD-73-134	13.4	60	107	45	14.0
BTD-73-135	13.5	60	107	45	14.0
BTD-73-136	13.6	60	107	45	14.0
BTD-73-137	13.7	60	107	45	14.0
BTD-73-138	13.8	60	107	45	14.0
BTD-73-139	13.9	60	107	45	14.0
BTD-73-140	14.0	60	107	45	14.0
BTD-73-141	14.1	65	115	48	16.0

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BTD-73-142	14.2	65	115	48	16.0
BTD-73-143	14.3	65	115	48	16.0
BTD-73-144	14.4	65	115	48	16.0
BTD-73-145	14.5	65	115	48	16.0
BTD-73-146	14.6	65	115	48	16.0
BTD-73-147	14.7	65	115	48	16.0
BTD-73-148	14.8	65	115	48	16.0
BTD-73-149	14.9	65	115	48	16.0
BTD-73-150	15.0	65	115	48	16.0
BTD-73-151	15.1	65	115	48	16.0
BTD-73-152	15.2	65	115	48	16.0
BTD-73-153	15.3	65	115	48	16.0
BTD-73-154	15.4	65	115	48	16.0
BTD-73-155	15.5	65	115	48	16.0
BTD-73-156	15.6	65	115	48	16.0
BTD-73-157	15.7	65	115	48	16.0
BTD-73-158	15.8	65	115	48	16.0
BTD-73-159	15.9	65	115	48	16.0
BTD-73-160	16.0	65	115	48	16.0
BTD-73-165	16.5	73	123	48	18.0
BTD-73-170	17.0	73	123	48	18.0
BTD-73-175	17.5	73	123	48	18.0
BTD-73-180	18.0	73	123	48	18.0
BTD-73-185	18.5	79	131	50	20.0
BTD-73-190	19.0	79	131	50	20.0
BTD-73-195	19.5	79	131	50	20.0
BTD-73-200	20.0	79	131	50	20.0
BTD-73-210	21.0	84	146	56	25.0
BTD-73-220	22.0	84	146	56	25.0
BTD-73-230	23.0	101	161	56	25.0
BTD-73-240	24.0	101	161	56	25.0
BTD-73-250	25.0	110	174	56	25.0
BTD-73-260	26.0	110	174	60	32.0
BTD-73-280	28.0	118	182	60	32.0
BTD-73-300	30.0	126	190	60	32.0
BTD-73-320	32.0	126	190	60	32.0

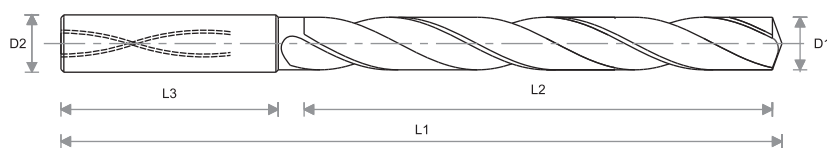
ALSO OFFERED ON REQUEST IN:

- ◆ Inches sizes and intermediate sizes.
- ◆ Specific tolerances.
- ◆ High/low helix angle.
- ◆ Drill point geometry to suit application.
- ◆ Flute design to suit application.
- ◆ Non through coolant.
- ◆ Special coatings to enhance tool life.
- ◆ Lugged design above 12.0 mm.
- ◆ Special shank (Weldon etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE RATIO DRILLS (L/D 5)

TOOL SERIES : BT-D-74



L/D
=5

TOL:
m7

DIN
6537L

6535 HA

Micro
Grain

ALL DIMENSIONS IN MM.

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BTD-74-030	3.0	28	66	36	6.0
BTD-74-031	3.1	28	66	36	6.0
BTD-74-032	3.2	28	66	36	6.0
BTD-74-033	3.3	28	66	36	6.0
BTD-74-034	3.4	28	66	36	6.0
BTD-74-035	3.5	28	66	36	6.0
BTD-74-036	3.6	28	66	36	6.0
BTD-74-037	3.7	28	66	36	6.0
BTD-74-038	3.8	36	74	36	6.0
BTD-74-039	3.9	36	74	36	6.0
BTD-74-040	4.0	36	74	36	6.0
BTD-74-041	4.1	36	74	36	6.0
BTD-74-042	4.2	36	74	36	6.0
BTD-74-043	4.3	36	74	36	6.0
BTD-74-044	4.4	36	74	36	6.0
BTD-74-045	4.5	36	74	36	6.0
BTD-74-046	4.6	36	74	36	6.0
BTD-74-047	4.7	36	74	36	6.0
BTD-74-048	4.8	44	82	36	6.0
BTD-74-049	4.9	44	82	36	6.0
BTD-74-050	5.0	44	82	36	6.0
BTD-74-051	5.1	44	82	36	6.0
BTD-74-052	5.2	44	82	36	6.0
BTD-74-053	5.3	44	82	36	6.0
BTD-74-054	5.4	44	82	36	6.0
BTD-74-055	5.5	44	82	36	6.0
BTD-74-056	5.6	44	82	36	6.0
BTD-74-057	5.7	44	82	36	6.0
BTD-74-058	5.8	44	82	36	6.0
BTD-74-059	5.9	44	82	36	6.0
BTD-74-060	6.0	44	82	36	6.0
BTD-74-061	6.1	53	91	36	8.0
BTD-74-062	6.2	53	91	36	8.0
BTD-74-063	6.3	53	91	36	8.0
BTD-74-064	6.4	53	91	36	8.0
BTD-74-065	6.5	53	91	36	8.0
BTD-74-066	6.6	53	91	36	8.0
BTD-74-067	6.7	53	91	36	8.0

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BTD-74-068	6.8	53	91	36	8.0
BTD-74-069	6.9	53	91	36	8.0
BTD-74-070	7.0	53	91	36	8.0
BTD-74-071	7.1	53	91	36	8.0
BTD-74-072	7.2	53	91	36	8.0
BTD-74-073	7.3	53	91	36	8.0
BTD-74-074	7.4	53	91	36	8.0
BTD-74-075	7.5	53	91	36	8.0
BTD-74-076	7.6	53	91	36	8.0
BTD-74-077	7.7	53	91	36	8.0
BTD-74-078	7.8	53	91	36	8.0
BTD-74-079	7.9	53	91	36	8.0
BTD-74-080	8.0	53	91	36	8.0
BTD-74-081	8.1	61	103	40	10.0
BTD-74-082	8.2	61	103	40	10.0
BTD-74-083	8.3	61	103	40	10.0
BTD-74-084	8.4	61	103	40	10.0
BTD-74-085	8.5	61	103	40	10.0
BTD-74-086	8.6	61	103	40	10.0
BTD-74-087	8.7	61	103	40	10.0
BTD-74-088	8.8	61	103	40	10.0
BTD-74-089	8.9	61	103	40	10.0
BTD-74-090	9.0	61	103	40	10.0
BTD-74-091	9.1	61	103	40	10.0
BTD-74-092	9.2	61	103	40	10.0
BTD-74-093	9.3	61	103	40	10.0
BTD-74-094	9.4	61	103	40	10.0
BTD-74-095	9.5	61	103	40	10.0
BTD-74-096	9.6	61	103	40	10.0
BTD-74-097	9.7	61	103	40	10.0
BTD-74-098	9.8	61	103	40	10.0
BTD-74-099	9.9	61	103	40	10.0
BTD-74-100	10.0	61	103	40	10.0
BTD-74-101	10.1	71	118	45	12.0
BTD-74-102	10.2	71	118	45	12.0
BTD-74-103	10.3	71	118	45	12.0
BTD-74-104	10.4	71	118	45	12.0
BTD-74-105	10.5	71	118	45	12.0

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BTD-74-106	10.6	71	118	45	12.0
BTD-74-107	10.7	71	118	45	12.0
BTD-74-108	10.8	71	118	45	12.0
BTD-74-109	10.9	71	118	45	12.0
BTD-74-110	11.0	71	118	45	12.0
BTD-74-111	11.1	71	118	45	12.0
BTD-74-112	11.2	71	118	45	12.0
BTD-74-113	11.3	71	118	45	12.0
BTD-74-114	11.4	71	118	45	12.0
BTD-74-115	11.5	71	118	45	12.0
BTD-74-116	11.6	71	118	45	12.0
BTD-74-117	11.7	71	118	45	12.0
BTD-74-118	11.8	71	118	45	12.0
BTD-74-119	11.9	71	118	45	12.0
BTD-74-120	12.0	71	118	45	12.0
BTD-74-121	12.1	77	124	45	14.0
BTD-74-122	12.2	77	124	45	14.0
BTD-74-123	12.3	77	124	45	14.0
BTD-74-124	12.4	77	124	45	14.0
BTD-74-125	12.5	77	124	45	14.0
BTD-74-126	12.6	77	124	45	14.0
BTD-74-127	12.7	77	124	45	14.0
BTD-74-128	12.8	77	124	45	14.0
BTD-74-129	12.9	77	124	45	14.0
BTD-74-130	13.0	77	124	45	14.0
BTD-74-131	13.1	77	124	45	14.0
BTD-74-132	13.2	77	124	45	14.0
BTD-74-133	13.3	77	124	45	14.0
BTD-74-134	13.4	77	124	45	14.0
BTD-74-135	13.5	77	124	45	14.0
BTD-74-136	13.6	77	124	45	14.0
BTD-74-137	13.7	77	124	45	14.0
BTD-74-138	13.8	77	124	45	14.0
BTD-74-139	13.9	77	124	45	14.0
BTD-74-140	14.0	77	124	45	14.0
BTD-74-141	14.1	89	133	48	16.0

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BTD-74-142	14.2	89	133	48	16.0
BTD-74-143	14.3	89	133	48	16.0
BTD-74-144	14.4	89	133	48	16.0
BTD-74-145	14.5	89	133	48	16.0
BTD-74-146	14.6	89	133	48	16.0
BTD-74-147	14.7	89	133	48	16.0
BTD-74-148	14.8	89	133	48	16.0
BTD-74-149	14.9	89	133	48	16.0
BTD-74-150	15.0	89	133	48	16.0
BTD-74-151	15.1	89	133	48	16.0
BTD-74-152	15.2	89	133	48	16.0
BTD-74-153	15.3	89	133	48	16.0
BTD-74-154	15.4	89	133	48	16.0
BTD-74-155	15.5	89	133	48	16.0
BTD-74-156	15.6	89	133	48	16.0
BTD-74-157	15.7	89	133	48	16.0
BTD-74-158	15.8	89	133	48	16.0
BTD-74-159	15.9	89	133	48	16.0
BTD-74-160	16.0	89	133	48	16.0
BTD-74-165	16.5	93	143	48	18.0
BTD-74-170	17.0	93	143	48	18.0
BTD-74-175	17.5	93	143	48	18.0
BTD-74-180	18.0	93	143	48	18.0
BTD-74-185	18.5	101	153	50	20.0
BTD-74-190	19.0	101	153	50	20.0
BTD-74-195	19.5	101	153	50	20.0
BTD-74-200	20.0	101	153	50	20.0
BTD-74-210	21.0	105	165	56	25.0
BTD-74-220	22.0	105	165	56	25.0
BTD-74-230	23.0	117	180	56	25.0
BTD-74-240	24.0	117	180	56	25.0
BTD-74-250	25.0	117	180	56	25.0
BTD-74-260	26.0	162	226	60	32.0
BTD-74-280	28.0	174	236	60	32.0
BTD-74-300	30.0	186	250	60	32.0
BTD-74-320	32.0	186	250	60	32.0

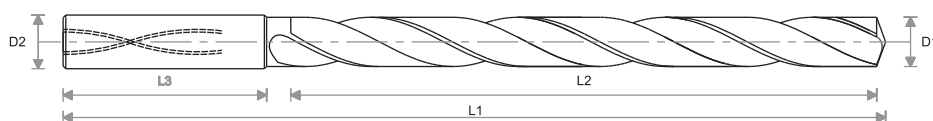
ALSO OFFERED ON REQUEST IN:

- ◆ Inches sizes and intermediate sizes.
- ◆ Specific tolerances.
- ◆ High/low helix angle.
- ◆ Drill point geometry to suit application.
- ◆ Flute design to suit application.
- ◆ Non through coolant.
- ◆ Special coatings to enhance tool life.
- ◆ Lugged design above 12.0 mm.
- ◆ Special shank (Weldon etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE RATIO DRILLS (L/D 7)

TOOL SERIES : BTD-75



L/D
=7

TOL:
m7

6535 HA

Micro
Grain

ALL DIMENSIONS IN MM.

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BTD-75-030	3.0	35	75	36	6.0
BTD-75-031	3.1	35	75	36	6.0
BTD-75-032	3.2	35	75	36	6.0
BTD-75-033	3.3	35	75	36	6.0
BTD-75-034	3.4	35	75	36	6.0
BTD-75-035	3.5	35	75	36	6.0
BTD-75-036	3.6	35	75	36	6.0
BTD-75-037	3.7	35	75	36	6.0
BTD-75-038	3.8	45	85	36	6.0
BTD-75-039	3.9	45	85	36	6.0
BTD-75-040	4.0	45	85	36	6.0
BTD-75-041	4.1	45	85	36	6.0
BTD-75-042	4.2	45	85	36	6.0
BTD-75-043	4.3	45	85	36	6.0
BTD-75-044	4.4	45	85	36	6.0
BTD-75-045	4.5	45	85	36	6.0
BTD-75-046	4.6	45	85	36	6.0
BTD-75-047	4.7	45	85	36	6.0
BTD-75-048	4.8	50	90	36	6.0
BTD-75-049	4.9	50	90	36	6.0
BTD-75-050	5.0	50	90	36	6.0
BTD-75-051	5.1	50	90	36	6.0
BTD-75-052	5.2	50	90	36	6.0
BTD-75-053	5.3	50	90	36	6.0
BTD-75-054	5.4	57	97	36	6.0
BTD-75-055	5.5	57	97	36	6.0
BTD-75-056	5.6	57	97	36	6.0
BTD-75-057	5.7	57	97	36	6.0
BTD-75-058	5.8	57	97	36	6.0
BTD-75-059	5.9	57	97	36	6.0
BTD-75-060	6.0	57	97	36	6.0
BTD-75-061	6.1	66	106	36	8.0
BTD-75-062	6.2	66	106	36	8.0
BTD-75-063	6.3	66	106	36	8.0
BTD-75-064	6.4	66	106	36	8.0
BTD-75-065	6.5	66	106	36	8.0
BTD-75-066	6.6	66	106	36	8.0
BTD-75-067	6.7	66	106	36	8.0

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BTD-75-068	6.8	66	106	36	8.0
BTD-75-069	6.9	76	116	36	8.0
BTD-75-070	7.0	76	116	36	8.0
BTD-75-071	7.1	76	116	36	8.0
BTD-75-072	7.2	76	116	36	8.0
BTD-75-073	7.3	76	116	36	8.0
BTD-75-074	7.4	76	116	36	8.0
BTD-75-075	7.5	76	116	36	8.0
BTD-75-076	7.6	76	116	36	8.0
BTD-75-077	7.7	76	116	36	8.0
BTD-75-078	7.8	76	116	36	8.0
BTD-75-079	7.9	76	116	36	8.0
BTD-75-080	8.0	76	116	36	8.0
BTD-75-081	8.1	87	131	40	10.0
BTD-75-082	8.2	87	131	40	10.0
BTD-75-083	8.3	87	131	40	10.0
BTD-75-084	8.4	87	131	40	10.0
BTD-75-085	8.5	87	131	40	10.0
BTD-75-086	8.6	87	131	40	10.0
BTD-75-087	8.7	87	131	40	10.0
BTD-75-088	8.8	87	131	40	10.0
BTD-75-089	8.9	87	131	40	10.0
BTD-75-090	9.0	87	131	40	10.0
BTD-75-091	9.1	95	139	40	10.0
BTD-75-092	9.2	95	139	40	10.0
BTD-75-093	9.3	95	139	40	10.0
BTD-75-094	9.4	95	139	40	10.0
BTD-75-095	9.5	95	139	40	10.0
BTD-75-096	9.6	95	139	40	10.0
BTD-75-097	9.7	95	139	40	10.0
BTD-75-098	9.8	95	139	40	10.0
BTD-75-099	9.9	95	139	40	10.0
BTD-75-100	10.0	95	139	40	10.0
BTD-75-101	10.1	106	155	45	12.0
BTD-75-102	10.2	106	155	45	12.0
BTD-75-103	10.3	106	155	45	12.0
BTD-75-104	10.4	106	155	45	12.0
BTD-75-105	10.5	106	155	45	12.0

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BTD-75-106	10.6	106	155	45	12.0
BTD-75-107	10.7	106	155	45	12.0
BTD-75-108	10.8	106	155	45	12.0
BTD-75-109	10.9	106	155	45	12.0
BTD-75-110	11.0	106	155	45	12.0
BTD-75-111	11.1	114	163	45	12.0
BTD-75-112	11.2	114	163	45	12.0
BTD-75-113	11.3	114	163	45	12.0
BTD-75-114	11.4	114	163	45	12.0
BTD-75-115	11.5	114	163	45	12.0
BTD-75-116	11.6	114	163	45	12.0
BTD-75-117	11.7	114	163	45	12.0
BTD-75-118	11.8	114	163	45	12.0
BTD-75-119	11.9	114	163	45	12.0
BTD-75-120	12.0	114	163	45	12.0
BTD-75-121	12.1	133	182	45	14.0
BTD-75-122	12.2	133	182	45	14.0
BTD-75-123	12.3	133	182	45	14.0
BTD-75-124	12.4	133	182	45	14.0
BTD-75-125	12.5	133	182	45	14.0
BTD-75-126	12.6	133	182	45	14.0
BTD-75-127	12.7	133	182	45	14.0
BTD-75-128	12.8	133	182	45	14.0
BTD-75-129	12.9	133	182	45	14.0
BTD-75-130	13.0	133	182	45	14.0
BTD-75-131	13.1	133	182	45	14.0
BTD-75-132	13.2	133	182	45	14.0
BTD-75-133	13.3	133	182	45	14.0
BTD-75-134	13.4	133	182	45	14.0
BTD-75-135	13.5	133	182	45	14.0
BTD-75-136	13.6	133	182	45	14.0
BTD-75-137	13.7	133	182	45	14.0
BTD-75-138	13.8	133	182	45	14.0
BTD-75-139	13.9	133	182	45	14.0
BTD-75-140	14.0	133	182	45	14.0
BTD-75-141	14.1	152	204	48	16.0

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BTD-75-142	14.2	152	204	48	16.0
BTD-75-143	14.3	152	204	48	16.0
BTD-75-144	14.4	152	204	48	16.0
BTD-75-145	14.5	152	204	48	16.0
BTD-75-146	14.6	152	204	48	16.0
BTD-75-147	14.7	152	204	48	16.0
BTD-75-148	14.8	152	204	48	16.0
BTD-75-149	14.9	152	204	48	16.0
BTD-75-150	15.0	152	204	48	16.0
BTD-75-151	15.1	152	204	48	16.0
BTD-75-152	15.2	152	204	48	16.0
BTD-75-153	15.3	152	204	48	16.0
BTD-75-154	15.4	152	204	48	16.0
BTD-75-155	15.5	152	204	48	16.0
BTD-75-156	15.6	152	204	48	16.0
BTD-75-157	15.7	152	204	48	16.0
BTD-75-158	15.8	152	204	48	16.0
BTD-75-159	15.9	152	204	48	16.0
BTD-75-160	16.0	152	204	48	16.0
BTD-75-165	16.5	171	223	48	18.0
BTD-75-170	17.0	171	223	48	18.0
BTD-75-175	17.5	171	223	48	18.0
BTD-75-180	18.0	171	223	48	18.0
BTD-75-185	18.5	190	244	50	20.0
BTD-75-190	19.0	190	244	50	20.0
BTD-75-195	19.5	190	244	50	20.0
BTD-75-200	20.0	190	244	50	20.0
BTD-75-210	21.0	190	244	56	25.0
BTD-75-220	22.0	190	244	56	25.0
BTD-75-230	23.0	197	257	56	25.0
BTD-75-240	24.0	197	257	56	25.0
BTD-75-250	25.0	214	278	56	25.0
BTD-75-260	26.0	214	278	60	32.0
BTD-75-280	28.0	230	294	60	32.0
BTD-75-300	30.0	246	310	60	32.0
BTD-75-320	32.0	246	310	60	32.0

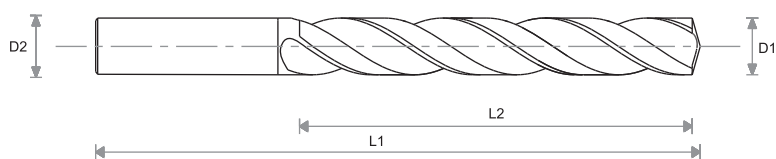
ALSO OFFERED ON REQUEST IN:

- ◆ Inches sizes and intermediate sizes.
- ◆ Specific tolerances.
- ◆ High/low helix angle.
- ◆ Drill point geometry to suit application.
- ◆ Flute design to suit application.
- ◆ Non through coolant.
- ◆ Special coatings to enhance tool life.
- ◆ Lugged design above 12.0 mm.
- ◆ Special shank (Weldon etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE 3 FLUTE DRILLS

TOOL SERIES : BTD-76



TOL:
h7

Micro
Grain

ALL DIMENSIONS IN MM.

