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Alu Ranger oneR

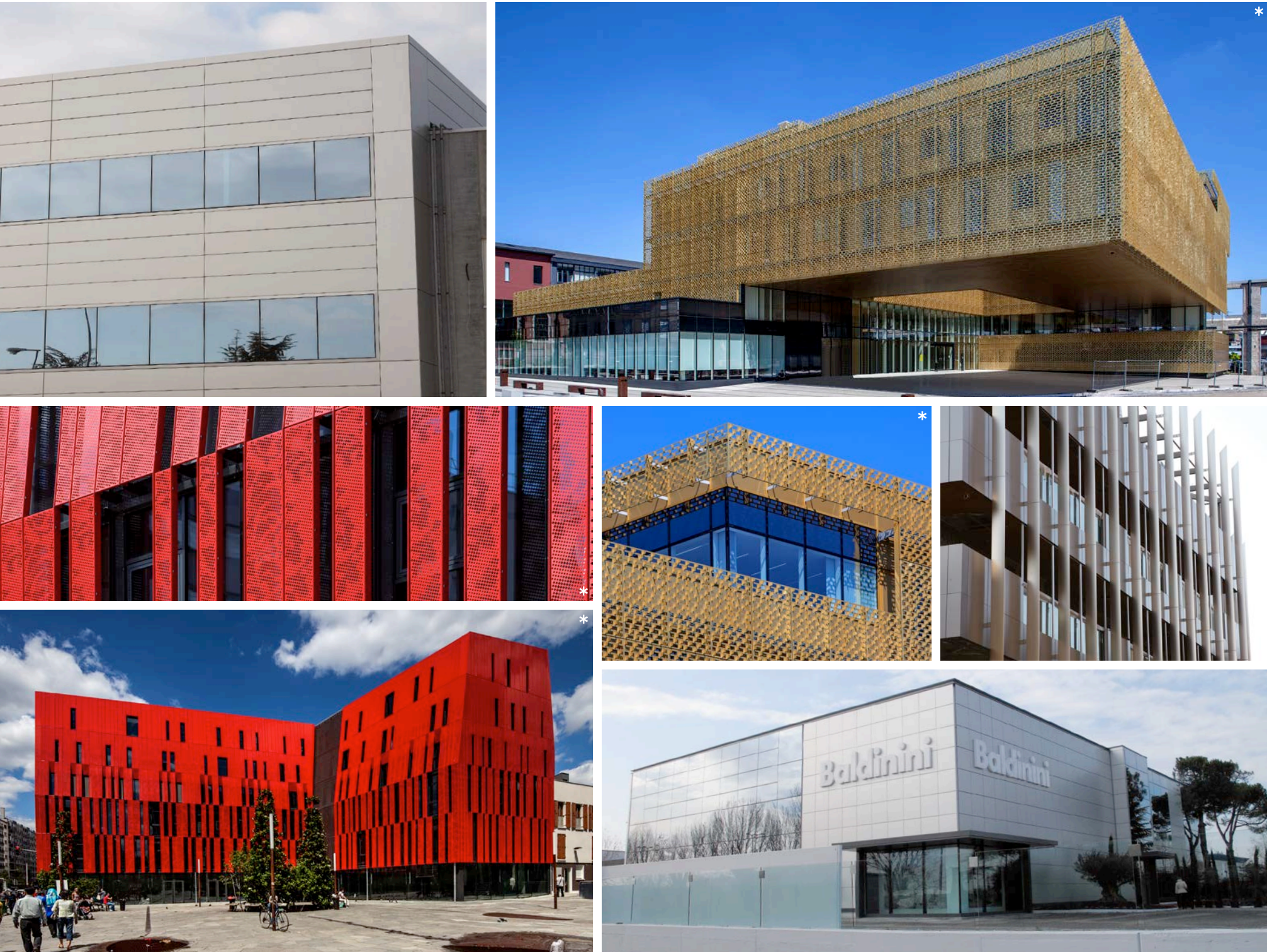
CNC Panel Router
with Vertical Table

|4221 |6321

ACM MINERAL CORE
READY

CNC Panel Router with **Vertical Table** for architectural facades panels processing.

CNC with Vertical Table: ACM/ACP, ACM Mineral core, panel router with alu honeycomb core, and corrugated core, Fibrecement, HPL...



