

MAX DRILL

DEEP HOLE DRILLING SYSTEM



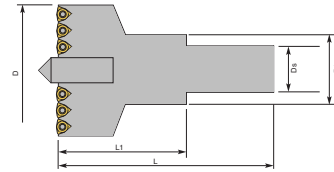
Distributed by:



* M A X 3 1 1 *

VMD DRILL

MAX DRILL



MX MODULAR SHANK TYPE

Drill head complete with cartridges -Pilot drill extra

Model No.	D (in.)	Ds (mm)	D1 (mm)	L1 (mm)	L (mm)	Pilot Drill	Cartridge	Code No.	Price \$
VMD-045050	1.77-1.97	13	28	50	85	PLD-1035	VMC-045050N/T	156-000	737.30
VMD-050055	1.97-2.17	13	28	50	85	TiN-H	VMC-050055N/T	156-002	790.00
VMD-055060	2.17-2.36	16	32	60	100		VMC-055060N/T	156-004	842.60
VMD-060065	2.36-2.56	16	32	60	100	PLD-1238	VMC-060065N/T	156-006	987.40
VMD-065070	2.56-2.76	16	32	60	100	TiN-H	VMC-065070N/T	156-008	1,053.20
VMD-070075	2.76-2.95	22	40	70	115		VMC-070075N/T	156-010	1,053.20
VMD-075080	2.95-3.15	22	40	70	115		VMC-075080N/T	156-012	1,097.10
VMD-080085	3.15-3.35	22	40	70	115	PLD-1645	VMC-080085N/T	156-014	1,162.90
VMD-085090	3.35-3.54	27	48	70	120	TiN-H	VMC-085090N/T	156-016	1,162.90
VMD-090095	3.54-3.74	27	48	70	120		VMC-090095N/T	156-018	1,162.90
VMD-095100	3.74-3.94	27	48	70	120		VMC-095100N/T	156-020	1,250.70
VMD-100105	3.94-4.13	32	58	80	130		VMC-100105N/T	156-022	1,250.70
VMD-105110	4.13-4.33	32	58	80	130	PLD-2045	VMC-105110N/T	156-024	1,250.70
VMD-110115	4.33-4.53	32	58	80	130	TiN-H	VMC-110115N/T	156-026	1,250.70
VMD-115120	4.53-4.72	40	70	90	145		VMC-115120N/T	156-028	1,492.00
VMD-120125	4.72-4.92	40	70	90	145		VMC-120125N/T	156-030	1,667.60
VMD-125130	4.92-5.12	40	70	90	145		VMC-125130N/T	156-032	1,667.60
VMD-130135	5.12-5.32	40	70	90	145	PLD-2556	VMC-130135N/T	156-034	1,667.60
VMD-135140	5.32-5.51	40	70	90	145	TiN-H	VMC-135140N/T	156-036	1,667.60
VMD-140150	5.51-5.91	50	80	100	160		VMC-140150N/T	156-038	2,018.60
VMD-150160	5.91-6.30	50	80	100	160		VMC-150160N/T	156-040	2,018.60
VMD-160170	6.30-6.69	50	80	100	160	PLD-3068	VMC-160170N/T	156-042	2,062.50
VMD-170180	6.69-7.09	50	80	100	160	TiN-H	VMC-170180N/T	156-043	2,632.90

