

**Super Hard-wearing
Carbide Solution**

**SUNSTART
COMPOSITE CARBIDE**



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Sunstart[®]



www.sunstartsz.com

Carbide Products :

- Waterjet Abrasive Nozzles
- Mixing Chambers
- Sandblast Nozzles
- Slurry Nozzles
- Hot Resistant Moulds
- Wear Baffle Plates

Company profile

Continual innovating is the way of keeping ahead of our competitors. We spare no effort to improve any product of SUNSTART in order to bring you more value.

Since the foundation of SUNSTART in 1998, we have focused on the researching and developing of engineered super hard wearing carbides. No matter you are finding carbide solution for which application as vehicle, aerospace, energy or equipment components, SUNSTART is here to offer you the best service and technology with no-mark customized engineered wear carbides.

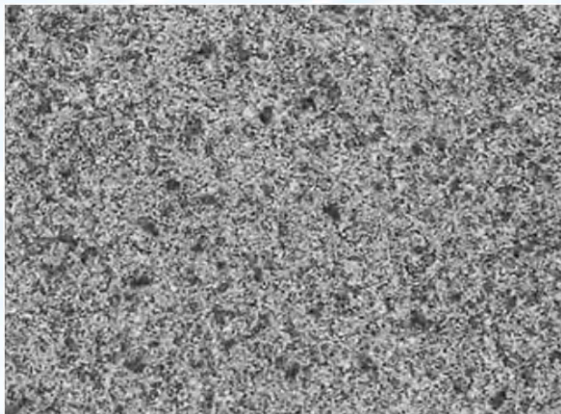
During the whole production, SUNSTART adopt a series of patented process. SUNSTART carbides are made of NANO tungsten particles which contribute excellent wear resistance, with a much longer lifespan than that of other normal tungsten carbide nozzles.

The main factor that determines the wear resistance of tungsten carbides is the content of binders. To strive for a higher hardness and a better wear resistance, SUNSTART decrease the content of binders as small as possible and increase the density of the material in so large as possible, and then use optimum manufacturing methods including hot pressing, sintering and advanced compaction technology. If you are seeking a better choice for hard-wearing carbides, SUNSTART is here to offer you the top solution in the wear industry.

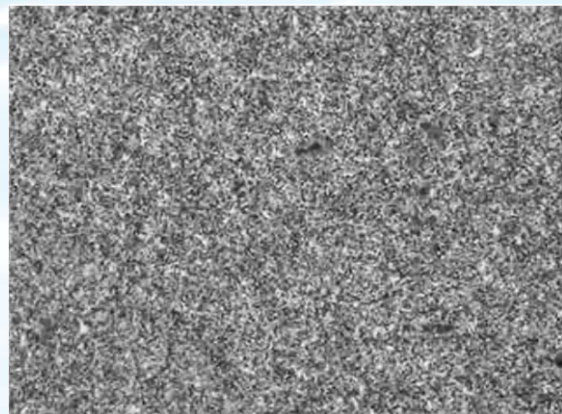
Composition & Properties

Material	Hardness		WC(Grain size) (μm)	Co量 (wt%)
	HRA (GPa)	HV (GPa)		
S003	95.6	2550	0.3	0.5
S002	96.0	2730	0.2	0.5

SUNSTART[®] S002 Premium carbide provides 30% longer wear performance than SUNSTART[®] S003 carbide under the same conditions.