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BTD-76-030	3.0	33	61	3.0
BTD-76-032	3.2	36	65	3.2
BTD-76-035	3.5	39	70	3.5
BTD-76-038	3.8	43	75	3.8
BTD-76-040	4.0	43	75	4.0
BTD-76-042	4.2	43	75	4.2
BTD-76-045	4.5	47	80	4.5
BTD-76-048	4.8	52	86	4.8
BTD-76-050	5.0	52	86	5.0
BTD-76-052	5.2	52	86	5.2
BTD-76-055	5.5	57	93	5.5
BTD-76-058	5.8	57	93	5.8
BTD-76-060	6.0	57	93	6.0
BTD-76-062	6.2	63	101	6.2
BTD-76-065	6.5	63	101	6.5
BTD-76-068	6.8	69	109	6.8
BTD-76-070	7.0	69	109	7.0
BTD-76-072	7.2	69	109	7.2
BTD-76-075	7.5	69	109	7.5
BTD-76-078	7.8	75	117	7.8
BTD-76-080	8.0	75	117	8.0
BTD-76-082	8.2	75	117	8.2
BTD-76-085	8.5	75	117	8.5
BTD-76-088	8.8	81	125	8.8
BTD-76-090	9.0	81	125	9.0
BTD-76-092	9.2	81	125	9.2
BTD-76-095	9.5	81	125	9.5
BTD-76-098	9.8	87	133	9.8
BTD-76-100	10.0	87	133	10.0
BTD-76-102	10.2	87	133	10.2
BTD-76-105	10.5	87	133	10.5

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BTD-76-108	10.8	94	142	10.8
BTD-76-110	11.0	94	142	11.0
BTD-76-112	11.2	94	142	11.2
BTD-76-115	11.5	94	142	11.5
BTD-76-118	11.8	94	142	11.8
BTD-76-120	12.0	101	151	12.0
BTD-76-122	12.2	101	151	12.2
BTD-76-125	12.5	101	151	12.5
BTD-76-128	12.8	101	151	12.8
BTD-76-130	13.0	101	151	13.0
BTD-76-132	13.2	101	151	13.2
BTD-76-135	13.5	108	160	13.5
BTD-76-138	13.8	108	160	13.8
BTD-76-140	14.0	108	160	14.0
BTD-76-145	14.5	114	169	14.5
BTD-76-150	15.0	114	169	15.0
BTD-76-155	15.5	120	178	15.5
BTD-76-160	16.0	120	178	16.0
BTD-76-165	16.5	125	184	16.5
BTD-76-170	17.0	125	184	17.0
BTD-76-175	17.5	130	191	17.5
BTD-76-180	18.0	130	191	18.0
BTD-76-185	18.5	135	198	18.5
BTD-76-190	19.0	135	198	19.0
BTD-76-200	20.0	140	205	20.0
BTD-76-220	22.0	145	212	22.0
BTD-76-240	24.0	150	220	24.0
BTD-76-260	26.0	155	230	26.0
BTD-76-280	28.0	155	230	28.0
BTD-76-300	30.0	155	230	30.0
BTD-76-320	32.0	155	230	32.0

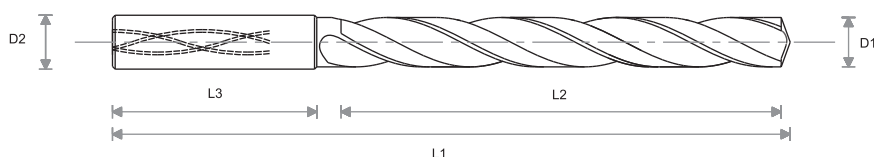
ALSO OFFERED ON REQUEST IN:

- ◆ Stub series, jobber series, L/D 3 series, L/D 5 series, L/D 7 series and special length.
- ◆ Inches sizes and intermediate sizes.
- ◆ Specific tolerances.
- ◆ Left hand/right hand helix.
- ◆ High/low helix angle and special helix.
- ◆ Drill point geometry to suit application.
- ◆ Flute design to suit application.
- ◆ Through coolant.
- ◆ Special coatings to enhance tool life.
- ◆ Lugged design above 12.0 mm.
- ◆ Special shank (Weldon, taper, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE 3 FLUTE DRILLS (THROUGH COOLANT)

TOOL SERIES : LTD-77



L/D
=5

TOL:
m7

6535 HA

Micro
Grain

ALL DIMENSIONS IN MM.

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BTD-77-030	3.0	28	66	36	6.0
BTD-77-032	3.2	28	66	36	6.0
BTD-77-035	3.5	28	66	36	6.0
BTD-77-038	3.8	36	74	36	6.0
BTD-77-040	4.0	36	74	36	6.0
BTD-77-042	4.2	36	74	36	6.0
BTD-77-045	4.5	36	74	36	6.0
BTD-77-048	4.8	44	82	36	6.0
BTD-77-050	5.0	44	82	36	6.0
BTD-77-052	5.2	44	82	36	6.0
BTD-77-055	5.5	44	82	36	6.0
BTD-77-058	5.8	44	82	36	6.0
BTD-77-060	6.0	44	82	36	6.0
BTD-77-062	6.2	53	91	36	8.0
BTD-77-065	6.5	53	91	36	8.0
BTD-77-068	6.8	53	91	36	8.0
BTD-77-070	7.0	53	91	36	8.0
BTD-77-072	7.2	53	91	36	8.0
BTD-77-075	7.5	53	91	36	8.0
BTD-77-078	7.8	53	91	36	8.0
BTD-77-080	8.0	53	91	36	8.0
BTD-77-082	8.2	61	103	40	10.0
BTD-77-085	8.5	61	103	40	10.0
BTD-77-088	8.8	61	103	40	10.0
BTD-77-090	9.0	61	103	40	10.0
BTD-77-092	9.2	61	103	40	10.0
BTD-77-095	9.5	61	103	40	10.0
BTD-77-098	9.8	61	103	40	10.0
BTD-77-100	10.0	61	103	40	10.0
BTD-77-102	10.2	71	118	45	12.0
BTD-77-105	10.5	71	118	45	12.0

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BTD-77-108	10.8	71	118	45	12.0
BTD-77-110	11.0	71	118	45	12.0
BTD-77-112	11.2	71	118	45	12.0
BTD-77-115	11.5	71	118	45	12.0
BTD-77-118	11.8	71	118	45	12.0
BTD-77-120	12.0	71	118	45	12.0
BTD-77-122	12.2	77	124	45	14.0
BTD-77-125	12.5	77	124	45	14.0
BTD-77-128	12.8	77	124	45	14.0
BTD-77-130	13.0	77	124	45	14.0
BTD-77-132	13.2	77	124	45	14.0
BTD-77-135	13.5	77	124	45	14.0
BTD-77-138	13.8	77	124	45	14.0
BTD-77-140	14.0	77	124	45	14.0
BTD-77-145	14.5	89	133	48	16.0
BTD-77-150	15.0	89	133	48	16.0
BTD-77-155	15.5	89	133	48	16.0
BTD-77-160	16.0	89	133	48	16.0
BTD-77-165	16.5	93	143	48	18.0
BTD-77-170	17.0	93	143	48	18.0
BTD-77-175	17.5	93	143	48	18.0
BTD-77-180	18.0	93	143	48	18.0
BTD-77-185	18.5	101	153	50	20.0
BTD-77-190	19.0	101	153	50	20.0
BTD-77-200	20.0	101	153	50	20.0
BTD-77-220	22.0	105	166	56	25.0
BTD-77-240	24.0	117	180	56	25.0
BTD-77-260	26.0	162	226	60	32.0
BTD-77-280	28.0	174	236	60	32.0
BTD-77-300	30.0	186	250	60	32.0
BTD-77-320	32.0	186	250	60	32.0

ALSO OFFERED ON REQUEST IN:

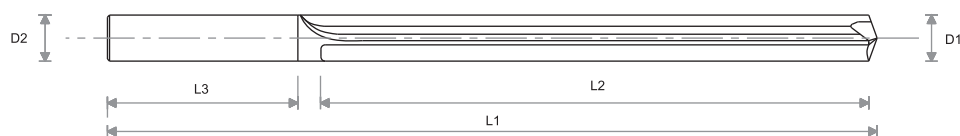
- ♦ Stub series, jobber series, L/D 3 series, L/D 5 series, L/D 7 series and special length.
- ♦ Inches sizes and intermediate sizes.
- ♦ Specific tolerances.
- ♦ High/low helix angle and special helix.
- ♦ Drill point geometry to suit application.

- ♦ Flute design to suit application.
- ♦ Non through coolant.
- ♦ Special coatings to enhance tool life.
- ♦ Lugged design above 12.0 mm.
- ♦ Special shank (Weldon etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE BURNISHING DRILLS

TOOL SERIES : BBD-81 / BBD-82



TOL:
m7



Micro
Grain

BBD-81: L/D=4.

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BBD-81-030	3.0	24	66	36	3.0
BBD-81-035	3.5	24	66	36	3.5
BBD-81-040	4.0	30	74	36	4.0
BBD-81-045	4.5	30	74	36	4.5
BBD-81-050	5.0	36	74	36	5.0
BBD-81-055	5.5	36	74	36	5.5
BBD-81-060	6.0	36	74	36	6.0
BBD-81-065	6.5	53	91	36	6.5
BBD-81-070	7.0	53	91	36	7.0
BBD-81-075	7.5	53	91	36	7.5
BBD-81-080	8.0	53	91	36	8.0
BBD-81-085	8.5	61	103	40	8.5
BBD-81-090	9.0	61	103	40	9.0
BBD-81-095	9.5	61	103	40	9.5
BBD-81-100	10.0	61	103	40	10.0
BBD-81-105	10.5	71	118	45	10.5
BBD-81-110	11.0	71	118	45	11.0
BBD-81-115	11.5	71	118	45	11.5
BBD-81-120	12.0	71	118	45	12.0
BBD-81-125	12.5	74	124	45	12.5
BBD-81-130	13.0	74	124	45	13.0
BBD-81-135	13.5	74	124	45	13.5
BBD-81-140	14.0	74	124	45	14.0
BBD-81-145	14.5	83	133	45	14.5
BBD-81-150	15.0	83	133	45	15.0
BBD-81-155	15.5	83	133	45	15.5
BBD-81-160	16.0	83	133	45	16.0
BBD-81-170	17.0	93	143	45	17.0
BBD-81-180	18.0	93	143	45	18.0
BBD-81-190	19.0	101	153	50	19.0
BBD-81-200	20.0	101	153	50	20.0

BBD-82 : L/D=7

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BBD-82-030	3.0	32	74	36	3.0
BBD-82-035	3.5	34	74	36	3.5
BBD-82-040	4.0	45	97	36	4.0
BBD-82-045	4.5	45	97	36	4.5
BBD-82-050	5.0	57	97	36	5.0
BBD-82-055	5.5	57	97	36	5.5
BBD-82-060	6.0	57	97	36	6.0
BBD-82-065	6.5	76	116	36	6.5
BBD-82-070	7.0	76	116	36	7.0
BBD-82-075	7.5	76	116	36	7.5
BBD-82-080	8.0	76	116	36	8.0
BBD-82-085	8.5	95	139	40	8.5
BBD-82-090	9.0	95	139	40	9.0
BBD-82-095	9.5	95	139	40	9.5
BBD-82-100	10.0	95	139	40	10.0
BBD-82-105	10.5	114	163	45	10.5
BBD-82-110	11.0	114	163	45	11.0
BBD-82-115	11.5	114	163	45	11.5
BBD-82-120	12.0	114	163	45	12.0
BBD-82-125	12.5	133	182	45	12.5
BBD-82-130	13.0	133	182	45	13.0
BBD-82-135	13.5	133	182	45	13.5
BBD-82-140	14.0	133	182	45	14.0
BBD-82-145	14.5	152	204	45	14.5
BBD-82-150	15.0	152	204	45	15.0
BBD-82-155	15.5	152	204	45	15.5
BBD-82-160	16.0	152	204	45	16.0
BBD-82-170	17.0	171	223	45	17.0
BBD-82-180	18.0	171	223	45	18.0
BBD-82-190	19.0	190	244	50	19.0
BBD-82-200	20.0	190	244	50	20.0

ALL DIMENSIONS IN MM.

ALSO OFFERED ON REQUEST IN:

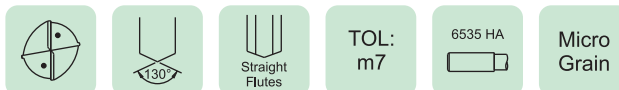
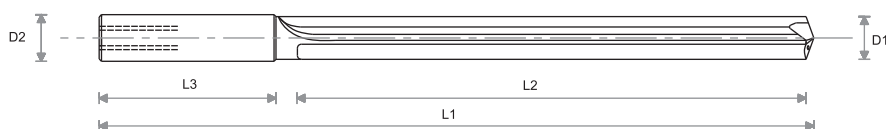
- ◆ Stub series, jobber series, L/D 3 series, L/D 5 series, L/D 7 series and special length.
- ◆ Inches sizes and intermediate sizes.
- ◆ Specific tolerances.
- ◆ Left hand/right hand cutting.
- ◆ High/low helix angle and special helix.

- ◆ Drill point geometry to suit application.
- ◆ Flute design to suit application.
- ◆ Through coolant.
- ◆ Special coatings to enhance tool life.
- ◆ Lugged design above 12.0 mm.
- ◆ Special shank (Weldon, whistle notch, bigger shank etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE BURNISHING DRILL (THROUGH COOLANT)

TOOL SERIES : BBD-83 / BBD-84



BBD-83: L/D=4.

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BBD-83-030	3.0	24	66	36	6
BBD-83-035	3.5	24	66	36	6
BBD-83-040	4.0	30	74	36	6
BBD-83-045	4.5	30	74	36	6
BBD-83-050	5.0	36	74	36	6
BBD-83-055	5.5	36	74	36	6
BBD-83-060	6.0	36	74	36	6
BBD-83-065	6.5	53	91	36	8
BBD-83-070	7.0	53	91	36	8
BBD-83-075	7.5	53	91	36	8
BBD-83-080	8.0	53	91	36	8
BBD-83-085	8.5	61	103	40	10
BBD-83-090	9.0	61	103	40	10
BBD-83-095	9.5	61	103	40	10
BBD-83-100	10.0	61	103	40	10
BBD-83-105	10.5	71	118	45	12
BBD-83-110	11.0	71	118	45	12
BBD-83-115	11.5	71	118	45	12
BBD-83-120	12.0	71	118	45	12
BBD-83-125	12.5	74	124	45	14
BBD-83-130	13.0	74	124	45	14
BBD-83-135	13.5	74	124	45	14
BBD-83-140	14.0	74	124	45	14
BBD-83-145	14.5	83	133	45	16
BBD-83-150	15.0	83	133	45	16
BBD-83-155	15.5	83	133	45	16
BBD-83-160	16.0	83	133	45	16
BBD-83-170	17.0	93	143	45	18
BBD-83-180	18.0	93	143	45	18
BBD-83-190	19.0	101	153	50	20
BBD-83-200	20.0	101	153	50	20

BBD-84 : L/D=7

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BBD-84-030	3.0	32	74	36	6
BBD-84-035	3.5	34	74	36	6
BBD-84-040	4.0	45	97	36	6
BBD-84-045	4.5	45	97	36	6
BBD-84-050	5.0	57	97	36	6
BBD-84-055	5.5	57	97	36	6
BBD-84-060	6.0	57	97	36	6
BBD-84-065	6.5	76	116	36	8
BBD-84-070	7.0	76	116	36	8
BBD-84-075	7.5	76	116	36	8
BBD-84-080	8.0	76	116	36	8
BBD-84-085	8.5	95	139	40	10
BBD-84-090	9.0	95	139	40	10
BBD-84-095	9.5	95	139	40	10
BBD-84-100	10.0	95	139	40	10
BBD-84-105	10.5	114	163	45	12
BBD-84-110	11.0	114	163	45	12
BBD-84-115	11.5	114	163	45	12
BBD-84-120	12.0	114	163	45	12
BBD-84-125	12.5	133	182	45	14
BBD-84-130	13.0	133	182	45	14
BBD-84-135	13.5	133	182	45	14
BBD-84-140	14.0	133	182	45	14
BBD-84-145	14.5	152	204	45	16
BBD-84-150	15.0	152	204	45	16
BBD-84-155	15.5	152	204	45	16
BBD-84-160	16.0	152	204	45	16
BBD-84-170	17.0	171	223	45	18
BBD-84-180	18.0	171	223	45	18
BBD-84-190	19.0	190	244	50	20
BBD-84-200	20.0	190	244	50	20

ALL DIMENSIONS IN MM.

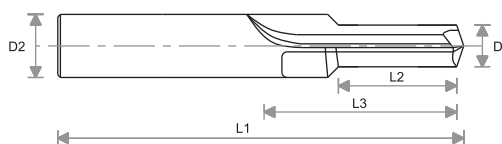
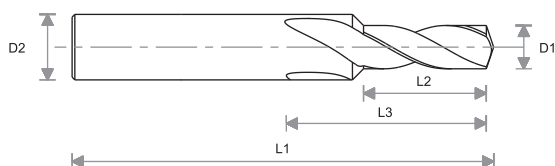
ALSO OFFERED ON REQUEST IN:

- ◆ Stub series, jobber series, L/D 3 series, L/D 5 series, L/D 7 series and special length.
- ◆ Inches sizes and intermediate sizes.
- ◆ Specific tolerances.
- ◆ Left hand/right hand cutting.
- ◆ High/low helix angle and special helix.
- ◆ Drill point geometry to suit application.
- ◆ Flute design to suit application.
- ◆ Non through coolant.
- ◆ Special coatings to enhance tool life.
- ◆ Lugged design above 12.0 mm.
- ◆ Special shank (Weldon, whistle notch, bigger shank etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE STEP DRILLS

TOOLS SERIES : BSD-85 / BSD-86



TOL:
m7



Micro
Grain

BSD-85 : 2 FLUTE TWIST DRILL

PRODUCT CODE	FOR TAP	DRILL DIA	STEP LENGTH	FLUTE LENGTH	TOTAL LENGTH	SHANK DIA
	Size	D2	L2	L3	L2	D2
BSD-85-M3A	M3A	2.5	8.8	20	62	6.0
BSD-85-M3B	M3B	2.75	8.8	20	62	6.0
BSD-85-M4A	M4A	3.3	11.4	20	62	6.0
BSD-85-M4B	M4B	3.65	11.4	20	62	6.0
BSD-85-M5A	M5A	4.2	13.5	26	66	6.0
BSD-85-M5B	M5B	4.65	13.5	28	66	6.0
BSD-85-M6A	M6A	5.0	16.5	34	79	8.0
BSD-85-M6B	M6B	5.55	16.5	34	79	8.0
BSD-85-M8A	M8A	6.8	21.0	47	89	10.0
BSD-85-M8B	M8B	7.4	21.0	47	89	10.0
BSD-85-M10A	M10A	8.5	25.5	55	102	12.0
BSD-85-M10B	M10B	9.35	25.5	55	102	12.0
BSD-85-M12A	M12A	10.2	30.0	60	107	14.0
BSD-85-M12B	M12B	11.2	30.0	60	107	14.0
BSD-85-M14A	M14A	12.0	34.5	65	115	16.0
BSD-85-M14B	M14B	13.2	34.5	65	115	16.0
BSD-85-M16A	M16A	14.0	38.5	73	123	18.0
BSD-85-M16B	M16B	15.1	38.5	73	123	18.0
BSD-85-M18A	M18A	15.5	43.5	79	131	20.0
BSD-85-M18B	M18B	16.0	43.5	79	131	20.0
BSD-85-M20A	M20A	17.5	47.5	89	147	22.0
BSD-85-M20B	M20B	18.9	47.5	89	147	22.0
BSD-85-M22	M22	19.5	51.5	90	149	24.0
BSD-85-M24	M24	21.0	56.5	97	152	26.0
BSD-85-M27	M27	24.0	62.5	103	160	30.0
BSD-85-M30	M30	26.0	70.0	110	170	33.0

BSD-86 : 2 FLUTE BURNISHING DRILL

PRODUCT CODE	FOR TAP	DRILL DIA	STEP LENGTH	FLUTE LENGTH	TOTAL LENGTH	SHANK DIA
	Size	D2	L2	L3	L2	D2
BSD-86-M3A	M3A	2.5	8.8	20	62	6.0
BSD-86-M3B	M3B	2.75	8.8	20	62	6.0
BSD-86-M4A	M4A	3.3	11.4	20	62	6.0
BSD-86-M4B	M4B	3.65	11.4	20	62	6.0
BSD-86-M5A	M5A	4.2	13.5	26	66	6.0
BSD-86-M5B	M5B	4.65	13.5	28	66	6.0
BSD-86-M6A	M6A	5.0	16.5	34	79	8.0
BSD-86-M6B	M6B	5.55	16.5	34	79	8.0
BSD-86-M8A	M8A	6.8	21.0	47	89	10.0
BSD-86-M8B	M8B	7.4	21.0	47	89	10.0
BSD-86-M10A	M10A	8.5	25.5	55	102	12.0
BSD-86-M10B	M10B	9.35	25.5	55	102	12.0
BSD-86-M12A	M12A	10.2	30.0	60	107	14.0
BSD-86-M12B	M12B	11.2	30.0	60	107	14.0
BSD-86-M14A	M14A	12.0	34.5	65	115	16.0
BSD-86-M14B	M14B	13.2	34.5	65	115	16.0
BSD-86-M16A	M16A	14.0	38.5	73	123	18.0
BSD-86-M16B	M16B	15.1	38.5	73	123	18.0
BSD-86-M18A	M18A	15.5	43.5	79	131	20.0
BSD-86-M18B	M18B	16.0	43.5	79	131	20.0
BSD-86-M20A	M20A	17.5	47.5	89	147	22.0
BSD-86-M20B	M20B	18.9	47.5	89	147	22.0
BSD-86-M22	M22	19.5	51.5	90	149	24.0
BSD-86-M24	M24	21.0	56.5	97	152	26.0
BSD-86-M27	M27	24.0	62.5	103	160	30.0
BSD-86-M30	M30	26.0	70.0	110	170	33.0

ALL DIMENSIONS IN MM.

