



ООО Интелмашин

Manufacturer of sandwich panel continuous
laminating production lines

Specification of sandwich panel continuous laminating production line
"Optimal"

+7 (800) 301-07-99

info@intelmachine.ru

WWW.INTELMACHINE.RU



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Sandwich panel production line

Advantages



Russian lines are **technically superior** to other countries manufacturers



Perfectly flat surface sandwich panels made in according to Interstate Standard (GOST)

The possibility to install line on facilities from 1 000 sq.m. and more.

High line output: up to 8 m³/min.

Personal: from 6 labours

Quick return on investment: from 6 months*.

The line is a modular system

Warranty service and lifetime support

Recommended sandwich panel production scheme:



***Standard production line layout**

***Customisation of the line by specific requirement**

Output products specification:

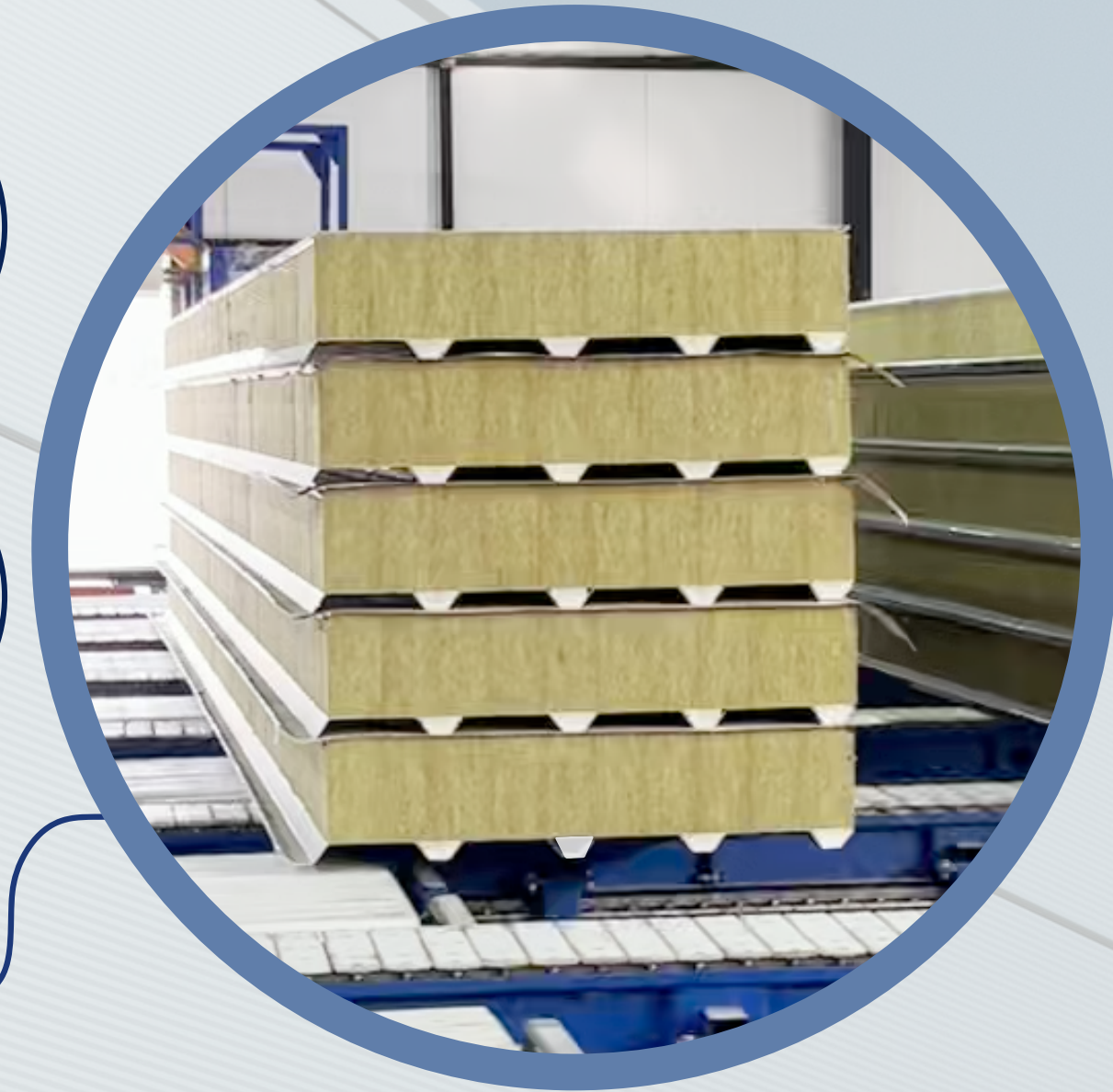
✓ **Panel thickness:**
50 to 350 mm

✓ **Core:**
mineral wool, lamellas,
EPS and PIR blocks

✓ **Length of panels:**
2.5 to 13 m
(optionaly longer)

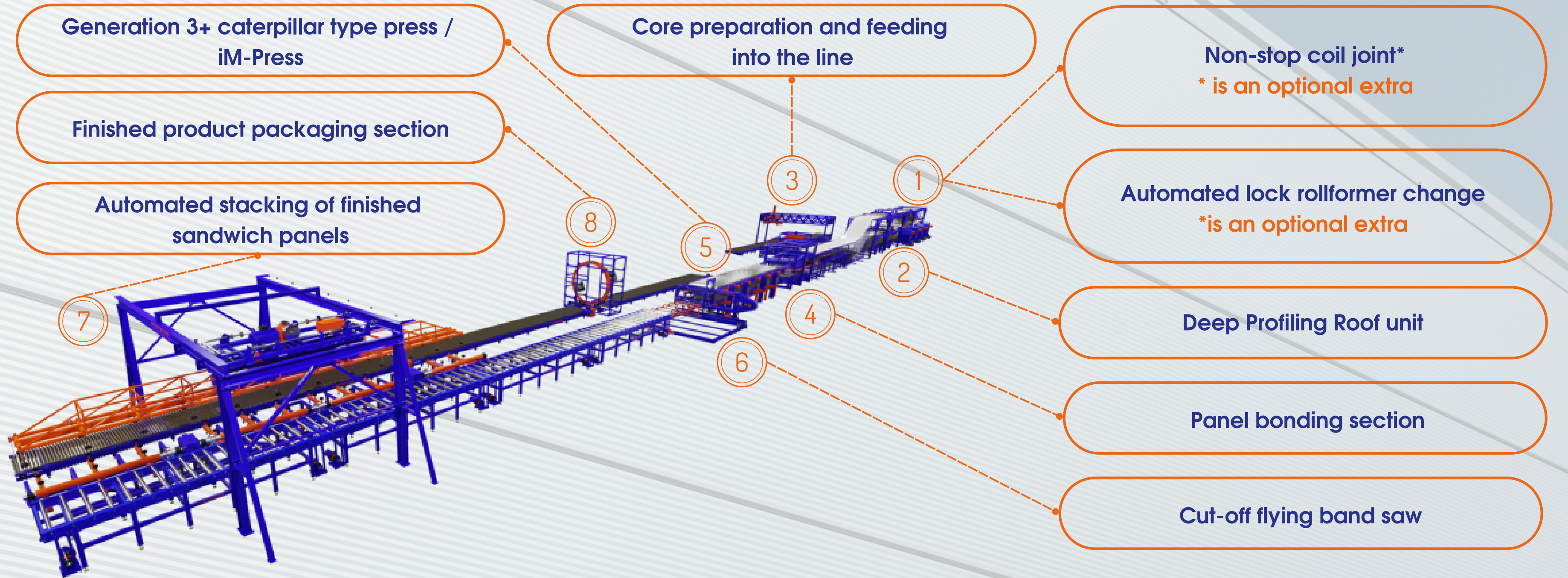
✓ **Density
mineral wool:**
95 -115 kg/m³