RECOMMEND FEED AND SPEED FOR DRILLING

Material	Hardness	Cutting Speed	Feed F(mm/rev) For Drill Diameter D (mm)				
			45~58	58~78	78~108	108~140	> 140
Plain steels(C<0.2%)	500	120 ~ 180	0.08 ~ 0.12	0.10 ~ 0.16	0.12 ~ 0.18	0.14 ~ 0.25	0.16 ~ 0.30
Plain steels(C:0.2~0.3%)	600	120 ~ 180	0.08 ~ 0.12	0.10 ~ 0.16	0.12 ~ 0.18	0.14 ~ 0.25	0.16 ~ 0.30
Plain steels(C:0.3~0.4%)	700	120 ~ 180	0.08 ~ 0.12	0.10 ~ 0.14	0.12 ~ 0.18	0.14 ~ 0.20	0.16 ~ 0.25
Plain steels(C:0.4~0.5%)	800	100 ~ 140	0.06 ~ 0.10	0.08 ~ 0.12	0.10 ~ 0.14	0.12 ~ 0.16	0.14 ~ 0.20
Alloyed steels	800	100 ~ 140	0.06 ~ 0.10	0.08 ~ 0.12	0.10 ~ 0.14	0.12 ~ 0.16	0.14 ~ 0.20
Alloyed steels	900	60~ 100	0.06 ~ 0.08	0.08 ~ 0.10	0.10 ~ 0.14	0.12 ~ 0.16	0.12 ~ 0.16
Alloyed steels	1000	60~ 100	0.05 ~ 0.08	0.06 ~ 0.10	0.08 ~ 0.12	0.10 ~ 0.14	0.12 ~ 0.14
Alloyed steels	1000	50~ 80	0.05 ~ 0.07	0.06 ~ 0.08	0.05 ~ 0.10	0.08 ~ 0.12	0.08 ~ 0.12
Stainless, and heat-resistant steels	500	60~ 100	0.06 ~ 0.10	0.08 ~ 0.12	0.08 ~ 0.12	0.10 ~ 0.14	0.10 ~ 0.14
	600	60~ 90	0.06 ~ 0.08	0.06 ~ 0.10	0.06 ~ 0.10	0.08 ~ 0.12	0.10 ~ 0.14
	750	60~ 80	0.05 ~ 0.08	0.06 ~ 0.08	0.06 ~ 0.08	0.08 ~ 0.10	0.10 ~ 0.14
Cast iron, malleable cast,	-200 HB	120 ~ 160	0.10 ~ 0.14	0.12 ~ 0.20	0.14 ~ 0.25	0.16 ~ 0.25	0.16 ~ 0.30
	-220 HB	100 ~ 140	0.10 ~ 0.14	0.12 ~ 0.20	0.14 ~ 0.25	0.16 ~ 0.25	0.16 ~ 0.30
	-250 HB	90~ 120	0.08 ~ 0.12	0.10 ~ 0.16	0.12 ~ 0.20	0.14 ~ 0.20	0.16 ~ 0.25
	-320 HB	60~ 100	0.08 ~ 0.12	0.10 ~ 0.16	0.12 ~ 0.20	0.14 ~ 0.20	0.14 ~ 0.25

Conversion examples
 .08mm= .0031 In/Rev
 .12mm= .00472 In/Rev
 .16mm= .0063 In/Rev

Conversion examples
 60-100 (195-325 sfm)
 120-180 (390-585 sfm)

Cartridges & Inserts

MAX DRILL



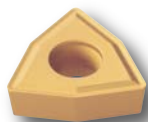
Specify Inner or Outer when ordering

Drilling Range	Inner	Outer	Insert	No. of Insert	Screw	Inner Cart. Code No.	Outer Cart. Code No.	Price \$
45-50	VMC-045050N	VMC-045050T	WC..030204	2	TSB-22045	156-044	156-090	128.80
50-55	VMC-050055N	VMC-050055T				156-046	156-092	128.80
55-60	VMC-055060N	VMC-055060T	WC..040204	2	TSB-25055	156-048	156-094	128.80
60-65	VMC-060065N	VMC-060065T				156-050	156-096	141.70
65-70	VMC-065070N	VMC-065070T	WC..050308	2	TSB-30070	156-052	156-098	141.70
70-75	VMC-070075N	VMC-070075T				156-054	156-100	141.70
75-80	VMC-075080N	VMC-075080T	WC..06T308	2	TSB-35090	156-056	156-102	154.60
80-85	VMC-080085N	VMC-080085T				156-058	156-104	154.60
85-90	VMC-085090N	VMC-085090T				156-060	156-106	154.60
90-95	VMC-090095N	VMC-090095T				156-062	156-108	154.60
95-100	VMC-095100N	VMC-095100T				156-064	156-110	154.60
100-105	VMC-100105N	VMC-100105T				WC..050308	3	TSB-30070
105-110	VMC-105110N	VMC-105110T	WC..06T308	3	TSB-35090	156-068	156-114	193.10
110-115	VMC-110115N	VMC-110115T				156-070	156-116	193.10
115-120	VMC-115120N	VMC-115120T				156-072	156-118	193.10
120-125	VMC-120125N	VMC-120125T				156-074	156-120	193.10
125-130	VMC-125130N	VMC-125130T				156-076	156-122	193.10
130-135	VMC-130135N	VMC-130135T				156-078	156-124	193.10
135-140	VMC-135140N	VMC-135140T				156-080	156-126	193.10
140-150	VMC-140150N	VMC-140150T				WC..080408	3	TSB-40110
150-160	VMC-150160N	VMC-150160T	156-084	156-130	206.10			
160-170	VMC-160170N	VMC-160170T	156-086	156-132	206.10			
170-180	VMC-170180N	VMC-170180T	156-088	156-134	206.10			

