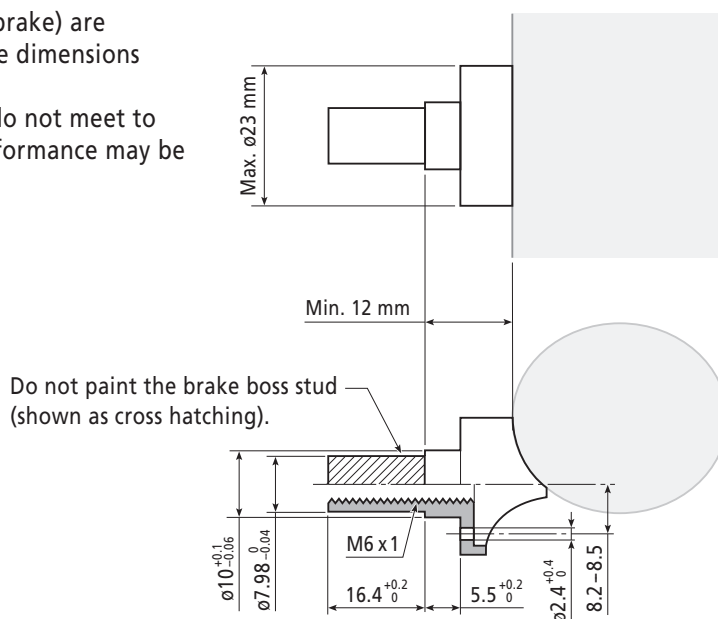


V-BRAKE and Cantilever brake

Boss dimensions for Shimano brakes

The Shimano brakes (V-Brake and cantilever brake) are designed for use with brake bosses having the dimensions shown below.

If Shimano brakes are used with bosses that do not meet to the dimensions given below, the braking performance may be adversely affected.

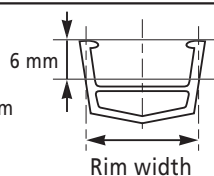


Distance between brake bosses

Dimension D between brake bosses may change depending on rim width.

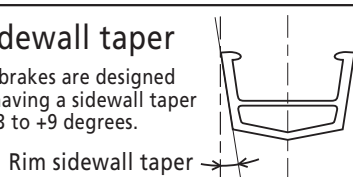
Rim width

The width at a point 6 mm from the top of the rim.

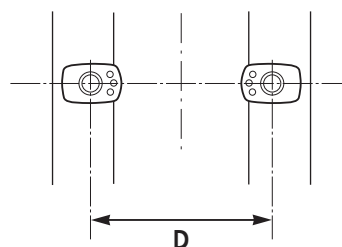


Rim sidewall taper

Shimano brakes are designed for rims having a sidewall taper of from -3 to +9 degrees.



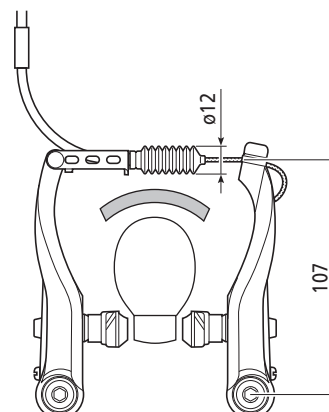
Cantilever brake boss distance D



Dimension D is the distance between the cantilever brake bosses center to center.

