

MEDIA RELEASE

SINGAPORE'S FIRST FACILITY THAT TESTS FORCE MEASURING INSTRUMENTS UP TO 20 MEGA-NEWTONS OPENS

10 December 2015 – Singapore - Malayan Daching Co Pte Ltd (MDC) announced the opening of their new force measuring instruments testing and calibration laboratory today, with the support of A*STAR's National Metrology Centre (NMC) and SPRING Singapore.

This is the first laboratory in Singapore capable of testing force measuring instruments, load cells and hydraulic cylinders up to 20MN accredited under the Singapore Accreditation Council – Singapore Laboratory Accreditation Scheme (SAC-SINGLAS) accredited facilities. With SAC-SINGLAS accreditation, customers will have greater confidence in the laboratory's test and calibration results and reports, as it indicates that the laboratory has undergone stringent assessment by SAC, an impartial third party to verify the competence and credibility of its testing and methods. The testing capacity of up to 20MN is among the highest worldwide. Details of the laboratory can be found in [Annex A](#).

With the opening of this new laboratory, industries such as oil and gas, marine and offshore, construction, or heavy engineering can now calibrate 20MN force transducers locally, instead of sending overseas, which is the current practice among these industries. This cuts down time required for calibration from two to four weeks to about one week. Productivity is also expected to increase by more than 50 per cent, with workers being freed up for deployment of other tasks.

The two specialized test frames and controls which facilitate the laboratory's new testing and calibration services were designed, installed and commissioned by MDC's in house engineering team, and with NMC as the principal metrological consultant. With MDC's strength in machine design and NMC's in-depth metrological expertise, the team collaborated to ensure that the reference force standard meets the specified requirements, and also conducted extensive testing and evaluation of the overall force calibration system. MDC also developed customised software to enable the testing and calibrating of high capacity force measuring instruments, load cells and hydraulic cylinders. With a fully computerized system, the entire calibration process will be automated.

MDC obtained the SAC-SINGLAS accreditation (more information can be found in [Annex B](#)) within a very short time period of six months, with the support from NMC. NMC establishes and maintains measurement standards at the highest level of accuracy and are recognised internationally. With this accreditation, industry users can be assured of high quality and standards of the services provided by MDC.

The setting up of this new facility was also made possible with SPRING's Capability Development Grant (CDG).

Mr Sim Sem Peng, Chairman of MDC said, “MDC is very grateful to SPRING and NMC for their full support to make this project a dream come true for us. With this new laboratory, MDC has taken another big step forward in expanding our scope of laboratory services.”

Dr Thomas Liew, Executive Director of NMC said, “We are glad to partner MDC in developing and making available this accredited, accurate and very high force calibration and testing facility to meet the demanding needs of the industry. The facility will shorten significantly the turnaround time for such calibration and testing, and would give Singapore companies the competitive advantage in building larger and safer mechanical structures and machines.”

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For media queries and clarifications, please contact:

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Enclosed

Annex A – Fact Sheet about the New Laboratory

Annex B – Information on SAC-SINGLAS

Annex A

Fact Sheet about the New Laboratory

This new laboratory is capable of testing and calibrating force measuring instruments, load cells and hydraulic cylinders of capacity up to 20 Mega-Newtons (MN), with measurement uncertainty at as low as 0.27%.

This testing capacity of up to 20MN is among the highest worldwide accredited under ISO/IEC 17025:2005¹. The calibration procedures adopted are in close adherence to the ISO 376:2011² standards.

The laboratory is capable of testing force measuring instruments, load cells and hydraulic cylinders for the following ranges:

- 2 MN to 20 MN
- 1 MN to 10 MN
- 0.5 MN to 5 MN

The compression testing machines were calibrated by A*STAR's National Metrology Centre with the following grading:

- 2 MN to 20 MN: ISO 7500-1³ Class 0.5
- 1 MN to 9.5 MN: ISO 7500-1 Class 0.5
- 0.5 MN to 5 MN: ISO 7500-1 Class 0.5

This laboratory is located at 5 Tanjong Penjur Crescent, Singapore 608970.



