SXC

AHB TOOLING & MACHINERY, INC.

COMPLETE METALWORKING SOLUTIONS

(800) 991-4225 www.ahbinc.com
ISO Certified customerservice@ahbinc.com

High-Performance Drill
Double-Margin
Ideal for General Purpose Drilling
12xD-50xD

135° Point Geometry - Split-point geometry for superior drill penetration and accuracy.

135° Geometría de la Punta - Diseño con punto dividido para superior perforación precisión.

Coolant Holes - Cool the cutting edge and improve chip evacuation.

Refrigerante Interno - Enfría el filo y mejora la evacuación de la viruta.

Polish - Chip evacuation is improved during deep-hole drilling, when the flutes are polished.

Pulido - Cuando las flautas están pulidas las evacuación de la viruta es mejorada.

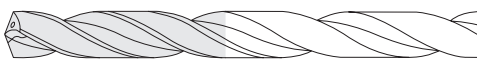
Double-Margin Design - For improved drilling stability and smooth surface finish.

Diseño de Doble Margen - Para mayor estabilidad y un acabado liso.

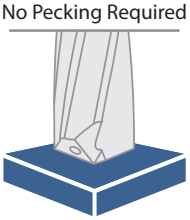
Varianta® Supral Coating - Excellent for high-speed machining operations; ideal for dry and semi-dry conditions.

Recubrimiento Varianta® Supral - Excelente para operaciones de mecanizado de alta velocidad; ideal para condiciones secas y semi-secas.

40xD PAGE 104



No Pecking Required



50xD PAGE 105

Varianta® Supral is ideal for high-speed machining operations (dry/semi-dry).

Design
Long spiral-fluted, right-hand cut, double-margin and internal coolant.

Coating
Varianta® Supral

Ideal for
General purpose drilling

P M K S Refer to page 261

Diseño
Flautas largas espirales, con corte de mano derecha y refrigerante interno.

Recubrimiento
Varianta® Supral

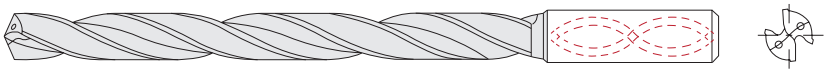
Ideal para
Uso General

P M K S Consulte la página 261

Speeds & Feeds: Refer to page 97, 102, 102, 103 & 105.

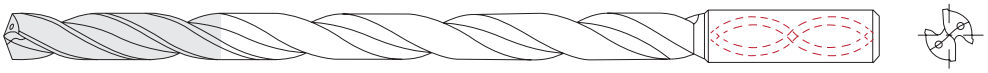
Available Upon Request: Add Flats, Left-Hand, Whistle Notch, **Firm Hold Shank**, Additional PVD Coatings

12xD PAGE 96



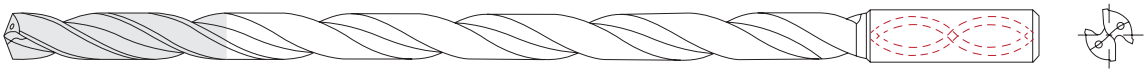
16xD PAGE 98

Must utilize a pilot hole drill. Refer to page 157



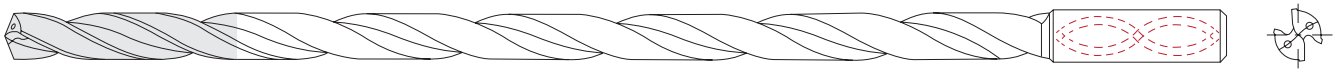
20xD PAGE 99

Must utilize a pilot hole drill. Refer to page 157



25xD PAGE 100

Must utilize a pilot hole drill. Refer to page 157



30xD PAGE 101

Must utilize a pilot hole drill. Refer to page 157

Must utilize a pilot hole drill. 20xD intermediary drill recommended. Refer to pages 157 & 99

Must utilize a pilot hole drill. 20xD intermediary drill recommended. Refer to pages 157 & 99

Design
Long spiral-fluted, right-hand cut, double-margin and internal coolant.

Coating
Varianta® Supral

Ideal for
General purpose drilling

P M K S Refer to page 261

Diseño
Flautas largas espirales, con corte de mano derecha y refrigerante interno.

Recubrimiento
Varianta® Supral

Ideal para
Uso General

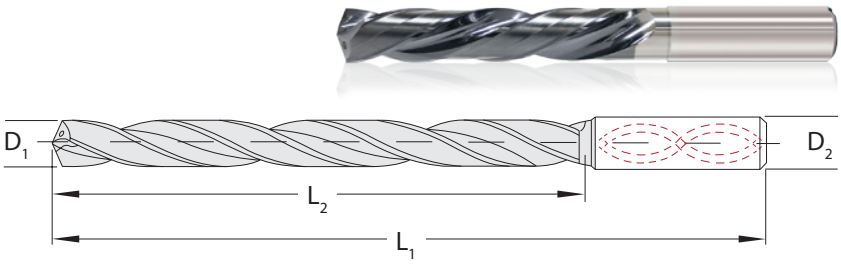
P M K S Consulte la página 261

Varianta® Supral

Varianta® Supral is ideal for high-speed machining operations (dry/semi-dry).

Speeds & Feeds: Refer to Page 97.

Available Upon Request: Add Flats, Left-Hand, Whistle Notch, **Firm Hold Shank**, Additional PVD Coatings



D_1	Decimal	D_1mm	D_2mm	L_2mm	L_1mm	Part #
	.1181	3.000	6	54	92	SXC1203000T9
	.1220	3.100	6	54	92	SXC1203100T9
1/8	.1250	3.175	6	54	92	SXC1203175T9
	.1260	3.200	6	54	92	SXC1203200T9
	.1299	3.300	6	54	92	SXC1203300T9
	.1339	3.400	6	54	92	SXC1203400T9
	.1378	3.500	6	54	92	SXC1203500T9
9/64	.1406	3.572	6	54	92	SXC1203572T9
	.1417	3.600	6	54	92	SXC1203600T9
	.1457	3.700	6	54	92	SXC1203700T9
#25	.1496	3.800	6	64	102	SXC1203800T9
	.1535	3.900	6	64	102	SXC1203900T9
5/32	.1563	3.970	6	64	102	SXC1203970T9
	.1575	4.000	6	64	102	SXC1204000T9
	.1614	4.100	6	64	102	SXC1204100T9
	.1654	4.200	6	64	102	SXC1204200T9
	.1693	4.300	6	64	102	SXC1204300T9
11/64	.1719	4.370	6	64	102	SXC1204370T9
	.1732	4.400	6	64	102	SXC1204400T9
	.1772	4.500	6	64	102	SXC1204500T9
	.1811	4.600	6	64	102	SXC1204600T9
	.1831	4.650	6	64	102	SXC1204650T9
#13	.1850	4.700	6	64	102	SXC1200130T9
3/16	.1875	4.760	6	78	116	SXC1204760T9
#12	.1890	4.800	6	78	116	SXC1200120T9
	.1929	4.900	6	78	116	SXC1204900T9
	.1969	5.000	6	78	116	SXC1205000T9
	.2008	5.100	6	78	116	SXC1205100T9
13/64	.2031	5.160	6	78	116	SXC1205160T9
#6	.2040	5.182	6	78	116	SXC1200060T9
	.2047	5.200	6	78	116	SXC1205200T9
	.2087	5.300	6	78	116	SXC1205300T9
	.2126	5.400	6	78	116	SXC1205400T9
	.2165	5.500	6	78	116	SXC1205500T9

