

SECTION I

PREFABRICATED ORTHOSES

Cervical
Upper Limb
Spinal
Hip Orthoses
Torsion/Lower Limb

SECTION I

PREFABRICATED ORTHOSES

- Cervical**
- Upper Limb**
- Spinal**
- Hip Orthoses**
- Torsion/Lower Limb**



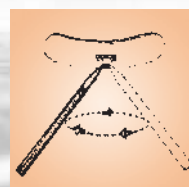
MODEL C-10 BECKER SWIVEL CERVICAL ORTHOSIS

Model C-10 is a four post cervical orthosis. Each post is attached to the occipital or mandibular pad with a swivel joint, which allows the orthotist to set the exact position by tightening the set screw. Height

may be adjusted by extending the threaded posts. Please consult the size chart below to determine the proper order number.



Order No.	Size	Neck Circumference	Chin-Occiput Circumference
C-10S	Small	12" – 13-1/2"	17" – 18"
C-10M	Medium	13-1/2" – 15-1/2"	18" – 20"
C-10L	Large	15-1/2" – 17"	20" – 22"
C-10C	Custom	Send Exact Measurements	



The Becker swivel joint allows precise positioning.

MODEL C-14 PACIFIC ADJUSTABLE COLLAR

The Pacific Adjustable Collar (PAC) is designed to afford effective control and limitations of cervical spine motion; flexion/extension, rotation and lateral flexion. The collar is adjustable in height, within two

predetermined ranges, and can be securely and easily adjusted by the orthotist to ensure optimum alignment and patient comfort. Model C-14 is available in two adult sizes with removable, washable liners.



Order No.	Size	Height Adjustment
C-14A-S-M	Adult Small - Medium	2-1/4" - 3-3/4"
C-14A-M-L	Adult Medium - Large	3-1/4" - 5-1/4"

Note: Replacement liner kits may also be ordered. Please contact our customer service department for details.

Patent Pending

MODEL C-23 DAYTONA CERVICAL ORTHOSIS

The Daytona Cervical Orthosis (DCO) is comfortable, lightweight and easily applied. It effectively immobilizes the cervical spine by restricting motion in flexion and extension. The DCO may be applied postoperatively after cervical fusion and can be used effectively after

HALO removal or in other situations when external stability of the cervical spine is required. The DCO is delivered complete with a body sock and an additional set of mandibular and occipital liners. The DCO is available in two sizes.



Order No.	Size
C-23	Standard DCO fits Average & Large Adults
C-23S	Small DCO fits Children & Small Adults

Please refer to the chart below to determine the proper order number for DCO liners, body socks and individual components.

Replacement Parts

Order No.	Size
C-23P	Standard size DCO Liner Kit
C-23PS	Small size DCO Liner Kit
C-23TXL	Extra Large Body Sock (fits patients over 175lbs)
C-23TL	Large Body Sock (fits patients 125 – 175lbs)
C-23TM	Medium Body Sock (fits patients 125lbs or less)
C-23-1	DCO Small Front
C-23-2	DCO Standard Front
C-23-3	DCO Small Back
C-23-4	DCO Standard Back

MODEL C-24 LERMAN NONINVASIVE PEDIATRIC HALO SYSTEM

A pinless halo system for children has been developed by Max Lerman, CO and Larry Lerman, CO, with the goal of providing cervical spine immobilization and control similar to a standard halo, but in a less invasive manner. The Lerman Noninvasive Pediatric Halo system is available in two fully adjustable sizes. The head is held in place with pads on the forehead and occiput. The system includes two back post options: rigid and semi-rigid. The semi-rigid back post option is designed for patients with congenital muscular torticollis. The rigid back post option should be considered when additional restriction of cervical spine movement is required.

Clinical Application:

- The Lerman Noninvasive Pediatric Halo System can be used in the management of a variety of pediatric cervical spine disorders. The noninvasive halo successfully controls rotation and lateral bending of the cervical spine and can be successful in positioning the head and neck of children with congenital muscular torticollis.¹

Indications:

- Positioning of structurally stable spine
- Following complications of standard halo immobilization
- Postoperative positioning following sternocleidomastoid release for congenital muscular torticollis
- Reduction of C1-C2 rotary instability

Contraindications:

- Should not be used when immobilization of a structurally unstable cervical spine is required



Order No.	Size	Head Circumference at Equator	Chest Circumference at Xyphoid
C-24-S	Small	15" - 22"	18" - 22"
C-24-M	Medium	15" - 22"	22" - 28"

Note: Both sizes come complete with a Semi-Rigid and Rigid Back Post

¹ Grippi M, Lerman M, Lerman L, Tolo V, Skaggs D. Use of a Noninvasive Halo in Pediatric Spine Surgery. American Academy of Orthopedic Surgeons, Academy News March 1, 2001

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MODEL U-6 CARPAL TUNNEL SPLINT



Unique dorsal design permits unrestricted functional use of the hand while eliminating pressure on the carpal tunnel. Soft adjustable elastic palmar straps offer either static positioning of the wrist or two levels of resistant wrist flexion. Consists of a high density polyethylene plastic which is foam lined for added comfort.

- Indications**
- Carpal Tunnel Syndrome
 - Repetitive Stress Injury
 - Cumulative Trauma Disorder
 - Rehabilitation Post Tendon Transfers
 - Ulnar and Radial Nerve Palsy

LEFT				
Order No.	Hand	Size	M-P Diameter	Length
U-6LS	Left	Small	2-3/4" - 3-1/4"	7"
U-6LM	Left	Medium	3-1/4" - 3-3/4"	7-1/2"
U-6LL	Left	Large	3-3/4" - 4"	7-1/2"

RIGHT				
Order No.	Hand	Size	M-P Diameter	Length
U-6RS	Right	Small	2-3/4" - 3-1/4"	7"
U-6RM	Right	Medium	3-1/4" - 3-3/4"	7-1/2"
U-6RL	Right	Large	3-3/4" - 4"	7-1/2"

**M-P Diameter is width of hand*

MODEL U-7 WRIST HAND SPLINT



Provides proper support and immobilization of the wrist. Allows unobstructed motion of the thumb and fingers.

- Indications**
- Post-cast fracture immobilization
 - Wrist fractures and sprains
 - Cumulative Trauma Disorder
 - Carpal Tunnel Syndrome
 - Post-tendon transfer support
 - Postoperative support after removal of internal or external fixation devices

LEFT						
Order No.	Hand	Size	M-P Diameter	Circumference		Length
				Wrist	Forearm	
U-7LS	Left	Small	2-3/4" - 3-1/4"	6" - 7"	8" - 10"	7-1/2"
U-7LM	Left	Medium	3-1/4" - 3-3/4"	7" - 8"	10" - 12"	7-1/2"
U-7LL	Left	Large	3-3/4" - 4"	8" - 9"	12" - 14"	8"

RIGHT						
Order No.	Hand	Size	M-P Diameter	Circumference		Length
				Wrist	Forearm	
U-7RS	Right	Small	2-3/4" - 3-1/4"	6" - 7"	8" - 10"	7-1/2"
U-7RM	Right	Medium	3-1/4" - 3-3/4"	7" - 8"	10" - 12"	7-1/2"
U-7RL	Right	Large	3-3/4" - 4"	8" - 9"	12" - 14"	8"

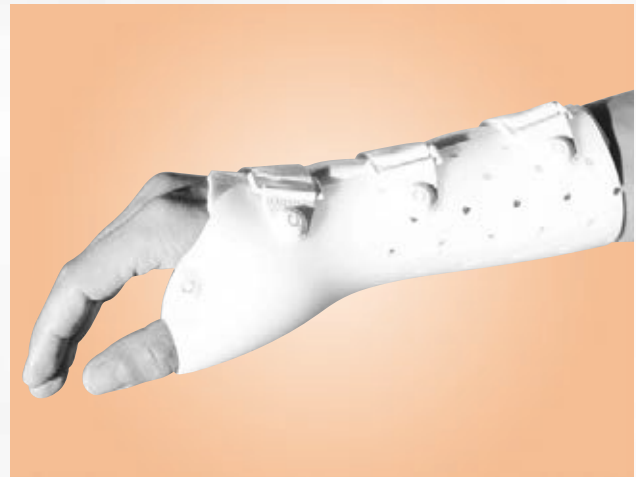
**M-P Diameter is width of hand*

MODEL U-8 WRIST HAND THUMB SPLINT

Provides proper support and immobilization of the wrist and thumb. Allows unobstructed motion of the fingers.

Indications

- Post-cast fracture immobilization
- Wrist fractures and sprains
- Cumulative Trauma Disorder
- Carpal Tunnel Syndrome
- Post tendon transfer support
- Postoperative support after removal of internal or external fixation devices
- Gamekeeper's Thumb
- DeQuervain's Syndrome



LEFT						
Order No.	Hand	Size	M-P Diameter	Circumference		Length
				Wrist	Forearm	
U-8LS	Left	Small	2-3/4" - 3-1/4"	6" - 7"	8" - 10"	7-1/2"
U-8LM	Left	Medium	3-1/4" - 3-3/4"	7" - 8"	10" - 12"	7-1/2"
U-8LL	Left	Large	3-3/4" - 4"	8" - 9"	12" - 14"	8"

RIGHT						
Order No.	Hand	Size	M-P Diameter	Circumference		Length
				Wrist	Forearm	
U-8RS	Right	Small	2-3/4" - 3-1/4"	6" - 7"	8" - 10"	7-1/2"
U-8RM	Right	Medium	3-1/4" - 3-3/4"	7" - 8"	10" - 12"	7-1/2"
U-8RL	Right	Large	3-3/4" - 4"	8" - 9"	12" - 14"	8"

*M-P Diameter is width of hand

MODEL U-10 FUNCTIONAL POSITIONING SPLINT

Provides proper support to the wrist and thumb while allowing the fingers to rest comfortably on the extended padded platform.

Indications

- Functional positioning splint
- Post-cast fracture immobilization
- Post tendon transfer support
- Post CVA



LEFT						
Order No.	Hand	Size	M-P Diameter	Circumference		Length
				Wrist	Forearm	
U-10LS	Left	Small	2-3/4" - 3-1/4"	6" - 7"	8" - 10"	5"
U-10LM	Left	Medium	3-1/4" - 3-3/4"	7" - 8"	10" - 12"	5-1/2"
U-10LL	Left	Large	3-3/4" - 4"	8" - 9"	12" - 14"	6-1/4"

RIGHT						
Order No.	Hand	Size	M-P Diameter	Circumference		Length
				Wrist	Forearm	
U-10RS	Right	Small	2-3/4" - 3-1/4"	6" - 7"	8" - 10"	5"
U-10RM	Right	Medium	3-1/4" - 3-3/4"	7" - 8"	10" - 12"	5-1/2"
U-10RL	Right	Large	3-3/4" - 4"	8" - 9"	12" - 14"	6-1/4"

*M-P Diameter is width of hand

RANCHO WRIST HAND ORTHOSES

The Rancho WHO was originally developed at Rancho Los Amigos Hospital in California. We provide them in three ways: (1) Prefabricated in stock sizes, (2) Custom fabricated from a negative cast, or (3) Complete kits for assembly with instructions.



***Size Chart for U-17**

Size	Circumference	
	Metric	Inches
Small	< 135 mm	< 5-1/2"
Medium/Large	> 136 mm	> 5-1/2"

Note: Measure the forearm circumference midway between the elbow and wrist joint and choose the corresponding size.

Casting Information: For custom fabrication, please provide cast with wrist in 30-35° of extension (measured from the second metacarpal to the radius). Position the thumb in abduction, extend the IP joint and rotate the thumb so it touches the finger pads. Please also provide completed orthometry form (See page 1.2.6) with order.

MODEL U-17 PREFABRICATED WRIST DRIVEN WRIST HAND ORTHOSIS

Model U-17 utilizes wrist extensor power to provide a pinch mechanism for the paralytic hand. Indicated for patients demonstrating fair wrist extensors, this orthosis is excellent for adding eating or writing utensils. Please refer to the chart on the previous page to determine the proper size.

LEFT		
Order No.	Hand	Size
U-17LS	Left	Small
U-17LLM	Left	Medium/Large

RIGHT		
Order No.	Hand	Size
U-17RS	Right	Small
U-17RLM	Right	Medium/Large

MODEL U-17C CUSTOM FABRICATED WRIST DRIVEN WRIST HAND ORTHOSIS

Order No.	Size
U-17CL	Custom (Left)
U-17CR	Custom (Right)

Note: For casting information, please see page 1.2.4

MODEL U-17K WRIST DRIVEN WRIST HAND ORTHOSIS

Model U-17K provides all of the components necessary to fabricate a Rancho Wrist Driven WHO.

