


Precision




 Aerospace




 General Engineering



 Power Generation



 Automotive



 Mold & Die



 Castings & Foundries

Defense Production

Railway



Turbine





Precision Measuring Instruments Co.

Anand Deep CHS. Flat # 401, 4th Floor,
Opp. Date Mangal Karyalay, Dombivli (E) - 421 201, Dist-Thane.
Telefax : 91-22-6634 0920 Cell : 91-0-98701 88718
E-mail : chirag_pmico@hotmail.com / chiragpmico@gmail.com
Website : www.pmicoindia.co.in

A Request Letter

Sub: Registration of our firm as your regular suppliers for all type of cutting tools made from CARBIDE, HSS, M42, ASP60 and CARBIDE INSERTS or As Per Your Requirement.

We take this opportunity to introduce ourselves as one of the leading importers, stockiest & suppliers of **Cutting tools made from CARBIDE.,HSS,M42,ASP60 and carbide inserts for well over 30 years.**

It's a matter of great pleasure to inform you that we are having cordial business relation with many Govt. Plants, Projects, Sugar Factories, Textile Industries, Technical & Industrial Engineering Institutions and Engineering firms all over India. It is needless to emphasis that in view of our vast experience in the line we are in position to meet your valued requirements of any type of cutting tools of every description and specifications at very competitive price.

It is our earnest desire to be in the list of your regular suppliers. We request you very humbly to mail us your esteemed enquiries and tenders whenever you are in the market. We assure you of our prompt attention and the best services at all the times.

If an opportunity is given to us we are sure that you will be fully satisfied with our service and our relation will further prosper to mutual benefits.

We are already Registered with G.T.R.E. Bangalore, D.E.A.L.: Dehradun, D.R.D.O. Lab: Jodhpur, D.R.D.O. Electronic Radar Devl. Estt: Bangalore, D.R.D.O.: Defence Metallurgical Research Lab: Hyderabad, Ordnance Factory: Varangaon, Vehicle Research estt: Ahemdnagar, National Ship Design & Research Centre: Vishakhapatam, Ammunition Factory: Pune, Naval Physical & Oceanographic Lab: Kochi, Opto electronic factory: Dehra Dun, Ordnance Factory: Chanda, National Metallurgical lab: Jamshedpur, B.H.E.L: Jhasi, N.T.P.C: Orissa, H.A.L Bangalore, MDL, ISRO, TOOL ROOM and Many Other Government Department.

Kindly Forward this Letter to concern Person / Department.

Thanking you very much and awaiting your favourable response.

For Further Information Please contact on below mention Address

Precision Measuring Instruments Company

Anand Deep CHS. Flat # 401, 4th Floor, Opp. Date Mangal Karyalay,
Dombivli (East) - 421 201, Dist-Thane.
E-mail : chirag_pmico@hotmail.com / chiragpmico@gmail.com
Telefax : 022 6634 0920 / 98701 88718

NSIC
Registered Firm





$\phi 6 * 15 * 50 * 4T - HRC40^{\circ}$



$\phi 6 * 15 * 50 * 4T - HRC40^{\circ} / 45^{\circ}$



$\phi 6 * 15 * 50 * 4T - HRC45^{\circ}$



$\phi 6 * 15 * 50 * 4T - HRC50^{\circ}$



$\phi 6 * 15 * 50 * 4T - HRC55^{\circ}$



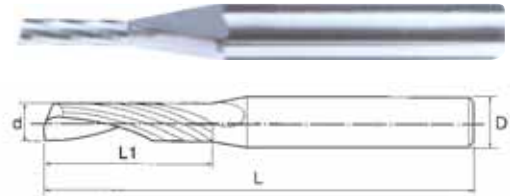
$\phi 6 * 15 * 50 * 4T - HRC60^{\circ}$



Solid Carbide Single Flute Straight Shank End Mill (standard size)

► X-PM16801

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steel, Non-alloyed, Low-alloyed Steel <24HRC, Hi-alloyed Steel <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



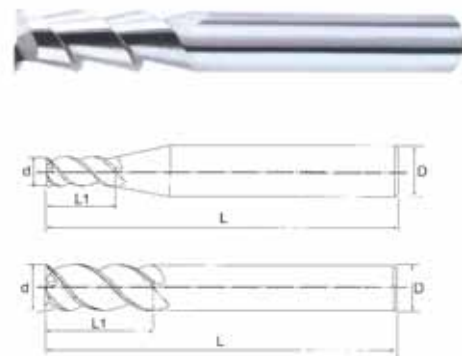
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4.0	6	8	50	X-PM16801-0400	8.0	8	16	50	X-PM16801-0800
4.5	6	9	50	X-PM16801-0450	9.0	10	19	60	X-PM16801-0900
5.0	6	10	50	X-PM16801-0500	10.0	10	19	60	X-PM16801-1000
5.5	6	10	50	X-PM16801-0550					

Solid Carbide 2 Flutes End Mills For Aluminum

► X-PM16802

Cutter types of use: Aluminium Alloy, Plastics, Wood etc.

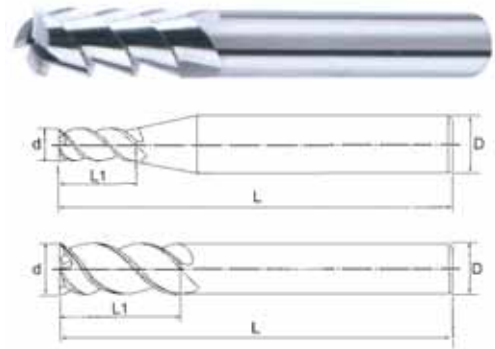


TECHNOLOGY PARAMETERS

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1.5	4	4	50	X-PM16802-0150	8	8	20	60	X-PM16802-0800
2	4	6	50	X-PM16802-0200	9	10	22	75	X-PM16802-0900
2.5	4	8	50	X-PM16802-0250	10	10	25	75	X-PM16802-1000
3	4	8	50	X-PM16802-0300	11	12	26	75	X-PM16802-1100
3.5	4	10	50	X-PM16802-0350	12	12	30	75	X-PM16802-1200
4	4	11	50	X-PM16802-0400	14	14	32	75	X-PM16802-1400
4.5	6	11	50	X-PM16802-0450	16	16	45	100	X-PM16802-1600
5	6	13	50	X-PM16802-0500	18	18	45	100	X-PM16802-1800
5.5	6	16	50	X-PM16802-0550	20	20	45	100	X-PM16802-2000
6	6	16	50	X-PM16802-0600					

Solid Carbide 3 Flutes End Mills For Aluminum
► X-PM16803

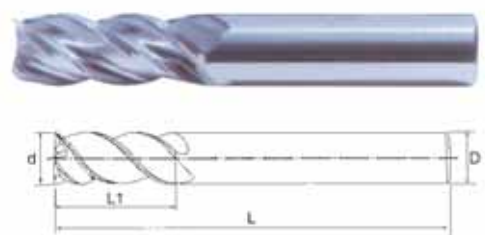
Cutter types of use: Aluminium Alloy, Plastics, Wood etc.


TECHNOLOGY PARAMETERS

d	D(h6)	L1	L	Item Code
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3.5	4	14	60	X-PM16803-0350
4	4	16	60	X-PM16803-0400
4.5	6	18	60	X-PM16803-0450
5	6	20	75	X-PM16803-0500
5.5	6	22	75	X-PM16803-0550
6	6	25	75	X-PM16803-0600
7	8	30	75	X-PM16803-0700
8	8	32	75	X-PM16803-0800
9	10	40	90	X-PM16803-0900
10	10	45	100	X-PM16803-1000
11	12	45	100	X-PM16803-1100
12	12	45	100	X-PM16803-1200
14	14	50	100	X-PM16803-1400
16	16	65	150	X-PM16803-1600
18	18	70	150	X-PM16803-1800
20	20	75	150	X-PM16803-2000

Solid Carbide 4 Flutes Unequal Helic Flat End Mills
► X-PM16804

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC

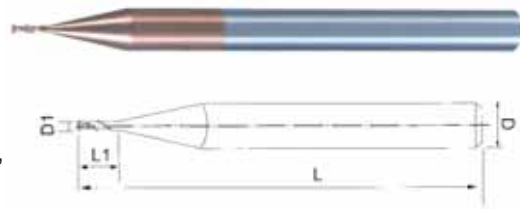

TECHNOLOGY PARAMETERS

d	D(h6)	L1	L	Item Code
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8	8	19	60	X-PM16804-0800
10	10	24	70	X-PM16804-1000
12	12	29	75	X-PM16804-1200
16	16	38	90	X-PM16804-1600
20	20	48	110	X-PM16804-2000
25	25	59	125	X-PM16804-2500

Solid Carbide Micro 2 Flutes End Mill

► X-PM16805

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



Coating(Optional)

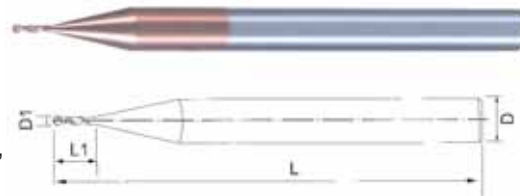
TECHNOLOGY PARAMETERS

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0.3	0.6	4	50	X-PM16805-0300
0.4	0.8	4	50	X-PM16805-0400
0.5	1	4	50	X-PM16805-1500
0.6	1.2	4	50	X-PM16805-1600
0.7	1.4	4	50	X-PM16805-1700
0.8	1.6	4	50	X-PM16805-1800
0.9	1.8	4	50	X-PM16805-1900

Solid Carbide Micro 2 Flutes Ball Nose End Mill

► X-PM16806

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



Coating(Optional)

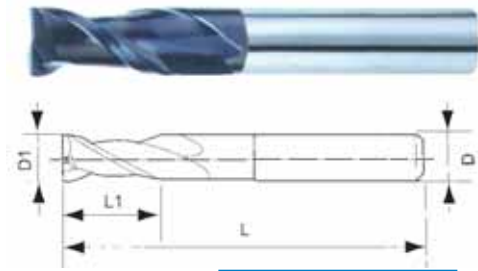
TECHNOLOGY PARAMETERS

D1	L1	D	L	Item Code
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R0.2X0.4	0.8	4	50	X-PM16806-0020
R0.25X0.5	1.0	4	50	X-PM16806-0025
R0.3X0.6	1.2	4	50	X-PM16806-0030
R0.35X0.7	1.4	4	50	X-PM16806-0035
R0.4X0.8	1.6	4	50	X-PM16806-0040
R0.45	1.8	4	50	X-PM16806-0045

Solid Carbide 2 Flutes End Mill

► X-PM16807

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



Coating(Optional)

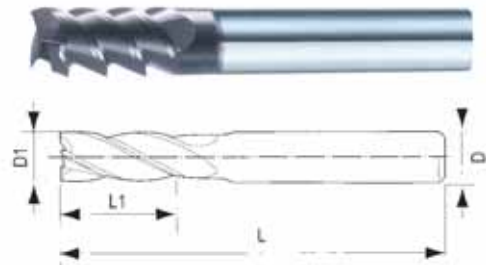
TECHNOLOGY PARAMETERS

D1	L1	D	L	Item Code	D1	L1	D	L	Item Code
1	3	4	50	X-PM16807-0100	7	20	8	60	X-PM16807-0700
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2	6	4	50	X-PM16807-0200	9	25	10	75	X-PM16807-0900
2.5	7	4	50	X-PM16807-0250	10	25	10	75	X-PM16807-1000
3	10	4	50	X-PM16807-0300	12	30	12	75	X-PM16807-1200
3.5	9	4	50	X-PM16807-0350	14	40	14	80	X-PM16807-1400
4	12	4	50	X-PM16807-0400	16	45	16	100	X-PM16807-1600
5	15	6	50	X-PM16807-0500	18	45	18	100	X-PM16807-1800
6	15	6	50	X-PM16807-0600	20	50	20	100	X-PM16807-2000

Solid Carbide 3 Flutes End Mill

► X-PM16808

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



Coating(Optional)

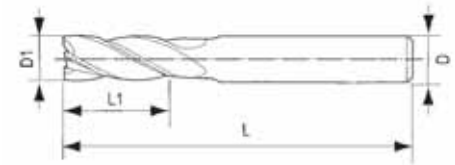
TECHNOLOGY PARAMETERS

D1	L1	D	L	Item Code	D1	L1	D	L	Item Code
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2	6	4	50	X-PM16808-0200	14	40	14	80	X-PM16808-1400
2.5	7	4	50	X-PM16808-0250	16	45	16	100	X-PM16808-1600
3	8	4	50	X-PM16808-0300	18	45	18	100	X-PM16808-1800
4	12	4	50	X-PM16808-0400	20	50	20	100	X-PM16808-2000
5	15	6	50	X-PM16808-0500					
6	15	6	50	X-PM16808-0600					
8	20	8	60	X-PM16808-0800					
10	25	10	75	X-PM16808-1000					

