

# Rosemount™ TankMaster™ Mobile Inventory Management Software for tank gauging systems



- Access live inventory data – when and where you need it
- Get instant overview of all tanks
- Easy-to-use web application optimized for computer, tablet, and smartphone
- Cyber secure solution
- Create and distribute multiple types of reports
- Reduce language barriers with support for translations

# Get immediate access to inventory data

Rosemount TankMaster Mobile is an application for remote monitoring of tank farms. It’s an add-on to the Rosemount TankMaster Inventory Management software, adding mobility, sharing, and networking.

TankMaster Mobile provides operational information available whenever and wherever you need it:

- Instant overview of your tank farm and fast drill down to details
- Quick and easy to use
- For smartphone, tablet, and computer
- Share tank information internally and/or externally



Greater access to up-to-date tank inventory data is essential for an increasing number of job functions, such as personell out in the field, sales/finance, and people beyond the boundaries of the plant.

## Maintain cyber security at all times

- Compliant with IEC 62443-3-3
- Transport Layer Security (TLS) encrypted communication
- Two-factor sign-in

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# Ordering information

## Model codes

Model codes contain the details related to each product. Exact model codes will vary; an example of a typical model code is shown in [Figure 1](#).

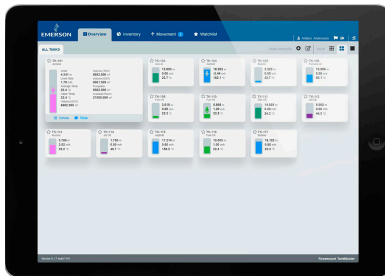
### Figure 1: Model Code Example

TMM PL S 050 C10 S03

1                      2

1. Required model components (choices available on most)
2. Additional options (variety of features and functions that may be added to products)

## Rosemount TankMaster Mobile Inventory Management Software



- Instant overview of your tank farm
- For smartphone, tablet, and computer
- Quick and easy to use
- Cyber secure
- [TankMaster Service Center](#) portal – license management and software download

**VIEW PRODUCT >**

### Required model components

#### Model

Code	Description
TMM	TankMaster Mobile Inventory Management Software

#### Server license

Code	Description
PL	Perpetual - local hosted server

#### Features

Code	Description
L	Lite
S	Standard
P	Premium

#### Related information

[Feature packages](#)

#### Number of tanks

Code	Description
010	10 tanks
020	20 tanks
030	30 tanks
040	40 tanks
050	50 tanks
060	60 tanks
070	70 tanks
080	80 tanks
090	90 tanks
100	100 tanks

Code	Description
150	150 tanks
200	200 tanks

**Concurrent users**

Code	Description
C05	5 concurrent users
C10	10 concurrent users
C15	15 concurrent users
C20	20 concurrent users
C25	25 concurrent users
C30	30 concurrent users

**Software update subscription**

One year (code S01) always included at purchase.

Keep up to date with latest software enhancements.

Code	Description
S01	1 year software update
S03	3 years software update
S05	5 years software update

**Related information**

[TankMaster Service Center](#)

