

Fig.4.23 Velocity vectors at certain time instants in statistical state on the cross plane $\theta = 0^\circ$ & 180° for $D_j = 10.0$ mm, $H = 15.0$ mm, $Ra = 1,585$ ($\Delta T = 5.0^\circ\text{C}$) for $Re_j =$ (a) 135 ($Q_j=1.0$ slpm), (b) 270 ($Q_j=2.0$ slpm), (c) 406 ($Q_j=3.0$ slpm), (d) 541 ($Q_j=4.0$ slpm), (e) 676 ($Q_j=5.0$ slpm), and (f) 947 ($Q_j=7.0$ slpm).

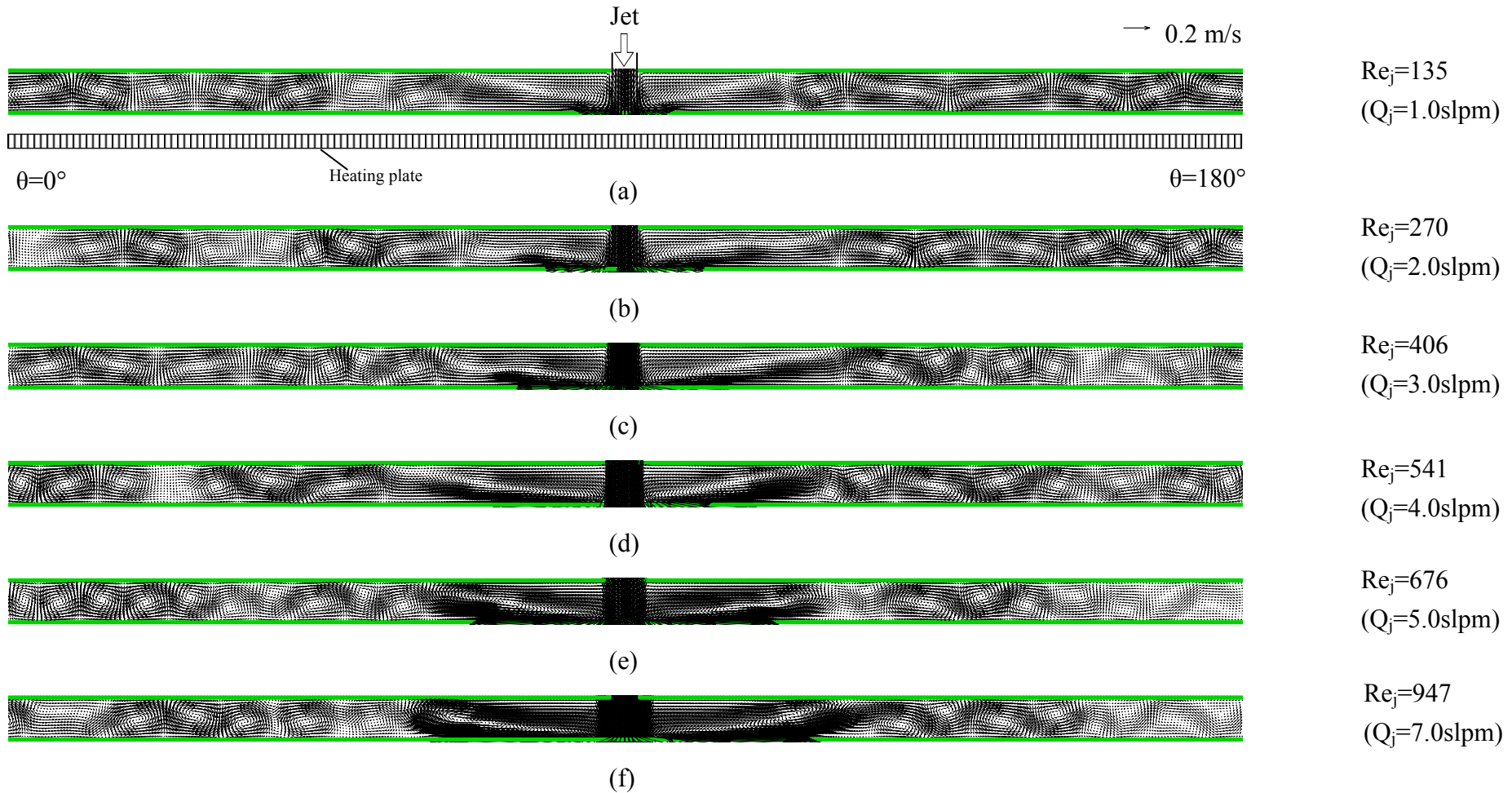


Fig. 4.24 Velocity vectors at certain time instants in statistical state on the cross plane $\theta = 0^\circ$ & 180° for $D_j = 10.0$ mm, $H = 15.0$ mm, $Ra = 3,171$ ($\Delta T = 10.0^\circ\text{C}$) for $Re_j =$ (a) 135 ($Q_j=1.0$ slpm), (b) 270 ($Q_j=2.0$ slpm), (c) 406 ($Q_j=3.0$ slpm), (d) 541 ($Q_j=4.0$ slpm), (e) 676 ($Q_j=5.0$ slpm), and (f) 947 ($Q_j=7.0$ slpm).

