

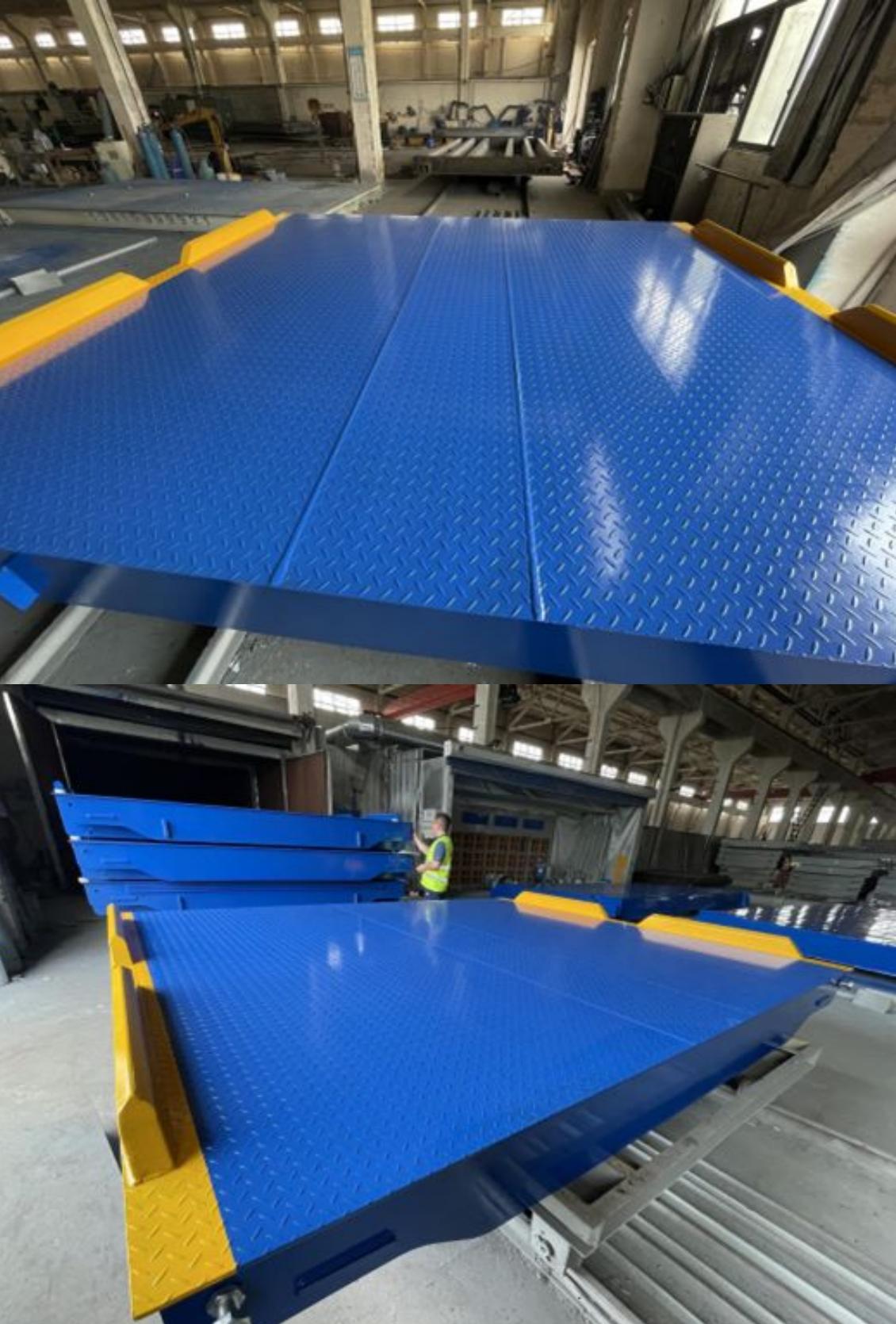


scalestech
— *Securing your profits!* —

MULTI-DECK WEIGHBRIDGE

This is not just another weighbridge it's a precision-built solution for modern logistics. Designed for 100-ton axle loads and a 22-meter span, this system combines strength, modular design, and smart load distribution to ensure performance where it matters most.

Unlike single-platform weighbridges, the multi-deck design splits the bridge into multiple independent sections (decks), allowing each axle group to be weighed separately. This enhances accuracy, helps identify overloading on specific axles, and ensures compliance with road safety regulations.



