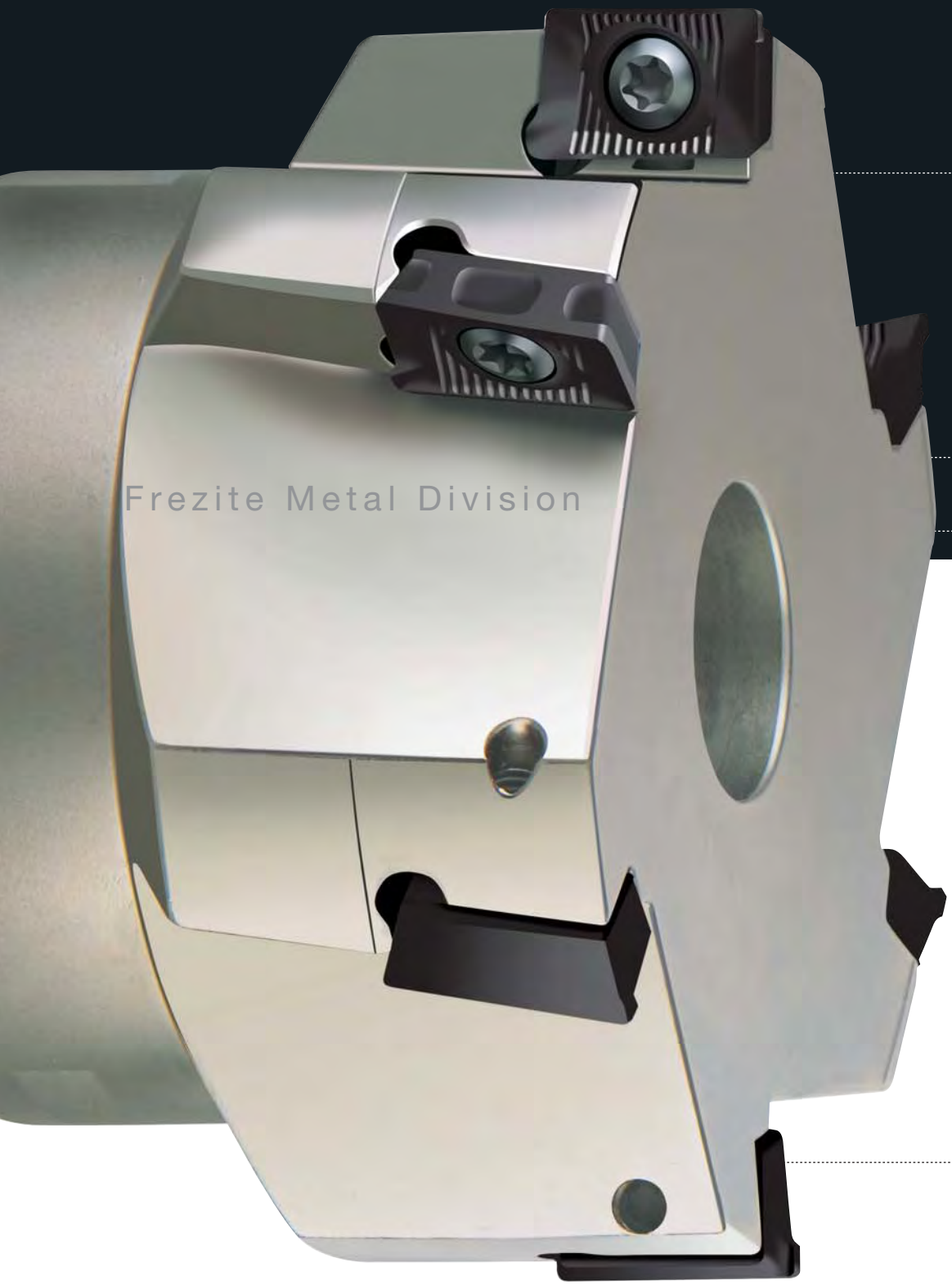
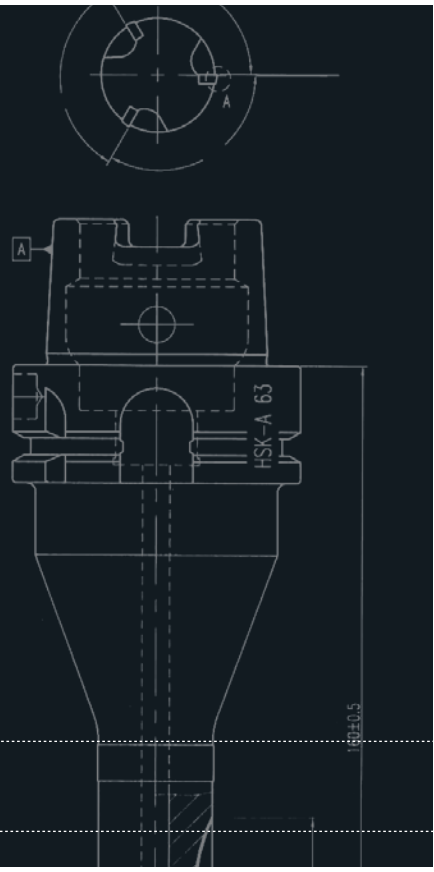


Frezite Metal Division



Customer Orientation Service

FREZITE COMPETITIVE FACTORS:

The main competitive factors for FREZITE success are the production flexibility, customer orientation service and product quality and precision.

Production Flexibility: Besides our vast range of standard products, we can offer special solutions adapted to customers requirements and needs. We'll study your needs and present a tool solution.

Customer orientation service: FREZITE offers engineering solutions to improve the customer's production processes. Our technical sales engineers give the support needed to help customers in the improvement of tool solutions. Partnership is a key word to our team since the initial contact until after sales service.

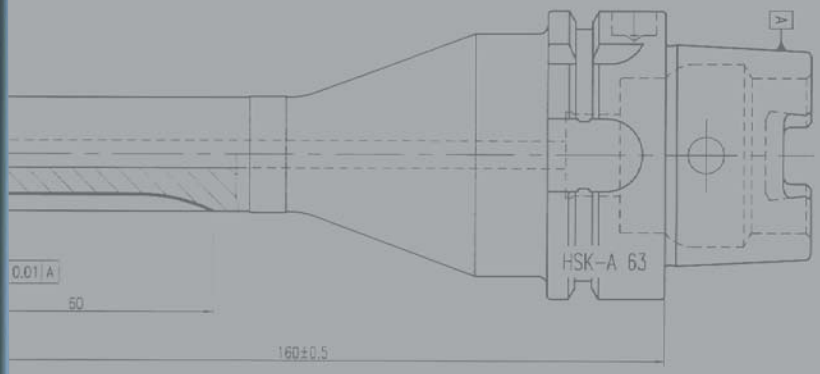
Quality & Precision Guaranteed: All tools are developed and manufactured using the latest technology to help increase your productivity. Accuracy and tight tolerances are guaranteed by our high performance cutting solutions.

TOOL MAINTENANCE SERVICE:

FREZITE has a complete tool repair service with a performance guarantee:
- Tool Rebuilding / Reconstruction for tools in Hard Metal, Polycrystaline Diamond PCD or CBN to simple or complex geometries.
- Surface coatings for tools
- Precision Grinding: total or partial grinding by CNC machines to original geometries.

