



# 上荣超音波

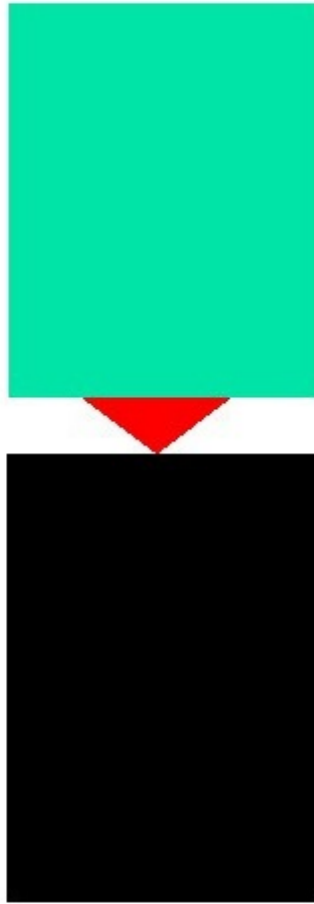
---

## 1. 超声焊接结构

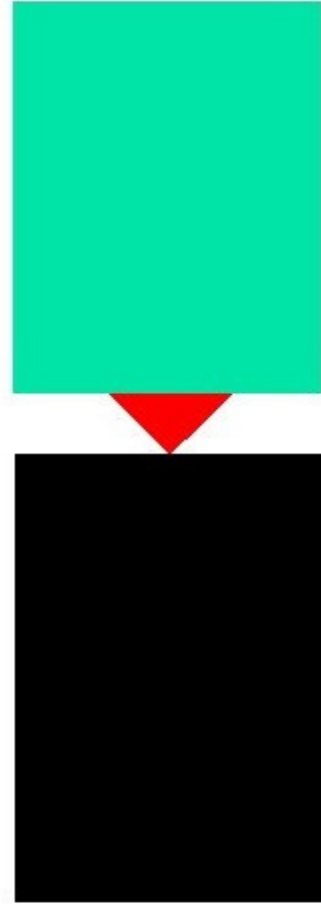
地址：天津北辰开发区双街双江道清大园5-102 E-mail：sr@tjsr.net  
网址：www.tjsr.net 电话：022-26635530 13902175557

