

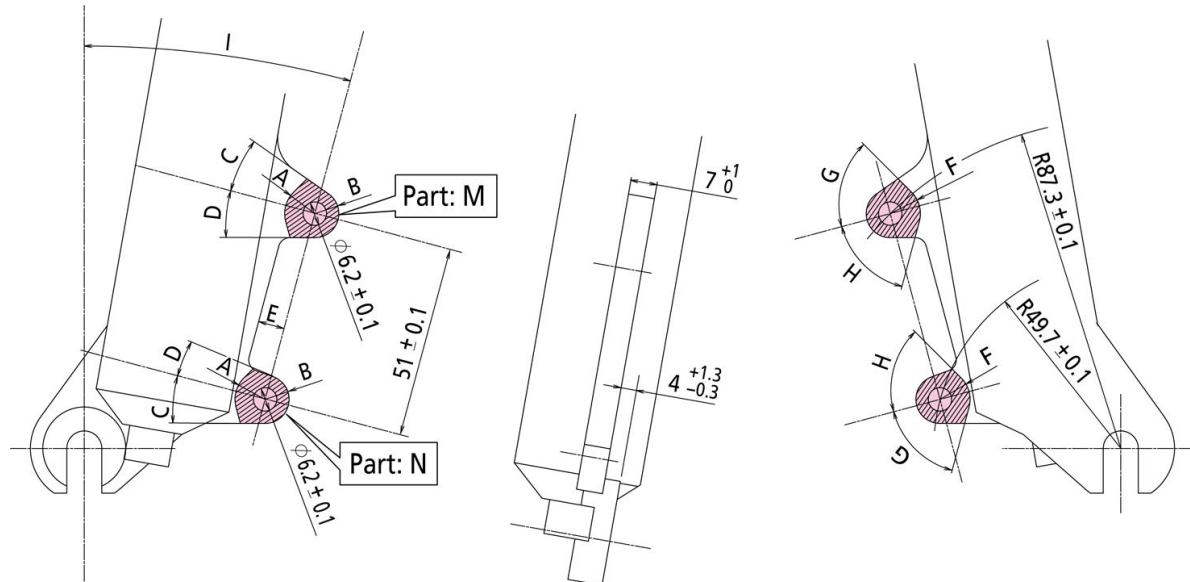
Front disc brake mount dimensions

C-068

SHIMANO disc brakes are designed to fit the frame and front fork as shown below. (the dimensions shown below are same as the international standard disc brake mount.) The following mount dimensions (A - H) are recommended for each model.

QR type C-069

For international standard mount



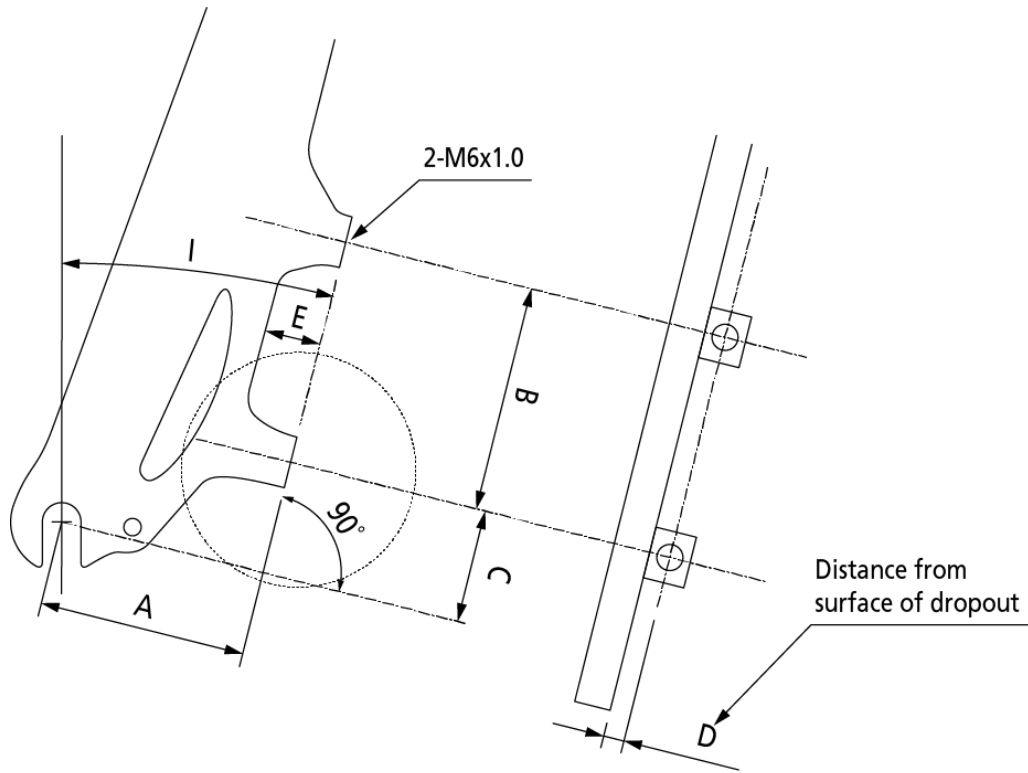
NOTE

- Part M and N need to be flat surface.
- Please refer to [C-077](#) for angle I.



	Model No.	Dimension							
		Min. A (mm)	Max. B (mm)	Max. C	Max. D	Min. E (mm)	Min. F (mm)	Min. G	Min. H
Wiring type	BR-M9100	8.0	Part M: 6.5 Part N: 8.0	45°	45°	0	6.0	90°	95°
	BR-M9120					2.0			
	BR-M8020					0			
	BR-MT520					0			
	BR-M9000 BR-M9020					0			
Cap type	BR-M820	8.0	Part M: 6.5 Part N: 8.0	45°	45°	2.0	6.0	90°	95°
	BR-M8000					0			
	BR-M7000					0			
	BR-M6000					0			
	BR-M640					2.0			
	BR-MT500					1.0			
	BR-M446					0			
	BR-MT400					1.0			
	BR-M375					1.5			
	BR-MT200					1.0			
	BR-TX805					1.5			
	BR-S700					0			
	BR-RS785					0			
	BR-R317					1.5			