Scale Dimensions & Layout

Foundation : $125+2800+200+5800+200+6800+200+5800+125=22050$

Scale size : $3000+6000+7000+6000=22000$

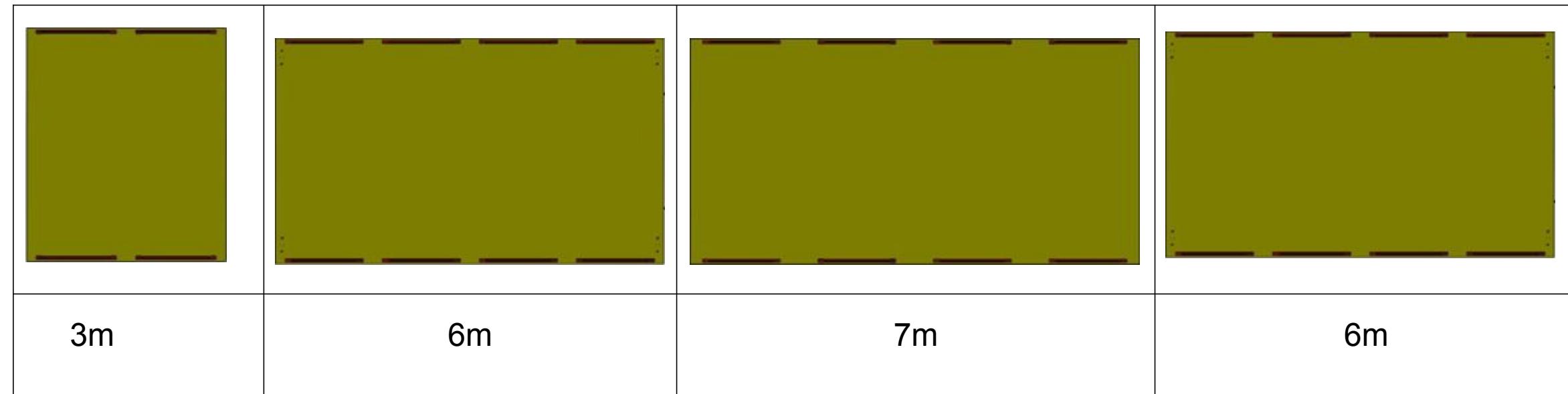
Plate : 12mm checker plate

Load Cell Configuration

- Long direction center distance: 2800, 5800, 6800, 5800mm
- Wide direction center distance: 2900mm
- Beam height: 320mm \times 8 pieces

