Why are centrifugal blowers installed on rubber pads?

We are often asked why we insist that our centrifugal blowers be installed on rubber pads, that the base not be bolted down and why we discourage grouting the base.

This is standard practice for all manufacturers of centrifugal blowers, both cast iron and fabricated construction, to protect the bearings and provide the maximum bearing life for our customers.

Every rotating assembly has some amount of imbalance. To limit this imbalance they normally limit the amount to that specified in ISO standard G2.5 or less.

When the point of imbalance rotates to the top of the blower, the forces tend to attempt to lift the blower against the forces of gravity. When installed on resiliant pads, the pads decompress and allow the entire structure to absorb these forces.

Now, when the heavy point reaches the bottom of the rotation, the forces try to drive the blower downward. In this case the pads compress and the entire structure tends to absorb the forces.

But, if the base is bolted down or grouted so that it can not move to absorb these forces, the force is transmitted directly to the blower bearings. This wears the bearing much more quickly and reduces the reliabile bearing life.

Manufacturers usually will not warranty equipment damaged due to failure to follow proper installation instructions, so it is important to follow the manufacturers guide lines as per their installation and operation manual.