✓ **Panel width:**
1000-1200 mm
(wall panels)
1000 mm (roof)



Manufactured products comply
in acc. to GOST standard 32603-2021

Sandwich panel production line is a modular system



Recombination of modules in a line
saves on industrial space

② Deep Profiling Roof unit

✓ Overall length:
10 m

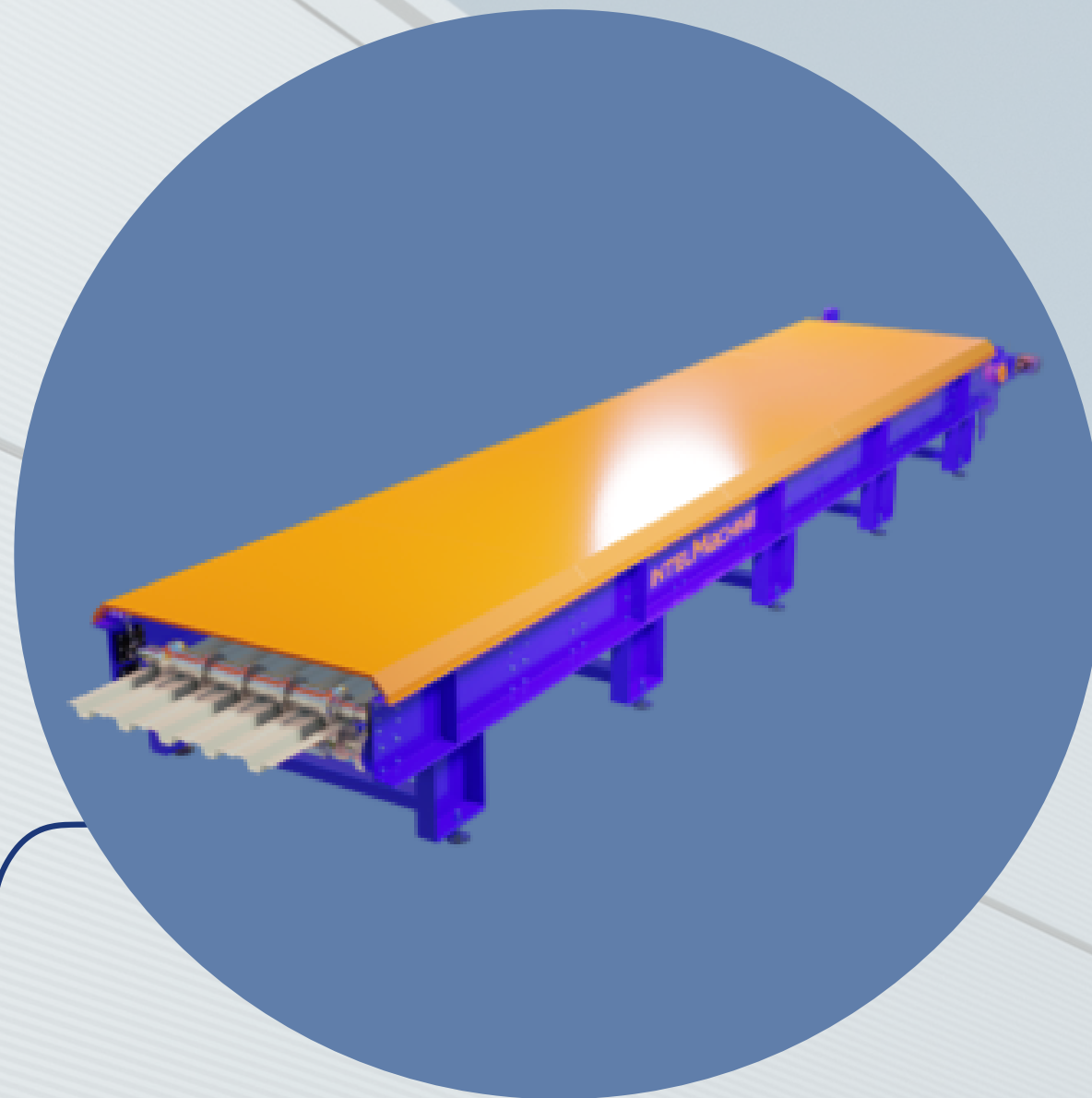
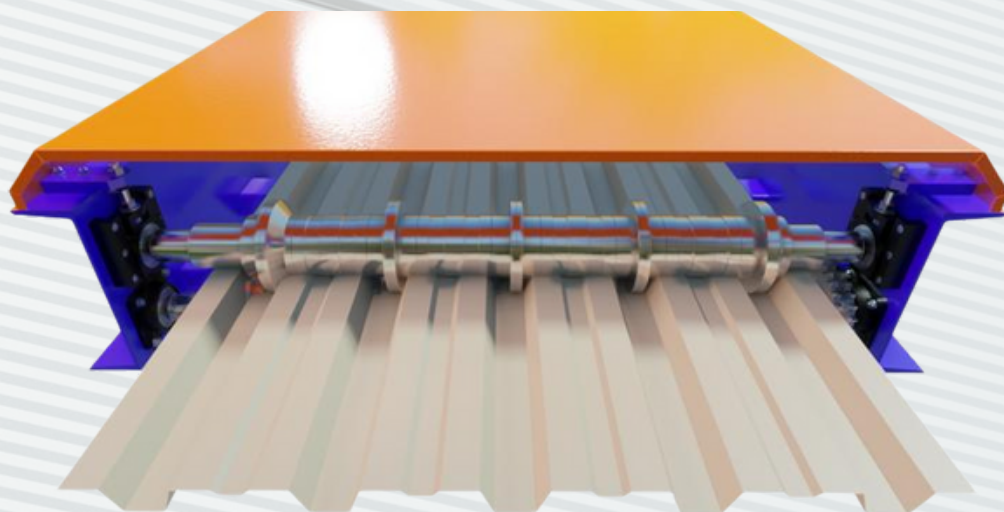
✓ Forming stands:
22 pcs.