For post mount

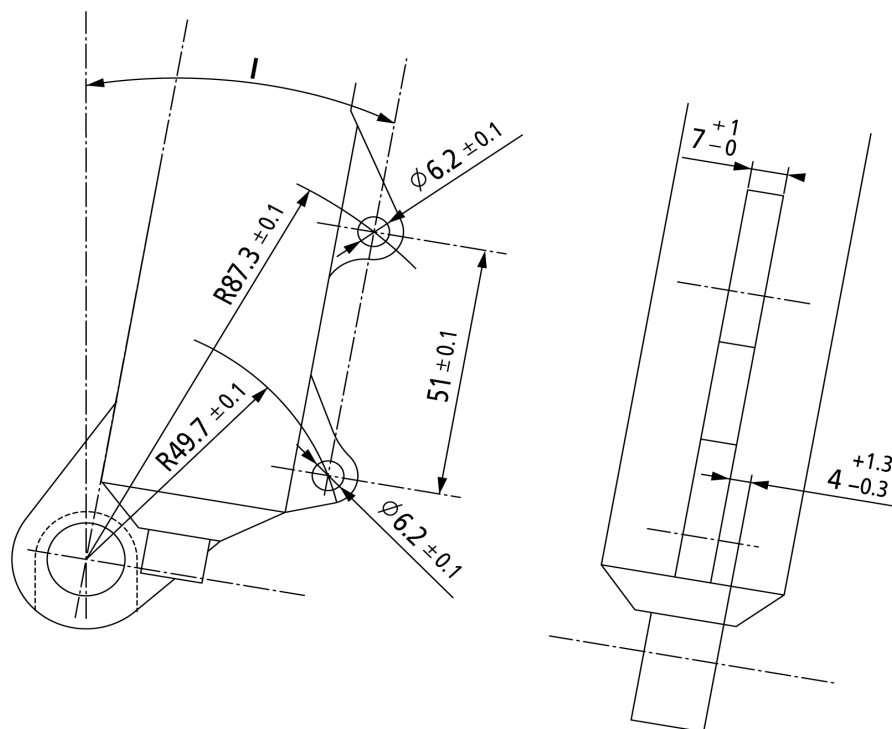


	Model No.	Dimension				
		A (mm)	B (mm)	C (mm)	D (mm)	Min. E (mm)
Wiring type	BR-M9100	TBD	TBD	TBD	TBD	TBD
	BR-M9120					11.5
	BR-M8020					11.5
	BR-MT520					11.5
	BR-M9000					10.0
	BR-M9020					11.0
Cap type	BR-M8000	140 mm (SS): 47.5 ± 0.1	140 mm (SS): 74.2 ± 0.1	140 mm (SS): 1.7 ± 0.1	140 mm (SS): 0.94+0.3 - 1.3	10.0
	BR-M820					11.5
	BR-M7000	160 mm (S): 55.9 ± 0.1	160 mm (S): 74.2 ± 0.1	160 mm (S): 6.8 ± 0.1	160 mm (S): 0.94+0.3 - 1.3	10.0
	BR-M6000					10.0
	BR-M640					11.5
	BR-MT500	180 mm (M) 64.0 ± 0.1	180 mm (M) 74.2 ± 0.1	180 mm (M) 12.4 ± 0.1	180 mm (M) 0.94+0.3 - 1.3	11.5
	BR-M446					11.5
	BR-MT400	203 mm (L) 73.9 ± 0.1	203 mm (L) 74.2 ± 0.1	203 mm (L) 18.8 ± 0.1	203 mm (L) 0.94+0.3 - 1.3	11.5
	BR-M375					11.0
	BR-MT200					11.5
	BR-TX805					11.0
	BR-S700					10.0
	BR-RS785					10.0
	BR-R317					11.0

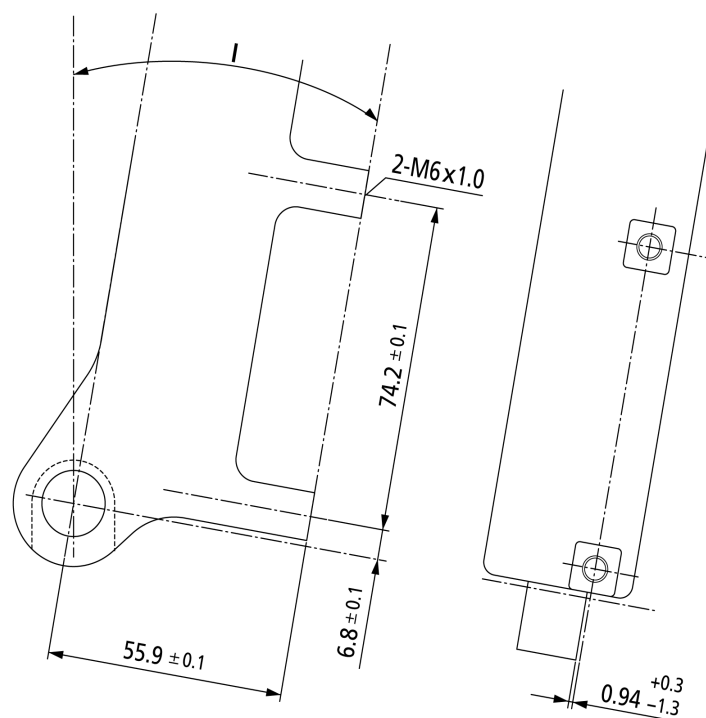
15 mm E-THRU type C-070

O.L.D.100mm, 110mm

For international standard mount



For post mount

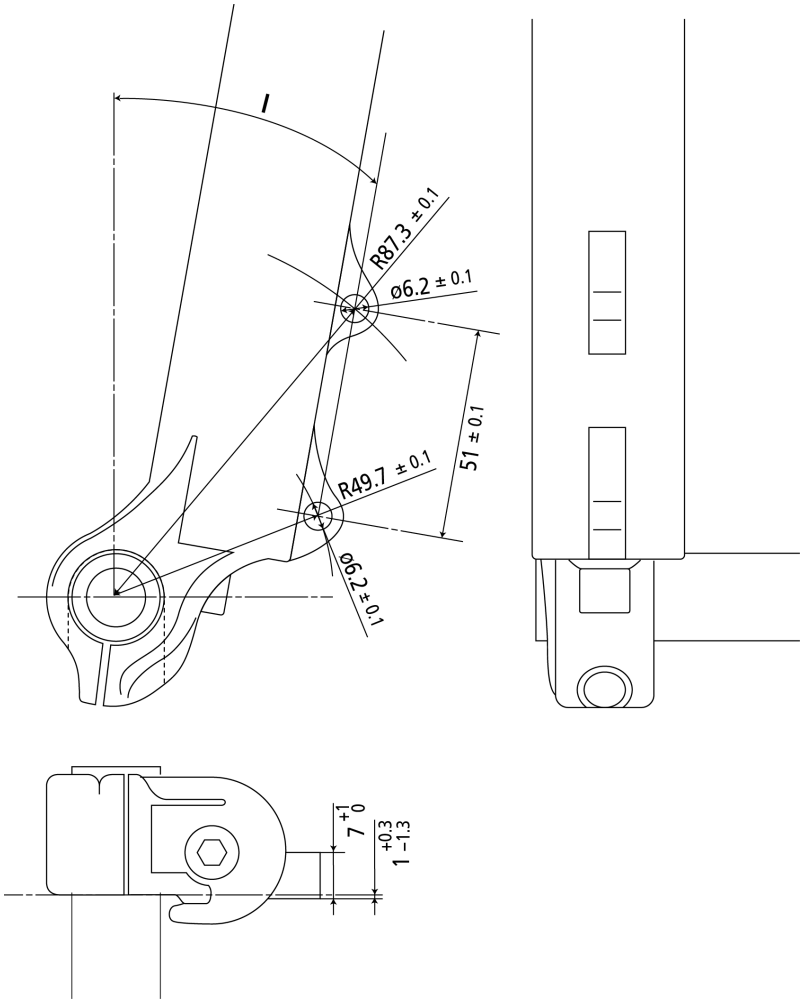


NOTE

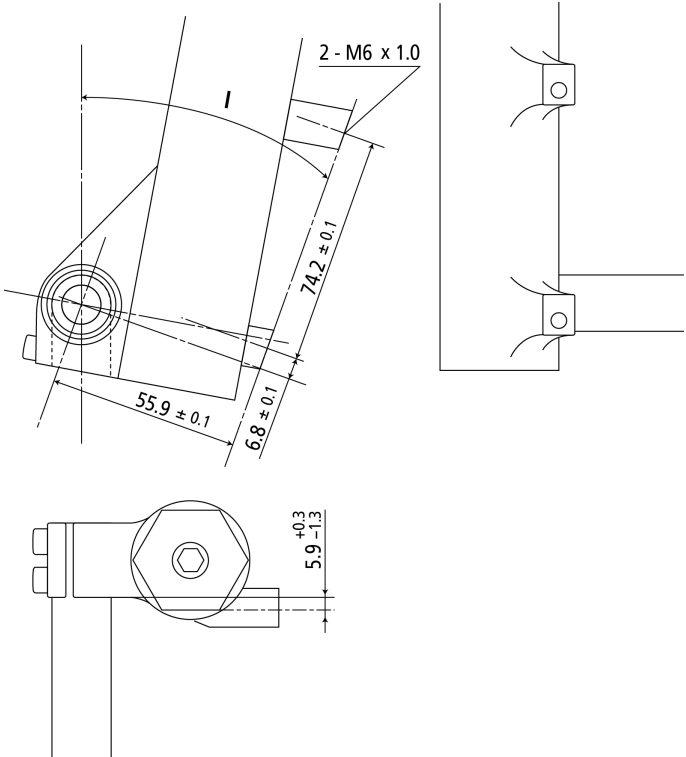
Please refer to [C-077](#) for angle I.

