HENGSEN REFRIGERATION · TECHNICAL CENTER

Monobloc or split unit — how to choose

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Applies to	Packaged monobloc and split condensing units	Issued by	Engineering Department

1. The short answer

Plug-in monoblocs are the right choice up to roughly 20–30 m³ at chiller temperatures (+2…+8 °C) in a temperate climate, because they need no refrigeration licence to install: mount the unit, plug it in, done.

Aspect	Monobloc	Split / remote
Practical room size	up to ~20–30 m³	above ~30 m³
Room temperature	+2…+8 °C (chill)	−18…−25 °C and below
Ambient limit	temperate, below ~+32 °C	above +32 °C
Pipe run	factory-charged, fixed short distance	long runs; unit in plant room or on roof
Install licence	none — plug-in	refrigerant handling required
Noise	at the room facade	away from staff

2. Where the monobloc stops working

- Freezer rooms below −18 °C: the hot condenser air is blown straight out of the room facade and the capacity drops with every degree above +25 °C ambient.
- Long pipe runs: a monobloc is factory-charged for a fixed distance between unit and evaporator; beyond that the split or remote condensing unit is the honest option.
- Rooms above ~30 m³: compressor noise inside or next to working areas becomes the limiting factor, not the capacity.

3. What pushes you to a split unit

- Ambients above +32 °C for long stretches of the year.
- Rooms that must run at −18…−25 °C with short pull-down times.
- Installations where the condensing unit can sit in a plant room or on the roof, away from staff.

Our engineering table matches the unit, evaporator, panels and controller to the room volume and the worst ambient it will see — the price you see is the price we ship.