✓ Steel thickness:
0.4 to 0.7 mm

✓ Gap microprofiling

✓ Disc cutoff unit

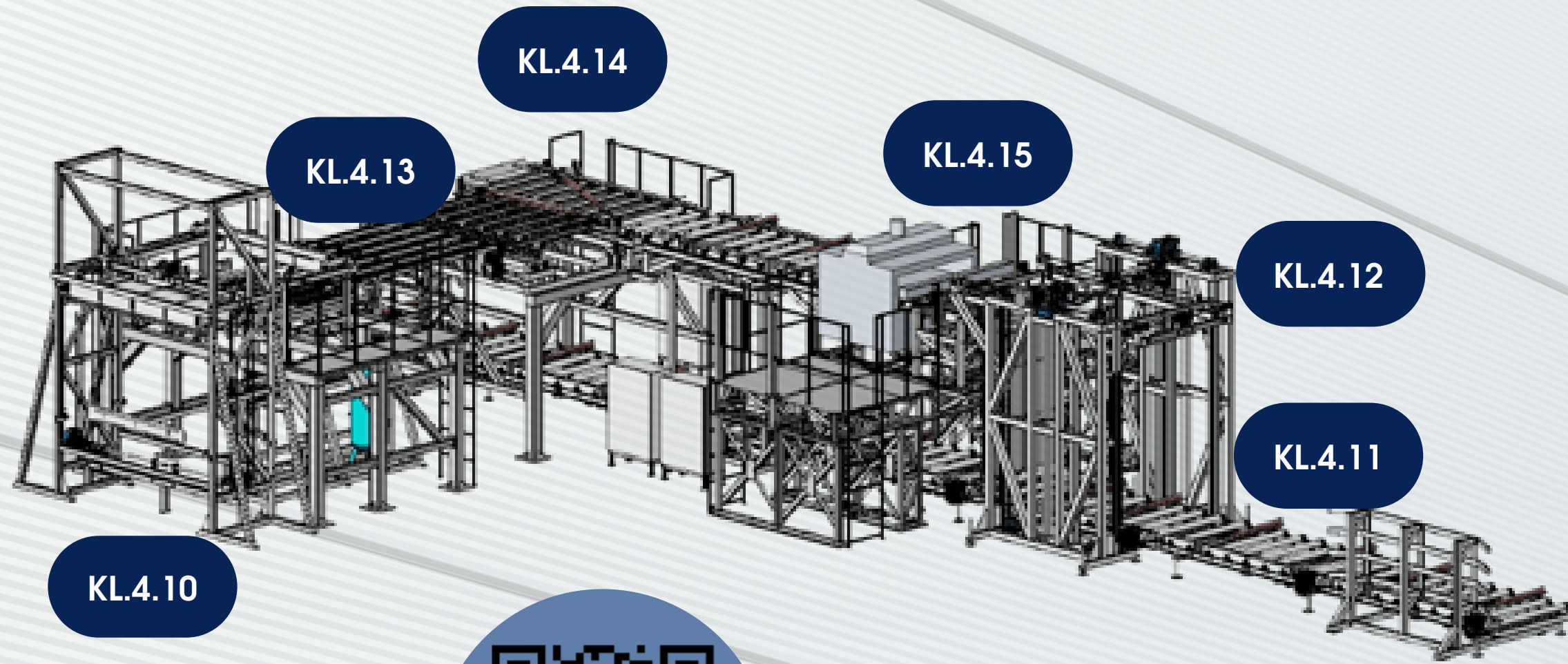
✓ Protection film application



Increased number of stands allows for better and more precisely of roof skin profile

3 Core preparation and line feeding

CARP-L (mineral wool core automatic lamella cutting and feeding unit)



KL.4.10

Lamella lift

KL.4.11

Pallet infeeding conveyor

KL.4.12

Empty pallet collector

KL.4.13

Belt unit

KL.4.14

Core side trimming unit

KL.4.15

Multi-blade lamella saw



The process of lamellas cutting and feeding **is automated**, eliminating the human factor, hence avoiding of core material damage.

High speed of operation: up to 8 m/min, allows of line production capacity increase.

4 Panel elements assembling and bonding area

Laminator



UP.1.6
UP.1.7
UP.1.8
UP.1.9

UP.1.10.1
UP.1.10.2

US.2.2.1

PR.6/9/12

UP.1.6
UP.1.7
UP.1.8
UP.1.9

Quick-change
micro-profiling modules

UP.1.10.1
UP.1.10.2

RIB, Z-LOCK and Secret FIX
joints rollformers with
composite reinforcement

US.2.2.1

Servo driven adhesive
spray application system

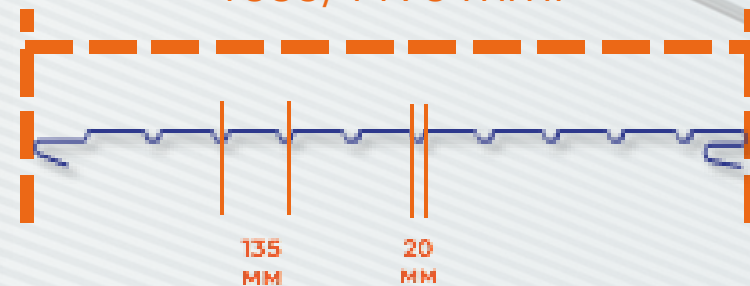
PR.6/9/12

Caterpillar type press
/ iM-Press

5 off profiling types



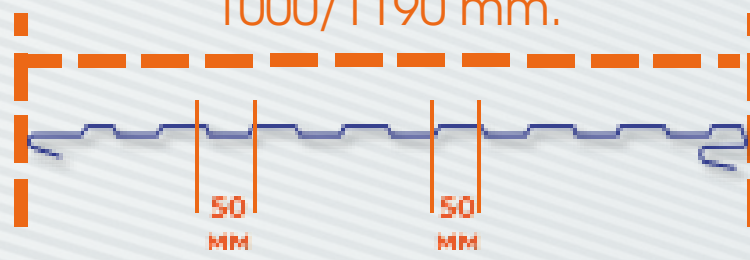
9-rib trapeze Step 135 mm.
1000/1190 mm.