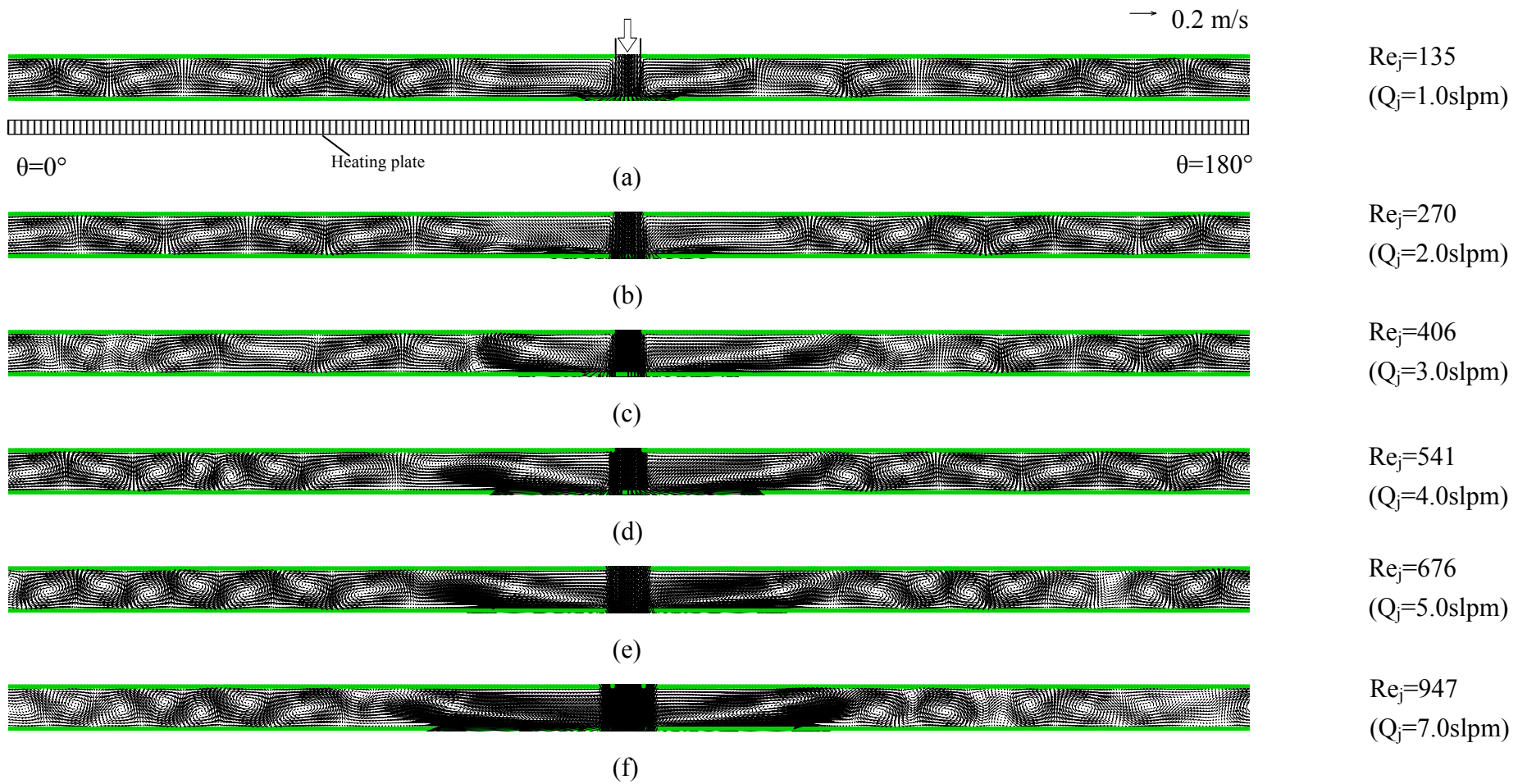


Fig. 4.25 Velocity vectors at certain time instants in statistical state on the cross plane $\theta = 0^\circ$ & 180° for $D_j = 10.0$ mm, $H = 15.0$ mm, $Ra = 4,756$ ($\Delta T = 15.0^\circ\text{C}$) for $Re_j =$ (a) 135 ($Q_j = 1.0$ slpm), (b) 270 ($Q_j = 2.0$ slpm), (c) 406 ($Q_j = 3.0$ slpm), (d) 541 ($Q_j = 4.0$ slpm), (e) 676 ($Q_j = 5.0$ slpm), and (f) 947 ($Q_j = 7.0$ slpm).