20 mm thru axle type C-071

For international standard mount

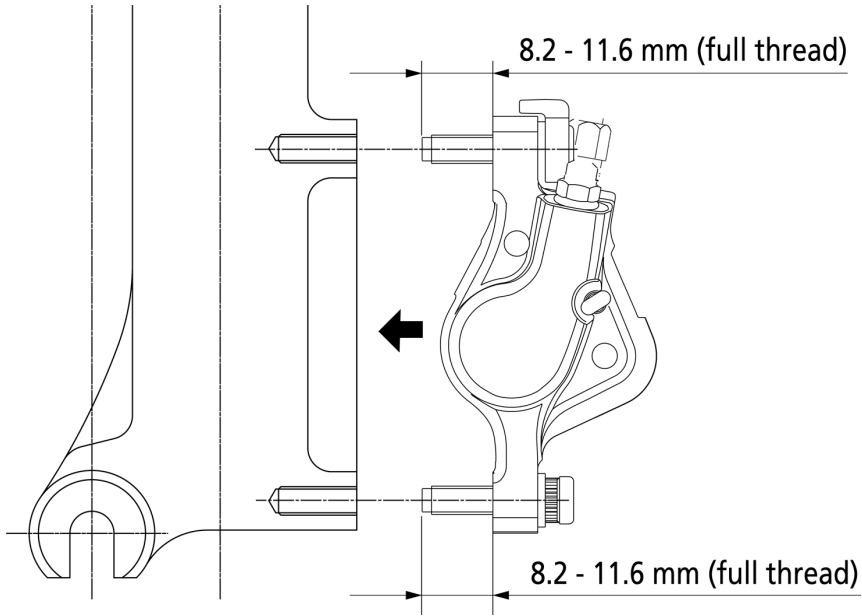


For post mount



Fixing bolt length for post mount

C-072



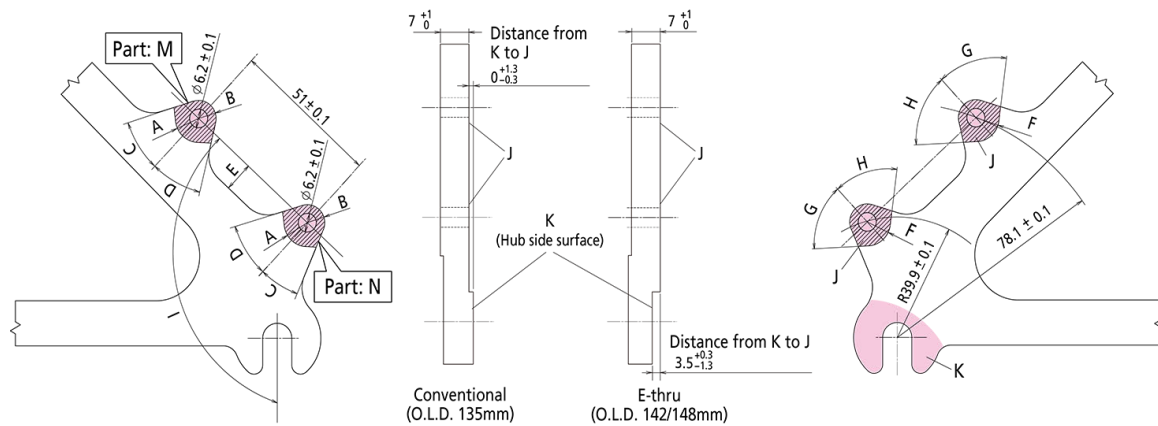
Rear disc brake mount dimensions

C-073

SHIMANO disc brakes are designed to fit the frame as shown below. (the dimensions shown below are same as the international standard disc brake mount.) The following mount dimensions (A - I) are recommended for each model.

For international standard mount C-074

Seat stay type



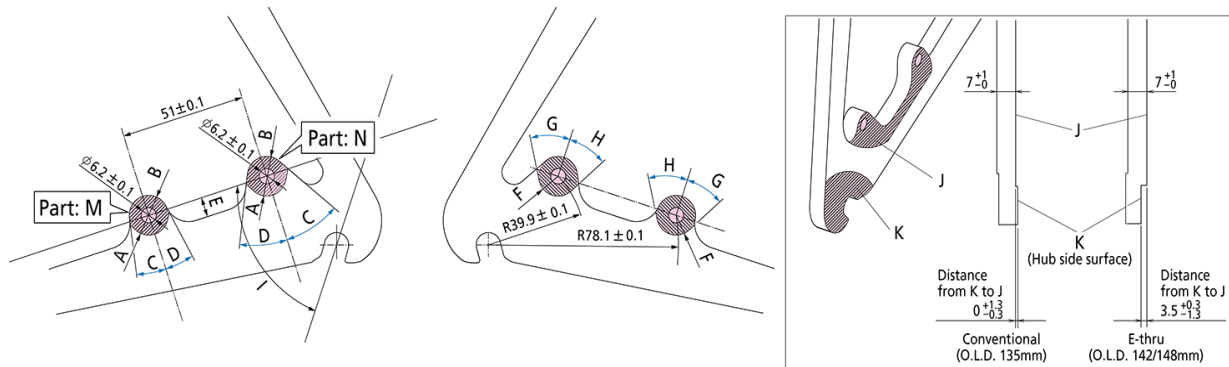
NOTE

- Part M and N need to be flat surface.
- Please refer to [C-077](#) for angle I.

1

	Model No.	Dimension							
		Min. A (mm)	Max. B (mm)	Max. C	Max. D	Min. E (mm)	Min. F (mm)	Min. G	Min. H
Wiring type	BR-M9100	8.0	Part M: 6.5 Part N: 8.0	45°	45°	-5.0	6.0	90°	95°
	BR-M9120					-3.0			
	BR-M8020					-5.0			
	BR-MT520					-0.5			
	BR-M9000					-3.0			
	BR-M9020					-5.0			
Cap type	BR-M820	8.0	Part M: 6.5 Part N: 8.0	45°	45°	-3.0	6.0	90°	95°
	BR-M8000					-5.0			
	BR-M7000					-6.5			
	BR-M6000					-3.0			
	BR-M640					-4.0			
	BR-MT500					-4.0			
	BR-M446					-3.5			
	BR-MT400					-4.0			
	BR-M375					-3.5			
	BR-MT200					-5.0			
	BR-TX805					-3.5			
	BR-S700					-3.5			
	BR-RS785					-5.0			
	BR-R317					-3.5			