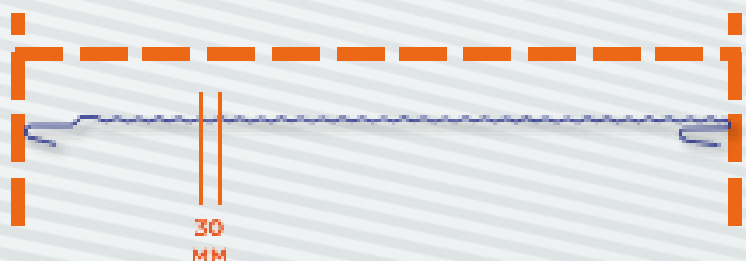
5-rib v-pitch 198 mm.
1000/1190 mm.



MicroRib-50/50 trapeze
1000/1190 mm.



MicroRib-30 mm.
1000/1190 mm.

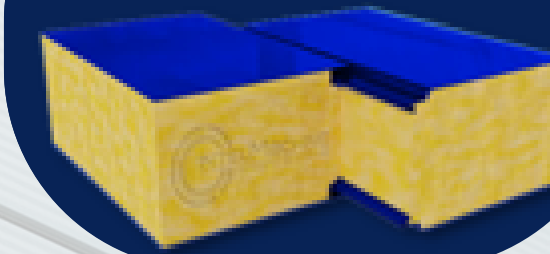


No profiling
1000/1190 mm.



Joint types

Z-lock



Significantly increases the speed of installation, increases the fire resistance of the structure, ensures minimum heat loss with proper sealing of joints.

Secret Fix



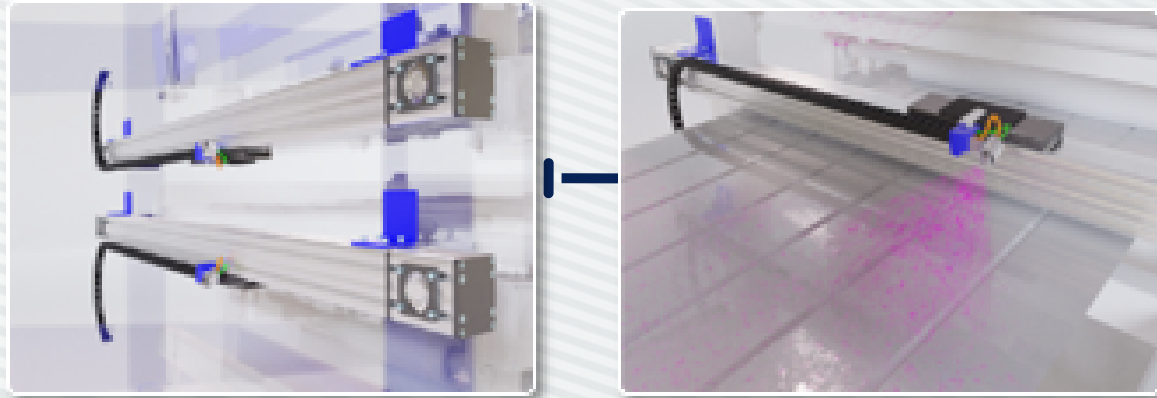
Increases thermal insulation with aesthetics, inferior to the Z-Lock in terms of speed of installation.

Roof lock



The classic design of the roof joint, ensures a reliable sealing of the joints.

Integrated adhesive application system



US.2.2.1

Servo driven spraying system

US.2.2.1



“No mist” spray adhesive applicator with precise flow control



Speed, acceleration and aperture adjustment for precise synchronisation with line speed



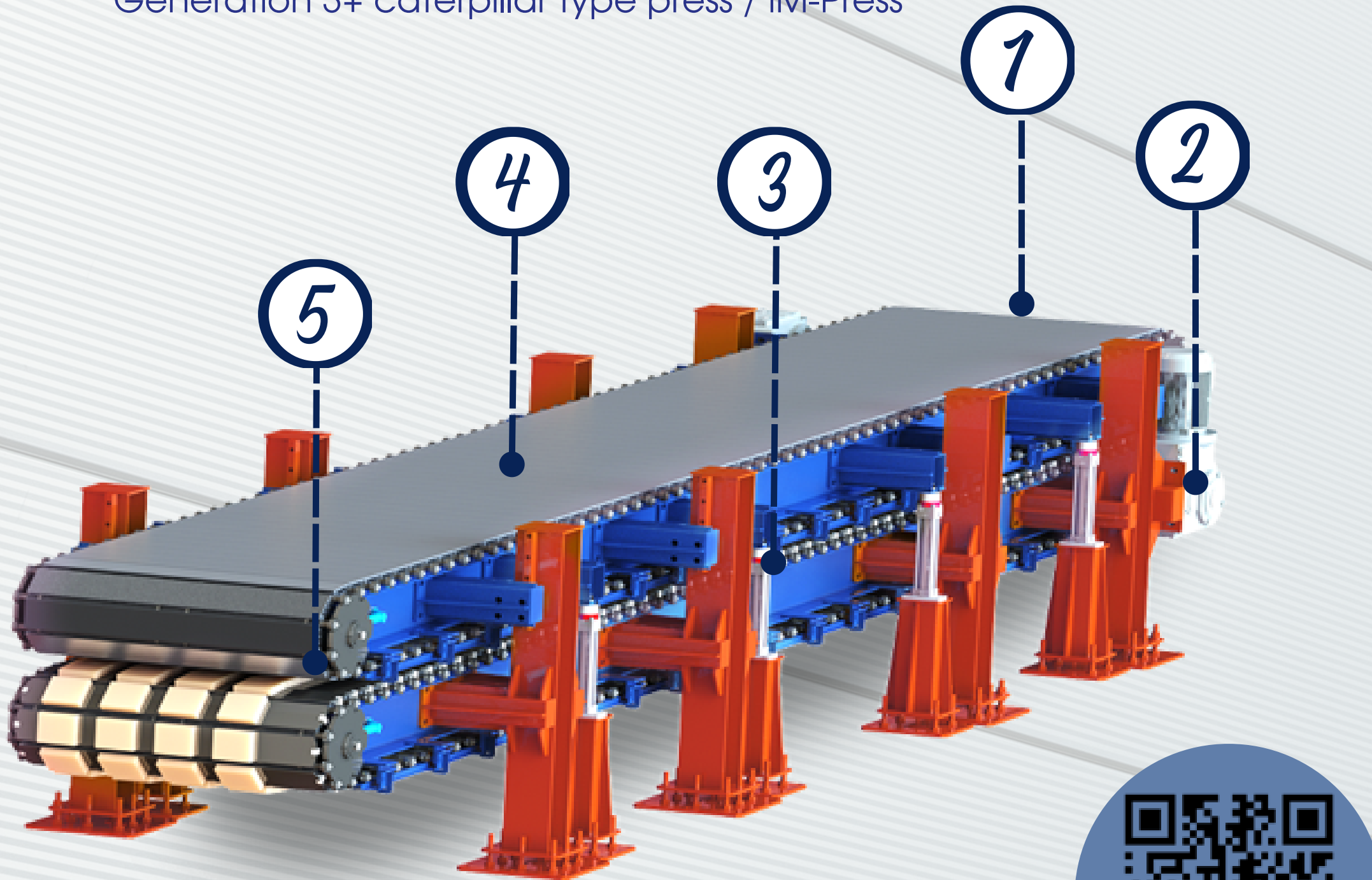
Significant adhesive cost savings*
* compared to other glue application systems



