

Wind Power
A small step to renewable energy.

Wind energy is a source of renewable energy. It does not emit toxic substances or contaminants into the air. which can be very damaging to the environment and to human beings. Wind power is the most efficient technology to produce energy in a safe and environmentally sustainable manner: it is zero emissions, local, inexhaustible, competitive and it creates wealth and jobs.

Avis Metal Industries Ltd owns wind turbine on the west coast of Gujarat to meet 100% of its electricity requirement as commitment to limiting environmental impact and reduction of carbon footprint.



Rain Water Harvesting

Rainwater Harvesting is one of the most commonly used methods to save water. It refers to storing of rainwater for various uses. The notion behind rainwater harvesting is to not waste the rainwater and prevent it from running off. In other words, it is done to collect rainwater using simple mechanisms. This method is very useful considering the water scarcity that i

AVIS™ METAL INDUSTRIES LTD

(AN ISO 9001 : 2015 CERTIFIED COMPANY)

(MFRS. OF METAL POWDERS & SINTERED TUNGSTEN CARBIDE PRODUCTS)

REGISTERED OFFICE :
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UNIT-1 :
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Village Sisodra (Ganesh) 396 463, Dist. Navsari, Gujarat, India
☎ +91 70432 16200, +91 88662 24575

UNIT-2 :
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G.I.D.C., Sachin 394 230, Dist. Surat, Gujarat, India
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visit us at www.avismetal.in

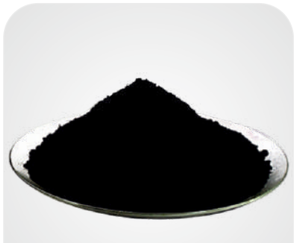
SINCE 1997

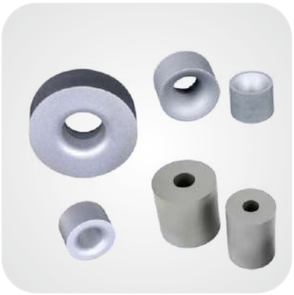
AVIS™ METAL INDUSTRIES LTD

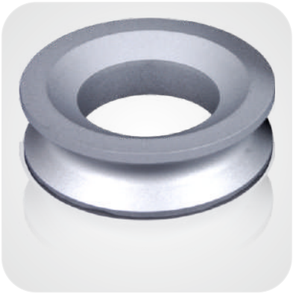
METAL POWDERS

SINTERED TUNGSTEN CARBIDE PRODUCTS

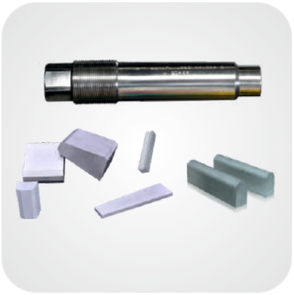














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ABOUT US

We the "Avis Metal Industries Ltd", in the field of tungsten carbide business operating from A. K. Road, Surat, since 1997. The Gujarat state is well known for its heavy industrialization. The Two manufacturing facilities spread over 16000 square metres having capacity to produce 250MT of Tungsten Powder & Morethen 100MT Sintered Carbide Products. One facility is dedicated for refining of Tungsten & Cobalt powders located at Sachin G.I.D.C., SURAT.

The Tungsten Carbide parts manufacturing unit, which was located at A. K. Road, Surat has now moved to new plant located at Navsari. (45 Km from A. K. Road, Surat) which is more spacious and advanced facility From April 1,2018.

The strengths of our business rely in the application of innovative technology, the well-established and dynamic workforce of more than 100 people having a hold on ever changing product dynamics in the markets and its commitment to research in order to ensure consistent top quality and service to You for 25+ years.

Maximized investment in research, unwavering promotion of technological innovation, conscientious attention to product and service quality, effective responses to the real needs of markets, extreme flexibility in taking advantage of technological synergies and carrying out operative integration in widely differing industries: These, in short, are the winning strategies that have allowed the "Avis Metal Industries Ltd" to become a major Tungsten Carbide manufacturer over the years.

