

# National Metrology Laboratory

## Schedule of Pressure Calibration

Issue No: 02

Issue date: 12 February 2004

### SUMMARY OF SERVICES

#### Calibration performed on permanent laboratory premises

##### Pressure

Gas gauge, dead-weight testers, effective area  
Gas gauge, dead-weight testers, pressure equivalent  
Gas gauge, devices with electrical output  
Gas gauge, indicating instruments  
Gas negative gauge, devices with electrical output  
Gas negative gauge, indicating instruments  
Gas absolute, devices with electrical output  
Gas absolute, indicating instruments  
Gas differential, devices with electrical output  
Gas differential, indicating instruments  
Hydraulic gauge, dead-weight testers, effective area  
Hydraulic gauge, dead-weight testers, pressure equivalent  
Hydraulic gauge, devices with electrical output  
Hydraulic gauge, indicating instruments

# National Metrology Laboratory

Issue No: 02

Issue date: 12 February 2004

## DETAIL OF CALIBRATION SERVICE

Measured Quantity Instrument or Gauge	Range	Best Measurement Capability Expressed as An Expanded Uncertainty (k=2)	Remarks
<b>PRESSURE</b>			
<b>NOTES</b>			
<u>Gas pressure (gauge)</u> Determination of effective area of dead-weight testers	3.5kPa – 7Mpa	30ppm (0.0030%)	<b>Notes</b> Calibrations may be undertaken expressed in other units of pressure as required.
'Pressure equivalent' calibration of Dead-weight testers (pressure balance supplied with an associated mass set & Ametek gas pressure standards).	3.5kPa – 20Mpa	30ppm (0.0030%)	The medium used for gas pressure measurements is oxygen free nitrogen unless otherwise specified.
Calibration of pressure indicating instruments and gauges	0 – 100 Pa 100 Pa to 4 kPa 4kPa – 20MPa	0.01% + 0.01 Pa 100ppm (0.010%) 30ppm (0.0030%)	Calibrations are carried out at a reference temperature of 20°C.
<u>Gas pressure (absolute)</u> Calibration of pressure indicating instruments and gauges.	3.5kPa – 7MPa	30ppm (0.0030%)	
<u>Hydraulic pressure (gauge)</u> Determination of effective area of dead-weight testers	0.5Mpa – 140Mpa	40ppm (0.0040%)	
'Pressure equivalent' calibration of Dead-weight testers (pressure balance supplied with an associated mass set).	0.5Mpa – 140Mpa	40ppm (0.0040%)	
Calibration of pressure indicating instruments and gauges	0.5Mpa – 140MPa	40ppm (0.0040%)	
<u>Gas pressure (differential)</u> Calibration of pressure indicating instruments and gauges.	0 – 100 Pa 100 Pa – 4kPa 4kPa – 7MPa	0.01% + 0.01 Pa 100ppm (0.010%) 30ppm (0.0030%)	