Chainstay type



NOTE

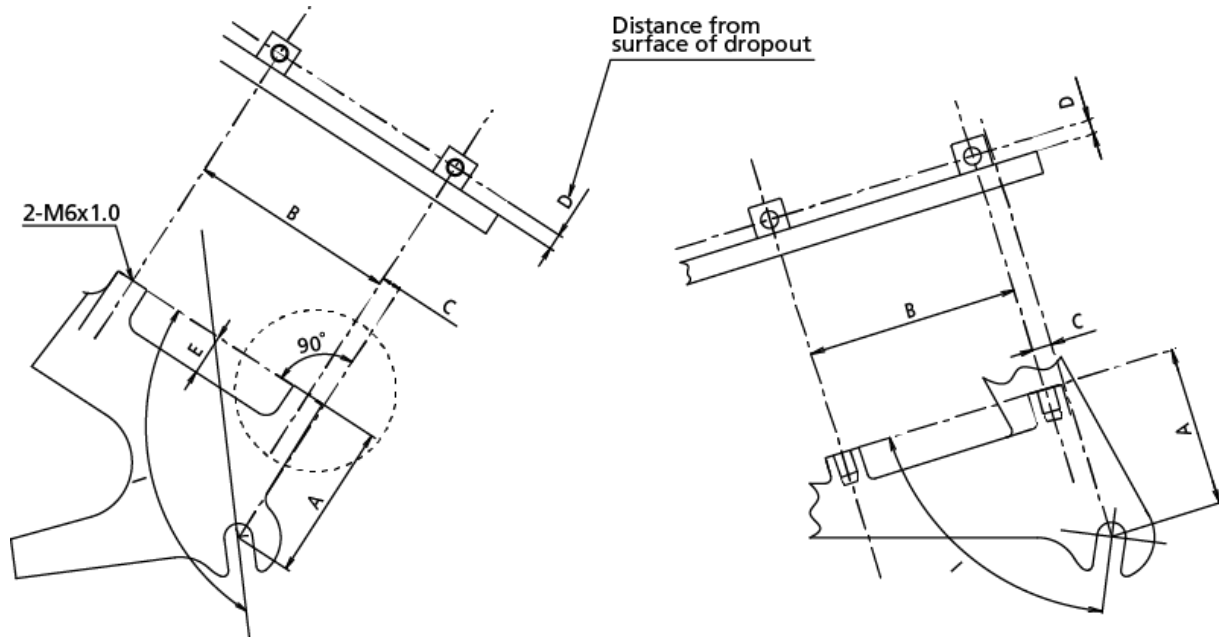
- Part M and N need to be flat surface.
- Please refer to [C-077](#) for angle I.

1

	Model No.	Dimension							
		Min. A (mm)	Max. B (mm)	Max. C	Max. D	Min. E (mm)	Min. F (mm)	Min. G	Min. H
Wiring type	BR-M9100	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	BR-M9120								
	BR-M8020	8.0	Part M: 6.5 Part N: 8.0	45°	45°	-3.0	6.0	90°	95°
	BR-MT520					-5.0			
	BR-M9000					-0.5			
Cap type	BR-M9020	8.0	Part M: 6.5 Part N: 8.0	45°	45°	-3.0	6.0	90°	95°
	BR-M820					-5.0			
	BR-M8000					-6.5			
	BR-M7000					-3.0			
	BR-M6000					-4.0			
	BR-M640					-4.0			
	BR-MT500					-3.5			
	BR-M446					-4.0			
	BR-MT400					-3.5			
	BR-M375					-4.0			
	BR-MT200					-3.5			
	BR-TX805					-5.0			
	BR-S700					-3.5			
	BR-RS785					-3.5			
	BR-R317					-3.5			

For post mount C-075

Seat stay type without adapter



NOTE

Please refer to [C-077](#) for angle I.

Dimensions of rear post mount of disc brake caliper

1

	Model No.	Dimension						
		A (mm)	B (mm)	C (mm)	D (mm)			Min. E (mm)
					O.L.D. 135, 150 mm straight and BMX type	O.L.D. 142 mm E-THRU type	O.L.D. 148 mm E-THRU type	
Wiring type	BR-M9100	140 mm (SS): 47.5 ± 0.1	140 mm (SS): 74.2 ± 0.1	140 mm (SS): 1.7 ± 0.1	140 mm (SS): 5.7 +0.3 - 1.3	140 mm (SS): 9.2 +0.3 - 1.3	140 mm (SS): 9.2 +0.3 - 1.3	TBD
	BR-M9120							11.5
	BR-M8020							11.5
	BR-MT520							11.5
	BR-M9000							10.0
	BR-M9020							11.0
Cap type	BR-M820	160 mm (S): 55.9 ± 0.1	160 mm (S): 74.2 ± 0.1	160 mm (S): 6.8 ± 0.1	160 mm (S): 5.7 +0.3 - 1.3	160 mm (S): 9.2 +0.3 - 1.3	160 mm (S): 9.2 +0.3 - 1.3	11.5
	BR-M8000							10.0
	BR-M7000							10.0
	BR-M6000	180 mm (M): 64.0 ± 0.1	180 mm (M): 74.2 ± 0.1	180 mm (M): 12.4 ± 0.1	180 mm (M): 5.7 +0.3 - 1.3	180 mm (M): 9.2 +0.3 - 1.3	180 mm (M): 9.2 +0.3 - 1.3	9.0
	BR-M640							11.5
	BR-MT500							11.5
	BR-M446	203 mm (L): 73.9 ± 0.1	203 mm (L): 74.2 ± 0.1	203 mm (L): 18.8 ± 0.1	203 mm (L): 5.7 +0.3 - 1.3	203 mm (L): 9.2 +0.3 - 1.3	203 mm (L): 9.2 +0.3 - 1.3	11.5
	BR-MT400							11.5
	BR-M375							11.0
	BR-MT200	BR-TX805	10.0					
	BR-TX805			11.0				
	BR-S700			11.0				
	BR-RS785			10.0				
	BR-R317			10.0				

Angle of fork end and dropout (angle I)

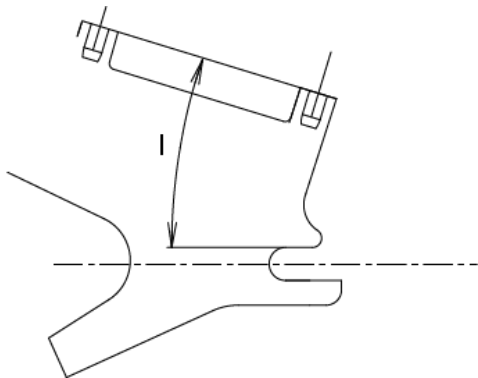
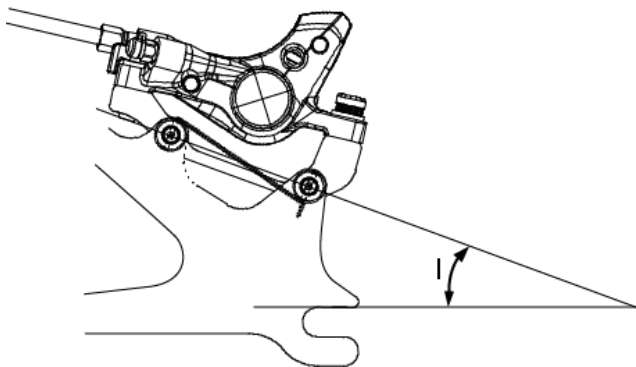
C-077

Please refer to [C-068](#), [C-069](#), [C-070](#), [C-071](#), [C-072](#), [C-073](#), [C-074](#), [C-075](#) for definition of angle I.

