



# Explore New Life

Please feel assured that we will walk  
together through your life.





NEW!



## LET'S TAKE ACTION!

### ADLIB Microprocessor Five-Bar Pneumatic Knee Prosthesis

For users, prosthetic knees not only provide functions but also express their personal style. ADLIB's design is unique, fashionable sense and full of vitality.

#### More safety and intelligent

Artificial Intelligence estimates different walking conditions, such as walking speed, go up/down the ramp or stairs, and the joint resistance can therefore be changed accordingly for more natural gait.

#### Easy to use and personalized setting

Personalized knee joint resistances in different walking conditions can be set by the PC program.

Microprocessor Knee  
**ADLIB**





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Teh Lin Product Catalogue 2014

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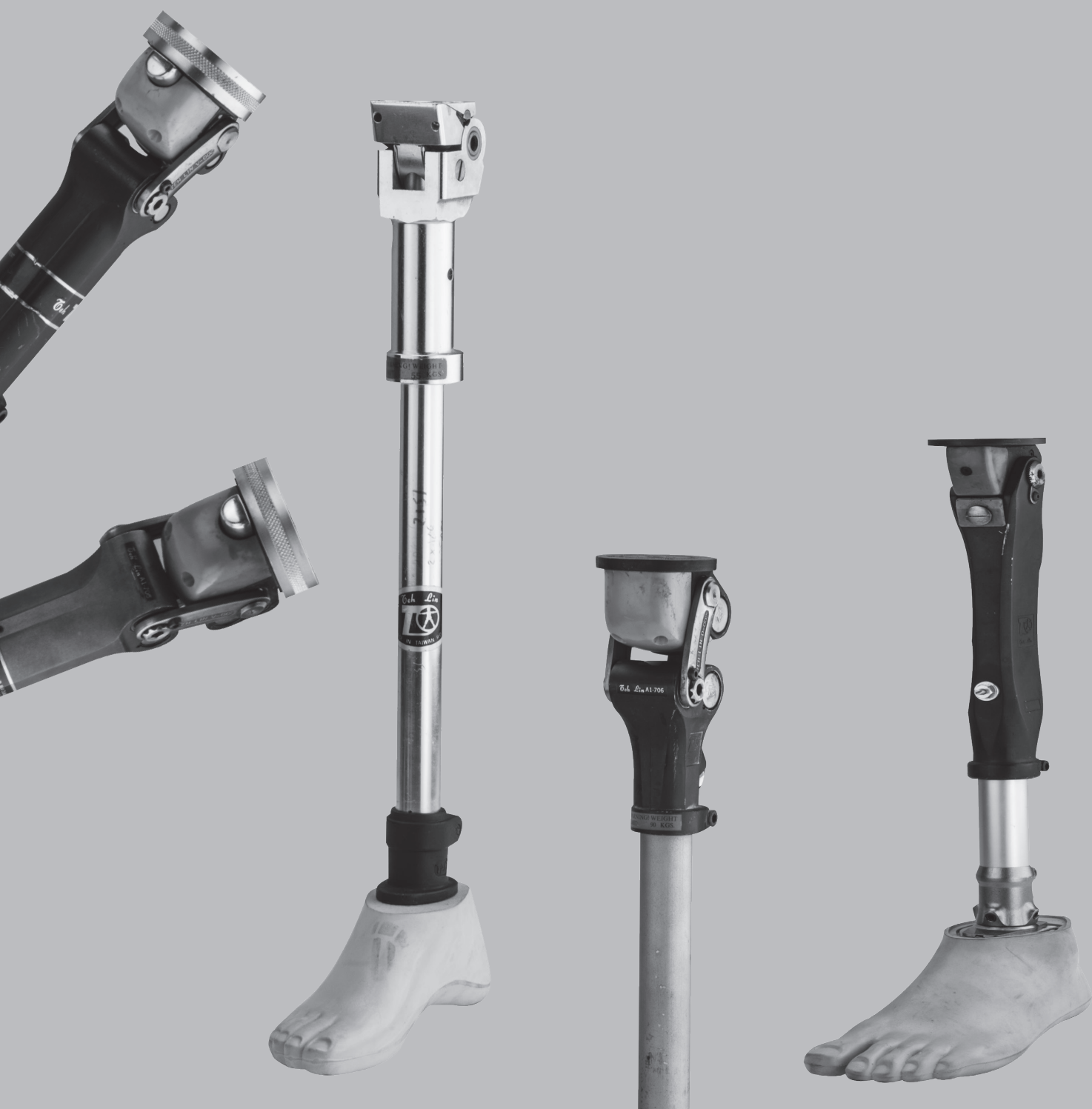
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# 1 | COMPANY INTRODUCTION



Founded in 1960 by Mr. Kuen-Lin Chen, who himself suffered from a car accident resulting in amputation. He understood the needs for high quality prosthesis was enormous, so he and his five sons dedicated their whole life in researching and developing the prosthesis.