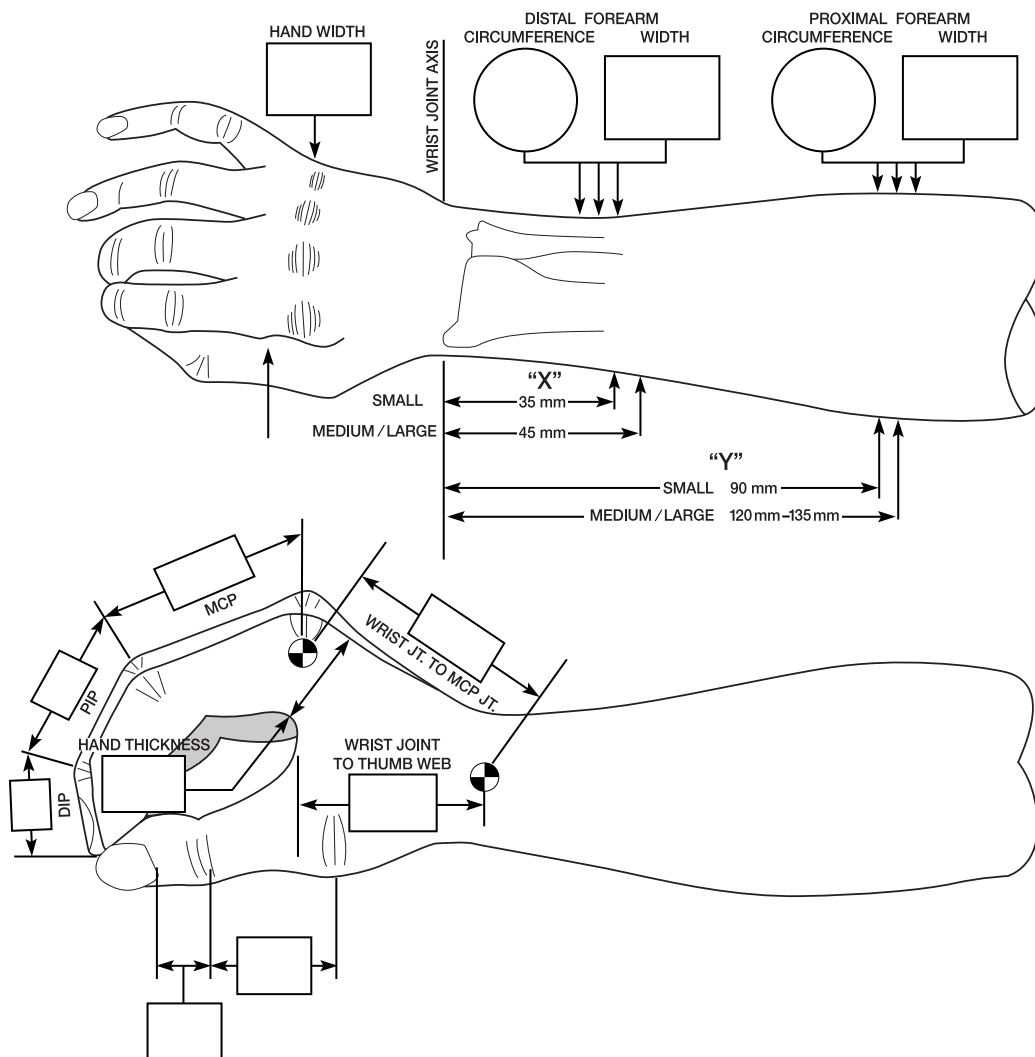
LEFT		
Order No.	Hand	Size
U-17-SK-L	Left	Small
U-17-LMK-L	Left	Medium/Large

RIGHT		
Order No.	Hand	Size
U-17-SK-R	Right	Small
U-17-LMK-R	Right	Medium/Large

U-17 CUSTOM WRIST DRIVEN WHO ORTHOMETRY FORM

Today's Date: _____ Patient: _____
 Facility: _____ Age: _____ Sex: _____ Ht: _____ Wt: _____
 Street: _____ Diagnosis: _____
 City: _____ State: _____ Zip: _____
 Orthotist: _____ Delivery Date: _____
 Phone Number: _____ PO Number: _____

SIDE: Left Right



Additional Instructions: _____

THE MANNERFELT HANDSPLINT SYSTEM

Mannerfelt handsplints are a modular system of dynamic splinting, developed by L. Mannerfelt, M.D. and L. Biedermann for conservative and postoperative care of the hand. The system consists of four basic types of splints. Each splint is prefabricated in three different sizes for the right or left hand and is fully adjustable. Mannerfelt handsplints are modular; for example, MCP extension blocks may be easily added or removed as the needs of the patient change. Furthermore, a variety of modular components for thumb control may be added. **We recommend that the patient be measured and fitted with the splint prior to surgery.** This allows the patient to become familiar with the splint and how it feels. Also, the dynamic forces generated by the splints tend to prevent further degeneration of the joints and tissue.

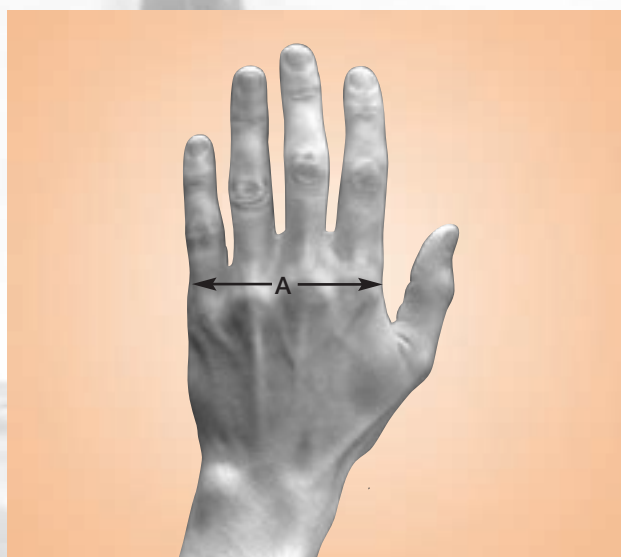
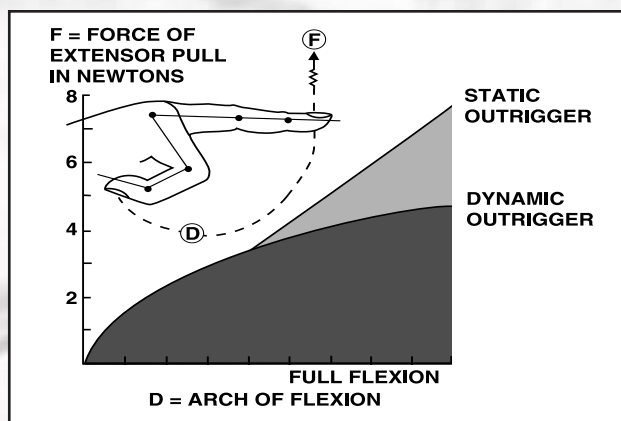
NOTE: Every Mannerfelt splint is easily adjustable in several planes to ensure precision in fit and application of force.

The extension outriggers on Mannerfelt handsplints employ a double spring mechanism. These dynamic outriggers are biomechanically designed to develop greater extension force in the initial stage of flexion and softer force in the final stage, than conventional static outriggers. The "soft" forces allow the patient to repeat the prescribed movements more often without becoming fatigued.

The following chart illustrates sizes for all Mannerfelt handsplints. **Distance A** is the distance between the outer part of the second and fifth MCP joint.

Size Chart- For Left or Right

Size	Centimeters	Inches
Small	5.5-7.0 cm	2-1/8"-2-3/4"
Medium	7.1-8.5 cm	2-3/4"-3-3/8"
Large	8.6-11.0 cm	3-3/8"-4-3/8"



MODEL UM-1.0 ULNAR DRIFT WRIST HAND ORTHOSIS



This splint is designed for conservative pre and postoperative treatment of ulnar drift. The dynamic outrigger applies dorso-radial pull on the MCP joints. The splint shown has a dynamic wrist joint to create dorso-radial pull. A solid fixed wrist component is also included with the splint.

LEFT	
Order No.	Size
UM-1.0LS	Left Small
UM-1.0LM	Left Medium
UM-1.0LL	Left Large

RIGHT	
Order No.	Size
UM-1.0RS	Right Small
UM-1.0RM	Right Medium
UM-1.0RL	Right Large

Note: Please consult size chart on page 1.2.7

MODEL UM-2.2 DYNAMIC WRIST HAND ORTHOSIS WITH FINGER EXTENSION



This splint provides dynamic extension of DIP and PIP joints II-V and fixation of the wrist. The MCP extension block, which may be removed, provides fixation of MCP joints II-V.

LEFT	
Order No.	Size
UM-2.2LS	Left Small
UM-2.2LM	Left Medium
UM-2.2LL	Left Large

RIGHT	
Order No.	Size
UM-2.2RS	Right Small
UM-2.2RM	Right Medium
UM-2.2RL	Right Large

Note: Please consult size chart on page 1.2.7

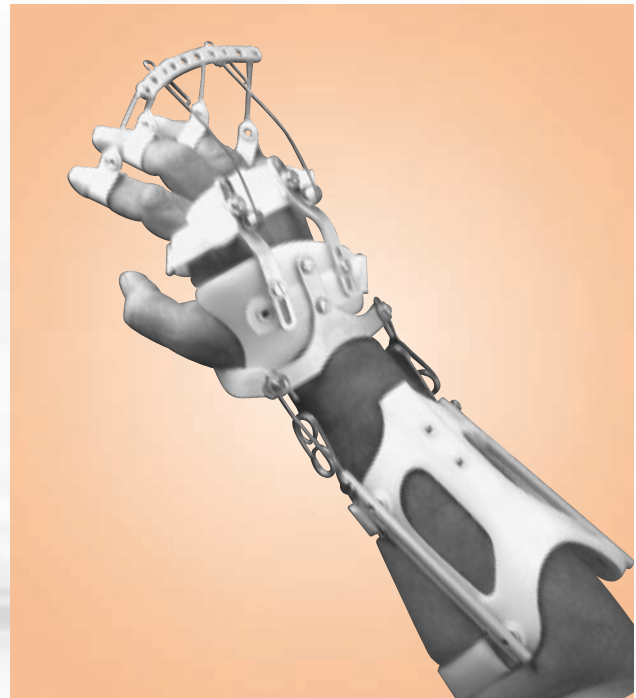
MODEL UM-3.3 DYNAMIC WHO WITH WRIST AND FINGER EXTENSION

This splint provides dynamic extension force to the wrist, DIP and PIP joints II-V. The removable MCP extension block provides fixation of MCP joints II-V.

LEFT	
Order No.	Size
UM-3.3LS	Left Small
UM-3.3LM	Left Medium
UM-3.3LL	Left Large

RIGHT	
Order No.	Size
UM-3.3RS	Right Small
UM-3.3RM	Right Medium
UM-3.3RL	Right Large

Note: Please consult size chart on page 1.2.7



MODEL UM-4.0 DYNAMIC WHO WITH FINGER FLEXION

This splint is designed to apply dynamic flexion force on the fingers. The unique pulley design allows maximum flexion of all finger joints. An extension component may be added to allow a combination of flexion and extension exercises. A glove is provided with the splint.