	Mount Type	Disc Brake Rotor Size	Min. Angle I		Max. Angle I	
			International standard mount	Post mount	International standard mount	Post mount
Front	-	140 - 203 mm	-	-	24° *	17°
Rear	Seat stay type		-	-	201°	197°
	Chainstay type		56°	49°	- **	- **
	BMX dropout ***	160 - 203 mm	-	-	24°	17°
		140 mm	-	-	21°	

- * Not compatible with 140 mm disc brake roter
- ** For chainstay type, the max. side does not need to be considered.
- *** Angle of BMX dropout

BMX dropout




Dimensions of disc brake hub and rotor

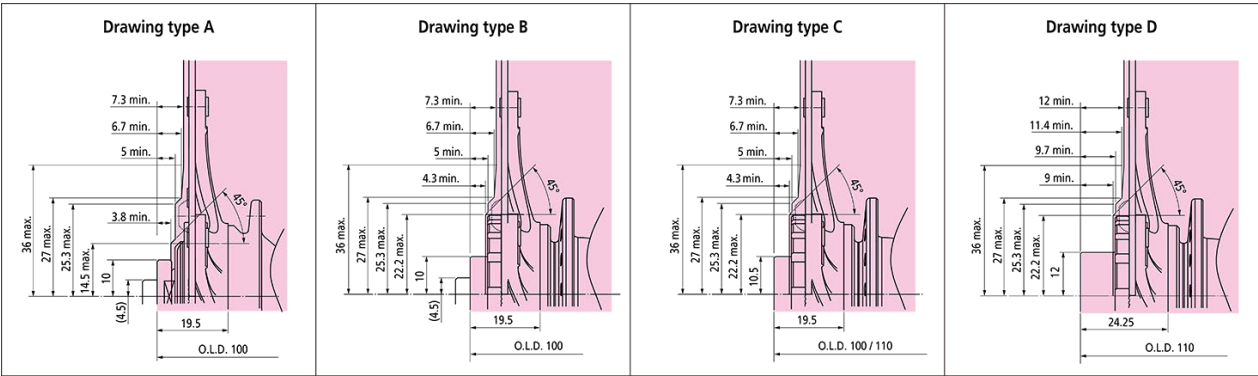
C-076

The dimensions of SHIMANO disc brake hub and rotor are shown below.
There are 4 types of dimensions depending on hub and rotor spec combination.
Please verify that fork dimensions will not cause interference with disc brake rotor and hub.

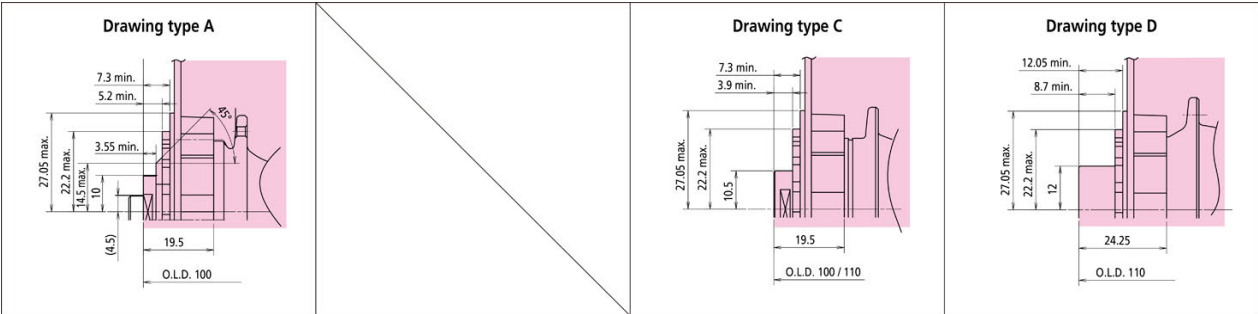
Fork Type			QR		12 mm E-THRU	15 mm E-THRU (O.L.D.: 100 mm)	15 mm E-THRU (O.L.D.: 110 mm)	20 mm E-THRU (O.L.D.: 110 mm)
Hub spec.	Axle diameter		QR (9)	QR (9)	12	15	15	20
	Thru axle		-	-	X	X	X	X
	O.L.D.		100	100	100	100	110	110
Rotor spec. (fixation)	CENTER LOCK	6-bolt	X	-	-	X	X	X
		Internal serration	X	-	X	-	-	-
		Internal & External serration (SM-RT10 type)	-	X	-	-	-	-
		External serration	-	-	-	X	X	X
Drawing type			A	B	A	C	C	D

