

ARMEC COOLING SYSTEM LIMITED

Air Chiller



It is the state of the art cooling technology for air blown film lines.

The control of constant temperature and air flow parameters is providing finished product with stable properties under any environmental conditions

Bubble cooling: bubble cooling is one of the major factors to consider during the extrusion process; the introduction of the internal bubble cooling system (IBC) and outer bubble cooling system (OBC) has allowed considerable progress by precise control of air temperature for cooling the external air ring.

Precise control of the air ring temperature ensures that the geometric shape of the bubble, the “neck”, the “frost line” position and the bubble’s diameter is maintained

AFD by supplying chilled air to the blown film extrusion line, grants a production increase up to 30%

AFD integrates the advantages being already part of the AFD system with a few technical pluses further increasing its performances and energy saving.

- ✓ With VFD which saves 30% energy than hot gas bypass system.
- ✓ Direct DX System.
- ✓ Fine accuracy of temperature, which can be adjustable at $\pm 1^{\circ}\text{C}$
- ✓ Multiple compressor design with scroll technology.
- ✓ 100% independent refrigeration and controls.
- ✓ Controlled by Programmable Logical Controller(PLC)
- ✓ Including Pressure Transmitter which senses the perfect pressure of system.

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Advantages of Air Chiller

- ✓ Lower air temperature
- ✓ Reduce the power cost
- ✓ Precise temperature control ensures uniform air temperature throughout the process.
- ✓ Direct setting of air temperature.

Air chillers control the temperature at air ring of $\pm 1^{\circ}\text{C}$ which provides the following advantages

- ✓ Consistent, high quality film
- ✓ Negligible temperature tolerance.
- ✓ Low temperature cooling increases shine in blown film.
- ✓ Increased productivity by up to 20%
- ✓ It can maintain properties of blown film plants under any environmental conditions.
- ✓ The direct air cooling system by direct expansion of the gas grants saving up to 50%, if compared to the standard chiller + heat exchanger system and up to 30% compared to any hot gas by pass system.