What we insist is to give our customers individual service from fitting prosthesis to training them back to optimal locomotive ability and embrace the barrier-free life.

Headquartered in Taipei, Taiwan, Teh Lin Pros. & Ortho. Inc. is transforming from a simple manufacturer into a total solution provider and consultant. We have 6 branches in Taiwan and over 100 branches in China including Hong Kong. It is an advantage to distribute prosthesis and orthotics products across the greater China zone. Beyond that, our own brand "Teh Lin Pros. & Ortho. " products are sold around the world in over 40 countries.

Our 1,400 employees around the world work together all with an ancient Chinese philosophy: "Honour the aged of other family as we honour our own." Which in our case, the aged are the users. Therefore, we treat all our customers as our family and together we create an atmosphere of humanity and generosity beside pure business.







## MOBILITY CLASSES 1 TO 4



### K1 Lower extremity prosthesis functional Level 1

Has the ability or potential to use a prosthesis for transfers or ambulation on level surfaces at fixed cadence. Typical of the limited and unlimited household ambulatory



### K2 Lower extremity prosthesis functional Level 2

Has the ability or potential for ambulation with the ability to traverse low level environmental barriers such as curbs, stairs, or uneven surfaces. Typical of the limited community ambulator



### K3 Lower extremity prosthesis functional Level 3

Has the ability or potential for ambulation with variable cadence. Typical of the community ambulator who has the ability to traverse most environmental barriers and may have vocational, therapeutic, or exercise activity that demands prosthetic utilization beyond simple locomotion



### K4 Lower extremity prosthesis functional Level 4

Has the ability or potential for prosthetic ambulation that exceeds basic ambulation skills, exhibiting high impact, stress, or energy levels. Typical of the prosthetic demands of the child, active adult, or athlete

## TYPES OF JOINT



Mechanical joint



Pneumatic joint



Hydraulic joint



Microprocessor-controlled joint



# 2 CHILDREN PROSTHETICS

Our children are our greatest treasure. They are ready to discover the world. We hope every step of the children is safe and comfortable. Teh Lin's modular systems meet the special needs of children. All products have been designed to suit their specific anatomy and obtain an optimal gait.



05  
06



## TCH-01

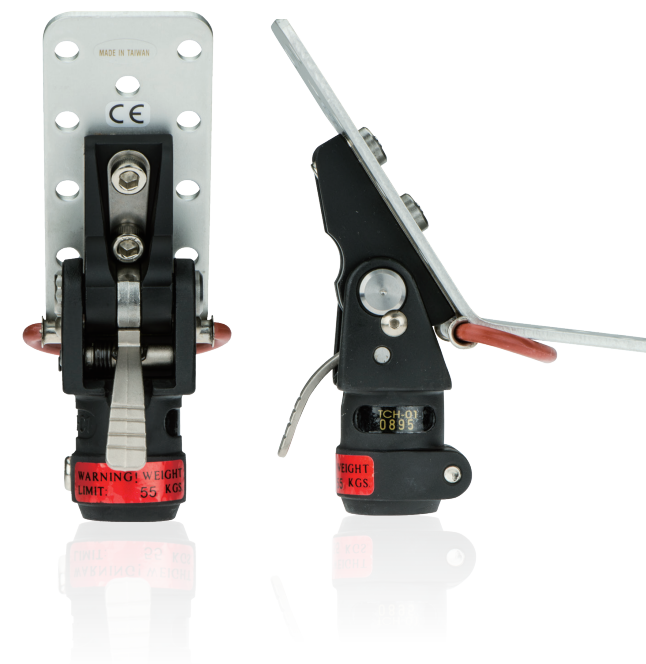
### CHILD'S HY-STAN HIP JOINT

- 1 It has 10 degrees of adjustable lamination
- 2 Light-weight construction
- 3 Pre-bent lamination plate

#### Technical data

|                           |                   |
|---------------------------|-------------------|
| Material                  | Aluminum alloy    |
| System height             | 140 mm            |
| System weight             | 262 g             |
| Maximum flexion angle     | 115°              |
| Maximum body weight       | 55 kg             |
| Modular connector options | TLP-ACH , TLP-SCH |

Activity level







**TK-1C1**  
HY-STAN SINGLE AXIS CHILD'S KNEE  
WITH MANUAL LOCK

- 1 Optional lock
- 2 Perfect adjustable mechanism
- 3 Light-weight alloy construction

Technical data

|                       |                |
|-----------------------|----------------|
| Material              | Aluminum alloy |
| System height         | 128 mm         |
| System weight         | 310 g          |
| Maximum flexion angle | 130°           |
| Maximum body weight   | 55 kg          |
| Diameter              | Ø 22 mm        |

Activity level



**TK-40C**  
HY-STAN CHILD'S 4-BAR KNEE

- 1 Smallness and light-weight
- 2 Adjustable extension assist for swing phase control
- 3 Designed for child's AK and knee-disarticulation amputee

