60+ SINCE 1961

FLYDECK SYSTEM

An extraordinary innovation in temporary structures

ENGLISH

PILOSIO
SCAFFOLDING & FORMWORKS

Made in Italy

FLYRAIL GUIDE IS AN UNPRECEDENTED SOLUTION TO GO PAST PIER AND PIER CAPS

The FLYRAIL guide combined with the FLYDECK system offers a practical solution to the challenge of passing past pier and pier caps and continuing the suspended structure on the subsequent span without using other supports.

Instead of being transverse to the span, the beams are longitudinal. Thanks to the use of the FLYRAIL guide, the beams continue laterally to the pier cap going past it, and the work platform can continue to the next span.
This innovative solution greatly simplifies and speeds up assembly and disassembly and ensures savings in terms of time and money.

GUARANTEED CAPACITY

Any capacity can be achieved by increasing the number of supporting chains or tie-rods through the accessories available for the system.

EASY-TO-ASSEMBLE SAFETY NET

Safety nets are set up while creating the suspended surface. This is achieved very quickly without creating underbridges. In this manner, the operators are always working in complete safety.

ACCESSORIES

The system comes with all the accessories to create suspensions using different chains and hooks for connection to soffits and walls and to create under-road-level work surfaces, securing the operators by way of perimeter guardrails.

GREAT HANDLING
of the 25-cm aluminum beams

LESS TIME
for assembly and disassembly

LOWER TRANSPORTATION COSTS
and less storage space

LESS EFFORT
for the operators

INCREASED SAFETY
during assembly and disassembly

ADAPTABILITY
the Flyrail guide can be used with any beam

IMMEDIATE QUICK CONNECTION
from 30 to 50 percent less time for the work to be carried out

TIME-SAVING
without tools

FLYDECK: A PRACTICAL SYSTEM WITH LOW VISUAL IMPACT FOR THE SET-UP OF TEMPORARY STRUCTURES

Modular and temporary structure for working on the intrados of bridges, viaducts, and tunnels. Safe, practical, fast, and low visual impact.

Loading capacity up to 150 kg/m² with tie-rods every 6 m² and loading capacity up to 300 kg/m² with tie-rods every 4 m² ; further load capacities are achieved by increasing the number of tie-rods.

Used for working on edge beams, shaped intrados, or elements with a complex geometric design, FLYDECK structure can be integrated with any type of scaffold.

The FLYDECK system is a patented and certified suspended work platform.

There are no limits on width, length, since the system is modular and exploits the beams and platforms of any scaffolding brand independently of model, shape, and size.

A temporary structure 22 m wide and 250 m long made of 25 cm aluminum beams set up with the FLYRAIL system

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25-cm ALUMINUM BEAM
An innovation in temporary structures

One of the main innovations consists of the 25-cm aluminum beam, featuring a 50% reduced weight compared to a 45-cm steel beam. It is assembled doubly faster and in complete safety with the help of the FLYRAIL guide.

The special "X" shaped reinforcement ensures adequate load capacity to maintain any structure. The capacity can be increased by increasing the anchoring points. 25 cm and 45 cm aluminum and steel lattice beams are available, with tube and "U" shaped ledgers compatible with most scaffolding steel planks.

STRENGTHS

- Great handling;
- Less time for assembly and disassembly;
- Lower transportation cost and storage space;
- Less operator effort.

CHARACTERISTICS

- EN AW 6082 T6 aluminum alloy with high mechanical characteristics;
- 48.3 mm ledgers;
- 5 mm thick "X" shaped stiffening plates;
- Seven lengths available: 1.0 m, 1.5 m, 2.0 m, 3.0 m, 4.0 m, 5.0 m, 6.0 m.
- Registered Community Design.