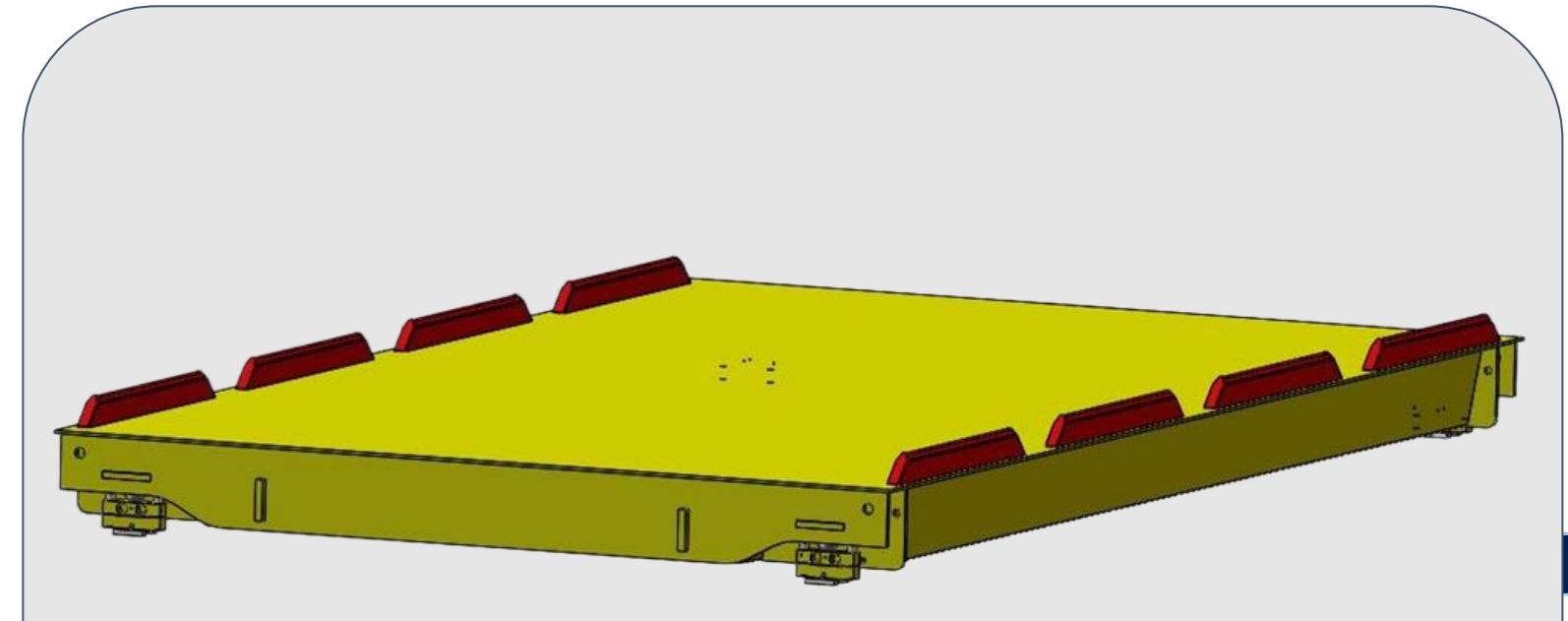
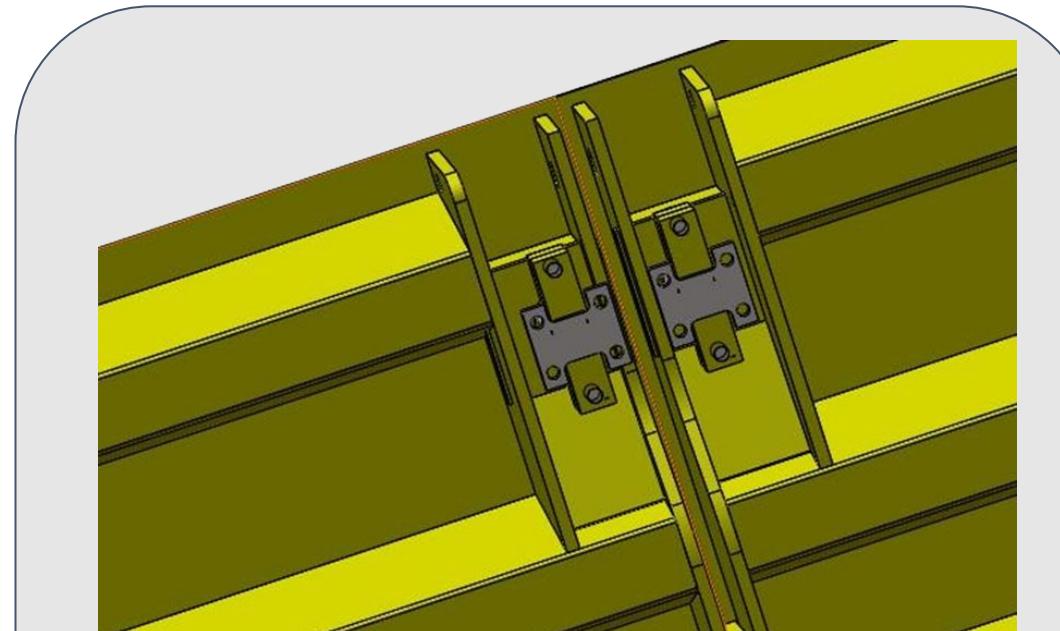
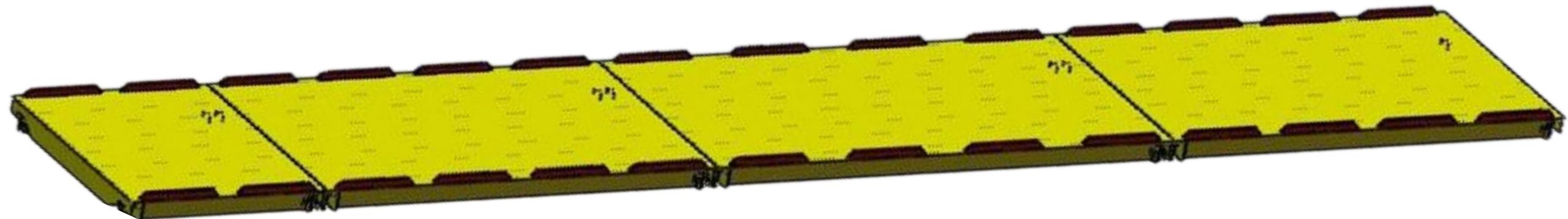
Section Lengths

- First section: 3m
- Second section: 6m
- Third section: 7m
- Fourth section: 6m



Overall View

The truck scale consists of four independent sections that work together as a complete weighing system. Each section is designed to handle specific portions of the truck weight while maintaining accuracy across the entire platform.





