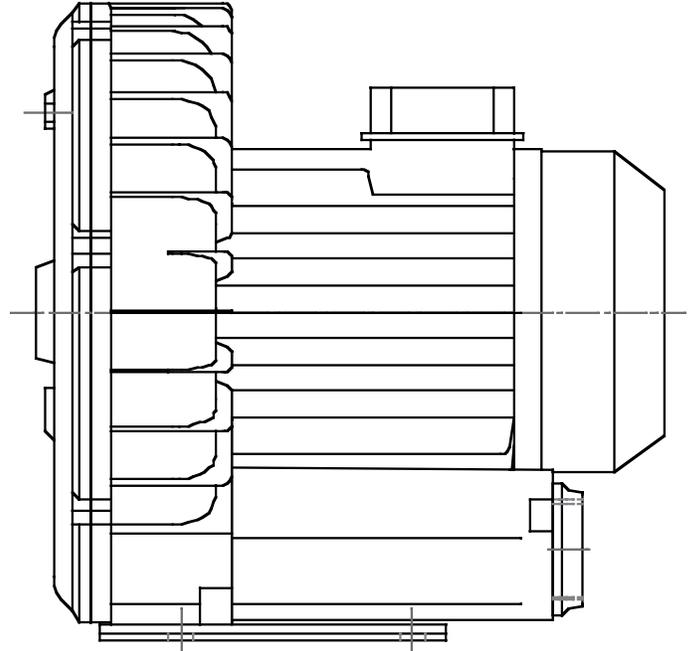
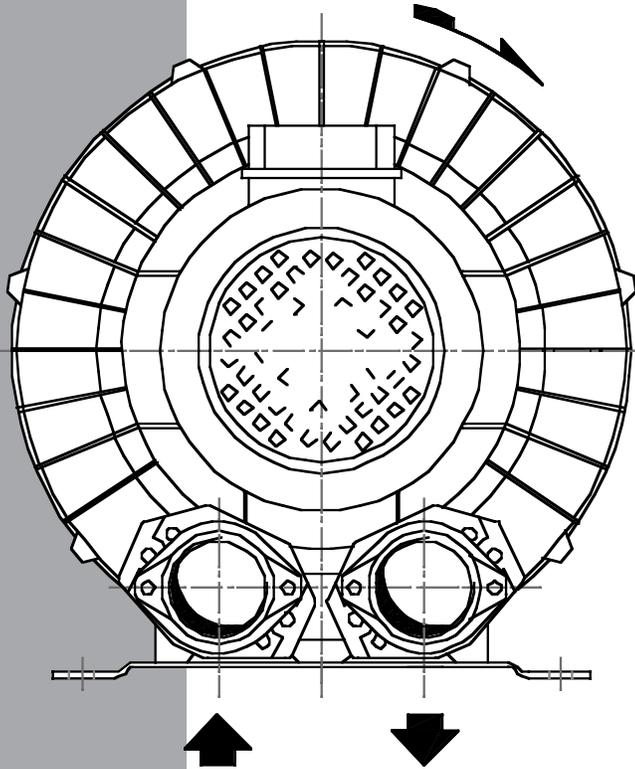


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Tank Agitation
with
High Performance
Regenerative Blowers
from FPZ

TANK AGITATION

FPZ blowers are ideal for applications that require agitation of plating tanks, cleaning tanks, and rinse tanks. FPZ blowers supply clean, oil-free air that will not contaminate the fluid being agitated, they do not require any maintenance (other than filter cleaning), they are extremely quiet (most models meet OSHA requirements), and they are cost effective.

BLOWER DESIGN

FPZ blowers have no wearing parts other than the bearings, which are typically rated for over 70,000 hours of continuous operation. FPZ's unique performance characteristics maximize airflow at pressure, which translate into better agitation with lower consumed power than most competitive models. FPZ's all aluminum construction minimizes weight and allows for uniform thermal expansion. All blowers can be mounted in any orientation.

