

<b>EUROMET PROJECT FINAL REPORT</b>
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1. Ref. No.: <b>455</b>	2. Subject Field: MASS (Pressure)	
3 Type of collaboration: Consultation on facilities		
4A. Partners: (institutions) CEM, CMI, JV, MIKES, NMi, SP	4B. CEC funded?  No	
5. Participating countries: CZ, ES, FI, NL, NO, SE		
6. Title:  Comparison in the pressure range 50 kPa to 350 kPa		
<p>7. Progress:</p> <p>In 1997 CMI, MIKES and NMi, all using same type of pressure balances with a 35 mm diameter ceramic piston, started a project to compare their methods and results of pressure measurements and dimensional measurements for the effective areas of the piston cylinder units. Later, the pressure comparisons MIKES – CEM, MIKES – SP/FFA and MIKES – JV were included in the project.</p> <p>The results of the comparison CMI – MIKES – NMi were presented by Jos Verbeek in the CCM pressure conference in Torino [1]. The comparisons MIKES – SP/FFA and MIKES – JV were reported in the references [2] and [3] respectively. The measurements at CEM were reported by Matilla and Ruiz in the reference [4].</p> <p>The reference [5] is a summary report on the project, concentrating on the results obtained on the MIKES equipment.</p> <p>The effective area values determined by CMI, JV, MIKES, NMi and SP on the MIKES ceramic 35 mm diameter unit were in a very good agreement with each other. The result of CEM on the MIKES tungsten carbide 35 mm unit was in a very good agreement with the MIKES value, traceable to BNM-LNE.</p> <p>[1] Verbeek, J. C. G. A, Rantanen, M. &amp; Tesar, J.: Intercomparison of pressure balances of NMi, MIKES and CMI in the range 50 kPa to 350 kPa. 3<sup>rd</sup> CCM international conference: Pressure Metrology from Ultra-High Vacuum to Very High Pressures. Torino, 3-7 May 1999.</p> <p>[2] Ban, S. &amp; Rantanen, M.: Intercomparison of gauge pressure measurements between SP/FFA and MIKES in the range 32 kPa to 132 kPa. MIKES Publication J3/1999.</p> <p>[3] Pilkuhn, M. &amp; Rantanen, M.: Pressure comparisons between Justervesenet and CMA. Poster at 21<sup>st</sup> Nordic Conference on Measurement and Calibration. Gardemoen 22-23 November 1999.</p> <p>[4] Matilla, C. &amp; Ruiz, S.: Intercomparison in the pressure range of 0,05 MPa to 1 MPa. Centro Espanol de Metrologia 1999.</p> <p>[5] Rantanen, M.: Comparisons in the pressure range 50 kPa to 350 kPa. Final report on EUROMET Project 455. MIKES Publication J7/2001.</p>		
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9. Completion date:  31.10.2001	10. Coordinator's signature:	11. Date:  7.11.2001

\*) Delete as appropriate

*Notes for completion of the form overleaf*