* Ph. Fatih Kucukcolak

TYPES OF PANELS

ACM / ACP PE CORE MINERAL CORE

- ALUCOBOND®
- LARSON®
- ALPOLIC®
- ARCONIC®
- ALUBOND®
- ALBOND®
- SIBALUX®
- VITRABOND®
- STACBOND®
- MULTIPANEL UK®
-

ALU HONEYCOMB CORE

- ALUCORE®
- LARCORE®
- PLASCORE®
- STARCELL®
- CEL COMPONENTS®
- HONYLITE®
-

ALU CORRUGATED CORE

- METAWELL®
- DOLUFLEX®
-

FIBERCEMENT

- CEMBRIT®
- EQUITONE by ETERNIT®
- COPANEL®
- SWISS PEARL®
-

HPL

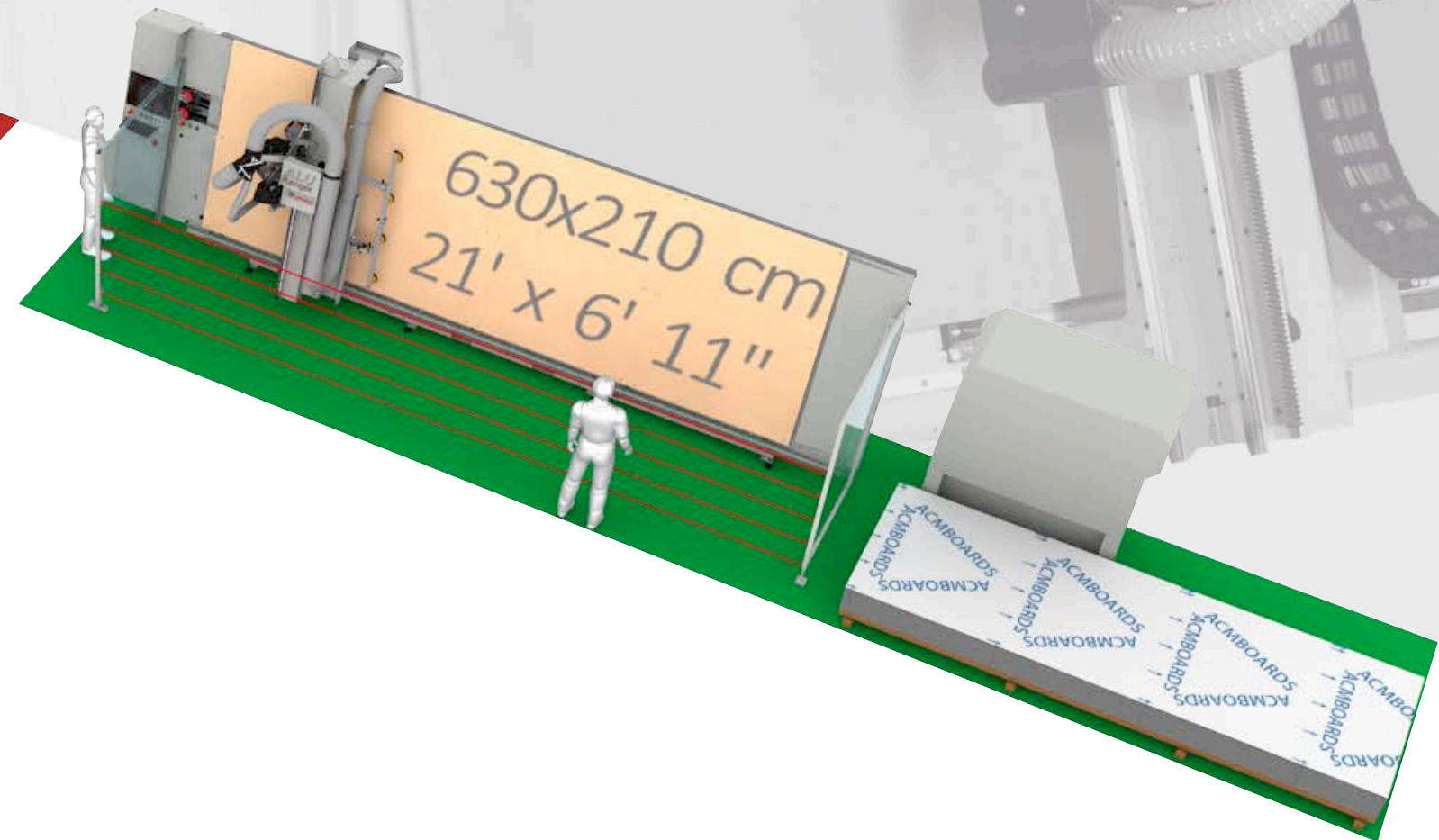
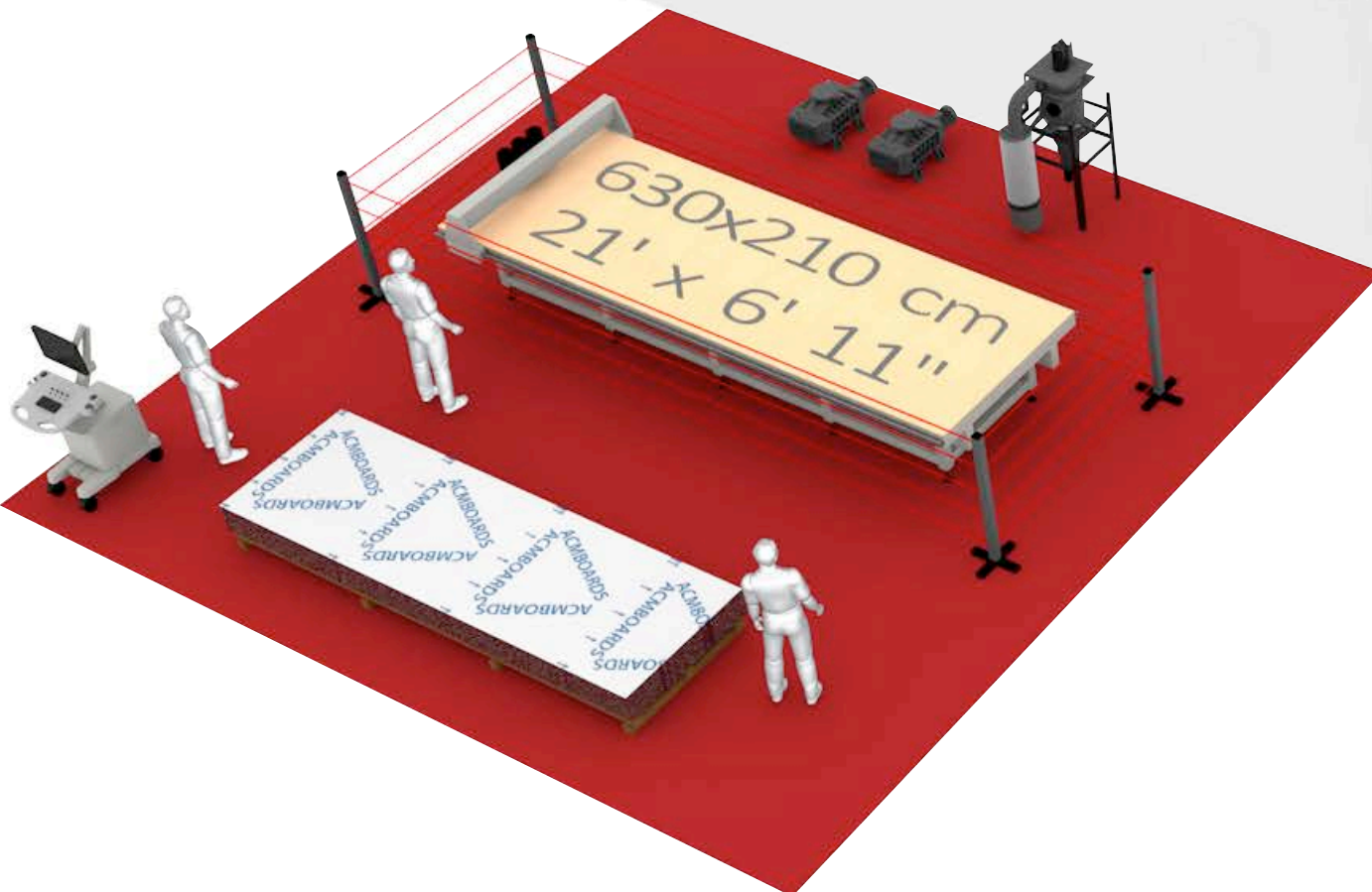
- TRESPA®
- MAX EXTERIOR®
- POLYREY®
- RESOPAL®
- FUNDERMAX®
-