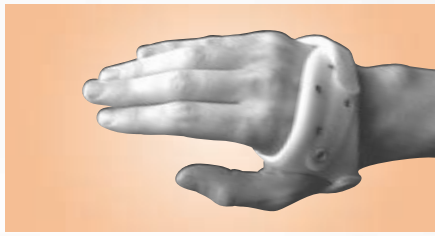
LEFT	
Order No.	Size
UM-4.0LS	Left Small
UM-4.0LM	Left Medium
UM-4.0LL	Left Large

RIGHT	
Order No.	Size
UM-4.0RS	Right Small
UM-4.0RM	Right Medium
UM-4.0RL	Right Large

Note: Please consult size chart on page 1.2.7

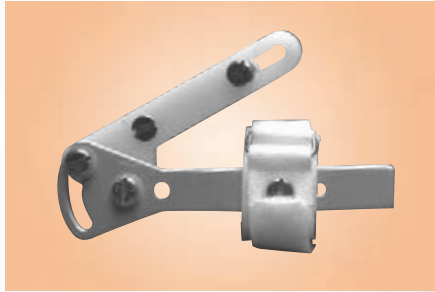


MANNERFELT COMPONENTS



MODEL 731-1 PALMAR UNIT

- May be utilized when only the thumb needs splinting. It consists of the palmar piece only
- **Please specify left or right and small, medium or large**



MODEL 731-2 STATIC THUMB CONTROL

- Fixation of the MP-Joint I
- Adjustable abduction/adduction of CMC Joint I
- Free motion of CMC Joint I by shortening thumb outrigger
- Attaches to existing bushings in palmar section
- **Please specify left or right**



MODEL 731-3 DYNAMIC THUMB EXTENSION MODULE

- Fixation of MCP-Joint I
- Dynamic extension of IP-Joint I
- Adjustable abduction/adduction of CMC-Joint I
- Free motion of CMC-Joint I by shortening thumb outrigger
- **Please specify left or right**



MODEL 731-4LP OR 731-4RP DYNAMIC THUMB FLEXION MODULE WITH PALMAR UNIT

- Fixation of MCP-Joint I • Dynamic Flexion of IP Joint I
- Adjustable abduction of CMC-Joint I
- Free motion of CMC-Joint I by shortening outrigger
- Module without Palmar Unit, 731-4L or 731-4R
- **Please specify left or right and small, medium or large**



MODEL 731-6 MP BLOCKER

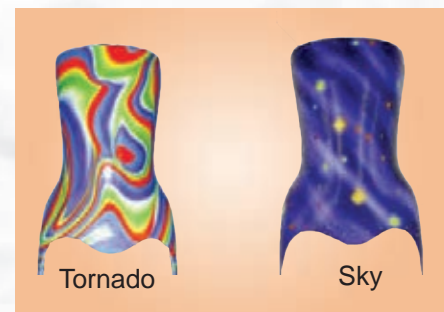
- May be easily added to a UM-2.2 or a UM-3.3 splint
- **Please specify left or right and small, medium or large**

ADDITIONAL MANNERFELT COMPONENTS (not pictured)

Order No.	Description
731-7	Finger Loops and Rubber Bands
731-8	Type UM-1.0 Finger Loops and Outrigger
731-9	Hand Module Attachment Bar (Specify left or right)
731-10	Type UM-2.2 Finger Loops and Outrigger
731-11	Screws for all models
731-12	White Gloves (Specify left or right, small, medium or large)
731-13	Coil Wrist Spring (Specify left or right and medial or lateral)
731-14	Outrigger Spring for Mannerfelt
UM-Bands	Replacement Rubber Bands for Mannerfelt

MODEL 190 LERMAN PEDIATRIC SHOULDER ABDUCTION ROTATION ORTHOSIS

The Lerman Pediatric Shoulder Abduction Rotation Orthosis (**SARO™**), reflects the creativity and clinical expertise of its developer, Max Lerman, CO. The low profile **SARO™** is easily adjustable, lightweight, and can be used for pre and postoperative management of the pediatric shoulder joint. The adjustments at the shoulder joint allow the clinician to precisely align the joint and upper extremity. The **SARO™** may be used left or right.



Available Transfer Paper

Order No.	Size	Iliac Crest to Axilla	Waist/Trunk Circumference
190-S	Small	6-3/4" - 10"	18" - 30"
190-M	Medium	7-1/4" - 10-3/4"	20" - 32"
190-L	Large	10-3/4" - 13"	22" - 36"
190-XL	X-Large	12-1/2" - 15"	24" - 38"
190-C	Custom		



Replacement Liners

Order No.	Size
190-Liners-S	Small
190-Liners-M	Medium
190-Liners-L	Large
190-Liners-XL	X-Large



Replacement Straps

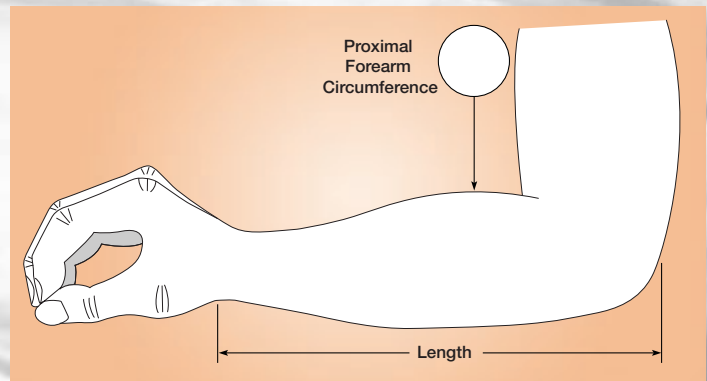
Order No.	Size
190-Straps-S/M	Small/Medium
190-Straps-L/XL	Large/X-Large

MODEL WCO WILMER® CARRYING ORTHOSIS

The Wilmer® Carrying Orthosis is constructed of tubular stainless steel for strength and weight reduction. Available in two prefabricated sizes.



- Effectively neutralizes shoulder subluxation by utilizing the weight of the patient's forearm as a counterbalance to maintain optimal positioning between humerus and GH joint
- Restriction of edema formation in forearm and hand
- Allows passive internal/external rotation of the humerus
- No neck loading, or restriction of arm mobility
- Streamlined design allows for optimal cosmesis when worn under clothing
- Tubular stainless steel construction provides a rigid orthosis that weighs less than half a pound



SIZE CHART

Forearm Length	Forearm Circumference	Size
23 - 29 cm / 9 - 11.4"	28 - 34 cm / 11 - 13.4"	Large
23 - 29 cm / 9 - 11.4"	23 - 29 cm / 9 - 11.4"	Normal

LEFT SIDE		
Order No.	Description	Size
WCO-SLL	Wilmer® Carrying Orthosis	Large
WCO-SNL	Wilmer® Carrying Orthosis	Normal

RIGHT SIDE		
Order No.	Description	Size
WCO-SLR	Wilmer® Carrying Orthosis	Large
WCO-SNR	Wilmer® Carrying Orthosis	Normal

MODEL U-30-2 RANGE OF MOTION ELBOW JOINT

The U-30-2 elbow joint is designed to limit the range of motion at the elbow. The joint is made of 1/8" 2024-T3 aluminum and is adjustable in 30° increments. Available in one size that can be utilized left or right.

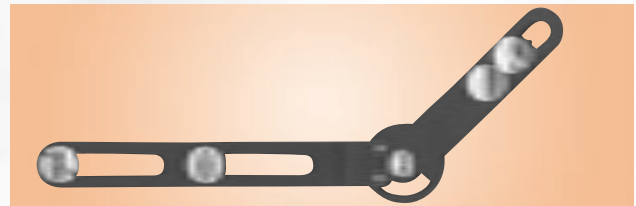
Order No.	Description	Dimensions
U-30-2	Elbow Joint	3/4" x 13-3/4"



MODEL U-45 RANGE OF MOTION WRIST JOINT

The U-45 wrist joint is designed to limit the range of motion at the wrist. The joint has a range of 0° to 35° of flexion or extension with a total of 70° of arc. Available in one size only. **US Patent 4,337,764**

Order No.	Description	Dimensions
U-45	Wrist Joint	1/2" x 6-1/4"



MODEL 1500 BECKER FREE MOTION ELBOW JOINT

Model 1500 is a single axis, free motion, overlap elbow joint. The joint is 15" long and is available in aluminum or stainless steel.

Order No.	Material
1500-A	Aluminum
1500-S	Stainless Steel



MODEL 1700 ADJUSTABLE POSITIONING JOINT

Model 1700 allows the orthotist to lock the degree of extension in 6° intervals. This joint is ideal for any upper or lower limb positioning orthosis.

Order No.	Material	Upright Dimensions
1700-C8	Aluminum	1/8" x 1/2"
1700-C8S	Stainless Steel	1/8" x 1/2"



MODEL 1800 VARILOC® POSITIONING JOINT

The Variloc® Positioning Joint is an adjustable locking rotary joint that combines strength with ease of operation. The Variloc® Positioning Joint is positively engaged by high strength locking pins, which can be instantly disengaged by a push-button mechanism, allowing the joint to rotate. **US Patent 5,689,999**

Order No.	Material	Upright Dimensions
1800-A6	Aluminum	3/16" x 3/4"
1800-A6S	Stainless Steel	3/16" x 3/4"
1800-A6TI	Titanium	3/16" x 3/4"



MODEL 1900 MONODOS® JOINT

The Monodos® Joint incorporates a one way clutch and allows rotation in one direction, but blocks all rotation in the opposite direction until released. **US Patent 5,328,446**

NOTE: The Monodos® is also available in an "A" size in our Knee Joint section page 4.1.23.

Order No.	Description	Dimensions
1900-B	Adult/Youth	1/8" x 1/2" x 10"
1900-C	Pediatric	1/8" x 1/2" x 6"



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BECKER ORTHOPEDIC SPINAL SYSTEM HYPEREXTENSION TLSO'S

The Becker Orthopedic Spinal System (BOSS) is a series of modular hyperextension braces utilizing serrated discs on the lateral uprights to make angular adjustments of the thoracic and pelvic modules.

MODEL Q-25A HYPEREXTENSION TLSO WITH SWIVEL STERNAL PAD & QUICK RELEASE CLOSURE

Model Q-25A consists of an anterior thoracic and pelvic assembly, each of which is attached to serrated discs on the superior and inferior margins of the lateral uprights. The lateral uprights are padded and adjustable in length. A posterior thoracolumbar pad is attached to the lateral uprights by our Quick Release closure system.



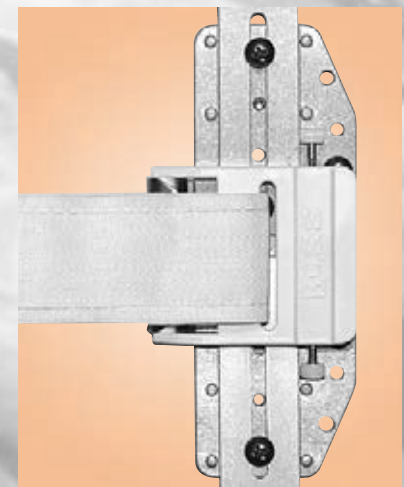
Order No.	Size
Q-25A-XS	X-Small
Q-25A-S	Small
Q-25A-M	Medium
Q-25A-L	Large
Q-25A-XL	X-Large
Q-25-C	Custom



Swivel Sternal Pad



Adjustable Lateral Uprights



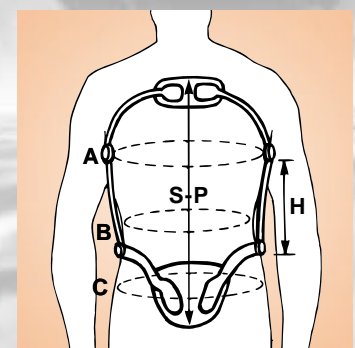
Quick Release Closure

NOTE: Our hyperextension TLSO's with Quick Release closures are not available with non-adjustable lateral uprights.

SIZE CHART

Size	A	B	C	H	S-P
X-Small	28" - 30"	25" - 28"	28" - 31"	4-3/8" - 7-1/4"	16" - 17"
Small	30" - 33"	28" - 31"	31" - 34"	4-3/8" - 7-1/4"	17" - 18"
Medium	33" - 36"	31" - 34"	34" - 37"	6" - 8-1/4"	18" - 20"
Large	36" - 40"	34" - 37"	37" - 40"	6-5/8" - 9-3/4"	19" - 21"
X-Large	40" - 44"	37" - 40"	40" - 44"	6-5/8" - 9-3/4"	20" - 22"
Custom	Please Specify Measurements				

NOTE: The superior border of the sternal pad should be located 1/2" below the sternal notch. The inferior border of the suprapubic pad should be 1/2" superior to the symphysis pubis.



MODEL L-25A

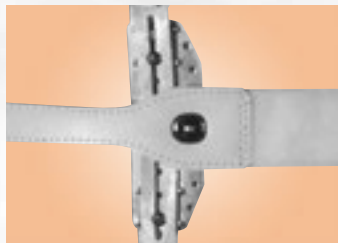
HYPEREXTENSION TLSO WITH SWIVEL STERNAL PAD & DOT FASTENER CLOSURE

Model L-25A is the same as model Q-25A except a Dot Fastener closure replaces the Quick Release closure.

NOTE: Please see size chart on preceding page.

- Swivel Sternal Pad
- Adjustable Lateral Uprights
- DOT Fastener Closure

ADJUSTABLE	
Order No.	Size
L-25A-XS	X-Small
L-25A-S	Small
L-25A-M	Medium
L-25A-L	Large
L-25A-XL	X-Large
L-25A-C	Custom



Dot Fastener Closure



MODEL W-25A

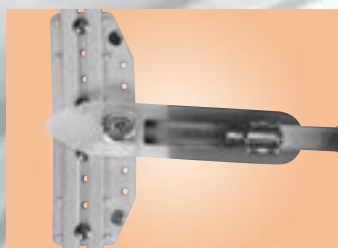
HYPEREXTENSION TLSO WITH SWIVEL STERNAL PAD & WORM GEAR CLOSURE

Model W-25A is the same as Model Q-25A except a Worm Gear closure replaces the Quick Release closure.

NOTE: Please see size chart on preceding page.

