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Simple Instruments Used in Condition Monitoring

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Abstract

Condition monitoring is a system of assessing the service condition or the change of service condition of any component or a part of an equipment or a system considerable research has been done in this direction leading to development of several electrical and electronic monitoring instruments. These, when connected to strategic locations of the systems measure and indicate certain parameters enabling us to monitor the condition and take vital decisions on a continuous basis. This is somewhat akin to NDE of machinery components with respect to their working condition.

Nevertheless the high cost of these instruments prevent their use in all required locations in engineering industry. On the other hand traditional simple mechanical gadgets are being used by the maintenance personnel of today's industry all over the world. These have the advantages of being portable, simple, easy to use, economical and more significantly can be used to check any location or component suspected to be functioning abnormally. Use of these gadgets would assist the small and medium industries as they are less expensive and simple to fabricate and use. This paper discusses some of such instruments used and could be used for condition monitoring of industrial machinery and process equipment like pressure vessels and heat exchangers.