Unique PRODUCT Catalogue

This product catalogue is the result of the number of customised products requested by organisations and individuals Australia wide and produced by REHABTech

1998
Introduction

Aims of the Unique PRODUCT Catalogue

REHABTech is committed to being a resource for the Australian Rehabilitation Industry. This Unique PRODUCT Catalogue is part of that commitment. Since the commencement of REHABTech we have had many requests to manufacture or modify specialised custom made devices.

The number of devices has grown substantially since our inception, hence the need to catalogue these products has become a necessity.

REHABTech’s aim is not to be a commercial competitor to suppliers of equipment or products, but to compliment what is commercially available.

This product catalogue is the result of numbers of customised products requested by organisations Australia wide. Although many of these products are suitable only for specific cases, it is also an aim of this catalogue to create an awareness of the types of specialised products which can be manufactured or developed.
Our future intention is to continue to update this product list as the need arises and dependant on feed-back from the rehabilitation industry.

This service is a brought to you with the support of

In collaboration with

and INNER & EASTERN healthcare network

**Our Service people**

**Maree Boehm**  
*Services Co-ordinator*

- Co-ordinates your enquires and orders.

  **Contact phone (03) 9528 1960**

---

**Ross Stewart**  
*Rehabilitation Engineer*

- Provides Rehabilitation Engineering Services including design, failure consultations and manufacture of rehabilitation products.

---

**John Cumbo**  
*Prosthetist/Orthotist*

- Provides Prosthetic/Orthotic Support, Information and display Services.

---

**David Peak**  
*Technical Services Officer*

- Provides Technical Support Services including design, drafting and manufacture of rehabilitation products.
SPECIALISED Devices & CUSTOM Made PRODUCTS & REHAB Engineering Service

**REHABTech** HAS A DESIGN AND MANUFACTURING SERVICE FOR THOSE IDEAS WHICH YOU MAY HAVE.

We provide services for those clients who require specialised custom made devices either to your specification or with our design help. This can be done as part of a clinical assessment involving our team of medical, therapy and rehabilitation engineering staff or directly with our engineering and technical services officers.

We will provide a quote for:

- Design work
- Building and construction of a prototype
- Complete manufactured products
- Products for exhibition or display

If you have any ideas, don’t hesitate to contact us. Sometimes all that is needed is a phone call or a quick sketch.
# Table of Contents

## INTRODUCTION

- AIMS OF THE *Unique Product Catalogue* 1
- *Our Service People* 2

## SPECIALISED *Devices & Custom Made* PRODUCTS & *Rehab Engineering Service*

- LOWER LIMB PROSTHETIC COMPONENTS 6
  - *Aluminium Spacers* 7
  - Low Profile, External Lightweight Shuttle Lock Kit 8
- LOWER LIMB SPORTS AND RECREATIONAL PROSTHESSES 9
  - Cycling Prosthesis 10
  - Elastic Strain Energy Prosthesis 11
  - Waterski Seat 12
  - Ski Outrigger 13
- FOOTWEAR ACCESSORIES 14
  - Inbuilt Shoe Insert 15
- UPPER LIMB PROSTHETICS ACCESSORIES 16
  - Special Fork Terminal Device 17
  - Upper Limb Customised Terminal Device 18
  - Adjustable Hanger 19
  - Trans-Humeral Lift Assist 20
- UPPER LIMB TRAINING PROSTHESSES 21
  - Upper Limb Training Prosthesis 22

---

*REHAB Tech*, 260-294 Kooyong Road, Caulfield Vic 3162, Australia.
Telephone: +61 3 9528 1960, Facsimile: + 61 3 9528 1077
e-mail: REHAB.Tech@eng.monash.edu.au
# Table of Contents

**INTERIM UPPER LIMB PROSTHESIS KIT** 23  
**MYO ELECTRIC TRAINING ARM** 24  

**WHEELCHAIR ACCESSORIES** 25  
**WHEEL CHAIR HANDLE** 26  

**MANUFACTURING EQUIPMENT** 27  
**TRIPLE MANDREL HOLDER** 28  
**VARIABLE POSITION MANDREL HOLDER** 29  
**WORK PEDESTAL** 30  
**TUBE CLAMP AND CUTTING GUIDE** 31  
**BALL DRIVER** 32  
** SILICONE CUPS** 33  
**VERTICAL ALIGNMENT AND DUPLICATING JIG** 34  
**LOW PROFILE VALVE ‘DUMMY’** 35  