D_1	Decimal	D_1mm	D_2mm	L_2mm	L_1mm	Part #
	.2185	5.550	6	78	116	SXC1205550T9
7/32	.2187	5.560	6	78	116	SXC1205560T9
	.2205	5.600	6	78	116	SXC1205600T9
	.2244	5.700	6	78	116	SXC1205700T9
	.2283	5.800	6	78	116	SXC1205800T9
	.2323	5.900	6	78	116	SXC1205900T9
15/64	.2344	5.950	6	78	116	SXC1205950T9
	.2362	6.000	6	78	116	SXC1206000T9
	.2402	6.100	8	108	146	SXC1206100T9
	.2441	6.200	8	108	146	SXC1206200T9
	.2480	6.300	8	108	146	SXC1206300T9
1/4	.2500	6.350	8	108	146	SXC1206350T9
	.2520	6.400	8	108	146	SXC1206400T9
	.2559	6.500	8	108	146	SXC1206500T9
	.2598	6.600	8	108	146	SXC1206600T9
	.2638	6.700	8	108	146	SXC1206700T9
17/64	.2656	6.750	8	108	146	SXC1206750T9
	.2677	6.800	8	108	146	SXC1206800T9
	.2717	6.900	8	108	146	SXC1206900T9
	.2756	7.000	8	108	146	SXC1207000T9
	.2795	7.100	8	108	146	SXC1207100T9
9/32	.2813	7.140	8	108	146	SXC1207140T9
	.2835	7.200	8	108	146	SXC1207200T9
	.2874	7.300	8	108	146	SXC1207300T9
	.2913	7.400	8	108	146	SXC1207400T9
	.2953	7.500	8	108	146	SXC1207500T9
19/64	.2969	7.540	8	108	146	SXC1207540T9
	.3031	7.700	8	108	146	SXC1207700T9
	.3071	7.800	8	108	146	SXC1207800T9
	.3110	7.900	8	108	146	SXC1207900T9
5/16	.3125	7.940	8	108	146	SXC1207940T9
	.3150	8.000	8	108	146	SXC1208000T9
	.3189	8.100	10	120	162	SXC1208100T9
	.3228	8.200	10	120	162	SXC1208200T9

** Diameters (2.0-2.9mm) and other dimensions are available upon request**

D_1	Decimal	D_1mm	D_2mm	L_2mm	L_1mm	Part #
	.3268	8.300	10	120	162	SXC1208300T9
21/64	.3281	8.330	10	120	162	SXC1208330T9
	.3307	8.400	10	120	162	SXC1208400T9
	.3346	8.500	10	120	162	SXC1208500T9
	.3386	8.600	10	120	162	SXC1208600T9
	.3425	8.700	10	120	162	SXC1208700T9
11/32	.3437	8.730	10	120	162	SXC1208730T9
	.3465	8.800	10	120	162	SXC1208800T9
	.3543	9.000	10	120	162	SXC1209000T9
23/64	.3594	9.130	10	120	162	SXC1209130T9
	.3622	9.200	10	120	162	SXC1209200T9
	.3661	9.300	10	120	162	SXC1209300T9
	.3740	9.500	10	120	162	SXC1209500T9
3/8	.3750	9.520	10	120	162	SXC1209520T9
	.3780	9.600	10	120	162	SXC1209600T9
	.3858	9.800	10	120	162	SXC1209800T9
	.3898	9.900	10	120	162	SXC1209900T9
25/64	.3906	9.920	10	120	162	SXC1209920T9
	.3937	10.000	10	120	162	SXC1210000T9
	.3976	10.100	12	156	204	SXC1210100T9
	.4016	10.200	12	156	204	SXC1210200T9
	.4055	10.300	12	156	204	SXC1210300T9
13/32	.4063	10.320	12	156	204	SXC1210320T9
	.4094	10.400	12	156	204	SXC1210400T9
	.4134	10.500	12	156	204	SXC1210500T9
27/64	.4219	10.720	12	156	204	SXC1210720T9
	.4252	10.800	12	156	204	SXC1210800T9
	.4331	11.000	12	156	204	SXC1211000T9
	.4370	11.100	12	156	204	SXC1211100T9
7/16	.4375	11.113	12	156	204	SXC1211113T9
	.4409	11.200	12	156	204	SXC1211200T9
	.4528	11.500	12	156	204	SXC1211500T9

D_1	Decimal	D_1mm	D_2mm	L_2mm	L_1mm	Part #
29/64	.4531	11.510	12	156	204	SXC1211510T9
	.4606	11.700	12	156	204	SXC1211700T9
	.4646	11.800	12	156	204	SXC1211800T9
15/32	.4687	11.910	12	156	204	SXC1211910T9
	.4724	12.000	12	156	204	SXC1212000T9
	.4764	12.100	14	182	230	SXC1212100T9
	.4803	12.200	14	182	230	SXC1212200T9
	.4843	12.300	14	182	230	SXC1212300T9
31/64	.4844	12.303	14	182	230	SXC1212303T9
	.4921	12.500	14	182	230	SXC1212500T9
	.4961	12.600	14	182	230	SXC1212600T9
1/2	.5000	12.700	14	182	230	SXC1212700T9
	.5118	13.000	14	182	230	SXC1213000T9
	.5236	13.300	14	182	230	SXC1213300T9
17/32	.5313	13.490	14	182	230	SXC1213490T9
	.5315	13.500	14	182	230	SXC1213500T9
	.5512	14.000	14	182	230	SXC1214000T9
9/16	.5625	14.290	16	208	260	SXC1214290T9
	.5709	14.500	16	208	260	SXC1214500T9
	.5906	15.000	16	208	260	SXC1215000T9
	.6102	15.500	16	208	260	SXC1215500T9
5/8	.6250	15.870	16	208	260	SXC1215870T9
	.6299	16.000	16	208	260	SXC1216000T9
	.6496	16.500	18	234	285	SXC1216500T9
	.6693	17.000	18	234	285	SXC1217000T9
	.6890	17.500	18	234	285	SXC1217500T9
	.7087	18.000	18	234	285	SXC1218000T9
	.7283	18.500	20	258	310	SXC1218500T9
3/4	.7500	19.050	20	258	310	SXC1219050T9
	.7677	19.500	20	258	310	SXC1219500T9
	.7874	20.000	20	258	310	SXC1220000T9

** Diameters (2.0-2.9mm) and other dimensions are available upon request**

SXC
12xD Speeds and Feeds
METRIC

	Material	Vc m/min (Cutting speed)	D1mm	F[mm/u] Feed Per Revolution				
				> 3.00 ≤ 5.00	> 5.00 ≤ 8.00	> 8.00 ≤ 12.00	> 12.00 ≤ 16.00	> 16.00 ≤ 20.00
			Dec. Inch.	.1181-.1969	.1970-.3150	.3151-.4724	.4725-.6299	.6300-.7874
P 3	Alloy Tool Steels - 1300, 2000, 3000 (≤35 HRc)	85		.10	.15	.20	.26	.33
P 4	Alloy Tool Steels - 1300, 2000, 3000 (36-48 HRc)	80		.10	.15	.20	.26	.33
M 2	Austenitic Stainless Steel & Cast Stainless Steel - 310, 314, 316 (<25 HRc)	65		.08	.12	.15	.20	.25
K 1	Gray Cast Iron	105		.20	.25	.35	.40	.46
S 4	Titanium Alloys - Commercially Pure, 6Al-AV, AStm 1/2/3, Ti-6Al-2SN-4Zr-2Mo (≤48 HRc)	45		.13	.18	.28	.33	.41

Note: These are only recommended starting figures that depend on conditions such as machine and material rigidity, type of coating if any, etc. TESTING IS RECOMMENDED

