PUNCH PRESS
HIGH PERFORMANCE TOOLING

High Quality & Technology For ● The Future

CONIC
Since 1976

AMADA TYPE (SET PRESS) TOOLING

JAPAN QUALITY

CONIC
COMPANY GUIDANCE

ABOUT US

Conic has been produced quality punch tools since 1976 in Okayama Japan.

Our tools are used worldwide in the sheetmetal market and that quality is really satisfied from various production customers.

Our policy is that we make a high quality tools in timely, in reasonable price to helping customers manufacture sheet metal parts in high productivity and reliability.

We have done a lot of development of new products such as Super Dry Punch(SDP), Conic Long life Punch(CLP), Conic Hard Punch(CHP) for last long tools.

We recently introduced PROTECH series tool to the market and market reflect strong praise.

Conic would like to be your punch press tool partner.

We look forward to serving you.

QUALITY

Okayama factory :

ISO 9001:2015 provide superior Quality Management System in 1998 Conic Corp, received ISO9001 authorization, and it has been recognized as a very reliable company, both on the international front and Japan.
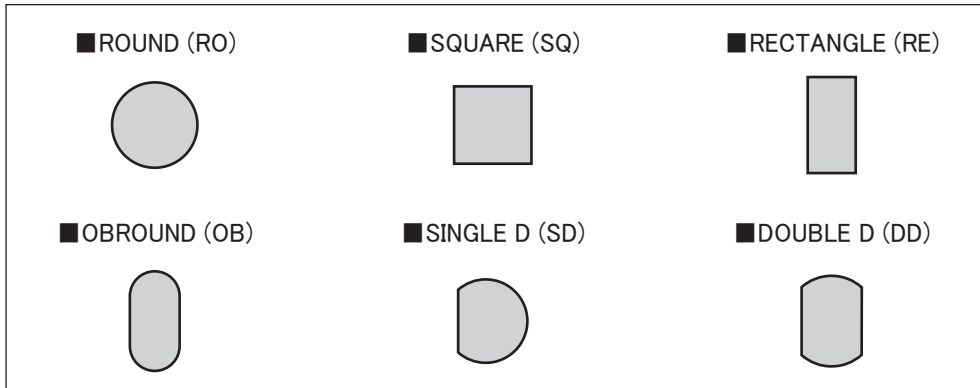
COMPANY HISTORY

1976　Established.

1979　Tokyo Sales Office opened.

1985　Okayama Factory opened.

1990　"International Sheet Metal Symposium" held by the company.

1992　Tool information and order receiving office was opened.

1993　Osaka Branch opened in Higashi-Osaka city.

1993　Head Office moved into Okayama Factory.

1998　Okayama factory was registered under required operation of international quality management system "ISO-9001".

1999　"Super Dry Punch" newly developed and launched.

2000　Internet order and quote receiving system was opened.

2002　"Conic Hard Punch" newly developed and launched.

2009　PROTECH series tooling newly developed and launched.

2012　Thailand Factory opened.

2013　"Conic Long life Punch" newly developed and launched.
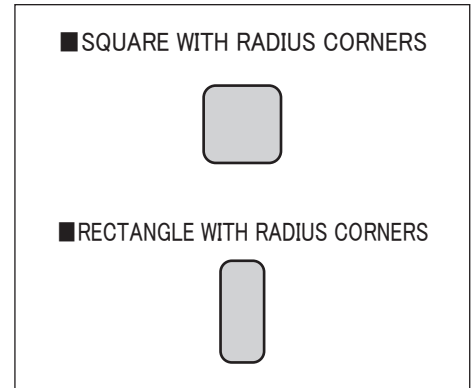
2018　The Representative office in Vietnam opened.