## 焊接筋的角度

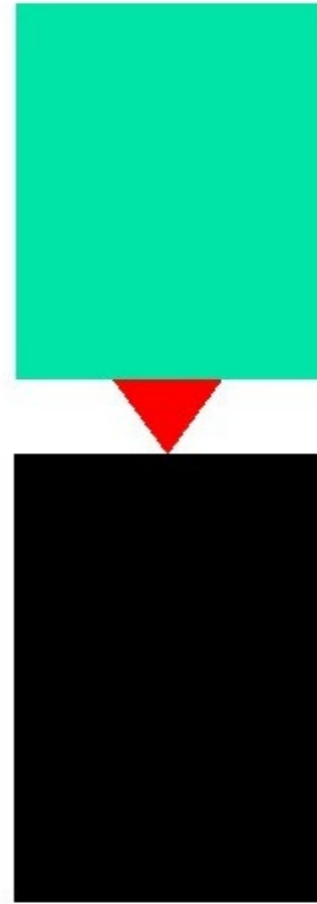
120°



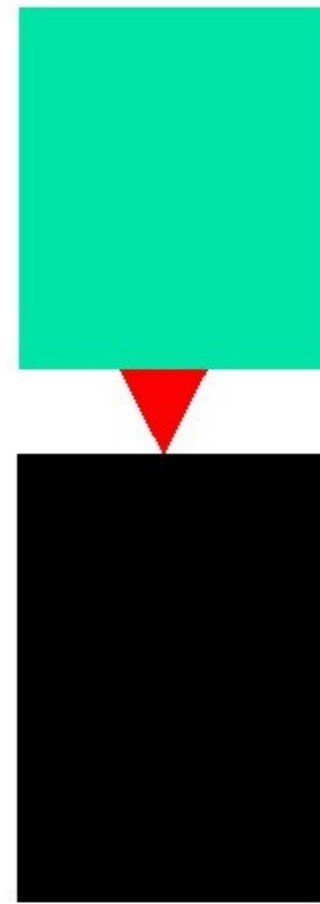
90°



60°



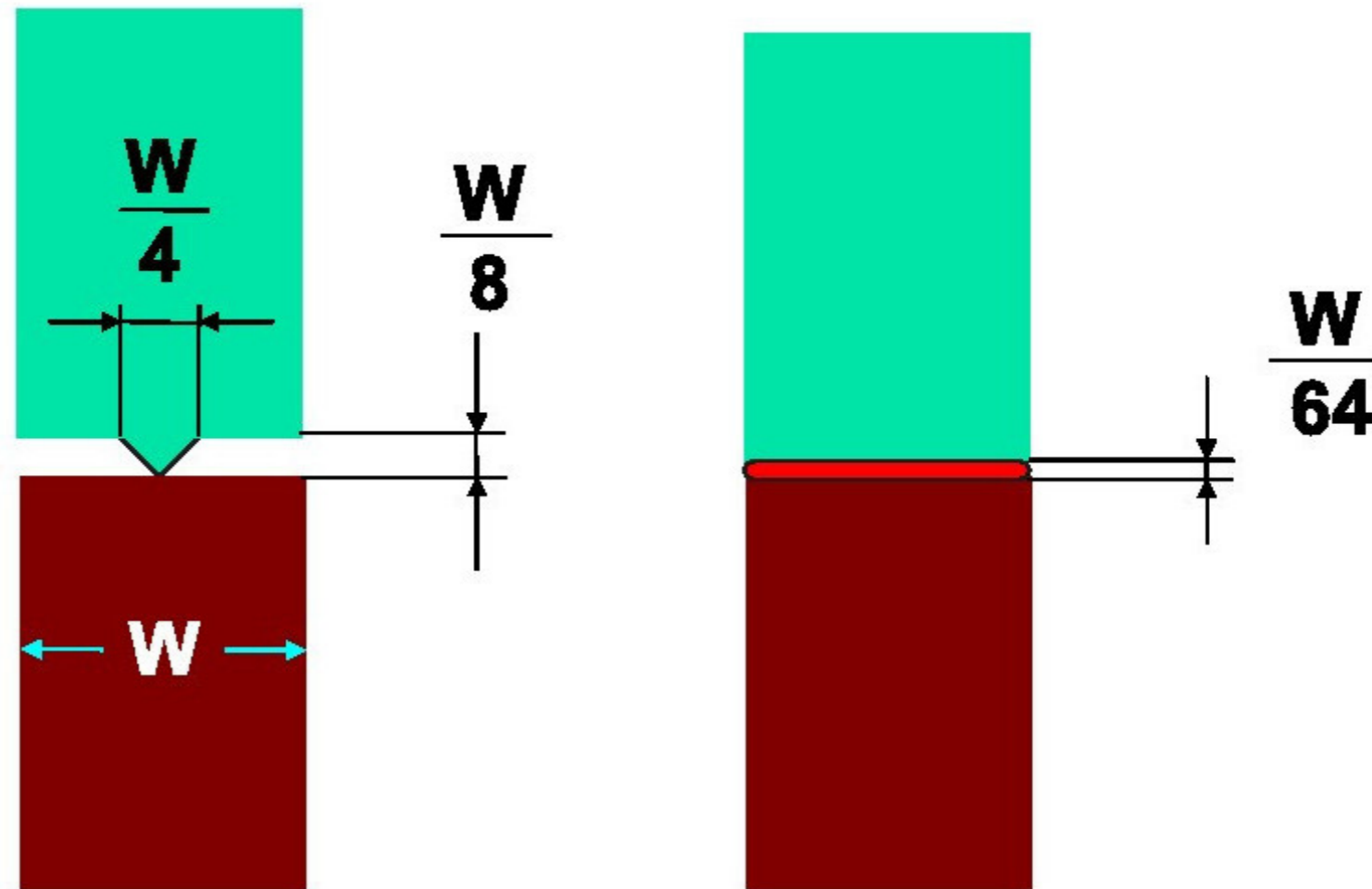
45°



# 超声焊接结构

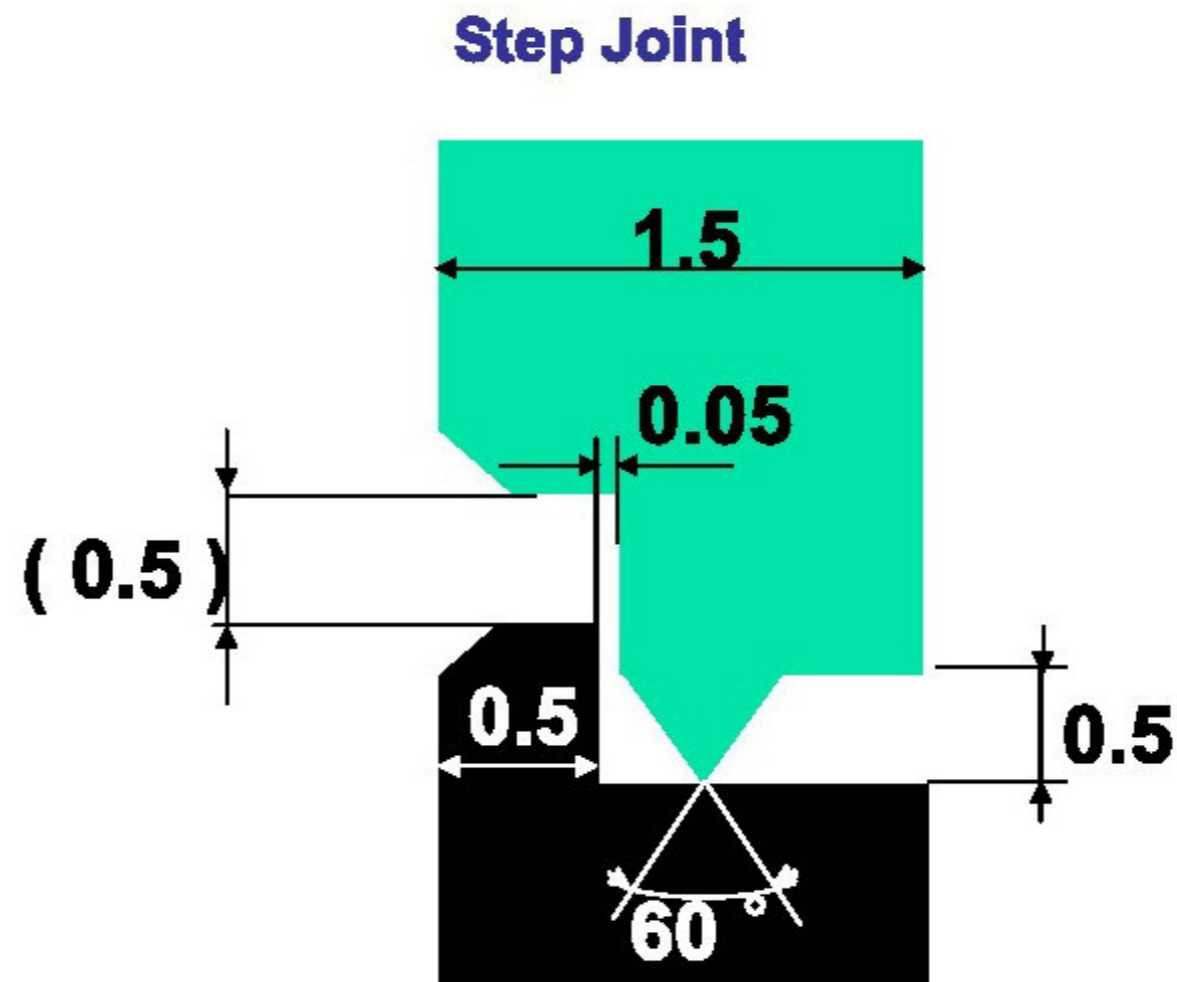
- 基本型

## Basic Energy Director



## 超声焊接结构

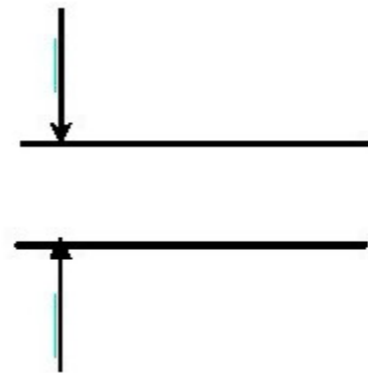
- 阶梯型



# 超声焊接结构

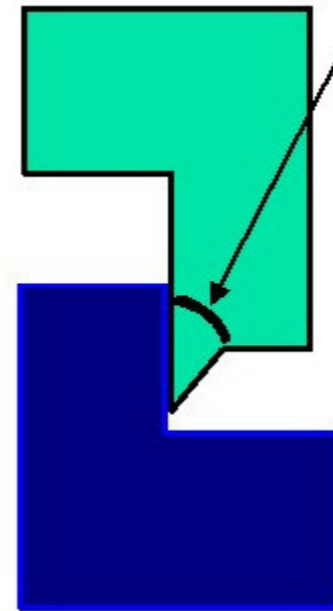