Solid Carbide 4 Flutes End Mill

► X-PM16809

Cutter types of use:Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



Coating(Optional)

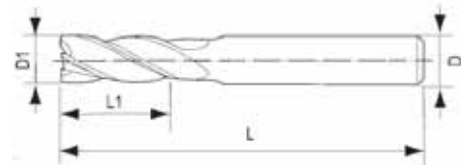
TECHNOLOGY PARAMETERS

D1	L1	D	L	Item Code	D1	L1	D	L	Item Code
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1.5	4	4	50	X-PM16809-0150	8	20	8	60	X-PM16809-0800
2	6	4	50	X-PM16809-0200	10	25	10	75	X-PM16809-1000
2.5	8	4	50	X-PM16809-0250	12	30	12	75	X-PM16809-1200
3	8	4	50	X-PM16809-0300	14	40	14	80	X-PM16809-1400
3.5	10	4	50	X-PM16809-0350	16	45	16	100	X-PM16809-1600
4	12	4	50	X-PM16809-0400	18	45	18	100	X-PM16809-1800
5	15	6	50	X-PM16809-0500	20	50	20	100	X-PM16809-2000
6	15	6	50	X-PM16809-0600					

Solid Carbide 2/4 Flutes Corner Radius End Mill

► X-PM16810

Cutter types of use:Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



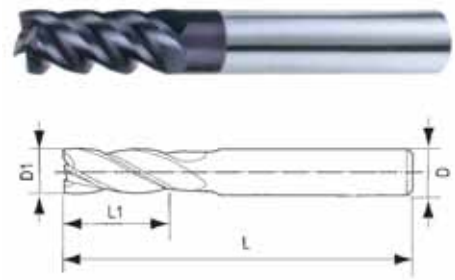
Coating(Optional)

TECHNOLOGY PARAMETERS

R	D1	L1	D	L	Item Code	R	D1	L1	D	L	Item Code
0.5	3	6	4	50	X-PM16810-0300	1	12	25	12	75	X-PM16810-1200
0.5	4	8	4	50	X-PM16810-0400	2	14	25	12	80	X-PM16810-1400
0.5	5	15	6	50	X-PM16810-0500	2	16	40	16	80	X-PM16810-1600
1	6	15	6	50	X-PM16810-0600	1	18	40	20	100	X-PM16810-1800
1	8	20	8	60	X-PM16810-0700	2	20	40	20	100	X-PM16810-2000
2	8	20	8	60	X-PM16810-0800						
1.5	10	25	10	75	X-PM16810-0900						
2	10	25	10	75	X-PM16810-1000						

Solid Carbide 4 Flutes End Mill
► X-PM16809

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steel, Non-alloyed, Low-alloyed Steel <24HRC, Hi-alloyed Steel <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



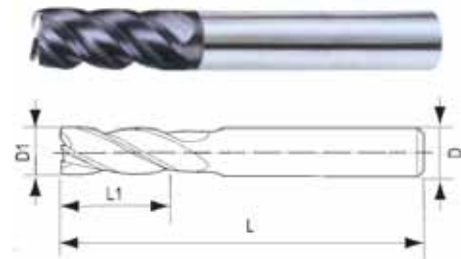
Coating(Optional)

TECHNOLOGY PARAMETERS

D1	L1	D	L	Item Code	D1	L1	D	L	Item Code
4	15	4	75	X-PM16809-2200	8	35	8	150	X-PM16809-4000
6	20	6	75	X-PM16809-2400	10	33	10	150	X-PM16809-4200
8	25	8	75	X-PM16809-2600	12	40	12	150	X-PM16809-4400
4	20	4	100	X-PM16809-2800	14	50	14	150	X-PM16809-4600
6	30	6	100	X-PM16809-3000	16	55	16	150	X-PM16809-4800
8	35	8	100	X-PM16809-3200	18	60	18	150	X-PM16809-5000
10	40	10	100	X-PM16809-3400	20	65	20	150	X-PM16809-5200
4	20	4	150	X-PM16809-3600	22	65	22	150	X-PM16809-5400
6	20	6	150	X-PM16809-3800	25	65	25	150	X-PM16809-5600

Solid Carbide 2/4 Flutes Corner Radius End Mill
► X-PM16810

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steel, Non-alloyed, Low-alloyed Steel <24HRC, Hi-alloyed Steel <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



Coating(Optional)

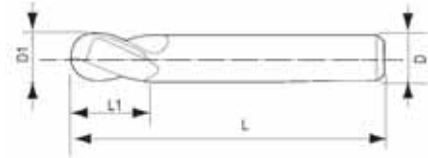
TECHNOLOGY PARAMETERS

R	D1	L1	D	L	Item Code	R	D1	L1	D	L	Item Code
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1	6	20	6	75	X-PM16810-0310	2	10	33	10	150	X-PM16810-1410
2	8	25	8	75	X-PM16810-0410	2	12	40	12	150	X-PM16810-1610
0.5	4	20	4	100	X-PM16810-0510	2	14	45	14	150	X-PM16810-1810
1	6	30	6	100	X-PM16810-0610	2	16	55	16	150	X-PM16810-2010
5	8	35	8	100	X-PM16810-0810	2	18	60	18	150	X-PM16810-2210
2	10	40	10	100	X-PM16810-0811	2	20	65	20	150	X-PM16810-2410
0.5	4	20	4	150	X-PM16810-1010	2	22	65	22	150	X-PM16810-2610
1	6	20	6	150	X-PM16810-1011	2	25	65	25	150	X-PM16810-2810

Solid Carbide 2 Flutes Ball Nose End Mills

► X-PM16811

Cutter types of use:Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



Coating(Optional)

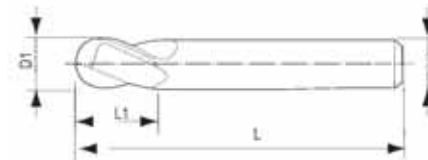
TECHNOLOGY PARAMETERS

R	D1	L1	D	L	Item Code	R	D1	L1	D	L	Item Code
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1	2	4	4	50	X-PM16811-0200	5	10	20	10	75	X-PM16811-1000
1.5	3	6	4	50	X-PM16811-0300	6	12	20	12	75	X-PM16811-1200
2	4	8	4	50	X-PM16811-0400	7	14	25	14	80	X-PM16811-1400
2.5	5	10	6	50	X-PM16811-0500	8	16	25	16	100	X-PM16811-1600
3	6	12	6	50	X-PM16811-0600	9	18	40	18	100	X-PM16811-1800
3.5	7	16	8	60	X-PM16811-0700	10	20	40	20	100	X-PM16811-2000
4	8	16	8	60	X-PM16811-0800						

Solid Carbide 3/4 Flutes Ball Nose End Mills

► X-PM16812

Cutter types of use:Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



Coating(Optional)

TECHNOLOGY PARAMETERS

R	D1	L1	D	L	Item Code	R	D1	L1	D	L	Item Code
1.5	3	6	4	50	X-PM16812-0300	5	10	20	10	75	X-PM16812-1000
2	4	8	4	50	X-PM16812-0400	6	12	20	12	75	X-PM16812-1200
2.5	5	10	6	50	X-PM16812-0500	7	14	25	14	80	X-PM16812-1400
3	6	12	6	50	X-PM16812-0600	8	16	25	16	100	X-PM16812-1600
3.5	7	16	8	60	X-PM16812-0700	9	18	40	18	100	X-PM16812-1800
4	8	16	8	60	X-PM16812-0800	10	20	40	20	100	X-PM16812-2000
4.5	9	20	10	70	X-PM16812-0900						

Solid Carbide 2 Flutes Ball Nose End Mills
► X-PM16811

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



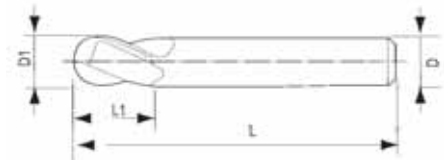
Coating(Optional)

TECHNOLOGY PARAMETERS

R	D1	L1	D	L	Item Code	R	D1	L1	D	L	Item Code
2	4	15	15	75	X-PM16811-0120	4	8	25	8	150	X-PM16811-1020
3	6	20	20	75	X-PM16811-0220	5	10	33	10	150	X-PM16811-1220
4	8	25	25	75	X-PM16811-0320	6	12	40	12	150	X-PM16811-1420
2	4	20	20	100	X-PM16811-0420	7	14	50	14	150	X-PM16811-1620
3	6	30	30	100	X-PM16811-0520	8	16	55	16	150	X-PM16811-1820
4	8	35	35	100	X-PM16811-0620	9	18	60	18	150	X-PM16811-2020
5	10	40	40	100	X-PM16811-0720	10	20	65	20	150	X-PM16811-2220
2	4	20	20	150	X-PM16811-0820	11	22	65	22	150	X-PM16811-2420
3	6	20	20	150	X-PM16811-0920	12.5	25	65	25	150	X-PM16811-2620

Solid Carbide 3/4 Flutes Ball Nose End Mills
► X-PM16812

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



Coating(Optional)

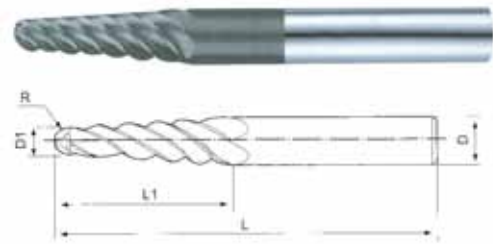
TECHNOLOGY PARAMETERS

R	D1	L1	D	L	Item Code	R	D1	L1	D	L	Item Code
2	4	15	4	75	X-PM16812-0306	4	8	25	8	150	X-PM16812-1406
3	6	20	6	75	X-PM16812-0406	5	10	33	10	150	X-PM16812-1606
4	8	25	8	75	X-PM16812-0506	6	12	40	12	150	X-PM16812-1806
2	4	20	4	100	X-PM16812-0606	7	15	50	14	150	X-PM16812-2006
3	6	30	6	100	X-PM16812-0706	8	16	55	16	150	X-PM16812-2206
4	8	35	8	100	X-PM16812-0806	9	18	60	18	150	X-PM16812-2406
5	10	40	10	100	X-PM16812-0906	10	20	65	20	150	X-PM16812-2606
2	4	20	4	150	X-PM16812-1006	11	22	65	22	150	X-PM16812-2806
3	6	20	6	150	X-PM16812-1206	12.5	25	65	25	150	X-PM16812-3006

Solid Carbide Taper Ball Nose End Mill

► X-PM16813

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



Coating(Optional)

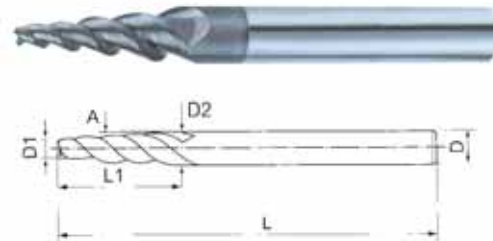
TECHNOLOGY PARAMETERS

R	A	D1	L1	D	L	Item Code	R	A	D1	L1	D	L	Item Code
0.3	1°	0.73	4	3	35	X-PM16813-0073	0.6	2°	1.72	8	4	45	X-PM16813-0172
0.3	2°	0.86	4	3	35	X-PM16813-0086	0.75	1°	1.75	8	4	45	X-PM16813-0175
0.4	30'	0.89	6	3	35	X-PM16813-0089	0.75	1°30'	1.88	8	4	45	X-PM16813-0188
0.4	1°	1	6	3	35	X-PM16813-0100	0.75	2°	2.01	8	4	45	X-PM16813-0201
0.4	2°	1.19	6	3	35	X-PM16813-0119	0.8	30'	1.73	8	4	45	X-PM16813-0173
0.5	1°	1.26	8	4	45	X-PM16813-0126	0.8	1°	1.85	8	4	45	X-PM16813-0185
0.5	2°	1.53	8	4	45	X-PM16813-0153	0.8	1°30'	2.27	8	4	45	X-PM16813-0227
0.6	1°	1.46	8	4	45	X-PM16813-0146	0.8	2°	2.39	12	4	45	X-PM16813-0239
0.6	1°30'	1.59	8	4	45	X-PM16813-0159							

Solid Carbide 2-3 Flutes Taper End Mill

► X-PM16814

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



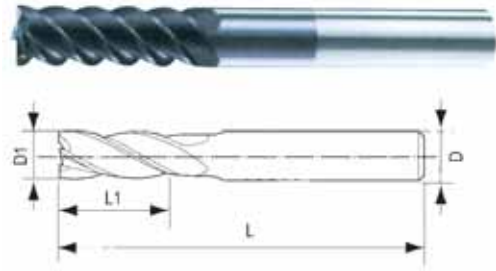
Coating(Optional)