# Specifications

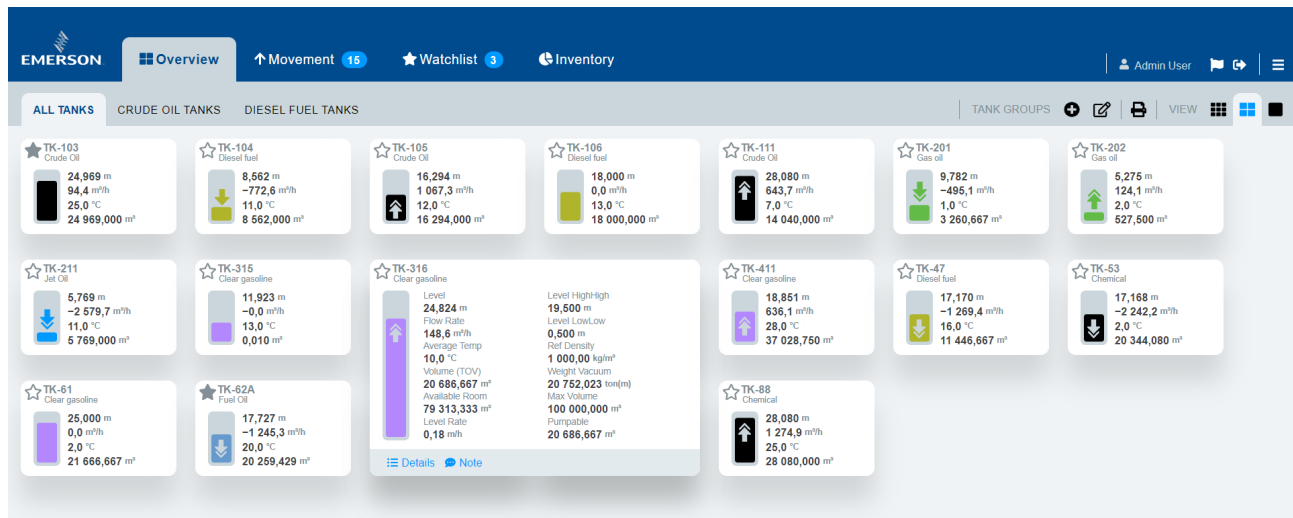
## View tank data

TankMaster Mobile supports responsive design for desktop, tablets, and smartphones, optimized for touch screens. Tank cards and windows adapt to different screen sizes, as program windows are rescaled and resized.

TankMaster Mobile gives a clear overview of all tanks. The application provides several tools for efficient tank monitoring:

- User-friendly overview of tanks
- Each tank presented with a tank card
- Tanks can be organized in groups
- Customize which tank variables to be displayed
- Tank movements based on desired flow rate limits
- Use watchlists to monitor tanks of special interest
- Clear overview of the tank inventory
- Printout function

Figure 2: Overview of All Tanks

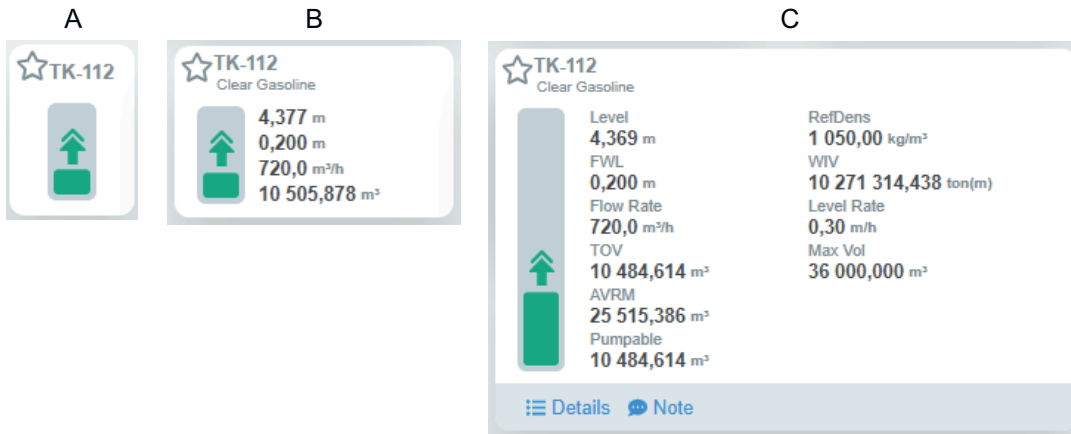


### Tank cards

Tank data is presented on tank cards of various size; small, medium, and large. The tank cards can be customized by the user, selecting which variables to be displayed.

- Small tank cards show tank name and a bar graph that represents current product level.
- More tank data such as; product level, level rate, temperature, and volume is presented on medium size tank cards.
- The large tank cards present extended information including up to 12 tank variables.