## ■ 阶梯型

$\frac{W}{8} +$   
 $0.010''$  to  $0.025''$   
( $0.25$  to  $0.64\text{mm}$ )



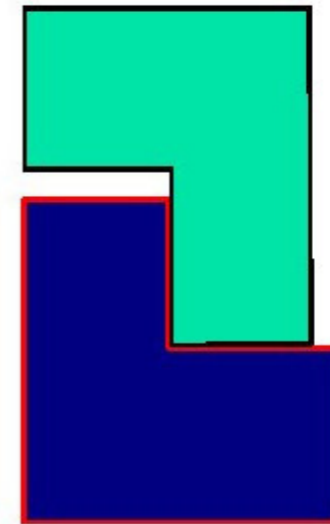
## Chisel Edge

$0.060''$   
( $< 1.50\text{ mm}$ )



Before

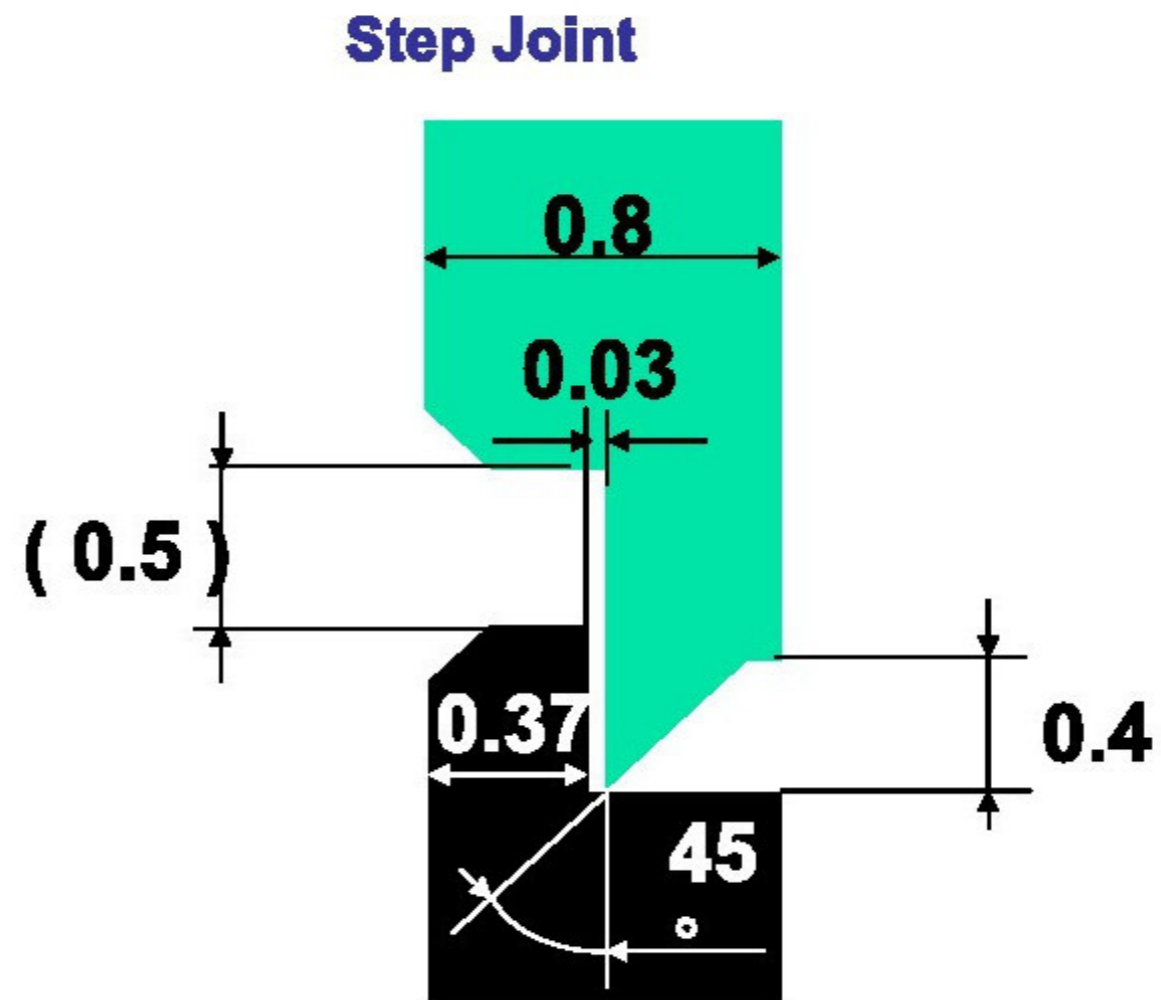
Chisel energy  
director  $45^\circ$   
 $0.015$  to  $0.019''$  tall  
( $0.4$  to  $0.5\text{mm}$ )