TECHNOLOGY PARAMETERS

D1	A	L1	D2	D	L	Item Code	D1	A	L1	D2	D	L	Item Code
0.6	30'	4	0.67	3	35	X-PM16814-0060	3	1°	10	3.35	4	50	X-PM16814-0300
0.6	1°	4	0.74	3	35	X-PM16814-0061	3	1.5°	10	3.52	4	50	X-PM16814-0301
0.6	2°	4	0.88	3	35	X-PM16814-0062	3	2.0°	10	3.70	4	50	X-PM16814-0302
0.8	1°	6	1.01	3	35	X-PM16814-0080	4	1.0°	15	4.52	4	50	X-PM16814-0400
0.8	2°	6	1.22	3	35	X-PM16814-0081	4	2.0°	15	5.04	4	50	X-PM16814-0401
1	1°	6	1.21	4	50	X-PM16814-0100	4	5.0°	15	7.50	4	50	X-PM16814-0402
1	2°	12	1.84	4	50	X-PM16814-0101	6	1.0°	20	6.27	6	60	X-PM16814-0600
2	30'	10	2.17	4	50	X-PM16814-0200	8	1.0°	25	8.87	8	65	X-PM16814-0800
2	1°	10	2.35	4	50	X-PM16814-0201	8	2.0°	25	9.75	8	65	X-PM16814-0801
1.5	1°	8	1.78	4	50	X-PM16814-1500	8	5.0°	25	12.37	12	100	X-PM16814-0802

Solid Carbide Big Helix End Mill (3/4 flutes)
► X-PM16815

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC

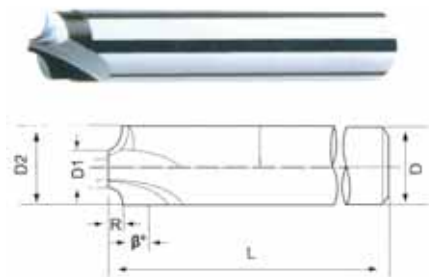

Coating(Optional)

TECHNOLOGY PARAMETERS

D1	L1	D	L	Item Code	D1	L1	D	L	Item Code
3	8	4	50	X-PM16815-0300	12	25	12	75	X-PM16815-1200
4	12	4	50	X-PM16815-0400	13	30	14	80	X-PM16815-1300
5	15	6	50	X-PM16815-0500	14	45	14	100	X-PM16815-1400
6	16	6	50	X-PM16815-0600	15	45	16	100	X-PM16815-1500
7	18	8	60	X-PM16815-0700	16	45	16	100	X-PM16815-1600
8	20	8	60	X-PM16815-0800	18	45	16	100	X-PM16815-1800
9	22	10	70	X-PM16815-0900	20	45	20	100	X-PM16815-2000
10	25	10	70	X-PM16815-1000	25	45	25	100	X-PM16815-2500
11	25	12	75	X-PM16815-1100					

Solid Carbide Inner Corner Radius End Mill - 2 flutes
► X-PM16816

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC


Coating(Optional)

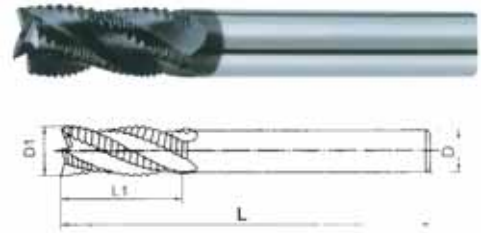
TECHNOLOGY PARAMETERS

R	β°	D1	D2	D	L	Item Code	R	β°	D1	D2	D	L	Item Code
0.5R	15°	1.5	2.7	4	50	X-PM16816-0150	2.0R	15°	1.5	5.7	6	50	X-PM16816-0156
0.75R	15°	1.5	3.2	4	50	X-PM16816-0151	2.5R	-	1.5	6.7	8	50	X-PM16816-0157
1.0R	15°	1.5	3.7	4	50	X-PM16816-0152	3.0R	15°	1.5	7.7	8	50	X-PM16816-0158
1.25R	-	1.5	4.2	6	50	X-PM16816-0153	4.0R	15°	2	10.2	12	60	X-PM16816-0200
1.5R	15°	1.5	4.7	6	50	X-PM16816-0154	5.0R	15°	3	13.2	16	75	X-PM16816-0300
1.75R	15°	1.5	5.2	6	50	X-PM16816-0155	6.0R	15°	3	15.2	16	75	X-PM16816-0301

Solid Carbide 3/4 Flutes Roughing End Mill

► X-PM16817

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



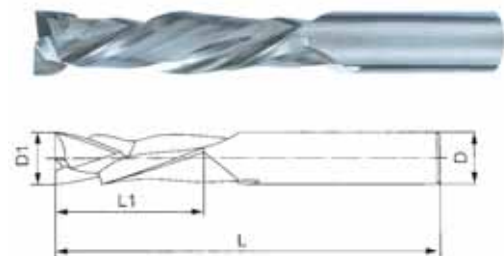
Coating(Optional)

TECHNOLOGY PARAMETERS

D1	L1	D	L	Item Code
6	15	6	50	X-PM16817-0600
8	20	8	60	X-PM16817-0800
10	25	10	75	X-PM16817-1000
12	30	12	75	X-PM16817-1200
16	40	16	100	X-PM16817-1600
20	45	20	100	X-PM16817-2000

Solid Carbide Combination Wood-Milling Cutter

► X-PM16818



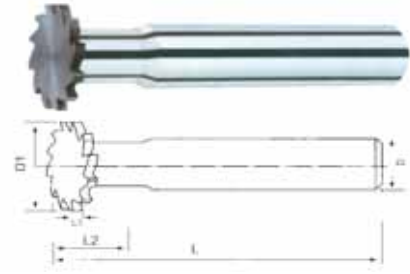
Coating(Optional)

TECHNOLOGY PARAMETERS

D1	L1	D	L	Z	Item Code	D1	L1	D	L	Z	Item Code
10	20	10	70	2	X-PM16818-1000	14	40	14	100	2	X-PM16818-1401
10	30	10	80	2	X-PM16818-1001	14	50	14	100	2	X-PM16818-1402
12	30	12	80	2	X-PM16818-1200	16	30	16	80	2	X-PM16818-1600
12	40	12	100	2	X-PM16818-1201	16	40	16	100	2	X-PM16818-1601
12	50	12	100	2	X-PM16818-1202	16	50	16	100	2	X-PM16818-1602
14	30	14	80	2	X-PM16818-1400						

Solid Carbide T- Slot End Mill
► X-PM16819

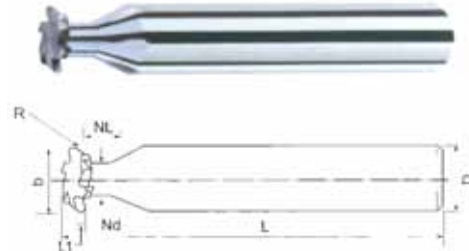
Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC


Coating(Optional)
TECHNOLOGY PARAMETERS

D1	L1	D2	L2	D	L	Item Code	D1	L1	D2	L2	D	L	Item Code
4	1	2	6	4	50	X-PM16819-1601	12	2	6	10	10	80	X-PM16819-2503
4	2	2	6	4	50	X-PM16819-1602	14	1	8	10	10	100	X-PM16819-2504
6	1	4	8	6	50	X-PM16819-1603	14	2	8	10	10	100	X-PM16819-3001
6	2	4	8	6	50	X-PM16819-2001	16	1	8	15	12	100	X-PM16819-3002
8	1	4	8	6	60	X-PM16819-2002	16	2	8	15	12	100	X-PM16819-3003
8	2	4	8	6	60	X-PM16819-2003	18	1	10	15	12	100	X-PM16819-4001
10	1	6	10	8	75	X-PM16819-2004	18	2	10	15	12	100	X-PM16819-4002
10	2	6	10	8	75	X-PM16819-2501	20	1	10	15	12	100	X-PM16819-4003
12	1	6	10	10	80	X-PM16819-2502	20	2	10	15	12	100	X-PM16819-4004

Solid Carbide External Arclike T- Slot Mill Cutter
► X-PM16820

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC

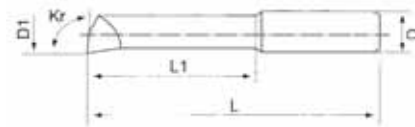

Coating(Optional)
TECHNOLOGY PARAMETERS

D	R	L1	Nd	NL	L	D	Z	Item Code	D	R	L1	Nd	NL	L	D	Z	Item Code
4	0.3R	0.6	2.0	3.5	50	6	4	X-PM16820-0400	10	0.3R	0.6	4.5	6.0	75	10	6	X-PM16820-1000
4	1R	2.0	2.0	3.5	50	6	4	X-PM16820-0401	10	0.5R	1.0	4.5	6.0	75	10	6	X-PM16820-1001
5	0.3R	0.6	2.2	3.5	50	6	4	X-PM16820-0500	10	1.5R	3.0	4.5	6.0	75	10	6	X-PM16820-1002
5	0.5R	1.0	2.2	3.5	50	6	4	X-PM16820-0501	10	2R	4.0	4.5	6.0	75	10	6	X-PM16820-1003
6	0.3R	0.6	2.7	4.0	50	6	4	X-PM16820-0600	12	0.3R	0.6	5.5	6.0	75	12	6	X-PM16820-1200
6	0.5R	1.0	2.7	4.0	50	6	4	X-PM16820-0601	12	0.5R	1.0	5.5	6.0	75	12	6	X-PM16820-1201
8	0.3R	0.6	3.6	5.0	60	8	6	X-PM16820-0800	12	1R	2.0	5.5	6.0	75	12	6	X-PM16820-1202
8	0.5R	1.0	3.6	5.0	60	8	6	X-PM16820-0801	12	2R	4.0	5.5	6.0	75	12	6	X-PM16820-1203

Solid Carbide Small Hole Boring Cutter

► X-PM16821

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC



Coating(Optional)

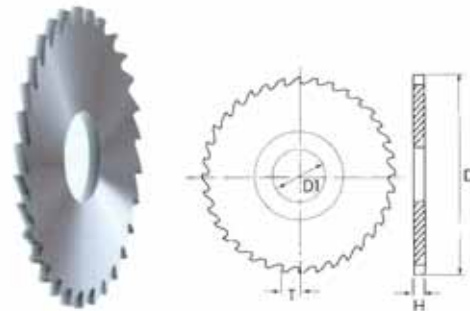
TECHNOLOGY PARAMETERS

D1	L1	D	L	Item Code
2	10	2	35	X-PM16821-0200
3	15	3	40	X-PM16821-0300
4	15	4	50	X-PM16821-0400
5	25	5	50	X-PM16821-0500
6	30	6	60	X-PM16821-0600
8	35	8	70	X-PM16821-0800
10	40	10	70	X-PM16821-1000
12	40	12	80	X-PM16821-1200

Solid Carbide Saw Blade Cutter

► X-PM16822

Cutter types of use: Stainless Steel, Cast Iron, Aluminium, Copper, Graphite, Plastics, Composite Material, Titanium, Nickel, Heat-resistant Steed, Non-alloyed, Low-alloyed Steed <24HRC, Hi-alloyed Steed <30HRC, Hardened Steel 30-38HRC 38-48HRC 48-56HRC 56-68HRC

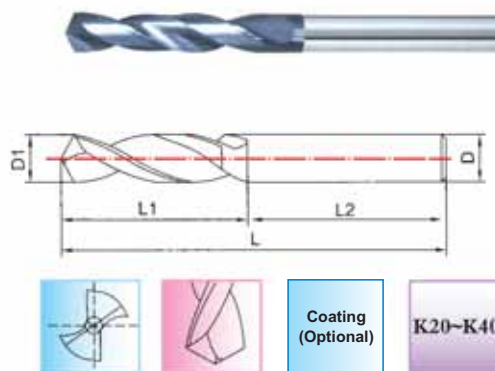


TECHNOLOGY PARAMETERS

D1	H	D	Item Code	D1	H	D	Item Code
6	0.15-4.5	12	X-PM16822-0600	16	0.3-4.5	55	X-PM16822-0610
8	0.15-4.5	16	X-PM16822-0801	16/20	0.3-5.0	63	X-PM16822-0810
8	0.15-4.5	20	X-PM16822-0802	12.7/25.4	0.3-5.0	70	X-PM16822-0820
8	0.2-4.5	25	X-PM16822-0803	12.7/25.4	0.4-5.0	75	X-PM16822-0830
8/12.7	0.2-4.5	27	X-PM16822-1271	25.4/31/75	0.4-5.0	80	X-PM16822-1210
8/12.7	0.2-4.5	30	X-PM16822-1272	25.4/31/75	0.4-5.0	85	X-PM16822-1220
8/12.7	0.2-4.5	32	X-PM16822-1273	25.4/31/75	0.5-5.0	90	X-PM16822-1230
12.7	0.3-4.5	40	X-PM16822-1274	25.4/31/75	0.5-5.0	95	X-PM16822-1240
12.7	0.3-4.5	45	X-PM16822-1275	25.4/31/75	0.5-5.0	100	X-PM16822-1250
12.7	0.3-4.5	50	X-PM16822-1276	25.4/31/75	0.5-5.0	105	X-PM16822-1260

Solid Carbide Twist Drill 3XD
► D-PM11801
★ Description:

1. Measurements Manufactured according to Standard DIN6537
2. Chisel Edge Grinding IRK standard
3. Primary edge Point angle 140°
4. Chip Evacuation Groove Special designed, easy evacuation
5. Tolerance of Cutting edge diameter m7
6. Shank According to DIN6535HA h6



- ★ Use for the process of Structural Steel, Alloy Steel, Stainless Steel and other common materials; Precise centering ability which enables to gain stable dimensional accuracy and fine surface quality; suitable for process system with excellent rigidity.