Technical data

|                       |                |
|-----------------------|----------------|
| Material              | Aluminum alloy |
| System height         | 121 mm         |
| System weight         | 370 g          |
| Maximum flexion angle | 155°           |
| Maximum body weight   | 55 kg          |
| Diameter              | Ø 22 mm        |

Activity level



**TK-4P0C**  
MINI 4-BAR CHILD'S PNEUMATIC KNEE

- 1 Pneumatic swing phase control
- 2 Adjustable to pinpoint accuracy
- 3 Smallness and light-weight
- 4 Adjustable extension assist for swing phase control
- 5 Designed for child's AK and knee-disarticulation amputee

Technical data

|                       |                |
|-----------------------|----------------|
| Material              | Aluminum alloy |
| System height         | 170 mm         |
| System weight         | 530 g          |
| Maximum flexion angle | 155°           |
| Maximum body weight   | 60 kg          |
| Diameter              | Ø 22 mm        |

Activity level







**TAC-00**  
CHILD'S ANKLE

| Technical Data            |                                                  |
|---------------------------|--------------------------------------------------|
| Material                  | Aluminum alloy                                   |
| System weight             | 90 g                                             |
| Maximum body weight       | 70 kg                                            |
| Bolt                      | W5/16" x2" L                                     |
| Modular connector options | TSF-01C (Size15 . 16)<br>TSF-11 (Size15 .17. 19) |



**TAC-0A**  
CHILD'S ANKLE

| Technical Data            |                                        |
|---------------------------|----------------------------------------|
| Material                  | Aluminum alloy                         |
| System weight             | 110 g                                  |
| Maximum body weight       | 70 kg                                  |
| Bolt                      | W3/8" x3" L                            |
| Modular connector options | TSF-01C (Size17-21)<br>TSF-11 (Size21) |



**TBC-OP**  
HY-STAN CHILD'S BK ADAPTOR

An alloy adaptor used for ankle-knee connections which provides the rotational alignment.

| Technical Data            |                     |
|---------------------------|---------------------|
| Material                  | Aluminum alloy      |
| System weight             | 90 g                |
| Maximum body weight       | 100 kg              |
| Bolt                      | W7/16" x 1/2" L     |
| Modular connector options | TSF-01C (Size17-21) |



**TKC-CAP**  
CHILD'S ANGLED CONNECTOR

An alloy connector which provides fixed angle at the knee-pylon adaptor specially designed for hip-disarticulation amputee.

| Technical Data      |                 |
|---------------------|-----------------|
| Material            | Aluminum alloy  |
| System weight       | 70 g            |
| Maximum body weight | 60 kg           |
| Bolt                | W7/16" x 1/2" L |



**TSF-11**  
LI-BOUNCE FOOT

| Technical Data      |                        |
|---------------------|------------------------|
| Material            | PU, Complex fiber      |
| Size                | 15,17,19,21 (cm)       |
| System weight       | 140, 185, 225, 240 (g) |
| Heel height with    | 0 mm                   |
| Side                | Left, Right            |
| Maximum body weight | 70 kg                  |

Activity level



**TSF-01C**  
CHILD'S SACH FOOT WITH TOES

| Technical Data      |                                       |
|---------------------|---------------------------------------|
| Material            | PU, Wood                              |
| Size                | 15,16,17,18,19,20,21 (cm)             |
| System weight       | 135, 160, 180, 220, 245, 280, 315 (g) |
| Heel height with    | 10mm                                  |
| Side                | Left, Right                           |
| Maximum body weight | 70 kg                                 |

Activity level



lateral view      front view

**TWP-C2**  
CHILD'S AK WEDGE PLATE (PLASTIC)

Provides angle alignment at the socket-knee or the socket-ylon adaptor in the child's system.

| Technical Data |         |
|----------------|---------|
| Material       | Plastic |
| System weight  | 10 g    |



**TWB-C**  
CHILD'S WOOD BLOCK

A wood connector which provides the interface between the FRP socket and the adaptor of central-bolt pattern.

| Technical Data |                             |
|----------------|-----------------------------|
| Material       | Wood & Stainless Steel Seat |
| System weight  | 76 g                        |





**TSC-PSDC**  
CHILD'S THREADED 4-SCREW KNEE CONNECTOR

A lamination connector which provides the interface between the PP socket and the adaptor of the child's system.

| Technical Data |                |
|----------------|----------------|
| Material       | Aluminum alloy |
| System weight  | 40 g           |



**TSC-KDC-L**  
CHILD'S L-BRACKET, ALUMINUM WITH EXTENSIONS

An aluminum alloy connector which provides the interface between the FRP socket and the adaptor of central-bolt pattern for the active child's Knee-Disarticulation amputee.

| Technical Data |                |
|----------------|----------------|
| Material       | Aluminum alloy |
| System weight  | 45 g           |



**TLP-SCH/TLP-ACH**  
CHILD'S LAMINATION PLATE (STAINLESS STEEL/ALUMINIUM)

Application for Child's Hip Joint TCH-01

| Technical Data |                                |
|----------------|--------------------------------|
| Material       | Stainless steel/Aluminum alloy |
| System weight  | 170 g / 70 g                   |