After

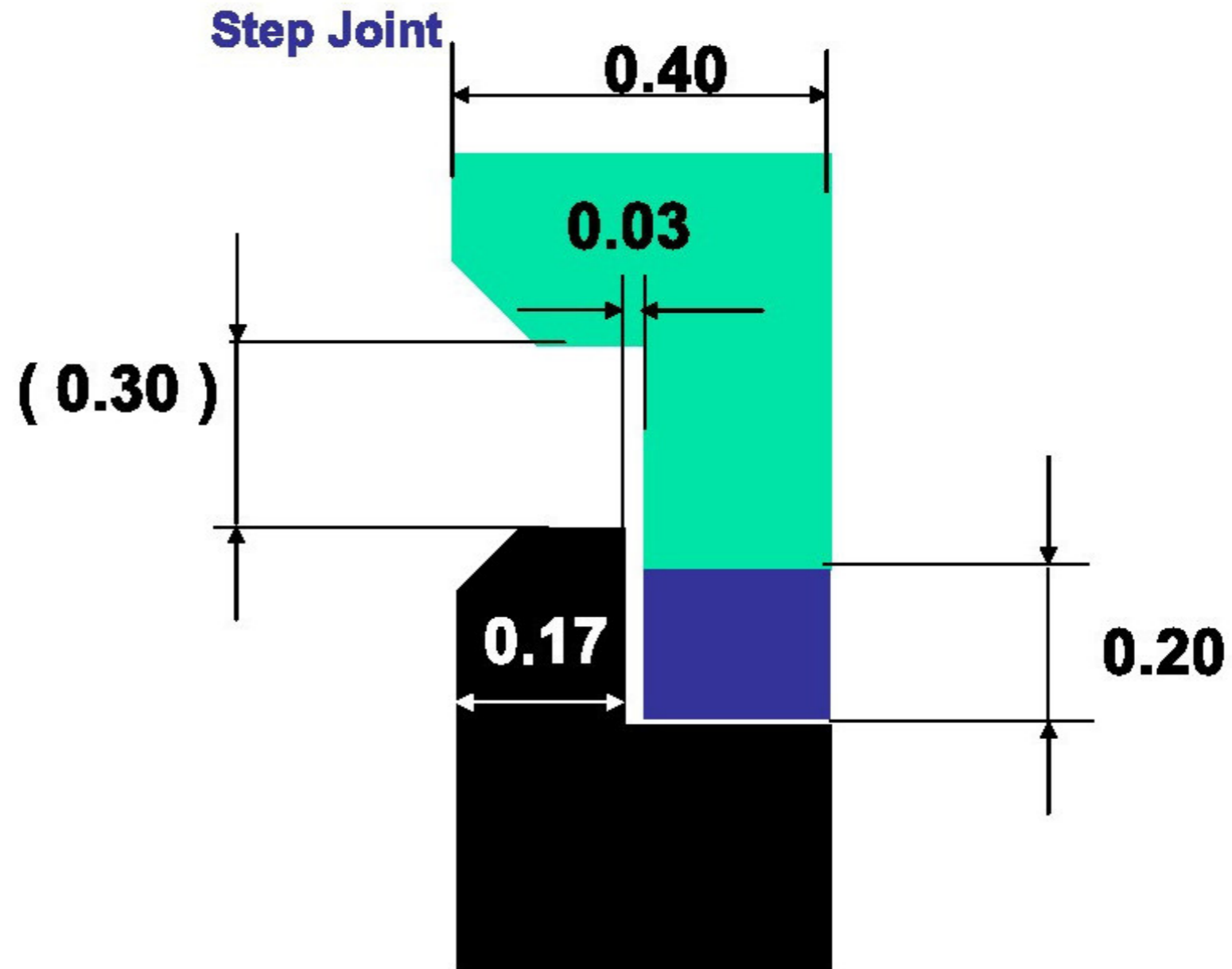
# 超声焊接结构

- 阶梯型



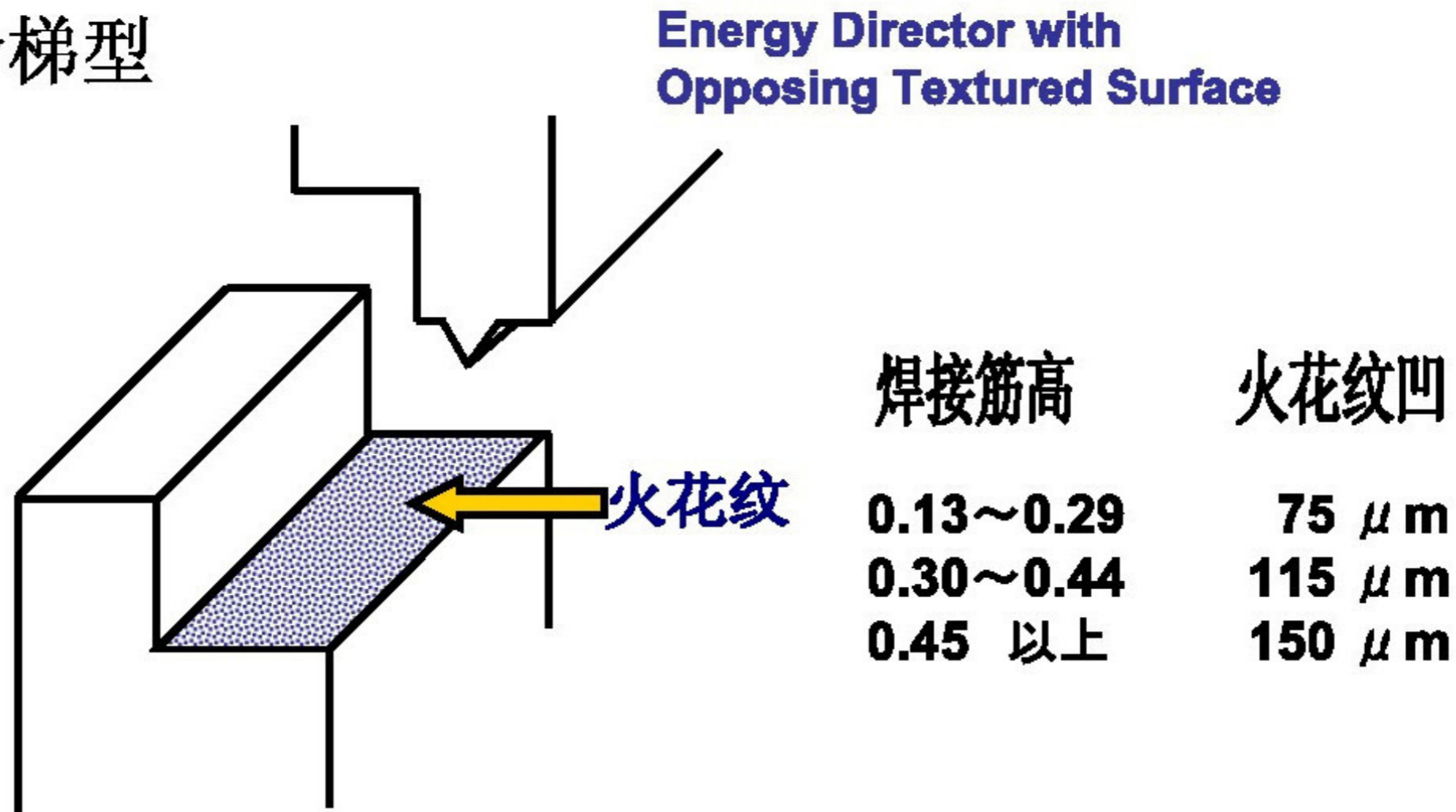
# 超声焊接结构

- 阶梯型



# 超声焊接结构

## ■ 阶梯型

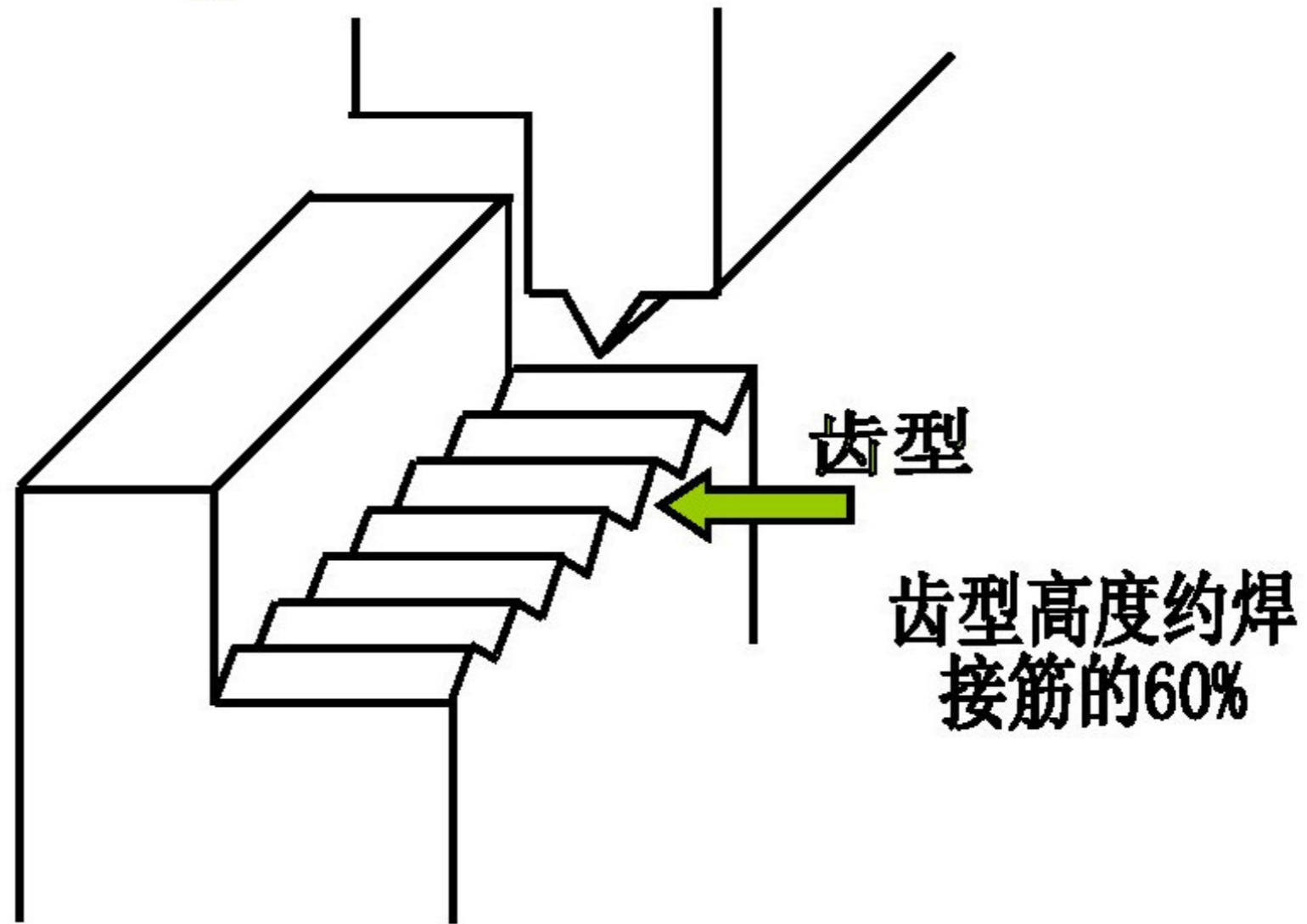




## 超声焊接结构

- 阶梯型

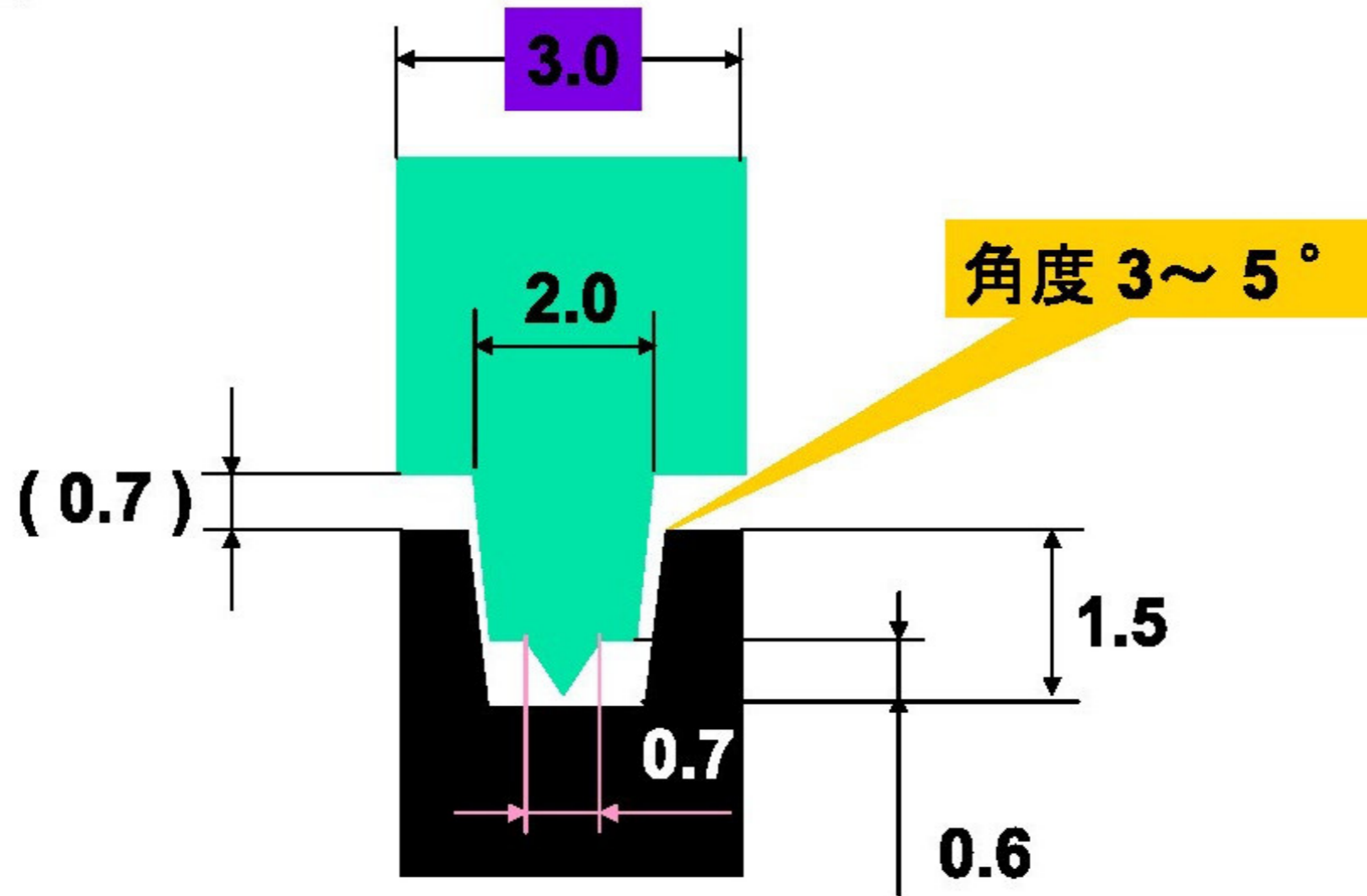
Continuous Criss-Cross  
Energy Director



