

International Accreditation Service

# CERTIFICATE OF ACCREDITATION

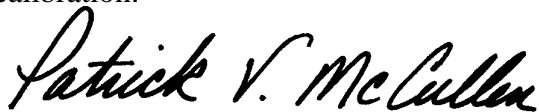
*This is to signify that*

**DICK MUNNS COMPANY**

10572 CALLE LEE UNIT 138  
LOS ALAMITOS, CALIFORNIA 90720

Calibration Laboratory CL-122

has demonstrated compliance with the ANS/ISO/IEC Standard 17025:2005, *General criteria for the competence of testing and calibration laboratories*, and has been accredited commencing April 1, 2009, for the calibration discipline(s) listed in the approved scope of accreditation. The laboratory meets requirements of the IAS program requirements in the field of calibration.



Patrick V. McCullen  
Vice President



C. P. Ramani, P.E.  
President

*(see attached scope of accreditation for fields of testing and accredited test methods)*

Print Date: 04/16/2009

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This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation, revocation, or expiration of accreditation. See the IAS Accreditation Listings on the web at [www.iasonline.org](http://www.iasonline.org) for current accreditation information, or contact IAS directly at (562) 699-0541.

# International Accreditation Service

## SCOPE OF ACCREDITATION

Dick Munns Company CL-122

Dick Munns Company  
10572 Calle Lee, Unit 138  
Los Alamitos, CA 90720

Pablo Acosta  
Quality Manager  
714-827-1215

MEASUREMENT AREA	RANGE & RESOLUTION	BEST MEASUREMENT CAPABILITY <sup>1</sup> (BMC) (±)	TECHNIQUE, REFERENCE STANDARD, EQUIPMENT
<b>Flow rate by Volume (H<sub>2</sub>O or Hydrocarbon)</b>	0.002 to 1.0 gpm	0.168 % Reading	DMC Standard A-6
Turbine meters	0.002 to 0.5 gpm	0.168 % Reading	DMC Standard A-7
PD meters	0.2 to 1.0 gpm	0.158 % Reading	DMC Standard A-10
Mag meters	0.3 to 5.0 gpm	0.158 % Reading	DMC Standard A-28
Rotometers	0.5 to 15 gpm	0.152 % Reading	DMC Standard A-33
Vortex meters	5.0 to 25 gpm	0.158 % Reading	DMC Standard A-33
	5.0 to 50 gpm	0.151 % Reading	DMC Standard A-14
	10 to 100 gpm	0.150 % Reading	DMC Standard A-710
	>100 to 600 gpm	0.200 % Reading	DMC Standard A-710
<b>Flow rate by Mass per min</b>	0 – 4000 grams(0 – 4kg)	0.1% Full Scale	DMC Standard A-322
	0 – 12000 grams(0 – 12kg)	0.23% Reading	DMC Standard A-70
	10 – 250 lbs	0.07% Reading	DMC Standard A-50
	100 – 1000 lbs	0.08% Full Scale	DMC Standard A-264

April 1, 2009  
Commencement Date



C. P. Ramani, P.E.  
President

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<b>Flow rate by volume for compressible gas</b>	0.005 – 0.090 A Lit per min	0.194% Reading	DMC Standard A-100
	0.060 – 1.2 A Lit per min	0.192% Reading	DMC Standard A-1
	0.200 – 12.0 A Lit per min	0.172% Reading	DMC Standard A-2
	12.1 – 25.0 A Lit per min	0.185% Reading	DMC Standard A-3
	0.200 – 10.0 A Cft per min	0.190% Reading	DMC Standard A-4
	10.0 – 25 .0 A Cft per min	0.199% Reading	DMC Standard A-4
	25.0 – 50.0 A Cft per min	0.225% Reading	DMC Standard A-4
	2.0 – 150.0 A Cft per min	0.186% Reading	DMC Standard A-5
	160 – 250.0 A Cft per min	0.192% Reading	DMC Standard A-5
250 – 1200 A Cft per min	0.212% Reading	DMC Standard A-5	
<b>Flow rate by volume (Transfer Standard)</b>	1 - 1800 cc per minute	0.8 % Reading	DMC Standard A-8 Max Machine
	0.003 - 2.64 gpm	0.8 % Reading	DMC Standard A-78
	0.020 - 9.25 gpm	0.8 % Reading	DMC Standard A-61
	0.150 - 26.4 gpm	0.8 % Reading	DMC Standard A-58
	0.500 - 50.0 gpm	0.8 % Reading	DMC Standard A-99
	0.500 - 100.0 gpm	0.8 % Reading	DMC Standard A-69
	10 - 600.0 gpm	0.8 % Reading	DMC Standard A-300 Turbine

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<b>Flow rate by volume (Transfer Standard)</b>	<b>Secondary Air Flow</b>		
	10-120 ACFM	0.38% Reading	DMC Standard A-297
	20-14000 FPM	0.50% Reading	DMC Standard A-197
Mass Velometer	50-8000 ACFM	0.86% Reading	DMC Std A-220 (12"wind tunnel)
Vane Anemometer	50-8000 FPM	0.69% Reading	DMC Std A-69 (12"wind tunnel)
<b>Flow rate by mass per min</b>	<b>10 – 250 lbs</b>	<b>0.1 % Reading</b>	<b>DMC Standard A-50</b>

<sup>1</sup> "Best Measurement Capability" is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or of nearly ideal measuring instruments. Best Measurement Capabilities are expressed as uncertainties at approximately the 95% level of confidence, usually using a coverage factor of  $k=2$ . The measurement uncertainty of a specific calibration performed by the laboratory may be greater than the least uncertainty due to the behavior of the customer's device, to the environment (if the calibration is performed in the field), and to influences from the circumstances of the specific calibration.

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