I AM ALU RANGER

60% less...

- ...floor space required for a horizontal router system
- Designed to occupy less space
- Ergonomic access to the Vertical Table
- Safer work environment for the operator
- Eliminate table prep, debris not held falls to the floor

I AM VERTICAL, NO WASTED SPACE



CNC PANEL ROUTER
WITH **HORIZONTAL** TABLE

LAYOUT

121 mq - (1302 sq ft)

WORKING
TABLE

14 mq - (151 sq ft)



LAYOUT

49 mq - (527 sq ft)

WORKING
TABLE

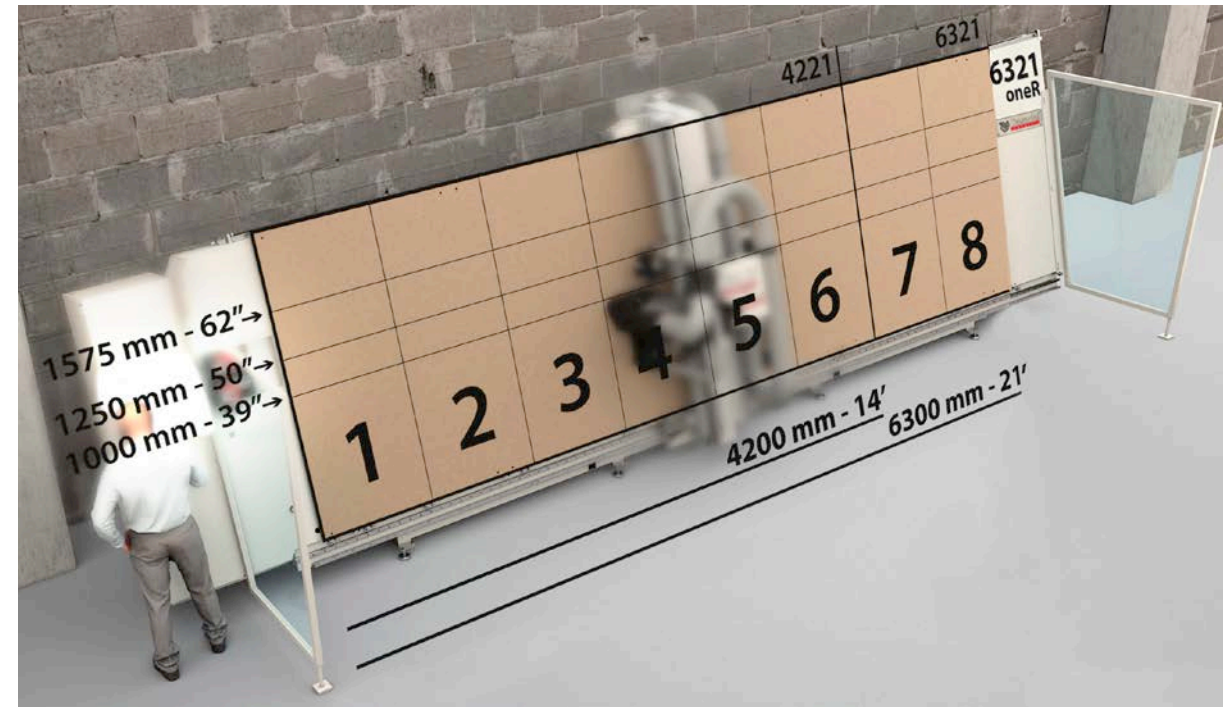
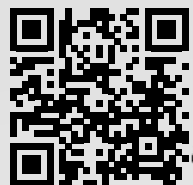
14 mq - (151 sq ft)

CNC PANEL ROUTER
WITH **VERTICAL** TABLE

oneR
6321

Panel Vacuum Hold Down System

- Vacuum zones designed for standard ACM panels
- Easy Release for processed panels (patent pending)
- No risk of panels falling during off-loading
- Vacuum pumps integrated inside the machine frame: less space required and reduced noise



- Vacuum panel holding with MDF sacrificial board.
- **Automatic vacuum zone selection** by control panel (**6, 8 zones**) (4221, 6321).
- **Manual vacuum 24, 32 zone** (4221, 6321) according to the different heights of the composite (1.000; 1.250; 1.575; 2.050 mm).

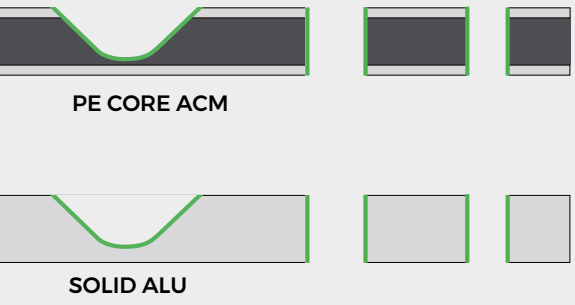


- Dry vacuum pumps (Made in Germany)
- **4221 oneR** 1x250m³/h pump Std
- **6321 oneR** 2x250m³/h pump Std