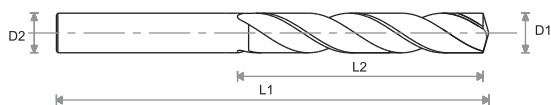
ALSO OFFERED ON REQUEST IN:

- ◆ Inches sizes and intermediate sizes.
- ◆ Drilling holes for other threads like BSW, UNC, UNF etc.
- ◆ Specific tolerances.
- ◆ Different chamfer angles and step lengths.
- ◆ Single steps and multiple steps.
- ◆ 2/3 Flutes
- ◆ Left hand/right hand cutting.
- ◆ High / low / variable helix angle.
- ◆ Drill point geometry to suit application.
- ◆ Flute design to suit application.
- ◆ Two flutes, three flutes and burnishing type.
- ◆ Through coolant.
- ◆ Special coatings to enhance tool life.
- ◆ Lugged design above 12.0 mm.
- ◆ Special shank (Weldon, whistle notch, bigger shank etc.)
- ◆ Sub land type.

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE MICRO DRILLS

TOOL SERIES : BMD-87



ALL DIMENSIONS IN MM.



PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BMD-87-050	0.50	6	22	0.50
BMD-87-055	0.55	7	24	0.55
BMD-87-060	0.60	8	26	0.60
BMD-87-065	0.65	8	26	0.65
BMD-87-070	0.70	9	28	0.70
BMD-87-075	0.75	9	28	0.75
BMD-87-080	0.80	10	30	0.80
BMD-87-085	0.85	10	30	0.85
BMD-87-090	0.90	11	32	0.90
BMD-87-095	0.95	11	32	0.95
BMD-87-100	1.00	12	34	1.00
BMD-87-105	1.05	12	34	1.05
BMD-87-1.1	1.10	14	36	1.10
BMD-87-115	1.15	14	36	1.15
BMD-87-120	1.20	16	38	1.20
BMD-87-125	1.25	16	38	1.25
BMD-87-130	1.30	16	38	1.30
BMD-87-135	1.35	18	40	1.35
BMD-87-140	1.40	18	40	1.40
BMD-87-145	1.45	18	40	1.45
BMD-87-150	1.50	20	43	1.50
BMD-87-160	1.60	20	43	1.60
BMD-87-170	1.70	20	43	1.70
BMD-87-180	1.80	22	46	1.80
BMD-87-190	1.90	22	46	1.90
BMD-87-200	2.00	24	49	2.00
BMD-87-210	2.10	24	49	2.10
BMD-87-220	2.20	27	53	2.20
BMD-87-230	2.30	27	53	2.30
BMD-87-240	2.40	30	57	2.40
BMD-87-250	2.50	30	57	2.50
BMD-87-260	2.60	30	57	2.60
BMD-87-270	2.70	33	61	2.70
BMD-87-280	2.80	33	61	2.80
BMD-87-290	2.90	33	61	2.90

ALSO OFFERED ON REQUEST IN:

- ◆ Inches sizes and intermediate sizes.
- ◆ Specific tolerances.
- ◆ Left hand/right hand helix.
- ◆ High / low helix angle.
- ◆ Drill point geometry to suit application.
- ◆ Special coatings to enhance tool life.
- ◆ Shorter and longer flute length and overall length.
- ◆ Bigger shank diameters.

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE SPADE DRILLS

TOOL SERIES : BPD-88



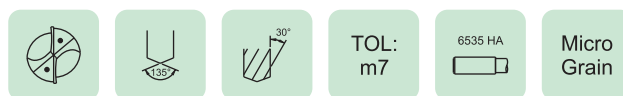
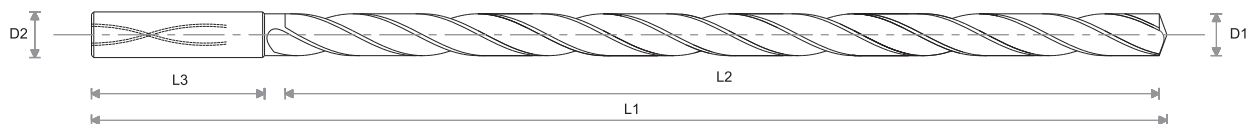
PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BPD-88-010	1.0	8	38	3.0
BPD-88-011	1.1	8	38	3.0
BPD-88-012	1.2	8	38	3.0
BPD-88-013	1.3	8	38	3.0
BPD-88-014	1.4	8	38	3.0
BPD-88-015	1.5	8	38	3.0
BPD-88-016	1.6	8	38	3.0
BPD-88-017	1.7	8	38	3.0
BPD-88-018	1.8	8	38	3.0
BPD-88-019	1.9	8	38	3.0
BPD-88-020	2.0	9	38	3.0
BPD-88-021	2.1	9	38	3.0
BPD-88-022	2.2	9	38	3.0
BPD-88-023	2.3	9	38	3.0
BPD-88-024	2.4	9	38	3.0
BPD-88-025	2.5	10	38	3.0
BPD-88-026	2.6	10	38	3.0
BPD-88-027	2.7	10	38	3.0
BPD-88-028	2.8	10	38	3.0
BPD-88-029	2.9	10	38	3.0
BPD-88-030	3.0	10	38	3.0
BPD-88-031	3.1	20	50	4.0
BPD-88-032	3.2	20	50	4.0
BPD-88-033	3.3	20	50	4.0
BPD-88-034	3.4	20	50	4.0
BPD-88-035	3.5	20	50	4.0
BPD-88-040	4.0	20	50	4.0
BPD-88-045	4.5	20	50	6.0
BPD-88-050	5.0	20	50	6.0
BPD-88-055	5.5	20	50	6.0
BPD-88-060	6.0	30	50	6.0
BPD-88-070	7.0	30	50	8.0
BPD-88-080	8.0	30	50	8.0
BPD-88-090	9.0	30	50	10.0
BPD-88-100	10.0	30	50	10.0

ALSO OFFERED ON REQUEST IN:

- ◆ Inches sizes and intermediate sizes.
- ◆ Specific tolerances.
- ◆ Left hand/right hand cutting.
- ◆ Drill point geometry to suit application.
- ◆ Special coatings to enhance tool life.
- ◆ Shorter and longer flute length and overall length.
- ◆ Bigger shank diameters.

SOLID CARBIDE DEEP HOLE DRILLS

TOOL SERIES : BLD-91 / BLD-92



BLD-91 : L/D=15

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BLD-91-030	3.0	55	95	36	6.0
BLD-91-035	3.5	76	116	36	6.0
BLD-91-040	4.0	76	116	36	6.0
BLD-91-045	4.5	93	133	36	6.0
BLD-91-050	5.0	93	133	36	6.0
BLD-91-055	5.5	110	150	36	6.0
BLD-91-060	6.0	110	150	36	6.0
BLD-91-065	6.5	127	167	36	8.0
BLD-91-070	7.0	127	167	36	8.0
BLD-91-075	7.5	143	183	36	8.0
BLD-91-080	8.0	143	183	36	8.0
BLD-91-085	8.5	160	204	40	10.0
BLD-91-090	9.0	160	204	40	10.0
BLD-91-095	9.5	177	221	40	10.0
BLD-91-100	10.0	177	221	40	10.0
BLD-91-105	10.5	198	247	45	12.0
BLD-91-110	11.0	198	247	45	12.0
BLD-91-115	11.5	214	263	45	12.0
BLD-91-120	12.0	214	263	45	12.0
BLD-91-125	12.5	248	297	45	14.0
BLD-91-130	13.0	248	297	45	14.0
BLD-91-135	13.5	248	297	45	14.0
BLD-91-140	14.0	248	297	45	14.0

BLD-92 : L/D=20

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BLD-92-030	3.0	70	110	36	6.0
BLD-92-035	3.5	96	136	36	6.0
BLD-92-040	4.0	96	136	36	6.0
BLD-92-045	4.5	118	158	36	6.0
BLD-92-050	5.0	118	158	36	6.0
BLD-92-055	5.5	140	180	36	6.0
BLD-92-060	6.0	140	180	36	6.0
BLD-92-065	6.5	162	202	36	8.0
BLD-92-070	7.0	162	202	36	8.0
BLD-92-075	7.5	183	223	36	8.0
BLD-92-080	8.0	183	223	36	8.0
BLD-92-085	8.5	205	249	40	10.0
BLD-92-090	9.0	205	249	40	10.0
BLD-92-095	9.5	227	271	40	10.0
BLD-92-100	10.0	227	271	40	10.0
BLD-92-105	10.5	242	302	40	12.0
BLD-92-110	11.0	253	302	40	12.0
BLD-92-115	11.5	274	323	45	12.0
BLD-92-120	12.0	274	323	45	12.0
BLD-92-125	12.5	318	367	45	14.0
BLD-92-130	13.0	318	367	45	14.0
BLD-92-135	13.5	318	367	45	14.0
BLD-92-140	14.0	318	367	45	14.0

ALL DIMENSIONS IN MM.

SOLID CARBIDE DEEP HOLE DRILLS

TOOL SERIES : BLD-93 / BLD-94

BLD-93 : L/D=25

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BLD-93-030	3.0	85	125	36	6.0
BLD-93-035	3.5	116	156	36	6.0
BLD-93-040	4.0	116	156	36	6.0
BLD-93-045	4.5	143	183	36	6.0
BLD-93-050	5.0	143	183	36	6.0
BLD-93-055	5.5	170	210	36	6.0
BLD-93-060	6.0	170	210	36	6.0
BLD-93-065	6.5	197	237	36	8.0
BLD-93-070	7.0	197	237	36	8.0
BLD-93-075	7.5	223	263	36	8.0
BLD-93-080	8.0	223	263	36	8.0
BLD-93-085	8.5	250	294	40	10.0
BLD-93-090	9.0	250	294	40	10.0
BLD-93-095	9.5	277	321	40	10.0
BLD-93-100	10.0	277	321	40	10.0
BLD-93-105	10.5	310	359	45	12.0
BLD-93-110	11.0	337	386	45	12.0
BLD-93-115	11.5	337	386	45	12.0
BLD-93-120	12.0	337	386	45	12.0

BLD-94 : L/D=30

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK LENGTH	SHANK DIA
	D1	L2	L1	L3	D2
BLD-94-030	3.0	100	140	36	6.0
BLD-94-035	3.5	136	176	36	6.0
BLD-94-040	4.0	136	176	36	6.0
BLD-94-045	4.5	168	208	36	6.0
BLD-94-050	5.0	168	208	36	6.0
BLD-94-055	5.5	200	240	36	6.0
BLD-94-060	6.0	200	240	36	6.0
BLD-94-065	6.5	232	272	36	8.0
BLD-94-070	7.0	232	272	36	8.0
BLD-94-075	7.5	263	303	36	8.0
BLD-94-080	8.0	263	303	36	8.0
BLD-94-085	8.5	295	339	40	10.0
BLD-94-090	9.0	295	339	40	10.0
BLD-94-095	9.5	327	371	40	10.0
BLD-94-100	10.0	327	371	40	10.0

ALL DIMENSIONS IN MM.

Procedure:

- Machine a pilot hole with an m7 toleranced series drill to a minimum pilot depth of 1 to 1.5 x D.
- Enter the pilot hole at a speed of approx. 300 RPM, and with a feed rate of approx. 19 - 20 IPM
- Start high coolant pressure and increase RPM.
- Continuous drilling to complete hole depth without peck cycle.
- For through holes with oblique exit, reduce the feed rate to 40% approx. 1 mm prior to break-through.
- After reaching hole depth reduce machine spindle RPM and withdraw.

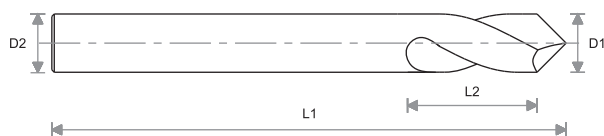
ALSO OFFERED ON REQUEST IN:

- ♦ Inches sizes and intermediate sizes.
- ♦ Specific tolerances.
- ♦ Drill point geometry to suit application.
- ♦ Flute design to suit application.
- ♦ Special coatings to enhance tool life.
- ♦ Special shank (Weldon, whistle notch etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE NC Spotting Drill

TOOL SERIES : BND-95 - 90°



TOL:
h6



Micro
Grain

SOLID CARBIDE NC Spotting Drill

TOOL SERIES : BND-96 - 120°



TOL:
h6



Micro
Grain

ALL DIMENSIONS IN MM.

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BND-95-030	3.0	12	46	3.0
BND-95-1/8	3.17	12	46	3.17
BND-95-040	4.0	12	55	4.0
BND-95-050	5.0	14	62	5.0
BND-95-060	6.0	16	66	6.0
BND-95-1/4	6.35	17	70	6.35
BND-95-070	7.0	17	70	7.0
BND-95-080	8.0	21	79	8.0
BND-95-090	9.0	22	84	9.0
BND-95-3/8	9.52	25	89	9.52
BND-95-100	10.0	25	89	10.0
BND-95-110	11.0	25	89	11.0
BND-95-120	12.0	30	102	12.0
BND-95-1/2	12.7	30	102	12.7
BND-95-130	13.0	30	102	13.0
BND-95-140	14.0	34	107	14.0
BND-95-5/8	15.87	38	115	15.87
BND-95-160	16.0	38	115	16.0
BND-95-170	17.0	40	122	17.0
BND-95-180	18.0	40	122	18.0
BND-95-190	19.0	40	122	19.0
BND-95-3/4	19.05	45	131	19.05
BND-95-200	20.0	45	131	20.0
BND-95-210	21.0	45	131	21.0
BND-95-220	22.0	45	131	22.0
BND-95-7/8	22.22	45	131	22.22
BND-95-250	25.0	53	151	25.0
BND-95-254	25.40	53	151	25.4
BND-95-280	28.0	53	151	28.0
BND-95-300	30.0	53	151	30.0
BND-95-320	32.0	53	151	32.0

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BND-96-030	3.0	12	46	3.0
BND-96-1/8	3.17	12	46	3.17
BND-96-040	4.0	12	55	4.0
BND-96-050	5.0	14	62	5.0
BND-96-060	6.0	16	66	6.0
BND-96-1/4	6.35	17	70	6.35
BND-96-070	7.0	17	70	7.0
BND-96-080	8.0	21	79	8.0
BND-96-090	9.0	22	84	9.0
BND-96-3/8	9.52	25	89	9.52
BND-96-100	10.0	25	89	10.0
BND-96-110	11.0	25	89	11.0
BND-96-120	12.0	30	102	12.0
BND-96-1/2	12.7	30	102	12.7
BND-96-130	13.0	30	102	13.0
BND-96-140	14.0	34	107	14.0
BND-96-5/8	15.87	38	115	15.87
BND-96-160	16.0	38	115	16.0
BND-96-170	17.0	40	122	17.0
BND-96-180	18.0	40	122	18.0
BND-96-190	19.0	40	122	19.0
BND-96-3/4	19.05	45	131	19.05
BND-96-200	20.0	45	131	20.0
BND-96-210	21.0	45	131	21.0
BND-96-220	22.0	45	131	22.0
BND-96-7/8	22.22	45	131	22.22
BND-96-250	25.0	53	151	25.0
BND-96-254	25.40	53	151	25.4
BND-96-280	28.0	53	151	28.0
BND-96-300	30.0	53	151	30.0
BND-96-320	32.0	53	151	32.0

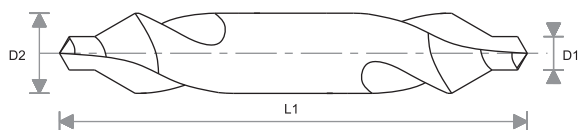
ALSO OFFERED ON REQUEST IN:

- ♦ Intermediate sizes.
- ♦ Left hand/right hand cutting.
- ♦ Helical/straight flutes.
- ♦ Drill point geometry to suit application.
- ♦ Special coatings to enhance tool life.
- ♦ Other drill point angle.
- ♦ Other counter sink profile.
- ♦ Extended length.
- ♦ Lugged design for bigger body diameters.
- ♦ Special shank (Weldon, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

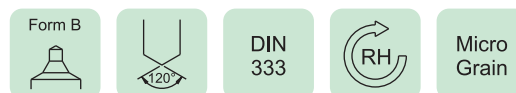
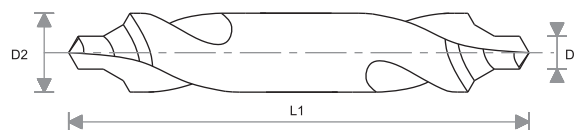
SOLID CARBIDE CENTRE DRILLS (FORM A / B / R)

TOOL SERIES : BCD-97 / BCD-98 / BCD-99



A

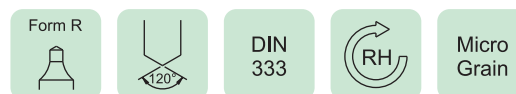
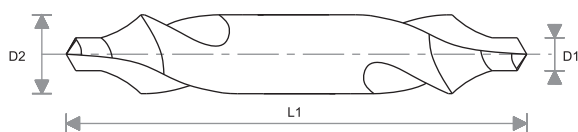
PRODUCT CODE	PILOT DIA	BODY DIA	OVERALL LENGTH
	D1	D2	L1
BCD-97-0050	0.5	3.15	25
BCD-97-0080	0.8	3.15	25
BCD-97-0100	1	3.15	32
BCD-97-0125	1.25	3.15	32
BCD-97-0160	1.6	4.0	35
BCD-97-0200	2	5.0	40
BCD-97-0250	2.5	6.3	45
BCD-97-0315	3.15	8.0	50
BCD-97-0400	4	10.0	56
BCD-97-0500	5	12.5	63
BCD-97-0630	6.3	16.0	71
BCD-97-0800	8	20.0	80
BCD-97-1000	10	25.0	100
BCD-97-1250	12.5	31.5	125
BCD-97-3/64	3/64"	1/8"	1-1/2"
BCD-97-1/16	1/16"	3/16"	1-3/4"
BCD-97-3/32	3/32"	1/4"	2"
BCD-97-1/8	1/8"	5/16"	2-1/4"
BCD-97-3/16	3/16"	7/16"	2-1/2"
BCD-97-1/4	1/4"	5/8"	3"
BCD-97-5/16	5/16"	3/4"	3-1/4"



B

PRODUCT CODE	PILOT DIA	BODY DIA	OVERALL LENGTH
	D1	D2	L1
BCD-98-0100	1.0	4.0	36
BCD-98-0125	1.25	5.0	40
BCD-98-0160	1.6	6.3	45
BCD-98-0200	2.0	8.0	50
BCD-98-0250	2.5	10.0	56
BCD-98-0315	3.15	11.2	60
BCD-97-0400	4	10.0	56
BCD-97-0500	5	12.5	63
BCD-97-0630	6.3	16.0	71
BCD-97-0800	8	20.0	80
BCD-97-1000	10	25.0	100
BCD-97-1250	12.5	31.5	125
BCD-97-3/64	3/64"	1/8"	1-1/2"
BCD-97-1/16	1/16"	3/16"	1-3/4"
BCD-97-3/32	3/32"	1/4"	2"
BCD-97-1/8	1/8"	5/16"	2-1/4"
BCD-97-3/16	3/16"	7/16"	2-1/2"
BCD-97-1/4	1/4"	5/8"	3"

R



PRODUCT CODE	DRILL DIA	BODY DIA	OVERALL LENGTH
	D1	D2	L1
BCD-99-0050	0.5	3.15	25
BCD-99-0080	0.8	3.15	25
BCD-99-0100	1	3.15	32
BCD-99-0125	1.25	3.15	32
BCD-99-0160	1.6	4.0	35
BCD-99-0200	2	5.0	40
BCD-99-0250	2.5	6.3	45

PRODUCT CODE	DRILL DIA	BODY DIA	OVERALL LENGTH
	D1	D2	L1
BCD-99-0315	3.15	8.0	50
BCD-99-0400	4	10.0	56
BCD-99-0500	5	12.5	63
BCD-99-0630	6.3	16.0	71
BCD-99-0800	8	20.0	80
BCD-99-1000	10	25.0	100
BCD-99-1250	12.5	31.5	125

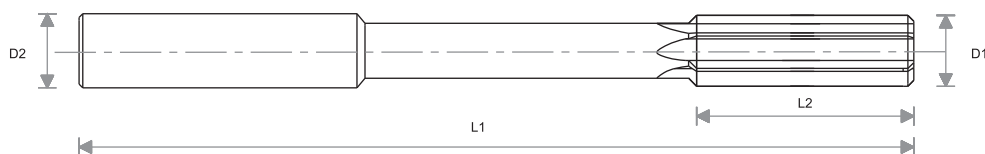
ALSO OFFERED ON REQUEST IN:

- ♦ Intermediate sizes.
- ♦ Left hand/right hand cutting.
- ♦ Helical/straight flutes.
- ♦ Other drill point angles, counter sink angle/radius.
- ♦ Other step length for pilot
- ♦ Drill point geometry to suit application.
- ♦ Special coatings to enhance tool life.
- ♦ Other counter sink profiles.
- ♦ Extended length.
- ♦ Single sided.
- ♦ Lugged design for bigger body diameters.
- ♦ Special shank (Weldon, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE MACHINE REAMERS

TOOL SERIES : BMR-01



TOL:
H7

DIN
212



Micro
Grain

ALL DIMENSIONS IN MM.