**TSC-WC**  
CHILD'S AK WIRE SOCKET CONNECTOR WITH NUT

Provides the interface between the FRP socket and the adaptor of central-bolt pattern.

| Technical Data |                                       |
|----------------|---------------------------------------|
| Material       | Aluminum seat & Stainless steel cable |
| System weight  | 65 g                                  |



**TSC-KDCS-L**  
CHILD'S L-BRACKET, STEEL WITH EXTENSIONS

A stainless steel connector which provides the interface between the FRP socket and the adaptor of central-bolt pattern for the extremely active child's Knee-Disarticulation amputee.

| Technical Data |                 |
|----------------|-----------------|
| Material       | Stainless steel |
| System weight  | 105 g           |



**TUPS-MP1**  
CHILD'S SOCKET ADAPTER & MALE PYRAMID W. 3/8" CENTRAL BOLT

Application for Child's Knee joint

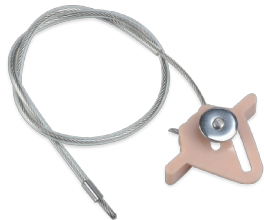
| Technical Data |                                  |
|----------------|----------------------------------|
| Material       | Aluminum alloy & Stainless steel |
| System weight  | 90 g                             |



**TTC-12 / TTC-15**  
CHILD'S TUBE

22mm diameter alloy tube which is used for connection and can easily be cut to required length.

| Technical Data |                |
|----------------|----------------|
| Material       | Aluminum alloy |
| Specification  | 12" / 15"      |
| System weight  | 110 g / 140 g  |
| Diameter       | Ø 22 mm        |
| Color          | Golden         |

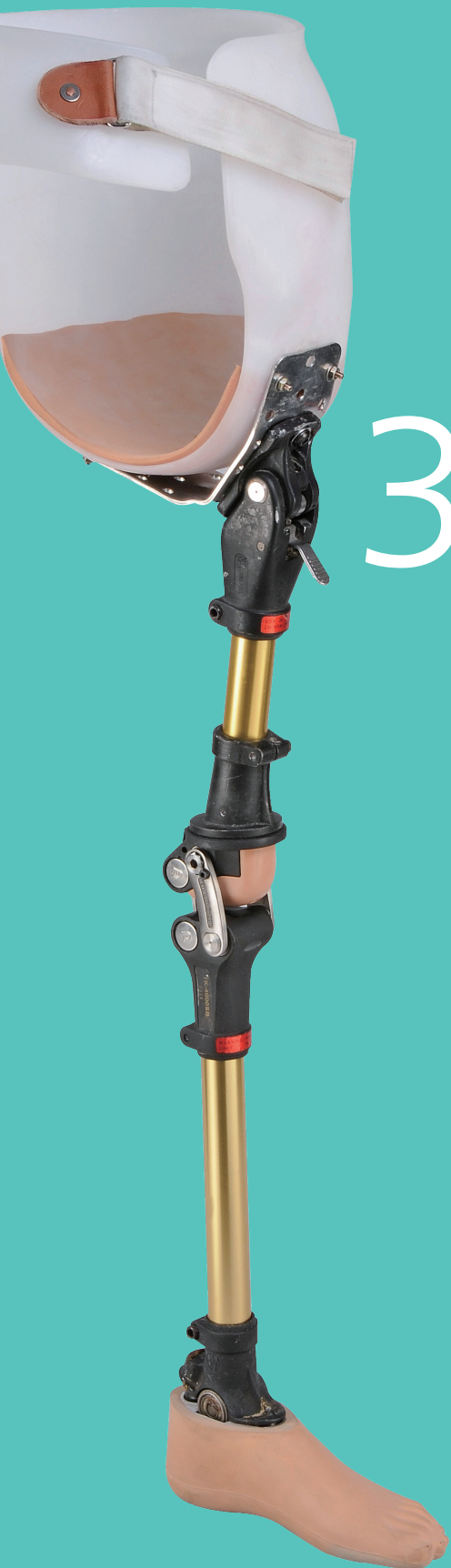


**TLCA-1C1**  
LOCKING HANDLE WITH CABLE FOR TK-1C1

A manual lock with adaptable switch. Compatible for single axis child's knee joint TK-1C1.

| Technical Data |                                 |
|----------------|---------------------------------|
| Material       | Stainless steel cable & Plastic |





# 3 | MODULAR HIP JOINT

Hip Joint is one of the largest and most stable joint in human body. Although Hip Joint amputation is being performed rarer and rarer, it is still very important to provide the user a comfortable and multifunctional hip joint in order to carry them further. Teh Lin's unique design allows user to perform a transition from standing position to sitting position with a simple manual lock.



