

**MARICHEM**

WORLDWIDE

**M**

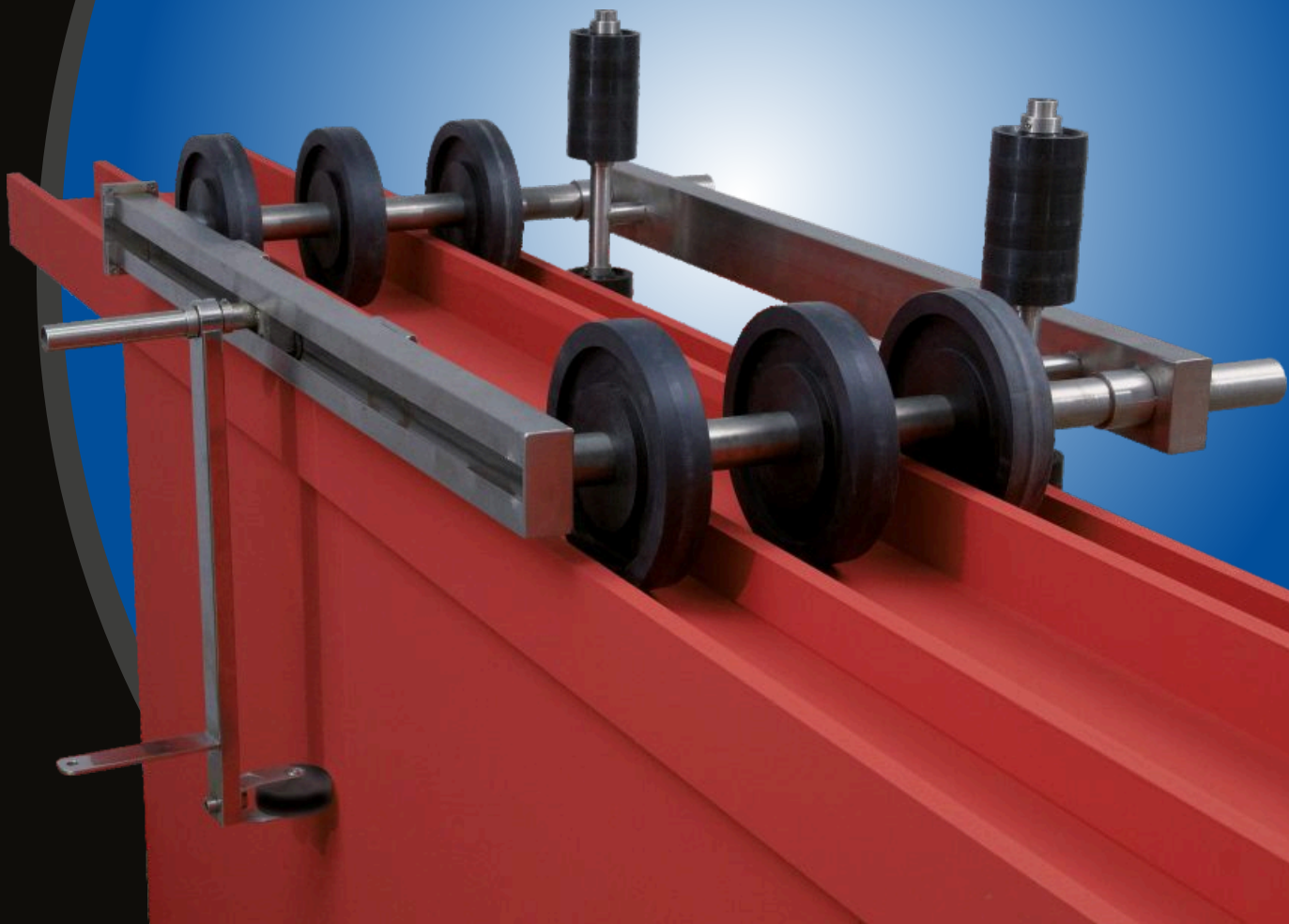
**MARIGASES**®

SERVICES

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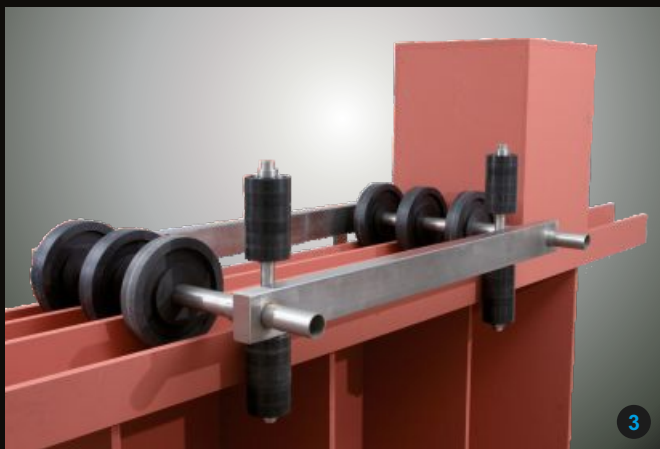
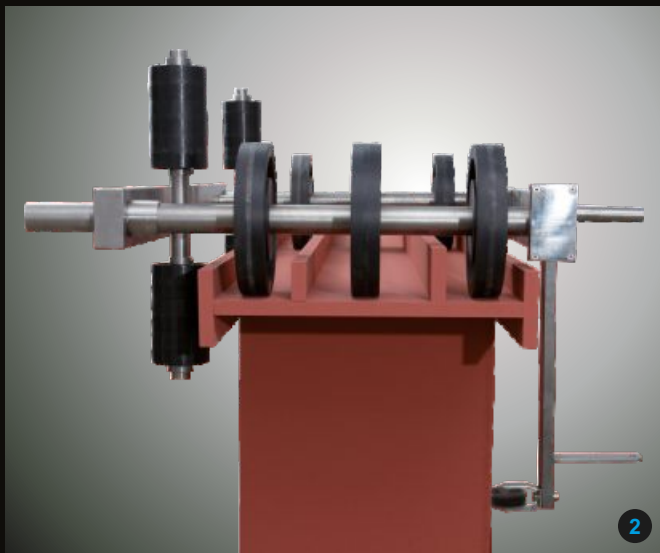
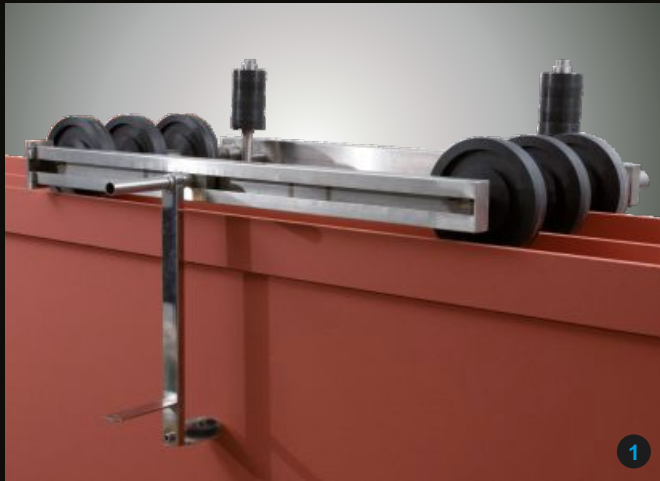
## **MARICHEM Hold Cleaning Systems**

**Model MHCS 200**



The ultimate  
cargo hold  
cleaning  
innovation

- Spraying chemicals on any location in cargo hold
- No matter how high
- Easy and quick to use
- Maximizing cleaning effectiveness
- Considerable reduction of chemical consumption



## MARICHEM HOLD CLEANING SYSTEM 200

**MARICHEM MARIGASES Worldwide Services**, your global partner for successful shipping, introduces the **MARICHEM Hold Cleaning System 200** ( the improved version), a special innovation for most types of cargo holds. This unique device is used in combination with chemical products.

“**M.H.C.S. 200**” is the one & only device that utilizes the actual construction of most types of hatch coamings, in order to offer optimum results for an easy, effective and quick cargo hold chemical cleaning. “**M.H.C.S. 200**” has the Patent Application Number 20070100096 of O.B.I.

### FEATURES & BENEFITS

- Light in weight
- Quick & Simple
- Easy to carry
- Easy to install
- Simple in operation