Specification				Item Code	
D1	L1	D	L	Uncoated	Coated
1	4	1	38	D-PM11801-0330	D-PM11801-0330T
1.5	4	1.5	38	D-PM11801-0340	D-PM11801-0340T
2	4	2	38	D-PM11801-0350	D-PM11801-0350T
2.5	4	2.5	38	D-PM11801-0360	D-PM11801-0360T
3.	20	3	50	D-PM11801-0370	D-PM11801-0370T
3.5	20	4	50	D-PM11801-0380	D-PM11801-0380T
4	20	4	50	D-PM11801-0390	D-PM11801-0390T
4.5	28	6	65	D-PM11801-0400	D-PM11801-0400T
5	28	6	65	D-PM11801-0410	D-PM11801-0410T
5.5	28	6	65	D-PM11801-0420	D-PM11801-0420T
6	28	6	65	D-PM11801-0430	D-PM11801-0430T
6.5	34	8	80	D-PM11801-0440	D-PM11801-0440T
7.	34	8	80	D-PM11801-0450	D-PM11801-0450T
7.5	34	8	80	D-PM11801-0460	D-PM11801-0460T
8	34	8	80	D-PM11801-0470	D-PM11801-0470T
8.5	47	10	90	D-PM11801-0480	D-PM11801-0480T
9	47	10	90	D-PM11801-0490	D-PM11801-0490T
9.5	47	10	90	D-PM11801-0500	D-PM11801-0500T
10	47	10	90	D-PM11801-0510	D-PM11801-0510T
10.5	55	12	105	D-PM11801-0520	D-PM11801-0520T
11	55	12	105	D-PM11801-0530	D-PM11801-0530T
11.5	55	12	105	D-PM11801-0540	D-PM11801-0540T
12	55	12	105	D-PM11801-0550	D-PM11801-0550T
12.5	60	14	110	D-PM11801-0560	D-PM11801-0560T
13	60	14	110	D-PM11801-0570	D-PM11801-0570T
13.5	60	14	110	D-PM11801-0580	D-PM11801-0580T
14	60	14	110	D-PM11801-0590	D-PM11801-0590T
14.5	65	16	115	D-PM11801-0600	D-PM11801-0600T
15	65	16	115	D-PM11801-0610	D-PM11801-0610T
15.5	65	16	115	D-PM11801-0620	D-PM11801-0620T
16	65	16	115	D-PM11801-0630	D-PM11801-0630T
16.5	72	18	127	D-PM11801-0640	D-PM11801-0640T
17	72	18	127	D-PM11801-0650	D-PM11801-0650T
17.5	72	18	127	D-PM11801-0660	D-PM11801-0660T
18	72	18	127	D-PM11801-0670	D-PM11801-0670T
18.5	80	20	136	D-PM11801-0680	D-PM11801-0680T
19	80	20	136	D-PM11801-0690	D-PM11801-0690T
19.5	80	20	136	D-PM11801-0700	D-PM11801-0700T
20	80	20	136	D-PM11801-0710	D-PM11801-0710T

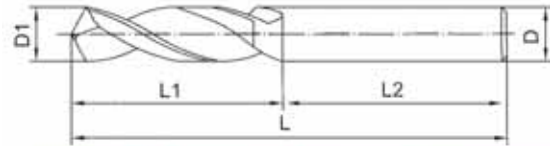
Note:

1. Shape of the shank accept custom-order according to DIN653 HA/HB/HE
2. Example of custom-order D-PM11801-0330 (10pieces)

Solid Carbide Twist Drill 5XD

► D-PM11802

- ★ Description:
- 1. Measurements Manufactured according to Standard DIN6537
- 2. Chisel Edge Grinding IRK standard
- 3. Primary edge Point angle 140°
- 4. Chip Evacuation Groove Special designed, easy evacuation
- 5. Tolerance of Cutting edge diameter m7
- 6. Shank According to DIN6535HA h6



Coating (Optional)

K20~K40

★ Instruction for Use:

Use for the process of Structural Steel, Alloy Steel, Stainless Steel and other common materials; Precise centering ability which enables to gain stable dimensional accuracy and fine surface quality; suitable for process system with excellent rigidity.

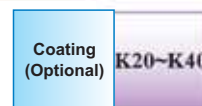
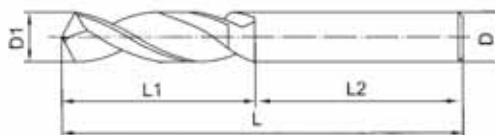
Specification				Item Code	
D1	L1	D	L	Uncoated	Coated
1	7	1	50	D-PM11802-0330	D-PM11802-0330T
1.5	7	1.5	50	D-PM11802-0340	D-PM11802-0340T
2	7	2	50	D-PM11802-0350	D-PM11802-0350T
2.5	7	2.5	50	D-PM11802-0360	D-PM11802-0360T
3	28	3	60	D-PM11802-0370	D-PM11802-0370T
3.5	28	4	60	D-PM11802-0380	D-PM11802-0380T
4	28	4	60	D-PM11802-0390	D-PM11802-0390T
4.5	36	6	75	D-PM11802-0400	D-PM11802-0400T
5	36	6	75	D-PM11802-0410	D-PM11802-0410T
5.5	36	6	75	D-PM11802-0420	D-PM11802-0420T
6	36	6	75	D-PM11802-0430	D-PM11802-0430T
6.5	53	8	90	D-PM11802-0440	D-PM11802-0440T
7	53	8	90	D-PM11802-0450	D-PM11802-0450T
7.5	53	8	90	D-PM11802-0460	D-PM11802-0460T
8	53	8	90	D-PM11802-0470	D-PM11802-0470T
8.5	61	10	105	D-PM11802-0480	D-PM11802-0480T
9	61	10	105	D-PM11802-0490	D-PM11802-0490T
9.5	61	10	105	D-PM11802-0500	D-PM11802-0500T
10	61	10	105	D-PM11802-0510	D-PM11802-0510T
10.5	71	12	120	D-PM11802-0520	D-PM11802-0520T
11	71	12	120	D-PM11802-0530	D-PM11802-0530T
11.5	71	12	120	D-PM11802-0540	D-PM11802-0540T
12	71	12	120	D-PM11802-0550	D-PM11802-0550T
12.5	77	14	128	D-PM11802-0560	D-PM11802-0560T
13	77	14	128	D-PM11802-0570	D-PM11802-0570T
13.5	77	14	128	D-PM11802-0580	D-PM11802-0580T
14	77	14	128	D-PM11802-0590	D-PM11802-0590T
14.5	83	16	136	D-PM11802-0600	D-PM11802-0600T
15	83	16	136	D-PM11802-0610	D-PM11802-0610T
15.5	83	16	136	D-PM11802-0620	D-PM11802-0620T
16	83	16	136	D-PM11802-0630	D-PM11802-0630T
16.5	90	18	147	D-PM11802-0640	D-PM11802-0640T
17	90	18	147	D-PM11802-0650	D-PM11802-0650T
17.5	90	18	147	D-PM11802-0660	D-PM11802-0660T
18	90	18	147	D-PM11802-0670	D-PM11802-0670T
18.5	97	20	160	D-PM11802-0680	D-PM11802-0680T
19	97	20	160	D-PM11802-0690	D-PM11802-0690T
19.5	97	20	160	D-PM11802-0700	D-PM11802-0700T
20	97	20	160	D-PM11802-0710	D-PM11802-0710T

Note:

- 1. Shape of the shank accept custom-order according to DIN653 HA/HB/HE
- 2. Example of custom-order D-PM11802-0330 (10pieces)

Coolant-fed Solid Carbide Twist Drill 3XD
► D-PM12801
★ Description:

1. Measurements Manufactured according to Standard DIN6537
2. Chisel Edge Grinding IRK standard
3. Primary edge Point angle 140°
4. Chip Evacuation Groove Special designed, easy evacuation
5. Tolerance of Cutting edge diameter m7
6. Shank According to DIN6535HA h6


★ Instruction for Use:

Use for the process of Structural Steel, Alloy Steel, Stainless Steel and other common materials; Precise centering ability which enables to gain stable dimensional accuracy and fine surface quality; suitable for process system with excellent rigidity.

Specification				Item Code	
D1	L1	D	L	Uncoated	Coated
4	24	4	358	D-PM12801-0330	D-PM12801-0330T
4.5	28	6	66	D-PM12801-0340	D-PM12801-0340T
5	28	6	66	D-PM12801-0350	D-PM12801-0350T
5.5	28	6	66	D-PM12801-0360	D-PM12801-0360T
6	28	6	66	D-PM12801-0370	D-PM12801-0370T
6.5	34	8	80	D-PM12801-0380	D-PM12801-0380T
7	34	8	80	D-PM12801-0390	D-PM12801-0390T
7.5	34	8	80	D-PM12801-0400	D-PM12801-0400T
8	34	8	80	D-PM12801-0410	D-PM12801-0410T
8.5	47	10	90	D-PM12801-0420	D-PM12801-0420T
9	47	10	90	D-PM12801-0430	D-PM12801-0430T
9.5	47	10	90	D-PM12801-0440	D-PM12801-0440T
10	47	10	90	D-PM12801-0450	D-PM12801-0450T
10.5	55	12	105	D-PM12801-0460	D-PM12801-0460T
11	55	12	105	D-PM12801-0470	D-PM12801-0470T
11.5	55	12	105	D-PM12801-0480	D-PM12801-0480T
12	55	12	105	D-PM12801-0490	D-PM12801-0490T
12.5	60	14	110	D-PM12801-0500	D-PM12801-0500T
13	60	14	110	D-PM12801-0510	D-PM12801-0510T
13.5	60	14	110	D-PM12801-0520	D-PM12801-0520T
14	60	14	110	D-PM12801-0530	D-PM12801-0530T
14.5	65	16	120	D-PM12801-0540	D-PM12801-0540T
15	65	16	120	D-PM12801-0550	D-PM12801-0550T
15.5	65	16	120	D-PM12801-0560	D-PM12801-0560T
16	65	16	120	D-PM12801-0570	D-PM12801-0570T
16.5	72	18	130	D-PM12801-0580	D-PM12801-0580T
17	72	18	130	D-PM12801-0590	D-PM12801-0590T
17.5	72	18	130	D-PM12801-0600	D-PM12801-0600T
18	72	18	130	D-PM12801-0610	D-PM12801-0610T
18.5	80	20	137	D-PM12801-0620	D-PM12801-0620T
19	80	20	137	D-PM12801-0630	D-PM12801-0630T
19.5	80	20	137	D-PM12801-0640	D-PM12801-0640T
20	80	20	137	D-PM12801-0650	D-PM12801-0650T

Note:

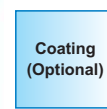
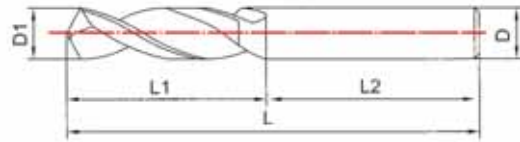
1. Shape of the shank accept custom-order according to DIN653 HA/HB/HE
2. Example of custom-order D-PM12801-0330 (10pieces)

Coolant-fed Solid Carbide Twist Drill 5XD

► D-PM12802

★ **Description:**

1. Measurements Manufactured according to Standard DIN6537
2. Chisel Edge Grinding IRK standard
- 3 Primary edge Point angle 140°
4. Chip Evacuation Groove Special designed, easy evacuation
5. Tolerance of Cutting edge diameter m7
6. Shank According to DIN6535HA h6



★ **Instruction for Use:**

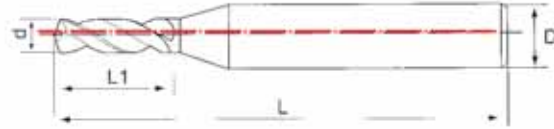
Use for the process of Structural Steel, Alloy Steel, Stainless Steel and other common materials; Precise centering ability which enables to gain stable dimensional accuracy and fine surface quality; suitable for process system with excellent rigidity.