FREZITE Services programme:
- research and development
- production preparation
- tool management;
- tool reworks
- procedures accompanying production
- tool/process administration

Frezite Metal Division



Automotive Industry:

It's hard to find a sector which changes so quickly as the automotive industry. Frezite is always looking for the development of new tool solutions for new materials and applications.
This high volume industry made up of large quantities of similar components is covered by a complete tooling programme for all the needs of these extensive productions.

Die and Mold Industry:

Several solutions of tool inserts and holders are available for this industry. Our powerful tooling systems can provide cost reductions and increased productivity.

Industries

Our tools are used, as advanced solutions for the whole precision metalworking industry:

- Automotive Industry;
- Aerospace Industry;
- Die and Mold Industry;
- Faucets Industry;
- Precision Technical parts.

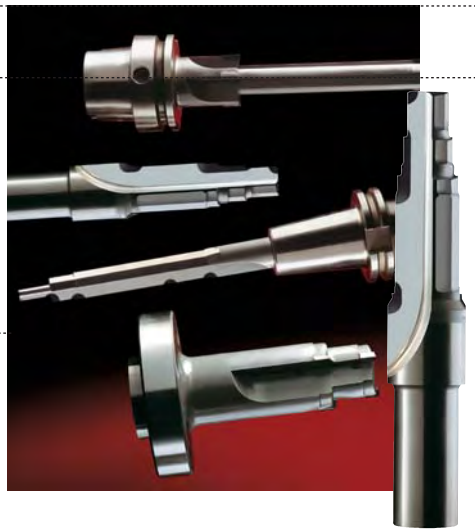
We provide high performance tooling solutions to be used in non-ferrous materials (aluminum and Si/Al alloys, bronze, copper and copper alloys, zinc, tungsten carbide), in ferrous materials (carbon steel, cast iron, grey iron, malleable iron, stainless steel), and in non-metallic materials like fiber reinforced plastics, ceramics, graphite, epoxy composites and Kevlar.

Aerospace Industry:

FREZITE offers several solutions for machining aerospace metals and fibre composites. For this highly innovative sector with a variety of materials, we can supply high accuracy tools for the most demanding aerospace applications.

Tailor Made tools:

FREZITE can study the most convenient tool solution for every operation. The development of tools starts with a complete study of material to be cut and the machinery equipment, which satisfy the different demands of customers.
These tools are manufactured to order and allow us to develop the best solution keeping in mind customer characteristics and the machinery available.
In this chapter, we have some information forms to make it easier for the tool definition and manufacturing. Other tools can be generated directly from the customer's drawings.



Metal Division

FREZITE is an Engineering company specialized in Precision Tool Systems. Founded in 1978, with the intent to manufacture and trade high technology precision tools for wood, plastics, composite materials and metals. With its 25 years of experience in the development and production of precision cutting tools, FREZITE has achieved a place among the most qualified companies. The head office is located in Trofa, 25 kms north of Oporto (Portugal), with other branches located in Spain, Brazil and United Kingdom.

Frezite is a Portuguese Manufacturer of high quality standard metalworking tools for drilling, milling, thread milling, precision milling, turning and countersinking operations.

FREZITE®

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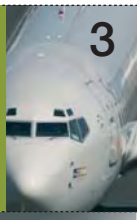
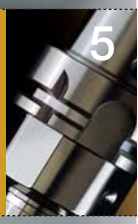
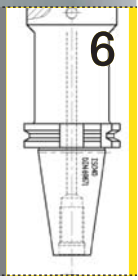






Metal Division

Frezite Metal Division

1.1. DRILLING
1.2. MILLING
1.3. INDEXABLE INSERTS

FREZITE®

AUTOMOTIVE INDUSTRY

Frezite Metal Division

Art.9103 SOLID CARBIDE DRILL WITH COOLANT HOLES

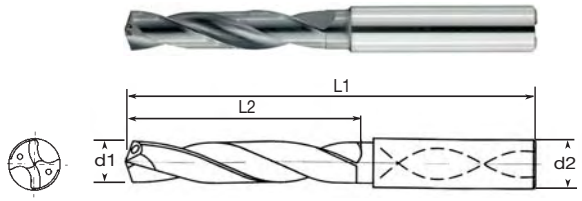
3XD

H6 | 3 x D | 140 º | DIN 6537 | 30º

P M K1 K2 N S

Product details:
- TiAlN-coated
- Self-centering
- Cylindrical shank
- Special geometry for higher feedrates

Application:
- Unalloyed steel and low alloyed to high alloyed steel
- Stainless and acid-resistant steels
- Cast iron, grey cast iron, alloyed grey cast iron
- Nodular iron, CGI, Malleable iron
- Non-ferrous metals
- Heat resistant steel titanium and nickel alloys



Art. Nº.	Ø d1	Ø d2	L1	L2
9103.1030	3.0	6	62	20
9103.1033	3.3	6	62	20
9103.1035	3.5	6	62	20
9103.1037	3.7	6	62	20
9103.1040	4.0	6	66	24
9103.1042	4.2	6	66	24
9103.1045	4.5	6	66	24
9103.1050	5.0	6	66	28
9103.1052	5.2	6	66	28
9103.1055	5.5	6	66	28
9103.1060	6.0	6	66	28
9103.1062	6.2	8	79	34
9103.1065	6.5	8	79	34
9103.1068	6.8	8	79	34
9103.1070	7.0	8	79	34
9103.1072	7.2	8	79	41
9103.1075	7.5	8	79	41
9103.1080	8.0	8	79	41
9103.1085	8.5	10	89	47
9103.1088	8.8	10	89	47
9103.1090	9.0	10	89	47
9103.1092	9.2	10	89	47
9103.1095	9.5	10	89	47
9103.1100	10.0	10	89	47
9103.1102	10.2	12	102	55
9103.1105	10.5	12	102	55
9103.1108	10.8	12	102	55
9103.1110	11.0	12	102	55
9103.1115	11.5	12	102	55
9103.1120	12.0	12	102	55
9103.1125	12.5	14	107	60
9103.1130	13.0	14	107	60
9103.1135	13.5	14	107	60
9103.1140	14.0	14	107	60
9103.1145	14.5	16	115	65
9103.1150	15.0	16	115	65
9103.1155	15.5	16	115	65
9103.1160	16.0	16	115	65
9103.1170	17.0	18	123	73
9103.1180	18.0	18	123	73
9103.1190	19.0	20	131	79
9103.1120	20.0	20	131	79

Art.9105 SOLID CARBIDE DRILL WITH COOLANT HOLES

5XD

H6 | 5 x D | 140° | DIN 6537 | 30°

P M K1 K2 N S

Product details:
- TiAlN-coated
- Self-centering
- Cylindrical shank
- Special geometry for higher feedrates
- Internal coolant supply

Application:
- Unalloyed steel and low alloyed to high alloyed steel, cast iron,
- Stainless and acid-resistant steels
- Grey cast iron, alloyed grey cast iron
- Nodular iron, CGI, Malleable iron
- Non-ferrous metals
- Heat resistant steel titanium and nickel alloys

