### SINGAPORE STANDARD

## Code of practice for bunker mass flow metering

– Part 1 : Meter selection and acceptance tests





**SS 648-1:2024** (ICS 01.140.30; 47.020)

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- Part 1: Meter selection and acceptance tests

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#### SS 648-1:2024

#### **Foreword**

This Singapore Standard was prepared by the Working Group on Bunker Mass Flow Metering set up by the Technical Committee on Bunkering (Ambient Liquids Fuels) under the purview of the Chemical Standards Committee.

This standard was first developed as TR 48:2015, "Technical Reference for bunker mass flow metering". TR 48 was reviewed to further its development into SS 648:2019.

In this revision, SS 648 was divided into two parts under the general title, "Code of practice for bunker mass flow metering" based on pre-approval and post approval processes:

- Part 1: Meter selection and acceptance tests
- Part 2: Technical requirements and procedures

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all such patent rights.

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# Code of practice for bunker mass flow metering – Part 1 : Meter selection and acceptance tests

#### 0 Introduction

This Singapore Standard was developed for the benefit of the bunker industry in Singapore, comprising shipowners, operators, charterers, bunker suppliers, bunker craft operators and bunker surveyors. It is intended to enhance the efficiency of bunkering operations and promote best practices in the measurement and custody transfer of bunker fuel.

The purpose of SS 648-1 and SS 648-2 is to document and specify the principles, requirements and procedures for the approval and use of the Coriolis mass flow metering system (MFM system) in the determination of the bunker quantity delivered from the bunker tanker to the receiving vessel at the custody transfer point.

NOTE – This standard does not alter the contractual obligations of the parties involved in the bunker delivery.

#### 1 Scope

This standard specifies the process leading to the approval of the Coriolis mass flow metering system (MFM system) that is installed on bunker tankers for the transfer of bunkers to receiving vessels. It covers metering system selection, installation and acceptance test requirements before the MFM system can be used for bunker custody transfer.

#### 2 Normative references

The following referenced documents are indispensable for the application of this standard. For undated references, the latest edition of the referenced document (including any amendments) applies.

International Recommendation OIML R117	Dynamic measuring systems for liquids other than water
SS 600	Code of practice for bunkering by bunker tankers using tank gauging
SS 648-2	Code of practice for bunker mass flow metering – Part 2: Technical requirements and procedures