Working Principle

Independent Weighing System

The scales operate independently of each other while functioning as a complete system.

Vertical & Horizontal Limits

Special consideration for scale body shifting to maintain accuracy.

Longitudinal Limitation

Limit screws at the ends of first (3m) and fourth (6m) sections with 2-3cm space reserved.

Lateral Limitation System

The lateral/lateral limit is controlled by an additional limit plate on the end plate of the scale body. This prevents unwanted side-to-side movement while allowing for proper weight distribution.

LOAD CELL - KELI 30T

Load Cell Features:

- * Capacity: 30T
- * Steel ball loading, strong restoration ability
- * Easy complete installation, high weighing accuracy
- * OIML C3 certificate
- * Alloy Steel



Technical Features

Rated Load	5,10,15,20,25,30,40,50t	Operating Temp Range	-30~+70 °C
Sensitivity	$2.0 \pm 0.002 \text{mV/V}$	Safe load limit	150,120(40~50t)%F.S
Total error	C2	Over load limit	300,200(40~50t)%F.S
Creep(30min)	$\pm 0.02\%$ F.S	Recommend excitation	10~12V DC
Zero balance	$\pm 1\%$ F.S	Maximum excitation	15V DC
TCO	$\pm 0.02\%$ F.S/10°C	Protection Class	IP67(5t),IP68(10~50t)
TC SPAN	$\pm 0.02\%$ F.S/10°C	Construction	Alloy Steel
Input resistance	$750 \pm 10 \Omega$	Cable Length=L:5.2m(5t),8m(10t),10m(15t),10/12m(20t);	
Output resistance	$702 \pm 3 \Omega, 702 \pm 5 \Omega (L \geq 15m)$	12/15m(25t),12/16m(30t),16m(40~50t)	
Insulation resistance	$\geq 5000 M\Omega$	Diameter: $\phi 6\text{mm}$	

INDICATOR - ZM 510

User-centred design

Enclosures

Constructed for use in the office, dusty, wet or high pressure, heavy washdown and outdoor environments, the ZM510 is IP69K certified and enclosed in 304 brushed stainless steel. Designed for long service in extreme conditions, including corrosive environments and frequent, heavy washdown, the ZM510 adapts to desk, wall or column mount applications.

Keypads

With metal domed tactile keys and audio contact confirmation, the ZM510's large QWERTY keypad makes it flexible for use across all applications. Five programmable keys allow for specific weighing tasks to be assigned to the indicator, allowing weighing operations to be carried out quickly and effectively. The ZM510 can also be connected to a USB keyboard

Dot matrix graphical display

High contrast, Improved Super Twisted Nematic graphic display gives the ZM510 excellent visibility and colour contrast. With its wide viewing angles, the ultra bright green and black dot graphic display is easily visible in extreme working conditions and

The **ZM510** is a high performance, multi-function indicator, flexible enough to adapt to complex weighing tasks. Programmable and highly connective, the ZM510 displays, analyses, stores, and transmits data across devices, offering an end-to-end, personalised weighing solution.