Specification				Item Code	
D1	L1	D	L	Uncoated	Coated
4	36	4	75	D-PM12802-0330	D-PM12802-0330T
4.5	36	6	75	D-PM12802-0340	D-PM12802-0340T
5	36	6	75	D-PM12802-0350	D-PM12802-0350T
5.5	36	6	75	D-PM12802-0360	D-PM12802-0360T
6	36	6	75	D-PM12802-0370	D-PM12802-0370T
6.5	53	8	95	D-PM12802-0380	D-PM12802-0380T
7	53	8	95	D-PM12802-0390	D-PM12802-0390T
7.5	53	8	95	D-PM12802-0400	D-PM12802-0400T
8	53	8	95	D-PM12802-0410	D-PM12802-0410T
8.5	61	10	105	D-PM12802-0420	D-PM12802-0420T
9	61	10	105	D-PM12802-0430	D-PM12802-0430T
9.5	61	10	105	D-PM12802-0440	D-PM12802-0440T
10	61	10	105	D-PM12802-0450	D-PM12802-0450T
10.5	71	12	120	D-PM12802-0460	D-PM12802-0460T
11	71	12	120	D-PM12802-0470	D-PM12802-0470T
11.5	71	12	120	D-PM12802-0480	D-PM12802-0480T
12	71	12	120	D-PM12802-0490	D-PM12802-0490T
12.5	77	14	125	D-PM12802-0500	D-PM12802-0500T
13	77	14	125	D-PM12802-0510	D-PM12802-0510T
13.5	77	14	125	D-PM12802-0520	D-PM12802-0520T
14	77	14	125	D-PM12802-0530	D-PM12802-0530T
14.5	83	16	135	D-PM12802-0540	D-PM12802-0540T
15	83	16	135	D-PM12802-0550	D-PM12802-0550T
15.5	83	16	135	D-PM12802-0560	D-PM12802-0560T
16	83	16	135	D-PM12802-0570	D-PM12802-0570T
16.5	91	18	145	D-PM12802-0580	D-PM12802-0580T
17	91	18	145	D-PM12802-0590	D-PM12802-0590T
17.5	91	18	145	D-PM12802-0600	D-PM12802-0600T
18	91	18	145	D-PM12802-0610	D-PM12802-0610T
18.5	97	20	150	D-PM12802-0620	D-PM12802-0620T
19	100	20	150	D-PM12802-0630	D-PM12802-0630T
19.5	100	20	150	D-PM12802-0640	D-PM12802-0640T
20	100	20	150	D-PM12802-0650	D-PM12802-0650T

Note:

1. Shape of the shank accept custom-order according to DIN653 HA/HB/HE
2. Example of custom-order D-PM12802-0330 (10pieces)

Solid Carbide Micro Twist Drill Bits

► D-PM13801


TECHNOLOGY PARAMETERS

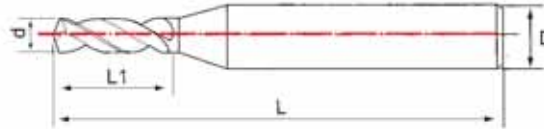
Specification				Item Code		Specification				Item Code	
d	D(h6)	L1	L	Uncoated	Coated	d	D(h6)	L1	L	Uncoated	Coated
0.20	3	1.8	38	D-PM13801-0020	D-PM13801-0020T	0.41	3	3.2	38	D-PM13801-0041	D-PM13801-0041T
0.21	3	1.8	38	D-PM13801-0021	D-PM13801-0021T	0.42	3	3.2	38	D-PM13801-0042	D-PM13801-0042T
0.22	3	1.8	38	D-PM13801-0022	D-PM13801-0022T	0.43	3	3.2	38	D-PM13801-0043	D-PM13801-0043T
0.23	3	1.8	38	D-PM13801-0023	D-PM13801-0023T	0.44	3	3.2	38	D-PM13801-0044	D-PM13801-0044T
0.24	3	1.8	38	D-PM13801-0024	D-PM13801-0024T	0.45	3	3.2	38	D-PM13801-0045	D-PM13801-0045T
0.25	3	2.2	38	D-PM13801-0025	D-PM13801-0025T	0.46	3	3.6	38	D-PM13801-0046	D-PM13801-0046T
0.26	3	2.2	38	D-PM13801-0026	D-PM13801-0026T	0.47	3	3.6	38	D-PM13801-0047	D-PM13801-0047T
0.27	3	2.2	38	D-PM13801-0027	D-PM13801-0027T	0.48	3	3.6	38	D-PM13801-0048	D-PM13801-0048T
0.28	3	2.2	38	D-PM13801-0028	D-PM13801-0028T	0.49	3	3.6	38	D-PM13801-0049	D-PM13801-0049T
0.29	3	2.2	38	D-PM13801-0029	D-PM13801-0029T	0.50	3	4	38	D-PM13801-0050	D-PM13801-0050T
0.30	3	2.2	38	D-PM13801-0030	D-PM13801-0030T	0.51	3	4	38	D-PM13801-0051	D-PM13801-0051T
0.31	3	2.8	38	D-PM13801-0031	D-PM13801-0031T	0.52	3	4	38	D-PM13801-0052	D-PM13801-0052T
0.32	3	2.8	38	D-PM13801-0032	D-PM13801-0032T	0.53	3	4	38	D-PM13801-0053	D-PM13801-0053T
0.33	3	2.8	38	D-PM13801-0033	D-PM13801-0033T	0.54	3	4	38	D-PM13801-0054	D-PM13801-0054T
0.34	3	2.8	38	D-PM13801-0034	D-PM13801-0034T	0.55	3	4	38	D-PM13801-0055	D-PM13801-0055T
0.35	3	2.8	38	D-PM13801-0035	D-PM13801-0035T	0.56	3	4.5	38	D-PM13801-0056	D-PM13801-0056T
0.36	3	2.8	38	D-PM13801-0036	D-PM13801-0036T	0.57	3	4.5	38	D-PM13801-0057	D-PM13801-0057T
0.37	3	2.8	38	D-PM13801-0037	D-PM13801-0037T	0.58	3	4.5	38	D-PM13801-0058	D-PM13801-0058T
0.38	3	2.8	38	D-PM13801-0038	D-PM13801-0038T	0.59	3	4.5	38	D-PM13801-0059	D-PM13801-0059T
0.39	3	2.8	38	D-PM13801-0039	D-PM13801-0039T	0.60	3	4.5	38	D-PM13801-0060	D-PM13801-0060T
0.40	3	3.2	38	D-PM13801-0040	D-PM13801-0040T	0.61	3	4.8	38	D-PM13801-0061	D-PM13801-0061T

Note:

1. Shape of the shank accept custom-order according to DIN653 HA/HB/HE
2. Example of custom-order D-PM13801-0020 (10pieces)

Solid Carbide Micro Twist Drill Bits

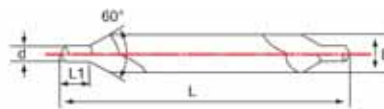
► **D-PM13801**



TECHNOLOGY PARAMETERS

Specification				Item Code		Specification				Item Code	
d	D(h6)	L1	L	Uncoated	Coated	d	D(h6)	L1	L	Uncoated	Coated
0.62	3	4.8	38	D-PM13801-0062	D-PM13801-0062T	0.82	3	5.5	38	D-PM13801-0082	D-PM13801-0082T
0.63	3	4.8	38	D-PM13801-0063	D-PM13801-0063T	0.83	3	5.5	38	D-PM13801-0083	D-PM13801-0083T
0.64	3	4.8	38	D-PM13801-0064	D-PM13801-0064T	0.84	3	5.5	38	D-PM13801-0084	D-PM13801-0084T
0.65	3	4.8	38	D-PM13801-0065	D-PM13801-0065T	0.85	3	5.5	38	D-PM13801-0085	D-PM13801-0085T
0.66	3	5.2	38	D-PM13801-0066	D-PM13801-0066T	0.86	3	5.5	38	D-PM13801-0086	D-PM13801-0086T
0.67	3	5.2	38	D-PM13801-0067	D-PM13801-0067T	0.87	3	5.5	38	D-PM13801-0087	D-PM13801-0087T
0.68	3	5.2	38	D-PM13801-0068	D-PM13801-0068T	0.88	3	5.5	38	D-PM13801-0088	D-PM13801-0088T
0.69	3	5.2	38	D-PM13801-0069	D-PM13801-0069T	0.89	3	5.5	38	D-PM13801-0089	D-PM13801-0089T
0.70	3	5.2	38	D-PM13801-0070	D-PM13801-0070T	0.90	3	6	38	D-PM13801-0090	D-PM13801-0090T
0.71	3	5.2	38	D-PM13801-0071	D-PM13801-0071T	0.91	3	6	38	D-PM13801-0091	D-PM13801-0091T
0.72	3	5.2	38	D-PM13801-0072	D-PM13801-0072T	0.92	3	6	38	D-PM13801-0092	D-PM13801-0092T
0.73	3	5.2	38	D-PM13801-0073	D-PM13801-0073T	0.93	3	6	38	D-PM13801-0093	D-PM13801-0093T
0.74	3	5.2	38	D-PM13801-0074	D-PM13801-0074T	0.94	3	6	38	D-PM13801-0094	D-PM13801-0094T
0.75	3	5.2	38	D-PM13801-0075	D-PM13801-0075T	0.95	3	6	38	D-PM13801-0095	D-PM13801-0095T
0.76	3	5.2	38	D-PM13801-0076	D-PM13801-0076T	0.96	3	6	38	D-PM13801-0096	D-PM13801-0096T
0.77	3	5.5	38	D-PM13801-0077	D-PM13801-0077T	0.97	3	6	38	D-PM13801-0097	D-PM13801-0097T
0.78	3	5.5	38	D-PM13801-0078	D-PM13801-0078T	0.98	3	6	38	D-PM13801-0098	D-PM13801-0098T
0.79	3	5.5	38	D-PM13801-0079	D-PM13801-0079T	0.99	3	6	38	D-PM13801-0099	D-PM13801-0099T
0.80	3	5.5	38	D-PM13801-0080	D-PM13801-0080T	1.00	3	6	40	D-PM13801-0100	D-PM13801-0100T
0.81	3	5.5	38	D-PM13801-0081	D-PM13801-0081T						

Note:
 1. Shape of the shank accept custom-order according to DIN653 HA/HB/HE
 2. Example of custom-order D-PM13801-0062 (10pieces)

Solid Carbide A Type Center Drill 60° 90°
► D-PM13802

► D-PM13802-2

 Coating
(Optional)

TECHNOLOGY PARAMETERS

Specification				Item Code	
d(h8)	D(h6)	l	L	Uncoated	Coated
0.5	3.2	0.8	40	D-PM13802-0850	D-PM13802-2-0850T
0.8	3.2	1.1	40	D-PM13802-0080	D-PM13802-2-0080T
1.0	3.2	1.3	40	D-PM13802-0100	D-PM13802-2-0100T
1.3	3.2	1.6	40	D-PM13802-0130	D-PM13802-2-0130T
1.6	4.0	2.0	40	D-PM13802-0160	D-PM13802-2-0160T
2.0	5.0	2.5	40	D-PM13802-0200	D-PM13802-2-0200T
2.5	6.3	3.1	45	D-PM13802-0250	D-PM13802-2-0250T
3.2	8.0	3.9	50	D-PM13802-0320	D-PM13802-2-0320T
4.0	10.0	5.0	55	D-PM13802-0400	D-PM13802-2-0400T
5.0	12.5	6.3	60	D-PM13802-0500	D-PM13802-2-0500T
6.3	16.0	8.0	70	D-PM13802-0630	D-PM13802-2-0630T
0.5	3.2	0.8	45	D-PM13802-0050	D-PM13802-2-0050T
0.8	3.2	1.1	45	D-PM13802-0080	D-PM13802-2-0080T
1.0	3.2	1.3	45	D-PM13802-0100	D-PM13802-2-0100T
1.3	3.2	1.6	45	D-PM13802-0130	D-PM13802-2-0130T
1.6	4.0	2.0	45	D-PM13802-0160	D-PM13802-2-0160T
2.0	5.0	2.5	50	D-PM13802-0200	D-PM13802-2-0200T
2.5	6.3	3.1	55	D-PM13802-0250	D-PM13802-2-0250T
3.2	8.0	3.9	60	D-PM13802-0320	D-PM13802-2-0320T
4.0	10.0	5.0	65	D-PM13802-0400	D-PM13802-2-0400T
5.0	12.5	6.3	75	D-PM13802-0500	D-PM13802-2-0500T
6.3	16	8.0	80	D-PM13802-0630	D-PM13802-2-0630T

Note:

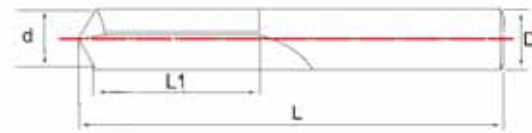
1. Shape of the shank accept custom-order according to DIN653 HA/HB/HE
2. Example of custom-order D-PM13802-2-0850 (10pieces)

Solid Carbide Straight Flute Drill Bits (standrad size)

► D-PM12803

★ Functional: Gray Iron, Ductile Cast Iron, Stainless steel, Structural Steel, Alloy Steel and other common materials; Precise centering ability which enablesto gain stable dimensional accuracy and fine surface quality; suitable for process system with excellent rigidity, high speed and big roughing feed.