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CONIC
SPECIFICATION OF CONIC TOOLING

■Various Shapes

STANDARD SHAPES

■ROUND (RO)　　■SQUARE (SQ)　　■RECTANGLE (RE)

■OBROUND (OB)　　■SINGLE D (SD)　　■DOUBLE D (DD)

WITH RADIUS CORNERS

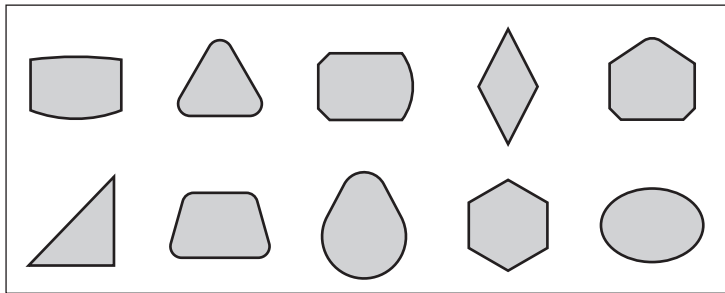■SQUARE WITH RADIUS CORNERS

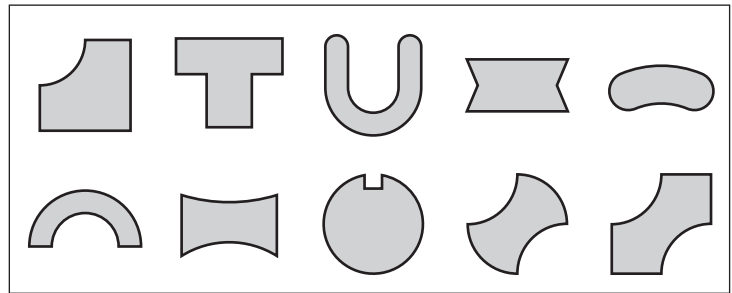■RECTANGLE WITH RADIUS CORNERS

Note : Square and Rectangle punch corner has small radius (R0.2) for prevent crack of punch tip.
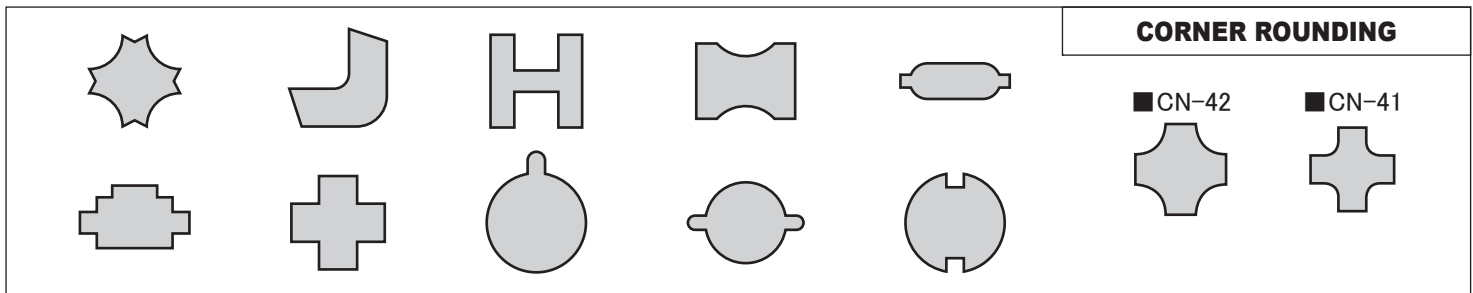　　　 If it is not necessary, please inform us.

SPECIAL SHAPES (CLASS-1)

SPECIAL SHAPES (CLASS-2)

SPECIAL SHAPES (CLASS-3)

CORNER ROUNDING
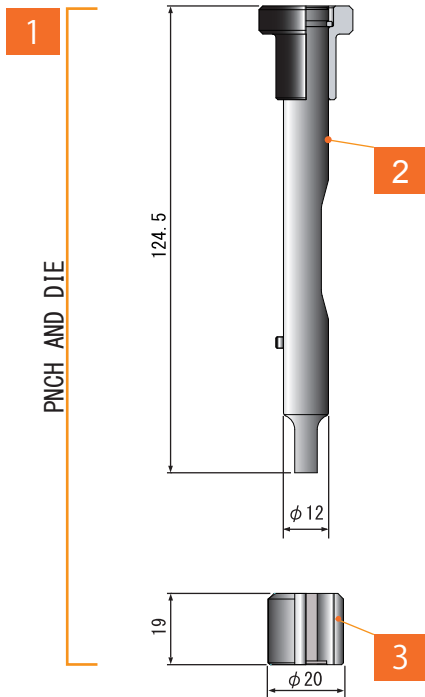
■CN-42　　■CN-41

SPECIAL SHAPES (CLASS-4)

More complicated figure

When make order, please inform to us the center position of the tool.

