

# Marine Scales

Fast, stable and reliable



- On-board weighing, packing and labeling
- Fast, accurate and flexible
- Robust, durable and hygienic
- Water-resistant to IP67 & IP69K standards

# Designed to withstand harsh conditions



## Flexible range for different needs

The Marel Marine Scales offer flexible weighing and packing with motion compensation designed for use on board fishing vessels and factory trawlers. This cost-effective series of compact and flexible marine scales ranges from the simple efficient M1100e weighing units to the high-end M2200 packing scales and hopper controllers.

## User-friendly

With a touch-sensitive yet tough, hardwearing keypad, the Marel Marine Scales are easy to operate. The large, easy-to-read displays ensure user-friendly operation. The scales come with either metric (kg, g) or avoirdupois (lbs, oz) weighing units, depending on the system required.



## Responsive and flexible

Super fast, stable and reliable, Marel Marine Scales are capable of accurately registering and recording weights in 0.5 – 1 sec. Marel Marine Scales can be operated from 110 – 230 VAC, 24 VDC or, in the case of the M1100 series, also by D-type batteries.

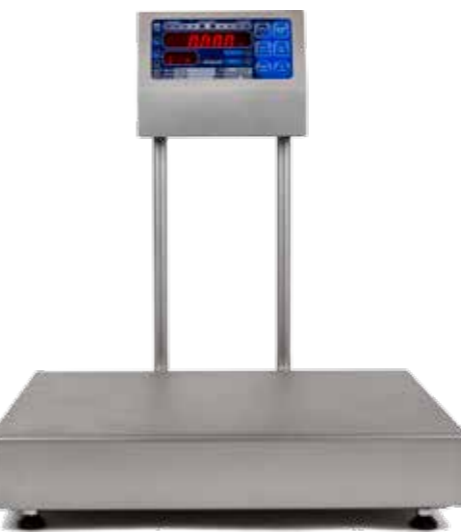


# Three different models of motion-compensated marine scales



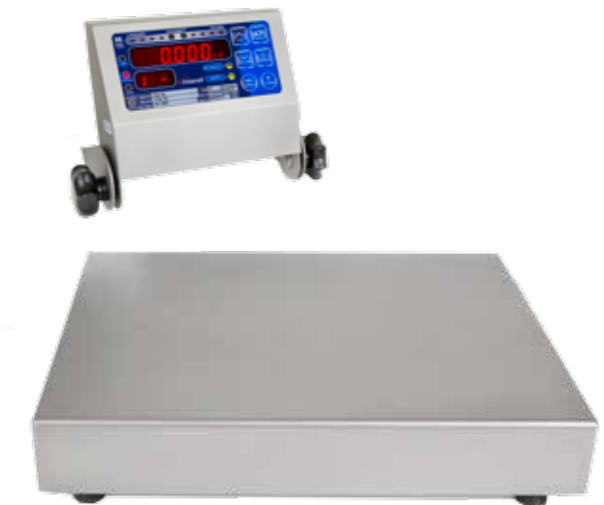
## ADVANCED *M2200*

- Division from: 0.5 g ( 3kg scale)
- On-board weighing, packing and labeling
- Range of grading programs
- Controls hoppers and conveyors
- Programmable on site
- Catch reporting and traceability
- Packing registrations: catch area, box number, haul number
- Display with under/overweight indicator
- TCP/IP network connections via Ethernet - CAN open and RS232 port
- Robust and hygienic 316 stainless steel design - IP67/ IP69K



## INTERMEDIATE *M1100*

- Division from: 0.5 g ( 3kg scale)
- On-board weighing, packing and grading
- Three types of grading modes
- Display with under/overweight indicator
- Robust and hygienic 316 stainless steel design - IP67/ IP69K



## BASIC *M1100e*

- Division from: 20 g (30 kg scale) & 50 g (60 kg scale)
- Fast, stable and reliable on-board weighing
- Robust and hygienic 316 stainless steel design - IP67/ IP69K

"We decided to go with Marel after looking into reliability and service and have used the Marel Scales for over a decade in the harsh trawler environment. Unlike scales from other manufacturers there have been no instances of malfunction."

*Aleksander I. Pokotilo, Chief of Production, JSC TURNIF*

## Smart applications

The M1100 and M2200 offer a selection of built-in packing and grading memories that add positive and reverse grading to their array of user applications. The scales are available as both single and dual-range scales, allowing for more accuracy in weighing lighter pieces when necessary.

## Hygienic and robust construction

Built from high-end components, the long-lasting construction of the Marel Marine Scales meets the strictest food processing industry standards. Sturdy and robust, the hygienic 316 stainless steel design is capable of enduring decades of daily wash down in the harsh conditions at sea. The scales are water-resistant to IP67 and IP69K standards, and their rounded edges and easy-to-clean surfaces are designed for maximum hygiene.