- Adjusted (by the user) to each type of hatch coaming
- Cost effective
- Minimizing the chemical consumption
- Environmentally friendly device

The “**M.H.C.S.200**” consists of:

- ROLLING CARRIER
- HANGING DEVICE
- ADJUSTABLE CHEMICAL PIPING
- CHEMICAL PUMP

### ROLLING CARRIER

A stainless and acid proof unit designed to move manually on self adjusted wheels across the channels of hatch coamings. Safety side wheels secure a safe operation of the rolling carrier throughout the hold cleaning operation (photos 1, 2,3).

### HANGING DEVICE

A wire system enabling the chemical spraying pipe to be kept by the user at the desired angle. The HANGING DEVICE can handle a spraying pipe of adjustable length, up to maximum 20 meters (as per scheme on next page).

### ADJUSTABLE CHEMICAL PIPING

A piping system consisted of an acid proof pipe guiding the chemical spraying hose to the proper location in the cargo hold. Depending on the size of cargo holds, the length of the CHEMICAL PIPING can be adjusted between 2 to 20 meters.

### CHEMICAL PUMP UNIT

Contains an air operated - acid proof diaphragm pump installed on a stainless basis with connections to air & chemical supply on the front panel (photo 4) enabling the chemical to be sprayed on steel surfaces at any height in cargo holds.

