

# sanxin Wire Die, Inc.

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## SANXIN MEANS WIN-WIN:

Loosely translated from the original Chinese, Sanxin means:

- Reputation won by excellent service
- Trust built through sincere cooperation
- Confidence created in the future

Sanxin Wire Die, Inc. is the U.S. Sales Office for Beijing Sanxin Wire Drawing Die Co., Ltd. The purpose of Sanxin Wire Die is to provide ready access to all the facilities offered by Beijing Sanxin, for the benefit of customers located in North America and in other English speaking countries.

## COMPANY HISTORY:

Beijing Sanxin was founded in 1993 as a New Technology

venture and has emphasized deployment of the highest available technology since the company's inception. Initially serving the needs of the domestic Mainland Chinese markets, Beijing Sanxin has developed to be a supplier of consistently high quality finished diamond and polycrystalline diamond dies and die machinery and die making materials to die makers and wire producers in Asian countries, in Australia and, more recently, in Europe and in the United States of America. The company also provides very high quality die service.

Beijing Sanxin achieved ISO9001:2000 certification in 2002 and is the premier wire drawing die manufacturer in China.

## PRODUCT LINES:

- Single Crystal Natural Diamond Dies
- Polycrystalline Diamond Dies
- Die Polishing and Grinding Machines
- Monodie Single Crystal Blanks
- Semi-Finished Dies
- Die Re-cutting Services

Sanxin manufactures a full range of dies using Sumidia®, Compax®, Monodie®, Sumicrystal® and Natural Diamond nibs, all priced very competitively, but a new range of PCD dies made using Xinya® blanks is priced just around 50-60 per cent of current Western market prices.

## Selection of Diamond and PCD Dies

For most economical use of dies, many manufacturers specify Natural Diamond or Monodie dies for drawing diameters less than 8 thousandths of an inch (0.2mm), where an extremely high finish may be required on the wire.

For larger diameters, PCD nibs generally provide the longest lasting and best solution. Fine Grain PCD blanks are available to provide higher surface finish at a small trade-off with rate of wear of the die. Other special PCD blanks enable the blank to be mounted in the die casing at a higher temperature (providing a more firmly fixed nib).

Another option for drawing extremely hard metals such as Stainless Steel is the use of Tungsten Carbide Supported PCD Blanks, where the complete cylindrical PCD blank is encased in a tight-fitting Tungsten Carbide Support Ring designed to dissipate heat most efficiently. Note that drawing Phosphor Bronze and most Copper or Aluminum alloys normally does not require use of Supported PCD Blanks (but of course that is your choice).

## When Ordering Diamond Dies (Specs may be given in inches or millimetres):

Here are the things that *must* be specified.

Order Quantity and Required Delivery Date  
Material Drawn and Drawing Diameter  
Drawing Diameter Tolerance  
Die Casing Diameter  
Die Casing Thickness

Specify these things if known

Reduction Angle and Bearing Length  
Incoming Wire Diameter  
Drawing Speed at Finishing Die  
Lubricant  
Any Special Requirements  
Max. Future Drawing Diameter

### Where Quality Begins

It begins with the determination to be the best. Then that excellent idea must be converted into a plan and the plan must be put into operation. Quality begins in the minds of the workers who make Beijing Sanxin Diamond Dies. Quality is further enhanced by fully accredited Quality Control Procedures. And quality gets a nice little kick-along from the advanced U.S. laser piercing machines imported into China for that purpose and the Conoptica die profile measurement equipment used in each Beijing Sanxin plant.

### Where Quality Becomes Visible

You see it in the quality of the finished wire. You see it in the tonnage of wire produced. You see it in the restoration of your Sanxin dies to as-new standard each time they receive Beijing Sanxin Factory Service. But, if you would like to have a very close look inside a Beijing Sanxin die, you will see the quality of the workmanship for yourself with the aid of a microscope and, externally, with a test wire and a micrometer. The table below indicates two of the important standards to which Beijing Sanxin dies are manufactured:

### BEIJING SANXIN STANDARDS – DRAWING DIAMETER TOLERANCE AND OVALITY

Drawing Diameter Range		Diameter Tolerance (Microns)	Ovality Tolerance (Microns)
(inch)	(mm)		
< 0.0008	< 0.020	0.6	0.3
0.0008 – 0.0019	0.020 – 0.050	0.6	0.3
0.0020 – 0.0079	0.051 – 0.200	1	0.5
0.0080 – 0.0199	0.201 – 0.500	1.5	0.8
0.0200 – 0.0399	0.501 – 1.000	2	1
0.0400 – 0.0599	1.001 – 1.500	2.5	1.3
0.0600 – 0.0869	1.501 – 2.200	3	1.5
0.0870 – 0.1299	2.201 – 3.300	4	2
0.1300 – 0.1799	3.301 – 4.500	5	2.5
0.1800 – 0.2299	4.501 – 5.800	6	3
0.2300 – 0.3150	5.801 – 8.000	7	3.5

**Note:**

When required, Sanxin dies can be manufactured to tighter tolerances.

### SANXIN PRICE / PERFORMANCE

The main advantage of using Sanxin Dies is Price / Performance.

If what you seek is simply the lowest price, Sanxin can probably help you, but that is not the best reason to use Sanxin Dies.

The best reason to use Sanxin Dies is much more tons of your product manufactured to uncompromising standards, per dollar cost (or, if you prefer, less dollars per ton).

You be the judge – we warmly invite you to try some Sanxin Dies in your own plant in an Obligation-Free Trial.