## Compatible with Innova Food Processing Software

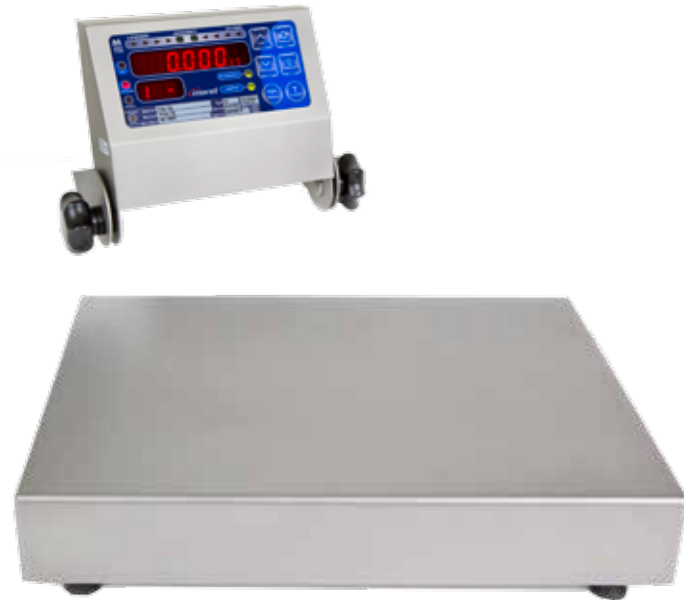
Innova enables processors to maximize yield and throughput, conform to quality standards and ensure food safety, with traceability built into every process step.



**INNOVA**  
Food Processing Software

# M1100e

## Simple, reliable on-board weighing



The M1100e marine scale is the latest in a long line of scales and weighing equipment that Marel has designed and quality manufactured to meet precise processing needs.

Closely based on the robust general-purpose Marel marine scales this M1100e scale is aimed specifically at the on-board market segment that wants a simple yet high quality scale.

The robust M1100e scales ensure very stable, fast and reliable weighing at sea. It incorporates a hygienic 316 stainless steel design that is water-resistant to IP67 and IP69K standards



Platform no.	PL 3220	PL 4220
Platform outer dimension	290x390mm 11.7x15.6 in	400x550mm 15.7x21.6 in
<b>Weighing range (accuracy)</b>		
0 - 30 kg (20 g)	x	
30 - 60 kg (50 g)		x
<b>M1100 mount and power</b>		
Wall mount main power	x	x
Wall mount DC power		x

# M1100

## Fast, accurate and extremely durable

Versatile, accurate and incredibly fast, the Marel M1100 series general-purpose grading and packing scale is designed to meet the need for a flexible, extremely robust scale in on-board processing.

- Designed to withstand the harsh conditions of a marine environment
- Easy to clean
- Weighing range of 1.5 kg to 150 kg
- Compact design and small footprint
- Single or dual-range operation
- Water-resistant to IP67 and IP69K standards

The Marel M1100 series provide accurate on-board catch weighing that reduces give-away and decreases turn-around times. The scales ensure improved efficiency, greater weighing accuracy and, improved catch quality. Linked by Marel software to a label printer and PC computer, this compact and cost-effective system enables skippers to land catches weighed, graded, boxed and labeled, ready for sale.



Platform no.	PL2220	PL2262	PL3220	PL3260	PL4220	PL5220	PL6038
Platform outer dimension	250x300mm 9.7x11.7 in	250x300mm 9.7x11.7 in	290x390mm 11.7x15.6 in	292x392mm 11.5x15.4 in	400x550mm 15.7x21.6 in	500x600mm 19.7x23.6 in	380x600mm 15x23.6 in
<b>Weighing range (accuracy)</b>							
1.5 - 3 kg (0.5 - 1 g) 1g accuracy 1,5-3kg	x	x					
3 - 6 kg (1 - 2 g) 2g accuracy 3-6kg	x	x					
6 - 15 kg (2 - 5 g) 5g accuracy 6-15kg	x	x	x				
15 - 30 kg (5 - 10 g) 10g accuracy 15-30kg		x	x				
30 - 60 kg (10 - 20 g) 20g accuracy 30-60kg				x	x	x	x
60 - 150 kg (20 - 50 g) 50g accuracy 60-150kg						x	
150 - 300 kg (50 - 100 g)						x	
<b>M1100 mount and power</b>							
Short pillar	x		x				
Long pillar	x		x		x	x	
Wall mount	x		x		x	x	x
Portable		x		x			
Ethernet + Mains	x	x	x	x	x	x	x
Ethernet + dc	x	x	x	x	x	x	x
Battery	x	x	x	x	x	x	

# M2200

## High-end grading and packing scales



### Built to endure

Designed for minimal maintenance, the M2200 is accurate, robust and highly stable. Suitable for use with a wide variety of weighing platforms or hoppers, the scale is custom designed to withstand the harsh conditions of a wash down environment. The M2200 is water-resistant to IP67 and IP69K standards, while its smooth, rounded edges and easy-to-clean surfaces are designed for maximum hygiene.