- Swivel Sternal Pad
- Adjustable Lateral Uprights
- Worm Gear Closure

ADJUSTABLE	
Order No.	Size
W-25A-XS	X-Small
W-25A-S	Small
W-25A-M	Medium
W-25A-L	Large
W-25A-XL	X-Large
W-25A-C	Custom



Worm Gear Closure



NON-ADJUSTABLE ORDER NUMBERS

NON-ADJUSTABLE WITH DOT FASTENER CLOSURE	
Order No.	Size
L-25-XS	X-Small
L-25-S	Small
L-25-M	Medium
L-25-L	Large
L-25-XL	X-Large
L-25-C	Custom

NON-ADJUSTABLE WITH WORM GEAR CLOSURE	
Order No.	Size
W-25-XS	X-Small
W-25-S	Small
W-25-M	Medium
W-25-L	Large
W-25-XL	X-Large
W-25-C	Custom

NOTE: Non-adjustable lateral uprights are available in the following lengths: 4-1/2", 5-1/4", 6", 6-3/4", 7-1/2", 8-1/4", 9", and 9-3/4". Please specify the lateral upright length you desire when ordering.

HYPEREXTENSION TLSO'S CONTINUED

The Becker Orthopedic Spinal System (BOSS) is a series of modular hyperextension braces utilizing serrated discs on the lateral uprights to make angular adjustments of the thoracic and pelvic modules.

MODEL Q-26A HYPEREXTENSION TLSO WITH STATIONARY STERNAL PAD & QUICK RELEASE CLOSURE



Model Q-26A utilizes a stationary sternal pad instead of the swivel type.

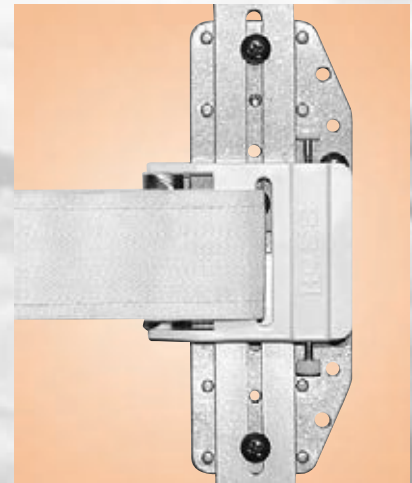
Order No.	Size
Q-26A-XS	X-Small
Q-26A-S	Small
Q-26A-M	Medium
Q-26A-L	Large
Q-26A-XL	X-Large
Q-26A-C	Custom



Stationary Sternal Pad



Adjustable Lateral Uprights



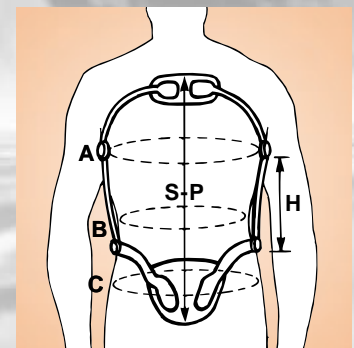
Quick Release Closure

NOTE: Our hyperextension TLSO's with Quick Release closures are not available with non-adjustable lateral uprights.

SIZE CHART

Size	A	B	C	H	S-P
X-Small	28" - 30"	25" - 28"	28" - 31"	4-3/8" - 7-1/4"	16" - 17"
Small	30" - 33"	28" - 31"	31" - 34"	4-3/8" - 7-1/4"	17" - 18"
Medium	33" - 36"	31" - 34"	34" - 37"	6" - 8-1/4"	18" - 20"
Large	36" - 40"	34" - 37"	37" - 40"	6-5/8" - 9-3/4"	19" - 21"
X-Large	40" - 44"	37" - 40"	40" - 44"	6-5/8" - 9-3/4"	20" - 22"
Custom	Please Specify Measurements				

NOTE: The superior border of the sternal pad should be located 1/2" below the sternal notch. The inferior border of the suprapubic pad should be 1/2" superior to the symphysis pubis.



MODEL L-26A HYPEREXTENSION TLSO WITH STATIONARY STERNAL PAD & DOT FASTENER CLOSURE

Model L-26A is the same as Model Q-26A except a Dot Fastener closure replaces the Quick Release closure.

NOTE: Please see size chart on preceding page.

- Stationary Sternal Pad
- Adjustable Lateral Uprights
- DOT Fastener Closure

ADJUSTABLE	
Order No.	Size
L-26A-XS	X-Small
L-26A-S	Small
L-26A-M	Medium
L-26A-L	Large
L-26A-XL	X-Large
L-26A-C	Custom



Dot Fastener Closure



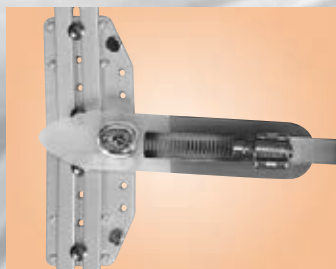
MODEL W-26A HYPEREXTENSION TLSO WITH STATIONARY STERNAL PAD & WORM GEAR CLOSURE

Model W-26A is the same as Model Q-26A except a Worm Gear closure replaces the Quick Release closure.

NOTE: Please see size chart on preceding page.

- Stationary Sternal Pad
- Adjustable Lateral Uprights
- Worm Gear Closure

ADJUSTABLE	
Order No.	Size
W-26A-XS	X-Small
W-26A-S	Small
W-26A-M	Medium
W-26A-L	Large
W-26A-XL	X-Large
W-26A-C	Custom



Worm Gear Closure



NON-ADJUSTABLE ORDER NUMBERS

NON-ADJUSTABLE WITH DOT FASTENER CLOSURE	
Order No.	Size
L-26-XS	X-Small
L-26-S	Small
L-26-M	Medium
L-26-L	Large
L-26-XL	X-Large
L-26-C	Custom

NON-ADJUSTABLE WITH WORM GEAR CLOSURE	
Order No.	Size
W-26-XS	X-Small
W-26-S	Small
W-26-M	Medium
W-26-L	Large
W-26-XL	X-Large
W-26-C	Custom

NOTE: Non-adjustable lateral uprights are available in the following lengths: 4-1/2", 5-1/4", 6", 6-3/4", 7-1/2", 8-1/4", 9", and 9-3/4". Please specify the lateral upright length you desire when ordering.

HYPEREXTENSION TLSO'S CONTINUED

The Becker Orthopedic Spinal System (BOSS) is a series of modular hyperextension braces utilizing serrated discs on the lateral uprights to make angular adjustments of the thoracic and pelvic modules.

MODEL Q-27A HYPEREXTENSION TLSO WITH SWIVEL STERNAL PAD, PELVIC BAR & QUICK RELEASE CLOSURE



Model Q-27A is provided with a pelvic bar which reduces pressure on the bladder.

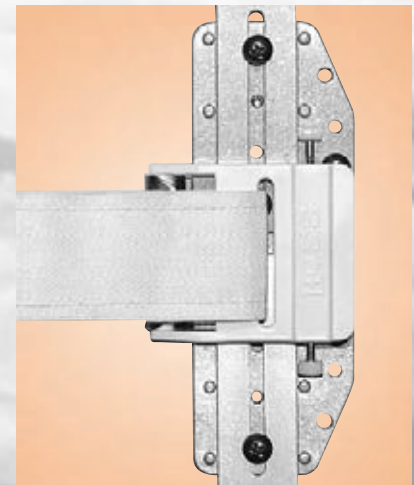
Order No.	Size
Q-27A-XS	X-Small
Q-27A-S	Small
Q-27A-M	Medium
Q-27A-L	Large
Q-27A-XL	X-Large
Q-27A-C	Custom



Swivel Sternal Pad



Adjustable Lateral Uprights



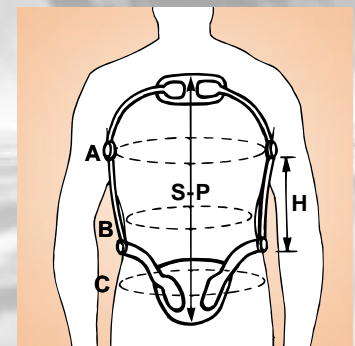
Quick Release Closure

NOTE: Our hyperextension TLSO's with Quick Release closures are not available with non-adjustable lateral uprights.

SIZE CHART

Size	A	B	C	H	S-P
X-Small	28" - 30"	25" - 28"	28" - 31"	4-3/8" - 7-1/4"	16" - 17"
Small	30" - 33"	28" - 31"	31" - 34"	4-3/8" - 7-1/4"	17" - 18"
Medium	33" - 36"	31" - 34"	34" - 37"	6" - 8-1/4"	18" - 20"
Large	36" - 40"	34" - 37"	37" - 40"	6-5/8" - 9-3/4"	19" - 21"
X-Large	40" - 44"	37" - 40"	40" - 44"	6-5/8" - 9-3/4"	20" - 22"
Custom	Please Specify Measurements				

NOTE: The superior border of the sternal pad should be located 1/2" below the sternal notch. The inferior border of the suprapubic pad should be 1/2" superior to the symphysis pubis.



MODEL L-27A HYPEREXTENSION TLSO WITH SWIVEL STERNAL PAD, PELVIC BAR & DOT FASTENER CLOSURE

Model L-27A is the same as Model Q-27A except a Dot Fastener closure replaces the Quick Release closure.

NOTE: Please see size chart on preceding page.

- Swivel Sternal Pad
- Adjustable Lateral Uprights
- Pelvic Bar
- DOT Fastener Closure

ADJUSTABLE	
Order No.	Size
L-27A-XS	X-Small
L-27A-S	Small
L-27A-M	Medium
L-27A-L	Large
L-27A-XL	X-Large
L-27A-C	Custom



Dot Fastener Closure



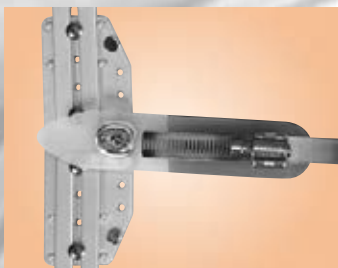
MODEL W-27A HYPEREXTENSION TLSO WITH SWIVEL STERNAL PAD, PELVIC BAR & WORM GEAR CLOSURE

Model W-27A is the same as Model Q-27A except a Worm Gear closure replaces the Quick Release closure.

NOTE: Please see size chart on preceding page.

- Swivel Sternal Pad
- Adjustable Lateral Uprights
- Pelvic Bar
- Worm Gear Closure

ADJUSTABLE	
Order No.	Size
W-27A-XS	X-Small
W-27A-S	Small
W-27A-M	Medium
W-27A-L	Large
W-27A-XL	X-Large
W-27A-C	Custom



Worm Gear Closure



NON-ADJUSTABLE ORDER NUMBERS

NON-ADJUSTABLE WITH DOT FASTENER CLOSURE	
Order No.	Size
L-27-XS	X-Small
L-27-S	Small
L-27-M	Medium
L-27-L	Large
L-27-XL	X-Large
L-27-C	Custom

NON-ADJUSTABLE WITH WORM GEAR CLOSURE	
Order No.	Size
W-27-XS	X-Small
W-27-S	Small
W-27-M	Medium
W-27-L	Large
W-27-XL	X-Large
W-27-C	Custom

NOTE: Non-adjustable lateral uprights are available in the following lengths: 4-1/2", 5-1/4", 6", 6-3/4", 7-1/2", 8-1/4", 9", and 9-3/4". Please specify the lateral upright length you desire when ordering.

HYPEREXTENSION TLSO'S CONTINUED

The Becker Orthopedic Spinal System (BOSS) is a series of modular hyperextension braces utilizing serrated discs on the lateral uprights to make angular adjustments of the thoracic and pelvic modules.

MODEL Q-29A HYPEREXTENSION TLSO WITH DELTOPECTORAL PADS & QUICK RELEASE CLOSURE



Model Q-29A utilizes deltopectoral pads designed for patients unable to tolerate pressure on the sternum.

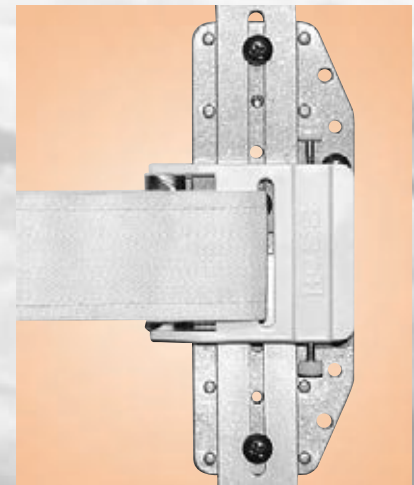
Order No.	Size
Q-29A-XS	X-Small
Q-29A-S	Small
Q-29A-M	Medium
Q-29A-L	Large
Q-29A-XL	X-Large
Q-29A-C	Custom



Adjustable
Deltopectoral Pads



Adjustable Lateral
Uprights



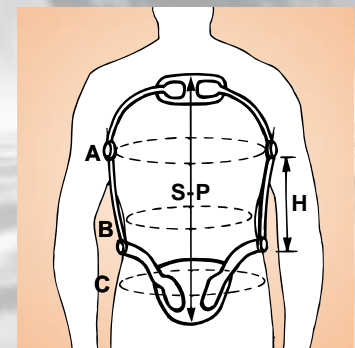
Quick Release Closure

NOTE: Our hyperextension TLSO's with Quick Release closures are not available with non-adjustable lateral uprights.