## MARICHEM H.C.S. 200: Instructions for use

### 1. Installing the ROLLING CARRIER

- Secure the Hatch Cover of the Cargo Hold at the OPEN position.
- Ensure that the channels of hatch coaming are thoroughly cleaned from any substances which could obstruct the uninterrupted movement of the ROLLING CARRIER.
- Place the ROLLING CARRIER in the channel on either starboard, port, fore or aft side of the hatch coaming with self adjustable wheels freely moving within the channels / bars of the hatch coaming and fix the adjusting bolts securely (photo 1). Secure the hanging arm (cargo hold side) to succeed a continuous contact of the horizontal wheel with the inner side of hatch coaming (photo 2). Adjust the side of the ROLLING CARRIER to succeed a continuous contact of the side wheels on the side bar of the hatch coaming (photo 3).

### 2. Installing the HANGING DEVICE

- Calculate the maximum height that needs to be reached in cargo hold and choose equivalent lengths of guide pipe line and spraying hose.
- Lower the above items down the cargo hold.
- Cover the full length of spraying hose with the 2m parts of guide pipe line and connect them to each other.
- Lower the HANGING DEVICE by slacking the wire block manually down the cargo hold.
- Connect the edges of the HANGING DEVICE with the guide pipe line at the indicated colored connections (red to red, yellow to yellow, blue to blue, green to green). Connect the spray nozzles pipe at the upper end of the spraying hose.

Check all connections to be safely secured.

### 3. Connecting the CHEMICAL PUMP

Using a high pressure hose at a desired length, fix the one end to the supply connection of the CHEMICAL PUMP and the other to the gun handle at the lower end of chemical pipe. The pump's suction should be connected to a polypropylene hose with the other end of the hose in the drum with chemical.

### 4. M.H.C.S.200 is now ready to operate

Using manually the hoisting block and the ROLLING CARRIER, any position in the cargo hold is accessible to be sprayed with cleaning chemical.

### 5. "Turn over motion"

In case permanent constructions on hatch coamings obstruct the free movement of the MHCS 200, the ROLLING CARRIER can pass over them with a patented "turn over motion" up to 60cm high (photos 5, 6, 7, 8).

### 6. Rinsing off with high pressure.

Disconnect the spray nozzles pipe and connect the high pressure nozzle.

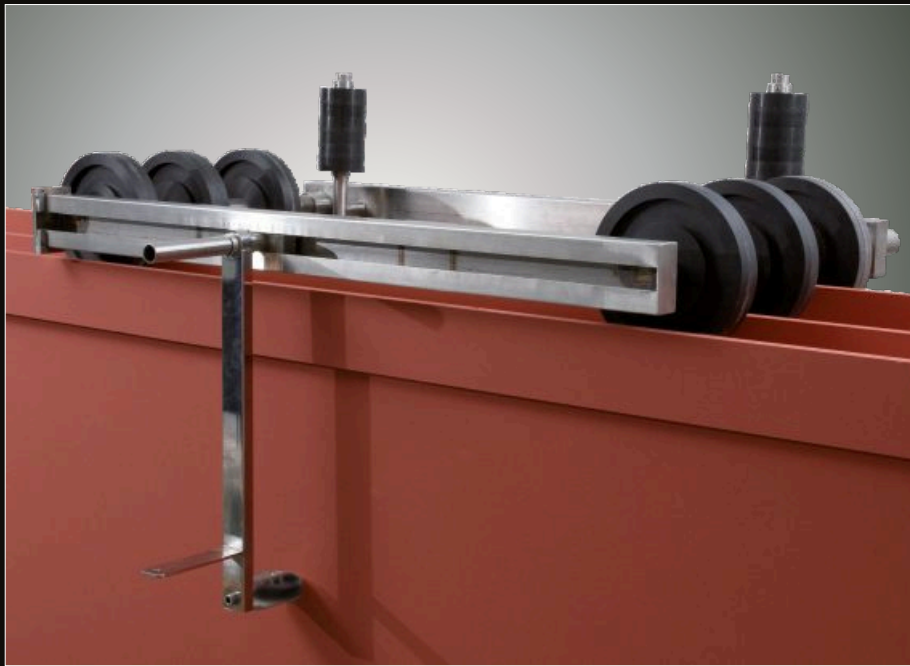
Disconnect the hose from the chemical pump and connect it to a water high pressure machine. Rinsing off procedure is succeeded by means of using the gun handle.

**MARICHEM  
HOLD CLEANING  
SYSTEM 200**



**MARICHEM  
HOLD CLEANING  
SYSTEM 200**

**Maximizing the effectiveness of chemical**  
**Eliminating the quantities of chemicals to the minimum possible**  
**Spraying simply and quickly**  
**Smooth operation through a patented ROLLING CARRIER**



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