

Next CCM KCs of the WG LP

The following 4 comparisons cover the present or intended CMC entries from members of the WG LP and have to be carried out repeatedly.

Table 1 Comparison needed for the pressure range 10^{-9} Pa up to 10^{-4} Pa

Pressure range CMC	10^{-9} Pa ... 10^{-4} Pa
Comparison needed	KC or supplementary
Name of comparison type	C-IG
Approximate repeat sequence	Every 12 years
Target points	$3 \cdot 10^{-7}$ Pa, $9 \cdot 10^{-7}$ Pa, $3 \cdot 10^{-6}$ Pa, $9 \cdot 10^{-6}$ Pa, $3 \cdot 10^{-5}$ Pa, $9 \cdot 10^{-5}$ Pa
Transfer standard (present knowledge)	Hot cathode ionization gauge of Bayard-Alpert type or extractor type
Comment	C-IG is normally extended to $9 \cdot 10^{-3}$ Pa by means of a SRG as transfer standard

Table 2 Comparison needed for the pressure range 10^{-4} Pa up to 1 Pa

Pressure range CMC	10^{-4} Pa ... 1 Pa
Comparison needed	KC or supplementary
Name of comparison type	C-SRG
Approximate repeat sequence	Every 12 years
Target points	$3 \cdot 10^{-4}$ Pa, $9 \cdot 10^{-4}$ Pa, $3 \cdot 10^{-3}$ Pa, $9 \cdot 10^{-3}$ Pa, $3 \cdot 10^{-2}$ Pa, $9 \cdot 10^{-2}$ Pa, $3 \cdot 10^{-1}$ Pa, 1 Pa
Transfer standard (present knowledge)	Spinning rotor gauge
Comment	Highest point (1Pa) serves as linkage to C-CDG

Table 3 Comparison needed for the pressure range 1 Pa to 10^4 Pa

Pressure range CMC	1 Pa ... 10^4 Pa
Comparison needed	KC or supplementary
Name of comparison type	C-CDG/RSG
Approximate repeat sequence	Every 12 years
Target points	1 Pa, 3 Pa, 10 Pa, 30 Pa, 100 Pa, 300 Pa, 1 kPa, 3kPa, 10 kPa
Transfer standard (present knowledge)	Capacitance diaphragm gauge with the support of resonance silicon gauge at 100 Pa ... 10 kPa
Comment	Lowest point serves as linkage to C-SRG

Table 4 Comparison needed for CMC leak rates

Leak rate CMC	10^{-15} mol/s ... 10^{-9} mol/s
Comparison needed	KC or supplementary
Name of comparison type	C-STL
Approximate repeat sequence	Every 12 years
Target points	10^{-13} mol/s and $5 \cdot 10^{-11}$ mol/s
Transfer standard (present knowledge)	Helium standard leak by permeation or capillary
Comment	none

Schedule for next KC as of 2008-04-22:

Name	Registered as	Range	Date of Measurements	Pilot NMI	# Participants
C-STL	CCM.P-K12	10^{-13} mol/s and $4 \cdot 10^{-11}$ mol/s	2'2007 to 10'2008	PTB	11
C-CDG/RSG	Not yet	1 Pa ... 10 kPa	2010	NIST	To be defined
C-SRG	Not yet	10^{-4} Pa ... 1 Pa	2009	METAS	To be defined