

Role of National Pressure and Vacuum Metrology in Indian Industrial Growth and Their Global Metrological Equivalence

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Abstract: The pressure and vacuum metrology group of National Physical Laboratory (NPL) has a strong role in metrological research and development in India because of its importance to the nation's economy as well as the constitutional obligation following NPL charter of developing and maintaining national standards of pressure and vacuum measurements. Although, the group is successfully fulfilling its national duties, providing national calibration and measurement services since last 35 years, admittedly still there is lack of awareness, misinformation, and penetration of Calibration and Measurement Capabilities (CMCs) to the end users, grass root level industries, academicians and Govt. laboratories. Occasionally, we are receiving feedbacks of such grey areas of awareness. Therefore, it was considered appropriate to compile the information of all these CMCs, expertise, training potential and available developed technologies in this article. The present paper also describes the summary of some of the results obtained in recent international key comparison exercises which have helped us to improve the quality in pressure metrology with a measure of technical efficiency.

Keywords: Key comparison; Metrology; NMI services; Pressure; Pressure application; Standard; Vacuum