### Complete control

The M2200 can easily be connected to external devices such as printers, barcode readers and labeling equipment as well as network computer systems. The CAN interface also makes it simple to control relays and air valves. The series TCP/IP networking capabilities offer a complete overview of both weighing procedures and data as well as equipment control.

Suitable for a variety of packing operations the Marel M2200 is one of the fastest scales available. The versatile M2200 can control conveyors and packing hoppers. It connects to the industry standard CANopen network and has a built-in programming language for custom applications.

The M2200 connects to most types of label printers for labeling of catch products. Various label formats are stored in the scale or maintained from a PC computer. A variety of software applications are available for the M2200.

Platform no.	PL 2220	PL 3220	PL 4220	PL 5220	PL 6038
Platform outer dimension	250x300mm 9.7x11.7 in	290x390mm 11.7x15.6 in	400x550mm 15.7x21.6 in	500x600mm 19.7x23.6 in	380x600mm 15x23.6 in
<b>Weighing range (accuracy)</b>					
1.5 - 3 kg (0.5 - 1 g)	x				
3 - 6 kg (1 - 2 g)	x				
6 - 15 kg (2 - 5 g)	x	x			
15 - 30 kg (5 - 10 g)		x			
30 - 60 kg (10 - 20 g)			x	x	x
60 - 150 kg (20 - 50 g)				x	
150 - 300 kg (50 - 100 g)				x	
<b>M1100 mount and power</b>					
Wall mount	x	x	x	x	x
Ethernet + Mains	x	x	x	x	x
Ethernet + dc	x	x	x	x	x

## Complying with EU regulations for full traceability

The Innova MarinePack system from Marel is a purpose-built registration tool for any fishing vessel that needs to comply with EU fishing control and traceability regulations.

EU regulations include a 5% and 10% rule for fish caught at sea. The 5% rule stipulates that a maximum of 5% overweight in each box of fish is allowed when landed to the auction. The 10% rule allows a deviation of a maximum of 10% between the reported total live weight for each fish species and the actual weight found by government control officials. Innova MarinePack is able to register weights and ensure compliance with these parameters.

Innova MarinePack also supports and complies with the e-log book requirements for vessels longer than 12 meters. These vessels have to report through the e-log book, which is electronically reported to land authorities.

### Registration of fishing information at sea

Innova MarinePack is a hardware and software system for registering information about all fish species and grades, harbor, fishing gear and other information relevant for either a report or label. The core system comprises a scale, an indicator (M2200), a printer and the Innova MarinePack software module, and supports up to five packing stations.

### Packing of boxes below deck

The M2200 software offers personnel below deck a grading option by indicating which grade is placed on the scale. It is possible to delete a box that has been recorded and end a haul so the captain can see that a job has been finished. The M2200 controls the printer and keeps track of repacking incomplete boxes and labeling leftover fish.



### Key features

- Pre-set product and grade for species
- Pre-set language
- Large number of standard reports
- Manual or automatic tare setting
- Pre-designed label
- Label standard with box number
- Delete option for pack, re-pack and end-haul at the M2200 scale



Through its reports, Innova MarinePack provides an overview of catch value, packing history, cargo reports, and e-logs.



# Optimize Your Weighing Processes

## Innova Packing Lite

Most food processing plants need software to produce barcode labels for boxes meant for external distribution. They demand that the barcode labels contain more and more information for traceability purposes.

Innova Packing Lite offers a cost-efficient software solution for weighing and labeling outer cases. Innova Packing Lite works with Marel M1100 and M2200 indicators and supports up to five packing stations. The system comes with pre-defined label designs. Several fast and reliable standard reports, including packing lists, packing over and underweight and checkweighing are offered with Innova Packing Lite.

### System Set-Up



*More packing stations can be added*

## Innova Packing

The Innova Packing system is an advanced packing and labeling solution with full inventory, order processing and palletizing capabilities.

Innova Packing supports the Marel range of scales and terminals, ranging from simple stand-alone scales where minimal operator input is required to advanced IPC terminals where the operator can manage orders and pallets and key in various product parameters. With Innova packing it is possible to design pack, pallet and order labels using a visual label designer and attach individual or composite database fields to label fields. The system also supports printing reports instead of labels when, for example, an order is completed.

The Innova Packing system includes advanced order processing capabilities, meaning that a product can be packed to orders selected by the operator, or the system can automatically select an order based on order status and priority. Products not matching any orders can be recorded to inventory. All product parameters, including weight limits, pallet sizes, prices, expiry dates and label texts, can be overridden based on the selected order.

Packs can be assigned to pallets when they are recorded. Pallet information can be printed on pack labels, and pallet labels are automatically printed when the pallets are completed. Alternatively, pallets can be built afterwards by scanning individual pack labels. The system comes with a comprehensive set of pre-defined operations and additional ones can be customized and plugged in on-site.



Marel is the leading global provider of advanced equipment and systems for the fish, meat, and poultry industries.