Art. Nº.	Ø d1	Ø d2	L1	L2
9105.1030	3.0	6	66	28
9105.1033	3.3	6	66	28
9105.1037	3.7	6	66	28
9105.1040	4.0	6	74	36
9105.1042	4.2	6	74	36
9105.1045	4.5	6	74	36
9105.1050	5.0	6	82	44
9105.1052	5.2	6	82	44
9105.1055	5.5	6	82	44
9105.1060	6.0	6	82	44
9105.1062	6.2	8	91	53
9105.1065	6.5	8	91	53
9105.1068	6.8	8	91	53
9105.1070	7.0	8	91	53
9105.1072	7.2	8	91	53
9105.1075	7.5	8	91	53
9105.1080	8.0	8	91	53
9105.1085	8.5	10	103	61
9105.1088	8.8	10	103	61
9105.1090	9.0	10	103	61
9105.1092	9.2	10	103	61
9105.1095	9.5	10	103	61
9105.1100	10.0	10	103	61
9105.1102	10.2	12	118	71
9105.1105	10.5	12	118	71
9105.1108	10.8	12	118	71
9105.1110	11.0	12	118	71
9105.1115	11.5	12	118	71
9105.1120	12.0	12	118	71
9105.1125	12.5	14	124	77
9105.1130	13.0	14	124	77
9105.1135	13.5	14	124	77
9105.1140	14.0	14	124	77
9105.1145	14.5	16	133	83
9105.1150	15.0	16	133	83
9105.1155	15.5	16	133	83
9105.1160	16.0	16	133	83
9105.1170	17.0	18	143	93
9105.1180	18.0	18	143	93
9105.1190	19.0	20	153	101
9105.1200	20.0	20	153	101

Art.9108 SOLID CARBIDE DRILL WITH COOLANT HOLES

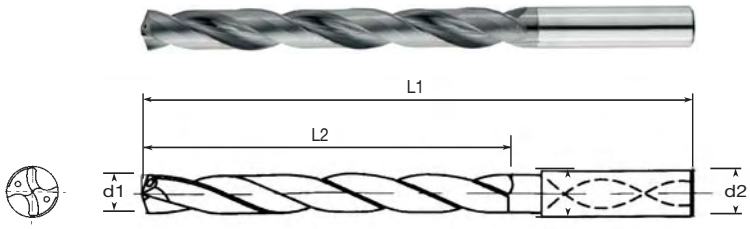
8XD

H6 | 8 x D | 140 º | DIN 6537 | 30º

P M K1 K2 N S

Product details:
- TiAlN-coated
- Self-centering
- Cylindrical shank
- Special geometry for higher feedrates
- Internal coolant supply

Application:
- Unalloyed steel and low alloyed to high alloyed steel, cast iron,
- Stainless and acid-resistant steels
- Grey cast iron, alloyed grey cast iron
- Nodular iron, CGI, Malleable iron
- Non-ferrous metals
- Heat resistant steel titanium and nickel alloys



Art. Nº.	Ø d1	Ø d2	L1	L2
9108.1030	3.0	6	72	34
9108.1033	3.3	6	72	34
9108.1035	3.5	6	72	34
9108.1037	3.7	6	72	34
9108.1040	4.0	6	81	43
9108.1042	4.2	6	81	43
9108.1045	4.5	6	81	43
9108.1050	5.0	6	95	57
9108.1052	5.2	6	95	57
9108.1055	5.5	6	95	57
9108.1060	6.0	6	95	57
9108.1062	6.2	8	114	76
9108.1065	6.5	8	114	76
9108.1068	6.8	8	114	76
9108.1070	7.0	8	114	76
9108.1072	7.2	8	114	76
9108.1075	7.5	8	114	76
9108.1080	8.0	8	114	76
9108.1085	8.5	10	142	95
9108.1088	8.8	10	142	95
9108.1090	9.0	10	142	95
9108.1092	9.2	10	142	95
9108.1095	9.5	10	142	95
9108.1100	10.0	10	142	95
9108.1102	10.2	12	162	114
9108.1105	10.5	12	162	114
9108.1108	10.8	12	162	114
9108.1110	11.0	12	162	114
9108.1115	11.5	12	162	114
9108.1120	12.0	12	162	114

Art.9105 SOLID CARBIDE DRILL

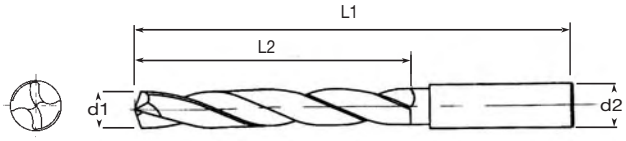
5XD

H6 | 5 x D | 140° | DIN 6537 | 30°

P M K1 K2 N S

Product details:
- TiAlN-coated * self-centering
- Cylindrical shank
- Special geometry for higher feedrates
- External coolant supply

Application:
- Unalloyed steel and low alloyed to high alloyed steel, cast iron,
- Stainless and acid-resistant steels
- Grey cast iron, alloyed grey cast iron
- Nodular iron, CGI, Malleable iron



Art. Nº.	Ø d1	Ø d2	L1	L2
9105.0010	1.0	3	50	10
9105.0012	1.2	3	60	20
9105.0014	1.4	3	60	20
9105.0016	1.6	3	60	20
9105.0017	1.75	3	60	20
9105.0020	2.0	3	60	20
9105.0021	2.05	3	66	28
9105.0025	2.5	3	66	28
9105.0029	2.9	3	66	28
9105.0030	3.0	6	66	29
9105.0033	3.3	6	66	29
9105.0040	4.0	6	66	29
9105.0042	4.2	6	77	39
9105.0045	4.5	6	77	39
9105.0050	5.0	6	77	39
9105.0052	5.2	6	77	39
9105.0055	5.5	6	77	39
9105.0060	6.0	6	77	39
9105.0062	6.2	8	90	52
9105.0065	6.5	8	90	52
9105.0068	6.8	8	90	52
9105.0070	7.0	8	90	52
9105.0072	7.2	8	90	52
9105.0075	7.5	8	90	52
9105.0080	8.0	8	90	52
9105.0085	8.5	10	102	60
9105.0090	9.0	10	102	60
9105.0092	9.2	10	102	60
9105.0095	9.5	10	102	60
9105.0100	10.0	10	102	60
9105.0102	10.2	12	120	72
9105.0105	10.5	12	120	72
9105.0108	10.8	12	120	72
9105.0110	11.0	12	120	72
9105.0115	11.5	12	120	72
9105.0120	12.0	12	120	72
9105.0125	12.5	14	130	82
9105.0130	13.0	14	130	82
9105.0135	13.5	14	130	82
9105.0140	14.0	14	130	82
9105.0145	14.5	16	135	85
9105.0150	15.0	16	135	85
9105.0155	15.5	16	135	85
9105.0160	16.0	16	135	85
9105.0170	17.0	18	146	96
9105.0180	18.0	18	146	96
9105.0190	19.0	20	153	101
9105.0200	20.0	20	153	101