The system is designed by **Intelmachine Ltd** and available as part of lines or separately, with the option of integration into existing lines of other manufacturers

5 Panel laminating line

Generation 3+ caterpillar type press / iM-Press



1 Infrared heating system with temperature control

2 Cyllindro-conical Gearmotors 5.5 kW x 2 pcs.

3 Distributed hydraulic system for open and close the press

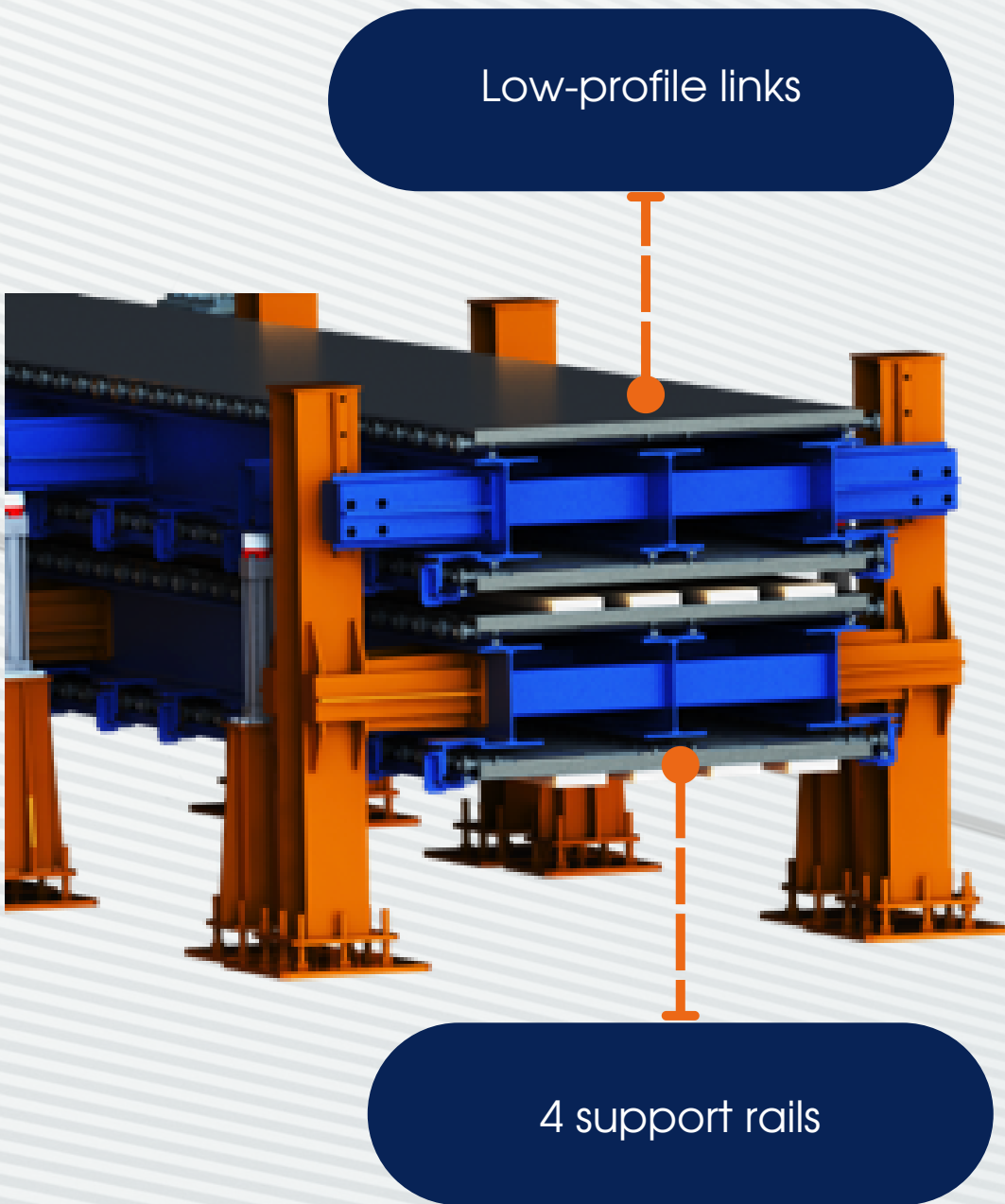
4 Extruded profile AD31T1 *

* Original Intelmachine Ltd design

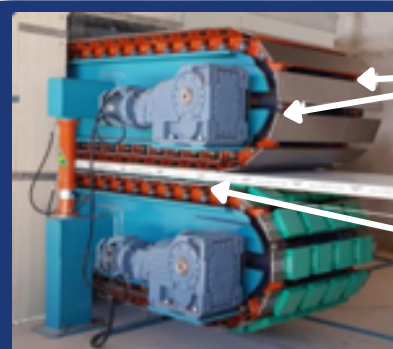
5 Link connection "Swivel Loop"



