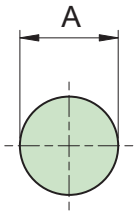
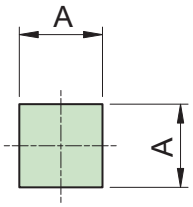
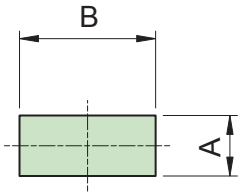
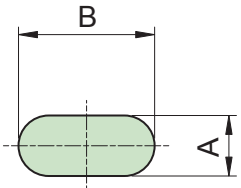
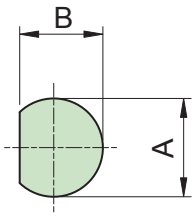
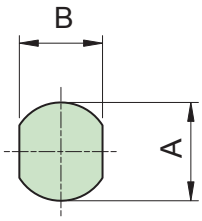
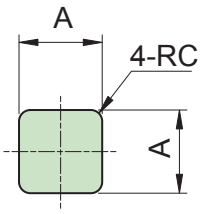
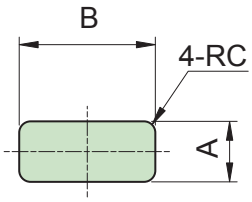
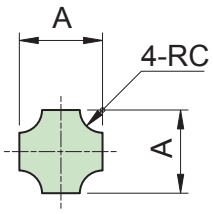
THE ORDERING GUIDE 1

This time, we summarized the instructions and precautions when ordering tools.

HOW TO INSTRUCT SHAPE AND DIMENSIONS

Please specify the tool shape and dimensions based on the following punch shape and dimensions table. Also, for shapes other than those shown in the table below, please specify with a drawing attached.

Punch shape	Round (RO)	Spuare (SQ)	Rectangle (RE)	Obround (OB)
Figure of punch shape				
Way to instruct	φA	A x A	A x B	A x B
Example	φ10	10 x 10	5 x 20	5 x 20

SD	WD	Square with radius	Rectangle with radius	CN-42
				
ϕA x B	ϕA x B	A x A R=C	A x B R=C	A x A R=C
ϕ20 x 16	ϕ20 x 16	10 x 10 R=2	6 x 20 R=1.5	10 x 10 R=4

Example instruction for ordering — RE with radius (Punch shape) — 6x20 R=1.5 (size)

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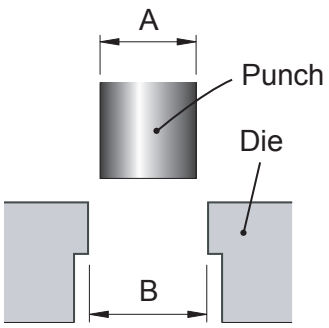
THE ORDERING GUIDE 1

HOW TO INSTRUCT THE CLEARANCE



When specifying the clearance of the die, please indicate whether it is a clearance on both side or one side. Or you can also specify dimensions with clearance.

Name of clearance	Detail
Both side	B - A
Single side	(B - A) ÷ 2
Clearance included	B dimension

(Notice)
For standard clearances, the nominal dimension is the dimension of the punch, but in the case of the blank type (minus clearance), the nominal dimension is the dimension of the die.

	Dimension description	Punch dimension	Die dimension
Clearance for both side	φ20 C=0.3	φ20	φ20.3
Minus clearance	φ20 minus C=0.3	φ19.7	φ20

[Reference] METHOD FOR MEASURING CLEARANCE

Please calculate the clearance referring to the table below.

Clearance for both side = material thickness x clearance ratio

(Notice)

1. The shear resistance should be about 80% of the tensile strength.
2. For thick plates (exceeding t3.2), use the above calculation result × 1.4 as a guide.
3. The minimum clearance is determined by the machine specification.
4. Please also refer to Technical Guide Vol.6 “For clearance of the cutting die”.

Material	Clearance ratio		Tensile strenfth (N / mm^2)
	Serco Press (EM,AE etc)	Mechanical Press (Pega,Coma etc)	
Cold rolled steel	0.2 - 0.25	0.15	Over 270
Hot rolled steel			
Structure steel	0.25 - 0.3	0.2	400 - 510
Stainless steel (soft)			Over 520
Stainless steel (hard)			Over 450
Aluminum (soft)	0.15 - 0.2	0.1	Over 95
Aluminum (hard)			Over 215
Copper (soft)	0.2 - 0.25	0.15	Over 275
Brass (soft)	0.2 - 0.3	0.2	Over 410
Brass (hard)			Over 590

For More information, please contact CONIC tool sales desk.

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