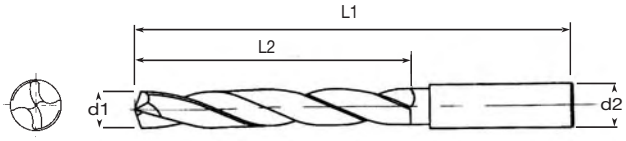
Art.9100 SOLID CARBIDE MINI DRILL

H6 | 140 °

P M K1 K2 N S

Product details:
- TiAlN-coated
- Self-centering
- Cylindrical shank
- Special geometry for higher feedrates
- External coolant supply

Application:
- Unalloyed steel and low alloyed to high alloyed steel, cast iron,
- Stainless and acid-resistant steels



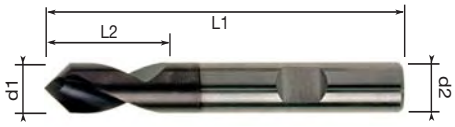
Art. N°.	Ø d1	Ø d2	L1	L2
9100.0010	1.0	3	38	8
9100.0011	1.1	3	38	8
9100.0012	1.2	3	38	8
9100.0013	1.3	3	38	8
9100.0014	1.4	3	38	8
9100.0015	1.5	3	38	13
9100.0016	1.6	3	38	13
9100.0017	1.7	3	38	13
9100.0018	1.8	3	38	13
9100.0019	1.9	3	38	13
9100.0020	2.0	6	60	20
9100.0021	2.1	6	60	20
9100.0022	2.2	6	60	20
9100.0023	2.3	6	60	20
9100.0024	2.4	6	60	20
9100.0025	2.5	6	60	26
9100.0026	2.6	6	60	26
9100.0027	2.7	6	60	26
9100.0028	2.8	6	60	26
9100.0029	2.9	6	60	26

Art.9130 SOLID CARBIDE NC-CENTRE DRILL 90º

DIN 6535 HB | HRc 45 | 30º | 90 °

Product details:
- Centre cutting
- Coated
- External coolant supply

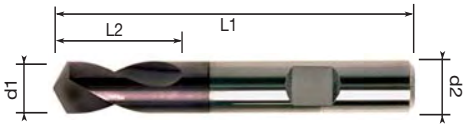
Application:
- For quick and positionally-precise centre drilling on NC- and drilling machines



Art. N°.	Ø d1	L1	L2
9130.0030	3.0	38	8
9130.0040	4.0	50	10
9130.0050	5.0	50	13
9130.0060	6.0	57	13
9130.0080	8.0	63	19
9130.0100	10.0	66	20
9130.0120	12.0	73	22
9130.0160	16.0	82	24
9130.0200	20.0	92	30

Art. 9140 SOLID CARBIDE NC-CENTRE DRILL 120º

DIN 6535 HB | HRc 45 | 30º | 120 º



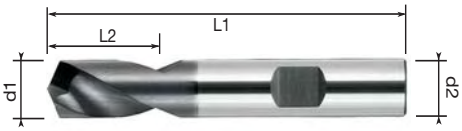
Product details:
- Centre cutting
- Coated
- External coolant supply

Application:
- For quick and positionally-precise centre drilling on NC- and drilling machines

Art. Nº.	Ø d1	L1	L2
9140.0060	6.0	57	13
9140.0080	8.0	63	19
9140.0100	10.0	66	20
9140.0120	12.0	73	22
9140.0160	16.0	82	24
9140.0200	20.0	92	30

Art. 9150 SOLID CARBIDE NC-CENTRE DRILL 142º

DIN 6535 HB | HRc 45 | 30º | 142 º



Product details:
- Centre cutting
- Coated
- External coolant supply

Application:
- For quick and positionally-precise centre drilling on NC- and drilling machines

Art. Nº.	Ø d1	Ø d2	L1	L2
9150.0060	6.0	6	57	13
9150.0080	8.0	8	63	19
9150.0100	10.0	10	66	20
9150.0120	12.0	12	73	22
9150.0160	16.0	16	82	24
9150.0200	20.0	20	92	30

Art. 9123 SOLID CARBIDE DRILL

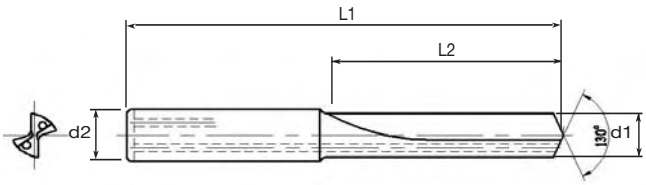
3XD

H6 | 130 º | 3 x D

K1 K2 N

Product details:
- Self-centering
- Cylindrical shank
- Special geometry for higher feedrates
- Internal coolant supply

Application:
- Non-ferrous metals, Grey cat iron, alloyed grey cast iron



Art. Nº.	Ø d1	Ø d2	L1	L2
9123.1003	3.0	6	62	20
9123.1033	3.3	6	62	20
9123.1035	3.5	6	62	20
9123.1037	3.7	6	62	20
9123.1040	4.0	6	66	24
9123.1042	4.2	6	66	24
9123.1045	4.5	6	66	24
9123.1050	5.0	6	66	28
9123.1052	5.2	6	66	28
9123.1055	5.5	6	66	28
9123.1060	6.0	6	66	28
9123.1062	6.2	8	79	34
9123.1065	6.5	8	79	34
9123.1068	6.8	8	79	34
9123.1070	7.0	8	79	34
9123.1072	7.2	8	79	41
9123.1075	7.5	8	79	41
9123.1080	8.0	8	79	41
9123.1085	8.5	10	89	47
9123.1088	8.8	10	89	47
9123.1090	9.0	10	89	47
9123.1092	9.2	10	89	47
9123.1095	9.5	10	89	47
9123.1100	10.0	10	89	47
9123.1102	10.2	12	102	55
9123.1105	10.5	12	102	55
9123.1108	10.8	12	102	55
9123.1110	11.0	12	102	55
9123.1115	11.5	12	102	55
9123.1120	12.0	12	102	55
9123.1125	12.5	14	107	60
9123.1130	13.0	14	107	60
9123.1135	13.5	14	107	60
9123.1140	14.0	14	107	60
9123.1145	14.5	16	115	65
9123.1150	15.0	16	115	65
9123.1155	15.5	16	115	65
9123.1160	16.0	16	115	65
9123.1170	17.0	18	123	73
9123.1180	18.0	18	123	73
9123.1190	19.0	20	131	79
9123.1200	20.0	20	131	79

Art. 9125 SOLID CARBIDE DRILL

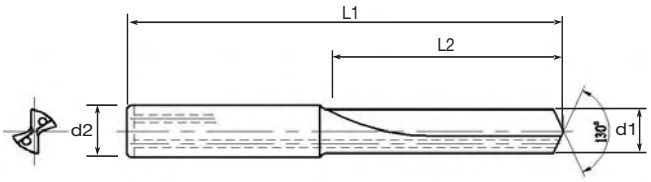
5XD

H6 | 130 º | 5 x D

K1 K2 N

Product details:
- Self-centering
- Cylindrical shank
- Special geometry for higher feedrates
- Internal coolant supply