COST EFFECTIVE

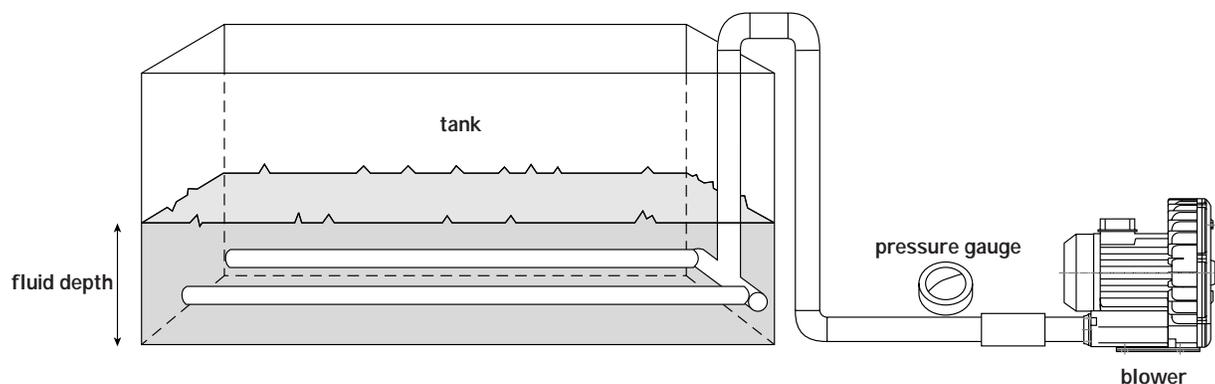
Some companies use a house air compressor to agitate tanks. House air compressors usually supply 75 to 110 psig air while most tanks only require air at 5 psig or less. Typically the initial capital cost of a blower can be paid back through electrical savings in less than a year.

QUALITY

FPZ has been manufacturing High Performance Regenerative blowers since 1975. All blowers are 100% tested before they leave our factory and are backed by our Three-Year Warranty.

AGITATION FACTOR / SPECIFIC GRAVITY TABLE		
Solution	Agitation Factor (F)	Specific Gravity
Al Plating	1.2 - 1.8	1.2
Cu Plating	1.1 - 1.5	1.2
Ni Plating	1.5 - 2.0	1.2
Cleaning	1.0 - 1.5	1.1
Rinsing	0.8 - 1.5	1.0

TYPICAL PLATING SYSTEM



SIZING FOR TANK AGITATION

To calculate pressure, use the following formula:

$$P = 0.43 DS + 0.75$$

Where: P = Pressure (psig)
D = Depth of solution (Feet)
S = Specific Gravity of solution (see chart)

To calculate flow, use the following formula:

$$V = A F$$

Where: V = Flow Rate (SCFM)
A = Tank Surface Area (ft²)
F = Agitation Factor (see table)

EXAMPLE

A nickel plating tank is to be agitated that is 8' long x 4' wide x 4' high.
The solution depth is 3'.

To calculate pressure:

$$P = 0.43 \times 3 \times 1.2 + 0.75 = 2.3 \text{ psig}$$

To calculate flow:

$$\begin{aligned} \text{First determine tank surface area} &= 8' \times 4' = 32 \text{ ft}^2 \\ V &= 32 \times 1.7 = 55 \text{ scfm} \end{aligned}$$

A blower capable of providing 55 scfm @ 2.3 psig is required.

MANUFACTURED BY:



SIMPLIFIED FLUID HANDLING

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Note: This brochure contains information that we believe to be correct, and blowers have been successfully selected with this information. FPZ, however, cannot guarantee that the blower selected will work successfully as there may be additional factors such as, but not limited to, pipe size, sparger design, and plumbing configuration that are not covered in this brochure. It is the users responsibility to determine the suitability of the product for his or her intended use and the user assumes all risk and liability whatsoever in connection therewith.