I HAVE A STRONG HOLD

MATERIAL

Milling with cutter at flute and aggregate Flute tool route Sawblade cut



FLUTE TOOL



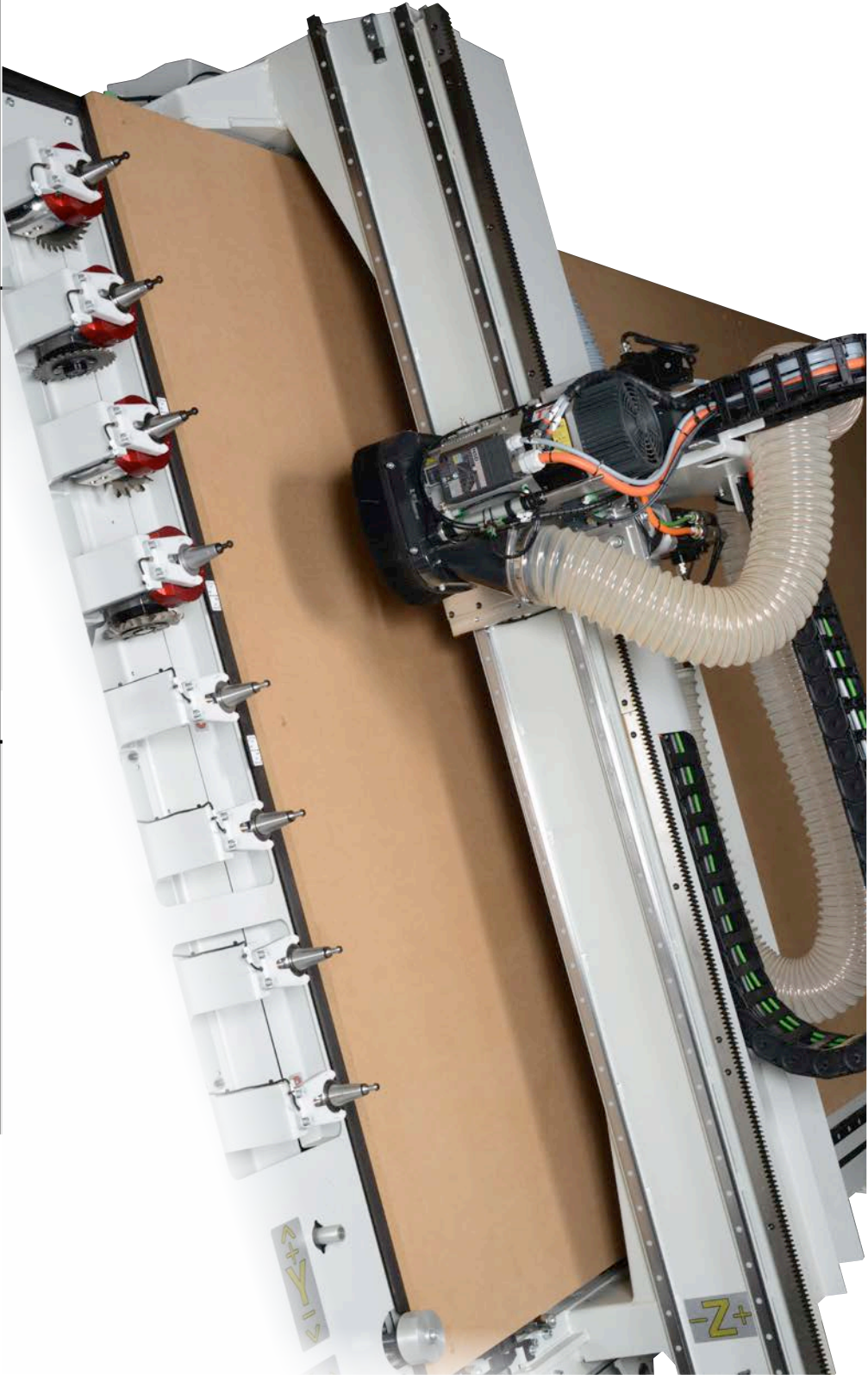
CIRCULAR SAWBLADE



ROUTER VGROOVE



R55A ELECTROSPINDLE FOR FLUTE TOOLS AND BLADE AGGREGATES



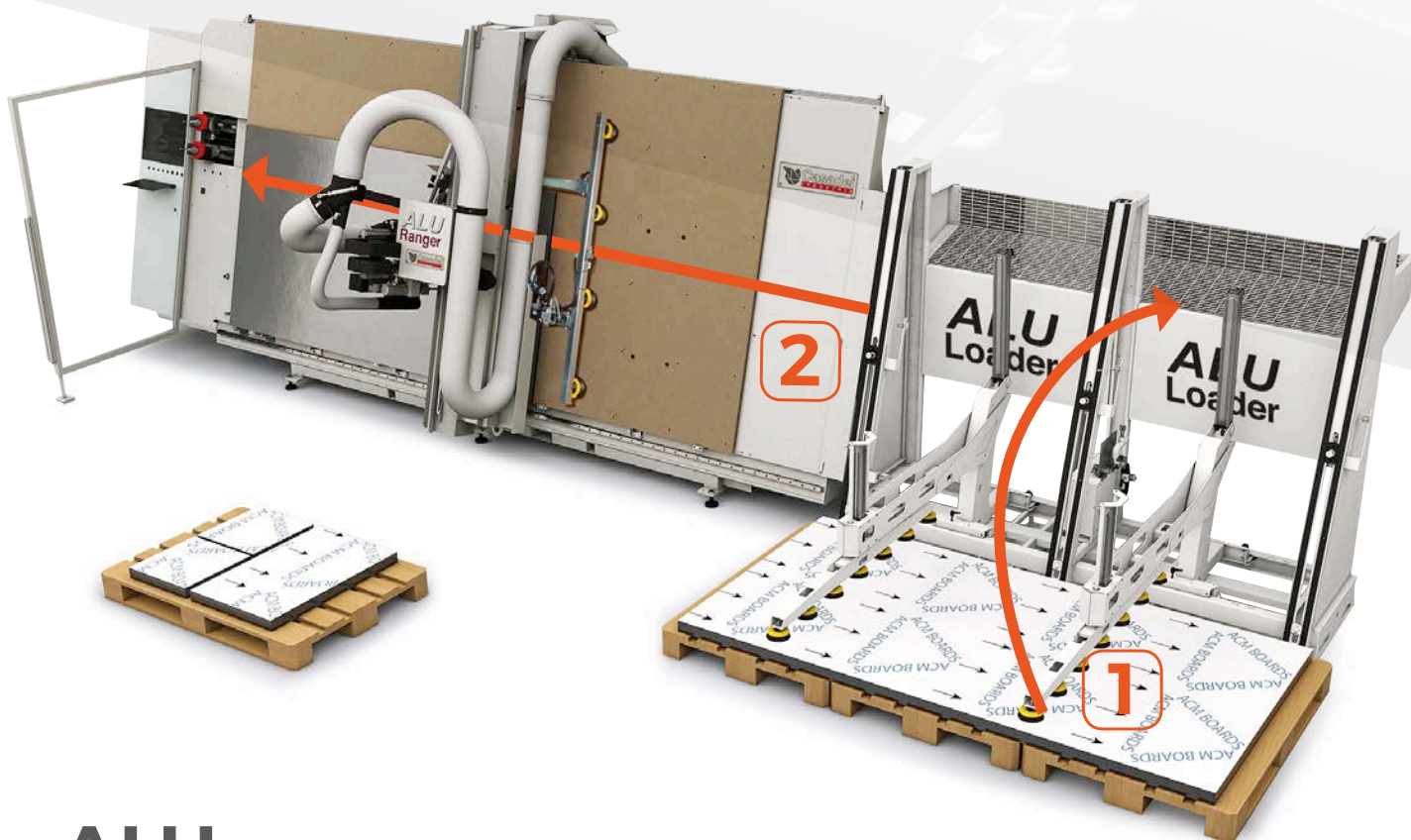
- High-efficiency electrospindle for router at flute and aggregate (one aggregate for 0° and one for 90°)
- High-resistance ceramic bearings
- Power 5.5 kW - up to 24000 RPM - Electroventilated
- Rotary tool changer (flute tools) 8 positions ISO 30 Cones - Collet ER32
- Integrated dust collection hood

