

Gussets

Through Hole & Counterbored Hole, Hole Position Fixed Type

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

Gussets – Through Hole & Counterbored Hole, Hole Position Fixed Type

RoHS 10

Ⓞ Details Listed in Dimensional Section

Type		Material	Surface Treatment
Standard Class (Perp. Z0.05/100)	Precision Class (Perp. Z0.02/100)		
Through Hole	Counterbored Hole	General Structural Steel	Black Oxide Electroless Nickel Plating
RBDS	RBYS		
RBDB	RBYS	Aluminum Alloy	Clear Anodize Black Anodize
RBDM	RBYM		
RBDA	RBYA	304 Stainless Steel	—
RBDW	RBYW		
RBDV	RBVW		
RBDY	RBVY		
RBDZ	RBVZ		

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

Hole & Bolt Selection Table

Hole Type	Through Hole	Counterbored Hole																
Shape																		
Machining Spec.	<table border="1"> <thead> <tr> <th>Dim.</th> <th>Screw Nom. Dia.</th> </tr> </thead> <tbody> <tr> <td>d</td> <td>5.5 6.5 8</td> </tr> </tbody> </table>	Dim.	Screw Nom. Dia.	d	5.5 6.5 8	<table border="1"> <thead> <tr> <th>Bolt Nominal Dia.</th> <th>4</th> <th>5</th> <th>6</th> </tr> </thead> <tbody> <tr> <td>d</td> <td>4.5</td> <td>5.5</td> <td>6.5</td> </tr> <tr> <td>h</td> <td>4.4</td> <td>5.4</td> <td>7</td> </tr> </tbody> </table>	Bolt Nominal Dia.	4	5	6	d	4.5	5.5	6.5	h	4.4	5.4	7
Dim.	Screw Nom. Dia.																	
d	5.5 6.5 8																	
Bolt Nominal Dia.	4	5	6															
d	4.5	5.5	6.5															
h	4.4	5.4	7															

*For some sizes in through hole type, R is made small in order to prevent interference of bolt head.

R8 or less*

Select holes from part number.

C2 or less

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

When A=30 or 50

A	a1	C
30	20	8
50	35	(When B is 100 or less) 12 (When B=150) 17

When A=80, 100 or 150

A	a1	a2	C
80	50	15	(When B is 100 or less) 20 (When B is 150 or more) 25
100	60	20	(When B is 150 or less) 25 (When B is 200 or more) 35
150	90	30	40

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

*One mounting hole for B50 or less.

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

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

Standard Class Through / Counterbored Hole

Part Number	Type	A	B				T	
			1018 Carbon Steel or Equivalent	5052 Aluminum Alloy / 304 Stainless Steel	1018 Carbon Steel or Equivalent	5052 Aluminum Alloy / 304 Stainless Steel		
Through Hole 1018 Carbon Steel or Equivalent RBDS RBDB RBDM	Counterbored Hole 1018 Carbon Steel or Equivalent RBYS RBYS RBYM	30	30 50 80 100	12	10			
		50	50 80 100	12	10			
5052 Aluminum Alloy RBDA RBDW RBDV	5052 Aluminum Alloy RBYA RBVW RBVY	80	80 100 150 200 250	12	16	12	16	
		100	100 150 200 250 300	12	16	12	16	
304 Stainless Steel RBDZ		150	150 200 250 300	12	16	12	16	

A+B	Available Types					
	1018 Carbon Steel			5052 Aluminum Alloy		
	RBYS	RBYS	RBYS	RBYS	RBYS	RBYS
	T=12	T=16	T=12	T=16	T=10, 16	T=10, 16
60	•	•	•	•	•	•
80	•	•	•	•	•	•
100	•	•	•	•	•	•
110	•	•	•	•	•	•
130	•	•	•	•	•	•
150	•	•	•	•	•	•
160	•	•	•	•	•	•
180	•	•	•	•	•	•
200	•	•	•	•	•	•
230	•	•	•	•	•	•
250	•	•	•	•	•	•
280	•	•	•	•	•	•
300	•	•	•	•	•	•
330	•	•	•	•	•	•
350	•	•	•	•	•	•
400	•	•	•	•	•	•
450	•	•	•	•	•	•

Precision Class / Through Hole

Part Number	Type	A	B				T	
			1018 Carbon Steel or Equivalent	5052 Aluminum Alloy / 304 Stainless Steel	1018 Carbon Steel or Equivalent	5052 Aluminum Alloy / 304 Stainless Steel		
Through Hole 1018 Carbon Steel or Equivalent RGDS RGDB RGDM		30	30 50 80 100	12	10			
		50	50 80 100	12	10			
5052 Aluminum Alloy RGDA RGDW RGDV		80	80 100 150	12	16	12	16	
		100	100 150	12	16	12	16	
304 Stainless Steel RGDF		150	150	12	16	12	16	

Part Number Alterations

Part Number: RBYS100 - L - T - (ASY / BSYS)

Example: RBYS100 - 150 - T16 - ASY5

Alteration	Code	Spec.
	ASY BSYS	Changes holes to tapped holes. Hole diameters are selectable.
		Ordering Code:
		Change of the hole on A side...ASY4
		Change of the hole on B side...BSYS5
		Ⓞ Tapped hole may go through.

Part Number Example

Part Number: RBDA100 - B - T

Example: RBDA100 - 150 - T12

Gussets

Through Hole, Hole Position Specified Type

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.

Gussets – Through Hole, Hole Position Specified Type

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Type	Material	Surface Treatment
Standard Class (Perpendicularity Z0.05/100)	General Structural Steel	—
RBPDS		Black Oxide
RBPDB		Electroless Nickel Plating
RBPDM	Aluminum Alloy	—
RBPDA		Clear Anodize
RBPDW	304 Stainless Steel	—
RBPDF		—

When A is 30 or 50 and B is 30 or 50
Ⓞ Both side A and side B have one mounting hole.

When A is 30 or 50 and B is 80 or 100
Ⓞ Side A has one mounting hole.

When A=80 or 100

Part Number	Type	A	B	1 mm Increment				H (d Nominal Dia.)	1018 Carbon Steel or Equivalent	5052 Aluminum Alloy 304 Stainless Steel	C	E
				Side A Hole Pitch		Side B Hole Pitch						
				X	F	Y	G					
Through Hole 1018 Carbon Steel or Equivalent RBPDS RBPDB RBPDM	30	30 50	80	20-24	—*1	Y=(B/2)+6	—*2	3 4 5	12	10	8	8
							G≥Hx2 and Y+G≤B-6 0*3					
5052 Aluminum Alloy RBPDA RBPDW	50	50	80 100	30-44	—*1	Y=(B/2)+6	—*2	3 4 5	12	10	12	12
							G≥Hx2 and Y+G≤B-6 0*3					
304 Stainless Steel RBPDF	80	80 100	80 100	50-56	F≥Hx2 and X+F≤A-8 0*3	Y=(B/2)+8	G≥Hx2 and Y+G≤B-8 0*3	5 6 8	12	12	20	20
				60-76			25				25	

*1 When A=30, 50, side A has one mounting hole and specification of F dimension is not required.
*2 When B=30, 50, side B has one mounting hole and specification of G dimension is not required.
*3 When 0 is specified for F and G dimensions, one mounting hole is provided.

Part Number Example

Part Number: RBYS100 - B - X - F - Y - G - H - T

Example: RBYS100 - 100 - X40 - Y70 - G20 - H4 - T12

Example: RBPDA100 - 150 - X70 - F0 - Y90 - G15 - H6 - T12