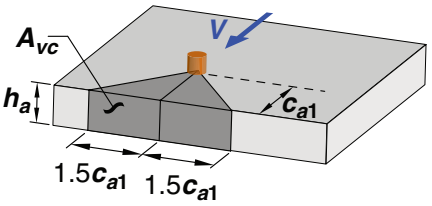
CODE

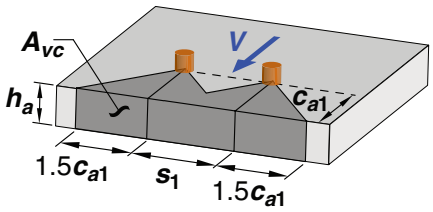
If $h_a < 1.5c_{a1}$

$A_{vc} = 2(1.5c_{a1})h_a$



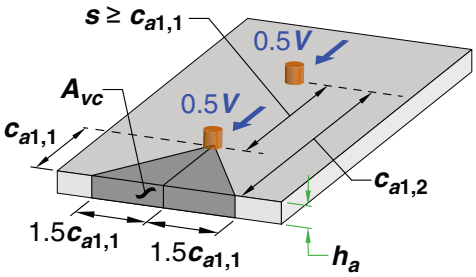
If $h_a < 1.5c_{a1}$ and $s_1 < 3c_{a1}$

$A_{vc} = [2(1.5c_{a1}) + s_1]h_a$



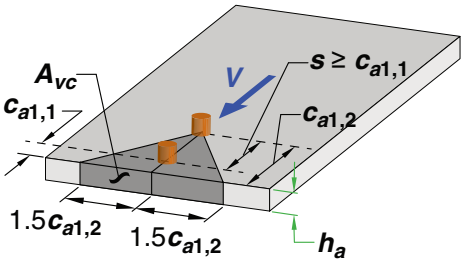
If $h_a < 1.5c_{a1}$

$A_{vc} = 2(1.5c_{a1,1})h_a$



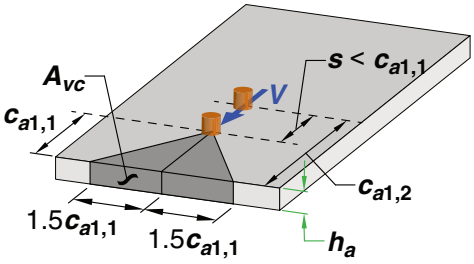
If $h_a < 1.5c_{a1}$

$A_{vc} = 2(1.5c_{a1,2})h_a$



If $h_a < 1.5c_{a1}$

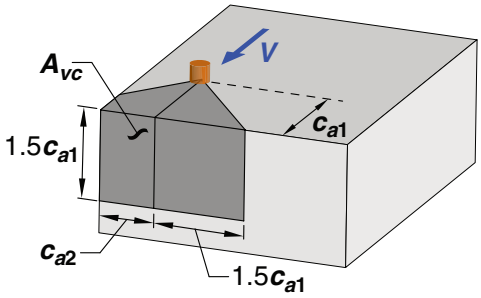
$A_{vc} = 2(1.5c_{a1,1})h_a$



COMMENTARY

If $c_{a2} < 1.5c_{a1}$

$A_{vc} = 1.5c_{a1}(1.5c_{a1} + c_{a2})$



Case 1: One assumption of the distribution of forces indicates that half of the shear force would be critical on the front anchor and the projected area. For the calculation of concrete breakout, c_{a1} is taken as $c_{a1,1}$.

Case 2: Another assumption of the distribution of forces indicates that the total shear force would be critical on the rear anchor and its projected area. Only this assumption needs to be considered when anchors are welded to a common plate independent of s. For the calculation of concrete breakout, c_{a1} is taken as $c_{a1,2}$.

Note: For $s \geq c_{a1,1}$, both Case 1 and Case 2 should be evaluated to determine which controls for design except as noted for anchors welded to a common plate

Case 3: Where $s < c_{a1,1}$, apply the entire shear load V to the front anchor. This case does not apply for anchors welded to a common plate. For the calculation of concrete breakout, c_{a1} is taken as $c_{a1,1}$.

Fig. R17.7.2.1b—Calculation of A_{vc} for single anchors and anchor groups.