Figure 3: Tank Card Sizes

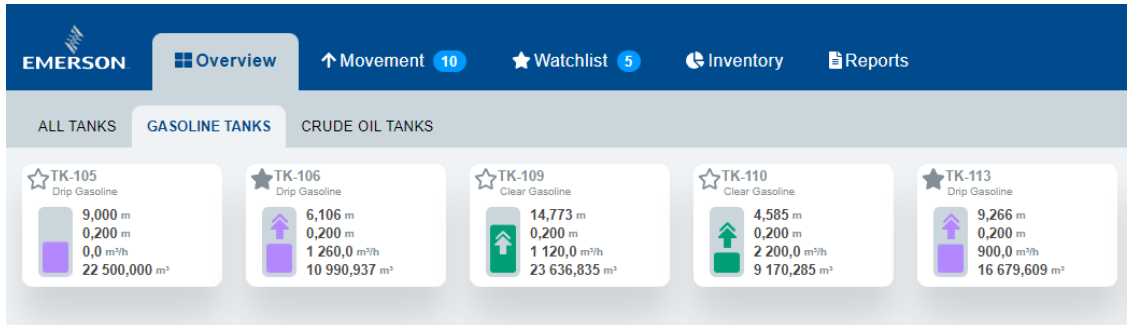


- A. Small tank card
- B. Medium tank card
- C. Large tank card

### Tank groups

Tanks can be organized in customized groups for viewing a subset of all tanks. These groups are defined according to user preference, such as location, product type, or other concepts.

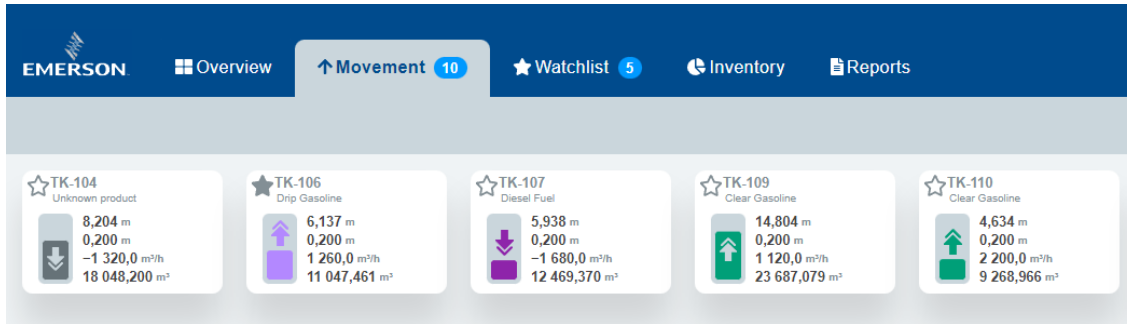
Figure 4: Example of Tank Group for a Certain Product



**Movement**

The Movement view displays only those tanks in which the product level is moving, see Figure 5. This view is dynamic and tanks may appear and disappear depending on the current status. Product movement is indicated by a symbol (arrow) on the tank card showing direction and minor or major flow rate.

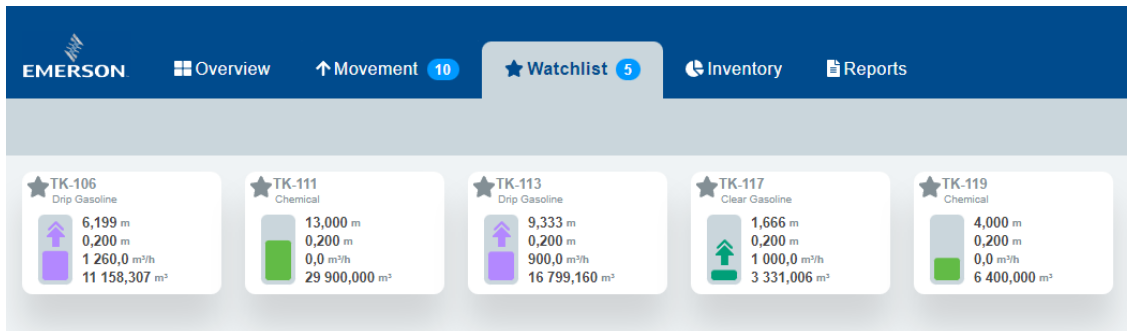
**Figure 5: Movement**



**Watchlist**

The watchlist view is used to monitor tanks of temporary special interest, as shown in Figure 6. Tanks can be added to the watchlist in any view or tank card. The star symbol indicates whether the tank is included in the watchlist or not.