SIZE CHART

Size	A	B	C	H	S-P
X-Small	28" - 30"	25" - 28"	28" - 31"	4-3/8" - 7-1/4"	16" - 17"
Small	30" - 33"	28" - 31"	31" - 34"	4-3/8" - 7-1/4"	17" - 18"
Medium	33" - 36"	31" - 34"	34" - 37"	6" - 8-1/4"	18" - 20"
Large	36" - 40"	34" - 37"	37" - 40"	6-5/8" - 9-3/4"	19" - 21"
X-Large	40" - 44"	37" - 40"	40" - 44"	6-5/8" - 9-3/4"	20" - 22"
Custom	Please Specify Measurements				

NOTE: The superior border of the sternal pad should be located 1/2" below the sternal notch. The inferior border of the suprapubic pad should be 1/2" superior to the symphysis pubis.



MODEL L-29A HYPEREXTENSION TLSO WITH DELTOPECTORAL PADS & DOT FASTENER CLOSURE

Model L-29A is the same as Model Q-29A except a Dot Fastener closure replaces the Quick Release closure.

NOTE: Please see size chart on preceding page.

- Adjustable Deltopectoral Pads
- Adjustable Lateral Uprights
- DOT Fastener Closure

ADJUSTABLE	
Order No.	Size
L-29A-XS	X-Small
L-29A-S	Small
L-29A-M	Medium
L-29A-L	Large
L-29A-XL	X-Large
L-29A-C	Custom



Dot Fastener Closure



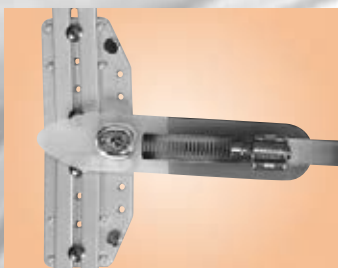
MODEL W-29A HYPEREXTENSION TLSO WITH DELTOPECTORAL PADS & WORM GEAR CLOSURE

Model W-29A is the same as Model Q-29A except a Worm Gear closure replaces the Quick Release closure.

NOTE: Please see size chart on preceding page.

- Adjustable Deltopectoral Pads
- Adjustable Lateral Uprights
- Worm Gear Closure

ADJUSTABLE	
Order No.	Size
W-29A-XS	X-Small
W-29A-S	Small
W-29A-M	Medium
W-29A-L	Large
W-29A-XL	X-Large
W-29A-C	Custom



Worm Gear Closure



NON-ADJUSTABLE ORDER NUMBERS

NON-ADJUSTABLE WITH DOT FASTENER CLOSURE	
Order No.	Size
L-29-XS	X-Small
L-29-S	Small
L-29-M	Medium
L-29-L	Large
L-29-XL	X-Large
L-29-C	Custom

NON-ADJUSTABLE WITH WORM GEAR CLOSURE	
Order No.	Size
W-29-XS	X-Small
W-29-S	Small
W-29-M	Medium
W-29-L	Large
W-29-XL	X-Large
W-29-C	Custom

NOTE: Non-adjustable lateral uprights are available in the following lengths: 4-1/2", 5-1/4", 6", 6-3/4", 7-1/2", 8-1/4", 9", and 9-3/4". Please specify the lateral upright length you desire when ordering.

HYPEREXTENSION TLSO'S CONTINUED

The Becker Orthopedic Spinal System (BOSS) is a series of modular hyperextension braces utilizing serrated discs on the lateral uprights to make angular adjustments of the thoracic and pelvic modules.

MODEL Q-30A HYPEREXTENSION TLSO WITH DELTOPECTORAL PADS, PELVIC BAR & QUICK RELEASE CLOSURE



Model Q-30A utilizes a padded pelvic bar and deltopectoral pads for patients who can not tolerate pressure on the bladder and sternum.

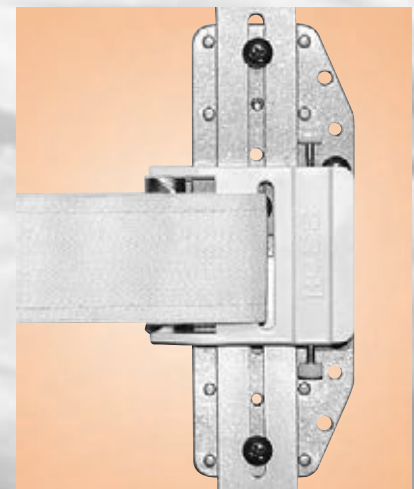
Order No.	Size
Q-30A-XS	X-Small
Q-30A-S	Small
Q-30A-M	Medium
Q-30A-L	Large
Q-30A-XL	X-Large
Q-30A-C	Custom



Adjustable
Deltopectoral Pads



Adjustable Lateral
Uprights



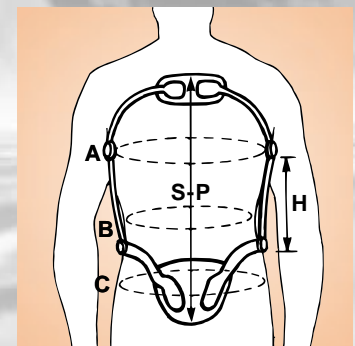
Quick Release Closure

NOTE: Our hyperextension TLSO's with Quick Release closures are not available with non-adjustable lateral uprights.

SIZE CHART

Size	A	B	C	H	S-P
X-Small	28" - 30"	25" - 28"	28" - 31"	4-3/8" - 7-1/4"	16" - 17"
Small	30" - 33"	28" - 31"	31" - 34"	4-3/8" - 7-1/4"	17" - 18"
Medium	33" - 36"	31" - 34"	34" - 37"	6" - 8-1/4"	18" - 20"
Large	36" - 40"	34" - 37"	37" - 40"	6-5/8" - 9-3/4"	19" - 21"
X-Large	40" - 44"	37" - 40"	40" - 44"	6-5/8" - 9-3/4"	20" - 22"
Custom	Please Specify Measurements				

NOTE: The superior border of the sternal pad should be located 1/2" below the sternal notch. The inferior border of the suprapubic pad should be 1/2" superior to the symphysis pubis.



MODEL L-30A

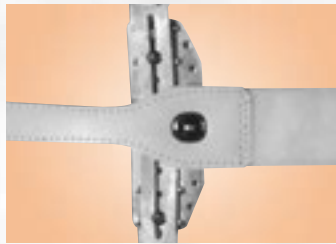
HYPEREXTENSION TLSO WITH DELTOPECTORAL PADS, PELVIC BAR & DOT FASTENER CLOSURE

Model L-30A is the same as Model Q-30A except a Dot Fastener closure replaces the Quick Release closure.

NOTE: Please see size chart on preceding page.

- Adjustable Deltopectoral Pads
- Adjustable Lateral Uprights
- Padded Pelvic Bar
- DOT Fastener Closure

ADJUSTABLE	
Order No.	Size
L-30A-XS	X-Small
L-30A-S	Small
L-30A-M	Medium
L-30A-L	Large
L-30A-XL	X-Large
L-30A-C	Custom



Dot Fastener Closure



MODEL W-30A

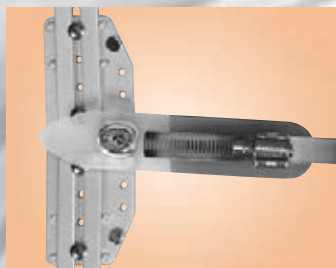
HYPEREXTENSION TLSO WITH DELTOPECTORAL PADS, PELVIC BAR & WORM GEAR CLOSURE

Model W-30A is the same as Model Q-30A except a Worm Gear closure replaces the Quick Release closure.

NOTE: Please see size chart on preceding page.

- Adjustable Deltopectoral Pads
- Adjustable Lateral Uprights
- Padded Pelvic Bar
- Worm Gear Closure

ADJUSTABLE	
Order No.	Size
W-30A-XS	X-Small
W-30A-S	Small
W-30A-M	Medium
W-30A-L	Large
W-30A-XL	X-Large
W-30A-C	Custom



Worm Gear Closure



NON-ADJUSTABLE ORDER NUMBERS

NON-ADJUSTABLE WITH DOT FASTENER CLOSURE	
Order No.	Size
L-30-XS	X-Small
L-30-S	Small
L-30-M	Medium
L-30-L	Large
L-30-XL	X-Large
L-30-C	Custom

NON-ADJUSTABLE WITH WORM GEAR CLOSURE	
Order No.	Size
W-30-XS	X-Small
W-30-S	Small
W-30-M	Medium
W-30-L	Large
W-30-XL	X-Large
W-30-C	Custom

NOTE: Non-adjustable lateral uprights are available in the following lengths: 4-1/2", 5-1/4", 6", 6-3/4", 7-1/2", 8-1/4", 9", and 9-3/4". Please specify the lateral upright length you desire when ordering.

BECKER ORTHOPEDIC SPINAL SYSTEM MODULAR COMPONENTS FOR HYPEREXTENSION TLSO'S

B.O.S.S. hyperextension TLSO's are completely interchangeable. As the needs of your patient change, different assemblies may be easily added to the existing orthosis. Some orthotists will prefer to stock the modular assemblies, as this method allows great versatility in meeting the needs of the patient. To design your own B.O.S.S. hyperextension TLSO, please follow the steps below. Assemblies may also be ordered individually.

STEP 1: Choose the model number of the thoracic assembly you wish to purchase.

THORACIC ASSEMBLIES Each set includes two thoracic extensions and sternal pad.



MODEL 25T

Thoracic assembly with swivel sternal pad.

Order No.	Size
25T-XS	X-Small
25T-S	Small
25T-M	Medium
25T-L	Large
25T-XL	X-Large



MODEL 26T

Thoracic assembly with stationary sternal pad.

Order No.	Size
26T-XS	X-Small
26T-S	Small
26T-M	Medium
26T-L	Large
26T-XL	X-Large



MODEL 29T

Thoracic assembly with deltopectoral pads.

Order No.	Size
29T-XS	X-Small
29T-S	Small
29T-M	Medium
29T-L	Large
29T-XL	X-Large

Note: To order Thoracic Assemblies with 15" Boston Extension Uprights, please add the letter "A". For example, to order model 25T-XS with Boston Extensions, your order number would be 25TA-XS.

STEP 2: Choose the model number of the pelvic assembly you wish to purchase.

PELVIC ASSEMBLIES Each set includes two pelvic extensions and a suprapubic pad.



MODEL 25P

Pelvic assembly with suprapubic pad.

Order No.	Size
25P-XS	X-Small
25P-S	Small
25P-M	Medium
25P-L	Large
25P-XL	X-Large



MODEL 27P

Padded pelvic bar.

Order No.	Size
27P-XS	X-Small
27P-S	Small
27P-M	Medium
27P-L	Large
27P-XL	X-Large



MODEL 28P

Pelvic assembly with anterior and posterior extensions and suprapubic pad.

Order No.	Size
28P-XS	X-Small
28P-S	Small
28P-M	Medium
28P-L	Large
28P-XL	X-Large

STEP 3: Choose the model number of the lateral upright assembly you wish to purchase.

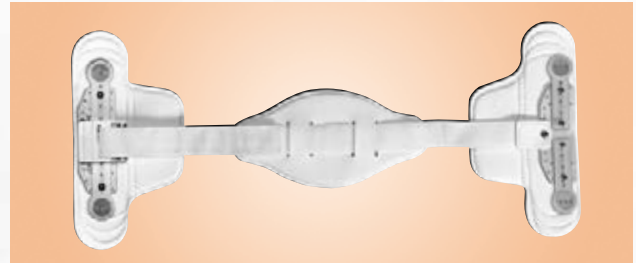
ADJUSTABLE LATERAL UPRIGHTS WITH THORACOLUMBAR PAD

Each set includes two lateral uprights, side pads, thoracolumbar pad, closure system and four lid covers and screws for serrations.

MODEL Q-25AL

Adjustable lateral uprights and thoracolumbar pad with Quick Release closure.

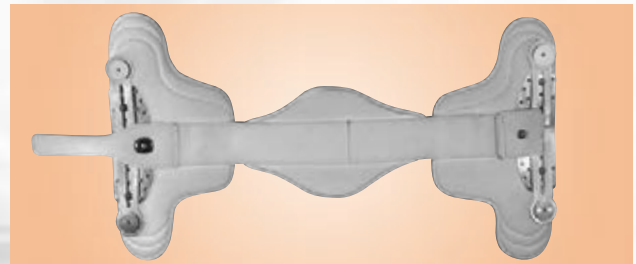
Order No.	Size	Adjustable Range
Q-25AL-S	Small	4-3/4" to 7-1/4"
Q-25AL-M	Medium	6" to 8-1/4"
Q-25AL-L	Large	6-5/8" to 9-3/4"



MODEL L-25AL

Adjustable lateral uprights and thoracolumbar pad with Dot Fastener closure.

