



since 1968

# Taiwan Diamond Industrial Co., Ltd.

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## Diamond Dies

”Quality Is Our Best Product”

Our 35 years Experience Can Provide Solutions  
To Solve your Various Applications

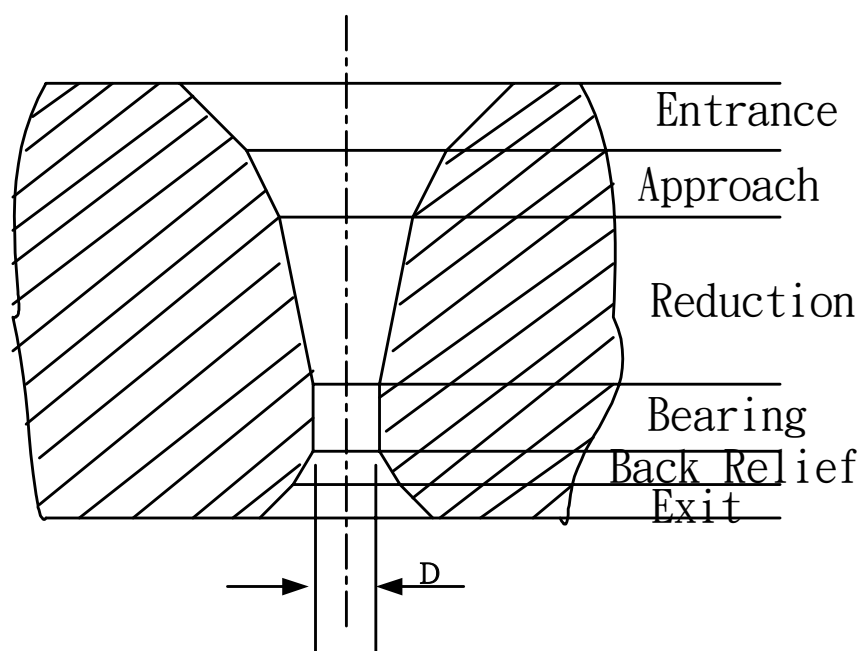
- Natural Diamond Dies  
(Size:  $\phi$  0.013mm ~  $\phi$  2.500mm)
- Polycrystalline Diamond Dies  
(Size:  $\phi$  0.050mm ~  $\phi$  20.000mm)
- Single Crystal Synthetic Diamond Dies  
(Size:  $\phi$  0.013mm ~  $\phi$  0.599mm)
- Shaving Dies
- Multi Wire Elongation Set of Dies
- Guiding Dies for Wire EDM
- Nipple Dies for Vinyl-Coated Wire



# MAJOR PRODUCTS



## Dies Profile



# Natural Diamond (ND) Dies

## Size Ranges :

Size (mm)	Tolerance ( $\mu\text{m}$ )	Roundness ( $\mu\text{m}$ )	Sizes of Casing	
			Diameter (mm)	Thickness (mm)
$\phi$ 0.0130 ~ 0.0399	0.5	0.5	25	7
$\phi$ 0.0400 ~ 0.0699	0.5	0.5	25	8
$\phi$ 0.0700 ~ 0.3990	1	1	25	8
$\phi$ 0.4000 ~ 0.7990	2	2	25	10
$\phi$ 0.8000 ~ 2.5000	3	2	25	12

We can also supply other sizes of casing and the dies with the tolerance of hole diameter specified by the customer .

Standard profile design for various materials : (We can also make dies based on customer's own designs)

Wire Materials Shape Factors	Hard Wire			Soft Wire	
	Stainless Steel Wire	Copper Plated Steel Wire	Tungsten Wire	Copper Wire	Aluminum Wire
Entrance	80°	80°	80°	80°	80°
Approach	35°	35°	35°	35°	35°
Reduction	14° $\pm$ 2°	14° $\pm$ 2°	12° $\pm$ 2°	16° $\pm$ 2°	18° $\pm$ 2°
Bearing	0.2D ~ 0.5D	0.2D ~ 0.6D	0.2D ~ 0.8D	0.2D ~ 0.5D	0.2D ~ 0.5D
Back Relief	25° $\pm$ 5°	25° $\pm$ 5°	25° $\pm$ 5°	25° $\pm$ 5°	25° $\pm$ 5°
Exit	60°	60°	60°	60°	60°

(D=Bearing Diameter)

## Range of Application :

### Soft Wire Drawing Dies

#### Wire Materials :

Gold , Silver , Platinum , Brass ,  
Copper , Phosphor-Bronze , Aluminum .

### Hard Wire Drawing Dies

#### Wire Materials :

Ferrous , Stainless Steel , Nickel , Chrome , Molybdenum , Tungsten ,  
Brass-Plated Steel .



## **Uniqueness of Our Products**

We can produce dies using natural diamonds and single crystal synthetic diamond for very fine wire drawing ◦ The minimum hole diameter can be as small as 0.0130 mm and it's tolerance and roundness can be as small as  $0.3 \mu\text{m}$  ◦

We use very high-quality diamond which are selected based on a very tight standard ◦ To assure the quality we use many different instrument to inspect the diamonds to make sure no crack , no impurity , no internal stress ◦

## **Our Beliefs :**

### **1. Quality :**

**High Precision and Reliability ◦**

### **2. Delivery :**

**Fast and Satisfy Customer's Needs ◦**

### **3. Price :**

**Reasonable and Competitive ◦**

### **4. Service :**

**Cordial and Responsible ◦**