## TGH-01

### GRAPHITE HIP JOINT

- 1 It has 20 degrees of adjustable lamination
- 2 Spring loaded mechanism
- 3 Light-weight construction
- 4 Pre-bent lamination plate

#### Technical data

|                           |                   |
|---------------------------|-------------------|
| Material                  | Carbon fiber      |
| System height             | 250 mm            |
| System weight             | 600 g             |
| Maximum flexion angle     | 115°              |
| Maximum body weight       | 100 kg            |
| Modular connector options | TLP-AAH , TLP-SAH |

Activity level



## TH-01

### HY-STAN HIP JOINT

- 1 It has 20 degrees of adjustable lamination
- 2 Spring loaded mechanism
- 3 Pre-bent lamination plate

#### Technical data

|                           |                   |
|---------------------------|-------------------|
| Material                  | Aluminum alloy    |
| System height             | 220 mm            |
| System weight             | 760 g             |
| Maximum flexion angle     | 115°              |
| Maximum body weight       | 100 kg            |
| Modular connector options | TLP-AAH , TLP-SAH |

Activity level





### Teh Lin Classic Series

In the past 50 years, Teh Lin was dedicated to developing suitable products for amputees. Quality stands the test of time and they own simple and useful design, such as our popular product TKG-4P00. Nowadays Teh Lin Classic Series gradual upgrade, such as Phoenix that is the rebirth of 4-bar pneumatic knee. Phoenix's maximum body weighting upgrades to 125kg and has beautiful appearance.

*Xtreme*®

### Xtreme Series

X stands for extreme, which means unlimited for lifestyle. The X60 Hydraulic Knee is the first Xtreme series products. Light weighted aerospace metal materials are adopted in the structure of the X60. Fashion style and bionic geometry with four-bar mechanical simulates the motion trajectory of healthy knee. Users could have a nearly normal gait with X60, which is suitable for the activities in grade 2-3. Unlimited motion, unlimited enjoyment!

*RayoMe*

### Rayome Series

The meaning of the Spanish word Rayo is the flash of lightning. We hope RayoMe series users have the light of life and a lot of confidences. The RP1 pneumatic knee is the first RayoMe series products. The color orange represents power and energy, and the color black represents unique personality. In addition, the design contains the images of motorcycle. RP1 conveys a sense of power and has very sleek lines. We hope users have a lot of confidences by the streamlined shape and beautiful color schemes.

## 4 MODULAR KNEE JOINT

Knee is the biggest and most complex joints of our body. It permits flexion and extension as well as slight medial and lateral rotation. Teh Lin has developed a whole series of product to fit all kinds of needs from different users. From Single Axis to Multi Axes, from Aluminum Alloy to Carbon Fiber, for both above knee or disarticulated knee users.

Now there are three series of our knee products: Teh Lin Classic Series, Xtreme Series and Rayome Series.



SINGLE AXIS  
MODULAR KNEE JOINT

17  
18



**GLX-1PSO**

**GALAXY ABS CONTROL KNEE**

- 1 Load-dependent brake mechanism (ABS)
- 2 Adjustable extension assist for swing phase control
- 3 Durability and stability

**Technical data**

|                       |                   |
|-----------------------|-------------------|
| Material              | Aluminum alloy    |
| System height         | 192 mm            |
| System weight         | 915 g             |
| Maximum flexion angle | 135°              |
| Maximum body weight   | 100 kg            |
| Knee cover color      | Blue , Pink , Red |

Activity level



**GLX-SPSO**

**GALAXY MINI SINGLE AXIS KNEE**

- 1 With manual lock that secures the knee in extension
- 2 Smaller, lighter
- 3 Designed for children and elderly

**Technical data**

|                       |                |
|-----------------------|----------------|
| Material              | Aluminum alloy |
| System height         | 95 mm          |
| System weight         | 283 g          |
| Maximum flexion angle | 135°           |
| Maximum body weight   | 90 kg          |

Activity level



**TGK-1PSO**

**GRAPHITE PNEUMATIC STANCE CONTROL KNEE**

- 1 Load-dependent brake mechanism (under the angle of 15 degrees)
- 2 Pneumatic swing phase control
- 3 Durability and stability

**Technical data**

|                       |              |
|-----------------------|--------------|
| Material              | Carbon fiber |
| System height         | 260 mm       |
| System weight         | 990 g        |
| Maximum flexion angle | 130°         |
| Maximum body weight   | 100 kg       |

Activity level



4-BAR  
MODULAR KNEE JOINT

*Altreme® X60*

*RayoMe*  
**RPI**  
4 Bar Pneumatic Knee

19  
20



XTR-X60

X60 HYDRAULIC, POLYCENTRIC KNEE

- 1 High efficiency hydraulic cylinder system
- 2 Special 4-bar mechanical design with adjustable initial ICR
- 3 The resistances of flexion and extension are adjusted independently

Technical data

|                       |                                      |
|-----------------------|--------------------------------------|
| Material              | Aluminum alloy, Titanium alloy       |
| System height         | 273 mm                               |
| System weight         | 1060 g                               |
| Maximum flexion angle | 138°                                 |
| Maximum body weight   | 125 kg                               |
| Color                 | Apple Green , Wine Red , Pearl White |
| Activity level        |                                      |



Double screws design

It can prevent the loosening of the tube.