# 超声焊接结构

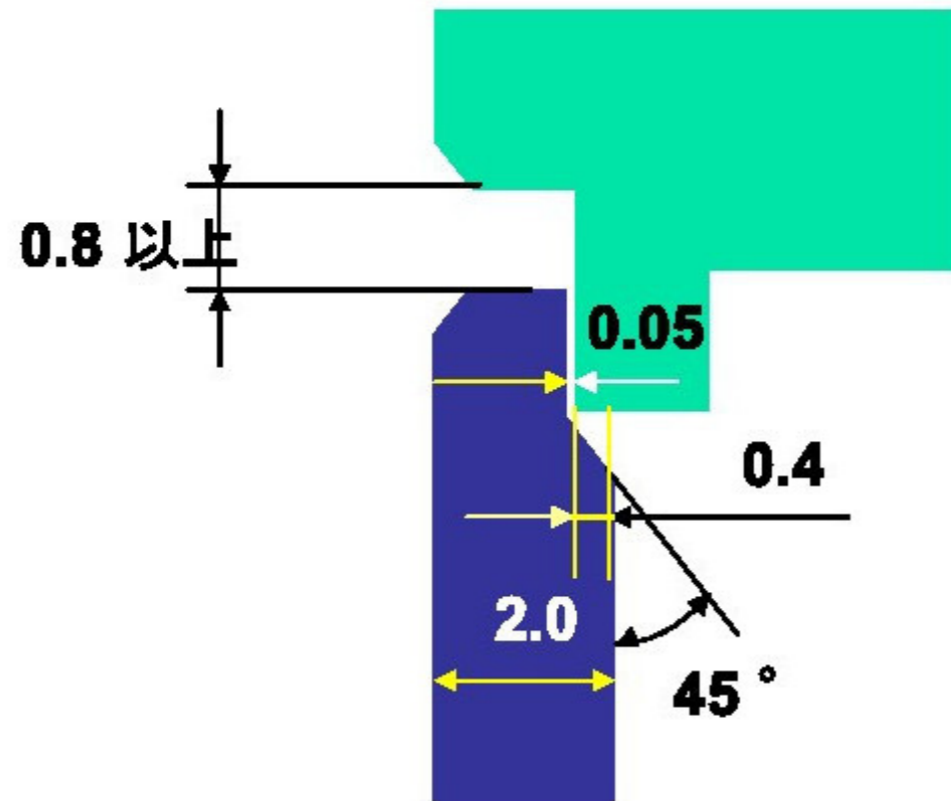
## ■ 榫槽型

Tongue & Groove



# 超声焊接结构

## ■ 剪切型



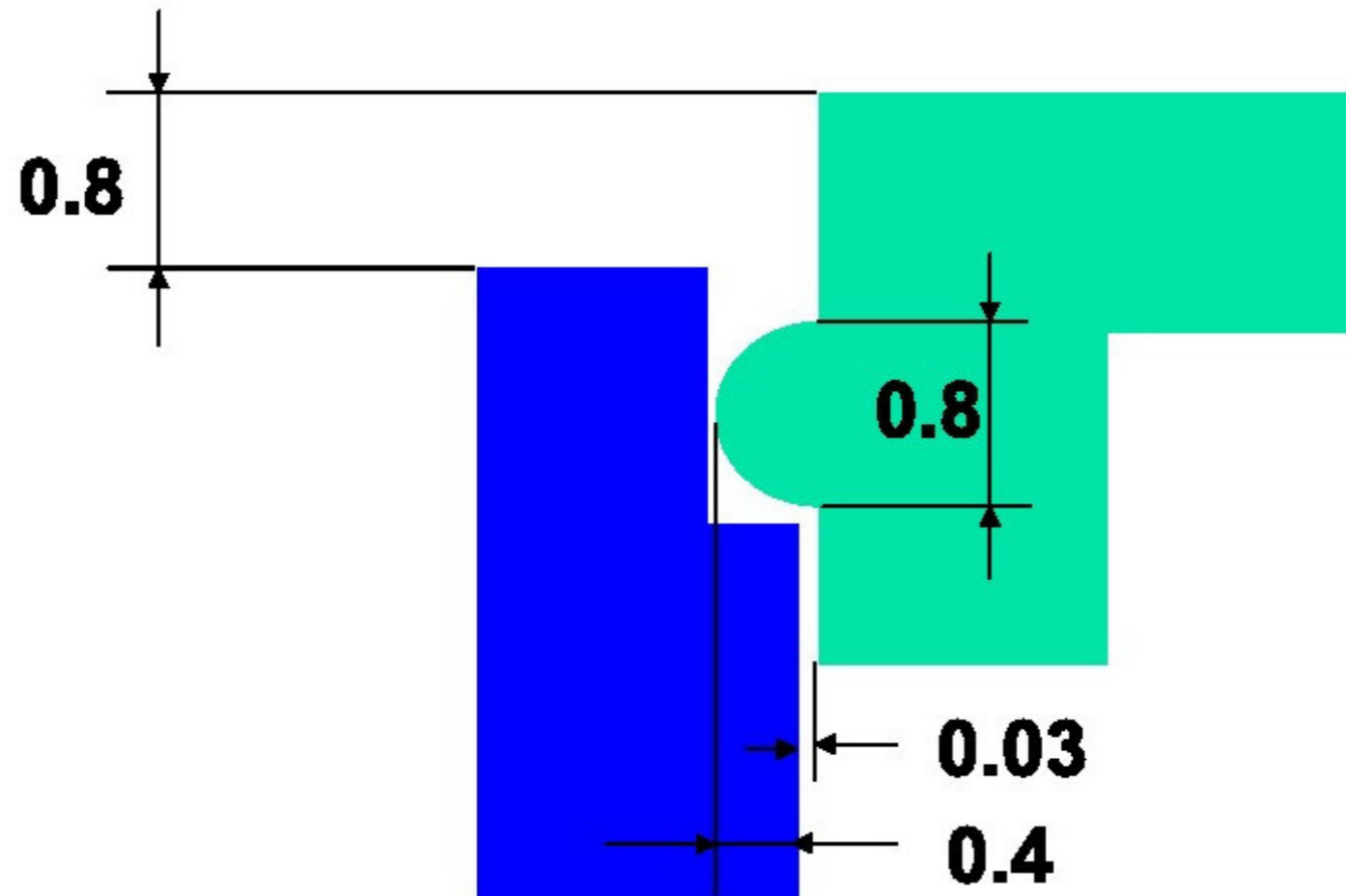
## Shear Joint

Maximum Part Dimension	Interference per Side (Range)	Part Dimension Tolerance
Less than 0.75" (18mm)	0.008" to 0.012" (0.2 to 0.3mm)	± 0.001" (± 0.025mm)
0.75" to 1.50" (18-35mm)	0.012" to 0.016" (0.3 to 0.4mm)	± 0.002" (± 0.050mm)
Greater than 1.50" (35mm)	0.016" to 0.020" (0.4 to 0.5mm)	± 0.003" (± 0.075mm)

