

Long Distance Piping
Packaged Airconditioners

Smart cooling solutions for modern high-rises.





Effective Cooling, Elegantly

Modern high-rises and towering skyscrapers are the features of our skyline today. And so are the eyesores of numerous AC systems jutting out under every window. Not any more with Blue Star's innovative solution to meet the cooling needs of modern high-rises without detracting from their aesthetic charm. Introducing the Long Distance Piping Packaged ACs (LDP).

Designed to meet the specific needs of glass facade high-rises, IT buildings, malls and multiplexes, the LDP Packaged ACs come with extended piping, allowing the condensers to be placed far from the indoor units. This facilitates easy installation on the ground or on the terrace, and offers more flexibility to design the AC system to suit your specific building architecture. Just what you would expect from the leader in commercial airconditioning solutions for over 6 decades now.

Extended Reach for Exceptional Flexibility

Blue Star's LDP ACs are floor-mounted scroll compressor-driven packaged units. They are designed to handle piping distances of up to 100 metres between condensers and evaporating units, while the vertical run can be as long as 50 metres (as compared to just 7 metres in standard packaged units). This makes the LDP Packaged ACs ideal for installation on high-rise buildings with glass facades.

Undeniable Advantages



Easy installation in glass-fronted high-rises

Longer piping distances allow the air-cooled condensers to be placed on the terrace or ground. The plant rooms can now be located wherever architecturally feasible.



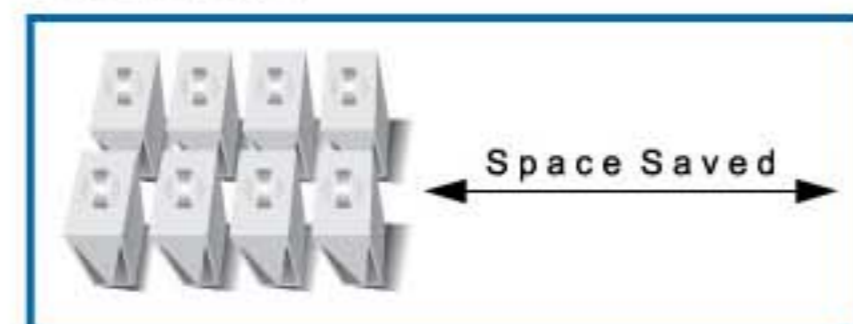
Space-saving upflow option

The condenser units allow upflow and sideflow air throw options, allowing for a space-saving layout.

Side Discharge



Top Discharge



Customised ducting design

The LDP units are flexible enough to allow ducting at various duct static requirements, resulting in customised cooling layouts.



Superior cost-efficiency

As compared to chilled water systems with complex accessories, VFDs and AHUs, the LDP Packaged AC systems are significantly more cost-effective.



Quick project completion

Blue Star's LDP cooling units are completely factory assembled, tested with ready-to-install indoor and outdoor units that ensure quick installation. You can also choose to commission these units on a floor-by-floor basis, as occupancy takes place.

Technical Highlights



Scroll compressor

The 100% volumetric efficiency scroll compressors ensure maximum delivered cooling capacity despite the long piping design and the friction losses of the circuit. The twin circuit refrigeration system handles part load efficiently and delivers additional power savings over and above the 10% a scroll promises over conventional reciprocating packaged units.



Indoor liquid receiver

Since these units require an additional charge of liquid refrigerant proportional to the pipe length, an indoor liquid receiver is located in the IDU to ensure entry of saturated liquid into the expansion device and eliminate flash gas formation due to the longer piping.



Online accumulator

Each compressor circuit is protected by an online accumulator which prevents the entry of the liquid into the compressor and prevents dilution of the lubrication oil.



High-efficiency oil separator

Each compressor circuit has an independent high-efficiency oil recovery system with a special lubrication oil separator. This wringles out all the oil carried away with the hot discharge gas and returns to the compressor, ensuring safe levels of lubrication oil inside the compressor.



Safety devices

The LDP cooling system is designed for durability and long life. High-quality safety pressure switches for Low and High Pressures protect the compressor from system failures. Special protection devices (SPPR) ensure long compressor life by protecting it against reverse polarity, failure of one phase, unbalanced voltage between any two phases etc. The system also comes with in-built thermal protection and high current protection devices.