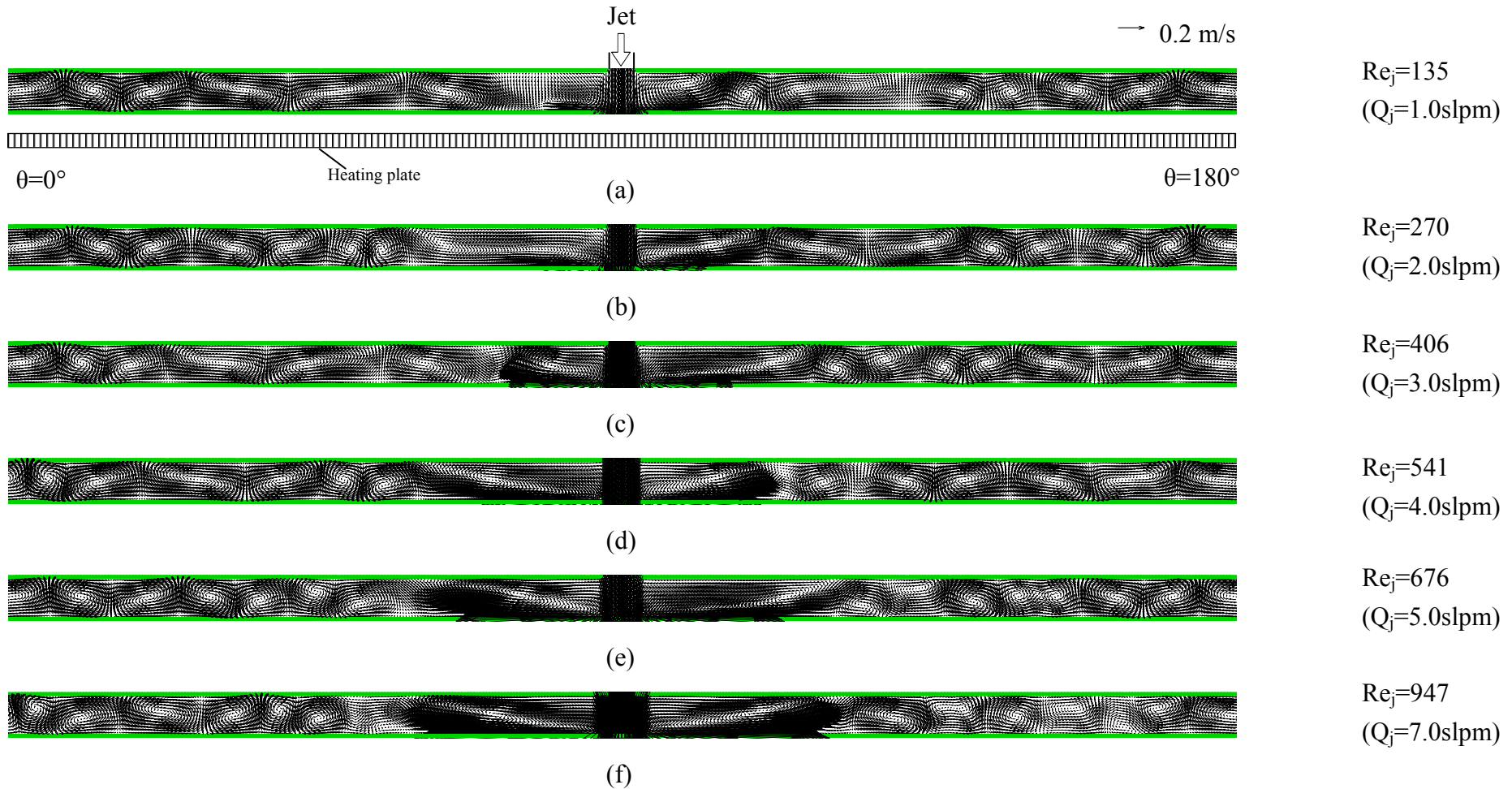


Fig. 4.26 Velocity vectors at certain time instants in statistical state on the cross plane $\theta = 0^\circ$ & 180° for $D_j = 10.0$ mm, $H = 15.0$ mm, $Ra = 7,927$ ($\Delta T = 25.0^\circ C$) for $Re_j =$ (a) 135 ($Q_j=1.0$ slpm), (b) 270 ($Q_j=2.0$ slpm), (c) 406 ($Q_j=3.0$ slpm), (d) 541 ($Q_j=4.0$ slpm), (e) 676 ($Q_j=5.0$ slpm), and (f) 947 ($Q_j=7.0$ slpm).