UNIT - 1



UNIT - 2



LABORATORY INSTRUMENTS

Our state of the art laboratory has latest instruments like Atomic absorption spectrophotometer, Fisher sub sieve sizer, H, loss determination, Density meter, Muffle furnace, Hardness tester, Microscope, analytical balance etc. helps to optimize product quality and productivity.










PROCESS & PRODUCTION LINE

To provide products of global standards, Avis has redefined the process and production line with machinery and instruments that are state of the art and abreast of technological up gradation.





Bureau Veritas Certification

AVIS METAL INDUSTRIES LIMITED

AVIS METAL INDUSTRIES LTD

Standard

ISO 9001:2015

Scope of certification

MANUFACTURE AND DESPATCH OF SINTERED TUNGSTEN CARBIDE PARTS & TUNGSTEN METAL POWDER AS PER CUSTOMER REQUIREMENTS

SITE	ADDRESS	SCOPE
AVIS METAL INDUSTRIES LIMITED (UNIT 1) NAVSARI	SURVEY NO.658, OPP GANESHVAD, NAVSARI MAHUVA ROAD, VILLAGE :SISODRA (GANESH), DIST.- NAVSARI – 396 465, GUJARAT, INDIA.	MANUFACTURE & DESPATCH OF SINTERED TUNGSTEN CARBIDE PARTS AS PER CUSTOMER REQUIREMENTS
AVIS METAL INDUSTRIES LIMITED (UNIT 2) SACHIN	PLOT NO.P-5, ROAD NO-3, OPP MANILA DYEING MILL, GIDC, SACHIN, DIST.- SURAT – 394 230, GUJARAT, INDIA.	MANUFACTURE & DESPATCH OF TUNGSTEN METAL POWDERS

Certificate No. IND.23.4010/QM/U Version: 1 Issue date: 10 January 2023

Signed on behalf of BVCH SAS UK Branch
Jagdheesh N. MANIAN
Director – CERTIFICATION, South Asia
Commodities, Industry & Facilities Division

Certification body address: 5th Floor, 66 Prescot Street, London, E1 8HG, United Kingdom.
Local office: Bureau Veritas (India) Private Limited (Certification Business): 72 Business Park, Marol Industrial Area, MIDC Cross Road "C", Andheri (East), Mumbai – 400 093, India.

Pg 2 of 2

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization.
To check this certificate validity please call + 91 22 4274 2000.


Bureau Veritas Certification

AVIS METAL INDUSTRIES LIMITED

AVIS METAL INDUSTRIES LTD

UNIT 1: SURVEY NO. 658, OPP GANESHVAD, NAVSARI MAHUVA ROAD, VILLAGE SISODRA (GANESH), DIST.- NAVSARI – 396 465, GUJARAT, INDIA.

This is a multi-site certificate, additional site(s) are listed on the next page(s)

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organization has been audited and found to be in accordance with the requirements of the Management System Standard detailed below.

Standard

ISO 9001:2015

Scope of certification

MANUFACTURE AND DESPATCH OF SINTERED TUNGSTEN CARBIDE PARTS & TUNGSTEN METAL POWDER AS PER CUSTOMER REQUIREMENTS

Original cycle start date: 13 January 2011
Recertification cycle start date: 10 January 2023
Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: 12 January 2026
Certificate No. IND.23.4010/QM/U Version: 1 Issue date: 10 January 2023

Signed on behalf of BVCH SAS UK Branch
Jagdheesh N. MANIAN
Director – CERTIFICATION, South Asia
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Pg 1 of 2

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" CUSTOMERS SATISFACTION OUR PRIORITY "

"Exceptionalvalue," Or "Lower Prices, Higher Quality"