CONIC is possible to produce other than this form list,
please contact us.

A26 , A32 STATION TOOLING

A26 — Diameters Up to 8.0mm

ROUNDS

■Dimeters 1.6mm-8.0mm

Description	
1	PUNCH&DIE
2	PUNCH
3	DIE

SPECIAL SHAPES

■CLASS 1-4

Description	
1	PUNCH&DIE
2	PUNCH BODY
3	DIE

STANDERD SHAPES

■Diagonal size 2.4mm-8.0mm

Description	
1	PUNCH&DIE
2	PUNCH BODY
3	DIE

A32 — Diameters Up to 11.0mm
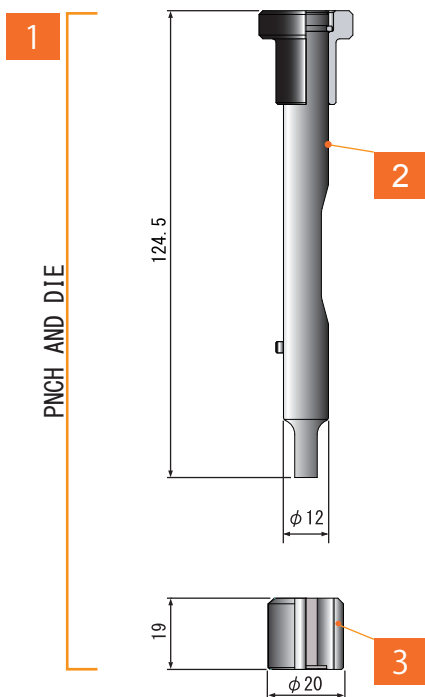
ROUNDS

■Dimeters 1.6mm-11.0mm

Description	
1	PUNCH&DIE
2	PUNCH
3	DIE

SPECIAL SHAPES

■CLASS 1-4

Description	
1	PUNCH&DIE
2	PUNCH BODY
3	DIE

STANDERD SHAPES

■Diagonal size 2.4mm-11.0mm

Description	
1	PUNCH&DIE
2	PUNCH BODY
3	DIE

CONIC
A38 , A50 STATION TOOLING

A38 — Diameters Up to 15.5mm

1 — PNCH AND DIE

124.5

φ16

19

φ26

2

3
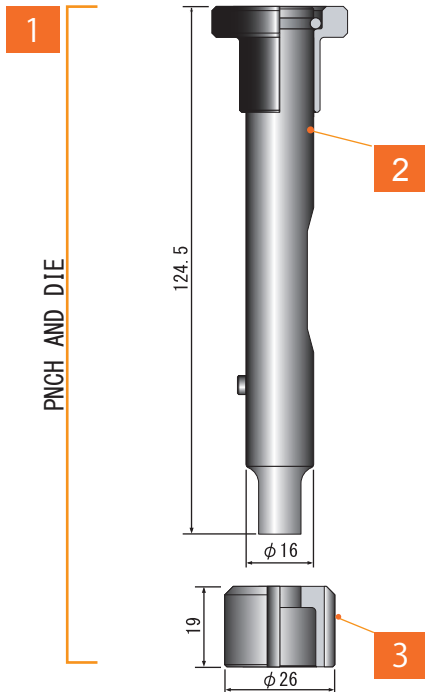
ROUNDS
■Dimeters 1.6mm-15.5mm

Description	
1	PUNCH&DIE
2	PUNCH
3	DIE

STANDERD SHAPES
■Diagonal size 2.4mm-15.5mm

Description	
