



Spraying Systems Co.®
Experts in Spray Technology



Made in Australia

AUTOJET® CARCASS CHILLING SPRAY SYSTEM

OVERVIEW

The standard process of chilling animal carcasses is to circulate cold, dry air over the hot carcasses. This draws moisture out of the surface which is then lost to evaporation. Over time, this results in shrinkage and weight loss. The fat covering of the carcass will influence the amount of total weight loss. Results will vary between chillers, however typical carcass weight loss is about 1.5% to 3.5%.

Spraying Systems Co.® offers an exceptional carcass chilling solution to meat processors across the world. The AutoJet® Carcass Chilling Spray System uses sprays of chilled water to offset the evaporative loss of carcass chilling. The system will typically reduce the total weight loss to about 0.5% or less.

BENEFITS

- Higher percentage of body weight retained
- Savings on energy and refrigeration expenses due to reduced heat load
- Chiller room floor cleaning time can be reduced down to 10 minutes as the water on the floor stops blood from drying
- Boning room workers have indicated their preference for processing spray chilled carcasses

FEATURES

- The programmable controller manages the spray duration and the intervals between sprays
- The system is able to control and monitor water pressure and water temperature
- Water use for each spray operation is monitored to avoid excessive waste
- The system can be accessed remotely by an AutoJet® engineer for back up assistance

IDEAL FOR CHILLING

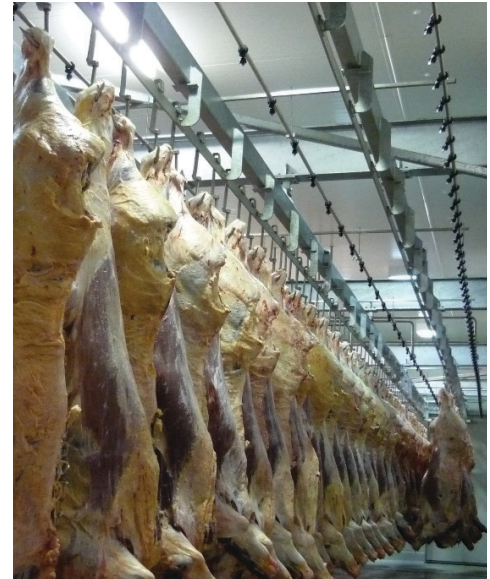
- Beef
- Pork
- Lamb
- Venison



HOW DOES SPRAY CHILLING WORK?

The standard chilling process uses circulating cold air to cool hot carcasses by passing cold air over the carcass thus evaporating surface moisture. As the cooling process continues and the surface moisture has evaporated, deeper tissue is cooled as moisture is drawn to the surface. The evaporation is rapid in the initial stages as there is a large difference between the hot carcass temperature and the chiller air temperature. The evaporation causes carcass shrinkage, which is the moisture lost from the carcass due to the chilling process.

Spray chilling uses sprays of water to offset the evaporative loss of carcass chilling. The sprayed water is sacrificial which is then evaporated from the carcass and moisture is not drawn from deeper in the tissue. The timing of the sprays and the amount of water sprayed is the key to minimise the shrinkage as close to zero as possible. Shrinkage and carcass chilling are also influenced by other variables, including but not restricted to, spray nozzle coverage, chiller design, operating conditions, carcass size and carcass fat cover.



MICROBIAL CONSIDERATIONS

The AutoJet® Carcass Chilling Spray System uses chilled water at 3-5° Celsius to minimise bacteria growth. The stainless steel chilled water holding tank has also been designed to be flushed and sanitised. The water supply to the system needs to be fitted with suitable filtrated potable water to meet the requirements of the system.



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