**RESEARCH AND ASSESSMENT EQUIPMENT** 36  
**OVERHEAD HARNESS GAIT RE-EDUCATION SYSTEM** 37  
**MOBILE COMPUTER WORK STATION** 38  
**PROSTHESIS MOUNTED CAMERA** 39  
**LOAD CELL FOR LOWER LIMB PROSTHESSES** 40  
**ULTRA VIOLET LIGHT BOX** 41  

**INFORMATION AND PUBLICATIONS** 42  
**REHABInfo** 43  
**TechGUIDE** 44  

**DISPLAY EQUIPMENT** 45  
**DISPLAY CABINETS** 46  
**COLOURED TERMINAL DEVICES** 47  
**BRIGHTLY COLOURED DISPLAY SOCKETS** 48  
**DISPLAY MANIKINS** 49
Lower Limb Prosthetic Components
ALUMINIUM SPACERS

Used as a spacer between socket mounting block and socket adaptor.

These square or round anodised aluminium spacers are designed to suit European four hole adaptor systems.

Overall dimensions: 52mm x 52mm x 3mm
- Weight approx: 11 grams
- Suitable as a spacer in lower limb prosthetics.

Price & availability on application
LOW PROFILE, External Lightweight SHUTTLE LOCK KIT

Designed to simplify the fabrication process of incorporating a locking device in a lower limb prosthesis.

An important feature of this unique system is the accessibility of the external shuttle lock mechanism that can be easily removed and replaced.

To improve durability it incorporates a stainless steel insert bush to guide the pin into the shuttlelock.

Compatible with four hole European prosthetic standard.

Total Weight of Kit: 226 grams (including screws)

Height of unit: 10 mm suitable for use in lower limb prostheses.

Price & availability on application
Lower Limb Sports and Recreational Prostheses


**CYCLING PROSTHESIS**

This lightweight trans-tibial prosthesis, was specifically designed for cycling. It attaches directly to the pedal.

The aerodynamically designed laminated structure eliminates movement or flexing whilst cycling, in order to maximise the power transmission from the cyclist to the pedal.

Total weight: 1250 grams

**Features:** The version which was used for the Atlanta Paralympics was constructed with an Australian flag design through the lamination.

*Price & availability on application*
ELASTIC STRAIN ENERGY PROSTHESIS

Prosthetic limb designed for discuss throwing for a trans-femoral amputee.

This unique design was developed, using a laminated structure, to allow for a predetermined amount of return spring at a rate suitable for this sport.

Price & availability on application

Video available
WATERSKI SEAT

This custom moulded thermoplastic seat will enable a bilateral amputee skier, better control and balance functions by allowing hip movement to be directly transferred to the ski.

The moulded bucket seat is height adjustable and easily removed from the ski, while the streamlined structure reduces water wash.

Price & availability on application
SKI OUTRIGGER

This ski outrigger is designed for disabled three point skiing and is based on a forearm crutch design.

The ski base of the outrigger can be locked in a vertical position. When used for walking the spiked ends prevent slipping on ice. A cord on the handle returns the ski to a horizontal skiing position.

The construction of the ski outrigger consists of a standard walking crutch, while the specially manufactured ski outrigger assembly is chrome plated to prevent corrosion

Price & availability on application
Footwear Accessories
INBUITL SHOE INSERT

A lightweight, durable carbon fibre shoe insert, used in the construction of custom built shoes.

This insert gives a rigid planter support for the foot.

These inserts are custom made to order.

Typical weight: 36 grams

*Price & availability on application*
Upper Limb Prosthetics Accessories
SPECIAL FORK TERMINAL DEVICE

This terminal device is a multipurpose tool used for trans-radial amputee.

This device may be used as an aid in the kitchen to stabilise a variety of vegetables on the cutting board, holding dishes etc.

As the fork is attached only to the silicone liner rolled over the stump it is quick and easy to use.

It is small (only 80 mm long) and constructed of stainless steel.

Only suitable for trans-radial amputees

Price & availability on application
UPPER LIMB CUSTOMISED TERMINAL DEVICE

This specialised terminal device can be used for either a trans-humeral or trans-radial prosthesis.