Length of the V-Brake link

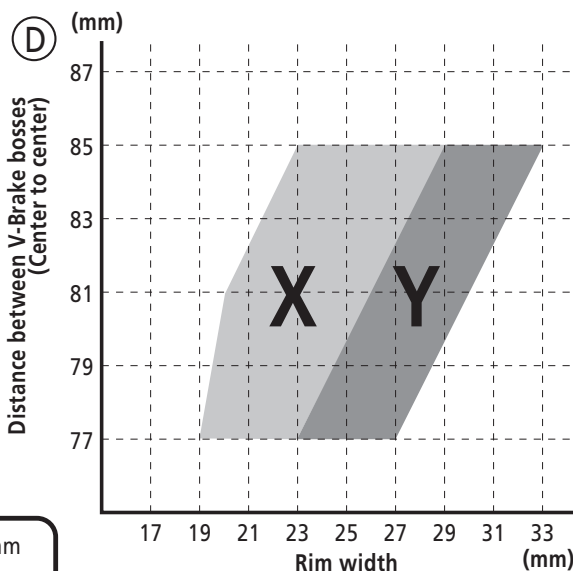
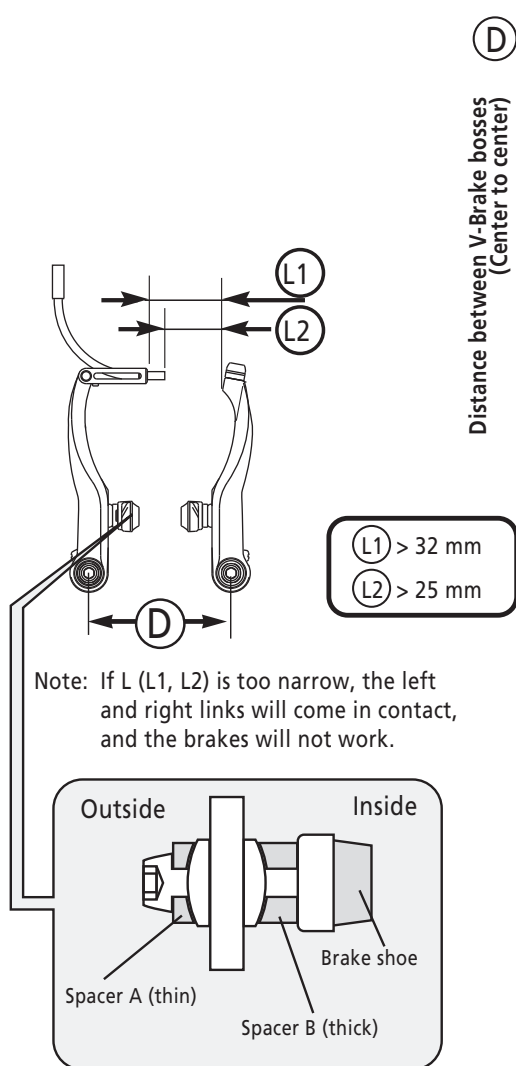
The length of the brake link for the new BR-T660/M590/M432/M422 V-Brake has been increased from 103 mm to 107 mm in order to reduce interference with the mudguard, lamp and carrier stay. The result of this is that the part is 4 mm higher than previous parts, so take care to ensure that it does not interfere with other parts.



Distance between V-Brake bosses (for BR-M970/M770/T660/

NEW M590/M432/M422)

- As with normal cantilever brakes, the Shimano V-Brake is designed for installation on frames with a 80 mm distance between bosses (center to center). Please refer to the graph for suitable rim width and boss distance combinations. If the brakes are used in conditions outside what is recommended, the brake performance may be adversely affected.
- For models other than those mentioned above, check the separate technical information booklet.