I HAVE MY HEAD IN PLACE

IPM= INCHES PER MINUTE

Integrated automation

- Automatic loading and positioning without operators
- Increased productivity
- Zero risk of panels falling from table
- Ergonomically designed for easy panel off-loading



ALU LOADER

42 / 63

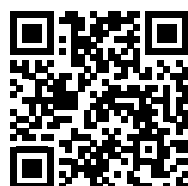
Automatic **panel loader**
for Alu Ranger (Opt.)

PATENTED.

ALU FEEDER

Automatic **panel positioning**
system for Alu Ranger (Opt.)

Automatic loading of the panels
with holding arms and suction cups connected
to the vacuum holding system of Alu Ranger.



① Loading

② Positioning

I DO ALL THE LOADING



The Vertical way

- Table flatness is guaranteed by machining the frame vertically
- The robust vertical design absorbs more vibration which results in less chatter marks during processing that will extend tool life.
- Operator's safety is increased by side protection barriers and a safety light curtain



Hand-held remote control (Opt)

- 4 lines and 16 characters
- Axis manual control "JOG"
- Speed control "Override"



Automatic presetter for tool length

- Fully automatic
- Measurement tolerance
 $\pm 0.02 \text{ mm} \pm 0.0007 \text{ In}$



Industrial numerical control

- Up to 7 axis controlled
(X,Y,Z interpolating)
- 17" LCD colour monitor
- Ethernet connection, USB, mouse



Origin pop-up stops

- Bearing for easy panel sliding
- Pneumatic control with safety
sensor connected to PLC



Automatic lubrication for linear guides



Automatic tools lubrication mister (Opt.)

I WAS MADE THIS WAY...