 : Disc brake rotor / hub product area from hub fixing position

X: Yes

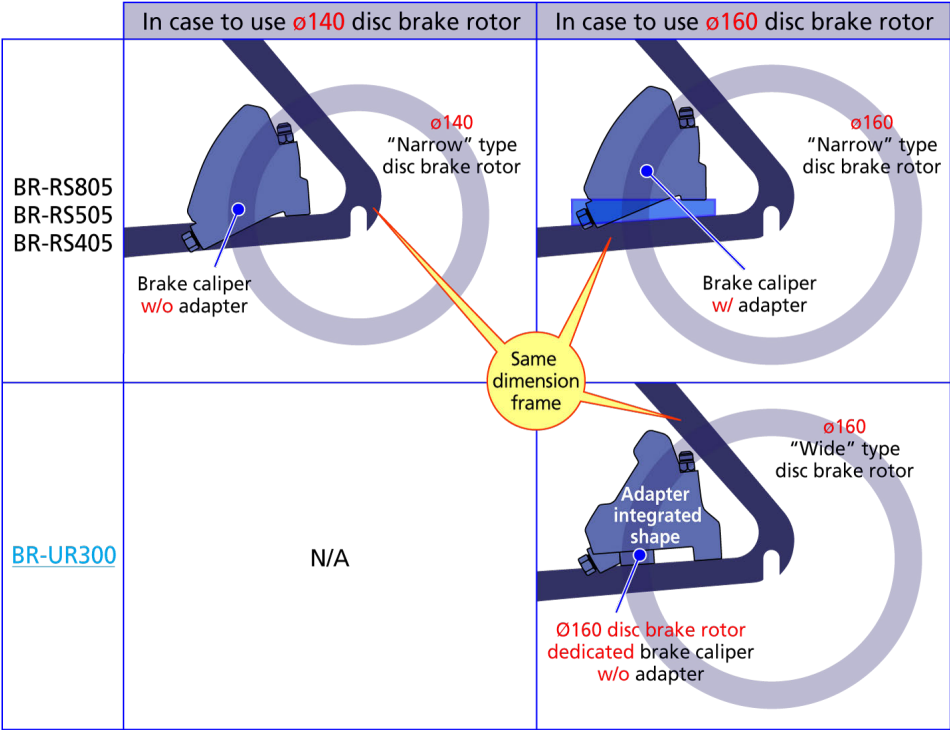


SM-RTAD05



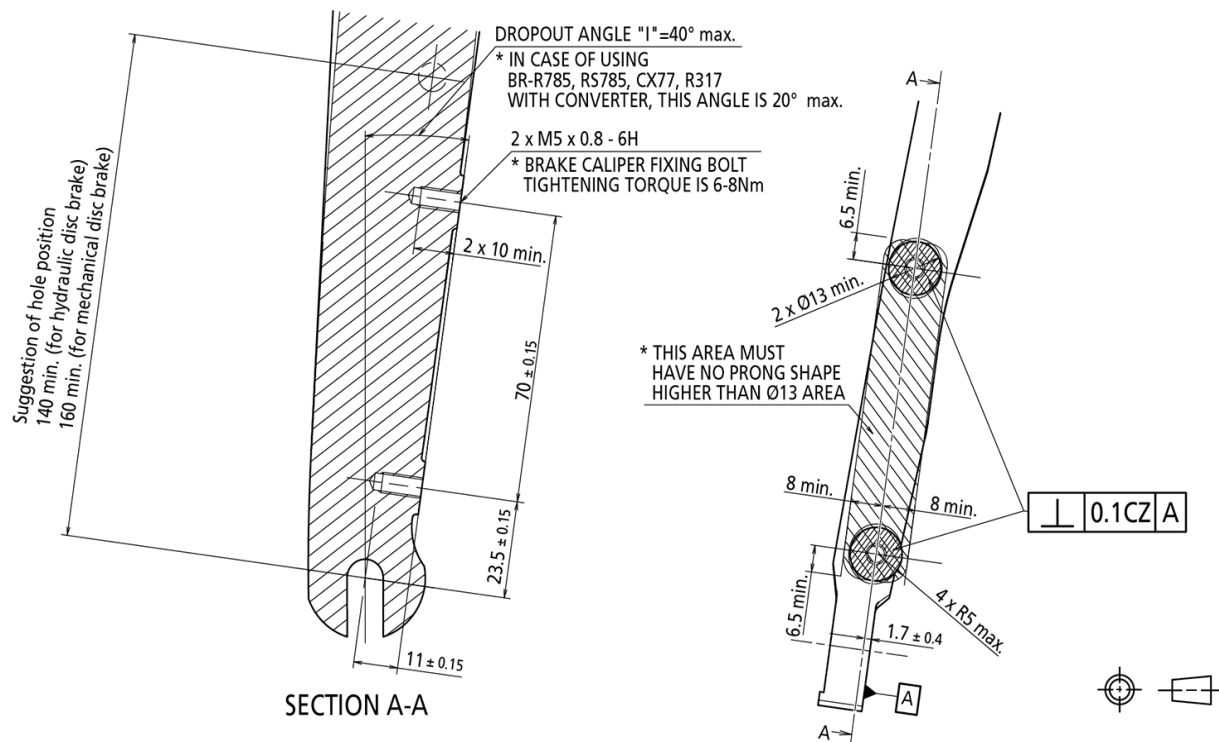
Frame adaption of rear brake caliper

All combinations of disc brake rotors and brake calipers compatible with one frame (rear triangle) dimension.

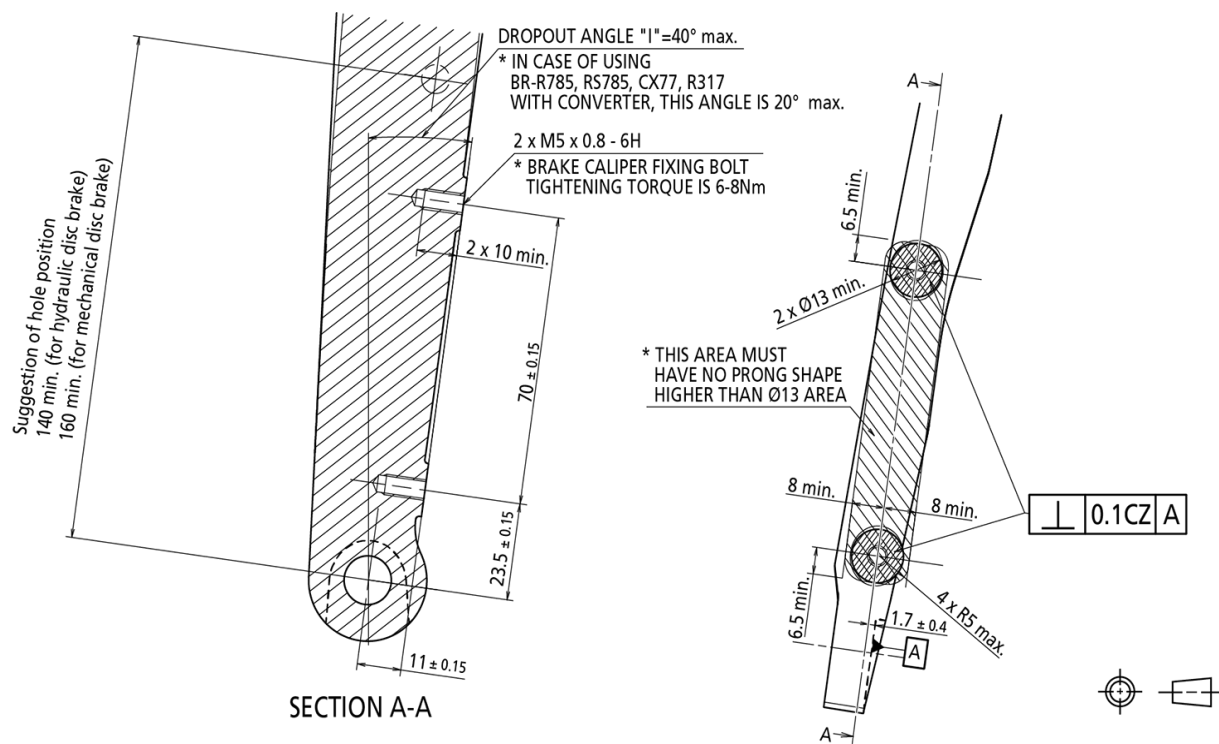


FRONT MOUNT for $\varnothing 140$ and $\varnothing 160$ disc brake rotor (for bracket of flat mount caliper) C-079

