

# Gussets

## Through/Counterbored Holes, Hole Position Fixed

■ **Features:** Through holes and counterbored holes are selectable. In addition, hole on either A side or B side can be changed to tapped holes.

Type		Material	Surface Treatment
Standard Grade (Perpendicularity: 0.05/100)	Precision Grade (Perpendicularity: 0.02/100)		
Through Hole	Counterbored Hole		
RBDS	RBYS	Steel for General Structure	-
RBDB	RBYS		Black Oxide
RBDM	RBYS		Electroless Nickel Plating
RBDA	RBYA	Aluminum Alloy	-
RBDA	RBYA		Clear Anodize
RBDV	RBVY		Black Anodize
RBDF	-		SUS304

⊗ B200 or more are not available for Precision Type and Counterbored Type.

■ **Hole and Bolt Selection Table**

Hole Type	Through Hole	Counterbored Hole
Shape		
Dimension	Screw Nominal Dia. 5 6 8 d 5.5 6.5 9	Screw Nominal Dia. 4 5 6 d 4.5 5.5 6.5 d1 8 9.5 11 h 4.4 5.4 7

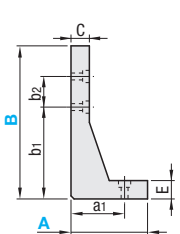
Standard Grade: 0.05/100  
Precision Grade: 0.02/100

For some sizes in Through Hole Type, R is made small in order to prevent interference of bolt head.  
R8 or Less\*  
Select hole types by part numbers.

RoHS 10

■ Details Listed in Dimensional Section

When A=30 or 50



A	a1	C
30	20	8
50	35	12
* (When B is 100 or less)		
* (When B=150)		

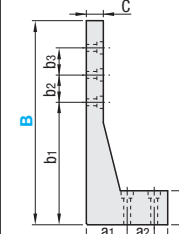
B	b1	b2	E
30	20	-*	8
50	35	-*	12
* (When A=30)			
80	50	15	12
* (When A=50)			
100	60	20	12
* (When A=50)			
150	90	30	20

\* 1 mounting hole for B50 or less.

T	Through Hole (Screw Nominal Dia.)	Counterbored Hole (Screw Nominal Dia.)
10, 12	5	4
16	8	6

\* The nominal diameter is the recommended screw size.  
For details of dimension, see Hole and Bolt Selection Table.

When A=80, 100 or 150



A	a1	a2	C
80	50	15	20
* (When B is 100 or less)			
* (When B is 150 or more)			
100	60	20	25
* (When B is 150 or less)			
* (When B is 200 or more)			
150	90	30	40

B	b1	b2	b3	E
80	50	15	-*	20
* (When A=80)				
100	60	20	-*	25
* (When A=100)				
150	90	30	-*	30
* (When A=80)				
* (When A=100)				
* (When A=150)				
200	140	20	20	40
250	160	30	30	40
300	180	40	40	40

\* 2 mounting holes for B150 or less.

T	Through Hole (Screw Nominal Dia.)	Counterbored Hole (Screw Nominal Dia.)
12	6	5
16	8	6

\* The nominal diameter is the recommended screw size.  
For details of dimension, see Hole and Bolt Selection Table.

■ **Standard Grade Through Hole / Counterbored Hole** ⊗ B200 or more are not available for Counterbored Hole Type.)

Part Number	A	B Selection	T Selection
Through Hole (SS400)	30	30 50 80 100	12 10
Counterbored Hole (SS400)	50	50 80 100	12 10
Through Hole (A5052)	80	80 100 150 200 250	12 16 12 16
Counterbored Hole (A5052)	100	100 150 200 250 300	12 16 12 16
Through Hole (SUS304)	150	150 200 250 300	12 16 12 16