Remote Display Unit

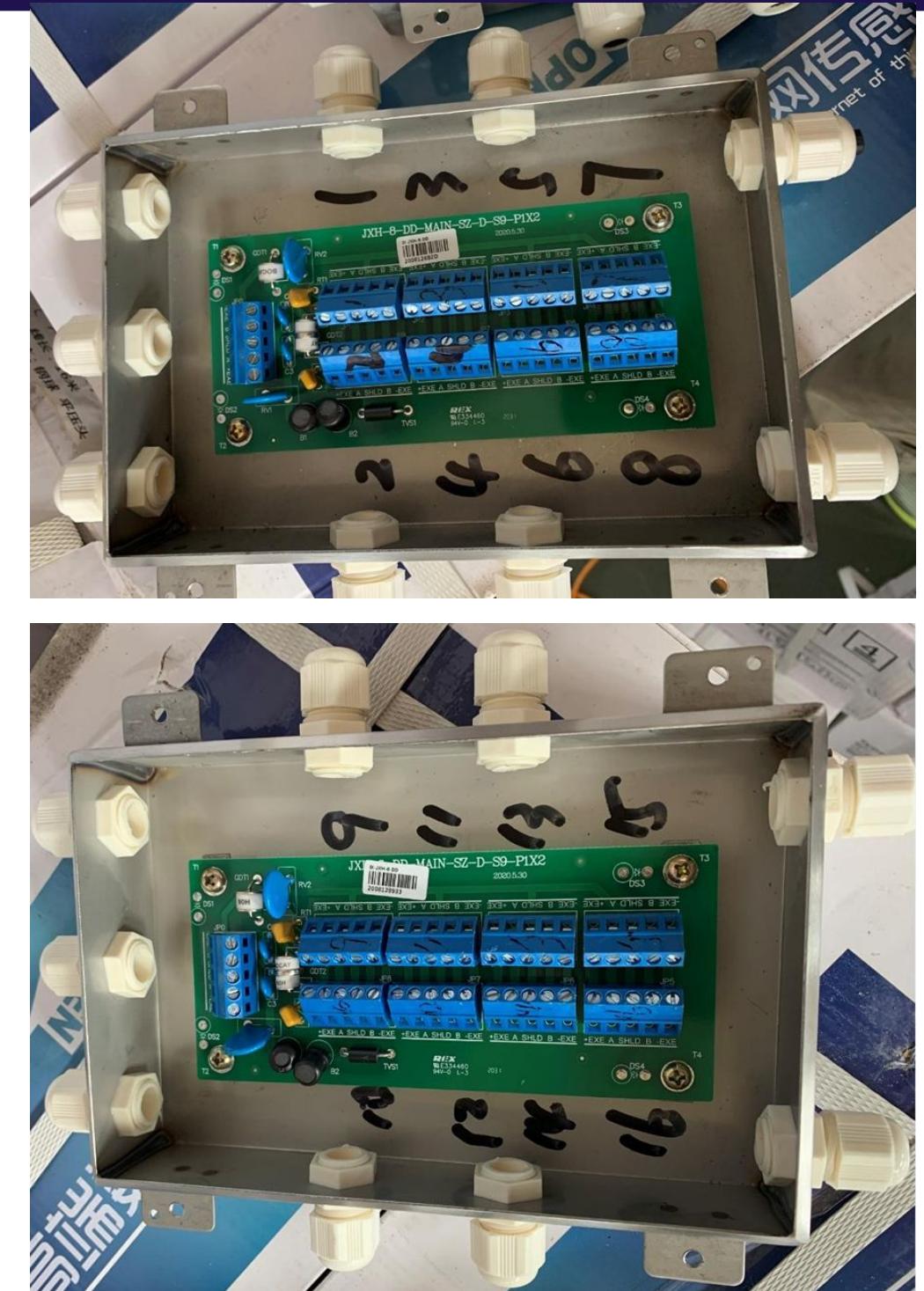
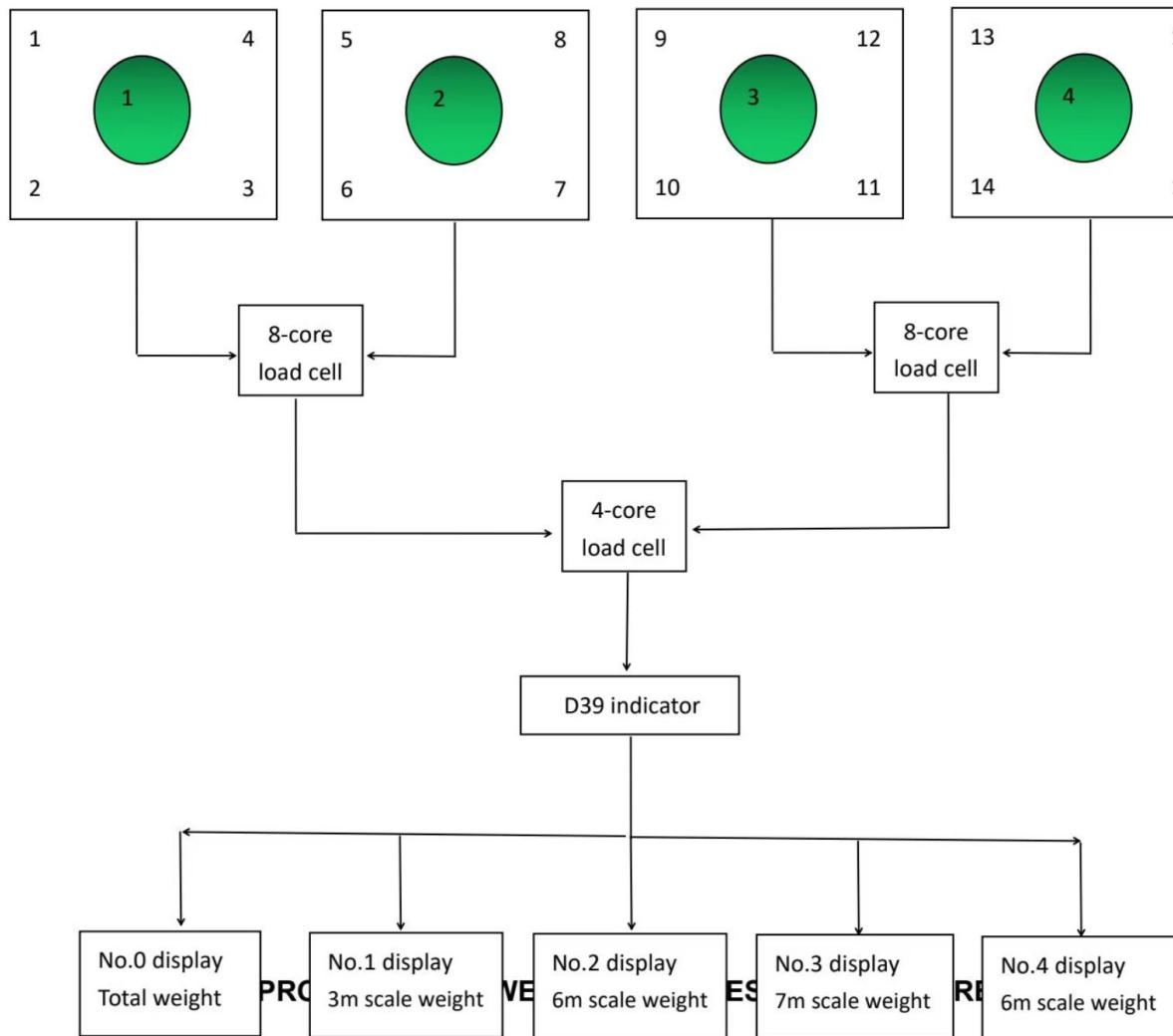
The weight of the axles can be shown on large external displays with 120 mm high red LED digits making the information visible to the driver immediately.