(Left) Singapore's first 20 MN force calibration facility

¹ ISO/IEC 17025:2005: General requirements for the competence of testing and calibration laboratories

² ISO 376: Metallic materials - Calibration of force-proving instruments used for the verification of uniaxial testing machines

³ ISO 7500-1: Metallic materials - Verification of static uniaxial testing machines – Verification and calibration of the force-measuring system

Information on SAC-SINGLAS

The Singapore Laboratory Accreditation Scheme (SAC-SINGLAS) plays an important role in improving the business efficiency and competitiveness of local industries. Administered by the SAC, the scheme accredits laboratories that conduct tests, calibrations and measurements in a spectrum of fields.

The process of accreditation under SAC-SINGLAS assesses and recognises the technical competence and effective management processes of a professional service provider and its staff. The scheme started in November 1986 and aims to upgrade the standard of testing and calibration services in Singapore. The Singapore Accreditation Council (SAC) is the national authority for the independent accreditation of conformity assessment services, such as testing, calibration, certification and inspection. The industry-led SAC is managed under the aegis of SPRING Singapore. Through the strengthening of Singapore's accreditation and conformance infrastructure, as well as maintaining the impartiality, integrity and credibility of conformity assessment bodies in Singapore, SAC aims to enhance the competitiveness of Singapore enterprises and build trust in Singapore products and services.

About Malayan Daching Co Pte Ltd

Founded in 1955, Malayan Daching Company (MDC) started off as a manufacturer of daching, a traditional Chinese weighing scale used widely in the early days for all sorts of trading. It also supplied and repaired other mechanical weighing scales. In late 1970s, it started to distribute electronic weighing scales in the local market and soon became a key player in the weighing industry. In 1988, MDC became the first weighing scale company to be accredited under SINGLAS (Singapore Laboratory Accreditation Scheme) in the field of Calibration and Measurement. MDC is also appointed by SPRING Singapore as an Authorised Verifier for Non-Automatic Weighing Instrument, Petrol, Diesel and CNG (Compressed Natural Gas) Dispensing Pumps.

While maintaining its strength in the Weights and Measures arena, MDC has since evolved into a multi-faceted engineering company offering a vast range of specialised services. Besides supplying various weighing, weighing related, quality-control, packaging and processing equipment, it has a team of competent professionals to provide Plant Concept Design, Process Automation & Control System, Process Equipment Integration, Project Management, Building & Construction services. In short, MDC is able to provide Design & Build and Total Solution services for companies in different industries.

To date MDC has achieved accreditation in ISO/IEC 17025:2005, and certifications in ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, WSHC's bizSAFE STAR and BCA's GGBS (Green & Gracious Building Scheme). These achievements affirm its commitment to providing quality services, maintaining a sustainable environment, and creating a safe workplace for both its employees and the general public.

In recent years, MDC has diversified its operation and added 3 new subsidiaries:

1. Metall-Treat Industries Pte Ltd (MTI): It specialises in surface treatment services and caters to the needs of the oil & gas, aerospace and other industries that require specific surface treatment to their products and equipment.
2. Ban Guan Chemical Pte Ltd (BGC): It specialises in trading and re-packaging of lubricants, chemicals and chemical additives.
3. MDC Tech Centre Pte Ltd (MTC): This force measurement laboratory specialises in the testing and calibration of high-capacity force transducers and customised ultra-heavy weighing services.

In 2015, BGC set up a new joint-venture company with BRB International BV, named Viscotech Asia Pte Ltd (VAPL). VAPL specialises in the production of Viscosity Index improvers for the chemical and chemical additives industry. With this joint venture, MDC has taken a major step in chemicals production and extended its reach to major industries in the global market.

For more information about MDC, please visit www.malayandaching.com