

# Rapid Fan & Blower Inc.

## Forward Curve Air Kits

### General Features

The forward curved fan depends less on centrifugal force for its pressure and more on velocity pressure conversion in the housing. Consequently, housing design is critical to the fan's performance and the forward curved wheel is extremely inefficient if used without a housing.

A properly matched combination of forward curved wheel and housing results in a smaller package than any other type of centrifugal fan to meet a given performance requirement. It operates at a slower speed than other types for a given pressure and flow with a relatively low stress wheel.

Properly selected and applied, the forward curved fan is an excellent performer in a diversity of applications. Rapid Fans RAK Series is intended primarily for industrial duty including high temperature applications.

### Wheels

All of the RAK Series fans feature wheels with a forward curve blade design. Wheels are available in diameters of 10" to 30". Each wheel is balanced for maximum efficiency and performance. All wheels are constructed to meet the specifications of AMCA Class I and II. Class I and II wheels are available in mild steel, stainless steel and aluminum. Special bore sizes can be furnished upon request.

### Housings

Rapid's RAK Series housings are made of heavy-gauge metal and are continuously welded for airtight construction to maximize efficiency. Discharge cutoffs improve efficiency by preventing air from re-entering the fan. Sizes 10 thru 21 have rolled inlets with removable cutoffs from outlet to allow wheel installation. Sizes 24-30 removable inlet ventures provide an efficient means of air entry into fan. Where a fan is too large to be installed fully assembled, bolted construction can be provided. The housings are usually furnished without side bracing (framed angles), and it is the customer's responsibility to rigidly support the housing so that sides do not distort with pressure and temperature in their equipment.