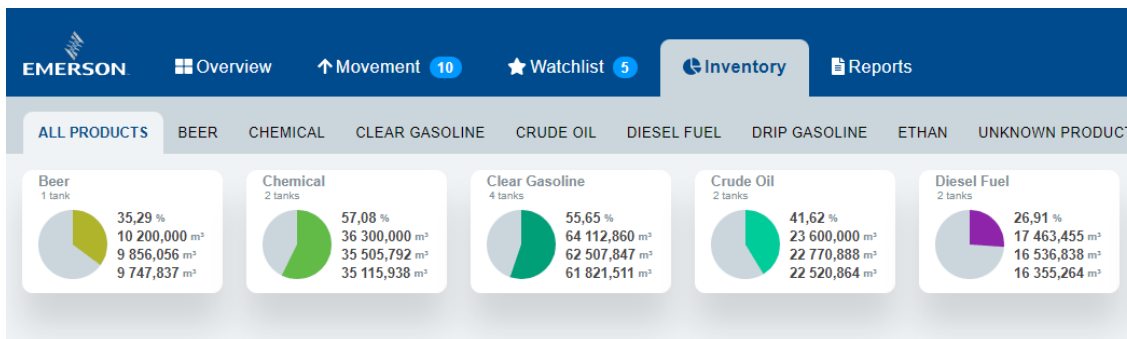
**Figure 6: Watchlist**



**Inventory**

Inventory view displays the consolidated inventory of each of the different products stored in the tanks for an easy overview of the tank inventory. It includes an overview showing aggregated values per product, and complementary views grouping the individual tanks by product.

**Figure 7: Inventory**





### Reports

The reports view let you configure, view, and export log- and mass balance reports with option to show inventory difference between reports.

Reports can be generated on demand and be distributed to printers and network disks in both .pdf and .csv formats. With the Extended Reports feature you can schedule automatic report generation and distribution with an added option to distribute via email.