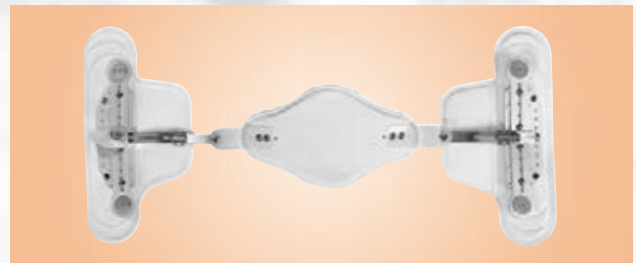
Order No.	Size	Adjustable Range
L-25AL-S	Small	4-3/4" to 7-1/4"
L-25AL-M	Medium	6" to 8-1/4"
L-25AL-L	Large	6-5/8" to 9-3/4"



MODEL W-25AL

Adjustable lateral uprights and thoracolumbar pad with Worm Gear closure.

Order No.	Size	Adjustable Range
W-25AL-S	Small	4-3/4" to 7-1/4"
W-25AL-M	Medium	6" to 8-1/4"
W-25AL-L	Large	6-5/8" to 9-3/4"



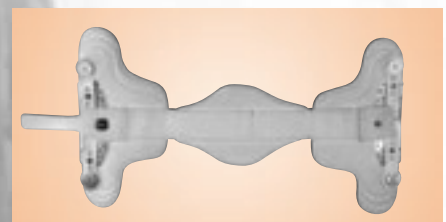
NON-ADJUSTABLE LATERAL UPRIGHTS WITH THORACOLUMBAR PAD

Each set includes two lateral uprights, side pads, thoracolumbar pad, closure system and four lid covers and screws for serrations.

MODEL L-25L

Non-Adjustable lateral uprights and thoracolumbar pad with Dot Fastener closure.

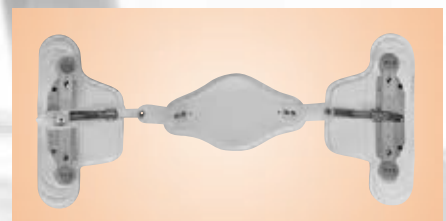
Order No.	Length (Center of Serration)
L-25L-4.5	4-1/2"
L-25L-5.25	5-1/4"
L-25L-6	6"
L-25L-6.75	6-3/4"
L-25L-7.5	7-1/2"
L-25L-8.25	8-1/4"
L-25L-9	9"
L-25L-9.75	9-3/4"



MODEL W-25L

Non-Adjustable lateral uprights and thoracolumbar pad with Worm Gear closure.

Order No.	Length (Center of Serration)
W-25L-4.5	4-1/2"
W-25L-5.25	5-1/4"
W-25L-6	6"
W-25L-6.75	6-3/4"
W-25L-7.5	7-1/2"
W-25L-8.25	8-1/4"
W-25L-9	9"
W-25L-9.75	9-3/4"



NOTE: Non-Adjustable Lateral Uprights are not available with our Quick Release Closure.

ADDITIONAL MODULAR COMPONENTS



MODEL 25ALE

Adjustable lateral upright assembly.

Order No.	Size	Adjustable Range
25ALE-S	Small	4-3/8" to 7-1/4"
25ALE-M	Medium	6" to 8-1/4"
25ALE-L	Large	6-5/8" to 9-3/4"



MODEL 25ALE-ARM

Adjustable lateral upright slide arm with serration.

Order No.	TLSO Size	Slide Arm Size
25ALE-ARM-XS	XS	Short
25ALE-ARM-S	S	Short
25ALE-ARM-M	M	Short
25ALE-ARM-L	L	Long
25ALE-ARM-XL	XL	Long



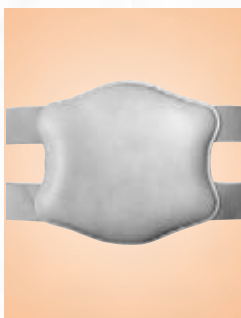
MODEL 25-1 STERNAL PAD WITH EXTRA HOLES

Allows greater range of positioning. **Please specify small, medium or large when ordering.**



MODEL 25-2 SUPRAPUBIC PAD WITH EXTRA HOLES

Allows greater range of positioning. **Please specify small, medium or large when ordering.**



MODEL 25-3 EXTENDED THORACOLUMBAR PAD

Gives greater support to the thoracolumbar spine. **Please specify closure type and small, medium or large when ordering.**



MODEL 25-HB BOSTON EXTENSION LATERAL UPRIGHT -15"

ADDITIONAL MODULAR COMPONENTS (not pictured)

Order No.	Description
Q-25-3	Thoracolumbar Pad & Strap for Quick Release Closure (specify size)
Q-25-3A	Dacron Hook & Loop Back Strap for Quick Release Closure (specify size)
Q-25-4A	Latch Arm Buckle & Spring Release Unit for Quick Release Closure
Q-25-5	Metal Base Plate for Quick Release Closure
25-4	Snap-Out Post
25-5	Dot Fastener
25-6	Lid & Lid Screw
25-7	Serrated Disc
25-8	Phillips Head Pad Screw
25-9	Standard Sternal Pad (specify size)

Order No.	Description
25-10	Standard Thoracolumbar Pad (specify size)
25-11	Standard Pubic Pad (specify size)
25-12	Thoracic Extension Arm (specify size)
25-13	Pelvic Extension Arm (specify size)
25-14	Plastic Shield for Lateral Upright (specify size)
25-15	Worm Gear Traction Band - Snap-Out Side
25-16	Worm Gear Traction Band - Fixed Side
25-17	Hook and Loop Strap with DOT Fastener - Long Side (specify size)
25-18	Hook and Loop Strap with Eyelet - Short Side (specify size)
25-19	Plastic Sternal Bar with U-Bracket (specify size)

MODELS 100 THROUGH 108

Each orthosis is handmade to our exact specifications. All metallic components are made from 2024-T3 aluminum. Each band is padded with rubber, covered on the inside with naugahyde, and covered on the outside with white elk. Different colors are available upon request. All items may be purchased in stock sizes or custom-made to measurements.

HOW TO ORDER

STEP 1: Choose which of these six orthoses you wish to purchase.

MODEL 100 TAYLOR TLSO



MODEL 101 KNIGHT-TAYLOR TLSO



MODEL 105 CHAIRBACK LSO



MODEL 106 KNIGHT LSO



MODEL 107 NORTON BROWN LSO



MODEL 108 WILLIAMS LSO

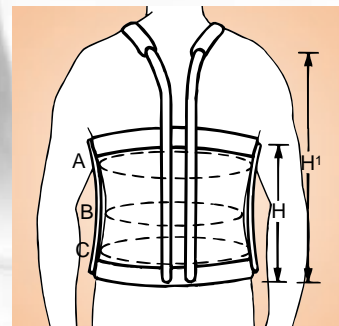


STEP 2: Determine the size for your patient from the standard size chart below. The size designation, XS, M, etc..., should follow the model number. For example, if you wish to purchase a **LARGE KNIGHT LSO**, your order number would be **106-L**. If your patient does not fit into a standard size, we suggest ordering a custom orthosis for a minimal extra charge. If you are purchasing a custom orthosis, please provide us with the A, B, C, H, and H1 measurements, as well as the patient's height, weight and gender.

SIZE CHART

Size	Order No.	A	B	C	H	H-1	
X-Small	XS	28" - 30"	26" - 28"	28" - 30"	10"	17"	
Small	S	31" - 33"	29" - 32"	31" - 33"	11"	18"	
Medium	M	34" - 36"	33" - 35"	34" - 36"	12"	19"	
Large	L	37" - 39"	36" - 38"	37" - 39"	13"	20"	
X-Large	XL	40" - 42"	39" - 42"	40" - 44"	14"	21"	
Custom	C	Please Specify Measurements					

NOTE: If you wish to order your orthosis with a butterfly band, please add a "B" prefix to the model number, and deduct 1/2" from the "H" measurement in the above chart. For example, if you wish to purchase a large Knight-Taylor TLSO with a butterfly band, your order number would be B101-L.



SECTION I

PREFABRICATED ORTHOSES

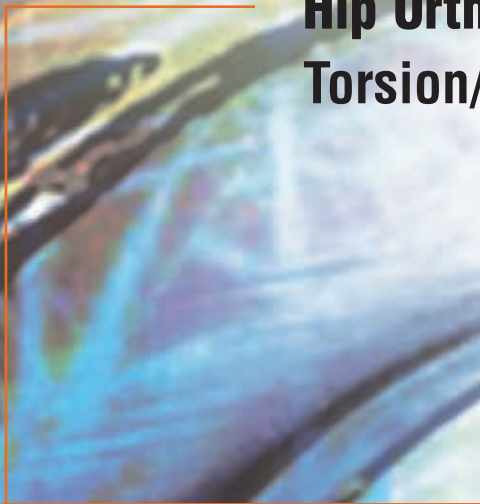
Cervical

Upper Limb

Spinal

Hip Orthoses

Torsion/Lower Limb



MODEL 145

LERMAN HIP ABDUCTION ROTATION ORTHOSIS 2000™

The Lerman Hip Abduction Rotation Orthosis (HARO) 2000™ utilizes an anterior pelvic section to facilitate ease of donning. The anterior pelvic section eliminates pressure on the back and spine. The hip joint allows control and adjustment of flexion/extension in 20° increments and abduction/adduction in 9° increments. The innovative attachment of the joint to the pelvic and thigh modules provides rotational adjustment and accurate alignment in the transverse plane. The HARO also offers adhesion material on the pelvic and thigh liners to control rotation and prevent migration of the orthosis.

US Patent 6,540,703



Allows adjustment and accurate alignment in transverse plane.

Control and adjustment of flexion/extension, abduction/adduction.



Adhesion layers inserted in the pelvic and thigh liners.

LEFT		
Order No.	Size	Waist Circumference
145-LS	Small	28" - 32"
145-LM	Medium	34" - 38"
145-LL	Large	40" - 44"
145-LX	X-Large	46" - 50"
145-LPS	Plus Size	52" - 56"

RIGHT		
Order No.	Size	Waist Circumference
145-RS	Small	28" - 32"
145-RM	Medium	34" - 38"
145-RL	Large	40" - 44"
145-RX	X-Large	46" - 50"
145-RPS	Plus Size	52" - 56"

Replacement Parts

Order No.	Description
145-1	Full Pelvic Assembly with Liner
145-2	Full Thigh Assembly with Liner
145-5	Pelvic Liner Set
145-6	Pelvic Liner Only
145-7	Posterior Liner
145-10	Thigh Liner Assembly

Note: Please specify size and side when ordering.

MODEL 145-U LERMAN UNIVERSAL HIP ABDUCTION ROTATION ORTHOSIS 2000™

The Lerman Universal Hip Abduction Rotation Orthosis (HARO) 2000™ utilizes a **low profile pelvic section and a universal thigh section** to facilitate ease of donning. The low profile pelvic section eliminates pressure on the back and spine. The universal thigh section can be fitted posteriorly or anteriorly to accommodate the patient's specific needs. The hip joint allows control and adjustment of flexion/extension in 20° increments and abduction/adduction in 9° increments. The innovative attachment of the joint to the pelvic and thigh modules provides rotational adjustment and accurate alignment in the transverse plane. The Lerman Universal HARO is available in two prefabricated sizes.

US Patent 6,540,703



Allows adjustment and accurate alignment in transverse plane.

Control and adjustment of flexion/extension, abduction/adduction.



Adhesion layers inserted in the pelvic and thigh liners.



Replacement Parts

Order No.	Description
145-U-1	Full Pelvic Assembly
145-U-2	Full Thigh Assembly
145-U-5	Pelvic Liner Set
145-U-6	Pelvic Liner Only
145-U-7	Contralateral Pelvic Liner/Strap
145-U-10	Full Thigh Liner

Order No.	Size	Waist Circumference
145-U-S-M	Small/Medium	28" - 38"
145-U-L-X	Large/X-Large	38" - 48"
145-U-PS	Plus Size	48" - 58"

Note: Please specify size and side when ordering.

MAPLE LEAF™ ORTHOSIS

The Maple Leaf™ Orthosis was designed for children with Cerebral Palsy. The orthosis is intended to maintain the length of involved musculature and to control or prevent the recurrence of deformity after soft tissue release, or other related hip surgeries. Since its introduction in 1999, the Maple Leaf™ has been widely used around the world as an alternative to traditional hip spica casts. The Maple Leaf™ is intended to provide faster post operative mobilization and can be used as an alternative to the hip spica cast following hip reconstruction surgery.¹

The Maple Leaf™ can be fitted as an immediate postoperative orthosis. It can also be applied at the first cast change or anytime during the rehabilitative phase. The Maple Leaf™ is available in three adjustable prefabricated sizes with removable, washable liners. Replacement liners and component parts may also be ordered.