PRODUCT CODE	REAMER DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA	NO. OF TEETH
	D1	L2	L1	D2	Z
BMR-01-015	1.5	8	40	1.5	3
BMR-01-016	1.6	9	43	1.6	3
BMR-01-018	1.8	10	46	1.8	4
BMR-01-020	2.0	11	49	2.0	4
BMR-01-022	2.2	12	53	2.2	4
BMR-01-025	2.5	14	57	2.5	4
BMR-01-028	2.8	15	61	2.8	6
BMR-01-030	3.0	15	61	3.0	6
BMR-01-032	3.2	16	65	3.2	6
BMR-01-035	3.5	18	70	3.5	6
BMR-01-040	4.0	19	75	4.0	6
BMR-01-045	4.5	21	80	4.5	6
BMR-01-050	5.0	23	86	5.0	6
BMR-01-055	5.5	26	93	5.6	6
BMR-01-060	6.0	26	93	5.6	6
BMR-01-065	6.5	28	101	6.3	6
BMR-01-070	7.0	31	109	7.1	6
BMR-01-075	7.5	31	109	7.1	6
BMR-01-080	8.0	33	117	8.0	6
BMR-01-085	8.5	33	117	8.0	6
BMR-01-090	9.0	36	125	9.0	6
BMR-01-095	9.5	36	125	9.0	6
BMR-01-100	10.0	38	133	10.0	6
BMR-01-105	10.5	38	133	10.0	6
BMR-01-110	11.0	41	142	10.0	6
BMR-01-115	11.5	41	142	10.0	6
BMR-01-120	12.0	44	151	10.0	6

PRODUCT CODE	REAMER DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA	NO. OF TEETH
	D1	L2	L1	D2	Z
BMR-01-125	12.5	44	151	10.0	6
BMR-01-130	13.0	44	151	10.0	6
BMR-01-135	13.5	47	160	12.5	6
BMR-01-140	14.0	47	160	12.5	8
BMR-01-145	14.5	47	160	12.2	8
BMR-01-150	15.0	50	162	12.5	8
BMR-01-155	15.5	52	170	12.5	8
BMR-01-160	16.0	52	170	12.5	8
BMR-01-165	16.5	54	175	14.0	8
BMR-01-170	17.0	54	175	14.0	8
BMR-01-175	17.5	56	182	14.0	8
BMR-01-180	18.0	56	182	14.0	8
BMR-01-185	18.5	55	189	16.0	8
BMR-01-190	19.0	58	189	16.0	8
BMR-01-195	19.5	60	195	16.0	8
BMR-01-200	20.0	60	195	16.0	8
BMR-01-205	20.5	62	200	20.0	8
BMR-01-210	21.0	62	200	20.0	8
BMR-01-215	21.5	62	200	20.0	8
BMR-01-220	22.0	62	200	20.0	8
BMR-01-240	24.0	62	200	20.0	8
BMR-01-250	25.0	62	200	20.0	8
BMR-01-260	26.0	62	200	25.0	8
BMR-01-250	28.0	62	200	25.0	8
BMR-01-300	30.0	62	200	25.0	8
BMR-01-320	32.0	62	200	25.0	8

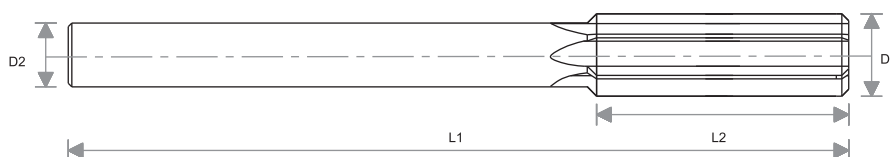
ALSO OFFERED ON REQUEST IN:

- ♦ Intermediate sizes.
- ♦ Special tolerances.
- ♦ Longer flute length.
- ♦ Different number of flutes.
- ♦ Helical/straight flutes.
- ♦ Left hand helix left hand cutting.
- ♦ Left hand helix right hand cutting.
- ♦ Different chamfer angles.
- ♦ End cutting / chamfer cutting.
- ♦ Special coatings to enhance tool life.
- ♦ Through coolant.
- ♦ SAC for self-straightening of holes.
- ♦ Lugged design for bigger body diameters.
- ♦ Special shank (Weldon, taper etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE STUB REAMERS

TOOL SERIES : BSR-02



TOL:
H7

DIN
8089



Micro
Grain

ALL DIMENSIONS IN MM.

PRODUCT CODE	REAMER DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA	NO. OF TEETH
	D1	L2	L1	D2	Z
BSR-02-040	4.0	20	56	3.55	6
BSR-02-045	4.5	22	63	4.0	6
BSR-02-050	5.0	22	63	4.0	6
BSR-02-055	5.5	22	63	5.0	6
BSR-02-060	6.0	22	63	5.0	6
BSR-02-065	6.5	22	63	5.0	6
BSR-02-070	7.0	25	71	6.3	6
BSR-02-075	7.5	25	71	6.3	6
BSR-02-080	8.0	25	71	6.3	6
BSR-02-085	8.5	25	71	6.3	6
BSR-02-090	9.0	25	71	8.0	6
BSR-02-095	9.5	25	71	8.0	6
BSR-02-100	10.0	25	71	8.0	6
BSR-02-105	10.5	25	71	8.0	6
BSR-02-110	11.0	28	80	10.0	6
BSR-02-115	11.5	28	80	10.0	6
BSR-02-120	12.0	28	80	10.0	6
BSR-02-125	12.5	28	80	10.0	6
BSR-02-130	13.0	28	80	10.0	6
BSR-02-135	13.5	32	90	12.5	8
BSR-02-140	14.0	32	90	12.5	8
BSR-02-145	14.5	32	90	12.5	8

PRODUCT CODE	REAMER DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA	NO. OF TEETH
	D1	L2	L1	D2	Z
BSR-02-150	15.0	32	90	12.5	8
BSR-02-155	15.5	32	90	12.5	8
BSR-02-160	16.0	32	90	12.5	8
BSR-02-165	16.5	32	90	12.5	8
BSR-02-170	17.0	32	90	12.5	8
BSR-02-175	17.5	36	100	16.0	8
BSR-02-180	18.0	36	100	16.0	8
BSR-02-185	18.5	36	100	16.0	8
BSR-02-190	19.0	36	100	16.0	8
BSR-02-195	19.5	36	100	16.0	8
BSR-02-200	20.0	36	100	16.0	8
BSR-02-205	20.5	36	100	16.0	8
BSR-02-210	21.0	36	100	16.0	8
BSR-02-215	21.5	40	112	20.0	8
BSR-02-220	22.0	40	112	20.0	8
BSR-02-240	24.0	40	112	20.0	8
BSR-02-250	25.0	40	112	20.0	8
BSR-02-260	26.0	40	112	20.0	8
BSR-02-280	28.0	45	125	20.0	10
BSR-02-300	30.0	45	125	20.0	10
BSR-02-320	32.0	45	125	20.0	10

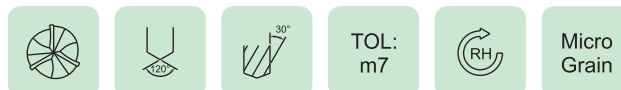
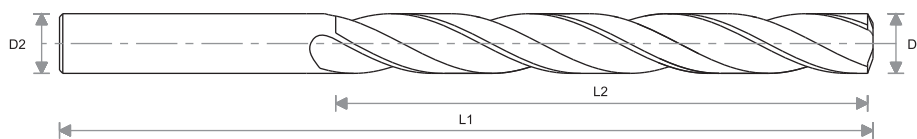
ALSO OFFERED ON REQUEST IN:

- ♦ Intermediate sizes.
- ♦ Special tolerances.
- ♦ Longer flute length.
- ♦ Different number of flutes.
- ♦ Helical/straight flutes.
- ♦ Left hand helix left hand cutting.
- ♦ Left hand helix right hand cutting.
- ♦ Different chamfer angles.
- ♦ End cutting / chamfer cutting.
- ♦ Special coatings to enhance tool life.
- ♦ Through coolant.
- ♦ SAC for self-straightening of holes.
- ♦ Lugged design for bigger body diameters.
- ♦ Special shank (Weldon, taper etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE CORE DRILLS

TOOL SERIES : BRD-03



BRD-03 : Standard series

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BRD-03-030	3.0	15	60	3.0
BRD-03-040	4.0	18	60	4.0
BRD-03-050	5.0	20	75	5.0
BRD-03-060	6.0	25	80	6.0
BRD-03-070	7.0	30	85	7.0
BRD-03-080	8.0	30	85	8.0
BRD-03-090	9.0	35	90	9.0
BRD-03-100	10.0	35	100	10.0
BRD-03-110	11.0	40	100	11.0
BRD-03-120	12.0	40	100	12.0
BRD-03-130	13.0	40	100	13.0
BRD-03-140	14.0	40	100	14.0
BRD-03-150	15.0	45	100	15.0
BRD-03-160	16.0	45	100	16.0
BRD-03-170	17.0	45	100	17.0
BRD-03-180	18.0	45	100	18.0
BRD-03-190	19.0	45	100	19.0
BRD-03-200	20.0	45	100	20.0
BRD-03-210	21.0	45	100	21.0
BRD-03-220	22.0	45	100	22.0
BRD-03-240	24.0	45	100	23.0
BRD-03-250	25.0	45	100	24.0
BRD-03-280	28.0	60	120	25.0
BRD-03-300	30.0	60	120	30.0
BRD-03-320	32.0	80	150	32.0

BRD-03 L : Long series

PRODUCT CODE	DRILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BRD-03-030L	3.0	60	90	3.0
BRD-03-040L	4.0	64	96	4.0
BRD-03-050L	5.0	74	108	5.0
BRD-03-060L	6.0	80	116	6.0
BRD-03-070L	7.0	93	133	7.0
BRD-03-080L	8.0	100	142	8.0
BRD-03-090L	9.0	107	151	9.0
BRD-03-100L	10.0	116	162	10.0
BRD-03-110L	11.0	125	173	11.0
BRD-03-120L	12.0	134	184	12.0
BRD-03-130L	13.0	134	184	13.0
BRD-03-140L	14.0	142	194	14.0
BRD-03-150L	15.0	147	202	15.0
BRD-03-160L	16.0	153	211	16.0
BRD-03-170L	17.0	159	218	17.0
BRD-03-180L	18.0	165	226	18.0
BRD-03-190L	19.0	171	234	19.0
BRD-03-200L	20.0	177	242	20.0
BRD-03-210L	21.0	180	250	21.0
BRD-03-220L	22.0	180	250	22.0
BRD-03-240L	24.0	180	250	24.0
BRD-03-250L	25.0	180	250	25.0
BRD-03-280L	28.0	180	250	28.0
BRD-03-300L	30.0	180	250	30.0
BRD-03-320L	32.0	180	250	32.0

ALL DIMENSIONS IN MM.

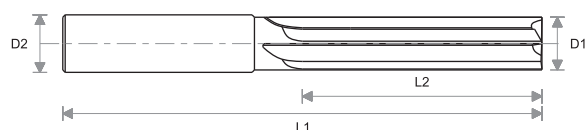
ALSO OFFERED ON REQUEST IN:

- ◆ Inches sizes and intermediate sizes.
- ◆ Specific tolerances.
- ◆ Left hand/right hand helix.
- ◆ High/low helix angle and special helix.
- ◆ Drill point geometry to suit application.
- ◆ Flute design to suit application.
- ◆ Through coolant.
- ◆ Special coatings to enhance tool life.
- ◆ Lugged design above 12.0 mm.
- ◆ Special shank (Weldon, taper, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE HOLE MILLS

TOOL SERIES : BHM-04



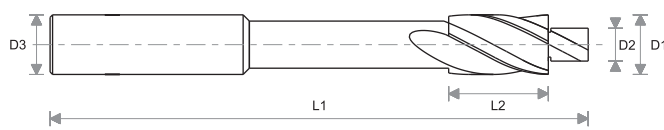
TOL:
m6



Micro
Grain

SOLID CARBIDE COUNTER BORES

TOOL SERIES : BCB-05



TOL:
z9

DIN
373



Micro
Grain

ALL DIMENSIONS IN MM.

PRODUCT CODE	HOLE MILL DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BHM-04-015	1.5	12	40	4.0
BHM-04-020	2.0	12	40	4.0
BHM-04-025	2.5	14	50	4.0
BHM-04-030	3.0	15	60	4.0
BHM-04-040	4.0	18	60	4.0
BHM-04-050	5.0	20	75	6.0
BHM-04-060	6.0	25	80	6.0
BHM-04-070	7.0	30	85	8.0
BHM-04-080	8.0	30	85	8.0
BHM-04-090	9.0	35	90	10.0
BHM-04-100	10.0	35	100	10.0
BHM-04-110	11.0	40	100	12.0
BHM-04-120	12.0	40	100	12.0
BHM-04-130	13.0	40	100	14.0
BHM-04-140	14.0	40	100	14.0
BHM-04-150	15.0	45	100	16.0
BHM-04-160	16.0	45	100	16.0
BHM-04-170	17.0	45	100	18.0
BHM-04-180	18.0	45	100	18.0
BHM-04-190	19.0	45	100	20.0
BHM-04-200	20.0	45	100	20.0
BHM-04-220	22.0	45	100	22.0
BHM-04-230	23.0	45	100	22.0
BHM-04-240	24.0	45	100	24.0
BHM-04-250	25.0	45	100	25.0
BHM-04-300	30.0	60	120	30.0
BHM-04-360	36.0	80	150	36.0

ALSO OFFERED ON REQUEST IN:

- ◆ Inches sizes and intermediate sizes.
- ◆ Specific tolerances.
- ◆ Left hand/right hand helix/straight flutes.
- ◆ High/low helix angle and special helix.
- ◆ Special corner chamfer/radius
- ◆ Special End cutting geometry.
- ◆ Through coolant.
- ◆ Various numbers of flutes.
- ◆ Special coatings to enhance tool life.
- ◆ Lugged design for bigger diameters.

PRODUCT CODE	FOR THREAD	CUTTING DIA	PILOT DIA	LENG TH	OVERALL LENGTH	SHANK DIA	TEE TH
		D1	D2	L2	L1	D3	Z
BCB-05-010	M1	2.2	1.1	7.0	45	2.2	2
BCB-05-012	M 1,2	2.5	1.3	7.0	45	2.5	2
BCB-05-016	M 1,6	3.3	1.7	10.0	56	3.3	2
BCB-05-017	M 1,7	3.8	1.8	10.0	56	3.8	2
BCB-05-020	M 2	4.3	2.2	10.0	56	4.3	2
BCB-05-026	M 2,6	5.5	2.8	14.0	71	5.0	3
BCB-05-030	M 3	6.0	3.2	14.0	71	5.0	3
BCB-05-035	M 3,5	6.5	3.7	14.0	71	5.0	3
BCB-05-040	M 4	8.0	4.3	14.0	71	5.0	3
BCB-05-050	M 5	10.0	5.3	18.0	80	8.0	3
BCB-05-060	M 6	11.0	6.4	18.0	80	8.0	3
BCB-05-080	M 8	15.0	8.4	22.0	100	12.5	3
BCB-05-100	M 10	18.0	10.5	22.0	100	12.5	3
BCB-05-120	M 12	20.0	13.0	22.0	100	12.5	3
BCB-05-140	M 14	24.0	15.0	30.0	120	16.0	3
BCB-05-160	M 16	26.0	17.0	35.0	120	16.0	3
BCB-05-180	M 18	30.0	19.0	35.0	120	16.0	3
BCB-05-200	M 20	33.0	21.0	40.0	140	20.0	3
BCB-05-220	M 22	36.0	23.0	40.0	140	20.0	3
BCB-05-240	M 24	40.0	25.0	40.0	140	25.0	4

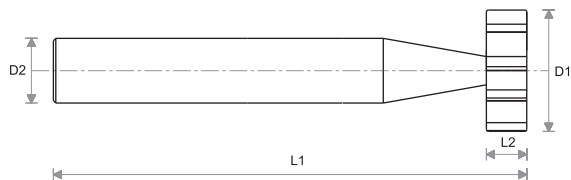
ALSO OFFERED ON REQUEST IN:

- ◆ Inches sizes and intermediate sizes.
- ◆ Sizes for different tapping drilled holes for threads like BSW, UNC, UNF etc.
- ◆ Specific tolerances.
- ◆ Interchangeable pilot / without pilot.
- ◆ Left hand/right hand helix/straight flutes.
- ◆ High/low helix angle and special helix.
- ◆ Special corner chamfer/radius
- ◆ Special pilot length and diameter.
- ◆ Through coolant.
- ◆ Various numbers of flutes.
- ◆ Special coatings to enhance tool life.
- ◆ Lugged design for bigger diameters.
- ◆ Special shank (Weldon, whistle notch, taper etc).

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE KEY SEAT CUTTER

TOOL SERIES : BKC-06



TOL:
h12

DIN
850 C



Micro
Grain

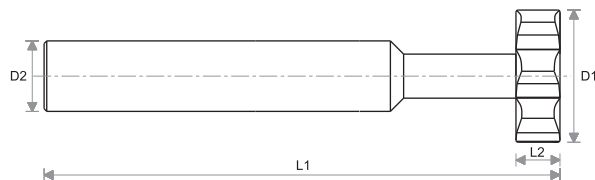
PRODUCT CODE	CUTTER DIA	CUTTER WIDTH	OAL	SHANK DIA	NO. OF TEETH
	D1	L2	L1	D2	Z
BKC-06-045	4.5	1.0	50	6.0	8
BKC-06-075	7.5	1.5	50	6.0	8
BKC-06-076	7.5	2.0	50	6.0	8
BKC-06-105	10.5	2.0	50	6.0	10
BKC-06-106	10.5	2.5	50	6.0	10
BKC-06-107	10.5	3.0	50	6.0	10
BKC-06-135	13.5	3.0	56	10.0	10
BKC-06-136	13.5	4.0	56	10.0	10
BKC-06-137	16.5	3.0	56	10.0	10
BKC-06-165	16.5	4.0	56	10.0	10
BKC-06-166	16.5	5.0	56	10.0	10
BKC-06-167	19.5	4.0	63	10.0	12
BKC-06-195	19.5	5.0	63	10.0	12
BKC-06-196	19.5	6.0	63	10.0	12
BKC-06-197	22.5	5.0	63	10.0	12
BKC-06-225	22.5	6.0	63	10.0	12
BKC-06-226	22.5	8.0	63	10.0	12
BKC-06-227	25.5	6.0	63	10.0	14
BKC-06-228	28.5	6.0	63	10.0	16
BKC-06-229	28.5	8.0	63	12.0	16
BKC-06-230	28.5	10.0	63	12.0	16
BKC-06-231	32.5	8.0	71	12.0	18
BKC-06-285	32.5	10.0	71	12.0	18
BKC-06-286	45.5	10.0	71	12.0	22

ALSO OFFERED ON REQUEST IN:

- ◆ Inches sizes and intermediate diameters.
- ◆ Intermediate thickness.
- ◆ Left hand/right hand helix/straight flutes/alternating flutes.
- ◆ Special corner chamfer/radius.
- ◆ Lugged/tipped design.
- ◆ Extended length and neck length.
- ◆ Special neck diameter.
- ◆ Various numbers of flutes.
- ◆ Special coatings to enhance tool life.
- ◆ Special shank (Weldon, whistle notch, etc.)

SOLID CARBIDE T SLOT CUTTER

TOOL SERIES : BTC-07



TOL:
d11

DIN
851



Micro
Grain

ORDER. NO	FOR SLOT	CUTTER DIA	CUTTING WIDTH	OAL	SHANK DIA	NO. OF TEETH
		D1	L2	L1	D2	Z
BTC-07-060	6.0	12.5	6.0	57	10.0	6
BTC-07-080	8.0	16.0	8.0	62	10.0	6
BTC-07-100	10.0	18.0	8.0	70	12.0	6
BTC-07-101	10.0	19.0	9.0	71	12.0	6
BTC-07-120	12.0	21.0	9.0	74	12.0	8
BTC-07-121	12.0	22.0	10.0	75	12.0	8
BTC-07-140	14.0	25.0	11.0	82	16.0	8
BTC-07-160	16.0	28.0	12.0	85	16.0	8
BTC-07-180	18.0	32.0	14.0	90	16.0	8
BTC-07-200	20.0	36.0	16.0	103	25.0	10
BTC-07-220	22.0	40.0	18.0	108	25.0	10
BTC-07-240	24.0	45.0	20.0	113	25.0	10
BTC-07-280	28.0	50.0	22.0	124	32.0	12
BTC-07-360	36.0	60.0	28.0	128	32.0	12
BTC-07-361	-	80.0	30.0	128	32.0	12
BTC-07-362	-	100.0	30.0	128	32.0	12

ALL DIMENSIONS IN MM.