★ Key Features
 Sizes depending on DIN6537
 Flutes Tolerance: m7
 Special designed chip groove, Excellent chip removal properties
 Flute Angle: 130°
 Shank depending on the DIN6535HA h6
 Coating: AlTiN/TiAlN or NaNo



TECHNOLOGY PARAMETERS

Specification				Item Code	
d(h7)	L1	D(h6)	L	Uncoated	Coated
2.0 < d ≤ 2.5	20	3	50	D-PM12803-0200	D-PM12803-0200T
2.5 < d ≤ 3.0	22	3	50	D-PM12803-0250	D-PM12803-0250T
3.0 < d ≤ 3.5	25	4	55	D-PM12803-0300	D-PM12803-0300T
3.5 < d ≤ 4.0	28	4	55	D-PM12803-0350	D-PM12803-0350T
4.0 < d ≤ 4.5	30	5	60	D-PM12803-0400	D-PM12803-0400T
4.5 < d ≤ 5.0	33	5	65	D-PM12803-0450	D-PM12803-0450T
5.0 < d ≤ 5.5	35	6	70	D-PM12803-0500	D-PM12803-0500T
5.5 < d ≤ 6.0	40	6	75	D-PM12803-0550	D-PM12803-0550T
6.0 < d ≤ 6.5	43	8	80	D-PM12803-0600	D-PM12803-0600T
6.5 < d ≤ 7.0	46	8	85	D-PM12803-0650	D-PM12803-0650T
7.0 < d ≤ 8.0	50	8	90	D-PM12803-0700	D-PM12803-0700T
8.0 < d ≤ 9.0	53	10	95	D-PM12803-0800	D-PM12803-0800T
9.0 < d ≤ 10	55	10	100	D-PM12803-0900	D-PM12803-0900T
10 < d ≤ 11	65	12	115	D-PM12803-1000	D-PM12803-1000T
11 < d ≤ 12	65	12	115	D-PM12803-1100	D-PM12803-1100T
12 < d ≤ 14	70	14	120	D-PM12803-1200	D-PM12803-1200T
14 < d ≤ 16	75	16	130	D-PM12803-1400	D-PM12803-1400T
16 < d ≤ 18	80	18	140	D-PM12803-1600	D-PM12803-1600T
18 < d ≤ 20	90	20	150	D-PM12803-1800	D-PM12803-1800T

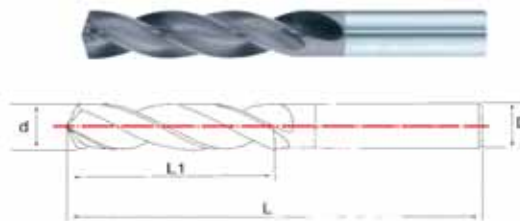
- Note:
1. Diameter, flute length, total length, double-edged blades, can be accept customized.
 2. The shank can be depending on DIN6535HA/HB/HE.
 3. Example of custom-order D-PM12803-0200 (10 pieces)

Solid Carbide 3 Flute Drill Bits
► D-PM15801


Functional: Gray Iron, Ductile Cast Iron, Stainless steel, Structural Steel. Alloy Steel and other common materials. Precise centering ability which enable to gain stable dimensional accuracy and fine surface quality; suitable for process system with excellent rigidity.



Key Features
 Sizes depending on DIN6537
 Flutes Tolerance: m7
 Special designed chip groove, Excellent chip removal properties
 Flute Angle: 150°
 Chisel edge to revise H-type.
 Shank depending on the DIN6535HA h6
 Coating: He or NaNo



Coating
(Optional)

TECHNOLOGY PARAMETERS

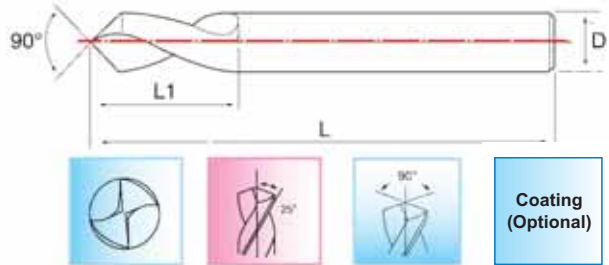
Specification				Item Code	
d(h7)	L1	D(h6)	L	Uncoated	Coated
3	22	3	50	D-PM15801-0300	D-PM15801-0300T
3.5	30	4	60	D-PM15801-0310	D-PM15801-0310T
4	30	4	60	D-PM15801-0320	D-PM15801-0320T
4.5	39	6	75	D-PM15801-0330	D-PM15801-0330T
5	39	6	75	D-PM15801-0340	D-PM15801-0340T
5.5	39	6	75	D-PM15801-0350	D-PM15801-0350T
6	39	6	75	D-PM15801-0360	D-PM15801-0360T
6.5	48	8	85	D-PM15801-0370	D-PM15801-0370T
7	48	8	85	D-PM15801-0380	D-PM15801-0380T
7.5	48	8	85	D-PM15801-0390	D-PM15801-0390T
8	48	8	85	D-PM15801-0400	D-PM15801-0400T
8.5	55	10	95	D-PM15801-0410	D-PM15801-0410T
9	55	10	95	D-PM15801-0420	D-PM15801-0420T
9.5	55	10	95	D-PM15801-0430	D-PM15801-0430T
10	55	10	95	D-PM15801-0440	D-PM15801-0440T
10.5	60	12	105	D-PM15801-0450	D-PM15801-0450T
11	60	12	105	D-PM15801-0460	D-PM15801-0460T
11.5	60	12	105	D-PM15801-0470	D-PM15801-0470T
12	60	12	105	D-PM15801-0480	D-PM15801-0480T
12.5	65	14	115	D-PM15801-0490	D-PM15801-0490T
13	65	14	115	D-PM15801-0500	D-PM15801-0500T
13.5	65	14	115	D-PM15801-0510	D-PM15801-0510T
14	65	14	115	D-PM15801-0520	D-PM15801-0520T
14.5	73	16	125	D-PM15801-0530	D-PM15801-0530T
15	73	16	125	D-PM15801-0540	D-PM15801-0540T
15.5	73	16	125	D-PM15801-0550	D-PM15801-0550T
16	73	16	125	D-PM15801-0560	D-PM15801-0560T
16.5	76	18	130	D-PM15801-0570	D-PM15801-0570T
17	76	18	130	D-PM15801-0580	D-PM15801-0580T
17.5	76	18	130	D-PM15801-0590	D-PM15801-0590T
18	76	18	130	D-PM15801-0600	D-PM15801-0600T
18.5	79	20	135	D-PM15801-0610	D-PM15801-0610T
19	79	20	135	D-PM15801-0620	D-PM15801-0620T
19.5	79	20	135	D-PM15801-0630	D-PM15801-0630T
20	79	20	135	D-PM15801-0640	D-PM15801-0640T

Note:

1. Shape of the shank accept custom-order according to DIN653 HA/HB/HE
2. Example of custom-order D-PM15801-0300 (10pieces)

Solid Carbide 90° 120° Point Drill

► D-PM15802



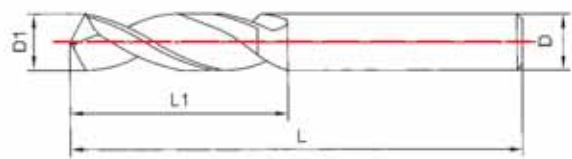
TECHNOLOGY PARAMETERS

Specification					Item Code	
(1)	d(h6)	L1	d(h6)	L	Uncoated	Coated
90°	3.00	11	3.00	40	D-PM15802-0300	D-PM15802-0300T
90°	4.00	15	4.00	50	D-PM15802-0400	D-PM15802-0400T
90°	5.00	16	5.00	60	D-PM15802-0500	D-PM15802-0500T
90°	6.00	17	6.00	60	D-PM15802-0600	D-PM15802-0600T
90°	8.00	22	8.00	70	D-PM15802-0800	D-PM15802-0800T
90°	10.00	26	10.00	75	D-PM15802-1000	D-PM15802-1000T
90°	12.00	30	12.00	80	D-PM15802-1200	D-PM15802-1200T
90°	16.00	34	16.00	90	D-PM15802-1600	D-PM15802-1600T
90°	20.00	40	20.00	100	D-PM15802-2000	D-PM15802-2000T

- Note:
 1. Shape of the shank accept custom-order according to DIN653 HA/HB/HE
 2. Example of custom-order D-PM15802-0300 (10pieces)

Solid Carbide Drill Bit For Aluminum

► D-PM15803

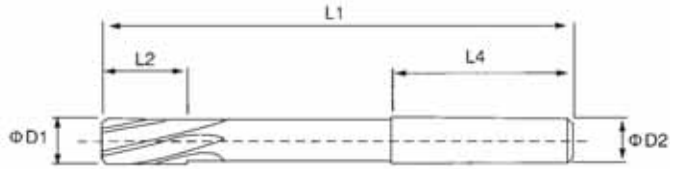


TECHNOLOGY PARAMETERS

D1	L1	D	L	Item Code	D1	L1	D	L	Item Code
3	16	3	50	D-PM15803-0300	8	37	8	80	D-PM15803-0800
3.5	20	4	50	D-PM15803-0350	8.5	37	10	90	D-PM15803-0850
4	22	4	50	D-PM15803-0400	9	40	10	90	D-PM15803-0900
4.5	24	6	65	D-PM15803-0450	9.5	40	10	90	D-PM15803-0950
5	26	6	70	D-PM15803-0500	10	43	10	95	D-PM15803-1000
5.5	28	6	70	D-PM15803-5500	11	47	12	100	D-PM15803-1100
6	28	6	70	D-PM15803-6000	12	51	12	110	D-PM15803-1200
6.5	31	8	75	D-PM15803-6500	13	51	14	110	D-PM15803-1300
7	34	8	80	D-PM15803-7000	15	76	16	140	D-PM15803-1500
7.5	34	8	80	D-PM15803-7500	20	94	20	160	D-PM15803-2000

- Note:
 1. Shape of the shank accept custom-order according to DIN653 HA/HB/HE
 2. Example of custom-order D-PM15803-0300 (10pieces)

Left-hand Reamer

► R-PM21801


TECHNOLOGY PARAMETERS

(Unit):mm

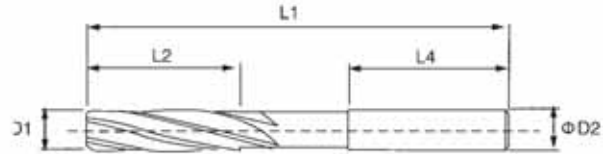
Specifications				Item Code	
D1	D2	L1	L2	Uncoated	Coated
4.00	3.50	56	20	R-PM21801-0400	R-PM21801-0400T
4.50	4.00	63	22	R-PM21801-0450	R-PM21801-0450T
5.00	4.00	63	22	R-PM21801-0500	R-PM21801-0500T
5.50	5.00	63	22	R-PM21801-0550	R-PM21801-0550T
6.00	5.00	63	22	R-PM21801-0600	R-PM21801-0600T
6.50	5.00	63	22	R-PM21801-0650	R-PM21801-0650T
7.00	6.00	71	25	R-PM21801-0700	R-PM21801-0700T
7.50	6.00	71	25	R-PM21801-0750	R-PM21801-0750T
8.00	6.00	71	25	R-PM21801-0800	R-PM21801-0800T
8.50	8.00	71	25	R-PM21801-0850	R-PM21801-0850T
9.00	8.00	71	25	R-PM21801-0900	R-PM21801-0900T
9.50	8.00	71	25	R-PM21801-0950	R-PM21801-0950T
10.00	8.00	71	25	R-PM21801-1000	R-PM21801-1000T
10.50	10.00	80	28	R-PM21801-1050	R-PM21801-1050T
11.00	10.00	80	28	R-PM21801-1100	R-PM21801-1100T
11.50	10.00	80	28	R-PM21801-1150	R-PM21801-1150T
12.00	10.00	80	28	R-PM21801-1200	R-PM21801-1200T
12.50	10.00	80	28	R-PM21801-1250	R-PM21801-1250T
13.00	10.00	80	28	R-PM21801-1300	R-PM21801-1300T
13.50	12.50	90	32	R-PM21801-1350	R-PM21801-1350T
14.00	12.50	90	32	R-PM21801-1400	R-PM21801-1400T
14.50	12.50	90	32	R-PM21801-1450	R-PM21801-1450T
15.00	12.50	90	32	R-PM21801-1500	R-PM21801-1500T
15.50	12.50	90	32	R-PM21801-1550	R-PM21801-1550T
16.00	12.50	90	32	R-PM21801-1600	R-PM21801-1600T
16.50	12.50	90	32	R-PM21801-1650	R-PM21801-1650T
17.00	16.00	90	32	R-PM21801-1700	R-PM21801-1700T
17.50	16.00	100	36	R-PM21801-1750	R-PM21801-1750T
18.00	16.00	100	36	R-PM21801-1800	R-PM21801-1800T
18.50	16.00	100	36	R-PM21801-1850	R-PM21801-1850T
19.00	16.00	100	36	R-PM21801-1900	R-PM21801-1900T
19.50	16.00	100	36	R-PM21801-1950	R-PM21801-1950T
20.00	16.00	100	36	R-PM21801-2000	R-PM21801-2000T