US Patent 6,488,644

MODEL 147



Model 147 incorporates the Becker 2041-C hip joint, which allows incremental adjustment of flexion/extension in 20° increments and abduction/adduction in 9° increments.

** All Extra Small models are sent with a variant of our 2040-C EconoHip™ joint. The joints have a preset abduction angle of 15 degrees and are not attached to the pelvic section allowing the Orthotist to choose the position that best suits the needs of the patient.*

Order No.	Size	Pelvic Diameter
147-XS*	X-Small	6" (15cm) to 7-1/2" (19cm)
147-S	Small	7-3/4" (20cm) to 9-1/2" (24cm)
147-M	Medium	9-3/4" (25cm) to 11-1/2" (29cm)
147-L	Large	11-3/4" (30cm) to 13-1/2" (34cm)
147-C	Custom	Custom Central Fab

¹ Banta JV, Scrutton D (2003) *Hip Disorders in Childhood*. Cambridge: Cambridge University Press

MAPLE LEAF™ ORTHOSIS WITH DISTAL EXTENSIONS

The Maple Leaf™ Orthosis is also available with distal extensions for patients that require additional rotational control of the hip. The distal extensions utilize the Becker model 2040-C joint at the knee which can be locked or allowed to flex/extend in 20° increments. The extensions are attached to anterior calf cuffs that are fully adjustable in length.

US Patent 6,488,644

MODEL 147-DE

Model 147-DE incorporates the Becker 2041-C hip joint, which allows incremental adjustment of flexion/extension in 20° increments and abduction/adduction in 9° increments.



Order No.	Size	Pelvic Diameter
147-DE-S	Small	Less than 8-1/4" (21cm)
147-DE-L	Large	8-1/4" (21cm) to 9-1/2" (24cm)
147-DE-XL	X-Large	9-3/4" (25cm) or Larger
147-DE-C	Custom	Custom Central Fabrication

MODEL 160 SPHERICAL HIP ABDUCTION ORTHOSIS

This orthosis is made with spherical joints in order to provide precise positioning of the hip in all planes. The hip band and calf cuffs are constructed of aluminum, which is padded and covered with naugahyde.



Close-up of model 2050-B, spherical hip joint.

Order No.	Size	Waist Circumference
160-XS	X-Small	15" - 16"
160-S	Small	16" - 18"
160-M	Medium	18" - 20"
160-L	Large	20" - 22"
160-XL	X-Large	22" - 24"

SECTION I

PREFABRICATED ORTHOSES

- Cervical**
- Upper Limb**
- Spinal**
- Hip Orthoses**
- Torsion/Lower Limb**



TORSION SPLINTS

Becker Orthopedic introduced the torsion splint in 1958 to correct excessive internal or external tibial torsion. The flexible cables do not interfere with walking; therefore, the splint may be worn day and night to speed the corrective process. Four splint configurations are shown, each of which isolates the rotational force to a specific area of the leg. The cables are set in the over-corrected position and held in place by set screws. Each splint is available in three cable diameters: 1/4", 5/16", and 3/8". We recommend 3/8" cables when the top of hip band to floor length exceeds 26".

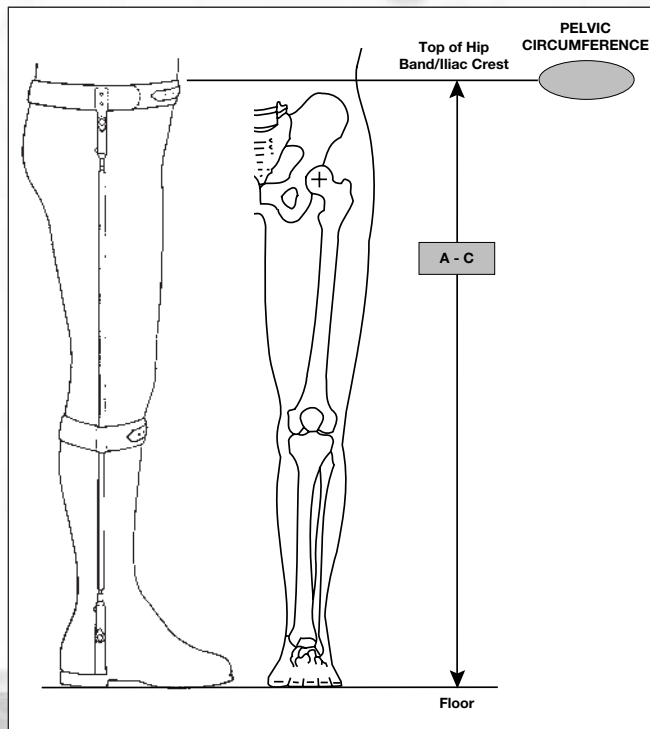
MODEL L-400 BILATERAL HIP-ANKLE TORSION SPLINT

Model L-400 includes: Hip band, hip joints, stirrups, cables, and webbing straps.

ORDERING INFORMATION

Choose the order number that matches the cable diameter you desire. Then specify the pelvic circumference and the A-C length (top of hip band to floor). We will make a deduction from the A-C length to get the actual cable length.

Order No.	Cable Diameter
L-400B	1/4"
L-400A	5/16"
L-400X	3/8"



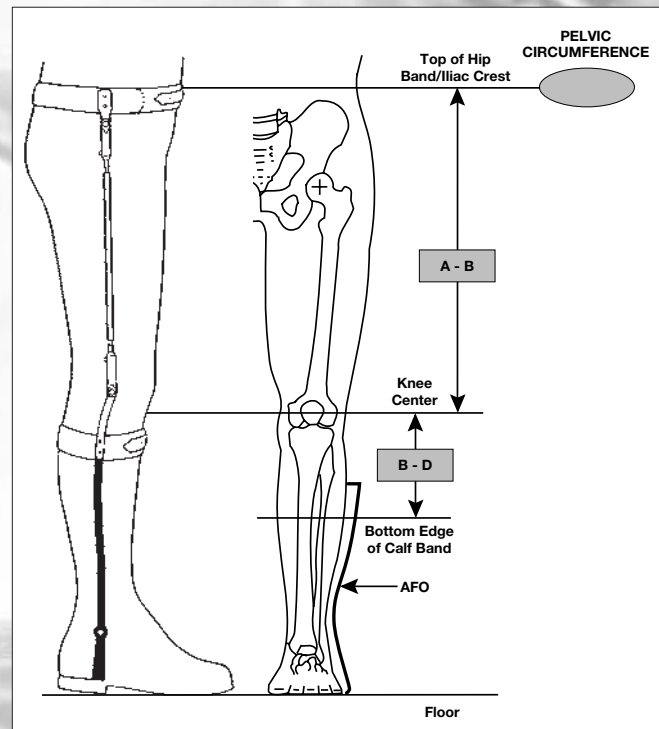
MODEL H-400 BILATERAL HIP-KNEE TORSION SHAFTS ATTACHED TO AFO'S

Model H-400 includes: Hip band, hip joints, AFO attachments, and cables. Please refer to page 1.5.4 for AFO attachment distal upright lengths.

ORDERING INFORMATION

Choose the order number that matches the cable diameter you desire. Then specify the pelvic circumference, A-B (top of hip band to knee center) and B-D (knee center to bottom edge of calf band). We will make a deduction from the A-B length to get the actual cable length.

Order No.	Cable Diameter
H-400B	1/4"
H-400A	5/16"
H-400X	3/8"



NOTE: Unilateral torsion splints may be ordered by adding a "U" to the beginning of the order number. When ordering replacement cables, please be sure to provide an end-to-end, total length, measurement. In all instances please specify right or left leg and internal or external rotation.

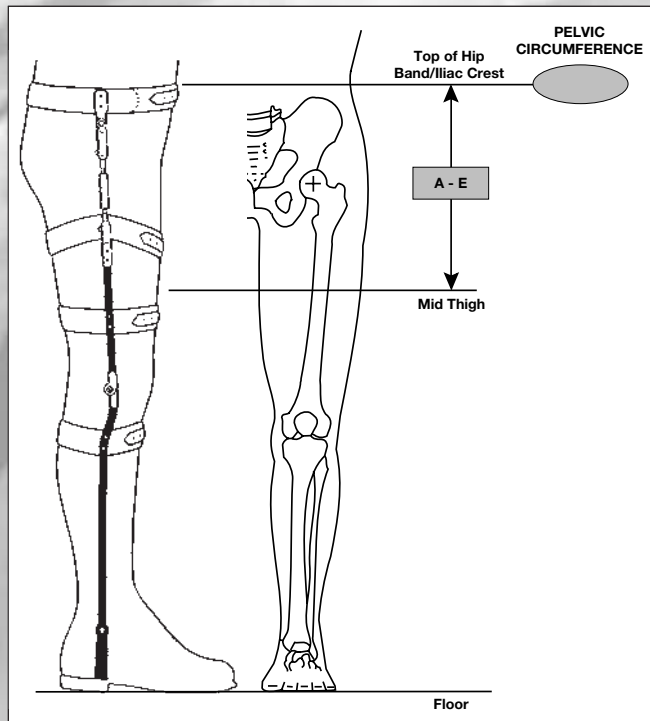
MODEL K-400 BILATERAL HIP-KAFO TORSION SPLINT

Model K-400 includes: Hip band, hip joints, thigh attachments, and cables.

ORDERING INFORMATION

Choose the order number that matches the cable diameter you desire. Then specify the pelvic circumference and the A-E length (top of hip band to mid-thigh). We will make a deduction from the A-E length to get the actual cable length.

Order No.	Cable Diameter
K-400B	1/4"
K-400A	5/16"
K-400X	3/8"



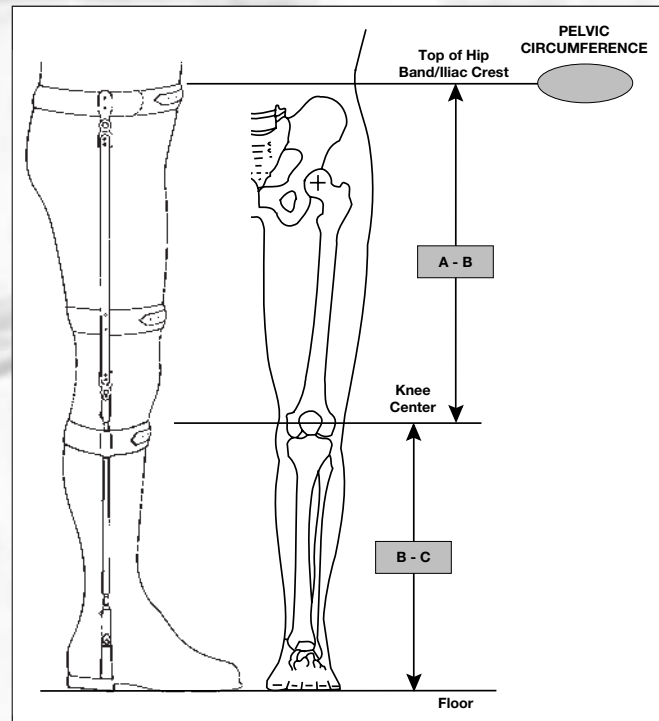
MODEL R-400 BILATERAL HIP-KNEE-ANKLE TORSION SPLINT

Model R-400 includes: Hip band, rigid thigh uprights, knee joints, stirrups, cables and webbing straps.

ORDERING INFORMATION

Choose the order number that matches the cable diameter you desire. Then specify pelvic circumference, A-B (top of hip band to knee center) and B-C (knee center to floor) lengths. We will take a deduction from the B-C length to get the actual cable length.

Order No.	Cable Diameter
R-400B	1/4"
R-400A	5/16"
R-400X	3/8"



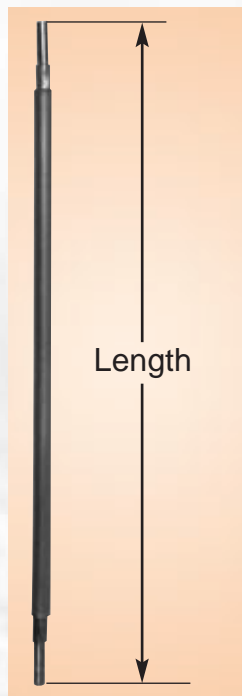
NOTE: Unilateral torsion splints may be ordered by adding a "U" to the beginning of the order number. When ordering replacement cables, please be sure to provide an end-to-end, total length, measurement. In all instances please specify right or left leg and internal or external rotation.