SXC
12xD Speeds and Feeds
INCHES

	Material	SFM (Vc) Surface Feet Per Minute	D1mm	IPR = Inches Per Revolution				
				> 3.00 ≤ 5.00	> 5.00 ≤ 8.00	> 8.00 ≤ 12.00	> 12.00 ≤ 16.00	> 16.00 ≤ 20.00
			Dec. Inch.	.1181-.1969	.1970-.3150	.3151-.4724	.4725-.6299	.6300-.7874
P 3	Alloy Tool Steels - 1300, 2000, 3000 (≤35 HRc)	295.3		.003	.005	.007	.010	.012
P 4	Alloy Tool Steels - 1300, 2000, 3000 (36-48 HRc)	262.5		.003	.005	.007	.010	.012
M 2	Austenitic Stainless Steel & Cast Stainless Steel - 310, 314, 316 (<25 HRc)	213.3		.003	.004	.005	.007	.009
K 1	Gray Cast Iron	344.5		.007	.009	.013	.015	.018
S 4	Titanium Alloys - Commercially Pure, 6Al-AV, AStm 1/2/3, Ti-6Al-2SN-4Zr-2Mo (≤48 HRc)	148.8		.005	.007	.011	.013	.016

Note: These are only recommended starting figures that depend on conditions such as machine and material rigidity, type of coating if any, etc. TESTING IS RECOMMENDED

Design
Long spiral-fluted, right-hand cut, double-margin and internal coolant.

Coating
Varianta® Supral

Ideal for
General purpose drilling

P M K S Refer to page 261

Diseño
Flautas largas espirales, con corte de mano derecha y refrigerante interno.

Recubrimiento
Varianta® Supral

Ideal para
Uso General

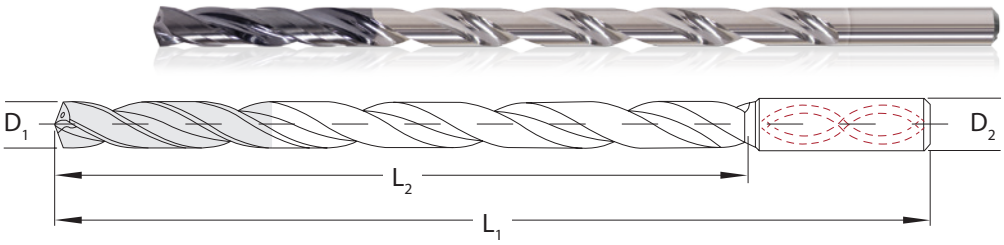
P M K S Consulte la página 261

Varianta® Supral

Varianta® Supral is ideal for high-speed machining operations (dry/semi-dry).

This drill must utilize a pilot hole drill. (Refer to page 157)

Speeds & Feeds: Refer to Page 102.



D_1	Decimal	D_1mm	D_2mm	L_2mm	L_1mm	Part #
	.1181	3.000	6	60	100	SXC1603000T9
1/8	.1250	3.175	6	60	100	SXC1603175T9
	.1260	3.200	6	60	100	SXC1603200T9
	.1299	3.300	6	60	100	SXC1603300T9
	.1378	3.500	6	60	100	SXC1603500T9
9/64	.1406	3.572	6	75	115	SXC1603572T9
#25	.1496	3.800	6	75	115	SXC1603800T9
5/32	.1563	3.970	6	75	115	SXC1603970T9
	.1575	4.000	6	75	115	SXC1604000T9
	.1654	4.200	6	75	115	SXC1604200T9
11/64	.1719	4.370	6	90	130	SXC1604370T9
	.1772	4.500	6	90	130	SXC1604500T9
#13	.1850	4.700	6	90	130	SXC1600130T9
3/16	.1875	4.760	6	90	130	SXC1604760T9
#12	.1890	4.800	6	90	130	SXC1600120T9
	.1969	5.000	6	90	130	SXC1605000T9
13/64	.2031	5.160	6	108	150	SXC1605160T9
#6	.2040	5.182	6	108	150	SXC1600060T9
	.2165	5.500	6	108	150	SXC1605500T9
7/32	.2187	5.560	6	108	150	SXC1605560T9
	.2283	5.800	6	108	150	SXC1605800T9
15/64	.2344	5.950	6	108	150	SXC1605950T9
	.2362	6.000	6	108	150	SXC1606000T9
1/4	.2500	6.350	8	125	165	SXC1606350T9
	.2559	6.500	8	125	165	SXC1606500T9
17/64	.2656	6.750	8	125	165	SXC1606750T9
	.2677	6.800	8	125	165	SXC1606800T9
	.2756	7.000	8	125	165	SXC1607000T9
9/32	.2813	7.140	8	140	180	SXC1607140T9
	.2953	7.500	8	140	180	SXC1607500T9
19/64	.2969	7.540	8	140	180	SXC1607540T9
	.3071	7.800	8	140	180	SXC1607800T9
5/16	.3125	7.940	8	140	180	SXC1607940T9
	.3150	8.000	8	140	180	SXC1608000T9
21/64	.3281	8.330	10	160	205	SXC1608330T9
	.3346	8.500	10	160	205	SXC1608500T9
11/32	.3437	8.730	10	160	205	SXC1608730T9
	.3465	8.800	10	160	205	SXC1608800T9

D_1	Decimal	D_1mm	D_2mm	L_2mm	L_1mm	Part #
	.3543	9.000	10	160	205	SXC1609000T9
23/64	.3594	9.130	10	180	225	SXC1609130T9
3/8	.3750	9.520	10	180	225	SXC1609520T9
	.3858	9.800	10	180	225	SXC1609800T9
25/64	.3906	9.920	10	180	225	SXC1609920T9
	.3937	10.000	10	180	225	SXC1610000T9
	.4016	10.200	12	190	240	SXC1610200T9
13/32	.4063	10.320	12	190	240	SXC1610320T9
27/64	.4219	10.720	12	190	240	SXC1610720T9
	.4252	10.800	12	190	240	SXC1610800T9
	.4331	11.000	12	190	240	SXC1611000T9
7/16	.4375	11.113	12	215	265	SXC1611113T9
	.4528	11.500	12	215	265	SXC1611500T9
29/64	.4531	11.510	12	215	265	SXC1611510T9
15/32	.4687	11.910	12	215	265	SXC1611910T9
	.4724	12.000	12	215	265	SXC1612000T9
	.4843	12.300	14	230	280	SXC1612300T9
31/64	.4844	12.303	14	230	280	SXC1612303T9
1/2	.5000	12.700	14	230	280	SXC1612700T9
	.5118	13.000	14	230	280	SXC1613000T9
	.5236	13.300	14	245	295	SXC1613300T9
17/32	.5313	13.490	14	245	295	SXC1613490T9
	.5315	13.500	14	245	295	SXC1613500T9
	.5512	14.000	14	245	295	SXC1614000T9
9/16	.5625	14.290	16	255	305	SXC1614290T9
	.5709	14.500	16	255	305	SXC1614500T9
	.5906	15.000	16	255	305	SXC1615000T9
	.6102	15.500	16	275	325	SXC1615500T9
5/8	.6250	15.870	16	275	325	SXC1615870T9
	.6299	16.000	16	275	325	SXC1616000T9
	.6496	16.500	18	320	370	SXC1616500T9
	.6693	17.000	18	320	370	SXC1617000T9
	.6890	17.500	18	320	370	SXC1617500T9
	.7087	18.000	18	320	370	SXC1618000T9
	.7283	18.500	20	330	380	SXC1618500T9
3/4	.7500	19.050	20	330	380	SXC1619050T9
	.7677	19.500	20	350	400	SXC1619500T9
	.7874	20.000	20	350	400	SXC1620000T9

** Diameters (2.0-2.9mm) and other dimensions are available upon request**

Design
Long spiral-fluted, right-hand cut, double-margin and internal coolant.