1	PUNCH&DIE
2	PUNCH BODY
3	DIE

SPECIAL SHAPES
■CLASS 1-4

Description	
1	PUNCH&DIE
2	PUNCH BODY
3	DIE

A50 — Diameters Up to 22.0mm

1 — PNCH AND DIE

124.5

φ23

19

φ32

2

3
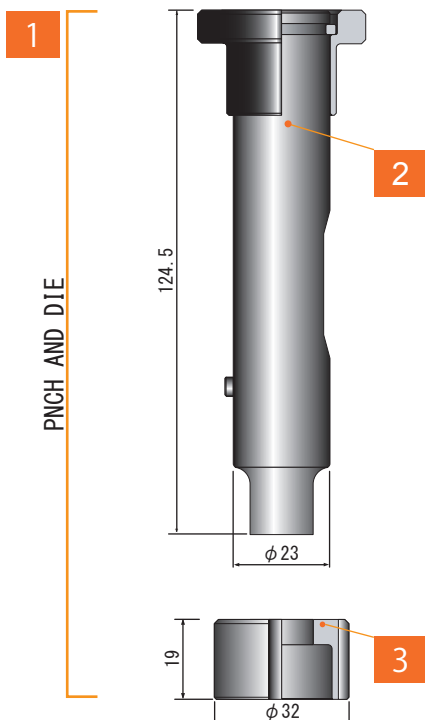
ROUNDS
■Dimeters 2.6mm-22.0mm

Description	
1	PUNCH&DIE
2	PUNCH
3	DIE

STANDERD SHAPES
■Diagonal size 6.3mm-22.0mm

Description	
1	PUNCH&DIE
2	PUNCH BODY
3	DIE

SPECIAL SHAPES
■CLASS 1-4

Description	
1	PUNCH&DIE
2	PUNCH BODY
3	DIE

CONIC
A64 , A90 STATION TOOLING

A64 — Diameters Up to 38.0mm

φ 39
59.5
PNCH AND DIE
2
19
φ 54
3
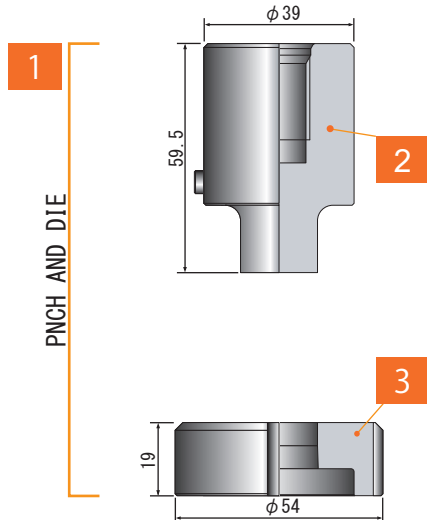
ROUNDS
■Dimeters 12.0-38.0mm

Description	
1	PUNCH&DIE
2	PUNCH
3	DIE

STANDERD SHAPES
■Diagonal size 12.0-38.0mm

Description	
1	PUNCH&DIE
2	PUNCH BODY
3	DIE

SPECIAL SHAPES
■CLASS 1-4

Description	
1	PUNCH&DIE
2	PUNCH BODY
3	DIE

A90 — Diameters Up to 50.0mm

φ 39
61.5
PUNCH AND DIE
2
19
φ 90
3
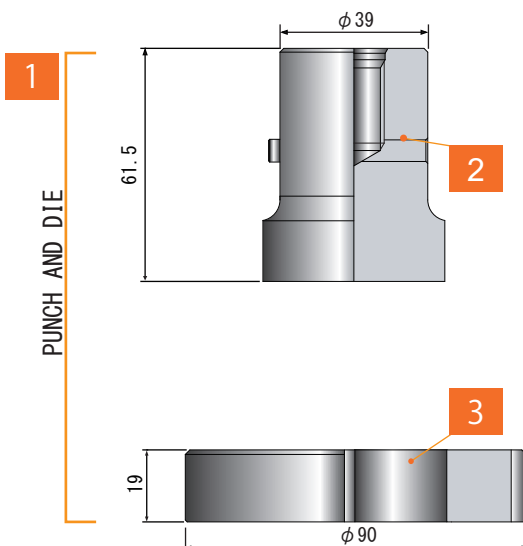
ROUNDS
■Dimeters 25.0-50.0mm

