



IDEAS TO LIFE RANGAHAUA KIA WHAI HUA

# Engineering

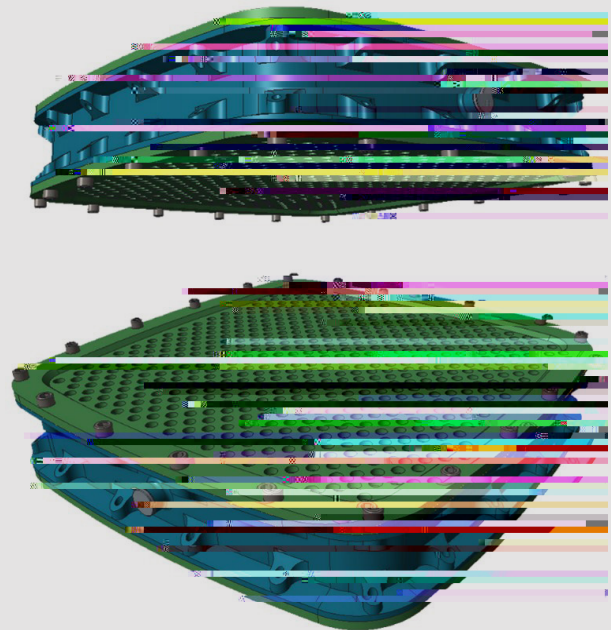
split thickness skin graft

## Background

Burns are a major global public health problem, resulting in an estimated 180,000 deaths per year. Non-fatal burns are a leading cause of morbidity and are associated with prolonged hospitalisation, disfigurement, disability and pain.

The current gold standard treatment for burns is split thickness skin grafts (STSG). Skin used in this procedure consists of epidermis and part of the dermis. However, contractures can occur during healing and poor appearance can result from colour changes.

If the burn area is large and there is insufficient healthy skin to produce grafts to cover the entire burn, repeated



## Major advantages

- Ability to use patient's own cells – autologous skin so no graft rejection risk.
- Both dermal and epidermal layers – permanent wound coverage even for full-thickness wounds.
- Faster production based on proprietary medium.
- Reduced cell manipulation and contamination risk for improved safety.
- Potential to heal major wounds and treat life-threatening skin diseases.

# Applications