Coating
Varianta® Supral

Ideal for
General purpose drilling

P M K S Refer to page 261

Diseño
Flautas largas espirales, con corte de mano derecha y refrigerante interno.

Recubrimiento
Varianta® Supral

Ideal para
Uso General

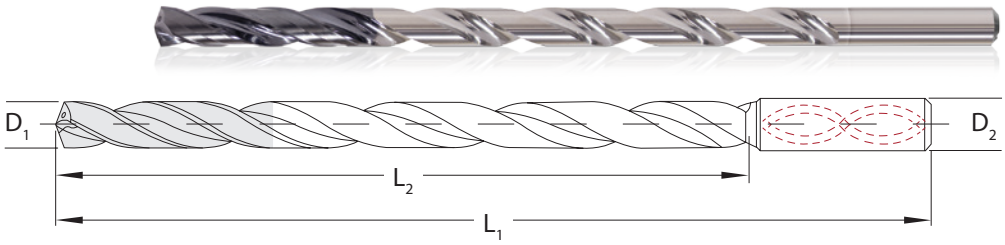
P M K S Consulte la página 261

CARBIDE CARBURO | 20xD | 135° | 30°

Varianta® Supral — **Varianta® Supral** is ideal for high-speed machining operations (dry/semi-dry).

This drill must utilize a pilot hole drill. (Refer to page 157)

Speeds & Feeds: Refer to Page 102.



D_1	Decimal	D_1mm	D_2mm	L_2mm	L_1mm	Part #
	.1181	3.000	6	80	120	SXC2003000T9
1/8	.1250	3.175	6	80	120	SXC2003175T9
	.1260	3.200	6	80	120	SXC2003200T9
	.1299	3.300	6	80	120	SXC2003300T9
	.1378	3.500	6	80	120	SXC2003500T9
9/64	.1406	3.572	6	90	130	SXC2003572T9
#25	.1496	3.800	6	90	130	SXC2003800T9
5/32	.1563	3.970	6	90	130	SXC2003970T9
	.1575	4.000	6	90	130	SXC2004000T9
	.1654	4.200	6	110	160	SXC2004200T9
11/64	.1719	4.370	6	110	160	SXC2004370T9
	.1772	4.500	6	110	160	SXC2004500T9
#13	.1850	4.700	6	120	160	SXC2000130T9
3/16	.1875	4.760	6	120	160	SXC2004760T9
#12	.1890	4.800	6	120	160	SXC2000120T9
	.1969	5.000	6	120	160	SXC2005000T9
13/64	.2031	5.160	6	140	185	SXC2005160T9
#6	.2040	5.182	6	140	185	SXC2000060T9
	.2165	5.500	6	140	185	SXC2005500T9
7/32	.2187	5.560	6	140	185	SXC2005560T9
	.2283	5.800	6	140	185	SXC2005800T9
15/64	.2344	5.950	6	140	185	SXC2005950T9
	.2362	6.000	6	140	185	SXC2006000T9
1/4	.2500	6.350	8	160	210	SXC2006350T9
	.2559	6.500	8	160	210	SXC2006500T9
17/64	.2656	6.750	8	160	210	SXC2006750T9
	.2677	6.800	8	160	210	SXC2006800T9
	.2756	7.000	8	160	210	SXC2007000T9
9/32	.2813	7.140	8	180	230	SXC2007140T9
	.2953	7.500	8	180	230	SXC2007500T9
19/64	.2969	7.540	8	180	230	SXC2007540T9
	.3071	7.800	8	180	230	SXC2007800T9
5/16	.3125	7.940	8	180	230	SXC2007940T9
	.3150	8.000	8	180	230	SXC2008000T9

D_1	Decimal	D_1mm	D_2mm	L_2mm	L_1mm	Part #
21/64	.3281	8.330	10	195	260	SXC2008330T9
	.3346	8.500	10	195	260	SXC2008500T9
11/32	.3437	8.730	10	230	290	SXC2008730T9
	.3465	8.800	10	230	290	SXC2008800T9
	.3543	9.000	10	230	290	SXC2009000T9
23/64	.3594	9.130	10	230	290	SXC2009130T9
3/8	.3750	9.520	10	230	290	SXC2009520T9
	.3858	9.800	10	230	290	SXC2009800T9
25/64	.3906	9.920	10	230	290	SXC2009920T9
	.3937	10.000	10	230	290	SXC2010000T9
	.4016	10.200	12	268	315	SXC2010200T9
13/32	.4063	10.320	12	268	315	SXC2010320T9
27/64	.4219	10.720	12	268	315	SXC2010720T9
	.4252	10.800	12	268	315	SXC2010800T9
	.4331	11.000	12	268	315	SXC2011000T9
7/16	.4375	11.113	12	268	315	SXC2011113T9
	.4528	11.500	12	268	315	SXC2011500T9
29/64	.4531	11.510	12	268	315	SXC2011510T9
15/32	.4687	11.910	12	268	315	SXC2011910T9
	.4724	12.000	12	268	315	SXC2012000T9
	.4843	12.300	14	275	325	SXC2012300T9
31/64	.4844	12.303	14	275	325	SXC2012303T9
1/2	.5000	12.700	14	275	325	SXC2012700T9
	.5118	13.000	14	275	325	SXC2013000T9
	.5236	13.300	14	305	355	SXC2013300T9
17/32	.5313	13.490	14	305	355	SXC2013490T9
	.5315	13.500	14	305	355	SXC2013500T9
	.5512	14.000	14	305	355	SXC2014000T9
9/16	.5625	14.290	16	320	370	SXC2014290T9
	.5709	14.500	16	320	370	SXC2014500T9
	.5906	15.000	16	340	390	SXC2015000T9
	.6102	15.500	16	340	390	SXC2015500T9
5/8	.6250	15.870	16	340	390	SXC2015870T9
	.6299	16.000	16	340	390	SXC2016000T9

** Diameters (2.0-2.9mm) and other dimensions are available upon request**

Design
Long spiral-fluted, right-hand cut, double-margin and internal coolant.

Coating
Varianta® Supral

Ideal for
General purpose drilling

P M K S Refer to page 261

Diseño
Flautas largas espirales, con corte de mano derecha y refrigerante interno.

Recubrimiento
Varianta® Supral

Ideal para
Uso General

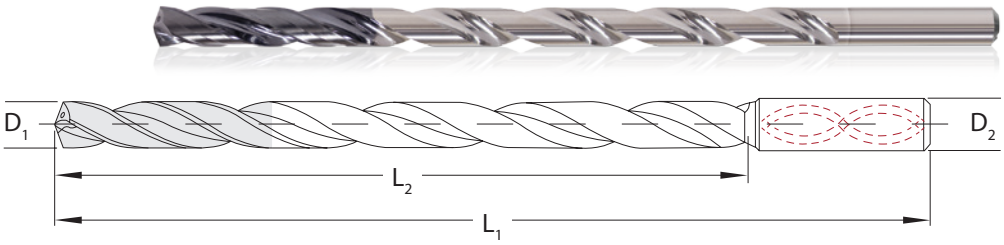
P M K S Consulte la página 261

Varianta® Supral

Varianta® Supral is ideal for high-speed machining operations (dry/semi-dry).

■ This drill must utilize a pilot hole drill. (Refer to page 157)

Speeds & Feeds: Refer to Page 103.