Colorful cover

The anterior and posterior cover can protect the internal structure of X60, and prevent the entry of dust.



Flexion/Extension separately adjustable

The adjustable design of the hydraulic cylinder can be fine-tuned for the knee flexion and extension velocity independently to establish more natural and stable gait.



Best sealed bearing

High strength and precision stainless bearing can increase the stability and the durability of the product.



Adjustable initial ICR

The bumper adjustable screw is adjustable to use's individual gait requirements.



reddot design award  
winner 2012



RAY-RP1

RAYOME 4-BAR PNEUMATIC KNEE

- 1 High efficiency pneumatic cylinder system
- 2 Ultra-light construction
- 3 The resistances of flexion and extension are adjusted independently

Technical data

|                       |                                |
|-----------------------|--------------------------------|
| Material              | Aluminum alloy, Titanium alloy |
| System height         | 233 mm                         |
| System weight         | 980 g                          |
| Maximum flexion angle | 159°                           |
| Maximum body weight   | 125 kg                         |
| Activity level        |                                |



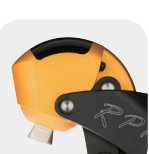
Double screws design

It can prevent the loosening of the tube.



Flexion/Extension separately adjustable

The adjustable design of the pneumatic cylinder can be fine-tuned for the knee flexion and extension velocity independently to establish more natural and stable gait.



High knee flexion angle 159°

Prosthesis wearers would be comfort when kneeling, sitting and donning.



Eye-catching, robust and stream-line design

Industrial designs activate the soul of prosthesis. There are streamlined shapes, beautiful color schemes and appropriate structures.



GOOD  
DESIGN



reddot design award  
winner 2013





**TGK-4P00AW**  
PHOENIX GRAPHITE 4-BAR PNEUMATIC KNEE

- 1 Pneumatic swing phase control
- 2 Ultra-light graphite construction
- 3 Classic and fashion

Technical data

|                       |              |
|-----------------------|--------------|
| Material              | Carbon fiber |
| System height         | 260 mm       |
| System weight         | 920 g        |
| Maximum flexion angle | 130°         |
| Maximum body weight   | 125 kg       |

Activity level



**KAT-KM1**  
MECHANICAL 4-BAR KNEE JOINT

Technical data

|                       |                |
|-----------------------|----------------|
| Material              | Aluminum alloy |
| System height         | 156 mm         |
| System weight         | 618 g          |
| Maximum flexion angle | 156°           |
| Maximum body weight   | 100 kg         |

Activity level



NEW!



**Polycentric knee**  
Provide the high stance stability and natural gait



**High knee flexion angle**  
Maximum flexion angle to 156°



**Adjusting extension assistance**  
Durable extension assist for swing phase control



**Adjusting knee axis friction**  
Turning them clockwise will increase friction. Care should be taken that these two screws are uniformly tightened.



**TKG-4000**

**GRAPHITE 4-BAR KNEE**

- 1 Ultra-light graphite construction
- 2 Classic and simplicity
- 3 Adjustable extension assist for swing phase control
- 4 Smoothness of action

**Technical data**

|                       |              |
|-----------------------|--------------|
| Material              | Carbon fiber |
| System height         | 180 mm       |
| System weight         | 655 g        |
| Maximum flexion angle | 135°         |
| Maximum body weight   | 100 kg       |

Activity level



**TKG-4001**

**GRAPHITE 4-BAR KNEE WITH MANUAL LOCK**

- 1 Ultra-light graphite construction
- 2 Adaptable with or without lock
- 3 Positive locking mechanism
- 4 Adjustable extension assist for swing phase control
- 5 Smoothness of action

**Technical data**

|                       |              |
|-----------------------|--------------|
| Material              | Carbon fiber |
| System height         | 180 mm       |
| System weight         | 710 g        |
| Maximum flexion angle | 110°         |
| Maximum body weight   | 100 kg       |

Activity level



**TKG-4002**

**GRAPHITE 4-BAR KNEE WITH 30° MANUAL LOCK**

- 1 30° freedom of flexion while knee unit locks
- 2 Adaptable with or without lock
- 3 Adjustable extension assist for swing phase control
- 4 Excellent stability and security

**Technical data**

|                       |              |
|-----------------------|--------------|
| Material              | Carbon fiber |
| System height         | 180 mm       |
| System weight         | 680 g        |
| Maximum flexion angle | 110°         |
| Maximum body weight   | 100 kg       |

Activity level



**TKG-4P00**

**GRAPHITE 4-BAR PNEUMATIC KNEE**

- 1 Pneumatic swing phase control
- 2 Ultra-light graphite construction
- 3 Classic and simplicity
- 4 Durability and stability