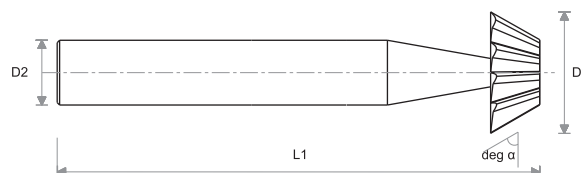
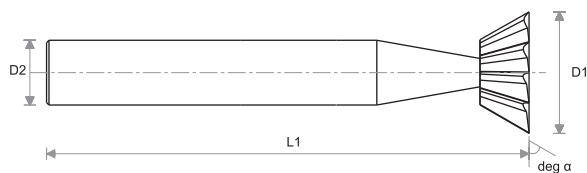
ALSO OFFERED ON REQUEST IN:

- ◆ Inches sizes and intermediate diameters.
- ◆ Intermediate thickness.
- ◆ Left hand/right hand helix/straight flutes/alternating flutes.
- ◆ Special corner chamfer/radius.
- ◆ Special OD profile.
- ◆ Lugged/tipped design.
- ◆ Extended length and neck length.
- ◆ Special neck diameter.
- ◆ Various numbers of flutes.
- ◆ Special coatings to enhance tool life.
- ◆ Special shank (Weldon, whistle notch, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE DOVE TAIL CUTTER- STRAIGHT / REVERSE

TOOL SERIES : BDC-(deg)S / BDC-(deg)R



TOL:
js16



Micro
Grain



TOL:
js16



Micro
Grain

PRODUCT CODE	CUTTER ANGLE α°	CUTTER DIA D1	OVERALL LENGTH L1	SHANK DIA D2
BDC-*deg*-050S	45 / 60 / 70	5.0	50	5.0
BDC-*deg*-060S	45 / 60 / 70	6.0	50	6.0
BDC-*deg*-080S	45 / 60 / 70	8.0	50	8.0
BDC-*deg*-100S	45 / 60 / 70	10.0	50	10.0
BDC-*deg*-120S	45 / 60 / 70	12.0	55	10.0
BDC-*deg*-140S	45 / 60 / 70	14.0	60	12.0
BDC-*deg*-160S	45 / 60 / 70	16.0	60	12.0
BDC-*deg*-200S	45 / 60 / 70	20.0	70	12.0
BDC-*deg*-250S	45 / 60 / 70	25.0	80	12.0
BDC-*deg*-300S	45 / 60 / 70	30.0	80	16.0
BDC-*deg*-320S	45 / 60 / 70	32.0	100	16.0
BDC-*deg*-360S	45 / 60 / 70	36.0	100	18.0
BDC-*deg*-380S	45 / 60 / 70	38.0	100	20.0
BDC-*deg*-400S	45 / 60 / 70	40.0	110	20.0
BDC-*deg*-450S	45 / 60 / 70	45.0	120	20.0
BDC-*deg*-500S	45 / 60 / 70	50.0	120	20.0

PRODUCT CODE	CUTTER ANGLE α°	CUTTER DIA D1	OVERALL LENGTH L1	SHANK DIA D2
BDC-*deg*-050R	45 / 60 / 70	5.0	50	5.0
BDC-*deg*-060R	45 / 60 / 70	6.0	50	6.0
BDC-*deg*-080R	45 / 60 / 70	8.0	50	8.0
BDC-*deg*-100R	45 / 60 / 70	10.0	50	10.0
BDC-*deg*-120R	45 / 60 / 70	12.0	55	10.0
BDC-*deg*-140R	45 / 60 / 70	14.0	60	12.0
BDC-*deg*-160R	45 / 60 / 70	16.0	60	12.0
BDC-*deg*-200R	45 / 60 / 70	20.0	70	12.0
BDC-*deg*-250R	45 / 60 / 70	25.0	80	12.0
BDC-*deg*-300R	45 / 60 / 70	30.0	80	16.0
BDC-*deg*-320R	45 / 60 / 70	32.0	100	16.0
BDC-*deg*-360R	45 / 60 / 70	36.0	100	18.0
BDC-*deg*-380R	45 / 60 / 70	38.0	100	20.0
BDC-*deg*-400R	45 / 60 / 70	40.0	110	20.0
BDC-*deg*-450R	45 / 60 / 70	45.0	120	20.0
BDC-*deg*-500R	45 / 60 / 70	50.0	120	20.0

ALL DIMENSIONS IN MM.

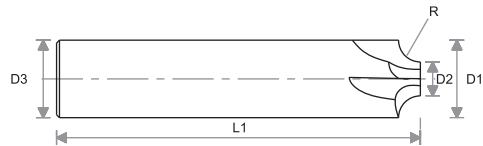
ALSO OFFERED ON REQUEST IN:

- ◆ Inches sizes and intermediate diameters.
- ◆ Other different angles.
- ◆ Left hand/right hand helix/straight flutes.
- ◆ Special corner chamfer/radius.
- ◆ Lugged/tipped design.
- ◆ Extended length and neck length.
- ◆ Special neck diameter.
- ◆ Various numbers of flutes.
- ◆ Special coatings to enhance tool life.
- ◆ Special shank (Weldon, whistle notch, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE CONCAVE CUTTER

TOOL SERIES : BCC-08



TOL:
h9



Micro
Grain

PRODUCT CODE	RADIUS	CUTTER DIA	FRONT DIA	SHANK DIA	OVERALL LENGTH
	R	D1	D2	D3	L1
BCC-08-005	0.5	6.0	5.0	6.0	65
BCC-08-010	1.0	6.0	4.0	6.0	65
BCC-08-015	1.5	8.0	5.0	8.0	75
BCC-08-020	2.0	8.0	4.0	8.0	75
BCC-08-025	2.5	10.0	5.0	10.0	75
BCC-08-030	3.0	10.0	4.0	10.0	75
BCC-08-035	3.5	12.0	5.0	12.0	75
BCC-08-040	4.0	12.0	4.0	12.0	75
BCC-08-045	4.5	16.0	7.0	16.0	75
BCC-08-050	5.0	16.0	6.0	16.0	75
BCC-08-055	5.5	20.0	9.0	20.0	80
BCC-08-060	6.0	20.0	8.0	20.0	80
BCC-08-065	6.5	25.0	12.0	25.0	80
BCC-08-070	7.0	25.0	11.0	25.0	80
BCC-08-075	7.5	25.0	10.0	25.0	80
BCC-08-080	8.0	25.0	9.0	25.0	80
BCC-08-085	8.5	28.0	11.0	25.0	80
BCC-08-090	9.0	28.0	10.0	25.0	80
BCC-08-095	9.5	28.0	9.0	25.0	80
BCC-08-100	10.0	28.0	8.0	25.0	80

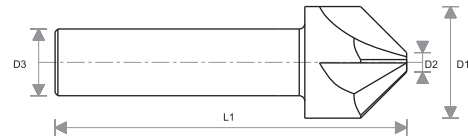
ALL DIMENSIONS IN MM.

ALSO OFFERED ON REQUEST IN:

- ◆ Inches sizes and intermediate diameters.
- ◆ Different corner radius/profile.
- ◆ Left hand/right hand cutting.
- ◆ Lugged design for bigger diameters.
- ◆ Extended length.
- ◆ End cutting.
- ◆ Special coatings to enhance tool life.
- ◆ Special shank (Weldon, taper, etc.)

SOLID CARBIDE COUNTER SINKS

TOOL SERIES : BCS-09



TOL:
z9

DIN
335



Micro
Grain

PRODUCT CODE	CUTTER DIA	FRONT DIA	OVERALL LENGTH	SHANK DIA
	D1	D2	L1	D3
BCS-09-043	4.3	1.3	40.0	4.0
BCS-09-050	5.0	1.5	40.0	4.0
BCS-09-053	5.3	1.5	40.0	4.0
BCS-09-058	5.8	1.5	45.0	5.0
BCS-09-060	6.0	1.5	45.0	5.0
BCS-09-063	6.3	1.5	45.0	5.0
BCS-09-070	7.0	1.8	50.0	6.0
BCS-09-073	7.3	1.8	50.0	6.0
BCS-09-080	8.0	2.0	50.0	6.0
BCS-09-083	8.3	2.0	50.0	6.0
BCS-09-094	9.4	2.2	50.0	6.0
BCS-09-100	10.0	2.5	50.0	6.0
BCS-09-104	10.4	2.5	50.0	6.0
BCS-09-115	11.5	2.8	56.0	8.0
BCS-09-124	12.4	2.8	56.0	8.0
BCS-09-134	13.4	2.9	56.0	8.0
BCS-09-150	15.0	3.2	60.0	10.0
BCS-09-165	16.5	3.2	60.0	10.0
BCS-09-190	19.0	3.5	63.0	10.0
BCS-09-205	20.5	3.5	63.0	10.0
BCS-09-230	23.0	3.8	67.0	10.0
BCS-09-250	25.0	3.8	67.0	10.0
BCS-09-260	26.0	3.8	67.0	10.0
BCS-09-280	28.0	4.0	71.0	12.0
BCS-09-300	30.0	4.2	71.0	12.0
BCS-09-310	31.0	4.2	71.0	12.0

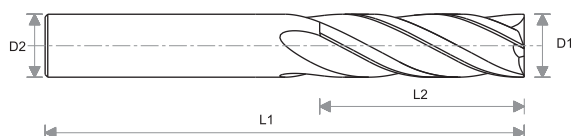
ALSO OFFERED ON REQUEST IN:

- ◆ Inches sizes and intermediate diameters.
- ◆ Different angle/profile.
- ◆ Left hand/right hand cutting.
- ◆ Lugged design for bigger diameters.
- ◆ Extended length.
- ◆ End cutting.
- ◆ Special coatings to enhance tool life.
- ◆ Special shank (Weldon, taper, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE 4 FLUTE ENDMILLS

TOOL SERIES : BSM-11 / BSM -12 / BSM-13 / BSM-14



BSM-11: Standard series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-11-030	3.0	5	50	3.0
BSM-11-040	4.0	8	54	4.0
BSM-11-050	5.0	9	54	5.0
BSM-11-060	6.0	10	54	6.0
BSM-11-070	7.0	12	58	7.0
BSM-11-080	8.0	12	58	8.0
BSM-11-090	9.0	14	66	9.0
BSM-11-100	10.0	14	66	10.0
BSM-11-120	12.0	16	73	12.0
BSM-11-140	14.0	18	75	14.0
BSM-11-160	16.0	22	82	16.0
BSM-11-180	18.0	24	84	18.0
BSM-11-200	20.0	26	92	20.0
BSM-11-220	22.0	26	92	22.0
BSM-11-250	25.0	26	92	25.0
BSM-11-280	28.0	26	92	28.0
BSM-11-320	32.0	26	92	32.0
BSM-11-360	36.0	26	92	36.0

BSM-12: Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-12-030	3.0	8	57	3.0
BSM-12-040	4.0	11	57	4.0
BSM-12-050	5.0	13	57	5.0
BSM-12-060	6.0	13	57	6.0
BSM-12-070	7.0	16	63	7.0
BSM-12-080	8.0	19	63	8.0
BSM-12-090	9.0	19	72	9.0
BSM-12-100	10.0	22	72	10.0
BSM-12-120	12.0	26	83	12.0
BSM-12-140	14.0	26	83	14.0
BSM-12-160	16.0	32	92	16.0
BSM-12-180	18.0	32	92	18.0
BSM-12-200	20.0	38	104	20.0
BSM-12-220	22.0	38	104	22.0
BSM-12-250	25.0	38	104	25.0
BSM-12-280	28.0	38	104	28.0
BSM-12-320	32.0	38	104	32.0
BSM-12-360	36.0	38	104	36.0

BSM-13: Extra-long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-13-030	3.0	20	75	3.0
BSM-13-040	4.0	25	75	4.0
BSM-13-050	5.0	30	75	5.0
BSM-13-060	6.0	30	75	6.0
BSM-13-070	7.0	40	100	7.0
BSM-13-080	8.0	40	100	8.0
BSM-13-090	9.0	40	100	9.0
BSM-13-100	10.0	40	100	10.0
BSM-13-120	12.0	45	150	12.0
BSM-13-140	14.0	45	150	14.0
BSM-13-160	16.0	65	150	16.0
BSM-13-180	18.0	65	150	18.0
BSM-13-200	20.0	65	150	20.0
BSM-13-220	22.0	65	150	22.0
BSM-13-250	25.0	65	150	25.0
BSM-13-280	28.0	65	150	28.0
BSM-13-320	32.0	65	150	32.0
BSM-13-360	36.0	65	150	36.0

BSM-14: Inches series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVERALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-14-0108	1/8"	3/8"	1-1/2"	1/8"
BSM-14-0532	5/32"	1/2"	2"	5/32"
BSM-14-0316	3/16"	5/8"	2"	3/16"
BSM-14-0732	7/32"	5/8"	2-1/2"	7/32"
BSM-14-0104	1/4"	3/4"	2-1/2"	1/4"
BSM-14-0932	9/32"	3/4"	2-1/2"	9/32"
BSM-14-0516	5/16"	13/16"	2-1/2"	5/16"
BSM-14-1132	11/32"	11/32"	2-1/2"	11/32"
BSM-14-0308	3/8"	1"	2-1/2"	3/8"
BSM-14-1332	13/32"	1"	2-3/4"	13/32"
BSM-14-0716	7/16"	1"	2-3/4"	7/16"
BSM-14-1532	15/32"	1"	3"	15/32"
BSM-14-0102	1/2"	1"	3"	1/2"
BSM-14-0916	9/16"	1-1/8"	3-1/2"	9/16"
BSM-14-0508	5/8"	1-1/4"	3-1/2"	5/8"
BSM-14-1116	11/16"	1-3/8"	4"	11/16"
BSM-14-0304	3/4"	1-1/2"	4"	3/4"
BSM-14-0101	1"	1-1/2"	4"	1"

ALSO OFFERED ON REQUEST IN:

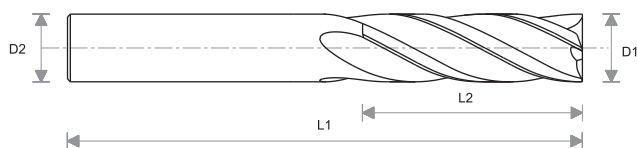
- ♦ Intermediate diameters.
- ♦ Centre cutting.
- ♦ Special flute length and overall length.
- ♦ Left hand/right hand helix.
- ♦ Special corner chamfer/radius.

- ♦ Special neck diameter.
- ♦ Special coatings to enhance tool life.
- ♦ Through coolant.
- ♦ Lugged design for bigger diameter.
- ♦ Special shank (Weldon, whistle notch, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE VIBRATION FREE ENDMILLS

TOOL SERIES : BSM-21 / BSM-22 / BSM-23 / BSM-24



BSM-21: Standard series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-21-060	6.0	10	54	6.0
BSM-21-070	7.0	12	58	7.0
BSM-21-080	8.0	12	58	8.0
BSM-21-090	9.0	14	66	9.0
BSM-21-100	10.0	14	66	10.0
BSM-21-120	12.0	16	73	12.0
BSM-21-140	14.0	18	75	14.0
BSM-21-160	16.0	22	82	16.0
BSM-21-180	18.0	24	84	18.0
BSM-21-200	20.0	26	92	20.0
BSM-21-220	22.0	26	92	22.0
BSM-21-250	25.0	26	92	25.0
BSM-21-280	28.0	26	92	28.0
BSM-21-320	32.0	26	92	32.0
BSM-21-360	36.0	26	92	36.0

BSM-23: Extra Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-23-060	6.0	30	75	6.0
BSM-23-070	7.0	40	100	7.0
BSM-23-080	8.0	40	100	8.0
BSM-23-090	9.0	40	100	9.0
BSM-23-100	10.0	40	100	10.0
BSM-23-120	12.0	45	150	12.0
BSM-23-140	14.0	45	150	14.0
BSM-23-160	16.0	65	150	16.0
BSM-23-180	18.0	65	150	18.0
BSM-23-200	20.0	65	150	20.0
BSM-23-220	22.0	65	150	22.0
BSM-23-250	25.0	65	150	25.0
BSM-23-280	28.0	65	150	28.0
BSM-23-320	32.0	65	150	32.0
BSM-23-360	36.0	65	150	36.0

BSM-22: Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-22-060	6.0	13	57	6.0
BSM-22-070	7.0	16	63	7.0
BSM-22-080	8.0	19	63	8.0
BSM-22-090	9.0	19	72	9.0
BSM-22-100	10.0	22	72	10.0
BSM-22-120	12.0	26	83	12.0
BSM-22-140	14.0	26	83	14.0
BSM-22-160	16.0	32	92	16.0
BSM-22-180	18.0	32	92	18.0
BSM-22-200	20.0	38	104	20.0
BSM-22-220	22.0	38	104	22.0
BSM-22-250	25.0	38	104	25.0
BSM-22-280	28.0	38	104	28.0
BSM-22-320	32.0	38	104	32.0
BSM-22-360	36.0	38	104	36.0

BSM-24: Inches series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-24-0732	7/32"	5/8"	2-1/2"	7/32"
BSM-24-0104	1/4"	3/4"	2-1/2"	1/4"
BSM-24-0932	9/32"	3/4"	2-1/2"	9/32"
BSM-24-0516	5/16"	13/16"	2-1/2"	5/16"
BSM-24-1132	11/32"	11/32"	2-1/2"	11/32"
BSM-24-0308	3/8"	1"	2-1/2"	3/8"
BSM-24-1332	13/32"	1"	2-3/4"	13/32"
BSM-24-0716	7/16"	1"	2-3/4"	7/16"
BSM-24-1532	15/32"	1"	3"	15/32"
BSM-24-0102	1/2"	1"	3"	1/2"
BSM-24-0916	9/16"	1-1/8"	3-1/2"	9/16"
BSM-24-0508	5/8"	1-1/4"	3-1/2"	5/8"
BSM-24-1116	11/16"	1-3/8"	4"	11/16"
BSM-24-0304	3/4"	1-1/2"	4"	3/4"
BSM-24-0101	1"	1-1/2"	4"	1"

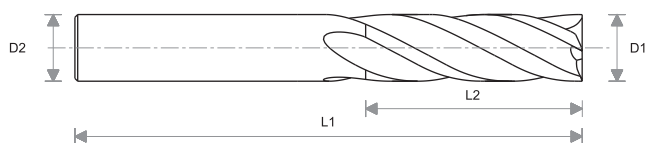
ALSO OFFERED ON REQUEST IN:

- ♦ Intermediate diameters.
- ♦ Centre cutting.
- ♦ Various numbers of flutes.
- ♦ Special flute length and overall length.
- ♦ Left hand/right hand helix.
- ♦ Unequal indexing and helix.
- ♦ Special corner chamfer/radius.
- ♦ Special neck diameter.
- ♦ Special coatings to enhance tool life.
- ♦ Through coolant.
- ♦ Lugged design for bigger diameter.
- ♦ Special shank (Weldon, whistle notch, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE POWER ENDMILLS

TOOL SERIES : BSM-25 / BSM-26 / BSM-27 / BSM-28



BSM-25: Standard series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-25-060	6.0	10	54	6.0
BSM-25-070	7.0	12	58	7.0
BSM-25-080	8.0	12	58	8.0
BSM-25-090	9.0	14	66	9.0
BSM-25-100	10.0	14	66	10.0
BSM-25-120	12.0	16	73	12.0
BSM-25-140	14.0	18	75	14.0
BSM-25-160	16.0	22	82	16.0
BSM-25-180	18.0	24	84	18.0
BSM-25-200	20.0	26	92	20.0
BSM-25-220	22.0	26	92	22.0
BSM-25-250	25.0	26	92	25.0
BSM-25-280	28.0	26	92	28.0
BSM-25-320	32.0	26	92	32.0
BSM-25-360	36.0	26	92	36.0

BSM-27: Extra Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-27-060	6.0	30	75	6.0
BSM-27-070	7.0	40	100	7.0
BSM-27-080	8.0	40	100	8.0
BSM-27-090	9.0	40	100	9.0
BSM-27-100	10.0	40	100	10.0
BSM-27-120	12.0	45	150	12.0
BSM-27-140	14.0	45	150	14.0
BSM-27-160	16.0	65	150	16.0
BSM-27-180	18.0	65	150	18.0
BSM-27-200	20.0	65	150	20.0
BSM-27-220	22.0	65	150	22.0
BSM-27-250	25.0	65	150	25.0
BSM-27-280	28.0	65	150	28.0
BSM-27-320	32.0	65	150	32.0
BSM-27-360	36.0	65	150	36.0

BSM-26: Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-26-060	6.0	13	57	6.0
BSM-26-070	7.0	16	63	7.0
BSM-26-080	8.0	19	63	8.0
BSM-26-090	9.0	19	72	9.0
BSM-26-100	10.0	22	72	10.0
BSM-26-120	12.0	26	83	12.0
BSM-26-140	14.0	26	83	14.0
BSM-26-160	16.0	32	92	16.0
BSM-26-180	18.0	32	92	18.0
BSM-26-200	20.0	38	104	20.0
BSM-26-220	22.0	38	104	22.0
BSM-26-250	25.0	38	104	25.0
BSM-26-280	28.0	38	104	28.0
BSM-26-320	32.0	38	104	32.0
BSM-26-360	36.0	38	104	36.0

BSM-28: Inches series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-28-0732	7/32"	5/8"	2-1/2"	7/32"
BSM-28-0104	1/4"	3/4"	2-1/2"	1/4"
BSM-28-0932	9/32"	3/4"	2-1/2"	9/32"
BSM-28-0516	5/16"	13/16"	2-1/2"	5/16"
BSM-28-1132	11/32"	11/32"	2-1/2"	11/32"
BSM-28-0308	3/8"	1"	2-1/2"	3/8"
BSM-28-1332	13/32"	1"	2-3/4"	13/32"
BSM-28-0716	7/16"	1"	2-3/4"	7/16"
BSM-28-1532	15/32"	1"	3"	15/32"
BSM-28-0102	1/2"	1"	3"	1/2"
BSM-28-0916	9/16"	1-1/8"	3-1/2"	9/16"
BSM-28-0508	5/8"	1-1/4"	3-1/2"	5/8"
BSM-28-1116	11/16"	1-3/8"	4"	11/16"
BSM-28-0304	3/4"	1-1/2"	4"	3/4"
BSM-28-0101	1"	1-1/2"	4"	1"

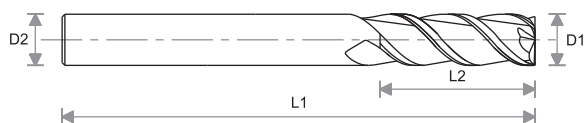
ALSO OFFERED ON REQUEST IN:

- ♦ Intermediate diameters.
- ♦ Centre cutting.
- ♦ Various numbers of flutes.
- ♦ Special flute length and overall length.
- ♦ Left hand/right hand helix.
- ♦ Unequal indexing and helix.
- ♦ Special corner chamfer/radius.
- ♦ Special neck diameter.
- ♦ Special coatings to enhance tool life.
- ♦ Through coolant.
- ♦ Lugged design for bigger diameter.
- ♦ Special shank (Weldon, whistle notch, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE ENDMILLS FOR ALUMINUM MACHINING