D_1	Decimal	D_1mm	D_2mm	L_2mm	L_1mm	Part #
	.1181	3.000	6	98	135	SXC2503000T9
1/8	.1250	3.175	6	98	135	SXC2503175T9
	.1260	3.200	6	98	135	SXC2503200T9
	.1299	3.300	6	110	150	SXC2503300T9
	.1378	3.500	6	110	150	SXC2503500T9
9/64	.1406	3.572	6	120	160	SXC2503572T9
#25	.1496	3.800	6	120	160	SXC2503800T9
5/32	.1563	3.970	6	120	160	SXC2503970T9
	.1575	4.000	6	120	160	SXC2504000T9
	.1654	4.200	6	120	160	SXC2504200T9
11/64	.1719	4.370	6	135	180	SXC2504370T9
	.1772	4.500	6	135	180	SXC2504500T9
#13	.1850	4.700	6	135	180	SXC2500130T9
3/16	.1875	4.760	6	135	180	SXC2504760T9
#12	.1890	4.800	6	135	180	SXC2500120T9
	.1969	5.000	6	135	180	SXC2505000T9
13/64	.2031	5.160	6	168	205	SXC2505160T9
#6	.2040	5.182	6	168	205	SXC2500060T9
	.2165	5.500	6	168	205	SXC2505500T9
7/32	.2187	5.560	6	168	205	SXC2505560T9
	.2283	5.800	6	168	205	SXC2505800T9
15/64	.2344	5.950	6	168	205	SXC2505950T9
	.2362	6.000	6	168	205	SXC2506000T9
1/4	.2500	6.350	8	200	240	SXC2506350T9
	.2559	6.500	8	200	240	SXC2506500T9
17/64	.2656	6.750	8	200	240	SXC2506750T9

D_1	Decimal	D_1mm	D_2mm	L_2mm	L_1mm	Part #
	.2677	6.800	8	200	240	SXC2506800T9
	.2756	7.000	8	200	240	SXC2507000T9
9/32	.2813	7.140	8	220	260	SXC2507140T9
	.2953	7.500	8	220	260	SXC2507500T9
19/64	.2969	7.540	8	220	260	SXC2507540T9
	.3071	7.800	8	220	260	SXC2507800T9
5/16	.3125	7.940	8	220	260	SXC2507940T9
	.3150	8.000	8	220	260	SXC2508000T9
21/64	.3281	8.330	10	240	285	SXC2508330T9
	.3346	8.500	10	240	285	SXC2508500T9
11/32	.3437	8.730	10	268	310	SXC2508730T9
	.3465	8.800	10	268	310	SXC2508800T9
	.3543	9.000	10	268	310	SXC2509000T9
23/64	.3594	9.130	10	268	310	SXC2509130T9
3/8	.3750	9.520	10	268	310	SXC2509520T9
	.3858	9.800	10	268	310	SXC2509800T9
25/64	.3906	9.920	10	268	310	SXC2509920T9
	.3937	10.000	10	268	310	SXC2510000T9
13/32	.4063	10.320	12	325	375	SXC2510320T9
27/64	.4219	10.720	12	325	375	SXC2510720T9
	.4331	11.000	12	325	375	SXC2511000T9
7/16	.4375	11.113	12	325	375	SXC2511113T9
	.4528	11.500	12	325	375	SXC2511500T9
29/64	.4531	11.510	12	325	375	SXC2511510T9
15/32	.4687	11.910	12	325	375	SXC2511910T9
	.4724	12.000	12	325	375	SXC2512000T9

** Diameters (2.0-2.9mm) and other dimensions are available upon request**

Tolerance

Drill Dia (h7) Inches (in)	Drill Dia (h7) Metric (mm)
.0000-.1181: + 0/-.00039	0-3: + 0/-.010
.1182-.2362: + 0/-.00047	3.01-6: + 0/-.012
.2363-.3937: + 0/-.00059	6.01-10.0: + 0/-.015
.3938-.7087: + 0/-.00071	10.01-18.0: + 0/-.018

Shank Dia (h6) Inches (in)	Shank Dia (h6) Metric (mm)
.0000-.1181: + 0/-.00024	0-3: + 0/-.006
.1182-.2362: + 0/-.00031	3.01-6: + 0/-.008
.2363-.3937: + 0/-.00035	6.01-10.0: + 0/-.009
.3938-.7087: + 0/-.00043	10.01-18.0: + 0/-.011

Design
Long spiral-fluted, right-hand cut, double-margin and internal coolant.

Coating
Varianta® Supral

Ideal for
General purpose drilling

P M K S Refer to page 261

Diseño
Flautas largas espirales, con corte de mano derecha y refrigerante interno.

Recubrimiento
Varianta® Supral

Ideal para
Uso General

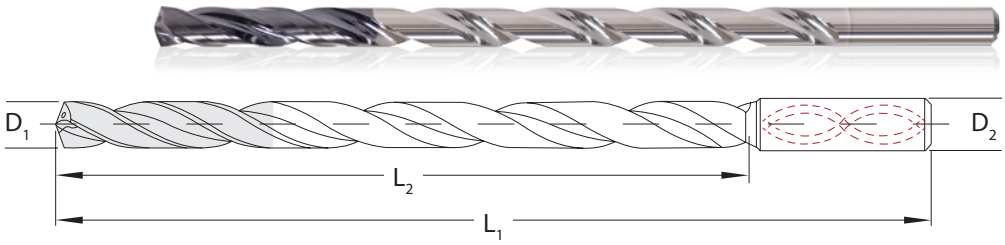
P M K S Consulte la página 261

Varianta® Supral

Varianta® Supral is ideal for high-speed machining operations (dry/semi-dry).

This drill must utilize a pilot hole drill. (Refer to page 157)

Speeds & Feeds: Refer to Page 103.



D_1	Decimal	D_1mm	D_2mm	L_2mm	L_1mm	Part #
	.1181	3.000	6	105	150	SXC3003000T9
1/8	.1250	3.175	6	105	150	SXC3003175T9
	.1260	3.200	6	105	150	SXC3003200T9
	.1299	3.300	6	135	185	SXC3003300T9
	.1378	3.500	6	135	185	SXC3003500T9
9/64	.1406	3.572	6	135	185	SXC3003572T9
#25	.1496	3.800	6	135	185	SXC3003800T9
5/32	.1563	3.970	6	135	185	SXC3003970T9
	.1575	4.000	6	135	185	SXC3004000T9
	.1654	4.200	6	135	185	SXC3004200T9
11/64	.1719	4.370	6	165	215	SXC3004370T9
	.1772	4.500	6	165	215	SXC3004500T9
#13	.1850	4.700	6	165	215	SXC3000130T9
3/16	.1875	4.760	6	165	215	SXC3004760T9
#12	.1890	4.800	6	165	215	SXC3000120T9
	.1969	5.000	6	165	215	SXC3005000T9
13/64	.2031	5.160	6	180	230	SXC3005160T9
#6	.2040	5.182	6	180	230	SXC3000060T9
	.2165	5.500	6	180	230	SXC3005500T9
7/32	.2187	5.560	6	180	230	SXC3005560T9
	.2283	5.800	6	180	230	SXC3005800T9
15/64	.2344	5.950	6	180	230	SXC3005950T9