QR type



12mm E-THRU type

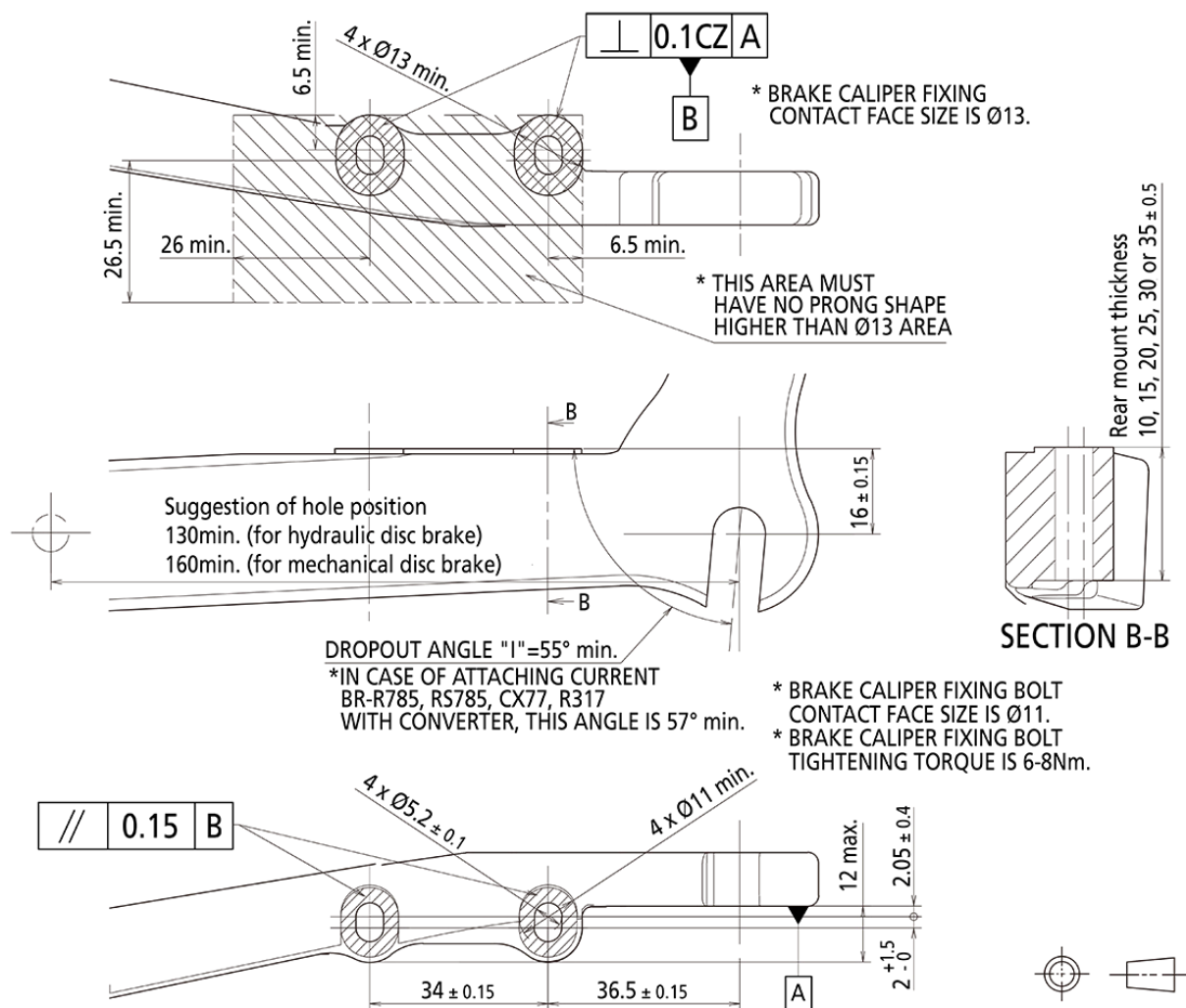


NOTE

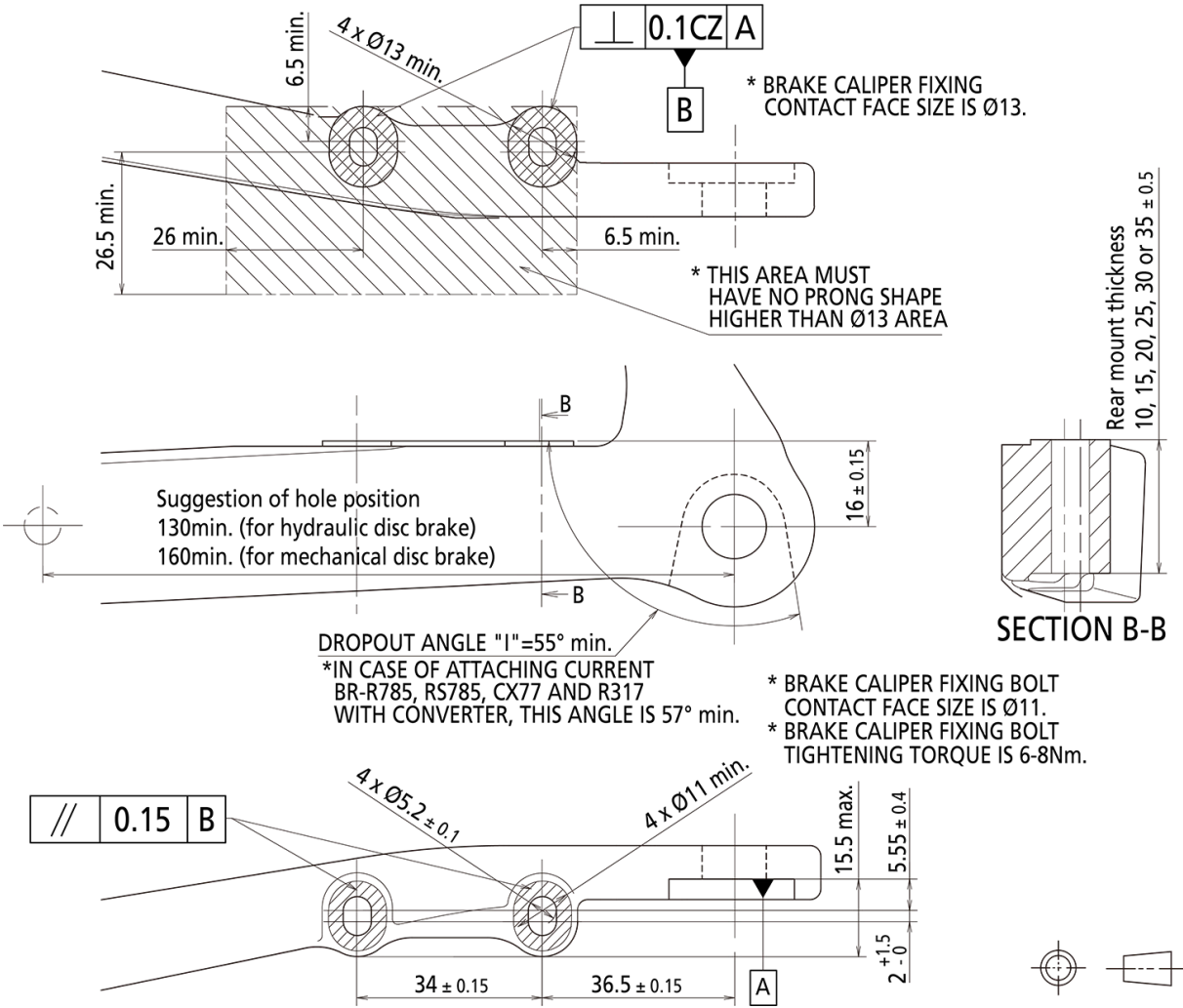
- [BR-UR300](#) is compatible only with 160 mm disc brake rotor.
- [BR-UR300](#) doesn't need front mount bracket and rear adapter.

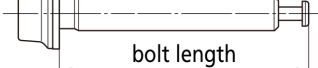
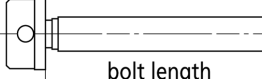
REAR MOUNT for $\varnothing 140$ disc brake rotor ($\varnothing 160$ rotor compatible w/adapter) C-080

QR type



12mm E-THRU type



Rear mount thickness (mm)		10	15	20	25	30	35
Fixing bolt length	Flat mount fixing bolt length (mm)						
	 bolt length	23.2	28.2	33.2	38.2	43.2	48.2
Converter fixing bolt length (mm)							
	 bolt length	16.8	28.2	26.8	31.8	36.8	41.8

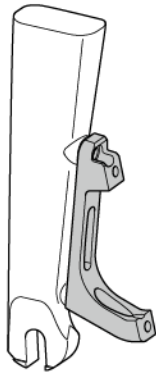
NOTE

- Please check in advance with the bicycle manufacturer or supplier in regards to the influence of heat generated by the disc brake on performance and quality, such as the strength of the frame, under actual usage conditions. The heat generated when braking differs depending on the brake, brake boss, and other factors; however, in tests carried out under conditions set by SHIMANO, it has been confirmed that the temperature of the frame mount reaches up to 120°C.
- [BR-UR300](#) is compatible only with 160 mm disc brake rotor.
- [BR-UR300](#) doesn't need front mount bracket and rear adapter.