Note:

1. Shape of the shank accept custom-order according to DIN653 HA/HB/HE
2. Example of custom-order R-PM21801-0400 (10pieces)

Right-hand Reamer

► R-PM21802



TECHNOLOGY PARAMETERS

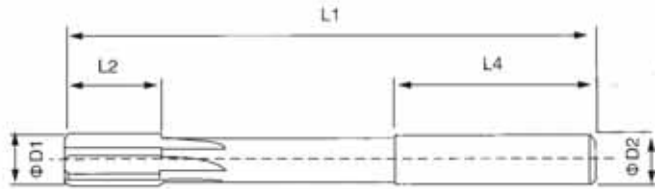
(Unit):mm

Specifications				Item Code	
D1	D2	L1	L2	Uncoated	Coated
4.00	3.50	56	20	R-PM21801-0400	R-PM21801-0400T
4.50	4.00	63	22	R-PM21801-0450	R-PM21801-0450T
5.00	4.00	63	22	R-PM21801-0500	R-PM21801-0500T
5.50	5.00	63	22	R-PM21801-0550	R-PM21801-0550T
6.00	5.00	63	22	R-PM21801-0600	R-PM21801-0600T
6.50	5.00	63	22	R-PM21801-0650	R-PM21801-0650T
7.00	6.00	71	25	R-PM21801-0700	R-PM21801-0700T
7.50	6.00	71	25	R-PM21801-0750	R-PM21801-0750T
8.00	6.00	71	25	R-PM21801-0800	R-PM21801-0800T
8.50	8.00	71	25	R-PM21801-0850	R-PM21801-0850T
9.00	8.00	71	25	R-PM21801-0900	R-PM21801-0900T
9.50	8.00	71	25	R-PM21801-0950	R-PM21801-0950T
10.00	8.00	71	25	R-PM21801-1000	R-PM21801-1000T
10.50	10.00	80	28	R-PM21801-1050	R-PM21801-1050T
11.00	10.00	80	28	R-PM21801-1100	R-PM21801-1100T
11.50	10.00	80	28	R-PM21801-1150	R-PM21801-1150T
12.00	10.00	80	28	R-PM21801-1200	R-PM21801-1200T
12.50	10.00	80	28	R-PM21801-1250	R-PM21801-1250T
13.00	10.00	80	28	R-PM21801-1300	R-PM21801-1300T
13.50	12.50	90	32	R-PM21801-1350	R-PM21801-1350T
14.00	12.50	90	32	R-PM21801-1400	R-PM21801-1400T
14.50	12.50	90	32	R-PM21801-1450	R-PM21801-1450T
15.00	12.50	90	32	R-PM21801-1500	R-PM21801-1500T
15.50	12.50	90	32	R-PM21801-1550	R-PM21801-1550T
16.00	12.50	90	32	R-PM21801-1600	R-PM21801-1600T
16.50	12.50	90	32	R-PM21801-1650	R-PM21801-1650T
17.00	16.00	90	32	R-PM21801-1700	R-PM21801-1700T
17.50	16.00	100	36	R-PM21801-1750	R-PM21801-1750T
18.00	16.00	100	36	R-PM21801-1800	R-PM21801-1800T
18.50	16.00	100	36	R-PM21801-1850	R-PM21801-1850T
19.00	16.00	100	36	R-PM21801-1900	R-PM21801-1900T
19.50	16.00	100	36	R-PM21801-1950	R-PM21801-1950T
20.00	16.00	100	36	R-PM21801-2000	R-PM21801-2000T

Note:

1. Shape of the shank accept custom-order according to DIN653 HA/HB/HE
2. Example of custom-order R-PM21801-0400 (10pieces)

Straight Flute Reamer

► R-PM21803


TECHNOLOGY PARAMETERS

(Unit):mm

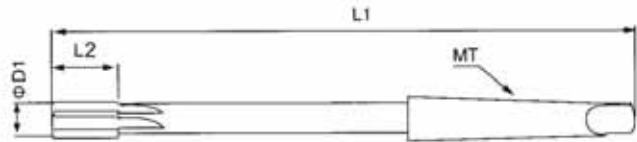
Specifications				Item Code	
D1	D2	L1	L2	Uncoated	Coated
4.00	3.50	56	20	R-PM21803-0400	R-PM21803-0400T
4.50	4.00	63	22	R-PM21803-0450	R-PM21803-0450T
5.00	4.00	63	22	R-PM21803-0500	R-PM21803-0500T
5.50	5.00	63	22	R-PM21803-0550	R-PM21803-0550T
6.00	5.00	63	22	R-PM21803-0600	R-PM21803-0600T
6.50	5.00	63	22	R-PM21803-0650	R-PM21803-0650T
7.00	6.00	71	25	R-PM21803-0700	R-PM21803-0700T
7.50	6.00	71	25	R-PM21803-0750	R-PM21803-0750T
8.00	6.00	71	25	R-PM21803-0800	R-PM21803-0800T
8.50	8.00	71	25	R-PM21803-0850	R-PM21803-0850T
9.00	8.00	71	25	R-PM21803-0900	R-PM21803-0900T
9.50	8.00	71	25	R-PM21803-0950	R-PM21803-0950T
10.00	8.00	71	25	R-PM21803-1000	R-PM21803-1000T
10.50	10.00	80	28	R-PM21803-1050	R-PM21803-1050T
11.00	10.00	80	28	R-PM21803-1100	R-PM21803-1100T
11.50	10.00	80	28	R-PM21803-1150	R-PM21803-1150T
12.00	10.00	80	28	R-PM21803-1200	R-PM21803-1200T
12.50	10.00	80	28	R-PM21803-1250	R-PM21803-1250T
13.00	10.00	80	28	R-PM21803-1300	R-PM21803-1300T
13.50	12.50	90	32	R-PM21803-1350	R-PM21803-1350T
14.00	12.50	90	32	R-PM21803-1400	R-PM21803-1400T
14.50	12.50	90	32	R-PM21803-1450	R-PM21803-1450T
15.00	12.50	90	32	R-PM21803-1500	R-PM21803-1500T
15.50	12.50	90	32	R-PM21803-1550	R-PM21803-1550T
16.00	12.50	90	32	R-PM21803-1600	R-PM21803-1600T
16.50	12.50	90	32	R-PM21803-1650	R-PM21803-1650T
17.00	16.00	90	32	R-PM21803-1700	R-PM21803-1700T
17.50	16.00	100	36	R-PM21803-1750	R-PM21803-1750T
18.00	16.00	100	36	R-PM21803-1800	R-PM21803-1800T
18.50	16.00	100	36	R-PM21803-1850	R-PM21803-1850T
19.00	16.00	100	36	R-PM21803-1900	R-PM21803-1900T
19.50	16.00	100	36	R-PM21803-1950	R-PM21803-1950T
20.00	16.00	100	36	R-PM21803-2000	R-PM21803-2000T

Note:

1. Shape of the shank accept custom-order according to DIN653 HA/HB/HE
2. Example of custom-order R-PM21803-0400 (10pieces)

Taper Shank Reamer

► R-PM21804



TECHNOLOGY PARAMETERS

(Unit):mm

Specifications				Item Code	
D1	MT	L1	L2	Uncoated	Coated
5.00	MT1	133	22	R-PM21804-0500	R-PM21804-0500T
6.00	MT1	138	22	R-PM21804-0600	R-PM21804-0600T
7.00	MT1	150	25	R-PM21804-0700	R-PM21804-0700T
8.00	MT1	156	25	R-PM21804-0800	R-PM21804-0800T
9.00	MT1	162	25	R-PM21804-0900	R-PM21804-0900T
10.00	MT1	168	25	R-PM21804-1000	R-PM21804-1000T
11.00	MT1	175	28	R-PM21804-1100	R-PM21804-1100T
12.00	MT1	182	28	R-PM21804-1200	R-PM21804-1200T
13.00	MT1	182	28	R-PM21804-1300	R-PM21804-1300T
14.00	MT1	189	28	R-PM21804-1400	R-PM21804-1400T
15.00	MT2	204	32	R-PM21804-1500	R-PM21804-1500T
16.00	MT2	210	32	R-PM21804-1600	R-PM21804-1600T
17.00	MT2	214	32	R-PM21804-1700	R-PM21804-1700T
18.00	MT2	219	36	R-PM21804-1800	R-PM21804-1800T
19.00	MT2	223	36	R-PM21804-1900	R-PM21804-1900T
20.00	MT2	228	36	R-PM21804-2000	R-PM21804-2000T

Note:

1. Shape of the shank accept custom-order according to DIN653 HA/HB/HE
2. Example of custom-order R-PM21804-0500 (10pieces)

Taper Shank Reamer

R-PM21805


TECHNOLOGY PARAMETERS

(Unit):mm

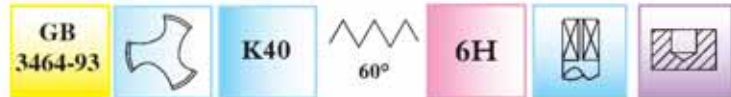
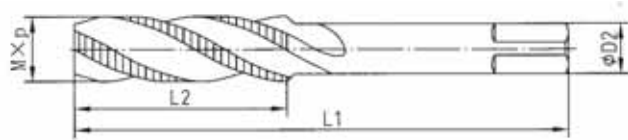
Specifications				Item Code	
D1	MT	L1	L2	Uncoated	Coated
5.00	MT1	133	22	R-PM21805-0500	R-PM21805-0500T
6.00	MT1	138	22	R-PM21805-0600	R-PM21805-0600T
7.00	MT1	150	25	R-PM21805-0700	R-PM21805-0700T
8.00	MT1	156	25	R-PM21805-0800	R-PM21805-0800T
9.00	MT1	162	25	R-PM21805-0900	R-PM21805-0900T
10.00	MT1	168	25	R-PM21805-1000	R-PM21805-1000T
11.00	MT1	175	28	R-PM21805-1100	R-PM21805-1100T
12.00	MT1	182	28	R-PM21805-1200	R-PM21805-1200T
13.00	MT1	182	28	R-PM21805-1300	R-PM21805-1300T
14.00	MT1	189	28	R-PM21805-1400	R-PM21805-1400T
15.00	MT2	204	32	R-PM21805-1500	R-PM21805-1500T
16.00	MT2	210	32	R-PM21805-1600	R-PM21805-1600T
17.00	MT2	214	32	R-PM21805-1700	R-PM21805-1700T
18.00	MT2	219	36	R-PM21805-1800	R-PM21805-1800T
19.00	MT2	223	36	R-PM21805-1900	R-PM21805-1900T
20.00	MT2	228	36	R-PM21805-2000	R-PM21805-2000T

Note:

- 1.Shape of the shank accept custom-order according to DIN653 HA/HB/HE
- 2.Example of custom-order R-PM21805-0500 (10pieces)

Spiral Flute Tap

▶ **T-PM31801**



TECHNOLOGY PARAMETERS

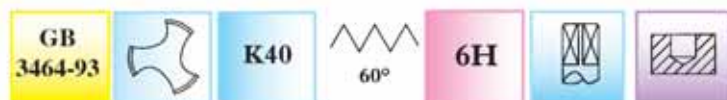
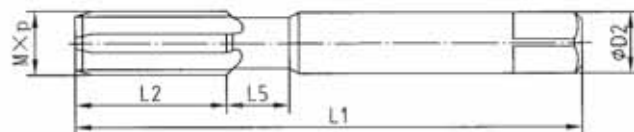
(Unit):mm

Specifications						Item Code	
Thread	P	Z	L1	L2	D2	Uncoated	Coated
M4	0.7	3	53	13	4	T-PM31801-0400	T-PM31801-0400T
M5	0.8	3	53	16	5	T-PM31801-0500	T-PM31801-0500T
M6	1	3	66	16	6.3	T-PM31801-0600	T-PM31801-0600T
M8	1.25	4	72	22	8	T-PM31801-0800	T-PM31801-0800T
M10	1.5	4	80	24	10	T-PM31801-1000	T-PM31801-1000T

- Note:
- 1.Shape of the shank accept custom-order according to DIN653 HA/HB/HE
 - 2.Example of custom-order T-PM31801-0400 (10pieces)

Spiral Flute Tap

▶ **T-PM31802**



TECHNOLOGY PARAMETERS

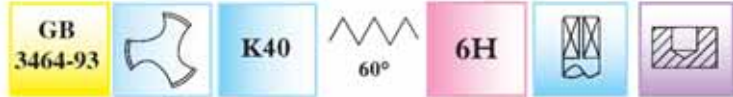
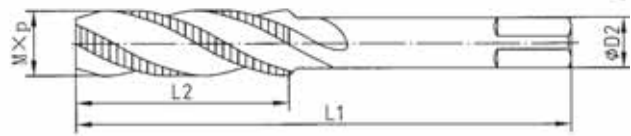
(Unit):mm

