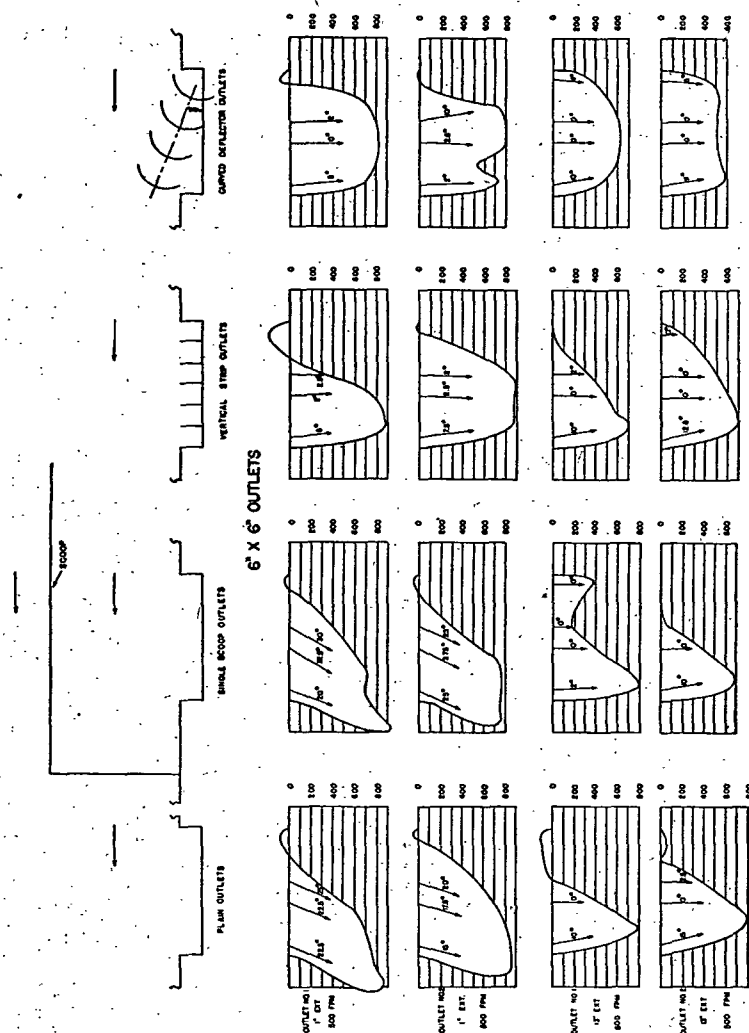




2. The permissible pressure drop will depend on the choice of the designer. Table 3 gives pressure drop through plain lattice intakes as a function of free area and face velocity.

3. The problem of *noise* generated by return intakes is the same as that generated by supply outlets. In computing resultant room noise levels from the operation of an air conditioning system, the return intake must be included as a part of the total grille area. The major difference between the supply outlets and return intakes is in their frequent instal-

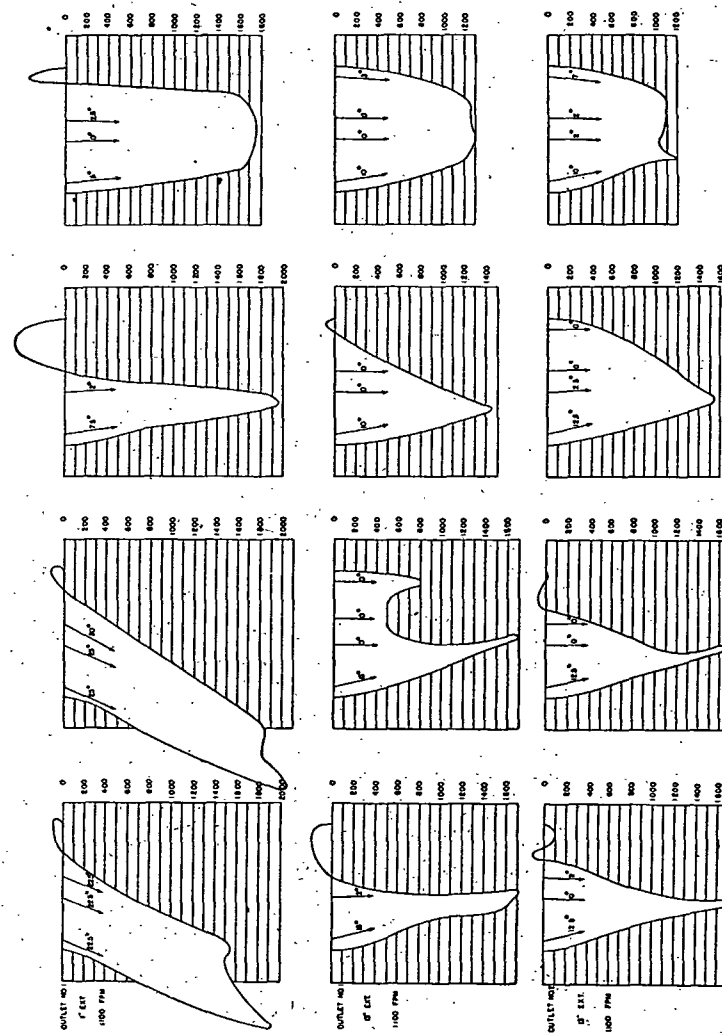


FIG. 6. FLOW PATTERNS FOR 6-IN. x 6-IN. OUTLET

lation at the ear level. When located at ear level, it is recommended that the return intake velocity be not in excess of 75 per cent of the maximum permissible outlet velocity.

4. *Ceiling locations* for outlets are recommended for bars, kitchens, lavatories, dining rooms, club rooms, etc., where warm air will gravitate to the ceiling level. Ceiling returns are less desirable in spaces with severe winter exposure, and where stratification of cold air may take place at the floor level. During the heating season the air will tend to short