25 CM ALUMINUM BEAM CHARACTERISTICS

BEAM LENGTH (m)	CALCULATION SPAN (mm)	CONCENTRATED LOAD P_{wl} (kN)	DISTRIBUTED LOAD Q_{wl} (kN/m)	WEIGHT (kg)
1,00	750	11,00	22,00	4,00
1,50	1250	14,00	18,60	6,20
2,00	1750	10,50	10,50	8,40
3,00	2750	12,00	8,00	12,10
4,00	3750	10,00	5,00	16,50
5,00	4750	7,50	3,00	21,00
6,00	5750	6,50	1,75	25,40

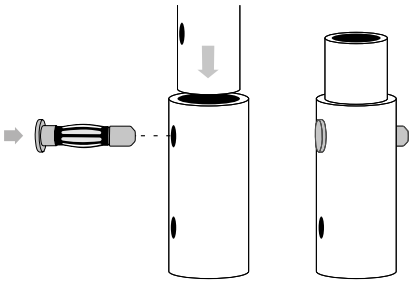
SPRING PIN

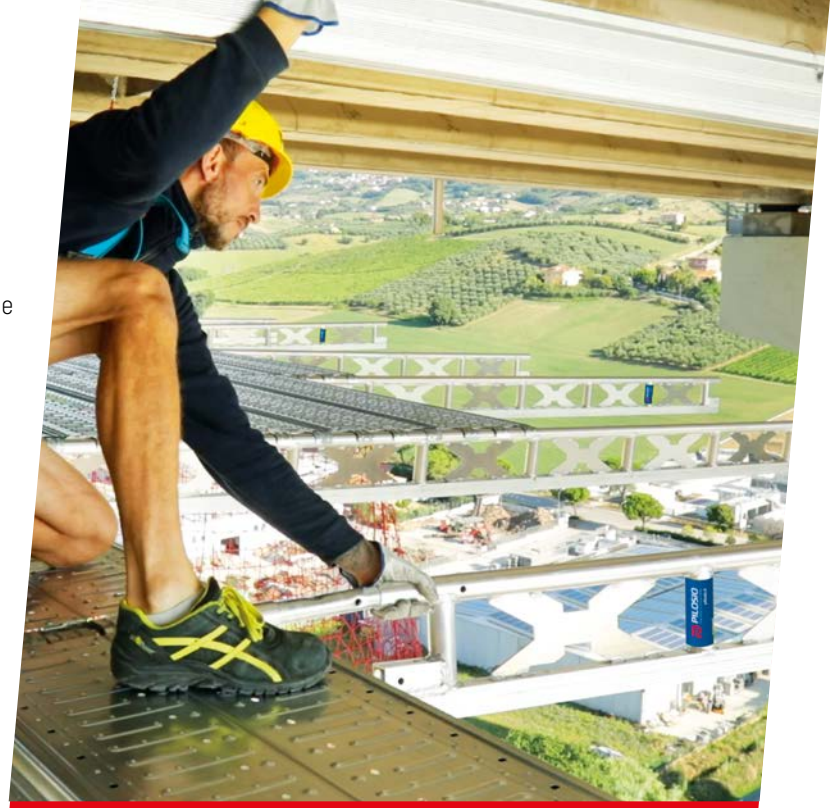
To connect beams easily and quickly, a spigot using exclusive spring pins was designed to replace screws and nuts, making the connection simple and immediate, even during disassembly.

This pin allows the creation of a continuous beam with perfect load distribution and a continuous and coplanar work surface.

STRENGTHS

- Immediate quick connection
- Fast even during disassembly
- Possibility of using screws and nuts as well
- Possibility of adding a P-shaped split pin
- Patent Pending
- Registered Community Design.





SPRING PIN: an innovative and patented connection system.
A new way to immediately connect beams without using any additional tools.

Spring Pin

TRANSOM

The FLYDECK system is completed with aluminum transoms of different lengths.

CHARACTERISTICS

- Aluminum EN AW6082 T6;
- 48.3 mm aluminum tube;
- Connection spigots with EN 74-1 half couplers and Ø12 mm spring pins;
- Seven lengths available: 1.00 m, 1.15 m, 1.50 m, 1.80 m, 2.00 m, 2.50 m

Transom

Half coupler with spigot

FLYRAIL GUIDE

The FLYRAIL system has been designed to offer a practical solution to the challenge of passing past pier and continuing on the subsequent span without using other supports. Instead of being transverse to the span, the beams are longitudinal. Thanks to the use of the FLYRAIL guide, the beams continue laterally to the pier cap going past it, and the work surface can continue to the next span. This innovative solution greatly simplifies and speeds up assembly and disassembly and ensures savings in terms of time and money.

HOW DOES IT WORK?