D_1	Decimal	D_1mm	D_2mm	L_2mm	L_1mm	Part #
	.2362	6.000	6	180	230	SXC3006000T9
1/4	.2500	6.350	8	215	280	SXC3006350T9
	.2559	6.500	8	215	280	SXC3006500T9
17/64	.2656	6.750	8	230	280	SXC3006750T9
	.2677	6.800	8	230	280	SXC3006800T9
	.2756	7.000	8	230	280	SXC3007000T9
9/32	.2813	7.140	8	230	280	SXC3007140T9
	.2953	7.500	8	230	280	SXC3007500T9
19/64	.2969	7.540	8	265	315	SXC3007540T9
	.3071	7.800	8	265	315	SXC3007800T9
5/16	.3125	7.940	8	265	315	SXC3007940T9
	.3150	8.000	8	265	315	SXC3008000T9
21/64	.3281	8.330	10	295	350	SXC3008330T9
	.3346	8.500	10	295	350	SXC3008500T9
11/32	.3437	8.730	10	330	380	SXC3008730T9
	.3465	8.800	10	330	380	SXC3008800T9
	.3543	9.000	10	330	380	SXC3009000T9
23/64	.3594	9.130	10	330	380	SXC3009130T9
3/8	.3750	9.520	10	330	380	SXC3009520T9
	.3858	9.800	10	330	380	SXC3009800T9
25/64	.3906	9.920	10	330	380	SXC3009920T9
	.3937	10.000	10	330	380	SXC3010000T9

** Diameters (2.0-2.9mm) and other dimensions are available upon request**

Tolerance

Drill Dia (h7) Inches (in)	Drill Dia (h7) Metric (mm)
.0000-.1181: + 0/-.00039	0-3: + 0/-.010
.1182-.2362: + 0/-.00047	3.01-6: + 0/-.012
.2363-.3937: + 0/-.00059	6.01-10.0: + 0/-.015
.3938-.7087: + 0/-.00071	10.01-18.0: + 0/-.018

Shank Dia (h6) Inches (in)	Shank Dia (h6) Metric (mm)
.0000-.1181: + 0/-.00024	0-3: + 0/-.006
.1182-.2362: + 0/-.00031	3.01-6: + 0/-.008
.2363-.3937: + 0/-.00035	6.01-10.0: + 0/-.009
.3938-.7087: + 0/-.00043	10.01-18.0: + 0/-.011

SXC
16xD Speeds and Feeds
METRIC

	Material	Vc m/min (Cutting speed)	D1mm	F[mm/u] Feed Per Revolution				
				> 3.00 ≤ 5.00	> 5.00 ≤ 8.00	> 8.00 ≤ 12.00	> 12.00 ≤ 16.00	> 16.00 ≤ 20.00
			Dec. Inch.	.1181-.1969	.1970-.3150	.3151-.4724	.4725-.6299	.6300-.7874
P 3	Alloy Tool Steels - 1300, 2000, 3000 (≤35 HRc)	80		.10	.15	.20	.26	.33
P 4	Alloy Tool Steels - 1300, 2000, 3000 (36-48 HRc)	75		.10	.15	.20	.26	.33
M 2	Austenitic Stainless Steel & Cast Stainless Steel - 310, 314, 316 (<25 HRc)	55		.08	.12	.15	.20	.25
K 1	Gray Cast Iron	100		.20	.25	.35	.40	.46
S 4	Titanium Alloys - Commercially Pure, 6Al-AV, AStm 1/2/3, Ti-6Al-2SN-4Zr-2Mo (≤48 HRc)	43		.13	.18	.28	.33	.41

Note: These are only recommended starting figures that depend on conditions such as machine and material rigidity, type of coating if any, etc. TESTING IS RECOMMENDED

SXC
16xD Speeds and Feeds
INCHES

	Material	SFM (Vc) Surface Feet Per Minute	D1mm	IPR = Inches Per Revolution				
				> 3.00 ≤ 5.00	> 5.00 ≤ 8.00	> 8.00 ≤ 12.00	> 12.00 ≤ 16.00	> 16.00 ≤ 20.00
			Dec. Inch.	.1181-.1969	.1970-.3150	.3151-.4724	.4725-.6299	.6300-.7874
P 3	Alloy Tool Steels - 1300, 2000, 3000 (≤35 HRc)	262.5		.003	.005	.007	.010	.012
P 4	Alloy Tool Steels - 1300, 2000, 3000 (36-48 HRc)	246.1		.003	.005	.007	.010	.012
M 2	Austenitic Stainless Steel & Cast Stainless Steel - 310, 314, 316 (<25 HRc)	180.5		.003	.004	.005	.007	.009
K 1	Gray Cast Iron	328.1		.007	.009	.013	.015	.018
S 4	Titanium Alloys - Commercially Pure, 6Al-AV, AStm 1/2/3, Ti-6Al-2SN-4Zr-2Mo (≤48 HRc)	141.6		.005	.007	.011	.013	.016

Note: These are only recommended starting figures that depend on conditions such as machine and material rigidity, type of coating if any, etc. TESTING IS RECOMMENDED

SXC
20xD Speeds and Feeds
METRIC

	Material	Vc m/min (Cutting speed)	D1mm	F[mm/u] Feed Per Revolution				
				> 3.00 ≤ 5.00	> 5.00 ≤ 8.00	> 8.00 ≤ 12.00	> 12.00 ≤ 16.00	> 16.00 ≤ 20.00
			Dec. Inch.	.1181-.1969	.1970-.3150	.3151-.4724	.4725-.6299	.6300-.7874
P 3	Alloy Tool Steels - 1300, 2000, 3000 (≤35 HRc)	75		.10	.15	.20	.26	.33
P 4	Alloy Tool Steels - 1300, 2000, 3000 (36-48 HRc)	70		.10	.15	.20	.26	.33
M 2	Austenitic Stainless Steel & Cast Stainless Steel - 310, 314, 316 (<25 HRc)	50		.08	.12	.15	.20	.25
K 1	Gray Cast Iron	95		.20	.25	.35	.40	.46
S 4	Titanium Alloys - Commercially Pure, 6Al-AV, AStm 1/2/3, Ti-6Al-2SN-4Zr-2Mo (≤48 HRc)	41		.13	.18	.28	.33	.41

Note: These are only recommended starting figures that depend on conditions such as machine and material rigidity, type of coating if any, etc. TESTING IS RECOMMENDED

SXC
20xD Speeds and Feeds
INCHES

	Material	SFM (Vc) Surface Feet Per Minute	D1mm	IPR = Inches Per Revolution				
				> 3.00 ≤ 5.00	> 5.00 ≤ 8.00	> 8.00 ≤ 12.00	> 12.00 ≤ 16.00	> 16.00 ≤ 20.00
			Dec. Inch.	.1181-.1969	.1970-.3150	.3151-.4724	.4725-.6299	.6300-.7874
P 3	Alloy Tool Steels - 1300, 2000, 3000 (≤35 HRc)	246.1		.003	.005	.007	.010	.012
P 4	Alloy Tool Steels - 1300, 2000, 3000 (36-48 HRc)	229.7		.003	.005	.007	.010	.012
M 2	Austenitic Stainless Steel & Cast Stainless Steel - 310, 314, 316 (<25 HRc)	164.1		.003	.004	.005	.007	.009
K 1	Gray Cast Iron	311.7		.007	.009	.013	.015	.018
S 4	Titanium Alloys - Commercially Pure, 6Al-AV, AStm 1/2/3, Ti-6Al-2SN-4Zr-2Mo (≤48 HRc)	134.4		.005	.007	.011	.013	.016

Note: These are only recommended starting figures that depend on conditions such as machine and material rigidity, type of coating if any, etc. TESTING IS RECOMMENDED