**Technical data**

|                       |              |
|-----------------------|--------------|
| Material              | Carbon fiber |
| System height         | 260 mm       |
| System weight         | 920 g        |
| Maximum flexion angle | 130°         |
| Maximum body weight   | 100 kg       |

Activity level







**TKG-4P01P**  
GRAPHITE 4-BAR PNEUMATIC KNEE(MINI)

- 1 Pneumatic swing phase control
- 2 Ultra-light graphite construction
- 3 Classic and simplicity
- 4 Durability and stability

Technical data

|                       |              |
|-----------------------|--------------|
| Material              | Carbon fiber |
| System height         | 210 mm       |
| System weight         | 780 g        |
| Maximum flexion angle | 145°         |
| Maximum body weight   | 80 kg        |

Activity level



**TKG-4P10**  
GRAPHITE 4-BAR PNEUMATIC KNEE -  
DISARTICULATION KNEE

- 1 Pneumatic swing phase control
- 2 Ultra-light graphite construction
- 3 Classic and simplicity
- 4 Durability and stability

Technical data

|                       |              |
|-----------------------|--------------|
| Material              | Carbon fiber |
| System height         | 265 mm       |
| System weight         | 1100 g       |
| Maximum flexion angle | 120°         |
| Maximum body weight   | 100 kg       |

Activity level



**TK-4000S**  
HY-STAN 4-BAR KNEE

- 1 Classic and simplicity
- 2 Adjustable extension assist for swing phase control
- 3 Smoothness of action

Technical data

|                       |                |
|-----------------------|----------------|
| Material              | Aluminum alloy |
| System height         | 175 mm         |
| System weight         | 835 g          |
| Maximum flexion angle | 135°           |
| Maximum body weight   | 100 kg         |

Activity level



**GLX-4000S**  
GALAXY 4-BAR KNEE

- 1 Fashion and simplicity
- 2 Adjustable extension assist for swing phase control
- 3 Smoothness of action

Technical data

|                       |                   |
|-----------------------|-------------------|
| Material              | Aluminum alloy    |
| System height         | 180 mm            |
| System weight         | 850 g             |
| Maximum flexion angle | 135°              |
| Maximum body weight   | 100 kg            |
| Cover color           | Blue , Pink , Red |

Activity level





**TK-4001S**  
HY-STAN 4-BAR KNEE WITH MANUAL LOCK

- 1 Adaptable with or without lock
- 2 Excellent stability and security
- 3 Positive locking mechanism
- 4 Adjustable extension assist for swing phase control

Technical data

|                       |                |
|-----------------------|----------------|
| Material              | Aluminum alloy |
| System height         | 178 mm         |
| System weight         | 880 g          |
| Maximum flexion angle | 120°           |
| Maximum body weight   | 100 kg         |
| Activity level        |                |



**TK-4010**  
HY-STAN 4 BAR KNEE DISARTICULATION KNEE

- 1 Classic and simplicity
- 2 Adjustable extension assist for swing phase control
- 3 Smoothness of action

Technical data

|                       |                |
|-----------------------|----------------|
| Material              | Aluminum alloy |
| System height         | 210 mm         |
| System weight         | 910 g          |
| Maximum flexion angle | 140°           |
| Maximum body weight   | 100 kg         |
| Activity level        |                |



**TK-4P00S**  
HY-STAN 4-BAR PNEUMATIC KNEE

- 1 Pneumatic swing phase control
- 2 Durability and stability
- 3 Smoothness of action

Technical data

|                       |                |
|-----------------------|----------------|
| Material              | Aluminum alloy |
| System height         | 258 mm         |
| System weight         | 1150 g         |
| Maximum flexion angle | 140°           |
| Maximum body weight   | 100 kg         |
| Activity level        |                |



**TK-4P01P**  
HY-STAN 4-BAR PNEUMATIC KNEE(MINI)

- 1 Pneumatic swing phase control
- 2 Classic and simplicity
- 3 Durability and stability

Technical data

|                       |                |
|-----------------------|----------------|
| Material              | Aluminum alloy |
| System height         | 212 mm         |
| System weight         | 905 g          |
| Maximum flexion angle | 145°           |
| Maximum body weight   | 80 kg          |
| Activity level        |                |