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Custom Wear-Resistant Parts



Bowl Set



Bush



Dead Center



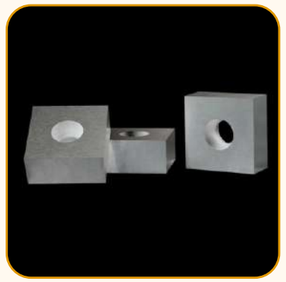
Pulley



Rings



Rods



Shredder Block



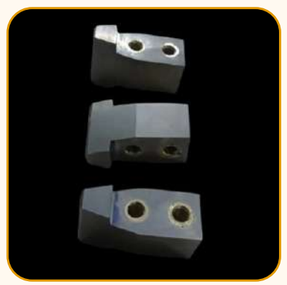
T.C. Ball



Tubes For Thermowell



TC Homogenizer Wear Components



Wear Pad For Crankshaft Inductors



TC Broach Cutters

Blasting Nozzsles



Sand/Shot Blasting Nozzles



Angular Nozzles

Industrial Rollers

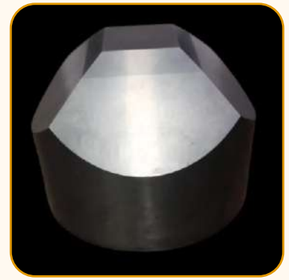


Industrial-Rollers For TMT Bar



Indutrial-Roller For Metal Flattening

T.C. Anvil For Synthetic Diamonds



For Cubic Press (HPHT)



For Toroidal Press (HPHT)

Metal Cutting Tools



Sugar Roller Groving Tips



T.C. Tips (ISO/SMS/BSS)

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We are one of the accredited manufacturers and suppliers of a premium range of tungsten carbide products. These products are highly appreciated by customers owing to their superior quality. High tech machines and equipment are employed in the manufacturing process. Avis has introduced different mining grades to suit indian geological conditions. Our mining grades are designed to work efficiently in various formations like granite, basalt, sandstone, and quartzite even in soft formation like lime and coal.



Tips For Coal Pick



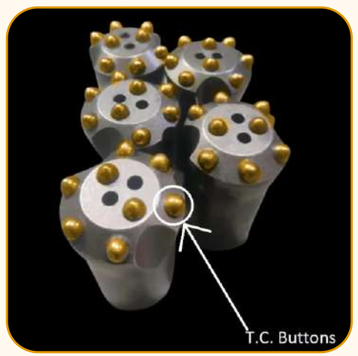
Drill Steal Insert (DSI)



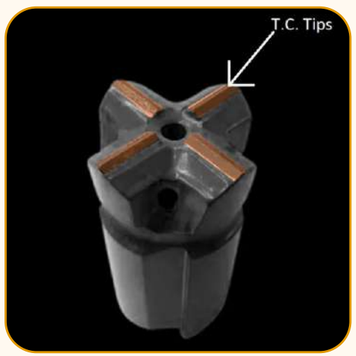
TC Tips For Surface Miner



Button For DTH Bits



Buttons For Self Drilling Anchor Bolt



T.C. Tips For Cross Bit

Mining Equipment Components
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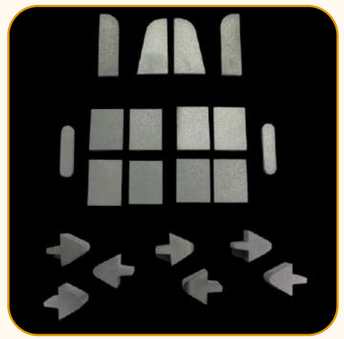
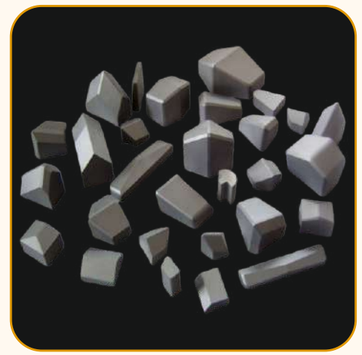
VSI Rotor Tips



VSI Rotor Tips



Tips For Tamping Tool



Customized Parts



T.C. Parts For Railway Industries

OILFIELD AND PETROCHEMICAL INDUSTRIES

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Tungsten carbide parts are used in petroleum industry for fluid handling, flow control cage & valve, valve seat etc. Because of its properties like abrasion, corrosion, erosion, high wear resistance, good toughness with long life. All the components are manufactured in cold isostatic press machine.