SXC
25xD Speeds and Feeds
METRIC

	Material	Vc m/min (Cutting speed)	D1mm	F[mm/u] Feed Per Revolution				
				> 3.00 ≤ 5.00	> 5.00 ≤ 8.00	> 8.00 ≤ 12.00	> 12.00 ≤ 16.00	> 16.00 ≤ 20.00
			Dec. Inch.	.1181-.1969	.1970-.3150	.3151-.4724	.4725-.6299	.6300-.7874
P 3	Alloy Tool Steels - 1300, 2000, 3000 (≤35 HRc)	70		.10	.15	.20	.26	.33
P 4	Alloy Tool Steels - 1300, 2000, 3000 (36-48 HRc)	65		.10	.15	.20	.26	.33
M 2	Austenitic Stainless Steel & Cast Stainless Steel - 310, 314, 316 (<25 HRc)	50		.08	.12	.15	.20	.25
K 1	Gray Cast Iron	85		.20	.25	.35	.40	.46
S 4	Titanium Alloys - Commercially Pure, 6Al-AV, AStm 1/2/3, Ti-6Al-2SN-4Zr-2Mo (≤48 HRc)	39		.13	.18	.28	.33	.41

Note: These are only recommended starting figures that depend on conditions such as machine and material rigidity, type of coating if any, etc. TESTING IS RECOMMENDED

SXC
25xD Speeds and Feeds
INCHES

	Material	SFM (Vc) Surface Feet Per Minute	D1mm	IPR = Inches Per Revolution				
				> 3.00 ≤ 5.00	> 5.00 ≤ 8.00	> 8.00 ≤ 12.00	> 12.00 ≤ 16.00	> 16.00 ≤ 20.00
			Dec. Inch.	.1181-.1969	.1970-.3150	.3151-.4724	.4725-.6299	.6300-.7874
P 3	Alloy Tool Steels - 1300, 2000, 3000 (≤35 HRc)	229.7		.003	.005	.007	.010	.012
P 4	Alloy Tool Steels - 1300, 2000, 3000 (36-48 HRc)	213.3		.003	.005	.007	.010	.012
M 2	Austenitic Stainless Steel & Cast Stainless Steel - 310, 314, 316 (<25 HRc)	164.1		.003	.004	.005	.007	.009
K 1	Gray Cast Iron	278.9		.007	.009	.013	.015	.018
S 4	Titanium Alloys - Commercially Pure, 6Al-AV, AStm 1/2/3, Ti-6Al-2SN-4Zr-2Mo (≤48 HRc)	127.2		.005	.007	.011	.013	.016

Note: These are only recommended starting figures that depend on conditions such as machine and material rigidity, type of coating if any, etc. TESTING IS RECOMMENDED

SXC
30xD Speeds and Feeds
METRIC

	Material	Vc m/min (Cutting speed)	D1mm	F[mm/u] Feed Per Revolution				
				> 3.00 ≤ 5.00	> 5.00 ≤ 8.00	> 8.00 ≤ 12.00	> 12.00 ≤ 16.00	> 16.00 ≤ 20.00
			Dec. Inch.	.1181-.1969	.1970-.3150	.3151-.4724	.4725-.6299	.6300-.7874
P 3	Alloy Tool Steels - 1300, 2000, 3000 (≤35 HRc)	65		.10	.15	.20	.26	.33
P 4	Alloy Tool Steels - 1300, 2000, 3000 (36-48 HRc)	60		.10	.15	.20	.26	.33
M 2	Austenitic Stainless Steel & Cast Stainless Steel - 310, 314, 316 (<25 HRc)	45		.08	.12	.15	.20	.25
K 1	Gray Cast Iron	80		.20	.25	.35	.40	.46
S 4	Titanium Alloys - Commercially Pure, 6Al-AV, AStm 1/2/3, Ti-6Al-2SN-4Zr-2Mo (≤48 HRc)	36		.13	.18	.28	.33	.41

Note: These are only recommended starting figures that depend on conditions such as machine and material rigidity, type of coating if any, etc. TESTING IS RECOMMENDED

SXC
30xD Speeds and Feeds
INCHES

	Material	SFM (Vc) Surface Feet Per Minute	D1mm	IPR = Inches Per Revolution				
				> 3.00 ≤ 5.00	> 5.00 ≤ 8.00	> 8.00 ≤ 12.00	> 12.00 ≤ 16.00	> 16.00 ≤ 20.00
			Dec. Inch.	.1181-.1969	.1970-.3150	.3151-.4724	.4725-.6299	.6300-.7874
P 3	Alloy Tool Steels - 1300, 2000, 3000 (≤35 HRc)	213.3		.003	.005	.007	.010	.012
P 4	Alloy Tool Steels - 1300, 2000, 3000 (36-48 HRc)	196.9		.003	.005	.007	.010	.012
M 2	Austenitic Stainless Steel & Cast Stainless Steel - 310, 314, 316 (<25 HRc)	147.6		.003	.004	.005	.007	.009
K 1	Gray Cast Iron	262.5		.007	.009	.013	.015	.018
S 4	Titanium Alloys - Commercially Pure, 6Al-AV, AStm 1/2/3, Ti-6Al-2SN-4Zr-2Mo (≤48 HRc)	117.6		.005	.007	.011	.013	.016

Note: These are only recommended starting figures that depend on conditions such as machine and material rigidity, type of coating if any, etc. TESTING IS RECOMMENDED

Design
Long spiral-fluted, right-hand cut, double-margin and internal coolant.

Coating
Varianta® Supral

Ideal for
General purpose drilling

P M K S Refer to page 261

Diseño
Flautas largas espirales, con corte de mano derecha y refrigerante interno.

Recubrimiento
Varianta® Supral

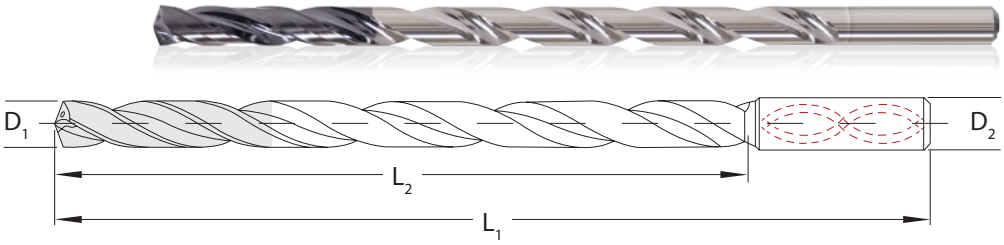
Ideal para
Uso General

P M K S Consulte la página 261

Varianta® Supral is ideal for high-speed machining operations (dry/semi-dry).

Speeds & Feeds: Refer to Page 105.

This drill must utilize a pilot hole drill. We also recommend using a corresponding 20xD intermediary drill. (Refer to pages 157 & 99)



D_1	Decimal	D_1mm	D_2mm	L_2mm	L_1mm	Part #
	.1181	3.000	6	140	190	SXC4003000T9
1/8	.1250	3.175	6	140	190	SXC4003175T9
9/64	.1406	3.572	6	180	230	SXC4003572T9
#25	.1496	3.800	6	180	230	SXC4003800T9
5/32	.1563	3.970	6	180	230	SXC4003970T9
	.1575	4.000	6	180	230	SXC4004000T9
	.1654	4.200	6	180	230	SXC4004200T9
11/64	.1719	4.370	6	220	270	SXC4004370T9
	.1772	4.500	6	220	270	SXC4004500T9
#13	.1850	4.700	6	220	270	SXC4000130T9
3/16	.1875	4.760	6	220	270	SXC4004760T9
#12	.1890	4.800	6	220	270	SXC4000120T9
	.1969	5.000	6	220	270	SXC4005000T9
13/64	.2031	5.160	6	240	290	SXC4005160T9
#6	.2040	5.182	6	240	290	SXC4000060T9
	.2165	5.500	6	240	290	SXC4005500T9

