PREFABRICATED FRAMELESS SANDWICH PANEL HOUSES





Rauta company

- ✓ Expert in steel construction
- Exclusive supplier of Ruukki
 commercial products to Ukraine
- ✓ Design, supply, installation





Technology features

- ✓ Absence of a separate frame
- ✓ PIR core sandwich panels act as a loadbearing structures and building envelope





Full-set delivery

- ✓ Standard house set

 (flooring, walls, partitions, roofing, additional elements and fixings)
- Extended house set
 (standard house set + lightning protection, windows and doors)
- ✓ Full house set
 (extended house set + foundation, engineering services and internal finishing)





High construction speed

- ✓ A house is erected within only 5-7 days (foundation, envelope structures, main engineering services)
- ✓ Small weight of structures
- All-weather installation
- ✓ Installation in congested conditions
- Possibility to extend





Energy efficiency

Thermal resistance of 160 mm thick Ruukki PIR panels **R=7,43 m²K/W**

Minimum acceptable value under DBN V.2.6-31:

✓ For walls: R_{min}=3.3 m²K/W

✓ For roof: R_{min} =6.0 m²K/W

Solar panels allow to obtain a Positive Energy Building





Reliability

- ✓ High load-bearing capacity
- ✓ Seismic stability of up to 7 points
- ✓ Burglar protection class 2



Durability

- ✓ High quality Ruukki sandwich panels (S280 Zn190-275 g/m² structural steel,
 PIR with compressive strength >100 kPa)
- ✓ Durability up to 50 years

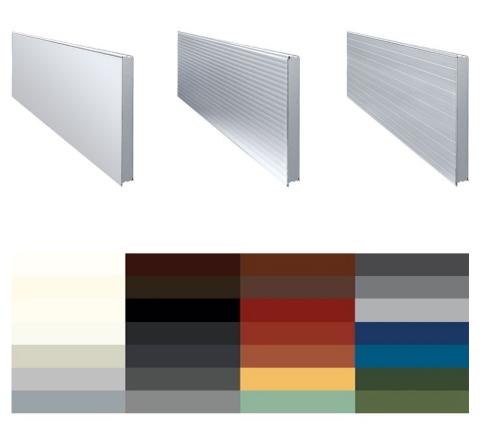




High operational compatibility

- ✓ Precise geometrical characteristics
- Minimum structures fitting on site
- High quality of construction





Finishing' options

- ✓ Three types of panel profiling
- ✓ All RAL colors
- Any additional internal and external finishing

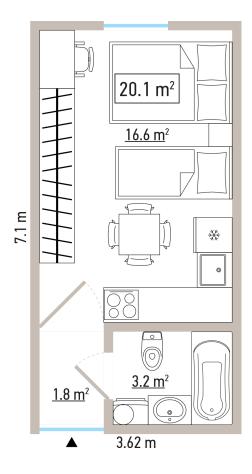




Life cycle

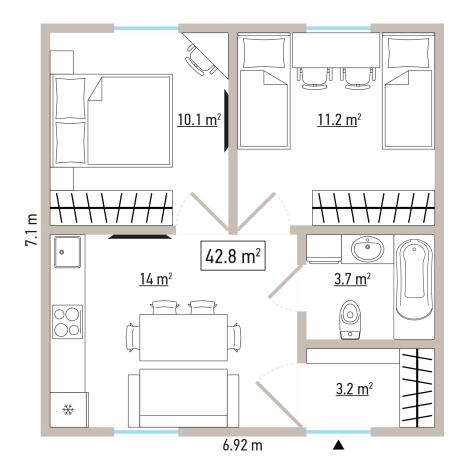
- ✓ High sustainability of materials
 (EPD declaration, LEED and BREEAM certificates)
- Ease to disassemble and relocate buildings
- Possibility of adjusting to new functions
 (recreation resorts, outpatient hospitals, administrative, trade or office buildings etc.)
- Recycling at the end of the life cycle
 (steel facing used as scrape metal and PIR core re-used or burnt)





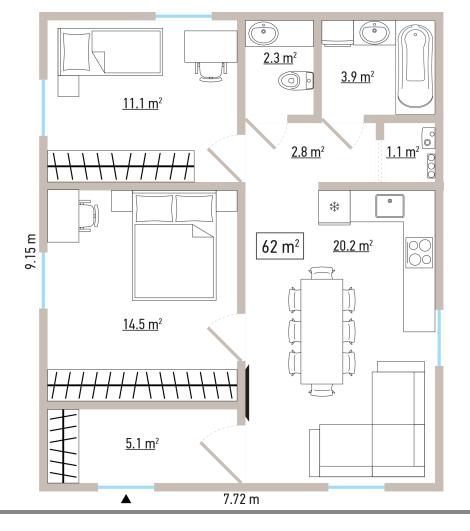
- ✓ Area 20.1 m²
- ✓ Lobby
- One room with a kitchenette
- Combined WC
- ✓ For 1-3 people
- ✓ Price starting from 690 €/m²





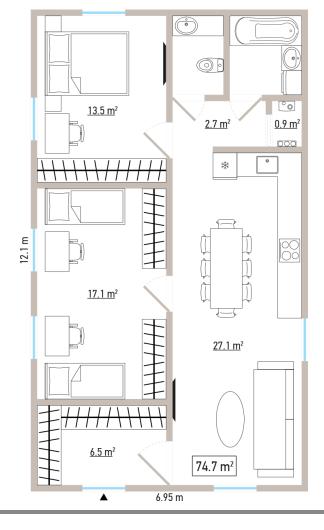
- ✓ Area 42.8 m²
- ✓ Lobby
- Two bedrooms
- ✓ Kitchen
- Combined WC
- ✓ For 2-4 people
- ✓ Price starting from 650 €/m²





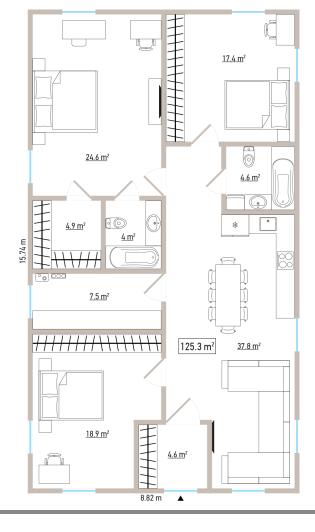
- ✓ Area 62 m²
- ✓ Lobby
- ✓ Two bedrooms
- ✓ Living-room with kitchen
- ✓ WC
- ✓ Bathroom
- Utility room
- ✓ For 2-4 people
- ✓ Price starting from 650 €/m²





- ✓ Area 74.7 m²
- ✓ Lobby
- ✓ Two bedrooms
- ✓ Living-room with kitchen
- ✓ WC
- ✓ Bathroom
- ✓ Utility room
- ✓ For 2-4 people
- ✓ Price starting from 650 €/m²





- Area 125.3 m²
- ✓ Lobby
- ✓ Three bedrooms
- ✓ Living-room with kitchen
- Guest WC
- ✓ Host WC
- ✓ Host wardrobe
- ✓ Storage
- ✓ For 3-6 people
- ✓ Price starting from 650 €/m²



THANK YOU FOR ATTENTION



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