TOOL SERIES : BSM-31 / BSM-32 / BSM-33 / BSM-34



BSM-31: Standard series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-31-030	3.0	5	50	3.0
BSM-31-040	4.0	8	54	4.0
BSM-31-050	5.0	9	54	5.0
BSM-31-060	6.0	10	54	6.0
BSM-31-070	7.0	12	58	7.0
BSM-31-080	8.0	12	58	8.0
BSM-31-090	9.0	14	66	9.0
BSM-31-100	10.0	14	66	10.0
BSM-31-120	12.0	16	73	12.0
BSM-31-140	14.0	18	75	14.0
BSM-31-160	16.0	22	82	16.0
BSM-31-180	18.0	24	84	18.0
BSM-31-200	20.0	26	92	20.0
BSM-31-220	22.0	26	92	22.0
BSM-31-250	25.0	26	92	25.0
BSM-31-280	28.0	26	92	28.0
BSM-31-320	32.0	26	92	32.0
BSM-31-360	36.0	26	92	36.0

BSM-32: Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-32-030	3.0	8	57	3.0
BSM-32-040	4.0	11	57	4.0
BSM-32-050	5.0	13	57	5.0
BSM-32-060	6.0	13	57	6.0
BSM-32-070	7.0	16	63	7.0
BSM-32-080	8.0	19	63	8.0
BSM-32-090	9.0	19	72	9.0
BSM-32-100	10.0	22	72	10.0
BSM-32-120	12.0	26	83	12.0
BSM-32-140	14.0	26	83	14.0
BSM-32-160	16.0	32	92	16.0
BSM-32-180	18.0	32	92	18.0
BSM-32-200	20.0	38	104	20.0
BSM-32-220	22.0	38	104	22.0
BSM-32-250	25.0	38	104	25.0
BSM-32-280	28.0	38	104	28.0
BSM-32-320	32.0	38	104	32.0
BSM-32-360	36.0	38	104	36.0

BSM-33: Extra Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-33-030	3.0	20	75	3.0
BSM-33-040	4.0	25	75	4.0
BSM-33-050	5.0	30	75	5.0
BSM-33-060	6.0	30	75	6.0
BSM-33-070	7.0	40	100	7.0
BSM-33-080	8.0	40	100	8.0
BSM-33-090	9.0	40	100	9.0
BSM-33-100	10.0	40	100	10.0
BSM-33-120	12.0	45	150	12.0
BSM-33-140	14.0	45	150	14.0
BSM-33-160	16.0	65	150	16.0
BSM-33-180	18.0	65	150	18.0
BSM-33-200	20.0	65	150	20.0
BSM-33-220	22.0	65	150	22.0
BSM-33-250	25.0	65	150	25.0
BSM-33-280	28.0	65	150	28.0
BSM-33-320	32.0	65	150	32.0
BSM-33-360	36.0	65	150	36.0

BSM-34: Inches series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-34-0108	1/8"	3/8"	1-1/2"	1/8"
BSM-34-0532	5/32"	1/2"	2"	5/32"
BSM-34-0316	3/16"	5/8"	2"	3/16"
BSM-34-0732	7/32"	5/8"	2-1/2"	7/32"
BSM-34-0104	1/4"	3/4"	2-1/2"	1/4"
BSM-34-0932	9/32"	3/4"	2-1/2"	9/32"
BSM-34-0516	5/16"	13/16"	2-1/2"	5/16"
BSM-34-1132	11/32"	11/32"	2-1/2"	11/32"
BSM-34-0308	3/8"	1"	2-1/2"	3/8"
BSM-34-1332	13/32"	1"	2-3/4"	13/32"
BSM-34-0716	7/16"	1"	2-3/4"	7/16"
BSM-34-1532	15/32"	1"	3"	15/32"
BSM-34-0102	1/2"	1"	3"	1/2"
BSM-34-0916	9/16"	1-1/8"	3-1/2"	9/16"
BSM-34-0508	5/8"	1-1/4"	3-1/2"	5/8"
BSM-34-1116	11/16"	1-3/8"	4"	11/16"
BSM-34-0304	3/4"	1-1/2"	4"	3/4"
BSM-34-0101	1"	1-1/2"	4"	1"

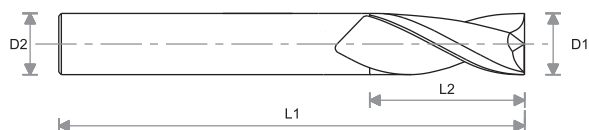
ALSO OFFERED ON REQUEST IN:

- ◆ Intermediate diameters.
- ◆ Centre cutting.
- ◆ Various numbers of flutes.
- ◆ Special flute length and overall length.
- ◆ Left hand/right hand helix.
- ◆ Special flute profiles.
- ◆ Special corner chamfer/radius.
- ◆ Special neck diameter.
- ◆ Special coatings to enhance tool life.
- ◆ Through coolant.
- ◆ Lugged design for bigger diameter.
- ◆ Special shank (Weldon, whistle notch, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE SLOT MILLS

TOOL SERIES : BSM-35 / BSM-36 / BSM-37 / BSM-38



BSM-35: Standard series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-35-030	3.0	5	50	3.0
BSM-35-040	4.0	8	54	4.0
BSM-35-050	5.0	9	54	5.0
BSM-35-060	6.0	10	54	6.0
BSM-35-070	7.0	12	58	7.0
BSM-35-080	8.0	12	58	8.0
BSM-35-090	9.0	14	66	9.0
BSM-35-100	10.0	14	66	10.0
BSM-35-120	12.0	16	73	12.0
BSM-35-140	14.0	18	75	14.0
BSM-35-160	16.0	22	82	16.0
BSM-35-180	18.0	24	84	18.0
BSM-35-200	20.0	26	92	20.0
BSM-35-220	22.0	26	92	22.0
BSM-35-250	25.0	26	92	25.0
BSM-35-280	28.0	26	92	28.0
BSM-35-320	32.0	26	92	32.0
BSM-35-360	36.0	26	92	36.0

BSM-37: Extra Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-37-030	3.0	20	75	3.0
BSM-37-040	4.0	25	75	4.0
BSM-37-050	5.0	30	75	5.0
BSM-37-060	6.0	30	75	6.0
BSM-37-070	7.0	40	100	7.0
BSM-37-080	8.0	40	100	8.0
BSM-37-090	9.0	40	100	9.0
BSM-37-100	10.0	40	100	10.0
BSM-37-120	12.0	45	150	12.0
BSM-37-140	14.0	45	150	14.0
BSM-37-160	16.0	65	150	16.0
BSM-37-180	18.0	65	150	18.0
BSM-37-200	20.0	65	150	20.0
BSM-37-220	22.0	65	150	22.0
BSM-37-250	25.0	65	150	25.0
BSM-37-280	28.0	65	150	28.0
BSM-37-320	32.0	65	150	32.0
BSM-37-360	36.0	65	150	36.0

BSM-36: Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-36-030	3.0	8	57	3
BSM-36-040	4.0	11	57	4
BSM-36-050	5.0	13	57	5
BSM-36-060	6.0	13	57	6
BSM-36-070	7.0	16	63	7
BSM-36-080	8.0	19	63	8
BSM-36-090	9.0	19	72	9
BSM-36-100	10.0	22	72	10
BSM-36-120	12.0	26	83	12
BSM-36-140	14.0	26	83	14
BSM-36-160	16.0	32	92	16
BSM-36-180	18.0	32	92	18
BSM-36-200	20.0	38	104	20
BSM-36-220	22.0	38	104	22
BSM-36-250	25.0	38	104	25
BSM-36-280	28.0	38	104	28
BSM-36-320	32.0	38	104	32
BSM-36-360	36.0	38	104	36

BSM-38: Inches series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-38-0108	1/8"	3/8"	1-1/2"	1/8"
BSM-38-0532	5/32"	1/2"	2"	5/32"
BSM-38-0316	3/16"	5/8"	2"	3/16"
BSM-38-0732	7/32"	5/8"	2-1/2"	7/32"
BSM-38-0104	1/4"	3/4"	2-1/2"	1/4"
BSM-38-0932	9/32"	3/4"	2-1/2"	9/32"
BSM-38-0516	5/16"	13/16"	2-1/2"	5/16"
BSM-38-1132	11/32"	11/32"	2-1/2"	11/32"
BSM-38-0308	3/8"	1"	2-1/2"	3/8"
BSM-38-1332	13/32"	1"	2-3/4"	13/32"
BSM-38-0716	7/16"	1"	2-3/4"	7/16"
BSM-38-1532	15/32"	1"	3"	15/32"
BSM-38-0102	1/2"	1"	3"	1/2"
BSM-38-0916	9/16"	1-1/8"	3-1/2"	9/16"
BSM-38-0508	5/8"	1-1/4"	3-1/2"	5/8"
BSM-38-1116	11/16"	1-3/8"	4"	11/16"
BSM-38-0304	3/4"	1-1/2"	4"	3/4"
BSM-38-0101	1"	1-1/2"	4"	1"

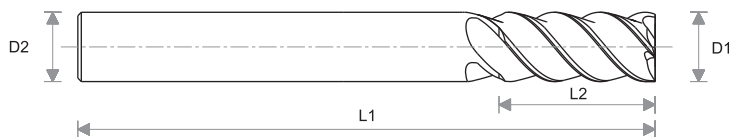
ALSO OFFERED ON REQUEST IN:

- ♦ Intermediate diameters.
- ♦ Special flute length and overall length.
- ♦ Left hand/right hand helix.
- ♦ Special corner chamfer/radius.
- ♦ Special neck diameter.
- ♦ Special coatings to enhance tool life.
- ♦ Through coolant.
- ♦ Lugged design for bigger diameter.
- ♦ Special shank (Weldon, whistle notch, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE HIGH HELIX ENDMILLS

TOOL SERIES: BSM-41 / BSM-42 / BSM-43 / BSM-44



BSM-41: Standard series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-41-060	6.0	10	54	6.0
BSM-41-070	7.0	12	58	7.0
BSM-41-080	8.0	12	58	8.0
BSM-41-090	9.0	14	66	9.0
BSM-41-100	10.0	14	66	10.0
BSM-41-120	12.0	16	73	12.0
BSM-41-140	14.0	18	75	14.0
BSM-41-160	16.0	22	82	16.0
BSM-41-180	18.0	24	84	18.0
BSM-41-200	20.0	26	92	20.0
BSM-41-220	22.0	26	92	22.0
BSM-41-250	25.0	26	92	25.0
BSM-41-280	28.0	26	92	28.0
BSM-41-320	32.0	26	92	32.0
BSM-41-360	36.0	26	92	36.0

BSM-42: Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-42-060	6.0	13	57	6.0
BSM-42-070	7.0	16	63	7.0
BSM-42-080	8.0	19	63	8.0
BSM-42-090	9.0	19	72	9.0
BSM-42-100	10.0	22	72	10.0
BSM-42-120	12.0	26	83	12.0
BSM-42-140	14.0	26	83	14.0
BSM-42-160	16.0	32	92	16.0
BSM-42-180	18.0	32	92	18.0
BSM-42-200	20.0	38	104	20.0
BSM-42-220	22.0	38	104	22.0
BSM-42-250	25.0	38	104	25.0
BSM-42-280	28.0	38	104	28.0
BSM-42-320	32.0	38	104	32.0
BSM-42-360	36.0	38	104	36.0

BSM-43: Extra Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-43-060	6.0	30	75	6
BSM-43-070	7.0	40	100	7
BSM-43-080	8.0	40	100	8
BSM-43-090	9.0	40	100	9
BSM-43-100	10.0	40	100	10
BSM-43-120	12.0	45	150	12
BSM-43-140	14.0	45	150	14
BSM-43-160	16.0	65	150	16
BSM-43-180	18.0	65	150	18
BSM-43-200	20.0	65	150	20
BSM-43-220	22.0	65	150	22
BSM-43-250	25.0	65	150	25
BSM-43-280	28.0	65	150	28
BSM-43-320	32.0	65	150	32
BSM-43-360	36.0	65	150	36

BSM-44: Inches series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-44-0732	7/32"	5/8"	2-1/2"	7/32"
BSM-44-0104	1/4"	3/4"	2-1/2"	1/4"
BSM-44-0932	9/32"	3/4"	2-1/2"	9/32"
BSM-44-0516	5/16"	13/16"	2-1/2"	5/16"
BSM-44-1132	11/32"	11/32"	2-1/2"	11/32"
BSM-44-0308	3/8"	1"	2-1/2"	3/8"
BSM-44-1332	13/32"	1"	2-3/4"	13/32"
BSM-44-0716	7/16"	1"	2-3/4"	7/16"
BSM-44-1532	15/32"	1"	3"	15/32"
BSM-44-0102	1/2"	1"	3"	1/2"
BSM-44-0916	9/16"	1-1/8"	3-1/2"	9/16"
BSM-44-0508	5/8"	1-1/4"	3-1/2"	5/8"
BSM-44-1116	11/16"	1-3/8"	4"	11/16"
BSM-44-0304	3/4"	1-1/2"	4"	3/4"
BSM-44-0101	1"	1-1/2"	4"	1"

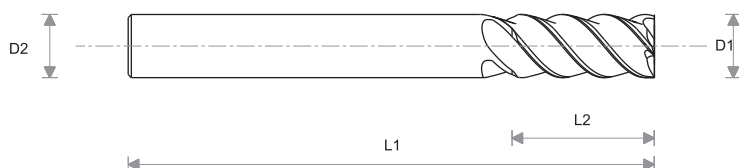
ALSO OFFERED ON REQUEST IN:

- ♦ Intermediate diameters.
- ♦ Centre cutting.
- ♦ Various numbers of flutes.
- ♦ Special flute length and overall length.
- ♦ Left hand/right hand helix.
- ♦ Unequal indexing and helix.
- ♦ Special corner chamfer/radius.
- ♦ Special neck diameter.
- ♦ Special coatings to enhance tool life.
- ♦ Through coolant.
- ♦ Lugged design for bigger diameter.
- ♦ Special shank (Weldon, whistle notch, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE TOUGH MILLS

TOOL SERIES : BSM-15 / BSM-16 / BSM-17 / BSM-18



BSM-15: Standard series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-15-060	6.0	10	54	6.0
BSM-15-070	7.0	12	58	7.0
BSM-15-080	8.0	12	58	8.0
BSM-15-090	9.0	14	66	9.0
BSM-15-100	10.0	14	66	10.0
BSM-15-120	12.0	16	73	12.0
BSM-15-140	14.0	18	75	14.0
BSM-15-160	16.0	22	82	16.0
BSM-15-180	18.0	24	84	18.0
BSM-15-200	20.0	26	92	20.0
BSM-15-220	22.0	26	92	22.0
BSM-15-250	25.0	26	92	25.0
BSM-15-280	28.0	26	92	28.0
BSM-15-320	32.0	26	92	32.0
BSM-15-360	36.0	26	92	36.0

BSM-16: Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-16-060	6.0	13	57	6.0
BSM-16-070	7.0	16	63	7.0
BSM-16-080	8.0	19	63	8.0
BSM-16-090	9.0	19	72	9.0
BSM-16-100	10.0	22	72	10.0
BSM-16-120	12.0	26	83	12.0
BSM-16-140	14.0	26	83	14.0
BSM-16-160	16.0	32	92	16.0
BSM-16-180	18.0	32	92	18.0
BSM-16-200	20.0	38	104	20.0
BSM-16-220	22.0	38	104	22.0
BSM-16-250	25.0	38	104	25.0
BSM-16-280	28.0	38	104	28.0
BSM-16-320	32.0	38	104	32.0
BSM-16-360	36.0	38	104	36.0

BSM-17: Extra Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BSM-17-060	6.0	30	75	6.0
BSM-17-070	7.0	40	100	7.0
BSM-17-080	8.0	40	100	8.0
BSM-17-090	9.0	40	100	9.0
BSM-17-100	10.0	40	100	10.0
BSM-17-120	12.0	45	150	12.0
BSM-17-140	14.0	45	150	14.0
BSM-17-160	16.0	65	150	16.0
BSM-17-180	18.0	65	150	18.0
BSM-17-200	20.0	65	150	20.0
BSM-17-220	22.0	65	150	22.0
BSM-17-250	25.0	65	150	25.0
BSM-17-280	28.0	65	150	28.0
BSM-17-320	32.0	65	150	32.0
BSM-17-360	36.0	65	150	36.0

BSM-18: Inches series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
SM-18-0732	7/32"	5/8"	2-1/2"	7/32"
BSM-18-0104	1/4"	3/4"	2-1/2"	1/4"
BSM-18-0932	9/32"	3/4"	2-1/2"	9/32"
BSM-18-0516	5/16"	13/16"	2-1/2"	5/16"
BSM-18-1132	11/32"	11/32"	2-1/2"	11/32"
BSM-18-0308	3/8"	1"	2-1/2"	3/8"
BSM-18-1332	13/32"	1"	2-3/4"	13/32"
BSM-18-0716	7/16"	1"	2-3/4"	7/16"
BSM-18-1532	15/32"	1"	3"	15/32"
BSM-18-0102	1/2"	1"	3"	1/2"
BSM-18-0916	9/16"	1-1/8"	3-1/2"	9/16"
BSM-18-0508	5/8"	1-1/4"	3-1/2"	5/8"
BSM-18-1116	11/16"	1-3/8"	4"	11/16"
BSM-18-0304	3/4"	1-1/2"	4"	3/4"
BSM-18-0101	1"	1-1/2"	4"	1"

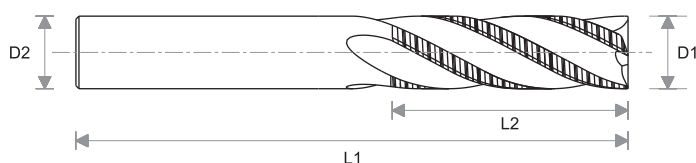
ALSO OFFERED ON REQUEST IN:

- ♦ Intermediate diameters.
- ♦ Centre cutting.
- ♦ Special flute length and overall length.
- ♦ Left hand/right hand helix.
- ♦ Special corner chamfer/radius.
- ♦ Special neck diameter.
- ♦ Special coatings to enhance tool life.
- ♦ Through coolant.
- ♦ Lugged design for bigger diameter.
- ♦ Special shank (Weldon, whistle notch, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE ROUGHING ENDMILLS

TOOL SERIES: BRM-45 / BRM-46 / BRM-47 / BRM-48



BSM-45: Standard series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BRM-45-060	6.0	10	54	6.0
BRM-45-070	7.0	12	58	7.0
BRM-45-080	8.0	12	58	8.0
BRM-45-090	9.0	14	66	9.0
BRM-45-100	10.0	14	66	10.0
BRM-45-120	12.0	16	73	12.0
BRM-45-140	14.0	18	75	14.0
BRM-45-160	16.0	22	82	16.0
BRM-45-180	18.0	24	84	18.0
BRM-45-200	20.0	26	92	20.0
BRM-45-220	22.0	26	92	22.0
BRM-45-250	25.0	26	92	25.0
BRM-45-280	28.0	26	92	28.0
BRM-45-320	32.0	26	92	32.0
BRM-45-360	36.0	26	92	36.0

BSM-46: Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BRM-46-060	6.0	13	57	6.0
BRM-46-070	7.0	16	63	7.0
BRM-46-080	8.0	19	63	8.0
BRM-46-090	9.0	19	72	9.0
BRM-46-100	10.0	22	72	10.0
BRM-46-120	12.0	26	83	12.0
BRM-46-140	14.0	26	83	14.0
BRM-46-160	16.0	32	92	16.0
BRM-46-180	18.0	32	92	18.0
BRM-46-200	20.0	38	104	20.0
BRM-46-220	22.0	38	104	22.0
BRM-46-250	25.0	38	104	25.0
BRM-46-280	28.0	38	104	28.0
BRM-46-320	32.0	38	104	32.0
BRM-46-360	36.0	38	104	36.0

BSM-47: Extra Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BRM-47-060	6.0	30	75	6.0
BRM-47-070	7.0	40	100	7.0
BRM-47-080	8.0	40	100	8.0
BRM-47-090	9.0	40	100	9.0
BRM-47-100	10.0	40	100	10.0
BRM-47-120	12.0	45	150	12.0
BRM-47-140	14.0	45	150	14.0
BRM-47-160	16.0	65	150	16.0
BRM-47-180	18.0	65	150	18.0
BRM-47-200	20.0	65	150	20.0
BRM-47-220	22.0	65	150	22.0
BRM-47-250	25.0	65	150	25.0
BRM-47-280	28.0	65	150	28.0
BRM-47-320	32.0	65	150	32.0
BRM-47-360	36.0	65	150	36.0

BSM-48: Inches series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BRM-48-0732	7/32"	5/8"	2-1/2"	7/32"
BRM-48-0104	1/4"	3/4"	2-1/2"	1/4"
BRM-48-0932	9/32"	3/4"	2-1/2"	9/32"
BRM-48-0516	5/16"	13/16"	2-1/2"	5/16"
BRM-48-1132	11/32"	11/32"	2-1/2"	11/32"
BRM-48-0308	3/8"	1"	2-1/2"	3/8"
BRM-48-1332	13/32"	1"	2-3/4"	13/32"
BRM-48-0716	7/16"	1"	2-3/4"	7/16"
BRM-48-1532	15/32"	1"	3"	15/32"
BRM-48-0102	1/2"	1"	3"	1/2"
BRM-48-0916	9/16"	1-1/8"	3-1/2"	9/16"
BRM-48-0508	5/8"	1-1/4"	3-1/2"	5/8"
BRM-48-1116	11/16"	1-3/8"	4"	11/16"
BRM-48-0304	3/4"	1-1/2"	4"	3/4"
BRM-48-0101	1"	1-1/2"	4"	1"