# 超声焊接结构

## ■ 剪切型

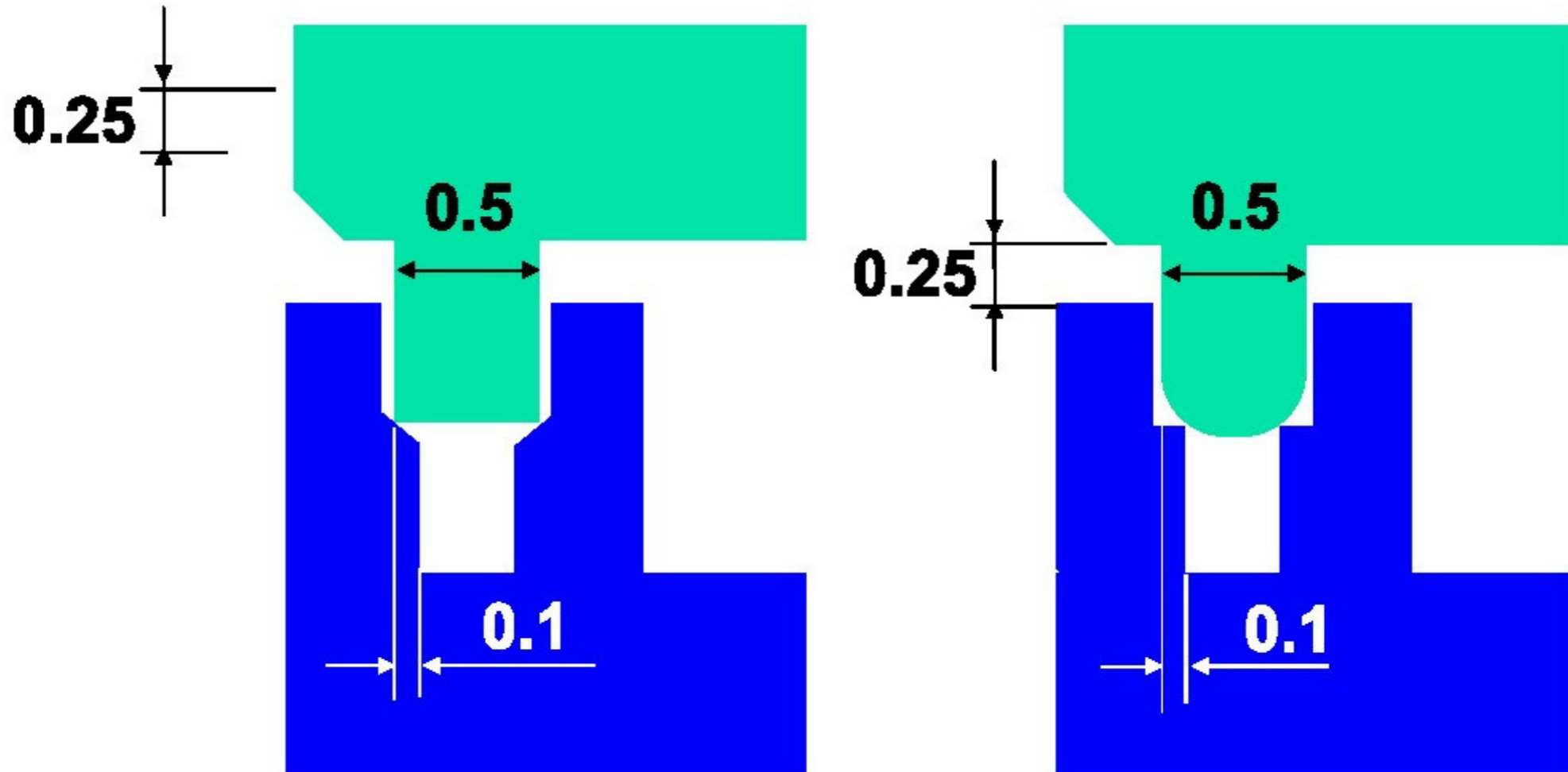
### Shear Joint



# 超声焊接结构

- 剪切型

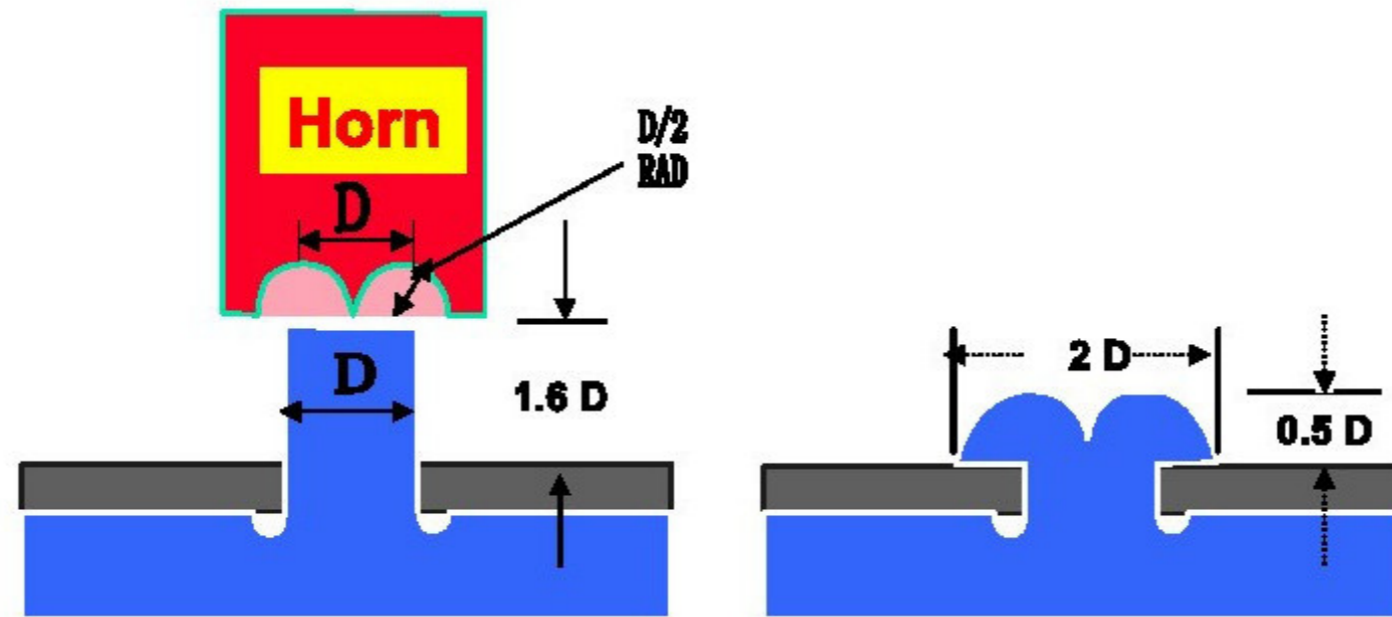
## Shear Joint



# 超声铆接结构

## ■ 基本型

### Standard Profile



Before

After

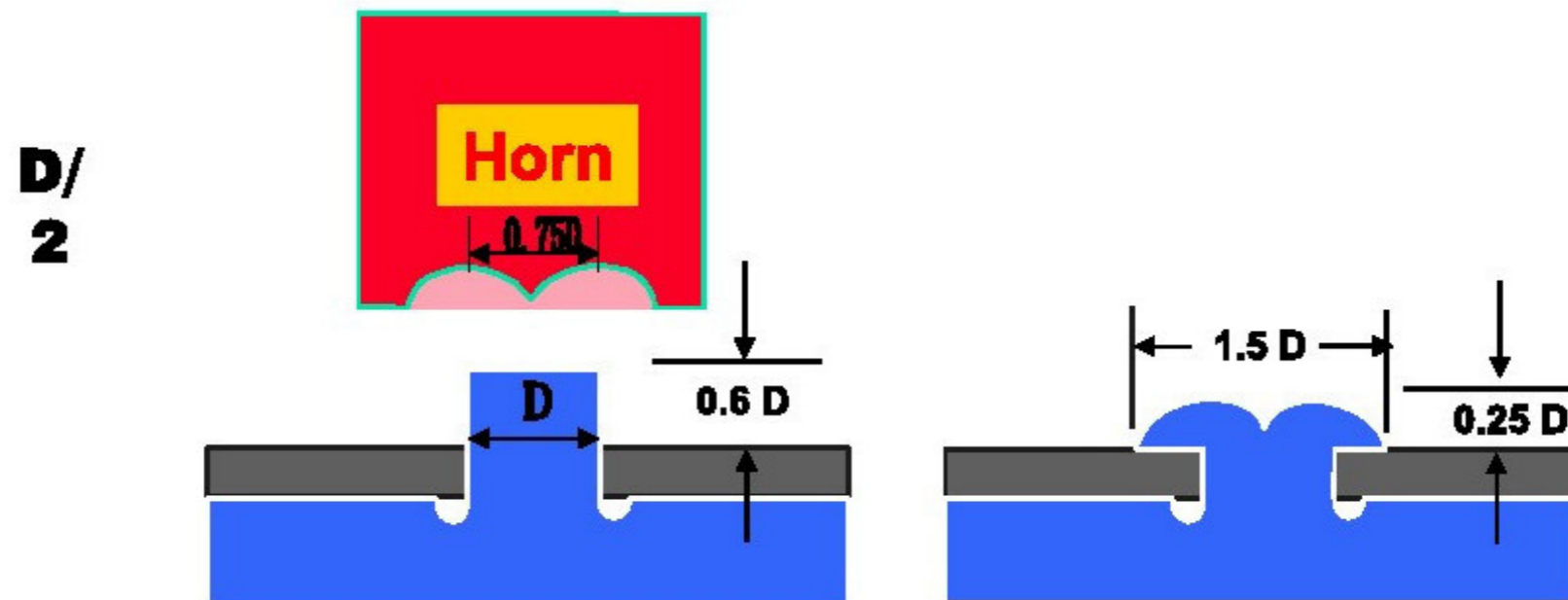
$D > 2$

D = Stud diameter

# 超声铆接结构

- 低矮型

## Low Profile Stake



Before

$D > 2$

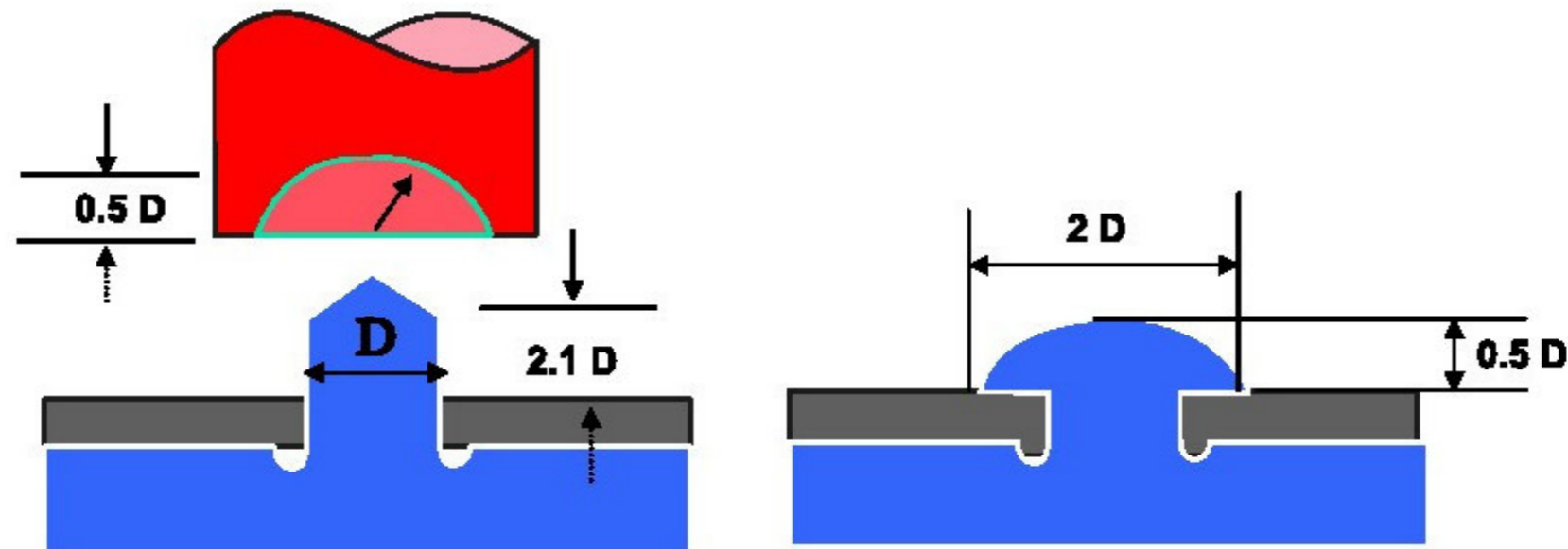
After

$D = \text{Stud diameter}$

# 超声铆接结构

## ■ 半圆型铆接

## Dome Stake



Before

After

$D > 1-5$

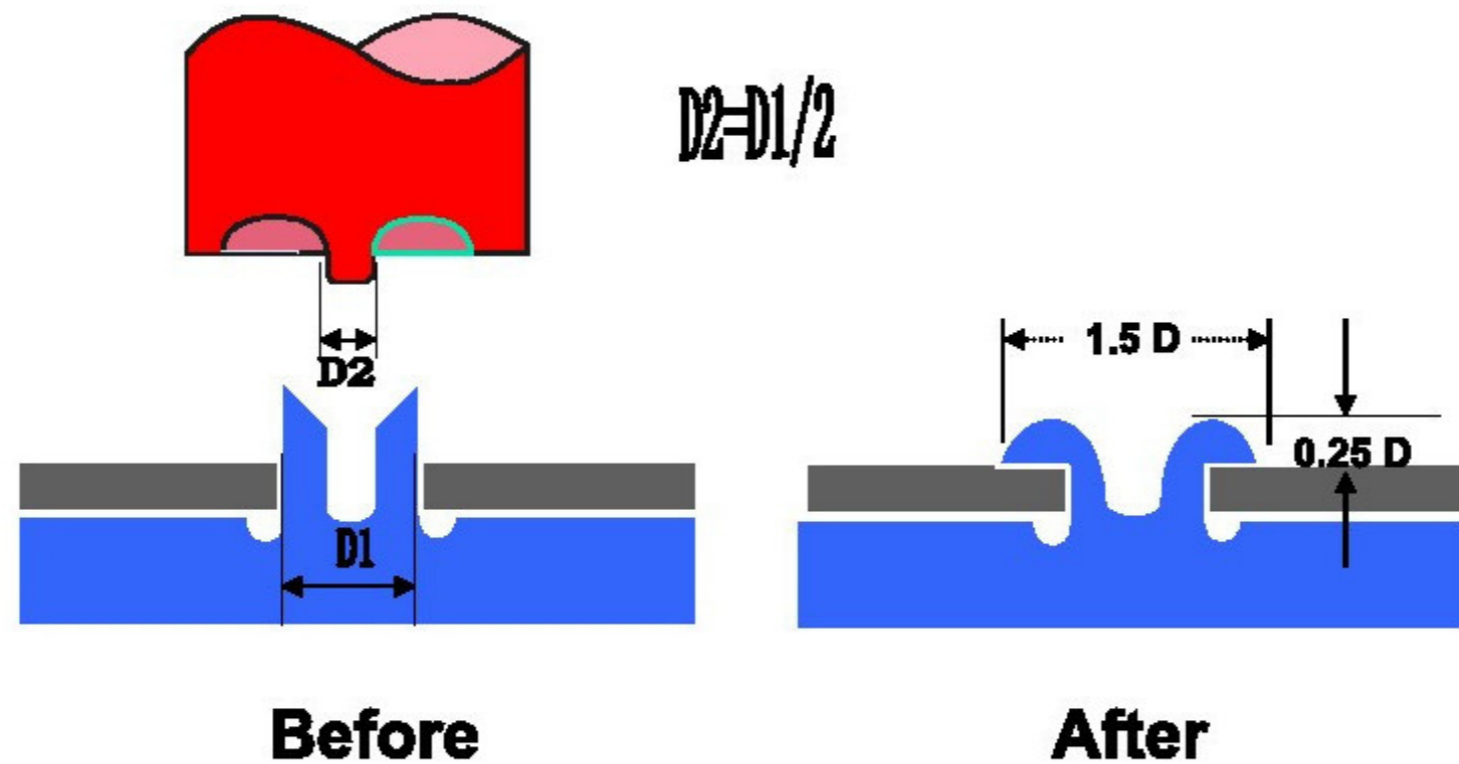
$D = \text{Stud diameter}$



# 超声铆接结构

- 中空型铆接

## Hollow Stake

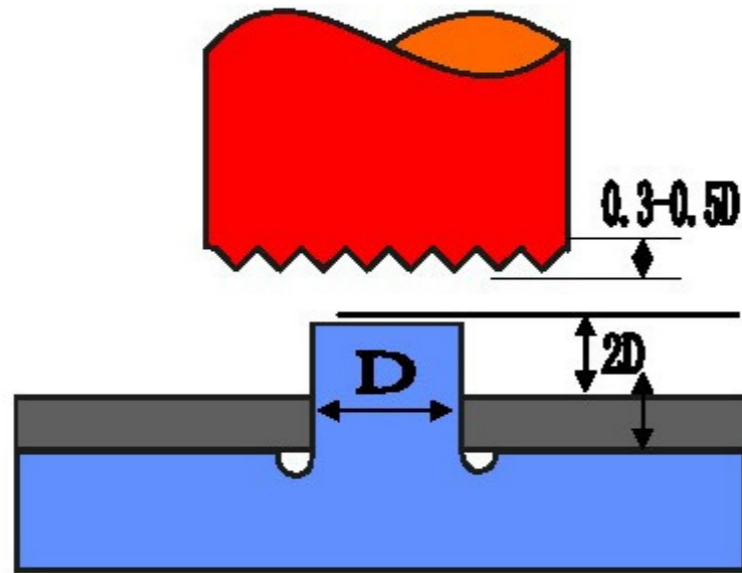


D = Stud diameter

# 超声铆接结构

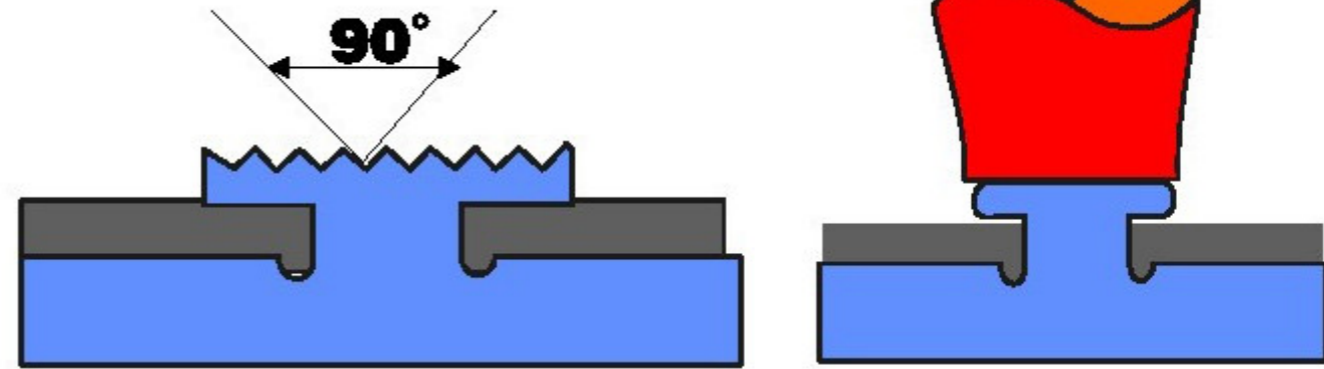
- 高压型铆接