Figure 8: Reports

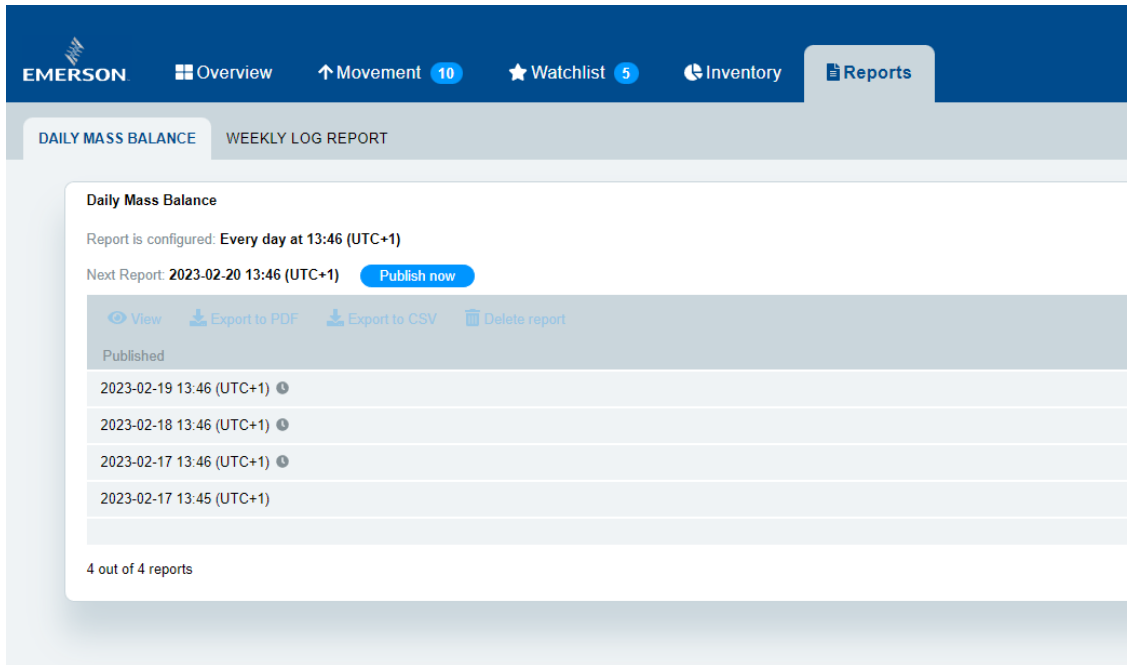


Figure 9: Weekly Log Report

WEEKLY LOG REPORT							Published: 2023-03-06 09:00:00 (UTC)
							Delta (Δ) compared to: 2023-03-13 09:00:00 (UTC)
Tank	Product	Level [m]	Δ Level [m]	Avg Temp [°C]	NSV [m³]	RefDens [kg/m³]	
TK-105	Clear Gasoline	9.000	0.000	20.2	15487.866	1050.00	
TK-106	Clear Gasoline	10.000	0.000	20.2	20122.492	1050.00	
TK-113	Clear Gasoline	7.000	0.000	20.2	14627.429	1050.00	
<b>Total</b>	Clear Gasoline	n/a	n/a	n/a	50237.787	n/a	
TK-107	Chemical	6.535	0.350	22.2	14867.115	1050.00	
TK-114	Chemical	4.000	0.000	22.2	9288.808	1050.00	
TK-115	Chemical	12.000	0.000	22.2	19614.052	1050.00	
<b>Total</b>	Chemical	n/a	n/a	n/a	43769.975	n/a	
TK-109	Drip Gasoline	5.791	-0.279	20.2	10934.040	1050.00	
TK-117	Drip Gasoline	5.000	0.000	20.2	10794.573	1050.00	
<b>Total</b>	Drip Gasoline	n/a	n/a	n/a	21728.613	n/a	
TK-110	Diesel Fuel	10.622	0.500	17.1	23437.968	1050.00	
TK-111	Diesel Fuel	3.811	0.250	17.1	5296.168	1050.00	
TK-118	Diesel Fuel	8.000	0.000	17.1	12202.561	1050.00	
TK-119	Diesel Fuel	13.984	0.550	17.1	25608.019	1050.00	
<b>Total</b>	Diesel Fuel	n/a	n/a	n/a	66544.716	n/a	

## Settings

### User settings

The user can edit personal account information as well as change password and configure notification subscriptions. Tank groups can be created, edited, or removed.

### Administration mode

The system administrator can manage system settings such as connecting to tank servers and application servers. In addition to that, administration mode allows you to create user groups with different privileges to view tanks and tank variables.

#### Note

The administration mode is not available for the smartphone web application.

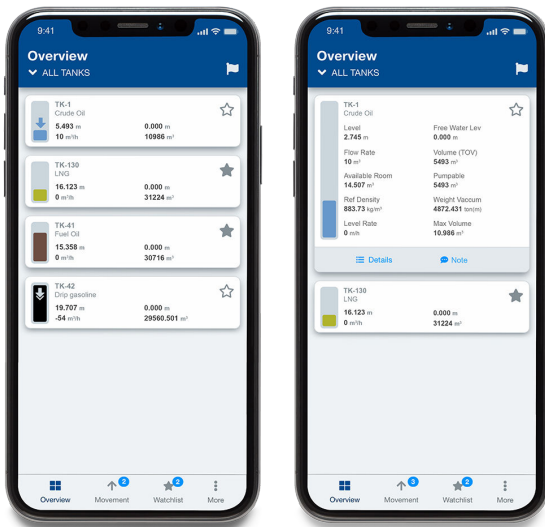
### Language

TankMaster Mobile comes with the following nine standard languages: English (default), German, French, Italian, Spanish, Portuguese (Brazil), Chinese, Japanese, and Korean. In addition, it can be translated to any language. TankMaster Mobile allows users to individually choose their preferred language, for cross regional use.

## Smartphone web application

The smartphone Web App has the same features as the desktop Web App, except for the administration mode.

**Figure 10: The Smartphone Web App Overview View**



TankMaster Mobile uses the Progressive Web App (PWA) technology, meaning it will work across many devices and platforms. You don't need to install the application, just go to the URL and store it as your smartphone home page.

## Feature packages

There are three different features packages available; Lite, Standard, and Premium.

Table 1 displays the features included in each package.

**Table 1: Feature packages**

Feature	Lite	Standard	Premium	Description
Desktop web app	✓	✓	✓	Web Application for PC
Mobile web app	✓	✓	✓	Web Application for smartphones and tablets
Overview	✓	✓	✓	Overview of all tanks
Detailed view	✓	✓	✓	Detailed Tank view of inventory and measurement data
Tank notes	✓	✓	✓	Attach editable notes for each tank
Watchlist view	✓	✓	✓	Group of favorite tanks for specific monitoring
Print view	✓	✓	✓	Print the contents of the current view on a pre-defined template
Movement view	-	✓	✓	Automatic group view of tanks with movement
User defined tank groups	-	✓	✓	Possibility to group tanks according to own interest
Reports	-	✓	✓	Generate on demand log- and massbalance reports of tank inventory based on product type and/or tank group
Extended reports	-	-	✓	Schedule automatic generation of reports for print of export to file and/or email
Product inventory view	-	-	✓	Automatic group view and summary based on Product category
Remote connectivity via cloud <sup>(1)</sup>	-	-	✓	Built-in solution for external users to connect via secure cloud service

(1) Available in future release. Annual subscription fee to be added.