COMPONENT PARTS FOR TORSION SPLINTS

MODEL 400-1 FLEXIBLE TORSION CABLE

Please specify length from the end of one connector to the other. Also specify internal or external rotation and right or left leg. **Note: Torsion cable may also be ordered in bulk quantities.**

Order No.	Cable Diameter
400-1B	1/4"
400-1A	5/16"
400-1X	3/8"



MODEL 400-6 THIGH ATTACHMENT

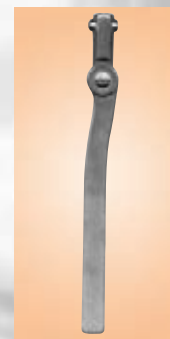
Order No.	Cable Diameter
400-6B	1/4"
400-6A	5/16"
400-6X	3/8"



MODEL 400-7 AFO ATTACHMENT

If single, please specify left or right.

Order No.	Cable Diameter	Distal Upright Length
400-7B	1/4"	5-1/2"
400-7A	5/16"	6-1/2"
400-7X	3/8"	6-1/2"



MODEL 400-2 HIP JOINT

Order No.	Cable Diameter
400-2B	1/4"
400-2A	5/16"
400-2X	3/8"



MODEL 400-8 PELVIC BAND

May be used with all sizes of hip joints. Please specify pelvic circumference.



MODEL 400-4 STIRRUP

If single, please specify left or right.

Order No.	Cable Diameter
400-4B	1/4"
400-4A	5/16"
400-4X	3/8"



MODEL 400-9 PELVIC BAND WITH HIP JOINTS ATTACHED

If unilateral, please add a "U" to the beginning of your order number and specify left or right. Please also specify the pelvic circumference.

Order No.	Cable Diameter
400-9B	1/4"
400-9A	5/16"
400-9X	3/8"



ADDITIONAL TORSION SPLINT COMPONENTS (not pictured)

Order No.	Description
400-10B	1/4" Torsion Cable Connector
400-10A	5/16" Torsion Cable Connector
400-10X	3/8" Torsion Cable Connector
400-11	Snap-On Webbing Strap
400-12	Loop Webbing Strap
400-14B	1/4" Torsion Knee Joint
400-14A	5/16" Torsion Knee Joint

Order No.	Description
400-14X	3/8" Torsion Knee Joint
400-15B	Hip Joint with 1/8" x 1/2" Stainless Steel Upright
400-15AX	Hip Joint with 5/32" x 5/8" Stainless Steel Upright
400-20B	Set Screw for B size Torsions
400-20A	Set Screw for A size Torsions
400-20X	Set Screw for X size Torsions

SKO KNEE ORTHOSIS

The SKO Knee Orthosis is a prefabricated knee orthosis available from Becker Orthopedic in two different models. The orthosis opens posteriorly and is held in place with gum rubber straps and hook and loop closures. The tibial shell has a slot which allows it to be tilted for a precise fit. The orthosis is lightweight, weighing only about 1-1/2 pounds.



MODEL B434 SKO DROP LOCK KNEE ORTHOSIS

Model B434 comes with single axis ring lock knee joints to lock the knee in 180° of extension.

Size Chart:

Calf Size	Thigh Circumference	Maximum Knee Circumference	Width (M-L)
X-Small	15" – 16"	12" – 12-3/4"	4"
Small	17" – 18"	13" – 13-3/4"	4-1/4"
Medium	19" – 20"	14" – 14-3/4"	4-1/2"
Large	21" – 22"	15" – 15-3/4"	4-3/4"
X-Large	23" – 24"	16" – 16-3/4"	5"

LEFT		
Order No.	Leg	Size
B434-LXS	Left	X-Small
B434-LS	Left	Small
B434-LM	Left	Medium
B434-LL	Left	Large
B434-LXL	Left	X-Large

RIGHT		
Order No.	Leg	Size
B434-RXS	Right	X-Small
B434-RS	Right	Small
B434-RM	Right	Medium
B434-RL	Right	Large
B434-RXL	Right	X-Large



MODEL B437 SKO EXTENSION ASSIST KNEE ORTHOSIS

Model B437 comes with polycentric knee joints and two lengths of medially and laterally attached surgical tubing to provide extension assist at the knee. The level of assist may be adjusted according to the needs of the patient. Please refer to the size chart above to determine the proper order number.

LEFT		
Order No.	Leg	Size
B437-LXS	Left	X-Small
B437-LS	Left	Small
B437-LM	Left	Medium
B437-LL	Left	Large
B437-LXL	Left	X-Large

RIGHT		
Order No.	Leg	Size
B437-RXS	Right	X-Small
B437-RS	Right	Small
B437-RM	Right	Medium
B437-RL	Right	Large
B437-RXL	Right	X-Large

MODEL 444 LERMAN 3-POINT KNEE ORTHOSIS

The Lerman 3-Point Knee Orthosis, model 444, was designed to unload the medial or lateral compartment of the knee in order to relieve pain and prevent further progression of osteoarthritic deformity. The Lerman 3-Point is available in one prefabricated size that is fully adjustable and can be fit to the right or left leg.

Patent Pending

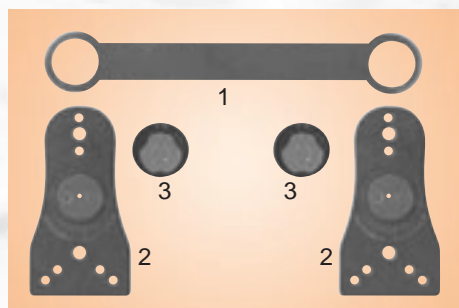
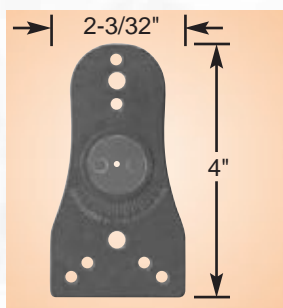
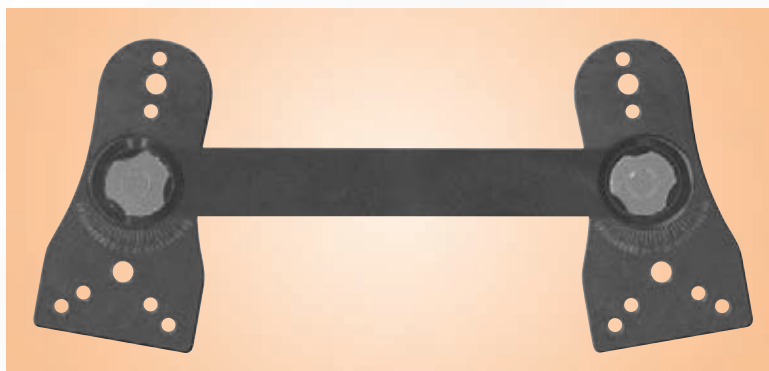
- Joint design and attachment permits adjustment and control in the sagittal, coronal, and transverse planes
- Thigh and calf cuffs have integral adhesion layers designed to prevent migration of the orthosis
- A clinical and cost-effective orthotic solution



Order No.	Description
444	Lerman 3-Point Knee Orthosis

MODEL 500-A LARGE FOOT PLATE DENIS BROWNE SPLINT WITH SOLID BAR

Supplied with blue anodized aluminum bar and foot plates.

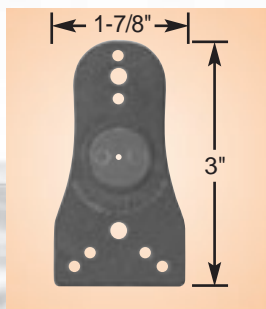


Order No.	Description
500-A4	D.B. Splint with 4" Bar
500-A5	D.B. Splint with 5" Bar
500-A6	D.B. Splint with 6" Bar
500-A7	D.B. Splint with 7" Bar
500-A8	D.B. Splint with 8" Bar
500-A9	D.B. Splint with 9" Bar
500-A10	D.B. Splint with 10" Bar
500-A11	D.B. Splint with 11" Bar
500-A12	D.B. Splint with 12" Bar
500-A13	D.B. Splint with 13" Bar
500-A14	D.B. Splint with 14" Bar
500-A15	D.B. Splint with 15" Bar
500-A16	D.B. Splint with 16" Bar
500-A18	D.B. Splint with 18" Bar
500-A20	D.B. Splint with 20" Bar

To order parts, please specify the order number, followed by the part number you desire.

MODEL 500-B SMALL FOOT PLATE DENIS BROWNE SPLINT WITH SOLID BAR

Supplied with blue anodized aluminum bar and foot plates.



Order No.	Description
500-B5	D.B. Splint with 5" Bar
500-B6	D.B. Splint with 6" Bar
500-B7	D.B. Splint with 7" Bar
500-B8	D.B. Splint with 8" Bar
500-B9	D.B. Splint with 9" Bar
500-B10	D.B. Splint with 10" Bar
500-B11	D.B. Splint with 11" Bar
500-B12	D.B. Splint with 12" Bar
500-B13	D.B. Splint with 13" Bar
500-B14	D.B. Splint with 14" Bar

MODEL 615

DROP FOOT SPLINT - FULL FOOT

Model 615 is constructed of specially formulated polypropylene. All models come equipped with a loop and chafe, hook and loop calf strap, and full footplate.

Size Chart:

Size	Height	Inside Length	Outside Length	Metatarsal Width	Shoe Size
Small	13"	8-1/2"	9-3/8"	3-1/4"	3 - 6
Medium	13-1/2"	9-3/4"	10-1/8"	3-1/2"	6 - 9
Large	14-1/2"	11"	11"	3-3/4"	9 - 11
X-Large	14-1/2"	11-1/2"	12"	4"	11 - 13

LEFT		
Order No.	Leg	Size
615-LS	Left	Small
615-LM	Left	Medium
615-LL	Left	Large
615-LXL	Left	X-Large

RIGHT		
Order No.	Leg	Size
615-RS	Right	Small
615-RM	Right	Medium
615-RL	Right	Large
615-RXL	Right	X-Large



MODEL 617

DROP FOOT SPLINT - DYNAFO

Model 617 is constructed of specially formulated polypropylene. All models come equipped with a loop and chafe, hook and loop calf strap, and a footplate that ends at the metatarsal heads.

Size Chart:

Size	Height	Inside Length	Outside Length	Metatarsal Width	Shoe Size
Small	13"	5-3/4"	6"	2-1/2"	3 - 6
Medium	14"	6-1/4"	6-1/2"	2-3/4"	6 - 9
Large	14"	7-1/4"	7-3/8"	3-1/4"	9 - 11
X-Large	15"	7-3/4"	7-7/8"	3-1/2"	11 - 13

LEFT		
Order No.	Leg	Size
617-LS	Left	Small
617-LM	Left	Medium
617-LL	Left	Large
617-LXL	Left	X-Large

RIGHT		
Order No.	Leg	Size
617-RS	Right	Small
617-RM	Right	Medium
617-RL	Right	Large
617-RXL	Right	X-Large



MODEL 620 JOUSTO AFO

The Jousto AFO was invented by Veikko Routoistenmaki of Helsinki, Finland. This orthosis utilizes a single medial leaf spring mechanism to create dorsiflexion assist. The leaf spring mechanism is attached proximally to a metal calf band and distally to a nylon footplate and is enclosed in a plastic sheath. The Jousto AFO provides smooth lift and is cosmetically acceptable to patients. The nylon footplate allows patients to wear a variety of shoes. Please consult the charts below to determine the proper order number.



MENS		
Order No.	Leg	Shoe Size
620-MR	Right	6, 7, 8, 9, 10 or 11
620-ML	Left	6, 7, 8, 9, 10 or 11

LADIES		
Order No.	Leg	Shoe Size
620-LR	Right	6, 7, 8, 9, 10 or 11
620-LL	Left	6, 7, 8, 9, 10 or 11

CHILDREN		
Order No.	Leg	Shoe Size
620-CR	Right	10, 12, 13 or 2
620-CL	Left	10, 12, 13 or 2

MODEL CSO

GILLETTE CRUTCHLESS STANDING ORTHOSIS

The **Crutchless Standing Orthosis (CSO)** was developed by Gillette Children's Hospital in St. Paul, Minnesota. The lightweight frame is constructed of blue aluminum tubing, which accommodates growth and leg length discrepancies. The foam foot plates and other components in the kit may be assembled quickly with pop-rivets. There is also an optional aluminum standing base for added stability. The assembly kit without base weighs approximately 2.73 lbs., or 1.24 kg. To determine which **CSO** to order, please measure the plantar surface to C-7 and consult the chart below.

Order No.	Size	Plantar Surface to C-7
CSO-S	Small	22" (55cm)
CSO-M	Medium	26" (65cm)
CSO-L	Large	30" (75cm)
CSO-XL	X-Large	> 35" (90cm)
CSO-B	Aluminum Base	
CSO-V	Video	



TORSION/LOWER LIMB

NOTE: The CSO is a kit. Assembly is required. Please refer to the enclosed assembly instructions. Assembly instructions are also available in our Technical Catalog.