Generation 3+ caterpillar type press / iM-Press



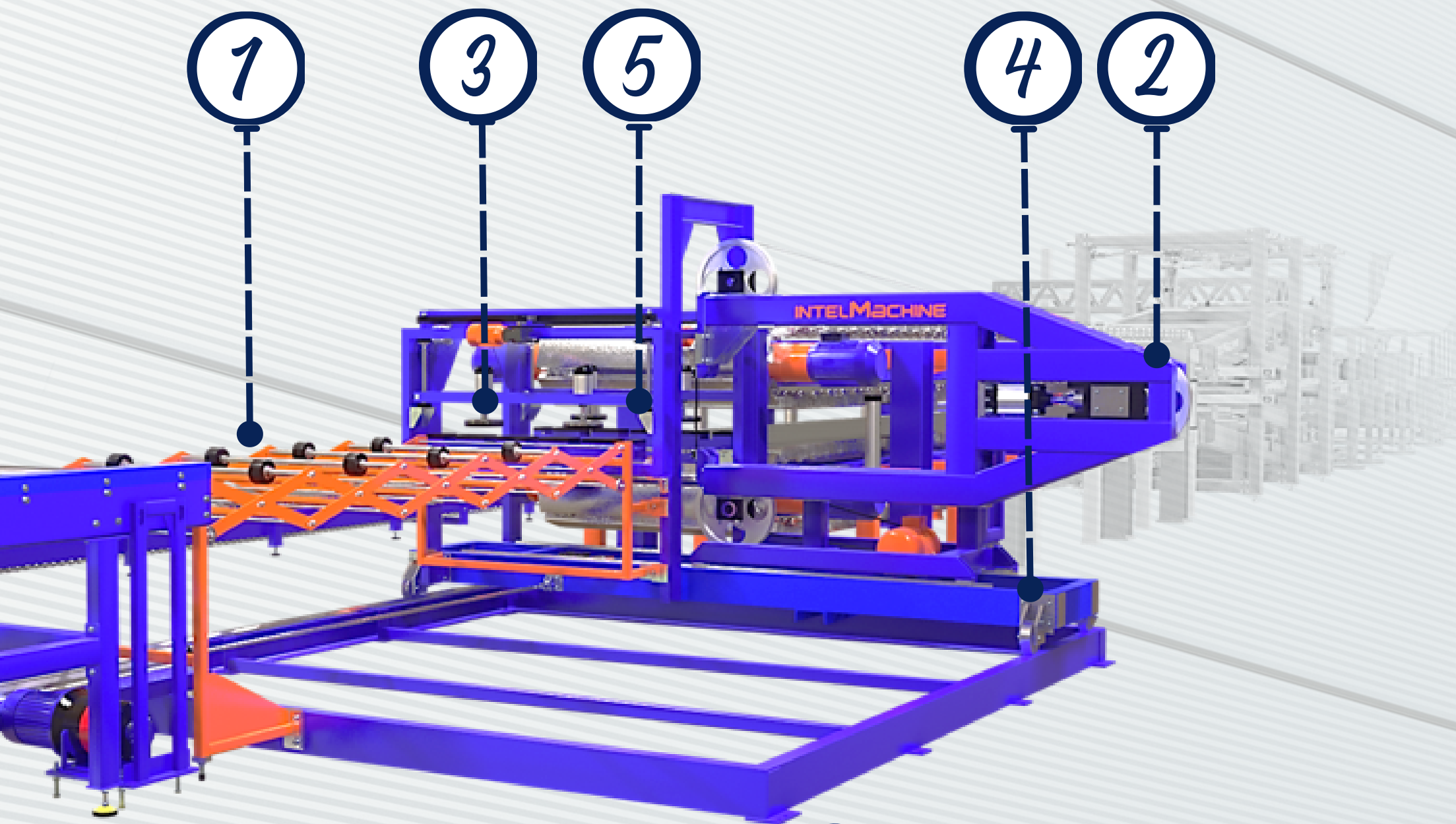
- ✓ Operating pressure up to 20 kPa
- ✓ Operation speed up to 10 m/min
- ✓ Press gate 350 mm
- ✓ Working field dimensions 9000 *x 1250 mm
- ✓ * Press length 6 - 27 m



- Support on two rail traction chains
- Example: photo of a previous generation press
- High profile links

The design of the new iM-Press caterpillar press is a particular source of pride for Intelmachine Ltd: we have taken into account and eliminated all the shortcomings of previous generations of presses