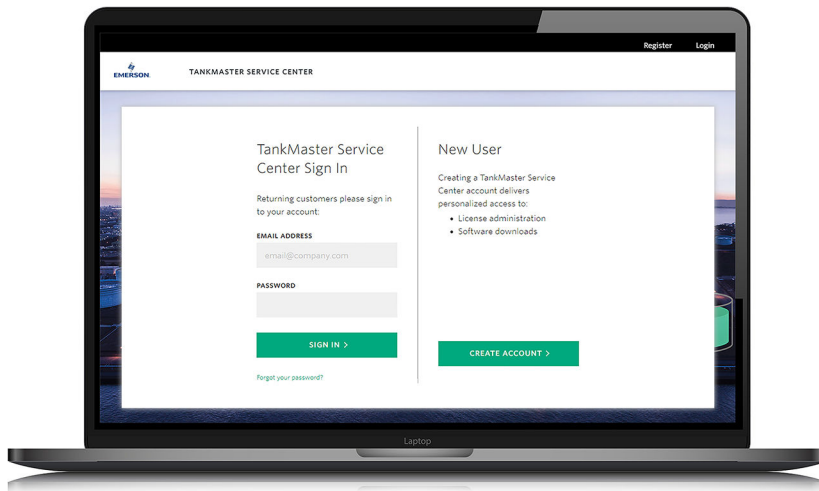
## TankMaster Service Center

The [TankMaster Service Center](#) portal gives the user access to license management and software updates for download. The user gets automatic notifications when a new update is available or the subscription is about to expire.

The portal provides the following options:

- Register user and software license
- Activate software license or transfer the license to a new server
- Download latest software version