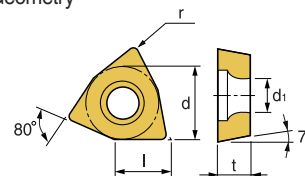
• Outer cartridge can be ground to achieve the size in the range of head

WCMT-C20

W type (80°)

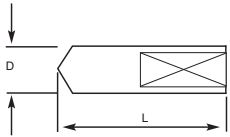


■ Geometry



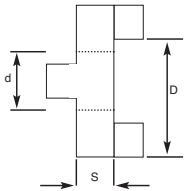
Designation	ISO	Coated Carbide				Cermet		Uncoated Carbide KTM10U	(inch)				
		PT20C	PM25C	PT30P		PT10S	PT20S		l	d	t	r	d ₁
WCMT 1.81.51-C20	030204		146-242 \$10.90					146-536 \$12.40	0.149	7/32	3/32	1/64	0.110
1.81.52-C20	030208							146-537 \$12.40	0.149	7/32	3/32	1/32	0.110
21.52-C20	040208		146-237 \$10.90					147-155 \$7.90	0.169	1/4	3/32	1/32	0.118
2.522-C20	050308		146-236 \$11.60					147-308 \$7.50	0.212	5/16	1/8	1/32	0.134
32.52-C20	06T308		146-235 \$11.60					146-539 \$21.50	0.256	3/8	5/32	1/32	0.157
432-C20	080408		146-855 \$14.20						0.342	1/2	3/16	1/32	0.169
433-C20	080412		146-000 \$14.20					146-563 \$9.20					

PILOT DRILL



Model No.	D	L	Code No.	Price \$
PLD-1035 TIN-H	10	35	156-146	54.00
PLD-1238 TIN-H	12	38	156-148	68.70
PLD-1645 TIN-H	16	45	156-150	81.00
PLD-2045 TIN-H	20		156-152	122.70
PLD-2556 TIN-H	25	56	156-154	157.00
PLD-3068 TIN-H	30	68	156-156	218.30

DRIVE RING



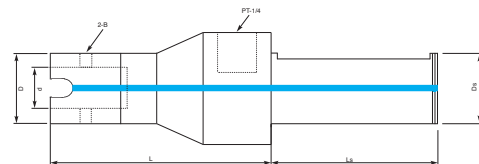
Model No.	D	d	S	Code No.	Price \$
DVR-281310	28	13	10	156-158	54.00
DVR-321610	32	16		156-160	54.00
DVR-402212	40	22	12	156-162	68.70
DVR-482712	48	27		156-164	78.60
DVR-583214	58	32	14	156-166	108.00
DVR-704014	70	40		156-168	125.10
DVR-805016	80	50	16	156-170	154.60

ASSEMBLY FOR MAX DRILL



MX HOLDERS

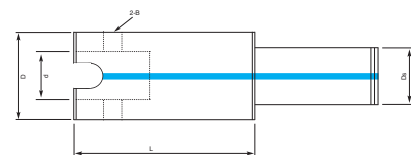
MAX DRILL



MX CYLINDRICAL SHANK TYPE

Code No.	Ds	d	L	D	Ls	Screw	Drive Ring	Code No.	Price \$
MXA-3213115	32	13	115	28	70	MTB-08115	DVR-281310	156-172	196.30
MXA-3213200	32	13	200	28				156-174	294.30
MXA-3213300	32	13	300	28				156-176	294.30
MXA-4016125	40	16	125	32	80		DVR-321610	156-178	220.80
MXA-4016200	40	16	200	32				156-180	245.20
MXA-4016300	40	16	300	32			156-182	318.20	
MXA-4022148	40	22	148	40		DVR-402212	156-184	245.20	
MXA-4022200	40	22	200	40			156-186	294.30	
MXA-4022300	40	22	300	40		156-188	343.40		
MXA-4027168	40	27	168	48		DVR-482712	156-190	294.30	
MXA-4027300	40	27	300	48			156-192	392.40	
MXA-4032186	40	32	186	58		DVR-583214	156-194	343.40	
MXA-4032300	40	32	300	58			156-196	392.40	
MXA-5040186	50	40	186	70	100	MTB-16260	DVR-704014	156-198	392.40
MXA-5040300	50	40	300	70				156-200	490.40
MXA-5050184	50	50	184	80			DVR-805016	156-202	441.40
MXA-5050300	50	50	300	80				156-204	564.00