Application:
- Non-ferrous metals, Grey cat iron, alloyed grey cast iron



Art. Nº.	Ø d1	Ø d2	L1	L2
9125.1003	3.0	6	66	28
9125.1033	3.3	6	66	28
9125.1037	3.7	6	66	28
9125.1040	4.0	6	74	36
9125.1042	4.2	6	74	36
9125.1045	4.5	6	74	36
9125.1050	5.0	6	82	44
9125.1052	5.2	6	82	44
9125.1055	5.5	6	82	44
9125.1060	6.0	6	82	44
9125.1062	6.2	8	91	53
9125.1065	6.5	8	91	53
9125.1068	6.8	8	91	53
9125.1070	7.0	8	91	53
9125.1072	7.2	8	91	53
9125.1075	7.5	8	91	53
9125.1080	8.0	8	91	53
9125.1085	8.5	10	103	61
9125.1088	8.8	10	103	61
9125.1090	9.0	10	103	61
9125.1092	9.2	10	103	61
9125.1095	9.5	10	103	61
9125.1100	10.0	10	103	61
9125.1102	10.2	12	118	71
9125.1105	10.5	12	118	71
9125.1108	10.8	12	118	71
9125.1110	11.0	12	118	71
9125.1115	11.5	12	118	71
9125.1120	12.0	12	118	71
9125.1125	12.5	14	124	77
9125.1130	13.0	14	124	77
9125.1135	13.5	14	124	77
9125.1140	14.0	14	124	77
9125.1145	14.5	16	133	83
9125.1150	15.0	16	133	83
9125.1155	15.5	16	133	83
9125.1160	16.0	16	133	83
9125.1170	17.0	18	143	93
9125.1180	18.0	18	143	93
9125.1190	19.0	20	153	101
9125.1120	20.0	20	153	101

Art.9128 SOLID CARBIDE DRILL

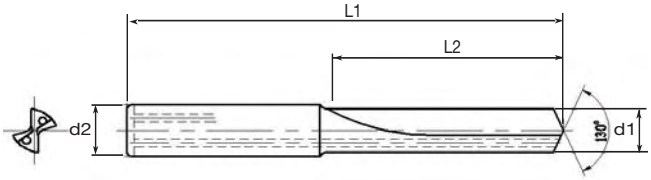
8XD

H6 | 130° | 8 x D

K1 K2 N

Product details:
- Self-centering
- Cylindrical shank
- Special geometry for higher feedrates
- Internal coolant supply

Application:
- Non-ferrous metals, Grey cat iron, alloyed grey cast iron



Art. Nº.	Ø d1	Ø d2	L1	L2
9128.1030	3.0	6	72	34
9128.1033	3.3	6	72	34
9128.1035	3.5	6	72	34
9128.1037	3.7	6	72	34
9128.1040	4.0	6	81	43
9128.1042	4.2	6	81	43
9128.1045	4.5	6	81	43
9128.1050	5.0	6	95	57
9128.1052	5.2	6	95	57
9128.1055	5.5	6	95	57
9128.1060	6.0	6	95	57
9128.1062	6.2	8	114	76
9128.1065	6.5	8	114	76
9128.1068	6.8	8	114	76
9128.1070	7.0	8	114	76
9128.1072	7.2	8	114	76
9128.1075	7.5	8	114	76
9128.1080	8.0	8	114	76
9128.1085	8.5	10	142	95
9128.1088	8.8	10	142	95
9128.1090	9.0	10	142	95
9128.1092	9.2	10	142	95
9128.1095	9.5	10	142	95
9128.1100	10.0	10	142	95
9128.1102	10.2	12	162	114
9128.1105	10.5	12	162	114
9128.1108	10.8	12	162	114
9128.1110	11.0	12	162	114
9128.1115	11.5	12	162	114
9128.1120	12.0	12	162	114

Art.9193 PCD DRILL

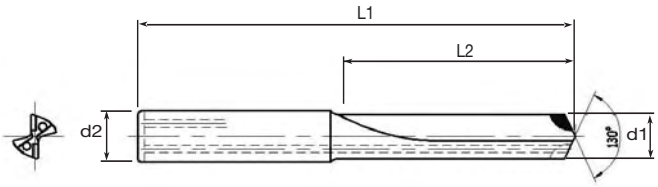
3XD

H6 | 130° | 3 x D

N

Product details:
- PCD tipped
- Self-centering
- Cylindrical shank
- Special geometry for higher feedrates
- Internal coolant supply

Application:
- Non-ferrous materials



Art. Nº.	Ø d1	Ø d2	L1	L2
9193.1030	3.0	6	62	20
9193.1033	3.3	6	62	20
9193.1035	3.5	6	62	20
9193.1037	3.7	6	62	20
9193.1040	4.0	6	66	24
9193.1042	4.2	6	66	24
9193.1045	4.5	6	66	24
9193.1050	5.0	6	66	28
9193.1052	5.2	6	66	28
9193.1055	5.5	6	66	28
9193.1060	6.0	6	66	28
9193.1062	6.2	8	79	34
9193.1065	6.5	8	79	34
9193.1068	6.8	8	79	34
9193.1070	7.0	8	79	34
9193.1072	7.2	8	79	41
9193.1075	7.5	8	79	41
9193.1080	8.0	8	79	41
9193.1085	8.5	10	89	47
9193.1088	8.8	10	89	47
9193.1090	9.0	10	89	47
9193.1092	9.2	10	89	47
9193.1095	9.5	10	89	47
9193.1100	10.0	10	89	47
9193.1102	10.2	12	102	55
9193.1105	10.5	12	102	55
9193.1108	10.8	12	102	55
9193.1110	11.0	12	102	55
9193.1115	11.5	12	102	55
9193.1120	12.0	12	102	55
9193.1125	12.5	14	107	60
9193.1130	13.0	14	107	60
9193.1135	13.5	14	107	60
9193.1140	14.0	14	107	60
9193.1145	14.5	16	115	65
9193.1150	15.0	16	115	65
9193.1155	15.5	16	115	65
9193.1160	16.0	16	115	65
9193.1170	17.0	18	123	73
9193.1180	18.0	18	123	73
9193.1190	19.0	20	131	79
9193.1200	20.0	20	131	79

Art.9195 PCD DRILL

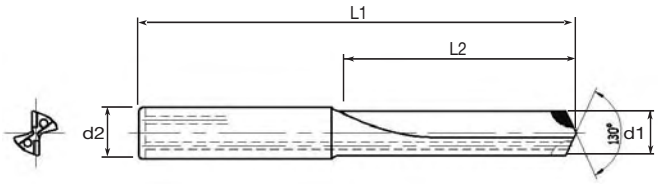
5XD

H6 | 130 º | 5 x D

N

Product details:
- PCD tipped
- Self-centering
- Cylindrical shank
- Special geometry for higher feedrates
- Internal coolant supply