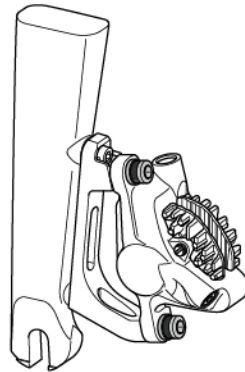
Installation of the converter for flat mount

C-081

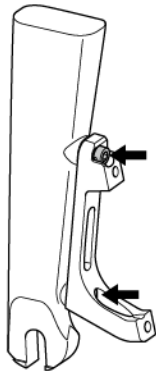
FRONT MOUNT for $\varnothing 140$ and $\varnothing 160$ disc brake rotor C-082



Installation of the converter.



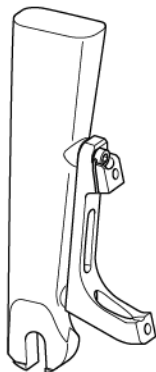
Adjustment of the alignment of the brake caliper to the disc brake rotor, and securing the brake caliper.



Securing the converter.

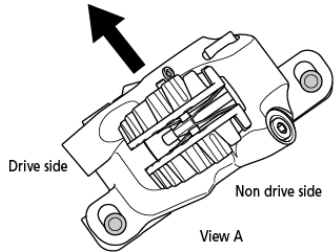
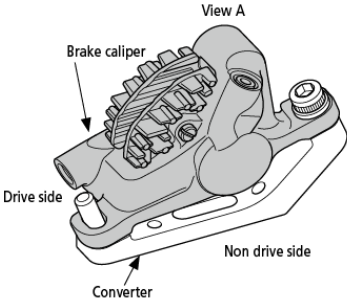


Securing the snap retainers.

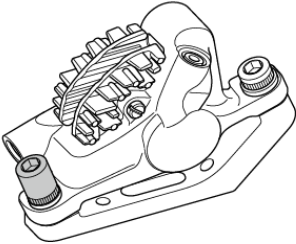
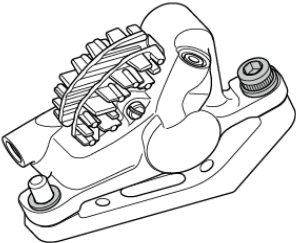


Installation of the wire.

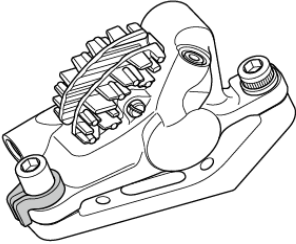
REAR MOUNT for ø140 disc brake rotor C-083



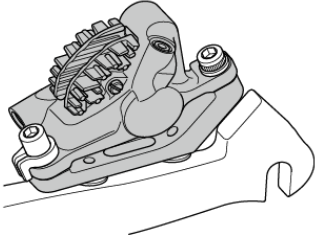
Installation of the brake caliper and converter
Bring the brake caliper to the drive side.



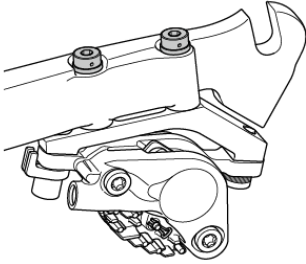
Installation of the brake caliper fixing nut



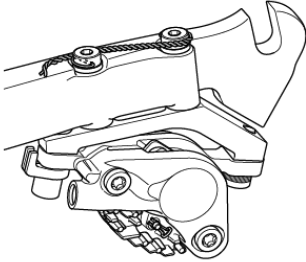
Installation of the snap retainer



Installation of the brake caliper

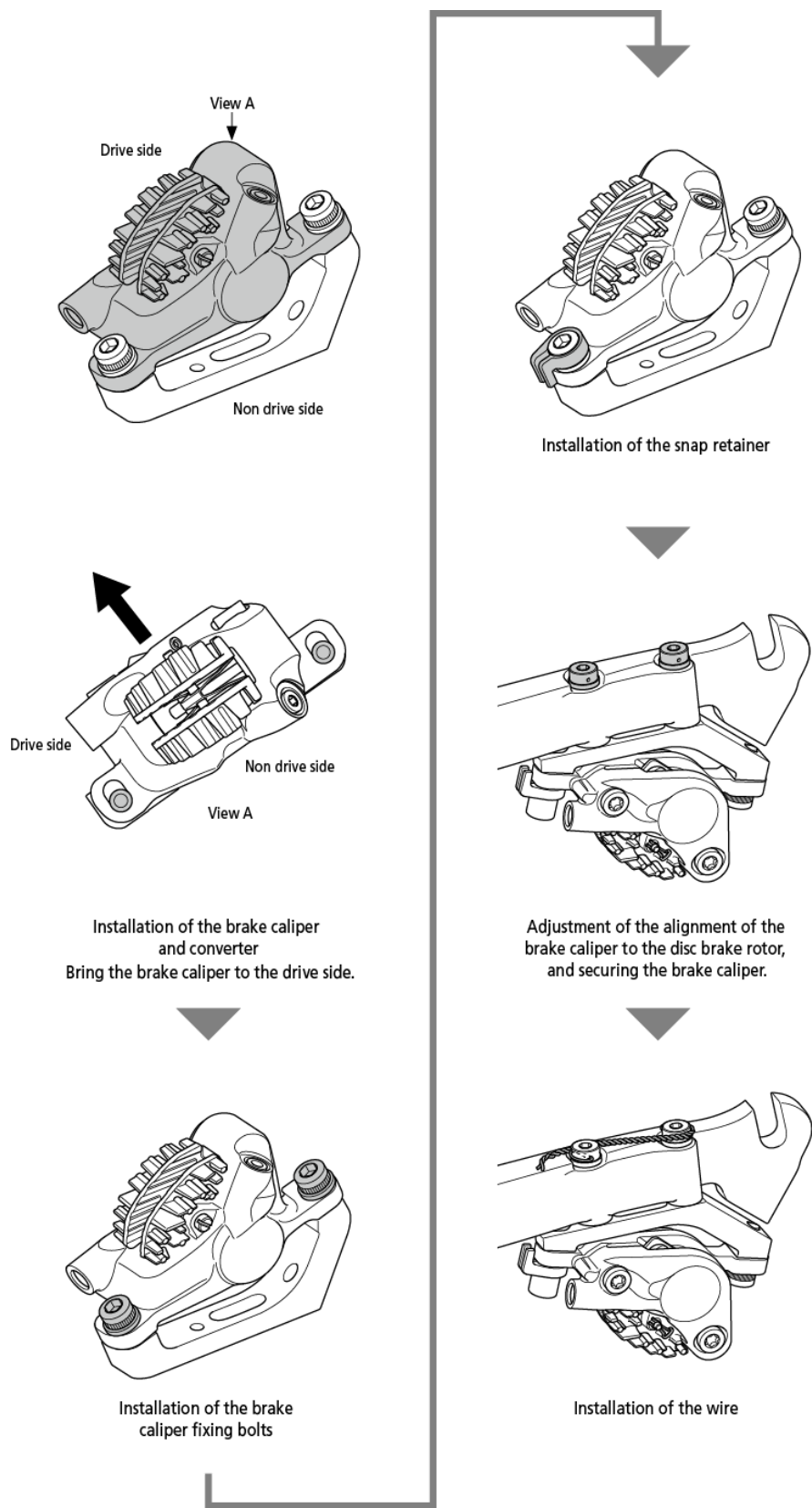


Adjustment of the alignment of the brake caliper to the disc brake rotor, and securing the brake caliper.



Installation of the wire

REAR MOUNT for ø160 disc brake rotor C-084



Compatibility between brake caliper and caliper mount

C-476

	Current Brake Caliper	Brake Caliper for flat mount
Post mount	X	—
Flat mount	X (with converter)	X

X: compatible