

## ► TANK AGITATION

■ All-Star blowers are great for applications requiring agitation of fluids in plating tanks, rinsing tanks and cleaning tanks because they offer the following advantages:

- Clean, oil-free air without contaminants to foul or spoil the fluid.
- Low noise levels meet OSHA requirements without costly noise reduction equipment required by positive displacement Roots-type blowers.
- Low operating cost when compared to air compressors.
- Low purchase cost when compared to other types of blowers or compressors.
- Dependability of a rotating machine without wearing, rubbing or sliding components. The only moving part is a non-contacting impeller supported by two high quality ball bearings.

### PLATING TANK

■ All-Star produce agitation that helps renew cathode films, decrease polarization, and allows the use of higher current density, permitting higher plating speeds and finer grain deposits. The air agitation's scrubbing action also minimizes the quantity of rinse water needed, thus reducing the load on water treatment facilities.

### CLEANING TANK

End solvent / solution stagnation With All-Star blower agitation, fresh solution is constantly brought into contact with the part, removing dirt particles and dissolving grease.

## ► BLOWER SIZE FOR TANK AGITATION

### PRESSURE REQUIREMENTS

$$P = 0.43 D S + 0.75$$

Where: P = Pressure (PSIG)  
 D = Depth of Solution (Feet)  
 S = Specific Gravity of Solution  
 (see table)

### FLOW REQUIREMENTS

$$Q = AF$$

Where: Q = Flow Rate (SCFM)  
 A = Tank Surface Area (ft.<sup>2</sup>)  
 F = Agitation Factor  
 (SCFM/ft.<sup>2</sup>, see table)

AGITATION FACTOR AND SPECIFIC GRAVITY TABLE

Solution	Agitation Factor (F) (SCFM/ft. <sup>2</sup> )	Specific Gravity (S)
Al Plating	1.0 - 1.8	1.2
Cu Plating	1.0 - 1.5	1.2
Ni Plating	1.2 - 2.0	1.2
Cleaning	1.0 - 1.5	1.1
Rinsing	0.5 - 1.5	1.0