The customised terminal device, has been designed to fit precisely to a train control handle, whilst allowing the amputee to quickly release his grasp from the control lever.

Made from high grade aluminium, this terminal device is both lightweight and durable.

Suitable for both trans-humeral and trans-radial amputees

Price & availability on application
ADJUSTABLE HANGER

This device is used to determine the exact cable length during the initial fitting of either a temporary or definitive upper limb prosthesis.

This adjustable hanger is stainless steel and can be used with cables of different size diameter. It will accept either 1/16, 3/64 or 3/32 diameter cable.

Used in the initial fitting of either temporary or definitive upper limb prosthesis

Price & availability on application
TRANS-HUMERAL LIFT ASSIST

This cable and pulley system, will assist with the forearm lift of a trans-humeral prosthesis.

By using this pulley device, which is mounted laterally on the prosthetic elbow joint, the trans-humeral amputee gains forearm lifting control through a smoother action around the pivot point.

Suitable for trans-humeral amputees

*Price & availability on application*
Upper Limb Training Prostheses
UPPER LIMB TRAINING PROSTHESIS

The upper limb training prostheses are available for either trans-humeral / trans-radial amputees.

The functions of the standard upper limb prostheses are incorporated in these training prostheses and hence are an ideal tool for the allied health professional involved in teaching students or patients.

Suitable for pre-operative trans-radial / humeral amputees and teaching purposes

Price & availability on application
INTERIM UPPER LIMB PROSTHESIS KIT

The interim prosthesis is a light weight post-operative kit available for either trans-humeral / trans-radial amputees.

The forearm section of the trans-humeral frame is length adjustable, making it ideally suited for post surgery as a rehabilitation training device. Both of these assemblies can be provided with a terminal device and cable and harnessing.

If required an adjustable hanger assembly is included.

Suitable for post-operative trans-radial / humeral amputees

*Price & availability on application*
**MYO ELECTRIC TRAINING ARM**

The myo electric training arm is a fully functional trans-radial externally fitted upper limb prosthesis. May be used for student training or demonstrations.

This unit can come complete with a frame, myoelectric terminal device, inner cosmetic cover and battery.

Suitable for training or demonstration purposes

*Price & availability on application*
Wheelchair Accessories
WHEEL CHAIR HANDLE

An ergonomically designed and detachable wheelchair handle, allows the person pushing the wheelchair greater control.

Available in various colours.

Suitable for most wheelchairs

*Price & availability on application*
Manufacturing Equipment
TRIPLE MANDREL HOLDER

The triple mandrel holder is held in a bench vice, making it possible to clamp or rotate two mandrels in the horizontal and one in a vertical position.

The unit is plated to prevent corrosion

Suitable for most cast modification procedures using a standard size mandrel.

*Price & availability on application*
VARIABLE POSITION MANDREL HOLDER

A purpose built height adjustable mandrel holder, that when fitted to an existing holder allows the working height to be adjusted by up to 600 mm.

The unit is plated to prevent corrosion.

Suitable for most prosthetic and orthotic cast modification procedures, using a standard size mandrel

Price & availability on application
WORK PEDESTAL

This pedestal is used to mount a bench vice or vertical alignment jig. The pedestal is built from a strong, large diameter steel pipe, whilst the base and top section is made from 10mm thick mild steel. “Dyna bolting” the base of the pedestal to the floor, results in a very strong vibration free mounting platform.

The height can be made to order and the finish is powder coated to your preferred colour.

Suitable for mounting of bench vice or vertical alignment jig.

Price & availability on application
**TUBE Clamp and Cutting Guide**

The tube clamp and cutting guide is made of 2 aluminium hinged profile formers with chrome plated saw cutting guide. This clamp makes it possible to hold pylons or walking sticks in a normal bench vice without scratching or distortion them.

The guide plate on the clamp makes it possible to accurately cut tube at 90° with a hack saw.

The steel guide plates are chrome plated and can be removed for adjustment. The aluminium clamps are anodised black.

Available in 25mm, 30mm, 34mm, and 35mm sizes.  

*Price & availability on application*
BALL DRIVER

The ball driver allen key can be mounted into a powered screw driver to assist with the assembly/disassembly of allen screws.