ALSO OFFERED ON REQUEST IN:

- ♦ Intermediate diameters.
- ♦ Centre cutting.
- ♦ Various numbers of flutes.
- ♦ Special flute length and overall length.
- ♦ Left hand/right hand helix.
- ♦ Unequal indexing and helix.
- ♦ Special corner chamfer/radius.
- ♦ Special neck diameter.
- ♦ Special coatings to enhance tool life.
- ♦ Through coolant.
- ♦ Lugged design for bigger diameter.
- ♦ Special shank (Weldon, whistle notch, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE TAPER ENDMILLS

TOOL SERIES : BTM-61



PRODUCT CODE	TIP DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA	TAPER ANGLE	NO. OF TEETH
	D1	L2	L1	D2	α°	Z
BTM-61-01020	2	10	40	3	1	2
BTM-61-01040	4	20	60	5	1	3
BTM-61-01060	6	30	75	8	1	3
BTM-61-01080	8	30	80	10	1	4
BTM-61-01100	10	30	80	12	1	4
BTM-61-02010	1	4	40	3	2	2
BTM-61-02020	2	10	40	3	2	2
BTM-61-02040	4	20	65	6	2	3
BTM-61-02050	5	30	75	8	2	3
BTM-61-02010	10	28	80	12	2	4
BTM-61-03010	1	4	40	3	3	2
BTM-61-03015	1.5	6	50	4	3	2
BTM-61-03025	2.5	20	65	6	3	3
BTM-61-03030	3	30	75	8	3	3
BTM-61-03060	6	55	110	12	3	3
BTM-61-03080	8	30	80	12	3	4
BTM-61-05010	1	4	40	3	5	2
BTM-61-05015	1.5	6	40	3	5	2
BTM-61-05020	2	10	50	4	5	2
BTM-61-05025	2.5	20	65	6	5	3
BTM-61-06030	3	28	70	8	5	3
BTM-61-05040	4	22	65	8	5	3
BTM-61-05050	5	40	100	12	5	3
BTM-61-05060	6	32	90	12	5	3
BTM-61-05061	6	55	110	16	5	3
BTM-61-05100	10	32	90	16	5	4
BTM-61-05101	10	55	115	20	5	4

PRODUCT CODE	TIP DIA	FLUTE LENGTH	OVERALL LENGTH	SHANK DIA	TAPER ANGLE	NO. OF TEETH
	D1	L2	L1	D2	α°	Z
BTM-61-07025	2.5	22	65	8	7	3
BTM-61-07050	5	28	80	12	7	3
BTM-61-08080	8	35	90	18	8	4
BTM-61-10025	2.5	20	75	10	10	3
BTM-61-10030	3	30	90	14	10	3
BTM-61-10050	5	30	90	16	10	3
BTM-61-10080	8	32	90	20	10	4
BTM-61-11020	2	20	75	10	11	3
BTM-61-11050	5	20	80	14	11	
BTM-61-15025	2.5	20	80	14	15	3
BTM-61-15040	4	15	65	12	15	3
BTM-61-15065	6.5	10	65	12	15	3
BTM-61-15066	6.5	25	90	20	15	3
BTM-61-15080	8	20	80	20	15	4
BTM-61-20025	2.5	10	75	10	20	
BTM-61-20045	4.5	15	90	16	20	4
BTM-61-30025	2.5	10	75	14	30	3
BTM-61-30014	4.5	16	90	24	30	4
BTM-61-45025	2.5	10	75	22	45	3
BTM-61-45045	4.5	14	90	32	45	4

ALL DIMENSIONS IN MM.

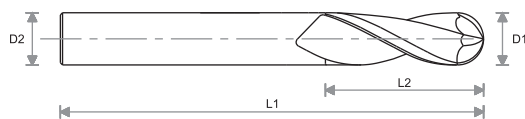
ALSO OFFERED ON REQUEST IN:

- ◆ Inches and intermediate diameters.
- ◆ Any taper angle.
- ◆ Centre cutting.
- ◆ Special corner chamfer/radius.
- ◆ Left hand/right hand helix.
- ◆ Various numbers of flutes.
- ◆ Special flute length and overall length.
- ◆ Special coatings to enhance tool life.
- ◆ Lugged design for bigger diameter.
- ◆ Special shank (Weldon, whistle notch, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE 2 FLUTE BALL NOSE ENDMILLS

TOOL SERIES : BBM-51 / BBM-52 / BBM-53 / BBM-54



BBM-51: Standard series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BBM-51-030	3.0	5	50	3.0
BBM-51-040	4.0	8	54	4.0
BBM-51-050	5.0	9	54	5.0
BBM-51-060	6.0	10	54	6.0
BBM-51-070	7.0	12	58	7.0
BBM-51-080	8.0	12	58	8.0
BBM-51-090	9.0	14	66	9.0
BBM-51-100	10.0	14	66	10.0
BBM-51-120	12.0	16	73	12.0
BBM-51-140	14.0	18	75	14.0
BBM-51-160	16.0	22	82	16.0
BBM-51-180	18.0	24	84	18.0
BBM-51-200	20.0	26	92	20.0
BBM-51-220	22.0	26	92	22.0
BBM-51-250	25.0	26	92	25.0
BBM-51-280	28.0	26	92	28.0
BBM-51-320	32.0	26	92	32.0
BBM-51-360	36.0	26	92	36.0

BBM-53: Extra Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BBM-53-030	3.0	20	75	3.0
BBM-53-040	4.0	25	75	4.0
BBM-53-050	5.0	30	75	5.0
BBM-53-060	6.0	30	75	6.0
BBM-53-070	7.0	40	100	7.0
BBM-53-080	8.0	40	100	8.0
BBM-53-090	9.0	40	100	9.0
BBM-53-100	10.0	40	100	10.0
BBM-53-120	12.0	45	150	12.0
BBM-53-140	14.0	45	150	14.0
BBM-53-160	16.0	65	150	16.0
BBM-53-180	18.0	65	150	18.0
BBM-53-200	20.0	65	150	20.0
BBM-53-220	22.0	65	150	22.0
BBM-53-250	25.0	65	150	25.0
BBM-53-280	28.0	65	150	28.0
BBM-53-320	32.0	65	150	32.0
BBM-53-360	36.0	65	150	36.0

BBM-52: Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BBM-52-030	3.0	8	57	3.0
BBM-52-040	4.0	11	57	4.0
BBM-52-050	5.0	13	57	5.0
BBM-52-060	6.0	13	57	6.0
BBM-52-070	7.0	16	63	7.0
BBM-52-080	8.0	19	63	8.0
BBM-52-090	9.0	19	72	9.0
BBM-52-100	10.0	22	72	10.0
BBM-52-120	12.0	26	83	12.0
BBM-52-140	14.0	26	83	14.0
BBM-52-160	16.0	32	92	16.0
BBM-52-180	18.0	32	92	18.0
BBM-52-200	20.0	38	104	20.0
BBM-52-220	22.0	38	104	22.0
BBM-52-250	25.0	38	104	25.0
BBM-52-280	28.0	38	104	28.0
BBM-52-320	32.0	38	104	32.0
BBM-52-360	36.0	38	104	36.0

BBM-54: Inches series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BBM-54-0108	1/8"	3/8"	1-1/2"	1/8"
BBM-54-0532	5/32"	1/2"	2"	5/32"
BBM-54-0316	3/16"	5/8"	2"	3/16"
BBM-54-0732	7/32"	5/8"	2-1/2"	7/32"
BBM-54-0104	1/4"	3/4"	2-1/2"	1/4"
BBM-54-0932	9/32"	3/4"	2-1/2"	9/32"
BBM-54-0516	5/16"	13/16"	2-1/2"	5/16"
BBM-54-1132	11/32"	11/32"	2-1/2"	11/32"
BBM-54-0308	3/8"	1"	2-1/2"	3/8"
BBM-54-1332	13/32"	1"	2-3/4"	13/32"
BBM-54-0716	7/16"	1"	2-3/4"	7/16"
BBM-54-1532	15/32"	1"	3"	15/32"
BBM-54-0102	1/2"	1"	3"	1/2"
BBM-54-0916	9/16"	1-1/8"	3-1/2"	9/16"
BBM-54-0508	5/8"	1-1/4"	3-1/2"	5/8"
BBM-54-1116	11/16"	1-3/8"	4"	11/16"
BBM-54-0304	3/4"	1-1/2"	4"	3/4"
BBM-54-0101	1"	1-1/2"	4"	1"

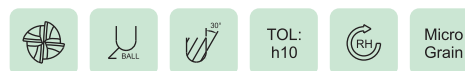
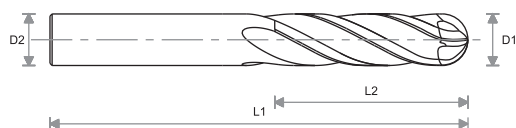
ALSO OFFERED ON REQUEST IN:

- ♦ Intermediate diameters.
- ♦ Spherical head (240 Deg.)
- ♦ Various numbers of flutes.
- ♦ Special flute length and overall length.
- ♦ Left hand/right hand helix.
- ♦ Special neck diameter.
- ♦ Special neck length with taper for long reach.
- ♦ Special coatings to enhance tool life.
- ♦ Lugged design for bigger diameter.
- ♦ Special shank (Weldon, whistle notch, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE 4 FLUTE BALL NOSE ENDMILLS

TOOL SERIES : BBM-55 / BBM-56 / BBM-57 / BBM-58



BBM-55: Standard series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BBM-55-030	3.0	5	50	3.0
BBM-55-040	4.0	8	54	4.0
BBM-55-050	5.0	9	54	5.0
BBM-55-060	6.0	10	54	6.0
BBM-55-070	7.0	12	58	7.0
BBM-55-080	8.0	12	58	8.0
BBM-55-090	9.0	14	66	9.0
BBM-55-100	10.0	14	66	10.0
BBM-55-120	12.0	16	73	12.0
BBM-55-140	14.0	18	75	14.0
BBM-55-160	16.0	22	82	16.0
BBM-55-180	18.0	24	84	18.0
BBM-55-200	20.0	26	92	20.0
BBM-55-220	22.0	26	92	22.0
BBM-55-250	25.0	26	92	25.0
BBM-55-280	28.0	26	92	28.0
BBM-55-320	32.0	26	92	32.0
BBM-55-360	36.0	26	92	36.0

BBM-57: Extra Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BBM-57-030	3.0	20	75	3
BBM-57-040	4.0	25	75	4
BBM-57-050	5.0	30	75	5
BBM-57-060	6.0	30	75	6
BBM-57-070	7.0	40	100	7
BBM-57-080	8.0	40	100	8
BBM-57-090	9.0	40	100	9
BBM-57-100	10.0	40	100	10
BBM-57-120	12.0	45	150	12
BBM-57-140	14.0	45	150	14
BBM-57-160	16.0	65	150	16
BBM-57-180	18.0	65	150	18
BBM-57-200	20.0	65	150	20
BBM-57-220	22.0	65	150	22
BBM-57-250	25.0	65	150	25
BBM-57-280	28.0	65	150	28
BBM-57-320	32.0	65	150	32
BBM-57-360	36.0	65	150	36

BBM-56: Long series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BBM-56-030	3.0	8	57	3.0
BBM-56-040	4.0	11	57	4.0
BBM-56-050	5.0	13	57	5.0
BBM-56-060	6.0	13	57	6.0
BBM-56-070	7.0	16	63	7.0
BBM-56-080	8.0	19	63	8.0
BBM-56-090	9.0	19	72	9.0
BBM-56-100	10.0	22	72	10.0
BBM-56-120	12.0	26	83	12.0
BBM-56-140	14.0	26	83	14.0
BBM-56-160	16.0	32	92	16.0
BBM-56-180	18.0	32	92	18.0
BBM-56-200	20.0	38	104	20.0
BBM-56-220	22.0	38	104	22.0
BBM-56-250	25.0	38	104	25.0
BBM-56-280	28.0	38	104	28.0
BBM-56-320	32.0	38	104	32.0
BBM-56-360	36.0	38	104	36.0

BBM-58: Inches series.

PRODUCT CODE	CUTTING DIA	CUTTING EDGE LENGTH	OVER ALL LENGTH	SHANK DIA
	D1	L2	L1	D2
BBM-58-0108	1/8"	3/8"	1-1/2"	1/8"
BBM-58-0532	5/32"	1/2"	2"	5/32"
BBM-58-0316	3/16"	5/8"	2"	3/16"
BBM-58-0732	7/32"	5/8"	2-1/2"	7/32"
BBM-58-0104	1/4"	3/4"	2-1/2"	1/4"
BBM-58-0932	9/32"	3/4"	2-1/2"	9/32"
BBM-58-0516	5/16"	13/16"	2-1/2"	5/16"
BBM-58-1132	11/32"	11/32"	2-1/2"	11/32"
BBM-58-0308	3/8"	1"	2-1/2"	3/8"
BBM-58-1332	13/32"	1"	2-3/4"	13/32"
BBM-58-0716	7/16"	1"	2-3/4"	7/16"
BBM-58-1532	15/32"	1"	3"	15/32"
BBM-58-0102	1/2"	1"	3"	1/2"
BBM-58-0916	9/16"	1-1/8"	3-1/2"	9/16"
BBM-58-0508	5/8"	1-1/4"	3-1/2"	5/8"
BBM-58-1116	11/16"	1-3/8"	4"	11/16"
BBM-58-0304	3/4"	1-1/2"	4"	3/4"
BBM-58-0101	1"	1-1/2"	4"	1"

ALSO OFFERED ON REQUEST IN:

- ♦ Intermediate diameters.
- ♦ Spherical head (240 Deg.)
- ♦ Various numbers of flutes.
- ♦ Special flute length and overall length.
- ♦ Left hand/right hand helix.
- ♦ Special neck diameter.
- ♦ Special neck length with taper for long reach.
- ♦ Special coatings to enhance tool life.
- ♦ Lugged design for bigger diameter.
- ♦ Special shank (Weldon, whistle notch, etc.)

For any special tools and custom design, please fill dimensional form on the last page.

SOLID CARBIDE SLITTING CUTTER

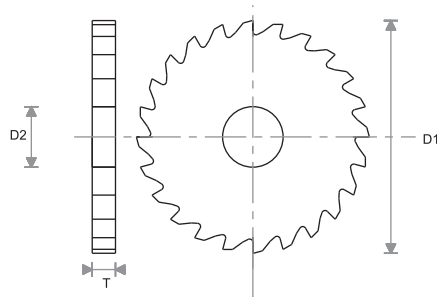
TOOL SERIES : BSC-65

TOL:
js16

DIN
1318



Micro
Grain



PRODUCT CODE	CUTTING DIAMETER D1										
	15	20	25	30	40	50	63	80	100	125	
	BORE DIAMETER D2										
	5	5	8	8	10	13	16	22	22	22	
	T	NO. OF TEETH Z									
BSC-65-0020	0.20	20	20	20	30	40	48				
BSC-65-0025	0.25	20	20	20	30	40	48				
BSC-65-0030	0.30	20	20	20	30	40	48	64	64		
BSC-65-0035	0.35	20	20	20	30	40	48	64	64		
BSC-65-0040	0.40	20	20	20	30	40	48	64	64		
BSC-65-0045	0.45	20	20	20	30	40	48	64	64		
BSC-65-0050	0.50	20	20	20	30	40	48	64	64	80	
BSC-65-0060	0.60	20	20	20	30	40	48	64	64	80	
BSC-65-0070	0.70	20	20	20	30	40	48	64	64	80	
BSC-65-0080	0.80	20	20	20	24	32	40	48	64	64	80
BSC-65-0090	0.90	20	20	20	24	32	40	48	48	64	64
BSC-65-0100	1.00	20	20	20	24	32	40	48	48	64	64
BSC-65-0110	1.10	20	20	20	24	32	40	40	48	64	64
BSC-65-0120	1.20	20	20	20	24	32	40	40	48	64	64
BSC-65-0130	1.30	20	20	20	24	32	32	40	48	48	64
BSC-65-0140	1.40	20	20	20	24	32	32	40	48	48	64
BSC-65-0150	1.50	20	20	20	24	32	32	40	48	48	64
BSC-65-0160	1.60	20	20	20	24	32	32	40	48	48	64
BSC-65-0170	1.70	20	20	20	24	32	32	40	40	48	64
BSC-65-0180	1.80	20	20	20	24	32	32	40	40	48	64
BSC-65-0190	1.90	20	20	20	24	32	32	40	40	48	64
BSC-65-0200	2.00	20	20	20	24	32	32	40	40	48	64
BSC-65-0250	2.50	20	20	20	24	32	32	32	40	48	48
BSC-65-0300	3.00	20	20	20	24	32	24	32	40	40	48
BSC-65-0400	4.00	20	20	20	24	32	24	32	32	40	48
BSC-65-0500	5.00	20	20	20	24	32	24	24	32	40	40
BSC-65-0600	6.00	20	20	20	24	32	20	24	32	32	40
BSC-65-0700	7.00	20	20	20	24	32	20	24	32	32	40
BSC-65-0800	8.00	20	20	20	24	32	20	24	32	32	40
BSC-65-0900	9.00	20	20	20	24	32	20	24	32	32	40
BSC-65-1000	10.00	20	20	20	24	32	20	24	32	32	40
BSC-65-1200	12.00	20	20	20	24	32	20	24	32	32	40
BSC-65-1400	14.00	20	20	20	24	32	20	24	32	32	40
BSC-65-1600	16.00	20	20	20	24	32	20	24	32	32	40

ALL DIMENSIONS IN MM.

ALSO OFFERED ON REQUEST IN :

- ◆ Inches and intermediate diameters.
- ◆ Intermediate thickness.
- ◆ Intermediate bore diameters.
- ◆ Bore with boss.
- ◆ Bore with keyway.
- ◆ Special corner chamfer/radius/ball.
- ◆ Left hand/right hand helix/straight flutes.
- ◆ Special coatings to enhance tool life.

CUSTOM TWIST DRILL

BCU-DR

Senders Details

Company Name:

Name:

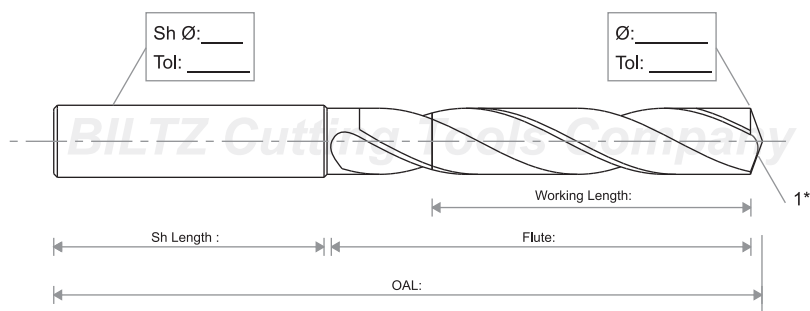
Contact No:

Email:

Address:

Kindly fill in the following details:

$\emptyset$ Drill Dia:
 $\pm$ Tol:
 $\emptyset$ Shank dia:
 1^* Point angle:
 $\langle - \rangle$ Working L:
 $\langle - \rangle$ Flute L:
 $\langle - \rangle$ Overall L:
 $\langle - \rangle$ Shank L:
 Z No of Teeth:
 α Helix angle:
 Thro' coolant:
 Shank type:
 Coating:
 Compt. matl.:



Remarks:

Signature:

Date:

CUSTOM REAMER

BCU-RM

Senders Details

Company Name:

Name:

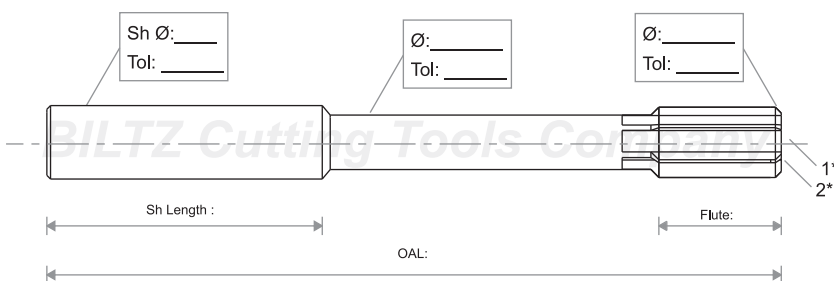
Contact No:

Email:

Address:

Kindly fill in the following details:

$\emptyset$ Reamer Dia:
 $\pm$ Tol:
 $\emptyset$ Shank dia:
 $\emptyset$ Undercut dia:
 1^* End cutting
 2^* Chamfer:
 $\langle - \rangle$ Flute L:
 $\langle - \rangle$ Overall L:
 $\langle - \rangle$ Shank L:
 Z No of Teeth:
 Helix direction:
 Cutting direction:
 Thro' coolant:
 Shank type:
 Coating:
 Compt. matl.:



Remarks:

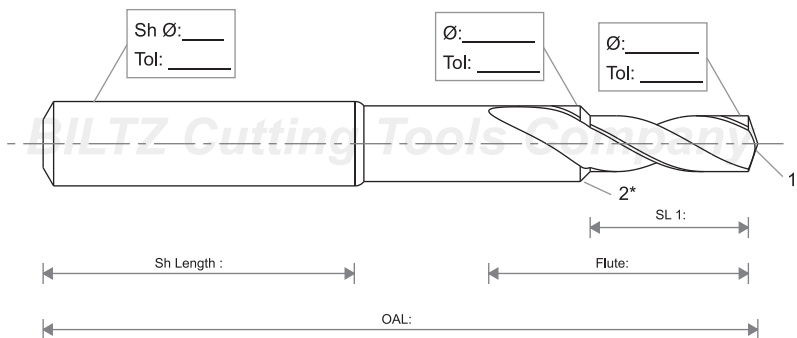
Signature:

Date:

For your custom tool requirement, please scan & fill the above dimensional form and send to us by mail.