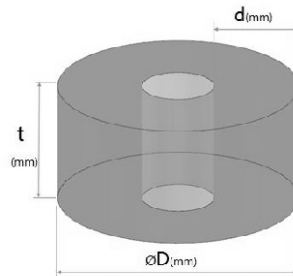
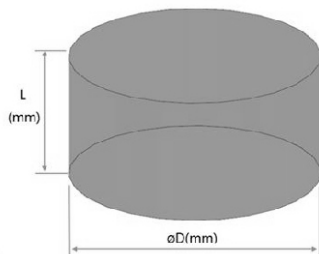
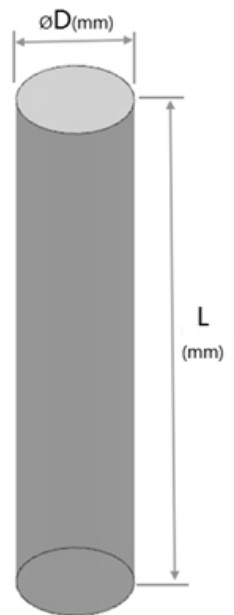
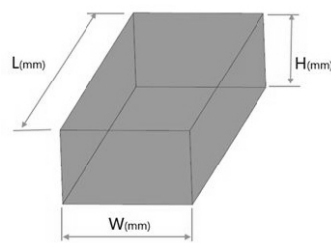
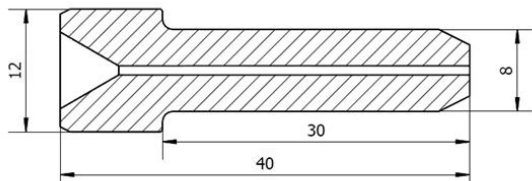
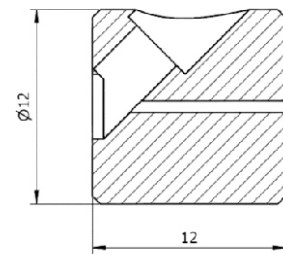
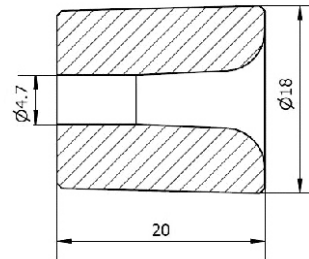
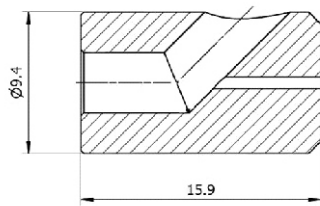
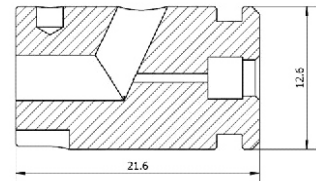
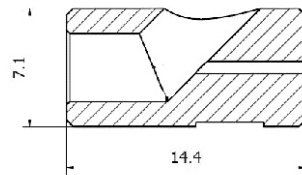
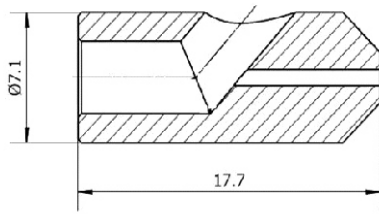


S003 Carbide



S002 New Carbide

Customized carbide solid rods, porose rods and bars are all available.



Abrasive Tungsten Waterjet Nozzles



The abrasion of any part of the abrasive waterjet system will affect the normal operation of the whole system. Improving the wear resistance of the carbide and therefore increasing the lifespan is the basic foundation of making the best of waterjet cutting technology. If it were not for the long-lifespan carbide nozzles, all the advantage of the AWJ technology would disappear.

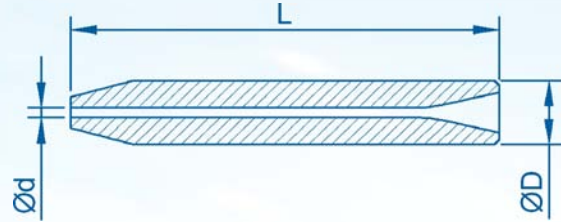
Nowadays, SUNSTART® composite carbides have been applied in many area.



SUNSTART offer the most competitive engineered wear carbide solution in abrasive nozzles technology.

Let us prove it

We supply suitable abrasive nozzles for all the waterjet cutting heads.