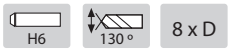
Application:
- Non-ferrous materials



Art. Nº.	Ø d1	Ø d2	L1	L2
9195.1030	3.0	6	66	28
9195.1033	3.3	6	66	28
9195.1037	3.7	6	66	28
9195.1040	4.0	6	74	36
9195.1042	4.2	6	74	36
9195.1045	4.5	6	74	36
9195.1050	5.0	6	82	44
9195.1052	5.2	6	82	44
9195.1055	5.5	6	82	44
9195.1060	6.0	6	82	44
9195.1062	6.2	8	91	53
9195.1065	6.5	8	91	53
9195.1068	6.8	8	91	53
9195.1070	7.0	8	91	53
9195.1072	7.2	8	91	53
9195.1075	7.5	8	91	53
9195.1080	8.0	8	91	53
9195.1085	8.5	10	103	61
9195.1088	8.8	10	103	61
9195.1090	9.0	10	103	61
9195.1092	9.2	10	103	61
9195.1095	9.5	10	103	61
9195.1100	10.0	10	103	61
9195.1102	10.2	12	118	71
9195.1105	10.5	12	118	71
9195.1108	10.8	12	118	71
9195.1110	11.0	12	118	71
9195.1115	11.5	12	118	71
9195.1120	12.0	12	118	71
9195.1125	12.5	14	124	77
9195.1130	13.0	14	124	77
9195.1135	13.5	14	124	77
9195.1140	14.0	14	124	77
9195.1145	14.5	16	133	83
9195.1150	15.0	16	133	83
9195.1155	15.5	16	133	83
9195.1160	16.0	16	133	83
9195.1170	17.0	18	143	93
9195.1180	18.0	18	143	93
9195.1190	19.0	20	153	101
9195.1200	20.0	20	153	101

Art.9198 PCD DRILL

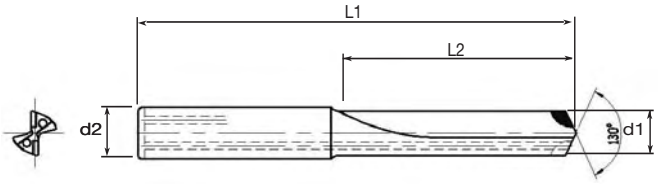
8XD



N

Product details:
- PCD tipped
- Self-centering
- Cylindrical shank
- Special geometry for higher feedrates
- Internal coolant supply

Application:
- Non-ferrous materials



Art. Nº.	Ø d1	Ø d2	L1	L2
9198.1030	3.0	6	72	34
9198.1033	3.3	6	72	34
9198.1035	3.5	6	72	34
9198.1037	3.7	6	72	34
9198.1040	4.0	6	81	43
9198.1042	4.2	6	81	43
9198.1045	4.5	6	81	43
9198.1050	5.0	6	95	57
9198.1052	5.2	6	95	57
9198.1055	5.5	6	95	57
9198.1060	6.0	6	95	57
9198.1062	6.2	8	114	76
9198.1065	6.5	8	114	76
9198.1068	6.8	8	114	76
9198.1070	7.0	8	114	76
9198.1072	7.2	8	114	76
9198.1075	7.5	8	114	76
9198.1080	8.0	8	114	76
9198.1085	8.5	10	142	95
9198.1088	8.8	10	142	95
9198.1090	9.0	10	142	95
9198.1092	9.2	10	142	95
9198.1095	9.5	10	142	95
9198.1100	10.0	10	142	95
9198.1102	10.2	12	162	114
9198.1105	10.5	12	162	114
9198.1108	10.8	12	162	114
9198.1110	11.0	12	162	114
9198.1115	11.5	12	162	114
9198.1120	12.0	12	162	114

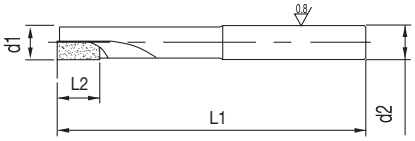
Art. 9500 PCD END MILL

H6

N

Product details:
- Single bladed, cutting over centre

Application:
- Universal purpose
- For high tense material
- Also for Aluminium and non-ferrous materials



Art. Nº.	Ø d1	Ø d2	L1	L2	Z
9500.0410	4.0	4	60	10	1
9500.0510	5.0	5	60	10	1

Art. 9510 PCD END MILL

H6

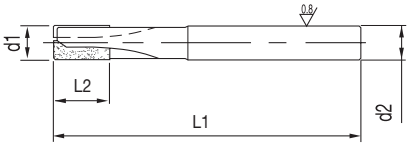
N

Product details:
- Twin bladed, cutting over centre
- With or without axial angle

Application:
- Universal purpose
- For high tense material
- Also for Aluminium and non-ferrous materials

Example:
951X.0610
0- Neutral axial angle
1- Positive axial angle
2- negative axial angle

Only for article 9510



Art. Nº.	Ø d1	Ø d2	L1	L2	Z
9510.0610	6.0	6	60	10	2
9510.0615	6.0	6	60	15	2
9510.0620	6.0	6	80	20	2
9510.0810	8.0	8	80	10	2
9510.0815	8.0	8	80	15	2
9510.0820	8.0	8	80	20	2
9510.1010	10.0	10	80	10	2
9510.1015	10.0	10	80	15	2
9510.1020	10.0	10	80	20	2
9510.1210	12.0	12	100	10	2
9510.1215	12.0	12	100	15	2
9510.1220	12.0	12	100	20	2

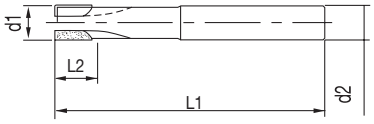
Art. 9520 PCD END MILL

H6

N

Product details:
- Twin and triple bladed with axial angle

Application:
- Universal purpose
- For high tense material
- Also for Aluminium and non-ferrous materials



Art. Nº.	Ø d1	Ø d2	L1	L2	Z
9520.0605	6.0	8	55	5	2
9520.0805	8.0	8	60	5	2
9520.1005	10.0	10	75	5	2
9520.1210	12.0	12	85	10	3
9520.1410	14.0	16	85	10	3
9520.1610	16.0	16	85	10	3
9520.2010	20.0	20	100	10	3

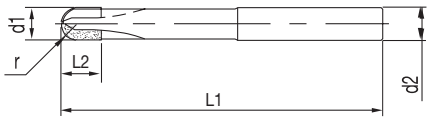
Art.9530 PCD BALL NOSE END MILL

H6

N

Product details:
- Single twin and triple bladed, cutting over centre, full radius

Application:
- Universal purpose
- For high tense material
- Also for Aluminium and non-ferrous materials



Art. N°.	Ø d1	Ø d2	L1	L2	Z	R
9530.0305	3.0	3	60	5	1	1.5
9530.0410	4.0	4	60	10	1	2
9530.0610	6.0	6	80	10	2	3
9530.0810	8.0	8	80	10	2	4
9530.1010	10.0	10	80	10	2	5
9530.1210	12.0	12	100	10	2	6
9530.1610	16.0	16	130	10	3	8
9530.2013	20.0	20	160	13	3	10

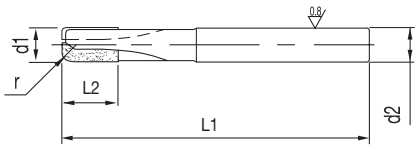
Art.9550 PCD TOROIDAL END MILL

H6

N

Product details:
- Twin bladed, cutting over centre
- With or without axial angle

