

Automated Boning Room Vision

The X-ray Primal System is the first stage of RTL's automated boning room to be commercially released.

Hindquarter machines (depicted to the right) form stage 2 of the project, with current prototype machines in production, the systems are ready for commercialisation.

Bone-in, middle and forequarter processing prototype work is well advanced to meet a planned 2010 / 2011 release.

See Scott's YouTube site for video of RTL's Vision of an automated lamb boning room, videos of commercially available systems and systems under development.



X-ray Primal System



Enables maximum yield to be realised from the most expensive cost of operating a meat processing company (livestock costs @ 80%).

Utilising X-ray technology and advanced cutting blades, this system, designed by a team of meat processing experts, ensures accurate cutting of the carcase, with reduced sawdust and elimination of bandsaw injuries.

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RTL is a joint venture between Scott Technology Ltd and Silver Fern Farms Ltd.

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The X-Ray Primal System was developed in partnership with Meat & Livestock Australia.



NZ Patent No 540749, 548648, 552333
International Patents Pending

How it Works

The RTL automated primal cutting machine separates the carcass cleanly and accurately into its primal sections at a rate of 10 carcasses per minute. Knife technology replaces traditional saws and forequarter blades pivot to match the rib angles. Yield is therefore maximised and the final product displays a clean cut surface.

BENEFITS:

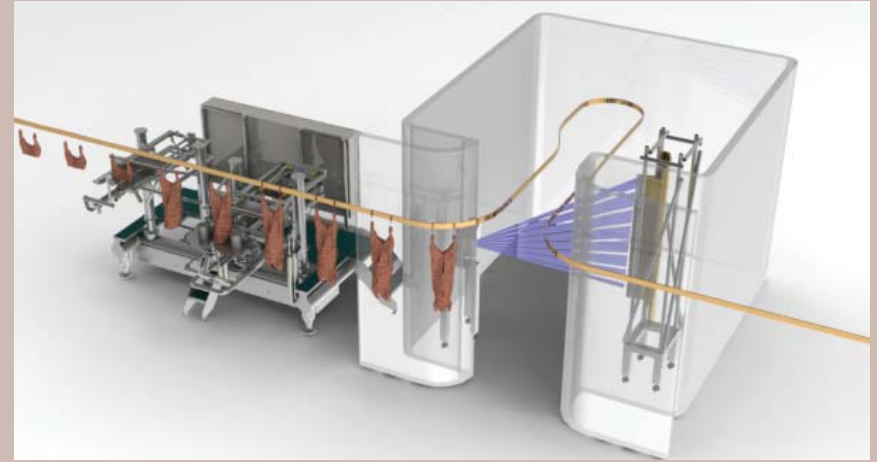
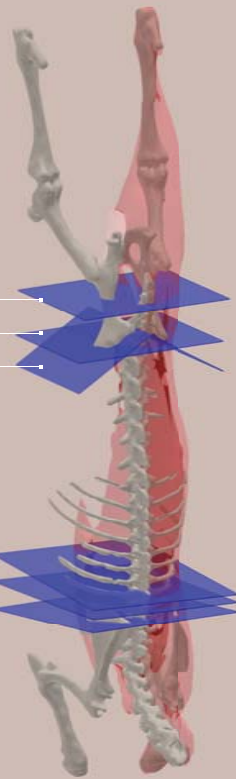
Typical NPV =

- Typical payback 12-18 month
- Typical ROI =

Iso View

- Chump On Cut
- Chump Off Cut
- Scallop Cut

Forequarter Removal Cuts



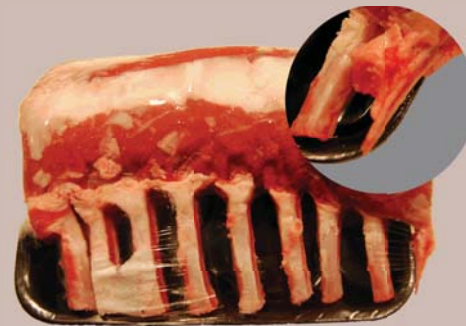
X-ray Enabling Technology

Carcasses are scanned using X-ray technology. From this, a 3D spatial image is generated. Reference cut height and rib pitch is automatically determined from the image for the selected forequarter removal cut. The cut height for the selected middle removal cut is also automatically determined.

This cutting data is tracked through the process and matched to the correct carcass at the cutting station. RTL boning room X-ray data will follow the carcass and its pieces beyond the Primal machine to the hindquarter, middle and forequarter systems, ensuring optimum yields are achieved throughout each stage of the smallstock boning process.

The X-ray system guarantees the cutting across ribs, as depicted below, is eliminated from the products that you supply your customers.

X-ray Primal System



PROFIT

YIELD

QUALITY

PRODUCT MIX

THROUGHPUT

KNOWLEDGE

LABOUR & OH&S \$

• Yield benefit by consistent and accurate cutting following the contour of the bone to separate the primal sections.

• Yield benefit and quality improvement by eliminating saw paste.

• Increased product quality and shelf life with consistent cut accuracy and lower product handling.

• Can select a 4/5/6 Rib Forequarter or a 7/8/9 Rib Saddle to meet market demands.

• Drives a continuous and evenly spaced room flow at a selectable speed up to 10 carcasses per minute potentially increasing efficiency downstream at 10 carcasses/min.

• X-ray vision provides key information for further technology within the boning room. (See RTL suite of lamb boning machinery).

• X-ray system able to output product data that may be useful for tracking systems.

• System can output data on production numbers and rates.

• Labour saving and removal of dangerous bandsaw operation and heavy lifting of carcasses onto the bandsaw table.