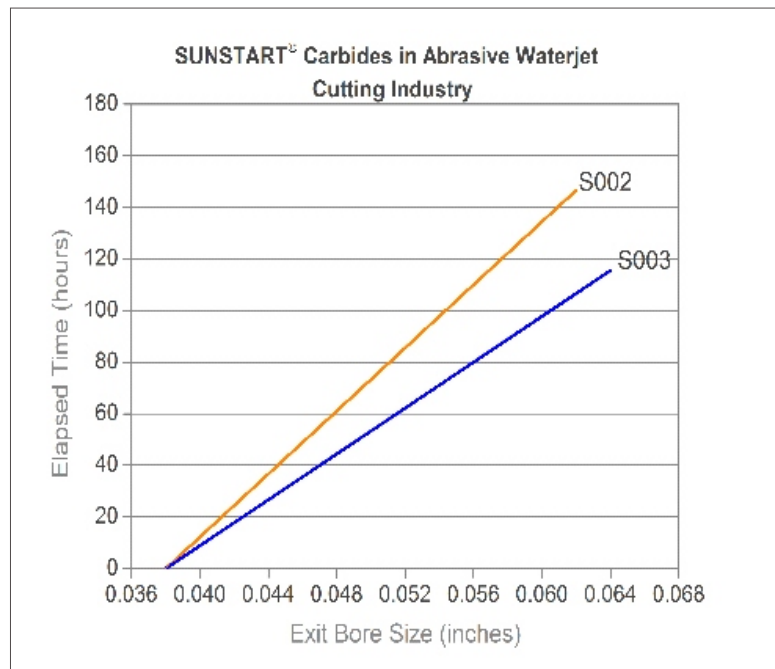
Size Code	D mm	d mm	L mm	Remarks
10030	6.00	0.76	70.0	
11030	6.00	0.76	76.2	
11040	6.00	1.02	76.2	
12020	6.35	0.50	50.8	
33030	6.35	0.76	76.2	
33030-FE	6.35	0.76	76.2	Flat end
33035	6.35	0.88	76.2	
33040	6.35	1.02	76.2	
33045	6.35	1.14	76.2	
33047	6.35	1.20	76.2	
15030	6.35	0.76	101.6	
15040	6.35	1.02	101.6	
16030	6.70	0.76	70.0	
17030	6.70	0.76	76.2	
37030	7.00	0.80	76.2	
18020	7.14	0.50	50.8	
43040	7.14	1.02	55.0	
19040	7.14	1.02	67.0	
20030	7.14	0.76	76.2	
21040	7.14	1.02	90.0	
22030	7.14	0.76	101.6	
40030	7.25	0.76	76.2	
41040	7.25	1.02	101.6	
24040	7.62	1.02	76.2	
25040	7.62	1.02	101.6	
38030	8.00	0.76	101.6	
26030	8.13	0.76	50.8	
27040	8.13	1.02	60.0	
28040	8.13	1.02	76.2	
29040	8.13	1.02	101.6	
30030	9.00	0.76	50.8	
31030	9.00	0.76	76.2	
32030	9.45	0.76	70.0	
36030	9.45	0.76	76.2	
34030	9.45	0.76	80.0	
39030	8.00	0.76	76.2	
42030	9.45	0.76	101.6	
20030-CR	7.14	0.76	76.2	Copper Ring
22030-CR	7.14	0.76	101.6	Copper Ring

Why more leading equipment producers turn to SUNSTART® Nozzles?

Lowest pricing at this market

Up to 80 hours of precision cutting

Up to 140 hours of rough cutting



Test Parameters

- ◆ Machine: Flow 8x12WMC
- ◆ Pump: 60HP
- ◆ Cutting Head: AccuStream DiaLine
- ◆ Orifice: .013"thick 6061 Aluminum
- ◆ Inspection: every 10 hours of cut time
- ◆ Abrasive: GMA80 @ 1.1lbs/min
- ◆ Measured By: Vermont Gage Class ZZ Gage Set VTG Control #01523051(Tolerance=+.0002"/-.0000")

Disclaimer: SHENZHEN SUNSTART INDUSTRIAL DEVELOPMENT CO.,LTD is in no way affiliated with the above mentioned manufacturer(s).

Chose SUNSTART as your partner.
What are you waiting for ?

www.sunstartsz.com



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