PROGRAMMING WITH CAD/CAM SOFTWARE

DXF DRAWINGS

Possibility of creating, modifying and implementing

IMPORT OF DXF FILES

from Autocad® or other CAD programs

EXPORT OF CAM FILES

to Vertical Machining Centre

AUTOMATIC TOOL ASSIGNMENT

from DXF layer import

INTEGRATED MANAGEMENT

of tools available

NESTING OPTION

for optimizing processing operations

ADVANCED NESTING OPTION

for maximum reduction waste

MODULE

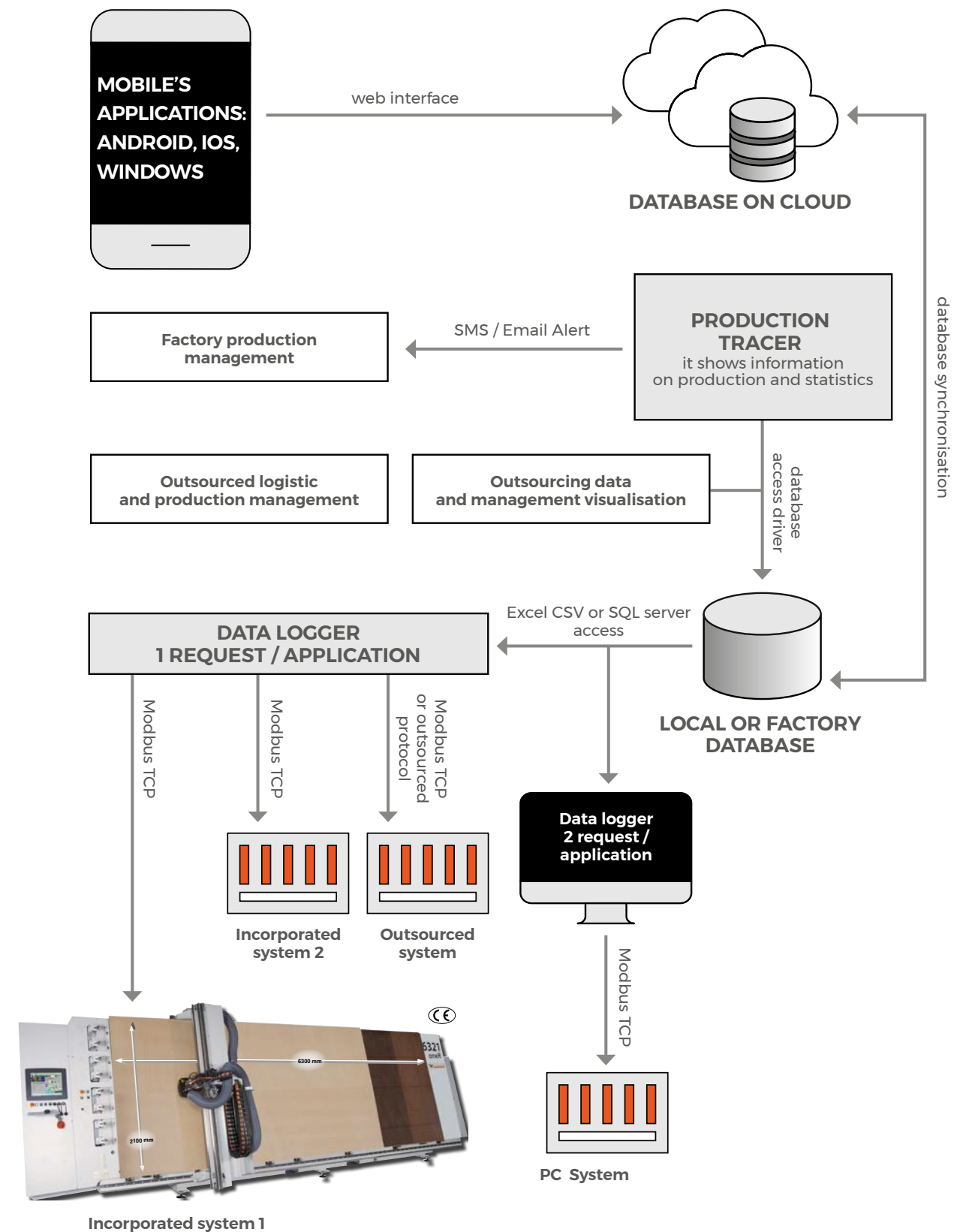
to calculate project costs

- cost of panels used for the façade
- cost for processing time
- operator's cost for cassette folding time
- cost of rivet and operator's cost for riveting
- assignment of any other cost regarding panel processing
- forecast for necessary panels for the job and for the processing time



I EXECUTE

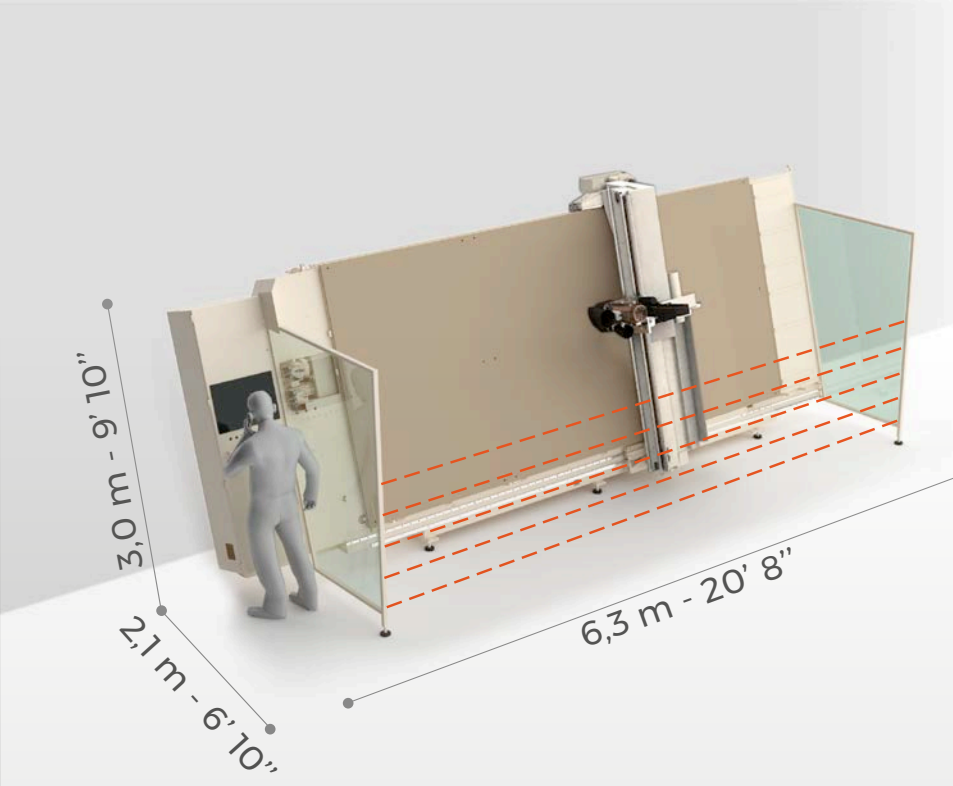
- Collaboration between operator, machine and devices
- System's integration