Specifications						Item Code	
Thread	P	Z	L1	L2	D2	Uncoated	Coated
M4	0.7	3	53	13	4	T-PM31802-0400	T-PM31802-0400T
M5	0.8	3	53	16	5	T-PM31802-0500	T-PM31802-0500T
M6	1	3	66	16	6.3	T-PM31802-0600	T-PM31802-0600T
M8	1.25	4	72	22	8.	T-PM31802-0800	T-PM31802-0800T
M10	1.5	4	80	24	10	T-PM31802-1000	T-PM31802-1000T

- Note:
- 1.Shape of the shank accept custom-order according to DIN653 HA/HB/HE
 - 2.Example of custom-order T-PM31802-0400 (10pieces)

Thread Mills

► T-PM31803



TECHNOLOGY PARAMETERS

(Unit):mm

Thread	Specifications						Item Code	
	P	Z	L1	L2	D1	D2	Uncoated	Coated
M5	0.8	3	46	10.4	3.9	6	T-PM31803-0050	T-PM31803-0050T
M6	1	3	58	12	4.8	6	T-PM31803-0060	T-PM31803-0060T
M8	1.25	3	62	16.2	6.7	8	T-PM31803-0080	T-PM31803-0080T
M10	1.5	3	74	19.5	8.7	10	T-PM31803-1000	T-PM31803-1000T
M12	1.75	4	74	24.5	9.9	10	T-PM31803-1200	T-PM31803-1200T
M16	2	4	93	32	13.6	14	T-PM31803-1600	T-PM31803-1600T
M20	2.5	4	103	30	17.1	18	T-PM31803-2000	T-PM31803-2000T

Note:

1. Shape of the shank accept custom-order according to DIN653 HA/HB/HE
2. Example of custom-order T-PM31803-0050 (10pieces)

Carbide Rods Grades



Grade	Equivalent to ISO	Density g/cm3	Hardness HRA	Flexural Strength	Particles Grain Size
YJ10X	K10-K20	14.5	91	2800	0.8
YL10.2	K25-K35	14.5	91.5	3200	0.6
ZK30UF	K25-K35	14.5	92	3800	0.6

TECHNOLOGY PARAMETERS

Φ3	50	Φ10	150	Φ3	250	Φ5	320
Φ4	50	Φ11	150	Φ4	250	Φ6	320
Φ5	50	Φ12	150	Φ5	250	Φ7	320
Φ6	50	Φ13	150	Φ6	250	Φ8	320
Φ7	60	Φ14	150	Φ7	250	Φ9	320
Φ8	60	Φ15	150	Φ8	250	Φ10	320
Φ3	75	Φ16	150	Φ9	250	Φ11	320
Φ4	75	Φ17	150	Φ10	250	Φ12	320
Φ5	75	Φ18	150	Φ11	250	Φ13	320
Φ6	75	Φ19	150	Φ12	250	Φ14	320
Φ7	75	Φ20	150	Φ13	250	Φ15	320
Φ8	75	Φ21	150	Φ14	250	Φ16	320
Φ9	75	Φ22	150	Φ15	250	Φ17	320
Φ10	75	Φ23	150	Φ16	250	Φ18	320
Φ11	75	Φ24	150	Φ17	250	Φ19	320
Φ12	75	Φ25	150	Φ18	250	Φ20	320
Φ13	75	Φ3	200	Φ19	250	Φ21	320
Φ14	75	Φ4	200	Φ20	250	Φ22	320
Φ3	100	Φ5	200	Φ21	250	Φ23	320
Φ4	100	Φ6	200	Φ22	250	Φ24	320
Φ5	100	Φ7	200	Φ23	250	Φ25	320
Φ6	100	Φ8	200	Φ24	250	Φ3	330
Φ7	100	Φ9	200	Φ25	250	Φ4	330
Φ8	100	Φ10	200	Φ3	300	Φ5	330
Φ9	100	Φ11	200	Φ4	300	Φ6	330
Φ10	100	Φ12	200	Φ5	300	Φ7	330
Φ11	100	Φ13	200	Φ6	300	Φ8	330
Φ12	100	Φ14	200	Φ7	300	Φ9	330
Φ13	100	Φ15	200	Φ8	300	Φ10	330
Φ14	100	Φ16	200	Φ9	300	Φ11	330
Φ15	100	Φ17	200	Φ10	300	Φ12	330
Φ16	100	Φ18	200	Φ11	300	Φ13	330
Φ17	100	Φ19	200	Φ12	300	Φ14	330
Φ18	100	Φ20	200	Φ13	300	Φ15	330
Φ19	100	Φ21	200	Φ14	300	Φ16	330
Φ20	100	Φ22	200	Φ15	300	Φ17	330
Φ21	100	Φ23	200	Φ16	300	Φ18	330
Φ22	100	Φ24	200	Φ17	300	Φ19	330
Φ23	100	Φ25	200	Φ18	300	Φ20	330
Φ24	100			Φ19	300	Φ21	330
Φ25	100			Φ20	300	Φ22	330
Φ3	150			Φ21	300	Φ23	330
Φ4	150			Φ22	300	Φ24	330
Φ5	150			Φ23	300	Φ25	330
Φ6	150			Φ24	300		
Φ7	150			Φ25	300		
Φ8	150			Φ3	320		
Φ9	150			Φ4	320		

vc	[m/min]	Cutting speed
vc eff	[m/min]	Effective Cutting speed
n	[1/min]	Rotation number
vf	[mm/min]	Feed speed
f	[mm]	Feed per revolution
fz	[mm]	Feed per tooth
d(o)	[mm]	Diameter of milling cutter
d_{eff}	[mm]	Effective diameter of milling cutter
z	[-]	Number of teeth
R_{th}	[μ m]	Theoretic peak-to-valley roughness
Q	[Cm ³ /min]	Chip removal rate
B	[$^{\circ}$]	Angle of inclination
\triangle a	[$^{\circ}$]	Tool angle of approach
hm	[mm]	Average chip thickness
br	[mm]	Line offset
ae	[mm]	Radial depth of cut
ap	[mm]	Axial depth of cut

1. Solid Carbide Drills

Tool Name Model	Machining material and/or rigidity	Cutting Speed V (m/min)	(mm/r)
Solid Carbide Drills With Three Edge	Cast-iron HB $\leq 240-350$	60-90	0.10-0.40
	Stain-less Steel HB ≤ 250	35-45	0.40-0.20
	Aluminum, Aluminum Alloy HB ≤ 120	120-180	0.125-0.005
	Ti, Ti Alloys HB $\leq 250-300$	25-40	0.04-0.16
Solid Carbide Twist Drills	Steel HB 150-350	80-100	0.063-0.0400
	Cast-iron HB ≤ 240	80-120	0.10-0.50
Solid Carbide With Ladder	Steel HB 150-3550	80-100	0.063-0.0400
	Cast-iron HB ≤ 240	75-90	0.10-0.50
Solid Carbide Center Drills	Steel, Cast-iron	10-30	0.01-0.08
Solid Carbide Start Drills	Steel, Cast-iron	60-90	0.063-0.250

2. Solid Carbide Mills

Milling Model Name	Machining material and/or rigidity	(m/min)	fz(mm/z)	ap(mm)	aw(mm)
Solid Carbide key way milling tools	Steel HB 180-280	70-150	0.01-0.06	0.4-0.6D	$\leq D$
	Cast-iron HB 180-220	100-120	0.01-0.06		
Carbide End Mills, Corner radius end Mill staper end Mills	Steel HB 180-280	90-160	0.01-0.01	$\leq 1.5D$	$\leq 0.2D$
			0.03-0.03		
	Cast-iron HB 180-220	100-150	0.02-0.15		
			0.06-0.45		
Solid carbide ball head end mills	Steel HB 180-280	80-220	0.01-0.08	$\leq 0.4D$	$\leq D$
	Cast-iron HB 180-220	280-280	0.02-0.10		
Solid carbide taper ball head end mills	Steel HB 180-280	120-170	0.01-0.08		
	Cast-iron Hb 180-220	250	0.02-0.10		
Attention "D" is Diameter					

3. Solid Carbide Small Aperture Boring Cutter

Tool Name Model	Machining material and/or rigidity	V(m/min)	f(mm/r)	ap(mm)
Solid carbide small aperture boring cutter	Cast-iron HB ≤ 300	30-50	0.05-0.15	0.05-0.8

4. Solid Carbide Reamers

Tool Name Model	Machining material and/or rigidity	V(m/min)	f(mm/r)	ap(mm)
Solid Carbide Straight Shank Reamer Solid Carbide Spirally fluted reamer	Steel HB 180-280	6-12	0.04-0.25	0.08-0.12
	Cast-iron HB \leq 240-300	10-20	0.05-0.05	
	Aluminum Alloy, Copper	25-30	0.125-0.630	

5. Cutting Data For Hole Machining Cutter (For Reference)

Tool Name Model	Machining material and/or rigidity	Cutting speed vc(m/min)	f(mm/r)	Cutting depth ap (mm)
Carbide powerful drills	Soft steel, Cast-iron	60-90	0.20-0.40	3D
	Alloy steel, Tools steel	20-40	0.15-0.25	
QKX, QKM Indexable shallow hole drills with spiral flute	Carbon steel HB200	80-100	0.07-0.10	\leq 2.5
Carbide core drills with taper shank	Carbon steel HB170-200	25-35	0.05-0.30 (mm/z)	0.05-0.8
	Cast-iron HB 200	25-35	0.08-0.40 (mm/z)	
TMA, JTX, JTZ Precision fine-tuning boring cutter	Soft steel HB \leq 180	140-160	0.05-0.15	
	Carbon Steel, Alloy steel HB180-280	130-150		
	Stain-less steel HB \leq 200	120-130		
	Cast-iron \leq 450N/m	100-110		
	Aluminum alloy	150-170		
Machine reaming with carbide	Carbon steel HB200	6-10	0.10-0.25	0.15-0.30
	Cast-iron HB200	8-12	0.20-0.40	

Branch Office : 1ST FLOOR, PRESTIGE CHAMBERS, KALYAN STREET, MASJID
(E), MUMBAI-400009

Ph : 02223740116

Fax : 02223741989

Email : bomum@nsic.co.in

Website : www.nsic.co.in

GOVERNMENT PURCHASE ENLISTMENT CERTIFICATE

(Valid From 10/02/2014 to 09/02/2016)

Ref.No NSIC/MUM/GP/RS/P-491/MH

Date: 07/05/2014

M/s. PRECISION MEASURING INSTRUMENTS CO.
401, ANAND DEEP APARTMENTS, 4TH FLOOR,
OPP. DATTE MANGAL KARYALAYA,
URSEKARWADI, DOMBIVLI (EAST)
THANE,
MAHARASHTRA- 421201

Factory Address:

1. 401, ANAND DEEP APARTMENTS, 4TH FLOOR,
OPP. DATTE MANGAL KARYALAYA,
URSEKARWADI, DOMBIVLI (EAST)
THANE, MAHARASHTRA -421201

Name of the Proprietor
CHIRAG LALIT AZAD

Certificate of Registration under Single Point
Registration Scheme. Units registered under this
scheme are considered to be at par with those
registered directly with DGS & D.

Constitution of the firm- Proprietorship

GOVERNMENT PURCHASE REGISTRATION NO: NSIC/GP/MUM/2014/0004020
GOVERNMENT PURCHASE OLD REGISTRATION NO: NSIC/MUM/GP/RS/P-491/MH

Monetary Limit: ₹ 27 lakhs (₹ Twenty Seven lakhs Only)

TURNOVER (Rupees in Lakhs)

Financial Year	Annual Turnover
2010-11	40.76
2011-12	47.12
2012-13	52.63
Monetary Limit	27

Your name has been registered as a SSI Unit eligible for participation in the **Central Government Store Purchase Programme** as per the **Single Point Registration Scheme** for the following Item(s)/Store (s)/Service(s).

Name of the Store(s)/ Service(s)	Specification(s)	Qualitative Capacity	Quantitative Capacity P.A.
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"As per List Attached"
(1 item only)

M/s. PRECISION MEASURING INSTRUMENTS CO.

Authorized Signatory

"Authenticity of the certificate can be checked through the web portal: www.nsicsonline.com"



NSIC
Registered Firm



Precision

Precision Measuring Instruments Co.

Anand Deep CHS. Flat # 401, 4th Floor
Opp. Date Mangal Karyalay, Dombivli (E) - 421 201, Dist-Thane
Telefax : 91-22-6634 0920 Cell : 91-0-98701 88718
E-mail : chirag_pmico@hotmail.com / chiragpmico@gmail.com
Website : www.pmicoindia.co.in