Flow Trims



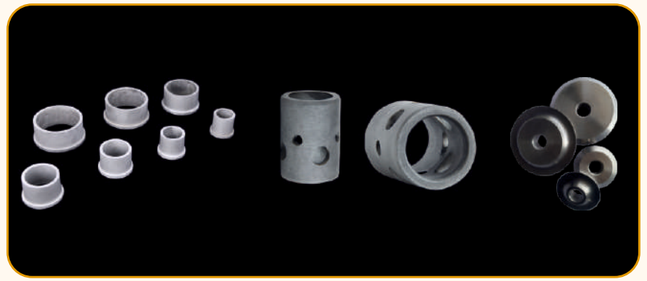
T.C. Choke Beans



Valve Seats



Cone For Valve Stems



Tc Flow Cage, Flow Beans And Stabiliser Disc



Tc Choke Beans

T.C. Pellets For Industrial Dies

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Tungsten carbide tools are integral to wire drawing machinery, offering exceptional wear resistance, durability, and precision in high-stress applications. We make up to Ø 260 mm. These tools are specifically designed for drawing wires of various materials, such as steel, copper, aluminum, and other alloys, while maintaining consistent quality and minimizing material waste.
Avis Metal Industries Ltd provides high-performance tungsten carbide parts tailored for the wire drawing industry, ensuring efficiency and longevity in operations.



Wire Drawing Pellets



Tube Drawing Pellets



Bar Drawing Pellets



Cold Heading Pellets For Fastners Industries



TC Wire Guide Bush (Eyelet)



Tungsten Carbide Plugs For Mandrels



Tungsten Metal Powder (W)

Physical Properties

Avg. particle size F.S.S.S. (µ)	1.5	5.0	10.0	15.0
Apparent density g/cc.	2.5	3.4	5.0	6.2

Chemical Composition - Typical

W, % Min.	99.85	99.85	99.85	99.85
O_2, % Max.	0.06	0.04	0.03	0.025
Fe, % Max.	0.008	0.008	0.008	0.008
Mo, % Max.	0.001	0.001	0.001	0.001
Cu, % Max.	0.001	0.001	0.001	0.001
Na, % Max.	0.003	0.003	0.003	0.003
Co, % Max.	0.002	0.001	0.001	0.001
Ca, % Max.	0.001	0.001	0.001	0.001
Mg,%Max.	0.001	0.001	0.001	0.001
Mn, %Max.	0.001	0.001	0.001	0.001
Zn,%Max.	0.001	0.001	0.001	0.001

Other grain sizes are available upon request.

Principal Applications

These powder are mostly used in the manufacturing of diamond segments by hot pressing as additives in the metal matrix to improve the diamond retention and cutting ability. Also, these powders are used to manufacture electrical contacts, copper tungsten electrodes, weight fillers, induction accelerators, radiation shielding fillers and counter balance. Higher density Tungsten powder used for plastic densifier.



Tungsten Carbide Powder (WC)

Physical Properties

Avg. particle size F.S.S.S. (µ)	2.5	5.0	10.0	15.0
Apparent density g/cc.	2.4	3.2	4.8	6.0

Chemical composition - Typical

C_{Bonded} ,% Min.	6.11	6.11	6.11	6.11
C_{FREE} , % Max.	0.03	0.03	0.03	0.03
Fe, % Max.	0.006	0.006	0.006	0.006
Mo, % Max.	0.001	0.001	0.001	0.001
Cu, % Max.	0.002	0.002	0.002	0.002
Na, % Max.	0.004	0.004	0.004	0.004
Co, % Max.	0.001	0.001	0.001	0.001
Ca, % Max.	0.001	0.001	0.001	0.001
Mg,%Max.	0.001	0.001	0.001	0.001
Mn, %Max.	0.001	0.001	0.001	0.001
Zn,%Max.	0.001	0.001	0.001	0.001

Other grain sizes and READY TO PRESS POWDER (WC-Co) are available upon request.