I AM SMART FACTORY_4.0

TECHNICAL CHARACTERISTICS

	ALU RANGER oneR 4221	ALU RANGER oneR 6321
Working table (mm)	X 4200 - Y 2100 - Z 90	X 6300 - Y 2100 - Z 90
Working table (imperial)	X 14' - Y 6' 11" - Z 3' ½	X 20' 8" - Y 6' 11" - Z 3' ½
Panel holding, vacuum by working table with MDF sacrificial board (selection by PLC)	6 zones AUTO	8 zones AUTO
Panel holding vacuum by zones combinations with manual activation (1000, 1250, 1575 mm) (39" - 50" - 62")	24	32
Vacuum pump	1 x 250 m3/h 1 x 147 Cfm	2 x 250 m3/h 2 x 147 Cfm
Axis speed (Rapid)	X 30 - Y 30 - Z 10 mt/min X 1181 - Y 1181 - 394 IPM	
Electrospindle R55A	5,5 Kw - collet ER32 up to 24000 g/min	
Automatic tool changer - working table side	8 positions - cones ISO30 - cone sensor	
Total power	ca. 14 KW	ca. 19 KW
Max weight of panel under process	ca. 250 Kg ca. 550 Lb	ca. 350 Kg ca. 772 Lb
Total weight	ca. 2700 Kg ca. 5952 Lb	ca. 3600 Kg ca. 7930 Lb

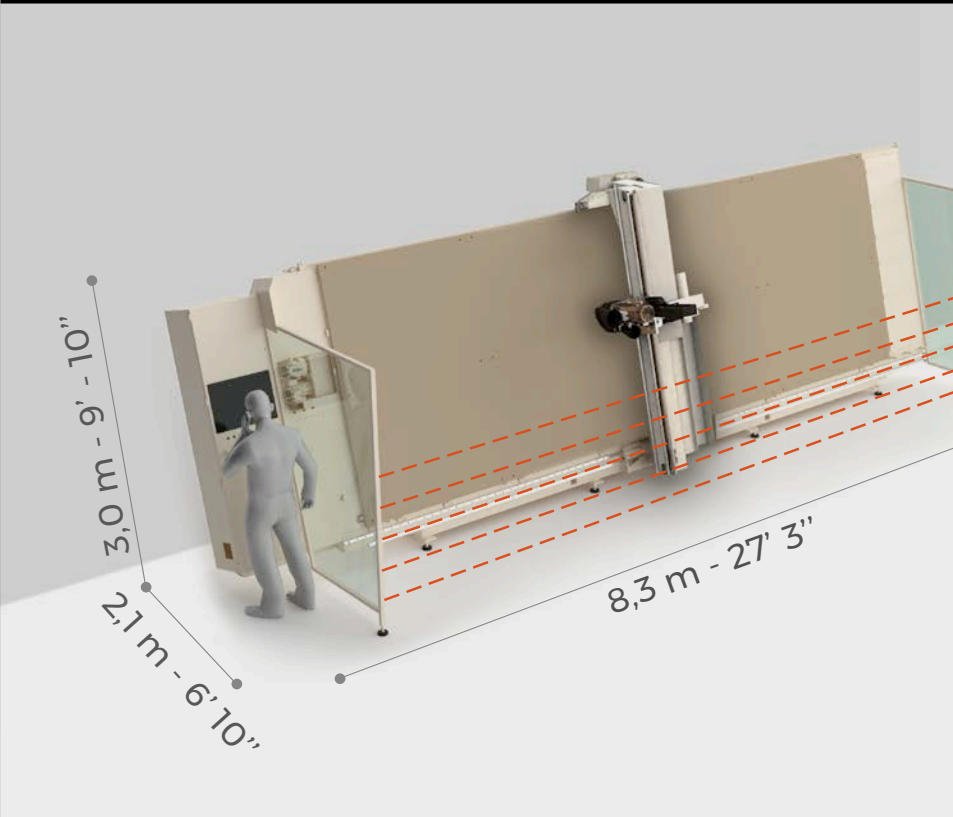


ALU RANGER
4221 oneR

WORKING TABLE
X 4200 - Y 2100 - Z 90 mm
X 14' - Y 6' 11" - Z 3' ½

SURFACE OCCUPIED
L 6,3 m - P 2,1 m - H 3,0 m
L 20' 8" - P 6' 10" - H 9' 10"

SURFACE OCCUPIED
ca. 13 m² - 140 sq ft



ALU RANGER
6321 oneR

TABLE SURFACE
X 6300 - Y 2100 - Z 90 mm
X 20' 8" - Y 6' 11" - Z 3' ½

SURFACE OCCUPIED
L 8,3 m - P 2,1 m - H 3,0 m
L 27' 3" - P 6' 10" - H 9' 10"

SURFACE OCCUPIED
ca. 17,5 m² - 188 sq ft

MY DIMENSIONS