**Knurled Stake**



**Before**

**High Pressure Stake**



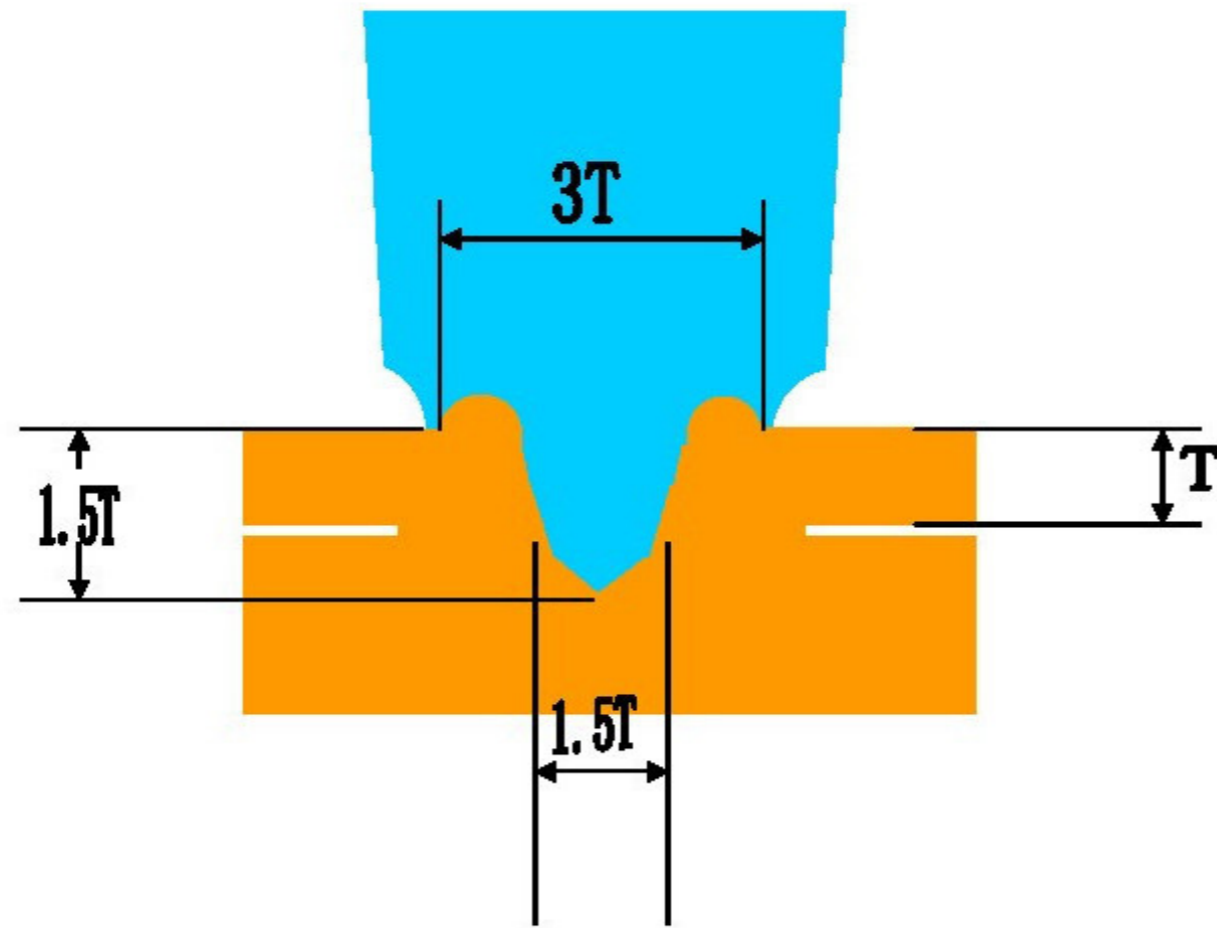
$D > 0.5$

**After**

## 超声铆接结构

- 点焊

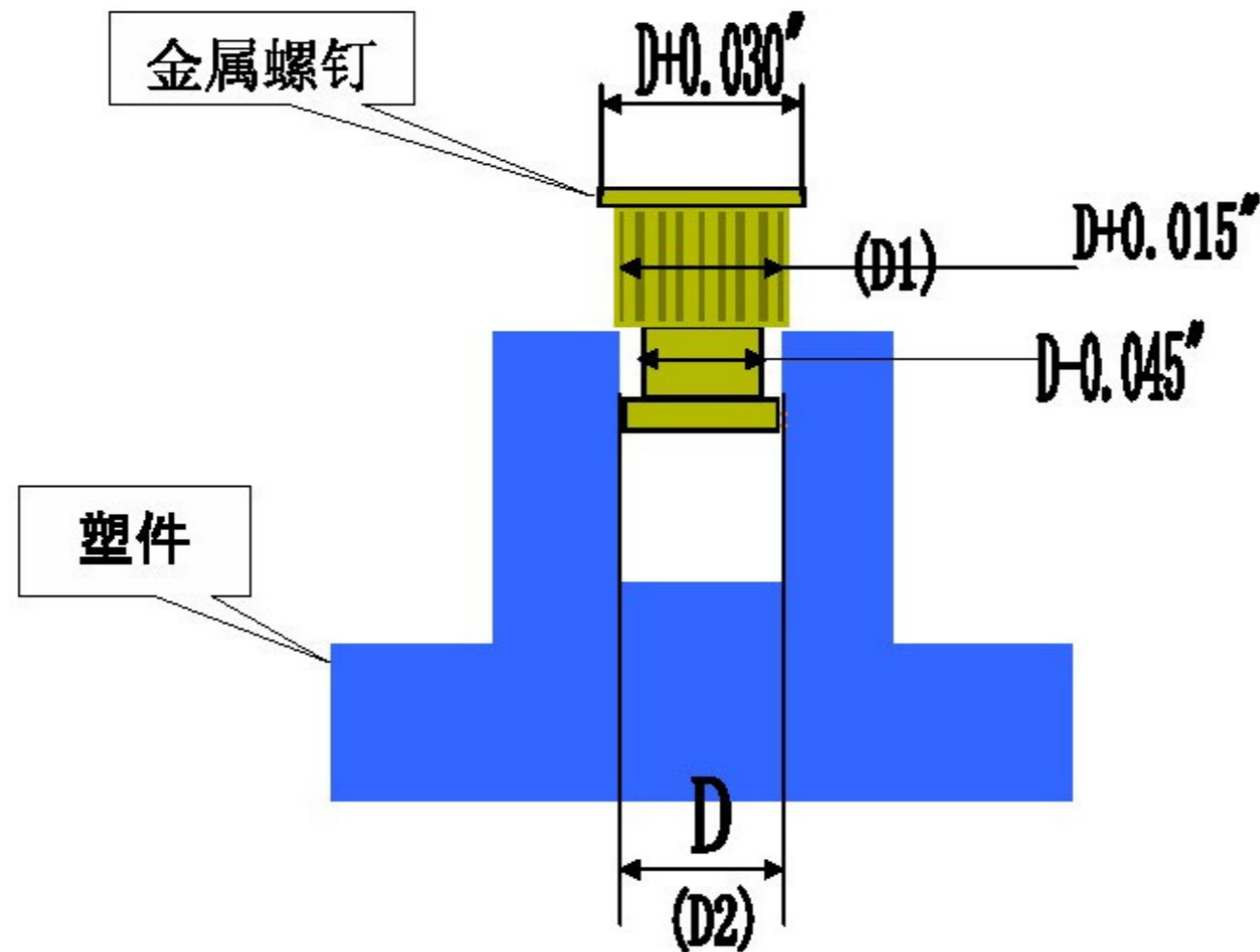
### Spot Welding



# 超声嵌插结构

## ■ 嵌插

### Insertion



$D=1/4''$ 以下-1000W  
 $D=1/2''$ 以下-2000W



## 超声嵌插尺寸

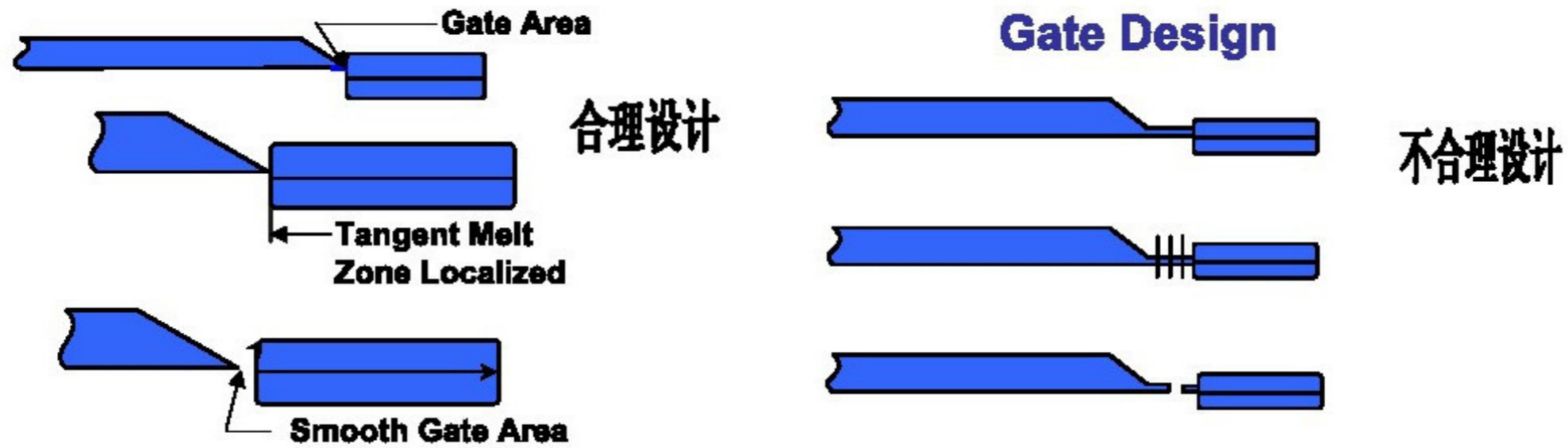
Metric thread	Length of bushing in mm	Diameter D1	In mm D2	Insertion hole in mm (rec.value)	Threaded bush
M3	5.8	3.9	4.7	4.0	<p>The diagram illustrates the assembly of a threaded bush into a hole. It shows a cross-section of a hole with a diameter of D2. A threaded bush with an outer diameter of D1 is being inserted into the hole. The bush is shown in two colors: blue for the upper portion and red for the lower portion. The hole is shown in a light brown color. The diagram is labeled with D2 and D1, and includes a small red double-dot symbol (..) to the left of the bush.</p>
M4	8.2	5.5	6.3	5.6	
M5	9.5	6.3	7.1	6.4	
M6	12.7	7.9	8.7	8.0	
M8	12.7	9.5	10.2	9.6	



## 超声嵌插尺寸

Metric thread	Length of bushing in mm	Diameter D1	In mm D2	Insertion hole in mm (rec.value)	Threaded bush
M3	5.5	4.0	4.7	4.3	<p>The diagram shows a cross-section of a threaded bush. The outer diameter is labeled D2, and the inner diameter is labeled D1. The bush has a 4-degree taper at the bottom. The diagram is positioned to the right of the table, spanning the rows for M3 through M8.</p>
M4	7.5	5.2	6.15	5.65	
M5	9.0	6.4	7.35	6.85	
M6	10.0	7.7	8.75	8.25	
M8	12.0	9.7	11.3	10.8	

# 超声浇口切除结构



## ■ 浇口尺寸