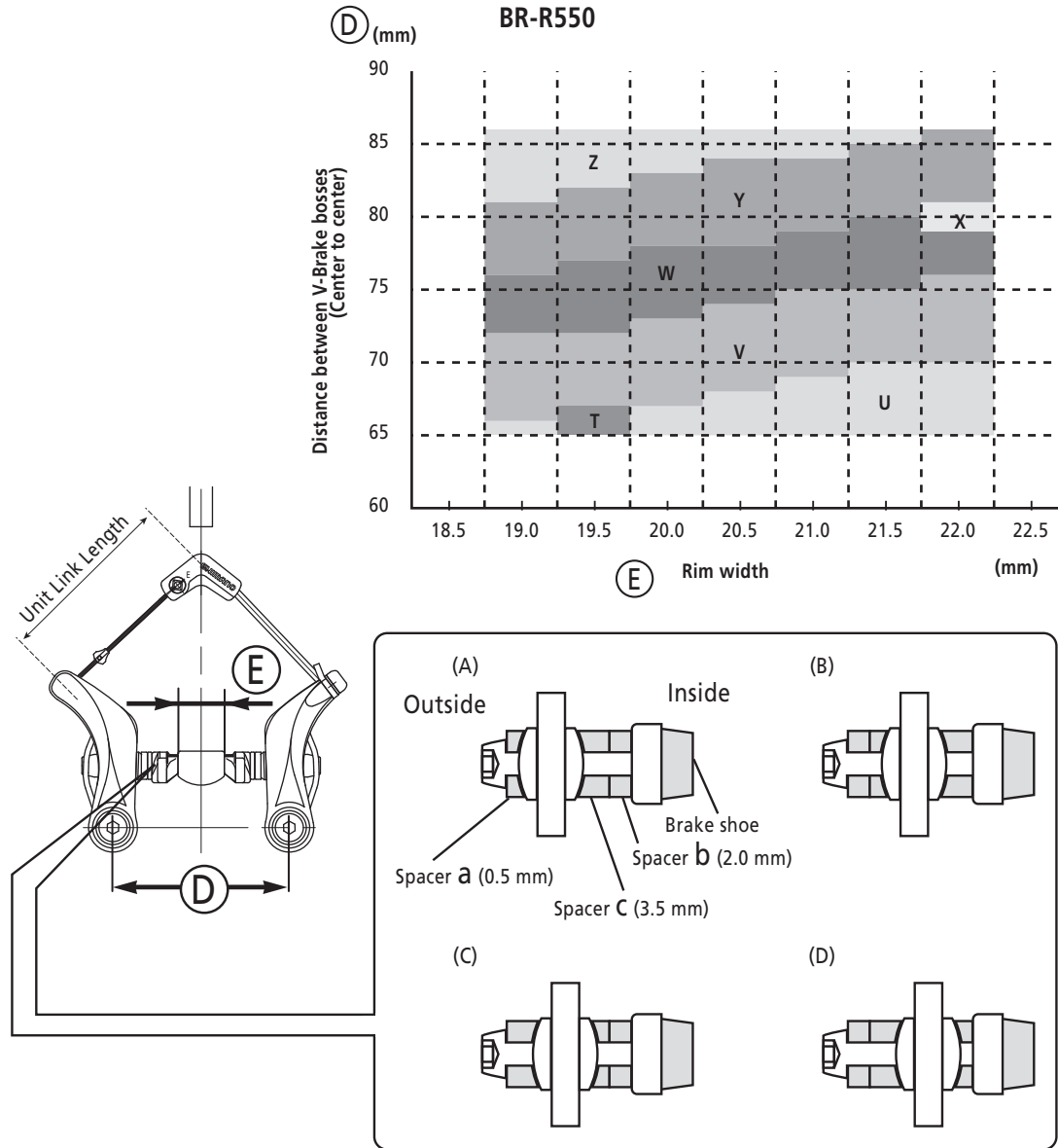


- Notes:
- Some rim width and boss combinations may require the reversal of A and B spacers in order to obtain the required L1 and L2 dimensions.
 - If the L dimensions of the frame are too large, interference may be created between the riders legs and the brakes.
 - To specify optimum set up and obtain the required minimum dimension L, refer to the graph above and the table below relating to boss distance, rim width, and spacer positioning.

Spacer A position	Spacer B position	Graph area
Outside	Inside	X area
Inside	Outside	Y area

Distance between Cantilever brake bosses (for BR-R550)

Please refer to the graph for suitable rim width and boss distance combinations. If the brakes are used in conditions outside what is recommended, the brake performance may be adversely affected.

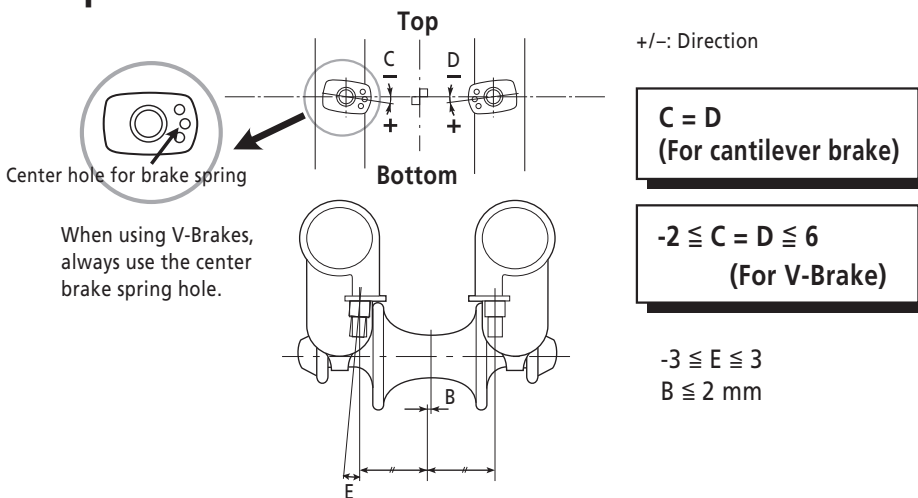


	Unit Link Type (Length)	Spacer thickness		
		combination	Inside	Outside
T	E (79.5 mm)	D	0.5 (a)	5.5 (b+c)
U	F (84.5 mm)	D	0.5 (a)	5.5 (b+c)
V	F (84.5 mm)	C	2.5 (a+b)	3.5 (c)
W	E (79.5 mm)	C	2.5 (a+b)	3.5 (c)
X	E (79.5 mm)	B	3.5 (c)	2.5 (a+b)
Y	F (84.5mm)	A	5.5 (b+c)	0.5 (a)
Z	E (79.5 mm)	A	5.5 (b+c)	0.5 (a)