■ **Precision Grade - Through Hole**

Part Number	A	B Selection	T Selection
Through Hole (SS400)	30	30 50 80 100	12 10
Counterbored Hole (SS400)	50	50 80 100	12 10
Through Hole (A5052)	80	80 100 150	12 16 12 16
Counterbored Hole (A5052)	100	100 150	12 16 12 16
Through Hole (SUS304)	150	150 12 16 12 16	

Ordering Example: Part Number - B - T  
RBD100 - 150 - T12

Alterations: Part Number - B - T - (ASY, BSY)  
RBY100 - 150 - T16 - ASY5

Alteration	Code	Spec.
	ASY	Changes holes to tapped holes. Hole diameters are selectable.
	ASY4	Change of the hole on side A --- ASY4
	BSY5	Change of the hole on side B --- BSY5
	BSY6	Tapped hole may go through.

Calculation Example of Unit Price  
RBD100-150-T16  
A+B=Dimension + B Dimension = 100+150=250

Calculation Example of Precision Grade  
RGDA100-150-T16

A+B	Standard Grade Tolerance Unit Price (Tolerance Precision Type: Price in the Table x1.1.)											
	Through Hole						Counterbored Hole					
	RBDS	RBDB	RBDM	RBDA	RBDW,RBDV	RBDF	RBYS	RBDB	RBDM	RBDA	RBYW,RBYV	RBDF
60												
80												
100												
110												
130												
150												
160												
180												
200												
230												
250												
280												
300												
330												
350												
400												
450												

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## Through Hole, Hole Position Configurable

■ **Features:** The mounting hole pitch can be configured. When the mounting hole pitch does not match with the fixed dimension (Through Hole) on the left-hand page, the following standard is available.

Type	Material	Surface Treatment
Standard Grade (Perpendicularity: 0.05/100)		
RBPDS	Steel for General Structure	-
RBPDB		Black Oxide
RBPDM		Electroless Nickel Plating
RBPDA	Aluminum Alloy	-
RBPDW		Clear Anodize
RBPDF	SUS304	-

■ When A=30 or 50 and B=30 or 50  
⊗ Both side A and side B have one mounting hole.

■ When A=30 or 50 and B=80 or 100  
⊗ Side A has one mounting hole.

■ When A=80 or 100  
⊗ Side A has one mounting hole.

Dimension	H (Nominal Dia.)				
	3	4	5	6	8
Hole Dia.	3.5	4.5	5.5	6.5	9

Part Number	Type	A	B	1mm Increment		H	T		C	E
				Side A Hole Pitch			SS400	A5052 SUS304		
				X	F					
(SS400) RBPDS RBPDB RBPDM	30	30	30 50	20-24	-	3 4 5	12	10	8	8
80			-	$G \geq H \times 2$ and $Y+G \leq B-6$ or $0^*3$						
(A5052) RBPDA RBPDW	50	50	80 100	30-44	$Y \geq (B/2)+6$	3 4 5	12	10	12	12
80 100			$F \geq H \times 2$ and $X+F \leq A-8$ or $0^*3$	$G \geq H \times 2$ and $Y+G \leq B-6$ or $0^*3$						
(SUS304) RBPDF	80	80	100	50-56	$Y \geq (B/2)+8$	5 6 8	12	12	20	20
100			60-76	$G \geq H \times 2$ and $Y+G \leq B-8$ or $0^*3$						

\*1 When A=30 or 50, side A has 1 mounting hole and specification of F dimension is not required.

\*2 When B=30 or 50, side B has 1 mounting hole and specification of G dimension is not required.

\*3 When 0 is specified for F and G dimensions, 1 mounting hole is available.

Ordering Example: Part Number - B - X - F - Y - G - H - T  
RBPDS50 - 100 - X40 - F0 - Y70 - G20 - H4 - T12  
RBPDA100 - 150 - X70 - F0 - Y90 - G15 - H6 - T12

A+B	Unit Price				
	SS400		A5052		SUS304
	RBPDS	RBPDB	RBPDM	RBPDA	RBPDW
60					
80					
100					
110					
130					
150					
160					
180					
200					
250					