Senders Details

CUSTOM STEP DRILL	
Company Name:	
Name:	
Contact No:	
Email:	
Address:	



BCU-SD

Kindly fill in the following details:

- Ø Drill Dia:
- ± Tol:
- 1* Point angle:
- Ø Step dia:
- ± Tol:
- 2* Angle/Profile:
- <-> Step L:
- <-> Flute L:
- <-> Overall L:
- <-> Shank L:
- Ø Shank dia:
- Z No of Teeth:
- α Helix angle:
- Thro' coolant:
- Shank type:
- Coating:
- Compt. matl.:

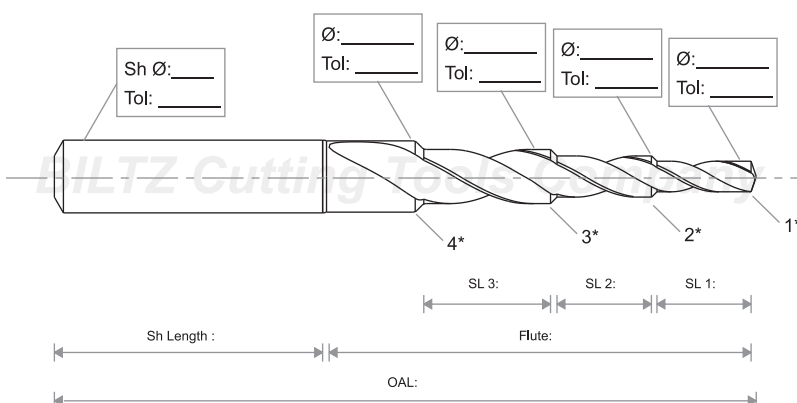
Remarks:

Signature:

Date:

Senders Details

CUSTOM STEP DRILL	
Company Name:	
Name:	
Contact No:	
Email:	
Address:	



BCU-MD

Kindly fill in the following details:

- Ø Drill dia:
- ± Tol:
- 1* Point angle:
- <-> Step L1:
- Ø 1st Step dia:
- ± Tol:
- 2* Angle/Profile:
- <-> Step L2:
- Ø 2nd Step dia:
- ± Tol:
- 3* Angle/Profile:
- <-> Step L3:
- Ø 3rd Step dia:
- ± Tol:
- 4* Angle/Profile:
- <-> Flute L:
- <-> Overall L:
- <-> Shank L:
- Ø Shank dia:
- Z No of Teeth:
- α Helix angle:
- Thro' coolant:
- Shank type:
- Coating:
- Compt. matl.:

Remarks:

Signature:

Date:

For your custom tool requirement, please scan & fill the above dimensional form and send to us by mail.

CUSTOM END MILL

BCU-EM

Senders Details

Company Name:

Name:

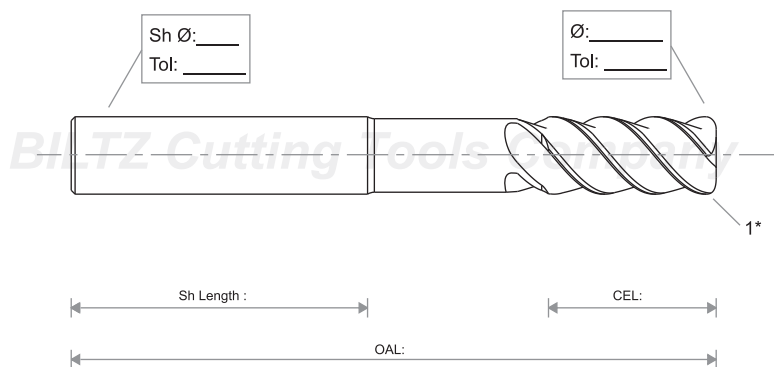
Contact No:

Email:

Address:

Kindly fill in the following details:

$\emptyset$ Cutting Dia:
 $\pm$ Tol:
 $\emptyset$ Shank dia:
 1^* Radius/Chamfer:
 $\langle - \rangle$ Cutting edge L:
 $\emptyset$ Undercut dia:
 $\langle - \rangle$ Undercut L:
 $\emptyset$ Shank dia:
 $\langle - \rangle$ Shank L:
 $\langle - \rangle$ Overall L:
 Z No of Teeth:
 α Helix angle:
 Thro' coolant:
 Shank type:
 Coating:
 Compt. matl.:



Remarks:

Signature:

Date:

TAPER END MILL

BCU-TM

Senders Details

Company Name:

Name:

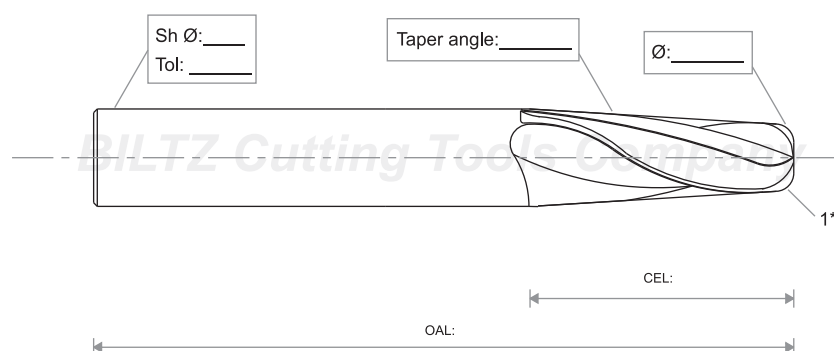
Contact No:

Email:

Address:

Kindly fill in the following details:

$\emptyset$ Front dia:
 Taper angle:
 1^* Radius/Chamfer:
 $\langle - \rangle$ Cutting edge L:
 $\emptyset$ Shank dia:
 $\langle - \rangle$ Shank L:
 $\langle - \rangle$ Overall L:
 Z No of Teeth:
 α Helix angle:
 Thro' coolant:
 Shank type:
 Coating:
 Compt. matl.:



Remarks:

Signature:

Date:

For your custom tool requirement, please scan & fill the above dimensional form and send to us by mail.

CUSTOM T SLOT CUTTER

BCU-TC

Senders Details

Company Name:

Name:

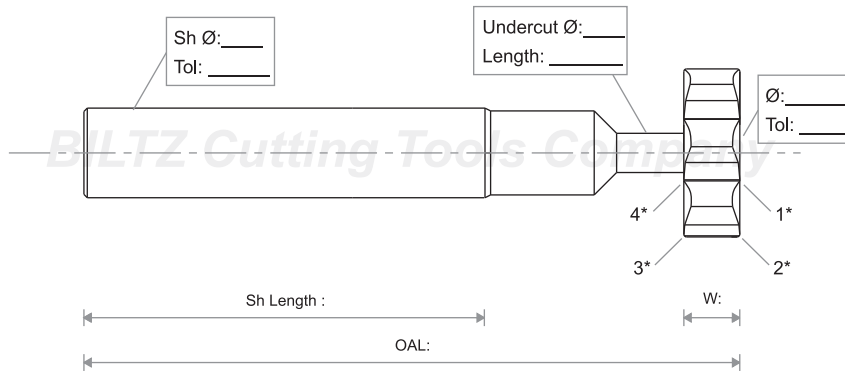
Contact No:

Email:

Address:

Kindly fill in the following details:

$\emptyset$ Cutter Dia:
 $\pm$ Tol:
 1* Dishing/Face cutting
 2* 1st Radius/Chamfer:
 3* 2nd Radius/Chamfer:
 4* Dishing/Face cutting
 W Width :
 $\emptyset$ Neck dia:
 <-> Neck L:
 $\emptyset$ Shank dia:
 <-> Shank L:
 <-> Overall L:
 Z No of Teeth:
 z Staggered teeth:
 α Helix angle:
 Thro' coolant:
 Shank type:
 Coating:
 Compt. matl.:



Remarks:

Signature:

Date:

MILLING CUTTER

BCU-PM

Senders Details

Company Name:

Name:

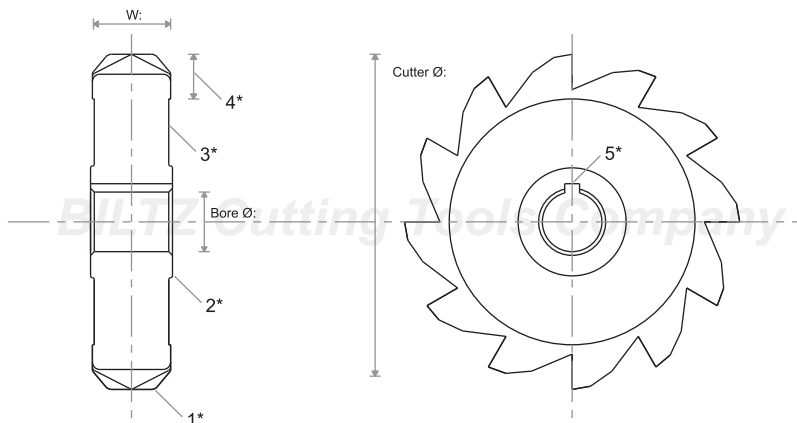
Contact No:

Email:

Address:

Kindly fill in the following details:

$\emptyset$ Cutter Dia:
 $\pm$ Tol:
 W Width :
 $\pm$ Tol:
 $\emptyset$ Bore dia:
 $\pm$ Tol:
 1* Cutter profile:
 2* Boss Thickness:
 3* Undercut Thickness:
 4* Depth of flutes:
 5* Keyway:
 Z no of Teeth:
 z Staggered teeth:
 α Helical teeth:
 Coating:
 Compt. matl.:



Remarks:

Signature:

Date:

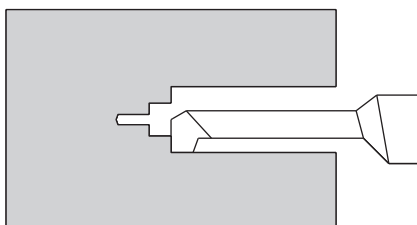
For your custom tool requirement, please scan & fill the above dimensional form and send to us by mail.

CUSTOM BORING TOOLS

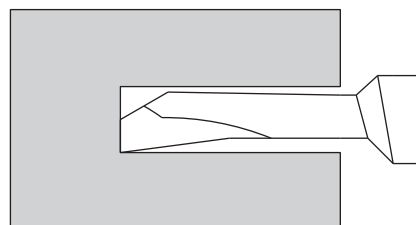
BCU-BT

For The Following Applications :

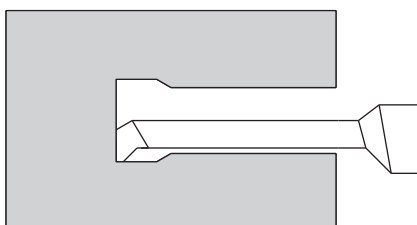
1. Boring



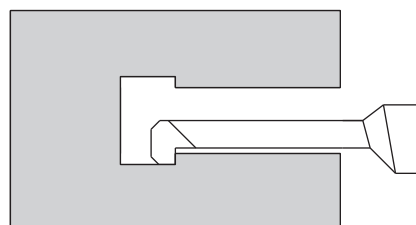
2. Blind Hole Boring



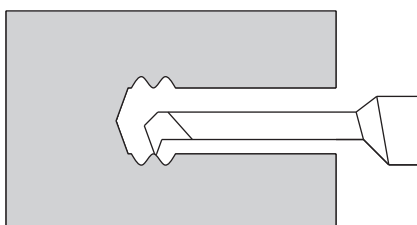
3. Front Edge Boring



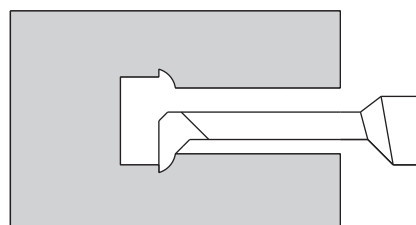
4. Back Edge Boring



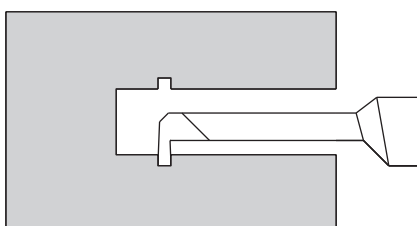
5. Copying



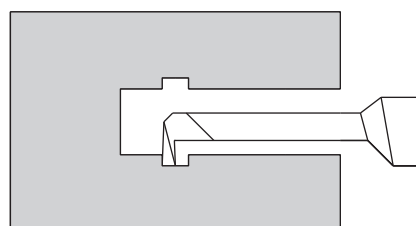
6. Profile Machining



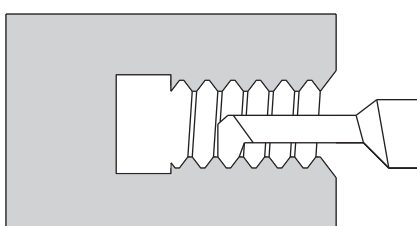
7. Grooving



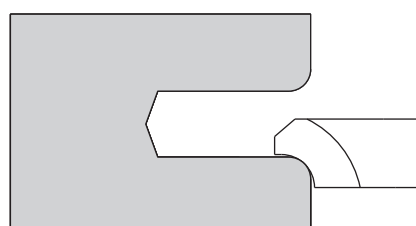
8. Grooving & Turning



9. Internal Threading

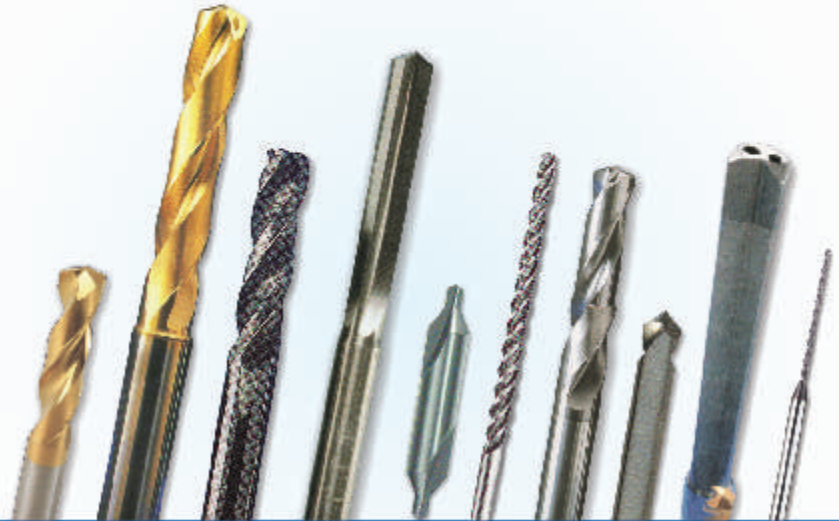


10. Radius Forming



Solid Carbide Drills

- ♦ Twist Drills
- ♦ Through Coolant Drills
- ♦ Step Drills
- ♦ Burnishing Drills
- ♦ Extra Long Drills
- ♦ 3 Flute Drills
- ♦ Centre Drills
- ♦ Micro Drills
- ♦ Spotting Drills
- ♦ Gun Drills
- ♦ Flat Bottom Drills
- ♦ Spade Drills



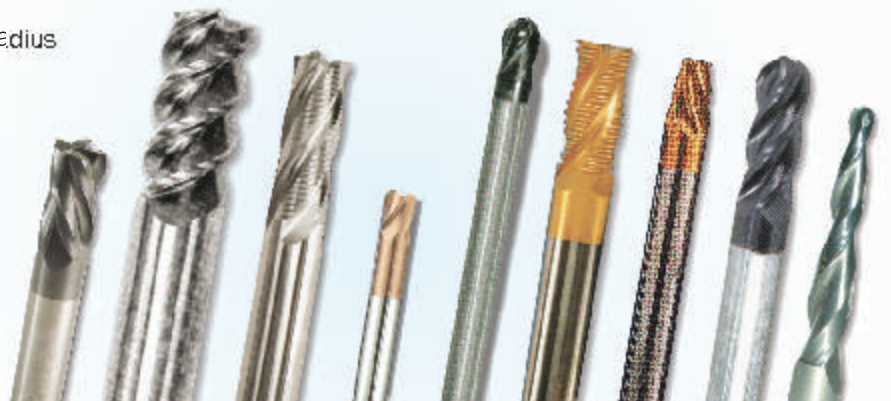
Solid Carbide Reamers

- ♦ Solid Reamers
- ♦ Through Coolant Reamers
- ♦ Multi Dia Reamers
- ♦ Burnishing Reamers
- ♦ Gun Reamers
- ♦ Taper Reamers
- ♦ Extra Long Reamers
- ♦ Micro Reamers



Solid Carbide End Mills

- ♦ SC End Mills
- ♦ High Helix End Mills
- ♦ Extra Long End Mills
- ♦ Slot End Mills
- ♦ Roughing End Mills
- ♦ Step End Mills
- ♦ End Mills with Corner Radius
- ♦ Ball Nose End Mills
- ♦ Die Sinking Cutters
- ♦ Taper End Mills





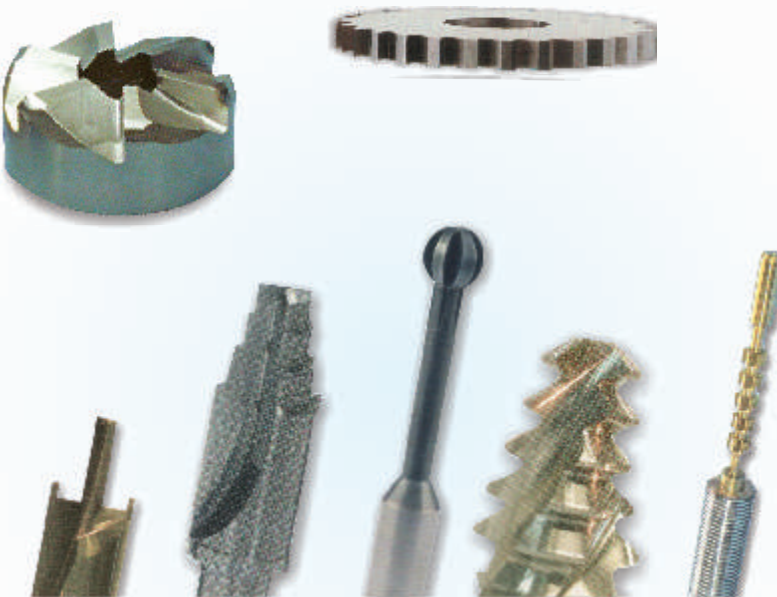
Solid Carbide Tools

- ♦ Counter Bores
- ♦ Countersinks
- ♦ Hole Mills
- ♦ Form Cutters
- ♦ Corner Radius Cutters
- ♦ T Slot Cutters
- ♦ Woodruff Cutters
- ♦ Boring Tools



Solid Carbide Milling Cutters

- ♦ Slitting Cutters
- ♦ Profile Cutters
- ♦ Grooving Cutters
- ♦ Hollow Mills
- ♦ Multi Dia Cutters
- ♦ Radius Cutters
- ♦ Trepanning Cutters



Special Cutters

- ♦ Thread Mills
- ♦ Profile Tools
- ♦ Knurls
- ♦ Taps
- ♦ Circular Form Tools
- ♦ Flat Form Tools
- ♦ Inserts
- ♦ Thread Rolling Tools



Solid Carbide Lugged Tools

- ♦ Drills
- ♦ Reamers
- ♦ Burnishing Drills
- ♦ Counter Bores
- ♦ Counter Sinks
- ♦ Step Tools
- ♦ SC Tools
with Taper Shank
- ♦ Profile Tools
- ♦ Extra Long Tools
- ♦ Large Dia Cutters



PCD/ CBN Tools

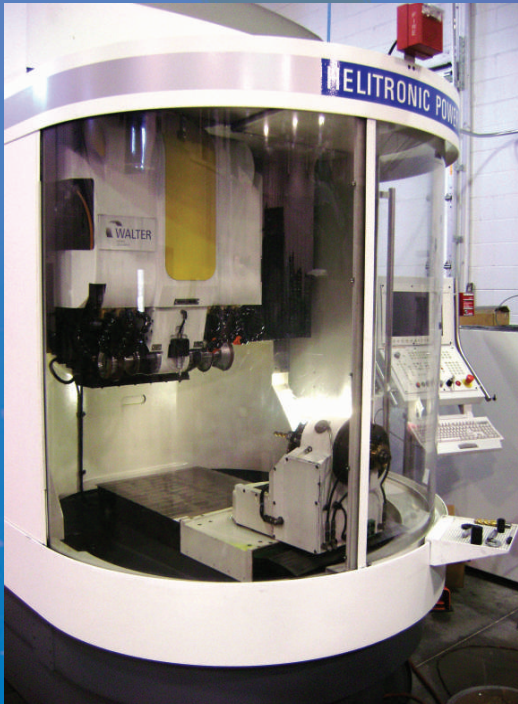
- ♦ Drills
- ♦ Reamers
- ♦ End Mills
- ♦ Multi Dia Cutters
- ♦ Profile Tools
- ♦ Inserts
- ♦ Turning Tools
- ♦ Milling Tools



Brazed Carbide, Super H S S tools

- ♦ Milling Cutters
- ♦ Counter Sinks
- ♦ Counter Bores
- ♦ Profile Tools
- ♦ End Mills
- ♦ Reamers
- ♦ Drills
- ♦ Form Tools
- ♦ High Helix End Mills
- ♦ Work Rest Blades
- ♦ Special Tools





www.biltzindia.com



Cutting Tools Company

J-351, MIDC Bhosari,

Pune - 411026.

(INDIA)

Telefax : +91 - 20 - 6630 7846

Cell : +91 98230 22042, 88888 61088

E-mail : biltz@vsnl.net