The appropriate length can be made to suit any specialised application. The allen key has a ball shaped tip, allowing the key to be used at any angle.

Ideally suited for both workshop and clinical settings in assembling allen screws.

Price & availability on application
SILICONE CUPS

These cups are made from high strength silicone with excellent tear resistance.

When used in conjunction with the standard four hole socket attachment kits during the fabrication of lower limbs prostheses, the cups can reduce the assembly and manufacturing time.

The silicone cups are available in three sizes:

large, medium and small.

Suitable for the fabrication of lower limb prostheses

Price & availability on application

Video available
VERTICAL ALIGNMENT AND DUPLICATING JIG

The vertical alignment and duplicating jig is used to hold a prosthetic socket in a pre-determined alignment position during fabrication.

The jig has a length of 2m and is made of chrome plated square tube, giving alignment stability. The pedestal is made of coloured 700 mm high x 100 mm square steel tube.

The overall working height of the jig is adjustable when used with the matching pedestal.

The foot plate has lateral side shift of up to 100 mm and an optional swivelling top mandrel holder can be supplied.

Alternative horizontal bars are available.

Suitable for the fabrication of lower limb prostheses

*Price & availability on application*
LOW PROFILE VALVE ‘DUMMY’

The low profile valve “dummy” is a reusable plastic valve seat used in the fabrication procedures of trans-femoral thermoplastic sockets.

Due to the low profile design of this plastic valve dummy, the problems associated with the fabrication of thermoplastic socket, such as thinning of the plastic wall above the valve, are reduced.

*Height: 7.75 mm*

Diameter: 40 mm (variable for different valve designs)

Suitable for the fabrication of trans-femoral prostheses

*Price & availability on application*
Research and Assessment Equipment
OVERHEAD HARNESS GAIT RE-EDUCATION SYSTEM

The overhead harness is designed to assist gait rehabilitation patients with locomotor disabilities.

This remote controlled system has a motorised carriage attached to a ceiling rail. The system safely lifts the client from a seated position, while a pneumatic actuator provides an adjustable weight relief in the standing position. The synchronised propulsion of the overhead carriage is activated by the person’s forward or backward walking movement.

*Price & Installation specifications on application*
MOBILE COMPUTER WORK STATION

This heavy duty unit will withstand vibration when used as a computer /project work station or desk.

Is designed to accommodate a computer as well as other project related instrumentation. It has large rubber swivel locking wheels with brakes, and three “laminex” shelves, which are height adjustable.

Height: 1100 mm
Width: 750 mm

• A range of colours are available
• Suitable for and designed to accommodate a computer as well as other instrumentation.

Price & availability on application
PROSTHESIS MOUNTED CAMERA

The prosthesis mounted video camera is used for recording the dynamic skin pressure areas through a transparent socket.

Used in conjunction with a clear diagnostic check socket and camera mounted onto the prosthesis. A telemetry pack allows the images to appear on a monitor (TV) or recorded onto a video recorder or both. This is worn in a waist belt by the client. The video images can be observed and recorded as part of the ongoing clinical information, images can later be synchronised with the patient walking.

Suitable for viewing lower limb pressure areas

*Price & availability on application*
LOAD CELL FOR LOWER LIMB PROSTHESIS

Load cell platform for the recording and measurement of forces

This Load Cell fits between two adaptors and measures the loads on a prosthesis, including axial forces and bending moments during walking. The load cell platform may be mounted at different positions on the prosthesis. Signals are transmitted via cable to a computer.

A telemetry version is currently being developed.

Suitable for measuring axial forces and bending moments during continuous walking.

Price & availability on application
ULTRA VIOLET LIGHT BOX

This light box is used for non destructive detection of surface fatigue cracks.

Dye penetrant is sprayed over component parts, which will highlight faults when illuminated by ultra violet light in the box.

Products with a maximum dimensions of 620mm x 200mm x 180mm can be placed in the non reflective, matt black sheet metal box. This unit is available with all electrical fittings.

Suitable for non destructive detection and inspection of fatigue cracks.

Price & availability on application
Information and Publications
REHABInfo

PUBLICATIONS* PROVIDING INDEPENDENT PRODUCT INFORMATION.

REHABInfo GIVES CLINICAL INFORMATION ABOUT QUALITY COMPONENTS AND SYSTEMS.