Application:
- Universal purpose
- For high tense material
- Also for Aluminium and non-ferrous materials



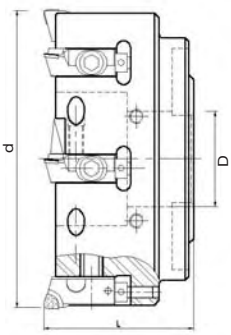
Art. N°.	Ød1	Ød2	L1	L2	Z	R
9550.0200	2	6	75	2	2	0.3
9550.0300	3	6	75	2.5	2	0.3
9550.0400	4	6	75	2.5	2	0.3
9550.0500	5	6	75	3	2	0.3
9550.0600	6	8	100	6	2	1
9550.0800	8	10	100	7	2	2
9550.1000	10	12	100	8	2	3
9550.1200	12	16	100	9	2	4
9550.1600	16	16	130	11	2	5
9550.2000	20	20	160	13	2	6

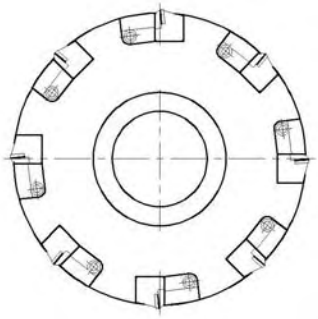
Art.9390 MILLING HEADS FOR PCD MILLING CARTRIDGES

N

Product Details:
- Precision balanced system with balance G 2.5 to ISO 1940/1 and additional screws for fine balancing

Application:
- Recomended for high speed cutting and high feed rates
- Non-ferrous material



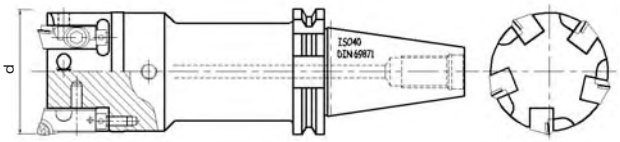


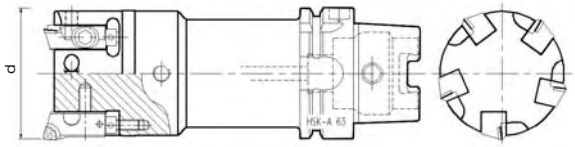
Art. Nº.	Ø d	Ø D	L	Z	Weight (kg)
9390.0063	63.0	22	48	3	0,8
9390.0080	80.0	27	50	5	0,6
9390.0100	100.0	32	50	6	1,0
9390.0125	125.0	40	63	8	1,9
9390.0160	160.0	40	63	10	2,7
9390.0200	200.0	60	63	12	4,6
9390.0250	250.0	60	63	15	7,2
9390.0315	315.0	60	80	18	14,0
9390.0400	400.0	60	80	24	22,5
9390.0500	500.0	60	80	30	35,0

Art.9391 MILLING HEADS FOR PCD MILLING CARTRIDGES WITH HSK/SK40 ADAPTOR

N

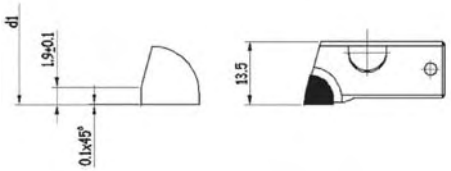
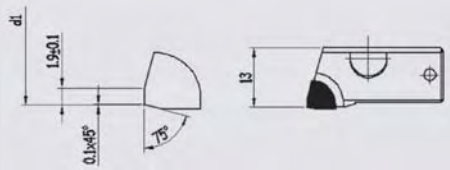
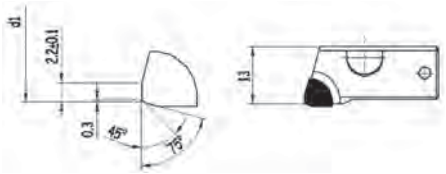
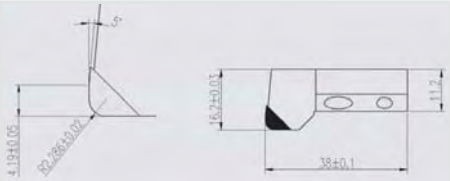
Application:
- Recomended for high speed cutting and high feed rates
- Non-ferrous material



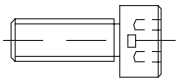
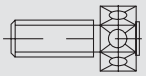
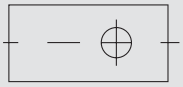


Art. Nº.	Ø d	Z	Adaptor
9391.1050	50.0	4	HSK-A63
9391.1063	63.0	5	HSK-A63
9391.1080	80.0	5	HSK-A63
9391.1100	100.0	6	HSK-A63
-	-	-	-
9391.2005	50.0	4	SK40
9391.2063	63.0	5	SK40

Art.9394 CARTRIDGES

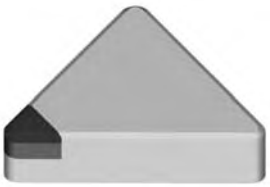
Art. Nº.		
9394.0001	Corner Milling Blade	
9394.0002	Face Milling Blade	
9394.0003	Wide Face Milling Blade	
9394.0004	Roughing Milling Blade	

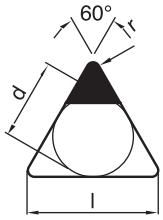
Art.9395 ACCESSORIES

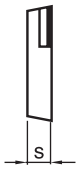
Art. Nº.		
9395.0001	Clamping screw	
9395.0002	Adjusting screw	
9395.0003	Safety screw	
9395.0004	Shim	

Art.9770 INSERTS PCD / PCBN

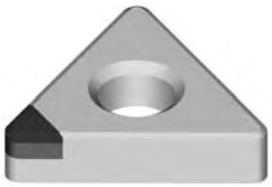
Note:
- Insert D - PCD
- Insert B - PCBN

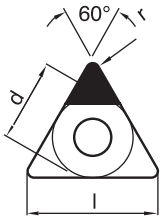


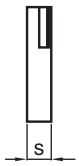




Art. Nº.	ISO Code	l	Ø d	s	r	Insert
9770.0001	TPUN 090204	9.60	5.56	2.38	0.4	D
9770.0002	TPUN 110304	11.00	6.35	3.18	0.4	B
9770.0003	TPUN 160304	16.50	9.52	3.18	0.4	D
9770.0004	TPUN 160308	16.50	9.52	3.18	0.8	D



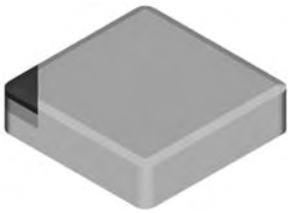


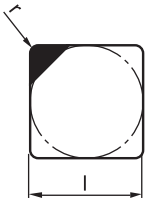


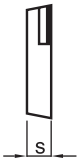
Art. Nº.	ISO Code	l	Ø d	s	r	Insert
9770.0005	TNUA 110304	11.00	6.35	3.18	0.4	D
9770.0006	TNUA 160404	16.50	9.52	4.76	0.4	B
9770.0007	TNUA 220408	22.00	12.70	4.76	0.8	D