Description	
1	PUNCH&DIE
2	PUNCH
3	DIE

STANDERD SHAPES
■Diagonal size 25.0-50.0mm

Description	
1	PUNCH&DIE
2	PUNCH BODY
3	DIE

SPECIAL SHAPES
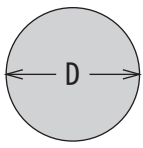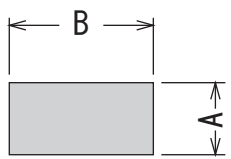■CLASS 1-4

Description	
1	PUNCH&DIE
2	PUNCH BODY
3	DIE

TECHNICAL INFORMATION

■ CALCULATE PUNCHING FORCE (TONNAGE)

Tonnage capacity is different depending on machines.
Use the calculation formula below to prevent from over tonnage.

$$\text{Tonnage (ton)} = \frac{\text{Circumference(mm) x Material thickness(mm) x Shear resistance(kg/mm}^2)}{1000}$$

Circumference

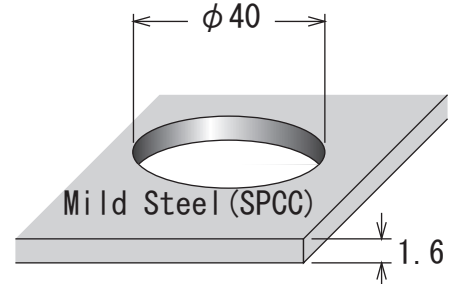| Round	Shaped
Diameter x 3.14	(Length dimension + Width dimension) x 2
Circumference = D x 3.14	Circumference = (A + B) x 2

Shear resistance by material

Material	Shear resistance (kg/mm^2)
Mild Steel	26～35
SS400	33～42
Stainless Steel	52～56
Aluminum	7～16
Copper	18～30
Brass	22～40

＜Calculation example＞

The tonnage when piercing Φ40 to Mild Steel T=1.6mm.

Circumference	Material thickness	Shear resistance

$$\frac{40 \times 3.14 \quad x \quad 1.6 \quad x \quad 35}{1000} = 7 \text{ (ton)}$$

φ40

Mild Steel(SPCC)

1.6

■ DIE CLEARANCE

A

PUNCH

DIE

B
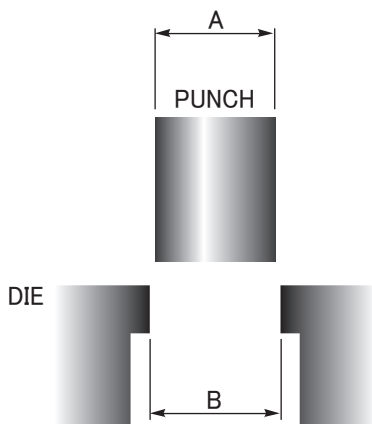
■ DIE CLERANCE IS ···

Die clearance is difference between punch diameter and die diameter.

Die clearance = B − A

■ RECOMMENDED DIE CLERANCE

Die clearance = Material thickness x Clearance Ratio

Material	Clearance Ratio	Material thickness					
		0.5～1.0	1.2	1.5	2.0	2.3	3.2
Mild steel	0.15	0.15	0.2	0.25	0.3	0.4	0.5
Stainless steel	0.2	0.2	0.25	0.3	0.4	0.5	0.6
Aluminum	0.1	0.15	0.15	0.15	0.2	0.25	0.35
Copper	0.1	0.15	0.15	0.15	0.2	0.25	0.35

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CONIC HIGH PERFORMANCE TOOLING

- ■ Amada type tooling
- ■ Murata type tooling
- ■ Trumpf type tooling
- ■ Komatsu type tooling
  also available.

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CONIC

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