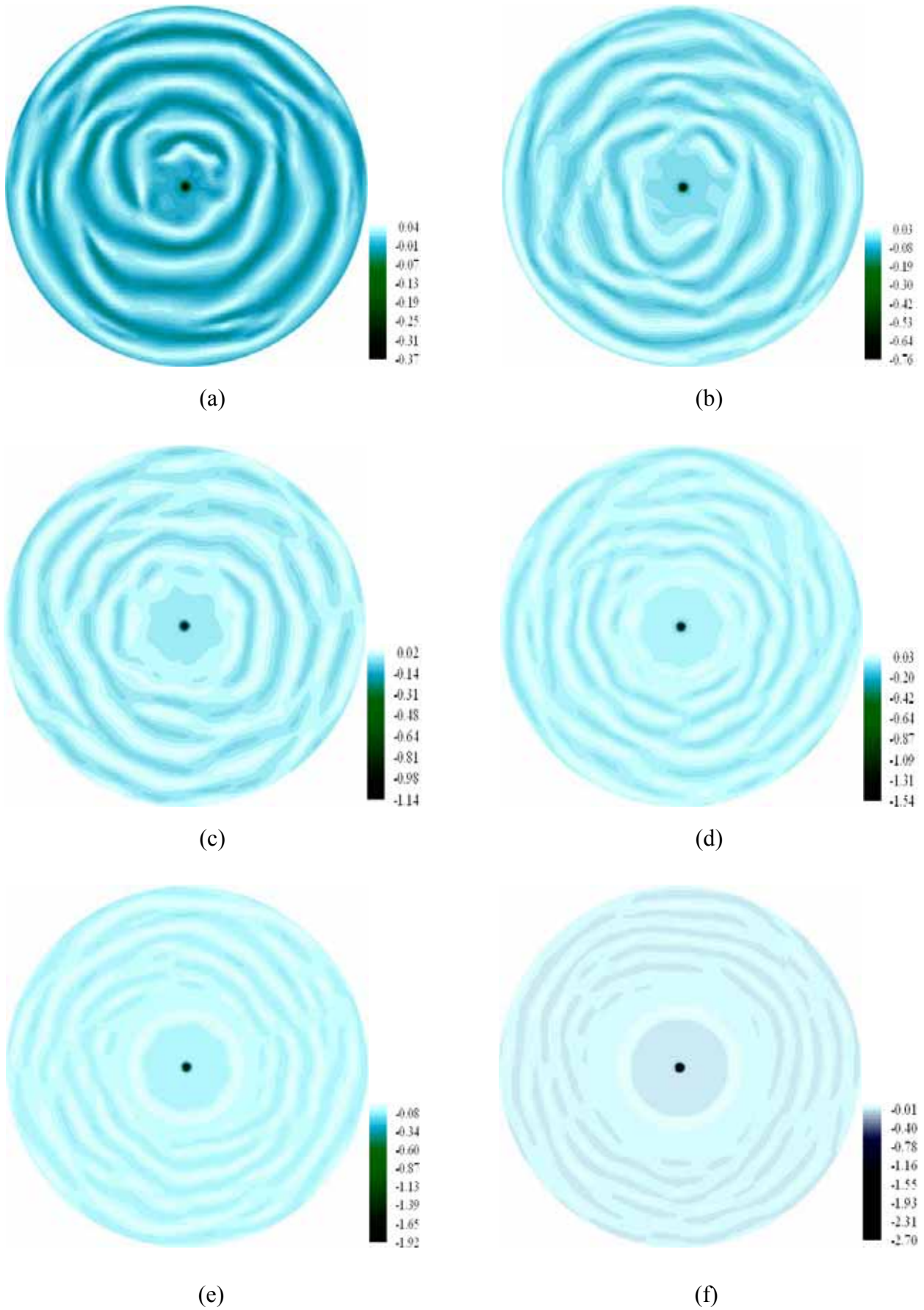


Fig. 4.27 Contours of vertical velocity component w at the horizontal plane $z = -7.5$ mm at certain time instants in statistical state for $Ra = 1,585$ ($\Delta T = 5.0^\circ\text{C}$) and $D_j = 10.0$ mm at $H = 15.0$ mm for $Re_j =$ (a) 135, (b) 270, (c) 406, (d) 541, (e) 676, and (f) 947.