An external display can also show the gross weight of the vehicle. The large displays are fully waterproof. The displays show zero when the platform is idle and when overloads are detected, the appropriate display will flash, showing which sets of axles are causing the problem

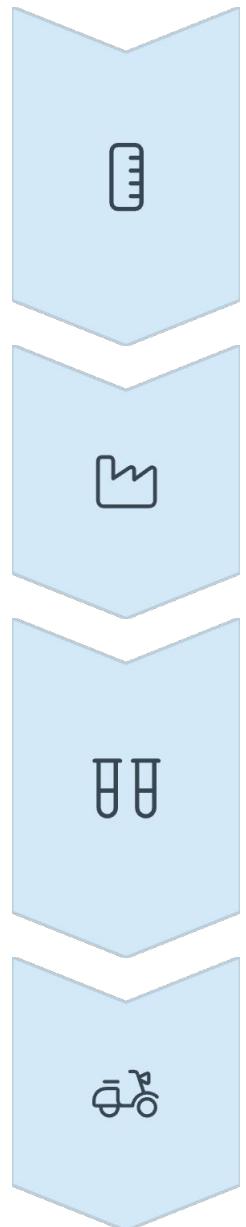


Junction Box System

Due to the large number of sensors and long connection lines, the system uses a combination of two 8-wire junction boxes and one 4-wire junction box for easy maintenance.



Production Process



Engineering Design

Precision design of all components and structural elements



Manufacturing

Production of steel components and assembly of sections



Quality Testing

Rigorous testing of all components and assembled sections



Delivery & Installation

Professional delivery and installation services