Principal Applications

Tungsten carbide powders are used to manufacture various graded powder for cemented tungsten carbide products and manufacturing of diamond segments to increase the hardness and abrasion resistance of the tools.

PACKING

All Powders are available in various packing size of 1 kg. & 5 kg in cardboard box with inner LDPE bags sealed in vacuum. 25 kg. & 50kg. Packing in metal drum with inner LDPE bags sealed in inert atmosphere.

METAL POWDERS

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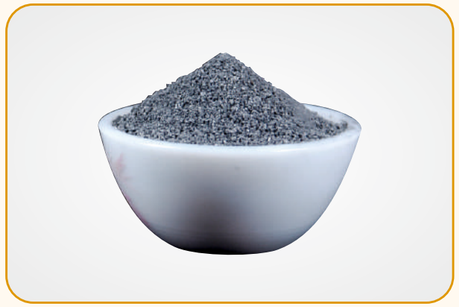


Fused Tungsten Carbide Powder (W_2C)

Physical Properties

- Mesh size - ASTM/BSS standard, -40 to +600 as per requirement of the customer.
- Appearance - Blackish Grey Powder
- Apparent density - 5.9 g/cc.
- Melting Point - 3000 °C Approx

Chemical Composition :

C_{TOT}, %	3.5 - 4.1
C_{FREE}, %	0.003 Max.
Fe, %	0.2 Max.
Cu,%	0.001 Max.
Co,%	0.002 Max.
Mg,%	0.001 Max.
Ni,%	0.002%
W, %	Balance

Principal Applications

These powders have very high hardness and outstanding abrasion resistance. These are used to manufacture diamond core drill bits, electrodes for hard surfacing and diamond tools to cut very abrasive materials.



Cobalt Metal Powder (Co)

Physical Properties

1. Fisher grain size 1.1 to 1.5 micron (Extra fine)
2. Fisher grain size 0.9 to 1.1 micron (Ultra fine)

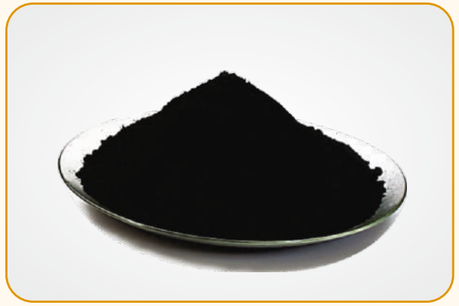
Apparent Density - 1.2 g/cc

Chemical composition - Typical

Co	99.8 %	Min.
Fe	0.010 %	Max.
Mn	0.001 %	Max.
Zn	0.002 %	Max.
Na	0.002 %	Max.
Ni	0.006%	Max.
Cu	0.001%	Max.
Mg	0.001%	Max.
O_2	0.34 %	Max.

Principal Applications

Diamond tools, cemented carbide tools, hard metals, diamonds polishing scaife.



Cobalt Oxide Powder

Typical application : Used in manufacturing ceramic pigments, glass tint, catalysts, inks, rubber, oil, greases, cosmetics food additives, paint dryer etc.

Physical Properties

Appearance - Black Fine Powder
Sieve Analysis : 300 Mesh

Chemical Analysis

Assay (As Co)	:	73 % Min
Fe	:	0.008 % Max.
Mg	:	0.003 % Max.
Ni	:	0.009 % Max.
Na	:	0.007 % Max.
Zn	:	0.001 % Max.
Mn	:	0.001 % Max.
Cu	:	0.001 % Max.