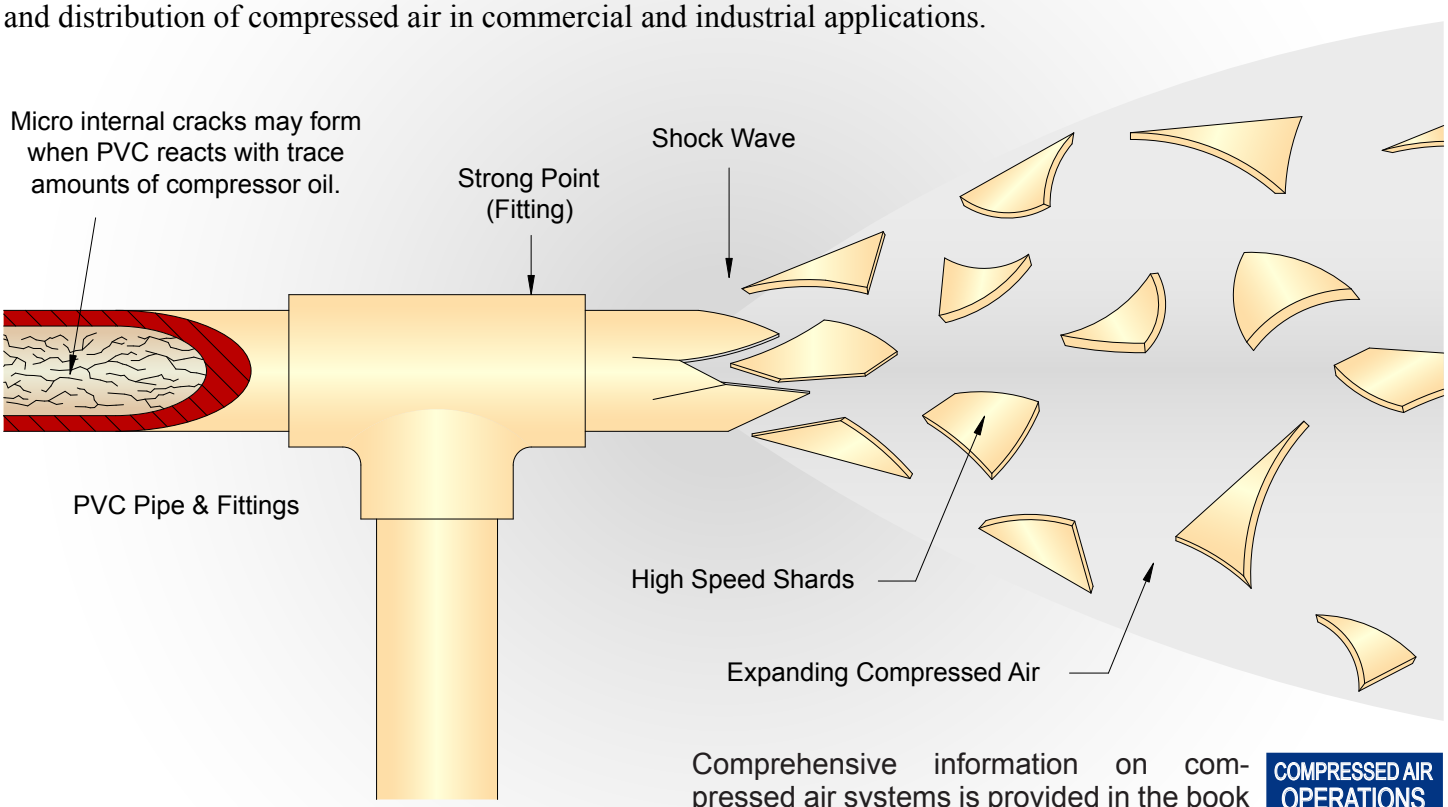
Technical Bulletin 17

Never Use PVC Pipe for Compressed Air!

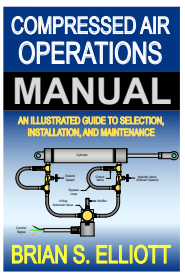
by Brian S. Elliott

The use of PVC Pipe for compressed air applications constitutes a severe safety hazard. Under no circumstances are PVC pipe or fittings to be used for compressed air! PVC pipe is not intended for compressed air applications because of the inherent stored energy of the gas. It is only intended for non-compressible fluids. The reason for this is that PVC pipe normally fractures when it fails. As the energy of the compressed air is released, a shock wave travels down the joint of pipe until it encounters a strong point, usually a fitting. As the shock wave propagates along the pipe, it continuously fractures and blasts out hundreds of razor sharp, high-speed shards of plastic. Personnel exposed this type of failure can sustain severe injuries.

To make matters worse, PVC can react with some compressor oils and form micro-surface cracks on the inside of the pipe and fittings. This, in turn, weakens the pipe and creates an almost perfect scenario for this type of failure. It should also be noted that the use of PVC pipe is in violation of all OSHA regulations regarding the use and distribution of compressed air in commercial and industrial applications.



Comprehensive information on compressed air systems is provided in the book **"Compressed Air Operations Manual"** by Brian S. Elliott, ISBN: 0-07-147526-5 Published by the McGraw-Hill Book Co.



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