6 Cut-off flying band saw

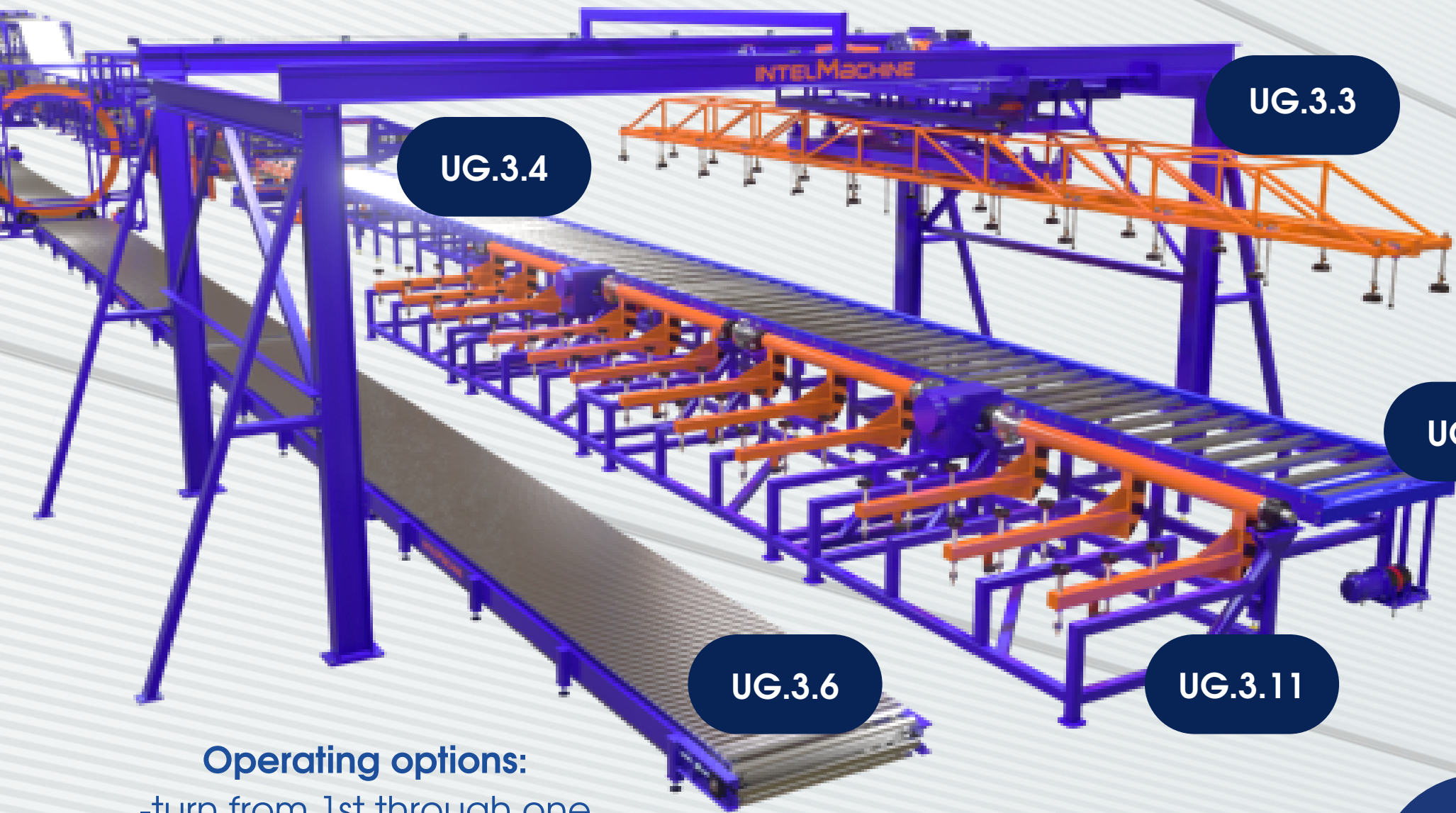


- 1 Sliding roller conveyor
- 2 Bandsaw module
- 3 Pneumatic panel retainer
- 4 Longitudinal offset platform
- 5 Encoder panel length measuring unit



The settings for the number and length of the panel to be cut are controlled from the central control touchscreen

7 Automated stacking of finished sandwich panels



UG.3.4 Intermediate roller conveyor

UG.3.3 Vacuum transfer unit

UG.3.2 Finished panel roller conveyor

UG.3.11 Vacuum turner

UG.3.6 Slat conveyor

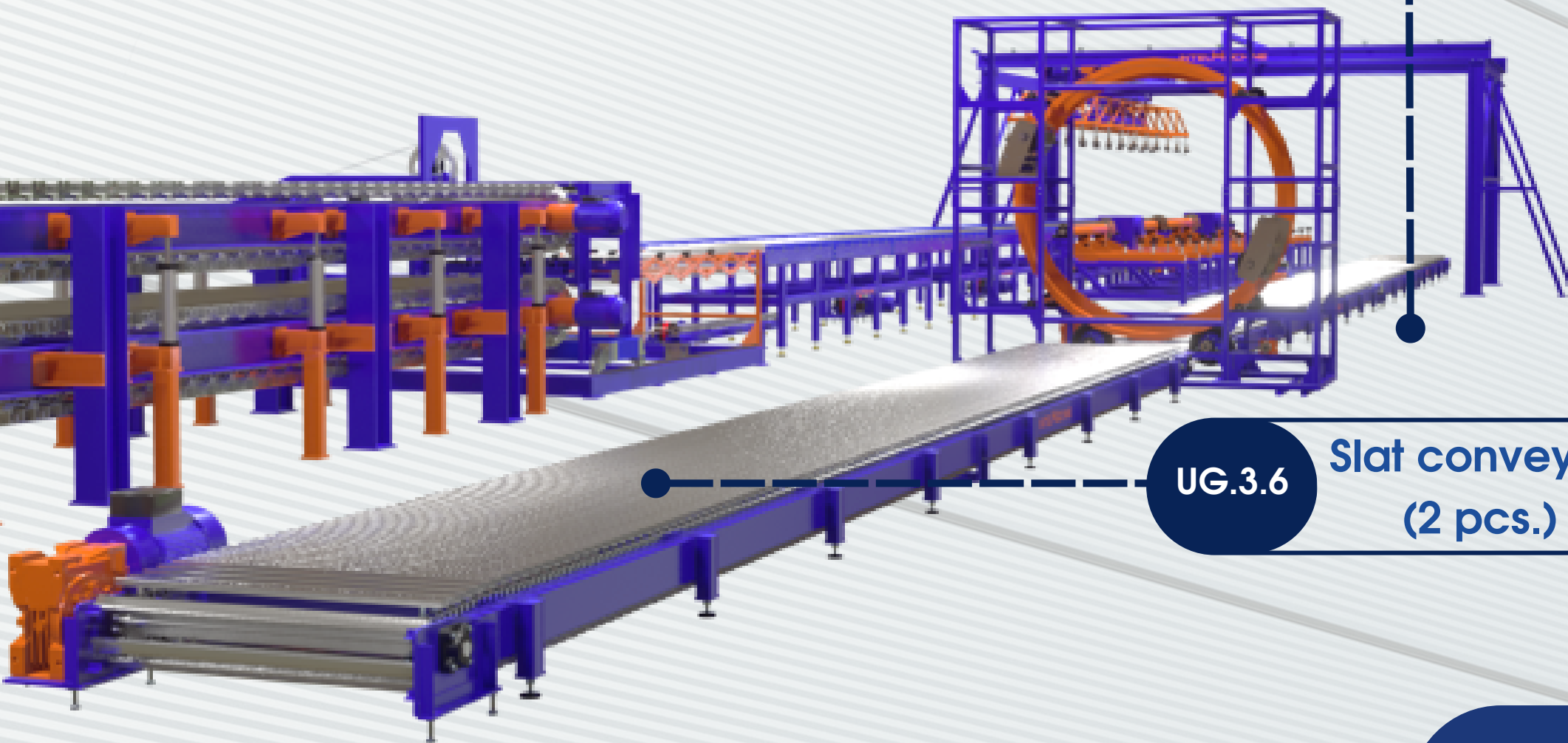
Operating options:
-turn from 1st through one
-turn from 2nd through one
-reverse each panel
-without coup
Work in manual mode

Fully autonomous complex to work with any type of continuous sandwich panel production lines

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8 Finished product packaging section

- Automatic feeding of pallets for stack packaging
- Automatic wrapping of the stack ends
- Two pre-loaded stretch film cassettes
- Allowable load 500 kg/rpm (6 tonnes per conveyor)



UG.3.5

Stretch film
wrapper

UG.3.6

Slat conveyor
(2 pcs.)