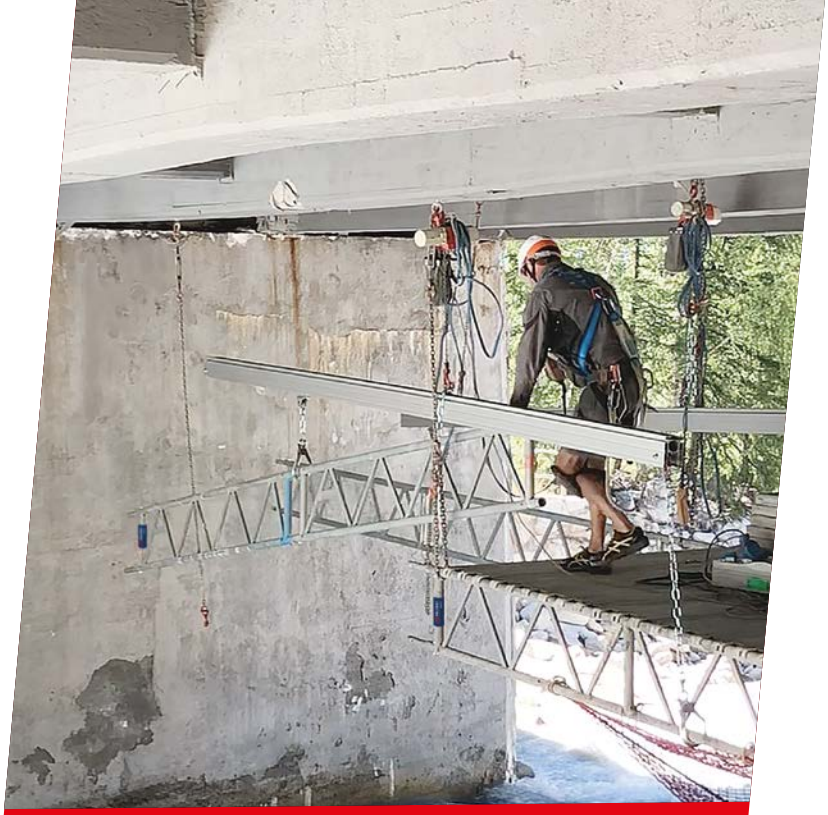
The FLYRAIL guide is anchored to the soffit and existing surface using suspension chains. The operator hooks the beam to the slide carriage and pushes it until it is cantilevered. Using the hoist, the beam is raised and lowered into position with the existing beam to join it with a spigot and spring pins. After connecting the second beam to the platform, the operator positions the work platforms and carries out the anchoring in full safety because the pair of FLYRAIL guides support the surface. Finally, the operator hooks the safety net achieving double safety.

STRENGTHS

- Great speed in carrying out the work (from 30 to 50% of time saved);
- Increased safety during assembly and disassembly;
- It allows erecting suspended platforms on the side of the pier and pier caps to continue the temporary structure on the subsequent span;
- Less effort for the operators;
- FLYRAIL guide can be used with any beam;
- Patent Pending, EC Mark.

CHARACTERISTICS

- The system consists of a pair of guides;
- 5 m in length. To facilitate transportation it can also be supplied in two 2.5 m elements or three 1.67 m elements;
- Connecting spigots and spring pins:
- Two handles;
- One 220 W single-phase hoist with wired remote;
- One suspension chain with a safety hoist;
- A back chain to be fastened to the platform;
- A sliding carriage with quick coupling to handle and support the reticular beams.