D_1	Decimal	D_1mm	D_2mm	L_2mm	L_1mm	Part #
7/32	.2187	5.560	6	240	290	SXC4005560T9
	.2283	5.800	6	240	290	SXC4005800T9
15/64	.2344	5.950	6	240	290	SXC4005950T9
	.2362	6.000	6	240	290	SXC4006000T9
1/4	.2500	6.350	8	290	340	SXC4006350T9
	.2559	6.500	8	290	340	SXC4006500T9
17/64	.2656	6.750	8	320	370	SXC4006750T9
	.2677	6.800	8	320	370	SXC4006800T9
	.2756	7.000	8	320	370	SXC4007000T9
9/32	.2813	7.140	8	320	370	SXC4007140T9
	.2953	7.500	8	320	370	SXC4007500T9
19/64	.2969	7.540	8	350	400	SXC4007540T9
	.3071	7.800	8	350	400	SXC4007800T9
5/16	.3125	7.940	8	350	400	SXC4007940T9
	.3150	8.000	8	350	400	SXC4008000T9

Other Dimensions are Available Upon Request

Tolerance

Drill Dia (h7) Inches (in)	Drill Dia (h7) Metric (mm)
.0000-.1181: + 0/-.00039	0-3: + 0/-.010
.1182-.2362: + 0/-.00047	3.01-6: + 0/-.012
.2363-.3937: + 0/-.00059	6.01-10.0: + 0/-.015
.3938-.7087: + 0/-.00071	10.01-18.0: + 0/-.018

Shank Dia (h6) Inches (in)	Shank Dia (h6) Metric (mm)
.0000-.1181: + 0/-.00024	0-3: + 0/-.006
.1182-.2362: + 0/-.00031	3.01-6: + 0/-.008
.2363-.3937: + 0/-.00035	6.01-10.0: + 0/-.009
.3938-.7087: + 0/-.00043	10.01-18.0: + 0/-.011

Design
Long spiral-fluted, right-hand cut, double-margin and internal coolant.

Coating
Varianta® Supral

Ideal for
General purpose drilling

P M K S Refer to page 261

Diseño
Flautas largas espirales, con corte de mano derecha y refrigerante interno.

Recubrimiento
Varianta® Supral

Ideal para
Uso General

P M K S Consulte la página 261

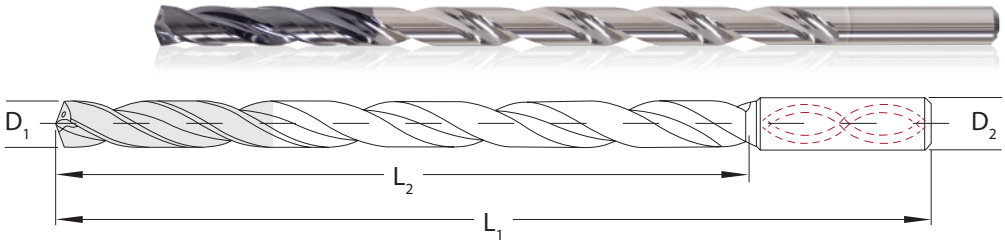
Speeds & Feeds: Refer to Page 105.

CARBIDE CARBURO | 50xD | 135° | 30°

Varianta® Supral

Varianta® Supral is ideal for high-speed machining operations (dry/semi-dry).

■ This drill must utilize a pilot hole drill. We also recommend using a corresponding 20xD intermediary drill. (Refer to pages 157 & 99)



D_1	Decimal	D_1mm	D_2mm	L_2mm	L_1mm	Part #
	.1575	4.000	6	225	270	SXC5004000T9
	.1654	4.200	6	225	270	SXC5004200T9
11/64	.1719	4.370	6	275	320	SXC5004370T9
	.1772	4.500	6	275	320	SXC5004500T9
#13	.1850	4.700	6	275	320	SXC5000130T9
3/16	.1875	4.760	6	275	320	SXC5004760T9
#12	.1890	4.800	6	275	320	SXC5000120T9
	.1969	5.000	6	275	320	SXC5005000T9

D_1	Decimal	D_1mm	D_2mm	L_2mm	L_1mm	Part #
13/64	.2031	5.160	6	310	360	SXC5005160T9
#6	.2040	5.182	6	310	360	SXC5000060T9
	.2165	5.500	6	310	360	SXC5005500T9
7/32	.2187	5.560	6	310	360	SXC5005560T9
	.2283	5.800	6	310	360	SXC5005800T9
15/64	.2344	5.950	6	310	360	SXC5005950T9
	.2362	6.000	6	310	360	SXC5006000T9
1/4	.2500	8.000	8	340	385	SXC5006350T9

Other Dimensions are Available Upon Request

SXC
40xD & 50xD Speeds and Feeds
METRIC

	Material	Vc m/min (Cutting speed)	D1mm Dec. Inch.	F[mm/u] Feed Per Revolution > 3.00 ≤ 4.00 .1181-.1576	> 4.00 ≤ 5.00 .1577-.1970	> 5.00 ≤ 6.00 .1971-.2364	> 6.00 ≤ 7.00 .2365-.2758	> 7.00 ≤ 7.50 .2759-.2955	> 7.50 ≤ 8.00 .2956-.3152
P 1	Low-Carbon Steel - 1000 Series (>25 HRc)	75		.048	.063	.078	.093	.103	.117
P 2	Low-Carbon Steel - 1000 Series (<25 HRc)	55		.043	.058	.068	.083	.093	.103
P 3	Alloy Tool Steels - 1300, 2000, 3000 (≤35 HRc)	55		.043	.058	.068	.083	.093	.103
P 4	Alloy Tool Steels - 1300, 2000, 3000 (36-48 HRc)	45		.023	.033	.043	.053	.065	.071
P 5	Ferritic, Martensitic & PH Stainless Steels - 400's, PH Types (≤35 HRc)	35		.023	.033	.043	.055	.063	.071
P 6	Ferritic, Martensitic & PH Stainless Steels - 400's, PH Types (36-48 HRc)	35		.023	.033	.043	.055	.063	.071
M 1	Austenitic Stainless Steel - Inox, 200 Series, 300 Series	35		.023	.033	.043	.055	.063	.071
M 2	Austenitic Stainless Steel & Cast Stainless Steel - 310, 314, 316 (<25 HRc)	35		.023	.033	.043	.055	.063	.071
M 3	Duplex Steel (Austenitic & Ferritic) - 323, 329, F55, 2205	30		.020	.030	.040	.051	.060	.066
K 1	Gray Cast Iron	70		.071	.098	.121	.150	.178	.198
K 2	Ductile Iron (<28 HRc)	55		.040	.055	.065	.078	.090	.100
K 3	Ductile Iron (<38 HRc)	50		.035	.050	.060	.075	.085	.095
S 1	Iron-Based, Heat-Resistant Alloys - Incoloy 800-802, A-286, N-155	35		.023	.033	.043	.055	.063	.071
S 2	Nickel-Based, Cobalt-Based, Heat-Resistant Alloys - Haynes 188, Haynes 21, Hastelloy, Waspaloy, Inconel 625/718 (≤48hRc)	30		.020	.030	.040	.051	.060	.066
S 4	Titanium Alloys - Commercially Pure, 6Al-AV, AStm 1/2/3, Ti-6Al-2SN-4Zr-2Mo (≤48 HRc)	35		.021	.033	.042	.053	.062	.069

Note: These are only recommended starting figures that depend on conditions such as machine and material rigidity, type of coating if any, etc. TESTING IS RECOMMENDED