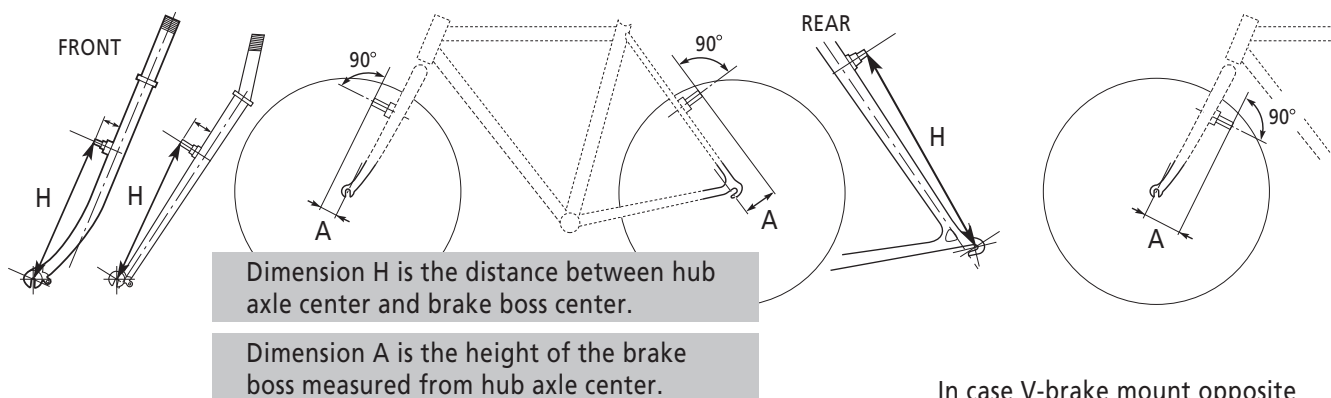
Cantilever brake boss positioning

Cantilever brake bosses for use with Shimano brakes should be positioned within the ranges shown in the diagrams below. Notice that there is a slight difference in installation between normal cantilever brakes and V-Brakes.

■ Brake boss positions



■ Frame mounting height for brake bosses



In case V-brake mount opposite side of the fork

ISO 5775 #559 (Old marking 26-inch)

H = 253.5 ± 1 mm **-8 mm ≤ A ≤ 70 mm**

-70 mm ≤ A ≤ 8 mm

ISO 5775 #622 (Old marking 700C, 28-inch)

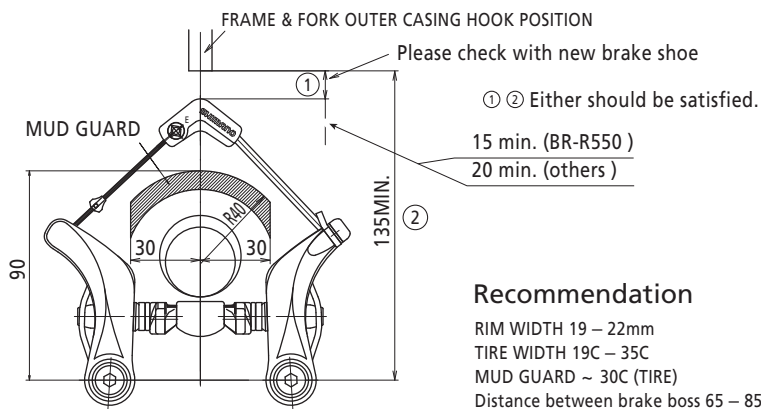
H = 283 ± 1 mm **-8 mm ≤ A ≤ 70 mm**

-70 mm ≤ A ≤ 8 mm

ISO 5775 #630 (Old marking 27-inch)

H = 286 ± 1 mm **-8 mm ≤ A ≤ 70 mm**

-70 mm ≤ A ≤ 8 mm



* Be careful about the cable routing to prevent inner lead interfering with the frame when steering the handle bar.

* Be careful about the direction of the brake shoe in case cartridge shoe is used.