# 5-BAR

## MODULAR KNEE JOINT

29  
30

### BGS Introduction

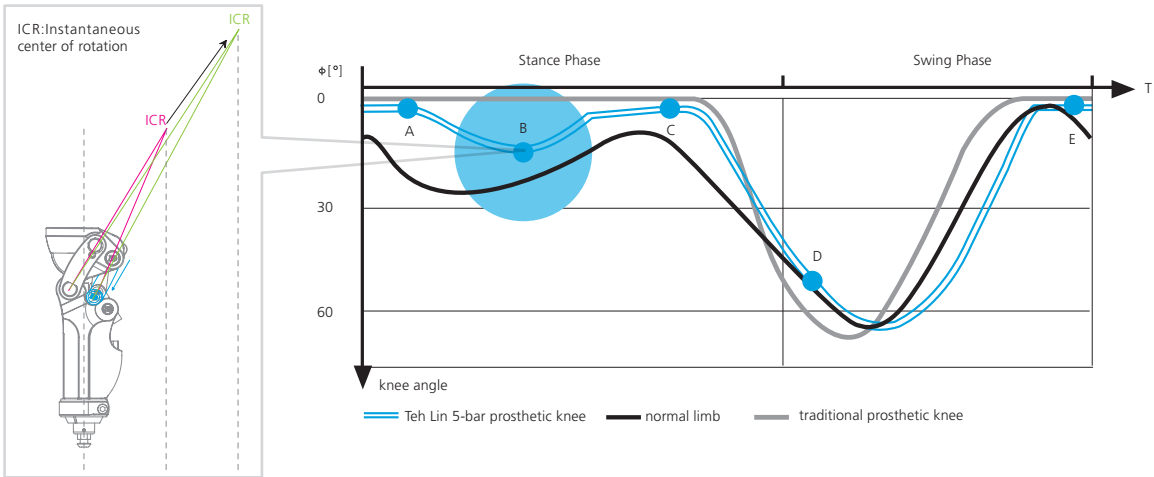
Under a normal gait condition, the knee will flex at initial contact. But for amputees that use the traditional prosthesis, they can't do well in this condition. Bionic Gait Simulation (BGS) can produce this function that provides a better control and shock absorption angle (max until 15°). The flexion angle at stance phase can be adjusted by the user's demand to maximize stabilization and reduce the pressure on the residual limb, hip joint as well as spine. Therefore, the user will feel more comfortable when walking with this knee and enjoy a more natural gait.

### Basic Function Principle

The instantaneous center of rotation (ICR) lies on the intersection of the lines of anterior bars and posterior bars. According to researches, the position of ICR at initial contact plays a major rule in stability, that's why our BGS is designed according to the theory from the experiments in order to enhance the stability of a walk.

The multi-axes contain actually 5 axes, which are interconnected to each other and therefore form a coherent rotational movement. At initial contact phase, the proximal part of the joint will rotate posteriorly around the posterior bars; the ICR will also alter its position.

Consequently at initial contact, the greater the flexion angle (between 0°-15°) becomes, the more posterior the ICR will be and more stable the knee joint will be. Also, the reaction force generated at the end extension will be reduced.



### TK-50SO

#### HY-STAN 5-BAR KNEE

- 1 Adjustable extension assist for swing phase control
- 2 Fully adjustable stance flexion function
- 3 Classic and simplicity
- 4 Durability and stability

#### Technical data

|                       |                |
|-----------------------|----------------|
| Material              | Aluminum alloy |
| System height         | 163 mm         |
| System weight         | 1005 g         |
| Maximum flexion angle | 150°           |
| Maximum body weight   | 100 kg         |

Activity level



### TGK-50SO

#### GRAPHITE 5-BAR KNEE

- 1 Adjustable extension assist for swing phase control
- 2 Fully adjustable stance flexion function
- 3 Ultra-light graphite construction
- 4 Durability and stability

#### Technical data

|                       |              |
|-----------------------|--------------|
| Material              | Carbon fiber |
| System height         | 235 mm       |
| System weight         | 925 g        |
| Maximum flexion angle | 155°         |
| Maximum body weight   | 100 kg       |

Activity level





TKG-5PSO

GRAPHITE 5-BAR PNEUMATIC KNEE

- 1 Pneumatic swing phase control
- 2 Fully adjustable stance flexion function
- 3 Ultra-light graphite construction
- 4 Durability and stability

Technical data

|                       |              |
|-----------------------|--------------|
| Material              | Carbon fiber |
| System height         | 235 mm       |
| System weight         | 1005 g       |
| Maximum flexion angle | 138°         |
| Maximum body weight   | 100 kg       |

Activity level



TKG-5PSOH

GRAPHITE 5-BAR PNEUMATIC KNEE HIGH ACTIVITY

- 1 Pneumatic swing phase control
- 2 Fully adjustable stance flexion function
- 3 Ultra-light graphite construction
- 4 Durability and stability

Technical data

|                       |                              |
|-----------------------|------------------------------|
| Material              | Carbon fiber, Titanium alloy |
| System height         | 238 mm                       |
| System weight         | 1000 g                       |
| Maximum flexion angle | 138°                         |
| Maximum body weight   | 100 kg                       |

Activity level



TKG-5PS10

GRAPHITE 5-BAR PNEUMATIC KNEE-DISARTICULATION KNEE

- 1 Pneumatic swing phase control
- 2 Fully adjustable stance flexion function
- 3 Ultra-light graphite construction
- 4 Durability and stability

Technical data

|                       |                              |
|-----------------------|------------------------------|
| Material              | Carbon fiber, Titanium alloy |
| System height         | 250 mm                       |
| System weight         | 1000 g                       |
| Maximum flexion angle | 135°                         |
| Maximum body weight   | 100 kg                       |

Activity level