Optional extras:

Front / Rear end

EPS block dispenser

Maximum performance area
✓ capacity: > 12 metres per minute

Delivery terms:

Design and Manufacturing	From 8 months
Installation and commissioning	included
Customer staff training	included
Warranty service	12 months and optionally more
Post-warranty service	Lifetime available
Technical support and service	Lifetime available
Payment terms	60% prepayment, 30% on readiness for shipment, 10% after commissioning
Price	Depends on line spec and equipment configuration (calculated on request)

Payment options:

Standard conditions

Payment upon signing the contract
-60% of the price of the equipment to be supplied
-30% upon readiness for shipment
-10% after commissioning and start-up of the delivered equipment

In accordance with the terms of the main contract

Product name	Quantity
Preparation section	
Hydraulic decoilers with lateral position adjustment 10 tonnes	3
Hydraulically driven undercarriages 10 tonnes	3
The bottom logiform frame	1
The upper logiframe frame	1
Trapeze lamella multyblade disc saw	1
Micro-profiling module 5-Rib (top/bottom set) Microprofiling module 9-Rib (top/bottom set) 50/50 trapezoidal microprofiling module (trapezoidal top/bottom set) Microprofiling module Rib -30 (top/bottom set)	8 (4 of each side)
Z-lock joint Rollformer (non-driven) top/bottom	1
Deep Profiled Roof module	1
Disc Cutoff block	1

Line specification:
Set "Optimal"

Capacity: up to 100,000 m² / month
Number of staff: from 6 labours

Product name	Quantity
Automated cutting and feeding of trapeze lamellas into the roof panel (CARP-T)	
Trapeze saw table	1
Conveyor table	1
Tray conveyor № 1	1
Belt conveyor	1
Tray conveyor № 2	1
Trapeze lamellas turn over unit	2
Grip portal (main item) №1	2
Grip stand (unit as part of the main item) №1	1
Grip (unit as part of the grip stand) №1	1
Grip portal (main item) №2	2
Grip stand (unit as part of the main item) №2	1
Grip (unit as part of the grip stand) №2	1
Stream conveyor system	1

Line specification:

Set "Optimal"

Capacity: up to 100,000 m² / month

Number of staff: from 6 labours

Product name	Quantity
Mineral wool core automatic lamella cutting and feeding unit (CARP-L)	
Thickness calibration module	1
Cabinet type 1	1
Cabinet type 2	1
Cabinet type 3	1
Core pushing table	1
Buffer roller conveyor	1
Reception roller conveyor	1
Thermal insulation loader	1
Empty Pallet Handler	1
Lamella lift	1
Pallet roller conveyor	6
Pallet lift	1
Belt unit	1
Core side trimming table	1
Multi-blade disc lamella saw	1
Spare shaft with bearings and pulley	5
Spasers for 6 size	1 set

Line specification:

Set "Optimal"

Capacity: up to 100,000 m² / month

Number of staff: from 6 labours



Product name	Quantity
Bonding and laminating section	
Laminator	1
"No mist" spray adhesive applicator	2
Servo driven spraying system	2
Non flameable solvent flushing system	1
Line speed controlled adhesive pump	4
Adhesive components supply station	1
Caterpillar type press (9 m) / iM-Press	1
Finished sandwich panel section	
Cut-off flying band saw with encoder	1
Buffer roller conveyor 12 metres	1
Finished panel roller conveyor 12 metres	2
Vacuum stacker	1
Vacuum turnover unit	1
Stretch film tunnel wrapper	1
Slat conveyor (12 metres)	3
Feeding unit for polystyrene blocks	1
Dust extraction unit 10 000 m ³ /min	2

Line specification:

Set "Optimal"

Capacity: up to 100,000 m² / month

Number of staff: from 6 labours



Product name	Quantity
Control system and installation and commissioning services	
Equipment instrumentation and automation software	1
Services	
Supervising installation	1
Commissioning work	1
Customer staff training	1

Line specification:

Set "Optimal"

Capacity: up to 100,000 m² / month
Number of staff: from 6 labours



*The information provided in the presentation is not a public offer.

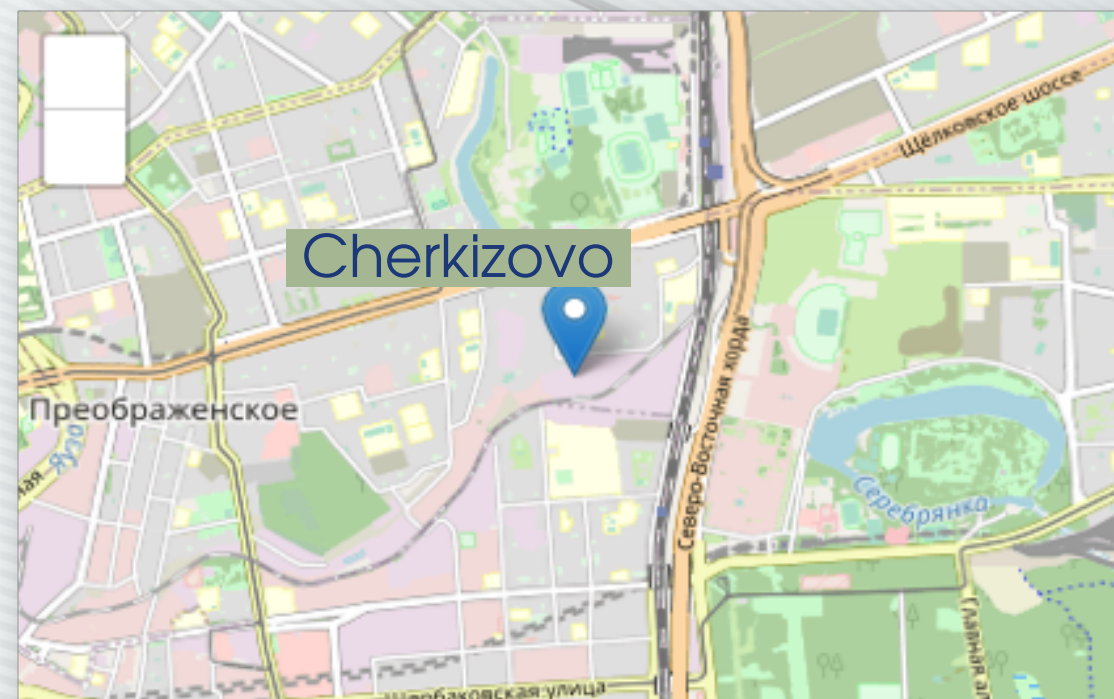


We may help expand your production capacity!

 info@intelmachine.ru

 [+7 \(800\) 301-07-99](tel:+7(800)301-07-99)

  [+7 \(952\) 427-74-44](tel:+7(952)427-74-44)



Russia, Moscow,
Bolshaya Cherkizovskaya st,
24A, building 1,
Etalon Business Center,
7 floor,
office 715

Sales Director

Oleg Nevskiy