**Figure 11: TankMaster Service Center Sign In**



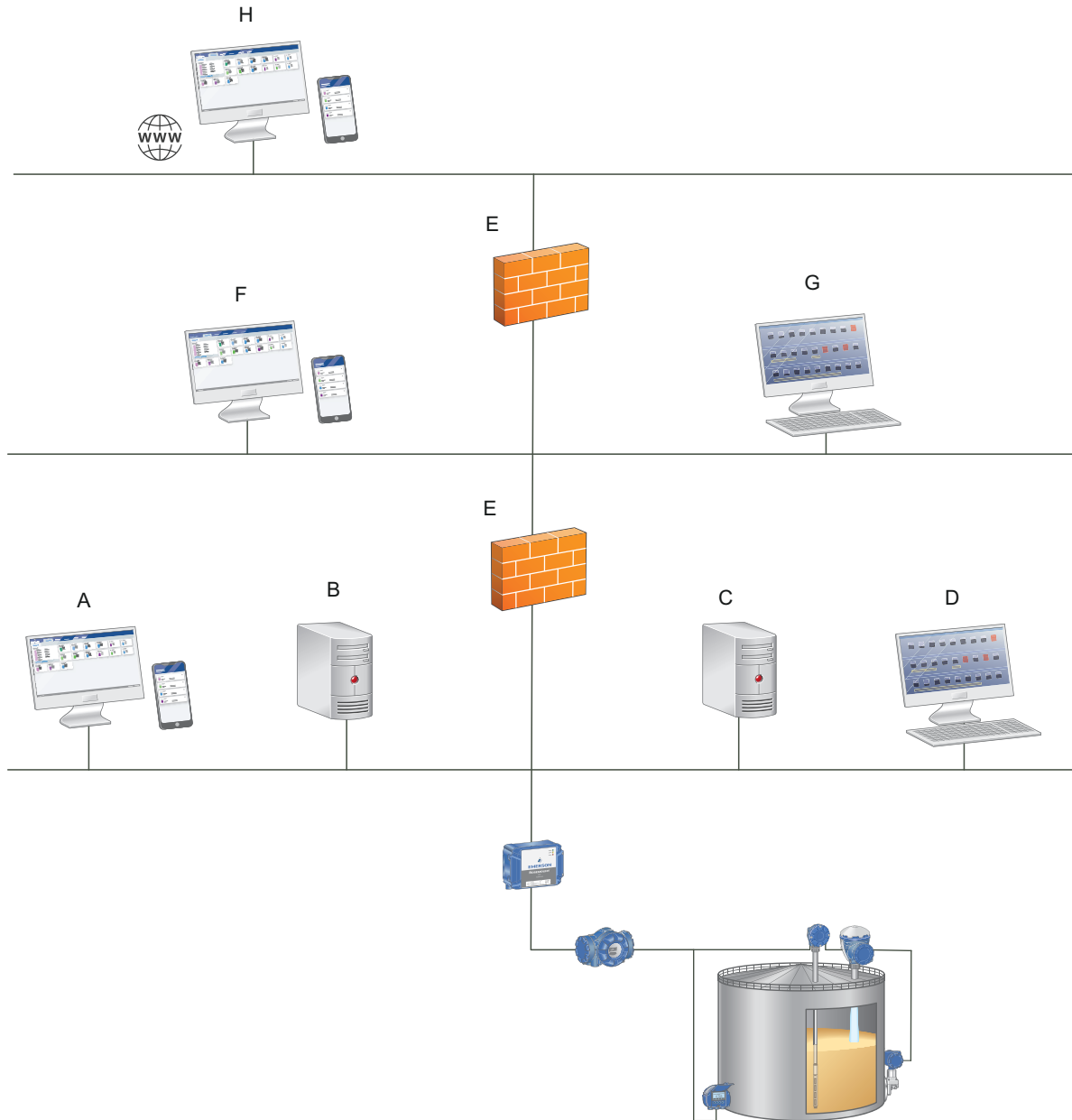
## System architecture

Rosemount TankMaster Mobile is an application for remote monitoring of tank farms, designed for standard web browsers, tablets, and smartphones. The application connects with tank servers operating on dedicated servers with the Rosemount TankMaster Inventory Management Software. Refer to [Figure 12](#) for an overview of the TankMaster Mobile system architecture.

The Tank server is part of the existing Rosemount TankMaster system. It manages all measurement data and status information for the connected devices.

The Tank server connector is a software service that interfaces between the existing tank server and the new mobile server. The Tank server connector must be installed on the Tank server.

Figure 12: System Architecture



- A. TankMaster Mobile web application
- B. TankMaster Mobile server
- C. Tank server
- D. TankMaster WinOpi/WinSetup
- E. Firewall
- F. TankMaster Mobile web application (Ethernet)
- G. TankMaster WinOpi (Ethernet)
- H. TankMaster Mobile web application (VPN connection)

## Cyber security

Rosemount TankMaster Mobile is designed to meet applicable requirements for network and system security in international standard IEC 62443-3-3. Its design is based on a three-tier architecture which constitute separate security zones and all the data transported is encrypted using Transport Layer Security protocol. TankMaster Mobile also supports two-factor log-in to help ensure only authorized users can access the system.

## System requirements

Hardware and software requirements for TankMaster Mobile server.

### Version

<b>TankMaster Mobile</b>	1.4.0
<b>Tank Server Connector</b>	3.0.0
<b>Docker</b>	20.10.13

### Hardware

- 64-bit processor
- Intel® i7 processor or similar (minimum 8 cores)
- Internal memory (RAM): Minimum 32 GB
- Hard disk drive:
  - Minimum: 100 GB free disk space
  - Recommended: 256 GB
- Minimum screen resolution: 1280 x 1024

### Software

- Microsoft® Windows Server 2019, English (United States) based Standard Desktop Experience version 1809 OS Build 17763.2300 or later.

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#### Important

Ensure that English version of Microsoft® Windows is used on the TankMaster Mobile server.

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- Firewall: open appropriate ports on the TankMaster Mobile server
- Supported web browsers for Microsoft Windows: Chrome<sup>(1)</sup>
- Supported web browsers on Android devices: Chrome<sup>(1)</sup>
- Supported web browsers on iOS devices: Safari<sup>(1)</sup>

### TankMaster

The following requirements refer to the server machine that hosts the TankMaster Tank Server and the Tank Server Connector:

- TankMaster version 6.G0 and higher for TankMaster Mobile version 1.4.0.

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(1) Latest version is recommended



For more information: [Emerson.com](https://www.emerson.com)

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