Art.9771 INSERTS PCD / PCBN

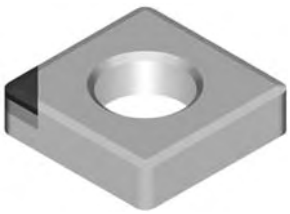
Note:
- Insert D - PCD
- Insert B - PCBN

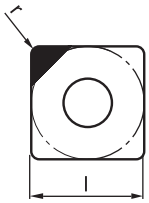


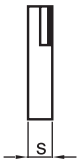




Art. Nº.	ISO Code	l	s	r	Insert
9771.0001	SPUN 090304	9.52	3.18	0.4	D
9771.0002	SPUN 120408	12.70	4.76	0.8	B
9771.0003	SPUN 190412	19.05	4.76	1.2	D



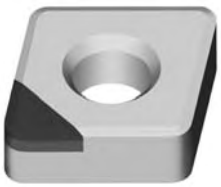


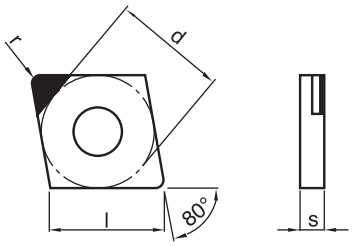


Art. Nº.	ISO Code	l	s	r	Insert
9771.0004	SNUA 090304	9.52	3.18	0.4	D
9771.0005	SNUA 120408	12.70	4.76	0.8	B
9771.0006	SNUA 150612	15.87	6.35	1.2	D

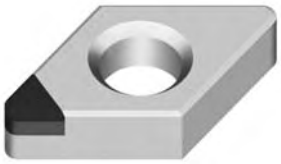
Art.9772 INSERTS PCD / PCBN

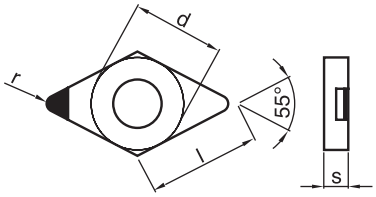
Note:
- Insert D - PCD
- Insert B - PCBN



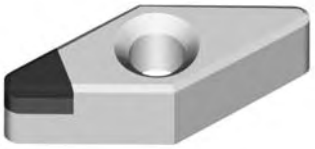


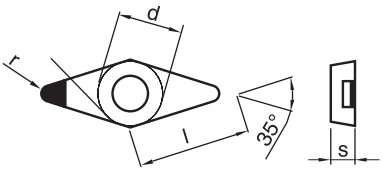
Art. N°.	ISO Code	l	Ø d	s	r	Insert
9772.0001	CNUA 120408	12.90	12.70	4.76	0.8	D
9772.0002	CNUA 160612	16.10	15.87	6.35	1.2	B
9772.0003	CNUA 190608	19.30	19.05	6.35	0.8	D





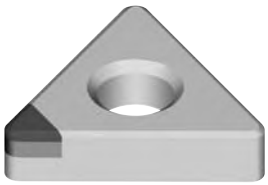
Art. N°.	ISO Code	l	Ø d	s	r	Insert
9772.0004	DNUA 110404	11.60	9.52	4.76	0.4	D
9772.0005	DNUA 150408	15.50	12.70	4.76	0.8	B
9772.0006	DNUA 150608	15.50	12.70	6.35	0.8	D

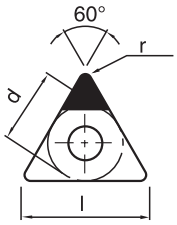


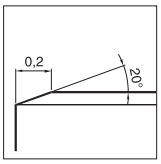


Art. N°.	ISO Code	l	Ø d	s	r	Insert
9772.0007	VBMT 160408	16.50	9.52	4.76	0.8	D
9772.0008	VBMT 220408	22.00	12.70	4.76	0.8	B
9772.0009	VBMT 110304	11.00	6.35	3.18	0.4	D

Art.9780 INSERTS PCBN

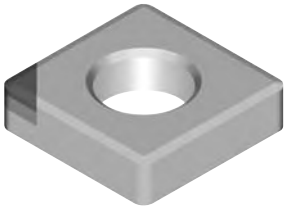


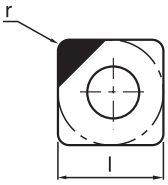


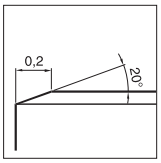


Art. N°.	ISO Code	l	Ø d	s	r	Insert
9780.0001	TNUA 110308	11.00	6.35	3.18	0.8	B
9780.0002	TNUA 160408	16.50	6.35	4.76	0.8	B
9780.0003	TNUA 160412	16.50	9.52	4.76	1.2	B

Art.9781 INSERTS PCBN

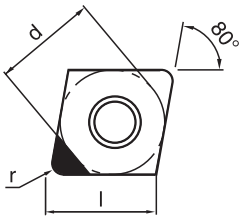


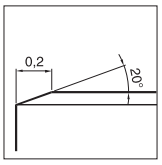




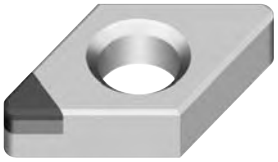
Art. N°.	ISO Code	l	s	r	Insert
9781.0001	SNUA 120408	12.70	4.76	0.8	B
9781.0002	SNUA 150608	15.87	6.35	0.8	B
9781.0003	SNUA 090308	9.52	3.18	0.8	B

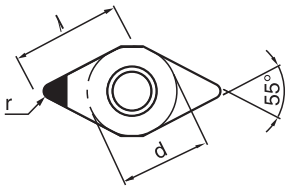
Art.9782 INSERTS PCBN

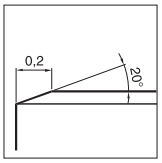




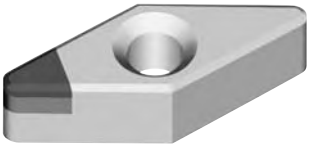
Art. Nº.	ISO Code	l	Ø d	s	r	Insert
9782.0001	CNUA 120408	12.90	12.70	4.76	0.8	B
9782.0002	CNUA 160612	16.10	15.87	6.35	1.6	B
9782.0003	CNUA 190608	19.30	19.05	6.35	1.2	B

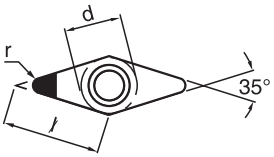


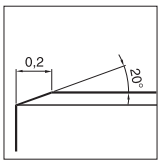




Art. Nº.	ISO Code	l	Ø d	s	r	Insert
9782.0004	DNUA 110404	11.60	9.52	4.76	0.8	B
9782.0005	DNUA 150408	15.50	12.70	6.35	0.8	B
9782.0006	DNUA 150608	19.30	15.87	6.35	1.2	B







Art. Nº.	ISO Code	l	Ø d	s	r	Insert
9782.0007	VNUA 160408	16.50	9.52	4.76	0.8	B
9782.0008	VNUA 220408	22.00	12.70	4.76	0.8	B
9782.0009	VNUA 110304	16.50	9.50	4.76	0.4	B