MXB



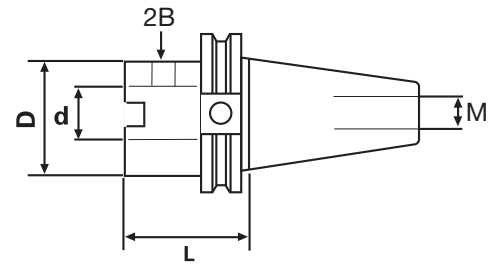
MX EXTENSION

Code No.	D	d	L	Ds	Screw	Drive Ring	Code No.	Price \$
MXB-2813115	28	13	115	13	MTB-08115	DVR-281310	156-216	196.20
MXB-2813150	28	13	150	13			156-218	208.50
MXB-2813200	28	13	200	13			156-220	208.50
MXB-2813300	28	13	300	13			156-222	245.20
MXB-3216115	32	16	115	16	MTB-08115	DVR-321610	156-224	208.40
MXB-3216200	32	16	200	16			156-226	220.80
MXB-3216300	32	16	300	16			156-228	269.80
MXB-4022113	40	22	113	22	MTB-10145	DVR-402212	156-230	220.80
MXB-4022200	40	22	200	22			156-232	245.20
MXB-4022300	40	22	300	22			156-234	294.00
MXB-4827113	48	27	113	27	MTB-12175	DVR-482712	156-236	245.20
MXB-4827200	48	27	200	27			156-238	294.30
MXB-4827300	48	27	300	27			156-240	343.40
MXB-5832186	58	32	186	32	MTB-12195	DVR-583214	156-242	318.80
MXB-5832300	58	32	300	32			156-244	392.40
MXB-7040186	70	40	186	40	MTB-16260	DVR-704014	156-246	343.40
MXB-7040300	70	40	300	40			156-248	441.40
MXB-7040500	70	40	500	40			156-250	613.00
MXB-8050204	80	50	204	50			DVR-805016	156-252
MXB-8050300	80	50	300	50		156-254		539.40
MXB-8050500	80	50	500	50		156-256		735.60

SK HOLDERS

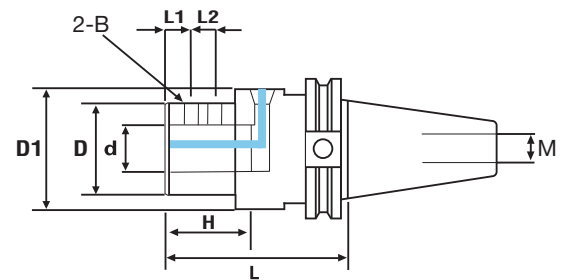
MAX DRILL

SK MXA Holders



Model No.	d	L	D	M	B	Code No.	Price \$
SK40-MXA-32065	32	65	58	M16	MTB-12195	156-258	213.40
SK50-MXA-32070	32	70	58	M24		156-260	320.00
SK50-MXA-50070	50	70	80	M24	MTB-16260	156-262	384.00

SK OMS Side Lock Coolant Feed Holders



Model No.	d	d	L	L	D	D	M	B	B	Code No.	Price \$
SK40-OMS-20110	20	110	50	78	50	20	-	M12	M16	156-201	597.30
SK40-OMS-25125	25	125	50	78	60	20	20	M12		156-203	597.30
SK40-OMS-32130	32	130	65	88	70	20	20	M14		156-205	597.30
SK50-OMS-20105	20	105	50	78	50	20	-	M12	M24	156-207	682.70
SK50-OMS-25120	25	120	50	78	60	20	20	M12		156-209	682.70
SK50-OMS-32125	32	125	65	98	70	20	20	M14		156-211	682.70
SK50-OMS-40135	40	135	65	98	80	20	25	M16		156-213	682.70



TOLL FREE: 1.800.265.8221

Phone: 519.748.5750

Fax: 519.748.9304 e-mail: sales@sowatool.com

www.sowatool.com

March 2011

Flyer # MAX311