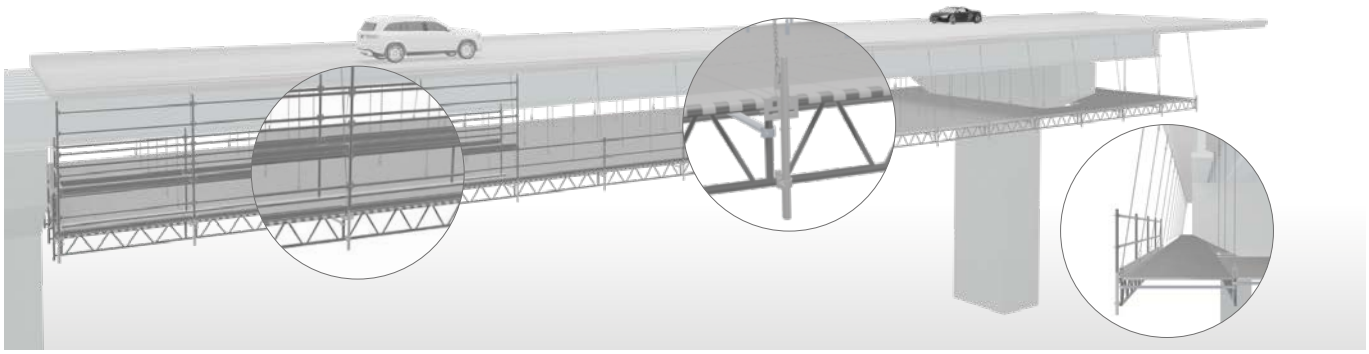


With FLYRAIL guide, it is no longer necessary to use machines to block the roadway, resulting in significant time and cost savings.

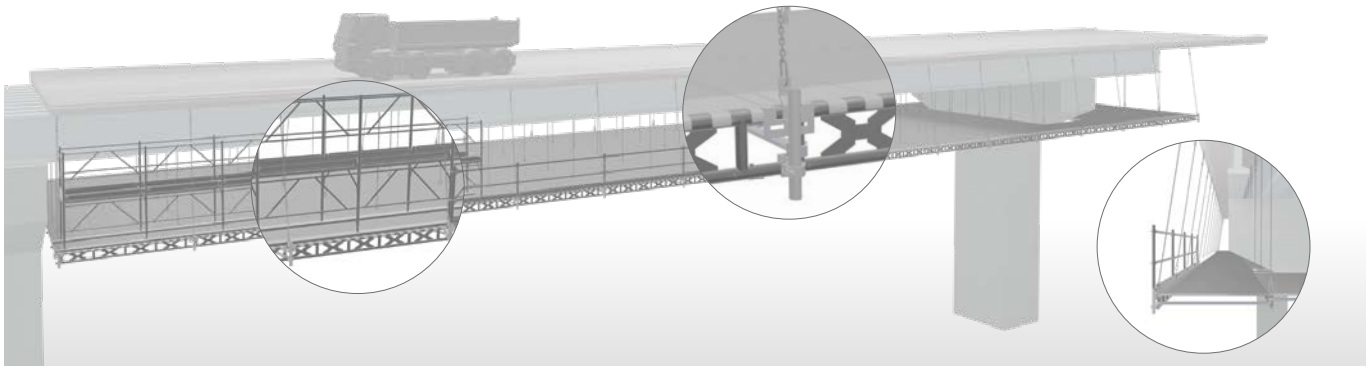
FLYDECK TEMPORARY STRUCTURE SET UP WITH FLYRAIL GUIDES: STRENGTHS

- Significant reduction in set-up time thanks to the use of the FLYRAIL guide; high maneuverability of elements, and speed of beam connection operations;
- No need to stop roadway or railway traffic since FLYDECK can be installed using the FLYRAIL guide from any access point and then continue in any direction;
- The temporary structure is accessed from pier or an abutment without interrupting road flow;
- Complete safety for the operators during the anchoring stages because the platform is always anchored and never cantilevered;
- It is always possible to complete the FLYDECK surface with one's guardrails or any scaffolding;
- Fatigue relief is considerable for workers thanks to the FLYRAIL guide supporting the weight of the cantilever beams;
- 25-cm aluminum beams with special X-shaped reinforcement ensures extreme maneuverability together with excellent loading capacity;
- Beam connection using two spigots and eight special spring pins that make the connection much faster than using screws and nuts;
- The installation of safety nets takes place when creating the work surface. No need for lower deck with a significant reduction of the set-up time and the overall weight reduction of the structure;
- Significant cost savings in transportation and handling thanks to the reduced weight of aluminum;
- Space reduced by half for storing 25 cm beams in the warehouse;
- The FLYRAIL guide system can also be used with other types of lattice beams..

FLYDECK SYSTEM



Example of a temporary structure made of 45 cm aluminum beams and multidirectional scaffolding.



Example of a suspended structure obtained with 25-cm aluminum beams and with perimetral frame scaffolding.

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