With the range of products and technology growing rapidly, there is increased difficulty in trying to source and compare products. This type of information and better informed choice is vital to the health professional’s management of their client.

REHABInfo gives all the available details both from a variety of sources (including: descriptions, indications, pictures, dimensions etc) on each component in line with International Standards.

Published annually and updated regularly with a direct distribution to users, you are guaranteed to be kept up to date.

You can also be part of updating by contacting us with any information that may be included.

Currently available:

• Clinical Information Quality Lower Limb Modular Prosthetic Components. 1998 200
• Quality Upper Limb Body Powered Prosthetic Components (incorporating TechGUIDE) 1998 200

*This guide is also available on an interactive CD ROM or other formats.

The REHABInfo is a brought to you with the support of participating manufacturers, suppliers and the AUSTRALIA

REHAB Tech, 260-294 Kooyong Road, Caulfield Vic 3162, Australia.
Telephone: +61 3 9528 1960, Facsimile: + 61 3 9528 1077

e-mail: REHAB.Tech@eng.monash.edu.au
TechGUIDE

PUBLICATIONS* PROVIDING INDEPENDENT PRODUCT INFORMATION.

TechGUIDE IS A TECHNICAL GUIDE TO QUALITY COMPONENTS AND SYSTEMS.

Information and better informed choices are vital to any quality management process. With the range of products and technology growing rapidly, there is increased difficulty in trying to source and compare products.

TechGUIDE’s give all the available details both from manufacturers and from independent sources (including: indications, diagrams, dimensions etc) on each component in line with International Standards.

Published annually and updated regularly with a direct distribution to users, you are guaranteed to be kept up to date.

You can also be part of this updating by contacting us with any information that may be included.

*This guide is also available on CD ROM or other formats. An interactive version is being produced which will allow us more scope for including detail on each component in an interactive environment.

Currently available:                      Cost $ AUD
Quality Lower Limb Modular Prosthetic Components.  200
Quality Upper Limb Body Powered Prosthetic Components.  200

The TechGUIDE is a brought to you with the support of participating manufacturers, suppliers and the

Commonwealth Department of Veterans’ Affairs

AUSTRALIA
Display Equipment
DISPLAY CABINETS

The display cabinets are purpose built mobile units for product display.

The cabinet has adjustable dividers to hold the various stock brochures. Illumination such as fluorescent /spot lights may be housed behind the logo display board. Large swivel locking casters allows the completed display to be easily moved.

Standard size:
Height: 2100 mm
Width: 1200 mm
Height of display shelf: 900 mm
Other optional sizes available.

Suitable for a variety of product displays.

A number of commercial displays are located at REHABTech.

Price & availability on application
COLOURED TERMINAL DEVICES

The coloured terminal devices are standard aluminium alloy hooks that have been coloured.

The finish can be to your preferred colour.

Suitable for normal wearing or display purposes.

Price & availability on application
BRIGHTLY COLOURED DISPLAY SOCKETS

Bright, eye catching, coloured or patterned laminated fibreglass sockets, laminated under pressure, producing a thin, strong light weight structure.

Highlighting of the components exhibited on the display stand can also be accentuated by inclusion of the company logos. *

- Examples include:
  - Australian flag
  - Company logos
  - Team colours

Suitable for display purposes

*Price & availability on application*
Display Manikins

Life sized, brightly coloured, display manikins

These life sized coloured Manikins can be used for displaying or demonstration of prosthetic or orthotic products.

The manikins are made form fibre glass and have movable arms, that can be flexed or extended from the shoulder joint. They come with a steel stand for upright stability.

Suitable for a variety of orthotic and prosthetic display purposes.

Price & availability on application
REHABTech - Monash Rehabilitation Technology Research Unit assume no liability for any claim of adverse effects resulting from misapplication of the information presented here in.

© Copyright 1997

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording or any information storage and retrieval system, without permission in writing from the publisher.

Requests for permission to make copies of any part of the work should be addressed to:

REHABTech - Monash Rehabilitation Technology Research Unit
260 - 294 Kooyong Road
CAULFIELD VIC 3162
AUSTRALIA

Email rehab.tech@eng.monash.edu.au

SUPERSEDES ALL PREVIOUS EDITIONS